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NATO PARLIAMENTARY ASSEMBLY

COMMITTEE ON THE CIVIL DIMENSION OF SECURITY (CDS)

FOSTERING DEMOCRACY AND HUMAN RIGHTS IN THE BLACK SEA REGION

General Report

by **Ulla SCHMIDT** (Germany)
General Rapporteur

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I. INTRODUCTION

1. In its most recent annual report, Freedom House provided worrying figures that show democracy is in crisis globally. The watchdog claims that democracy around the world has deteriorated to the lowest point in more than a decade. Democratic values, such as the right to choose leaders in free and fair elections, freedom of the press and the rule of law, are under assault and in retreat. According to the Economist Intelligence Unit's Democracy Index, less than 5% of the world's population currently lives in a "full democracy", and 89 of the 167 countries assessed in 2017 received lower scores than they had the year before. Even among some members of the Euro-Atlantic community, which has been traditionally seen as the champion of the global liberal democratic order, officials see these disquieting trends. Anti-establishment sentiment, political polarisation and disenchantment with mainstream political parties and media are growing.

2. The global order that seemingly triumphed with the end of the Cold War, prompting some to announce the "end of history", is eroding. For the Alliance, an organisation underpinned by liberal democratic values, this erosion has severe consequences. The General Rapporteur is convinced there is a need for a genuine discussion among the Allies on ways to strengthen democratic values and further believes that the NATO Parliamentary Assembly (NATO PA) provides an appropriate forum for such discussion.

3. As the issue of democratic values is too broad to be covered in one report, the General Rapporteur chose to focus on the Black Sea area due to the following reasons. First, the region's strategic importance for NATO and global security in general has grown considerably. Russia's revisionist behaviour, including its violation of Ukraine and Georgia's territorial integrity, and the region's proximity to the ongoing conflicts in the Middle East have prompted NATO to reinvest in the Black Sea region. Second, the area represents a diverse microcosm of actors important to NATO. These actors include three NATO Allies, Turkey, Bulgaria, and Romania; two NATO aspirants, Ukraine and Georgia; one NATO partner, the Republic of Moldova¹; and one country that considers NATO its adversary, Russia. Adherence to democratic values and the rule of law varies greatly across these states. Even leading democracies—Romania and Bulgaria—stand out in the European Union's context as the only member states subjected to the Cooperation and Verification Mechanism, an agreement designed to assist the two countries in the fields of judicial reform and fighting corruption.

4. This general report will provide an overview of political developments in the Black Sea states, including the efforts (where appropriate) to consolidate democratic institutions, challenges in protecting human rights and civil liberties and the fight against corruption as well as the implementation of reform agendas. The General Rapporteur will argue that the Euro-Atlantic community needs to strengthen its focus on democracy, the rule of law and human rights indicators in its approaches to the Black Sea region. These improvements are vital for the cohesion of the Alliance; the Euro-Atlantic prospects of Georgia, the Republic of Moldova and Ukraine; the normalisation of relations with Russia; and, more generally, the de-escalation of tensions and the prevention of conflicts in the Black Sea area.

II. UKRAINE

5. More than four years after the Revolution of Dignity, a return to autocracy and censorship in Ukraine seems implausible. Ukraine's record of holding free and fair elections is solid, its media environment is diverse and its civil society scene independent and vibrant.

¹ The General Rapporteur chose to include a chapter on the Republic of Moldova because of its immediate proximity to the Black Sea. The Republic of Moldova's port of Giurgiulești on the Danube River *de facto* makes it a Black Sea littoral state.

6. While Ukraine has adopted more reform initiatives in the last four years than in the 23 years preceding the second Maidan revolution, it is now struggling to maintain its reform agenda. The Ukrainian President, Petro Poroshenko, faces increasing criticism. Reforms have slowed down and the actual implementation of the adopted reform bills is unsatisfactory. Public administration remains largely inefficient and lacks the proper administrative culture. The level of trust in the political system is alarmingly low—support for political leaders or parties rarely exceeds single digits. Most disconcerting is the apathy among the youth. According to one poll, about two-thirds of young people are disinterested in politics and only a third of the respondents say that accepting or giving a bribe is never justifiable (Sasse, 2018).

7. Economically, Ukraine's situation is slowly improving. Through a mix of spending cuts, tax code simplifications and reforms to boost economic transparency, the country's GDP grew over 2% in 2016 and 2017. In the World Bank's annual Doing Business Survey, Ukraine greatly improved its business environment, jumping from 142nd out of 183 countries in 2010 to 76th in 2018. Following major restructuring, Ukraine substantially reduced its dependence on Russian energy imports. In April 2018, the EU announced a new assistance package of EUR 1 billion, conditioned on Ukraine's ability to conduct deep structural reforms. In the framework of the Deep and Comprehensive Trade Agreement with the EU, Ukraine-EU bilateral trade grew rapidly between 2016-2018 (with a 27% increase in the first quarter of 2018 alone). The EU has replaced Russia as Ukraine's main trading partner (European Parliament, June 2018). Ukraine's economic transformation is supported by the International Monetary Fund (IMF) (with USD 17.5 billion in 2015-2019), the EU (a new assistance package of EUR 1 billion in loans was adopted in May 2018 for a period of 2.5 years), the World Bank (through an IBRD guarantee expected to help Ukraine raise about USD 800 million in the lending market) as well as bilateral assistance.

8. Despite entrenched obstacles, Ukraine has taken some steps to address corruption. The National Anti-Corruption Bureau of Ukraine (NABU) has spearheaded the fight against high-level corruption. NABU is aided by a new law requiring public officials to electronically declare their income and assets as well as those in the name of their family members. After long hesitations and much political resistance, the law establishing the High Anti-Corruption Court was adopted in June 2018. The Court will tackle the cases of top-level corruption. The implementation and widespread adoption of an e-procurement system, ProZorro, is further credited with reducing political favouritism in public procurement, tripling the number of bidders and suppliers and substantially reducing government expenses. In April 2018, an electronic healthcare system, eHealth, was launched, sparking hopes that this might lead to a reduction of corruption in Ukraine's healthcare sector. The Parliament recently approved key constitutional and political reforms to curb political influence within the court system and boost professionalism among judicial appointees. Parliamentarians also approved several decentralising measures, empowering citizens and activists to take ownership of issues that affect their communities.

9. However, additional steps must be taken to deepen anticorruption efforts and prevent democratic backsliding. In 2016, the head of NABU resigned after accusing high-ranking officials of obstructing the agency's work. In May 2017, the governor of Ukraine's central bank quit after "three years of sustained harassment" for her efforts to regulate the country's private banks (Mufson, 2017). By early 2018, out of the 107 cases brought by NABU to the court, only 19 convictions were issued (European Parliament, June 2018). Moreover, cases against powerful figures remain rare and activists can face retribution for investigating corruption. Members of the judiciary still lack significant independence. Over half of the 113 recent Supreme Court appointees have had their professional records questioned by a public watchdog group (UCMC, 2017). Further, observers have expressed concern over new laws on NGOs that require them and their employees to publicly declare their assets like public officials (Freedom House, 2018).

10. Security sector reform remains slow. Observers consider the Ukrainian Security Service (SBU) to be too powerful and unaccountable (European Parliament, DG for External Policies, 2018). NATO is reportedly dissatisfied – and has been for several years now – with the way Kyiv is fulfilling its obligations under the Annual National Programme (ANP), a document that defines the range and

pace of reform for Ukraine's further rapprochement with NATO. Experts note that as spending in the defence sector has increased, so have avenues for corruption (Higgins, 2018). For instance, the ambitious project to build a defensive line along the border with Russia has been marred by an embezzlement scandal.

11. A recent education law, mandating that Ukrainian be used as the primary language of instruction in secondary schools by 2020, has earned significant criticism both domestically and internationally, particularly from Hungary, Romania, Poland and Russia, for its potential to undermine minority rights and freedoms. Budapest insists that progress on Ukraine's Euro-Atlantic integration will not be possible until Kyiv changes the law and that no meetings of the NATO-Ukraine Commission will be scheduled in the meantime. Ukrainian officials argue that children need to understand the state's majority language to fully participate in society and point out that the law does not prohibit education in minority languages as separate classes.

12. According to official sources, in 2016–2017, there were 581 schools with Russian as the language of instruction, 78 schools with Romanian, 71 schools with Hungarian and 5 schools with Polish. The Venice Commission has presented its opinion, in which it stressed that "it is a legitimate and commendable aim for states to promote the strengthening of the state language." However, the Venice Commission expressed concern about the scope and pace of the reform, which could "amount to a disproportionate interference with the existing rights of persons belonging to national minorities." The Commission recommended Ukraine make amendments to the law to guarantee a sufficient proportion of education in minority languages at the primary and secondary levels as well as to provide more time for a gradual reform. The General Rapporteur urges the Ukrainian authorities to take due account of the Venice Commission's recommendations.

13. Observers continue to fear that Ukrainian authorities are not engaging sufficiently in the prevention of hate crimes (Sturrock and Summers, 2018). Since the beginning of the year there have been at least two dozen attacks on the Roma and LGBT+ (Lesbian, Gay, Bisexual, Transgender/Transsexual and related) communities as well as on civil rights activists by ultranationalist groups such as C14 (HRW, 2018; Millier, 2018).

14. Overall, the Rapporteur shares the conclusion of a study commissioned by the European Parliament, that *"the real Ukrainian 'reform saga' revolves around 4D's: decentralization, debureaucratization, deregulation and 'de-oligarchization'. Whereas in the realm of reregulation an unequivocally significant progress is recorded, decentralization showcases significant but not politically uncontroversial progress, with de-bureaucratization proceeding at a slower pace. 'Deoligarchization' manifests cosmetic and legislative changes, with limited implementation of the much-needed reform."* Ukraine's leaders have a choice: their legacy can either be to take Ukraine down their chosen European path or to take the path of their predecessors. Having come so far and achieved so much, it would be deeply disappointing if Ukraine were to revert to past mistakes.

A. SITUATION IN EASTERN UKRAINE

15. On-going high levels of casualties in eastern Ukraine continue to cause concern. Since the outbreak of the conflict, over 10,300 people were killed and almost 25,000 injured while about 1 million internally displaced people are residing in the government-controlled areas of Ukraine. In January 2018, the Ukrainian Parliament passed a bill that redefined Ukraine's actions in the Donetsk and Luhansk *oblasts* from anti-terrorist operations to "measures to ensure national security and defence, [and the] deterrence and repression of Russian armed aggression." The bill gives Ukraine's armed forces a legal basis to be in the region and shifts the responsibility of the conflict from the SBU to all troops and law enforcement groups in the region.

16. Meanwhile, the Russia-backed governance in the temporarily occupied areas of the Donetsk and Luhansk regions continues to disregard human rights and liberties. The Office of the United Nations High Commissioner for Human Rights notes "cases of summary executions, enforced disappearances, arbitrary detention, torture and ill-treatment, and conflict-related sexual violence".

Individuals suspected of pro-Ukrainian sympathies, which includes people belonging to the Ukrainian Orthodox Church - Kiev Patriarchate or with a history of government work, suffer detention or other forms of oppression. Amnesty International reports show trials are being held against individuals suspected of opposing Russia-backed illegal armed groups. Most recently, there have been reports of minors being arrested and detained illegally in Makiyivka, a town in one of the non-government-controlled areas of the Donetsk Region, on the account of “working for Ukraine’s intelligence” (Kyiv Post, 2018). While these and other abuses appear rife, international observers and humanitarian organisations are often unable to secure access to prisoners detained by Russia-backed illegal armed groups. Ukraine and rebel leaders carried out their largest prisoner exchange in December 2017, with Ukraine handing over 246 prisoners for 74 prisoners held by Russia. However, over 60 Ukrainian citizens, considered by Kyiv as political prisoners, continue to be kept in Russian jails. The most prominent case is that of Ukrainian film director Oleg Sentsov who, at the time of writing, was on hunger strike in a prison in the far north of Russia.

17. Politically, Russia continues to strengthen its control of the territories by gradually replacing the leadership of the Russia-backed illegal armed groups. In a notable case, Russian occupation forces and illegal armed groups belonging to the so-called Donetsk People’s Republic interfered in power struggles within the self-proclaimed Luhansk People’s Republic, facilitating the removal of the leader of the “republic”, Igor Plotnitsky. More recently, the leader of the so-called Donetsk People’s Republic, Alexander Zakharchenko, was murdered. Both the Ukrainian and the Russian government issued statements accusing the other of the assassination.

18. In addition to the ongoing hostilities in Ukraine’s east, a number of recent developments, including the assassination of Mr Zakharchenko, Moscow’s refusal to accept its responsibility for the downing of MH17 airliner – despite the findings of the Dutch investigation – and plans to hold so-called “elections” on 11 November in the non-government-controlled areas of the Donetsk and Luhansk regions make the prospect of further negotiations under the Minsk II format increasingly difficult. Nevertheless, the Rapporteur continues to call on all stakeholders – and particularly Russia, which has created the conflict – to remain committed to Minsk II as the most viable avenue to de-escalate the conflict and to seek a political resolution.

B. SITUATION IN CRIMEA

19. Following the invasion and illegal occupation of Crimea by Russian forces in 2014, dissent has been ruthlessly suppressed. Throughout the occupied territory, authorities have prosecuted public criticism of Russian policies (HRW, 2018). The right to public assembly has diminished and protests against the occupation have been outlawed. Ukrainian television stations and newspapers, meanwhile, have closed, while property and assets are confiscated without compensation, violating international laws protecting civilians from forced seizures. Cases of enforced disappearances, murders and torture are common. The lack of reporting or redress mechanisms for victims allows the authorities to continue these actions with little fear of consequences. Citizens continue to face harassment and interrogation for allegedly extremist views (European Parliament, DG for External Policies, 2018). Non-Russian nationals in Crimea also face pressure to renounce their Ukrainian citizenship in favour of Russian citizenship. Failure to do so has resulted in Ukrainians being denied access to basic services, contrary to international humanitarian law. The UN has reported several deaths linked to Ukrainians being refused medical treatment. The international community has deplored Moscow violating international law by illegally conducting Russia’s *Duma* (2016) and presidential (2018) elections on the territory of Crimea.

20. While Crimea is a diverse region with significant minority populations, Crimean Tatars and other groups face law enforcement raids, arrests, abductions and attacks by state authorities (UNHCR, 2017). In 2016, the Russian government outlawed the representative body of the Crimean Tatar people, the *Mejlis*, for “the use of propaganda and hatred toward Russia [and] inciting ethnic nationalism”. Several of the *Mejlis*’ leaders were later arrested and sentenced on separatism and extremism charges, while other *Mejlis* leaders were banned from entering Crimea. While some minority organisations remain, these groups face attacks and prosecution if they fail to support the

Russian government's official position on local issues. Most recent cases have involved forced searches and the detainment of human rights activists and their relatives (RFE/RL, 4 September 2018). The protection of the Crimean Tatars' cultural heritage in the peninsula is yet another important issue. The claims of misconduct during the ongoing restoration of the "Khan's Palace" are a cause for concern in this regard. According to Mustafa Dzhemilev, the long-time leader of the Crimean Tatars and President Petro Poroshenko's envoy for Crimean Tatar affairs, Russia is trying to change the ethnic balance on the peninsula by relocating hundreds of thousands of people from various regions of Russia to Crimea.

21. Freedom of religion is severely limited in Crimea, as the Russian authorities clamp down on the Orthodox Christians that are not under the Moscow Patriarchate (Freedom House, 2018). Following the illegal occupation of Crimea, Russian authorities requested that all religious institutions re-register, and the Ukrainian Orthodox Church under the Kyiv Patriarchate was raided by the Russian authorities in 2017. The most recent bid for the Ukrainian Orthodox Church's independence from Moscow raises concerns that the already poor state of religious freedom in Crimea could deteriorate further.

III. GEORGIA

22. Georgia is one of the Black Sea's freest countries; it has transformed remarkably since the "Rose Revolution" in 2003 and the first electoral transfer of power in 2012. According to Freedom House's Nations in Transit ratings, Georgia's "democracy score" improved from 4.93 in 2010 to 4.68 in 2018 (slightly down from 4.61 in 2017), with one representing the most democratic and seven the least. Reforms have enabled democratic elections, modernised and digitalised state services, a mostly free press and lower corruption than in several EU member states. Civil society in Georgia is vibrant and largely committed to European values. The country has a clear sense of direction, pursuing membership in NATO and the EU. Through its contributions to NATO-led and other international missions, Georgia has turned into a provider of regional and global security. However, Georgia still faces significant challenges in terms of socio-economic development, improving the rule of law and overcoming political polarisation.

23. Judicial reform has been a matter of urgency for Georgians, given reports of abuse of power by the pre-2012 government as well as allegations of political retribution in the wake of the government change in 2012. Consequently, the government has committed itself to promoting judicial independence and building public confidence in the courts through reform. These judicial reforms focused on making the key judicial institution, the High Council of Justice, more democratic and transparent through the recommendations of the Venice Commission. Georgia also embarked upon prosecutorial reform, aiming for the full de-politicisation and independence of the state prosecution service from the executive branch. The Venice Commission's recommendations *vis-à-vis* the judicial sector are reflected in the new constitution. The authorities have made efforts to ensure the transparency of the court cases against Saakashvili-era officials, including the invitation of international (from the Organization for Security and Co-operation in Europe's Office for Democratic Institutions and Human Rights – OSCE/ODIHR) and domestic observers.

24. However, two leading Georgian NGOs—the Georgian Young Lawyers' Association and Transparency International Georgia—argue that the implementation of the judicial reform is flawed in practice. They claim that the reins of the judiciary are concentrated in the hands of a single group that ensures the prevalence of old-school, incompetent judges who often lack professional integrity in senior judicial positions. In their joint letter to the visiting US Vice President, Mike Pence, 22 Georgian NGOs noted that the judicial system "remains prone to undue influences coming from the government as well as vested corporate interests within the judiciary."

25. When it comes to indictments of Saakashvili-era high-ranking officials, in November 2017, the European Court of Human Rights (ECHR) ruled that the pretrial detention of Georgia's former Prime Minister, Vano Merabishvili, was based on a reasonable suspicion and justified in the beginning but

not in later stages, when, according to the ECHR, the predominant purpose of detention became to obtain information on unrelated cases (“ulterior purpose”), including the one against the former President, Mikheil Saakashvili. In January 2018, Georgian authorities sentenced Mr Saakashvili *in absentia* for abuses of power.

26. The political scene on the national and municipal levels is characterised by the overwhelming dominance of the ruling Georgian Dream-Democratic Georgia Party (GD-DG). The opposition is divided and thinly represented in the Parliament. The GD-DG supermajority in the Parliament is somewhat balanced by the centrist President, Giorgi Margvelashvili. His term in office expires in late 2018. The opposition claims that businessman Bidzina Ivanishvili, the founder of the Georgian Dream coalition, exercises a disproportionate degree of influence over Georgian politics while not occupying any public office. It is noteworthy, however, that since April 2018, Mr Ivanishvili does occupy the position of chairman of GD-DG.

27. There are signs of growing public discontent in Georgia, manifested by the eruption of weeks-long mass anti-government protests in Tbilisi over the summer of 2018. The protests were sparked by a Tbilisi court’s decision to acquit the suspects of the killing of two teens in a brawl in December 2017. In June 2018, the Georgian Prime Minister, Giorgi Kvirikashvili, resigned citing differences with the ruling party chairman on economic and other fundamental issues, and was replaced by the former Finance Minister, Mamuka Bakhtadze.

28. Georgia largely conforms with international electoral standards. Despite “the entire context of the elections [being] shaped by the dominance of the ruling party” and “cases of pressure on voters and candidates,” the OSCE found the 2017 local elections to be fair. Although polarised and perceived as partisan, media outlets provided voters with an understanding of the candidates and issues. At the same time, the “winner-takes-all” mentality is reflected in the fact that the ruling party received approximately 90% of all campaign donations (NDI, 2017). The General Rapporteur shares the view of those who stress the need for state officials to foster an environment that promotes inclusive and pluralistic governance with strong opposition as an integral part of a healthy democracy.

29. More recently, MPs under the Georgian Dream used their supermajority to change the Georgian Constitution. The original amendments were criticised by the opposition, the presidency and several NGOs, who alleged that many of the changes weaken checks on the majority party. Eventually, the ruling party agreed to make certain revisions, incorporating many of the recommendations of the Venice Commission. The new Constitution entrenches the status of Georgia as a parliamentary democracy while abandoning direct elections for the President. It provides for a greater independence of Supreme Court judges. It also envisages the switch to a fully proportional parliamentary election system, albeit by 2024 only.

30. The Venice Commission issued a generally positive assessment of the new Constitution but criticised the postponed switch to the proportional system, noting that it was “the most important aspect of the reform.” It is expected, however, that the negative aspects of the postponement will be somewhat alleviated by the government’s promises to allow party blocks in the 2020 elections and reduce the election threshold to 3%. Georgia has also taken into account the Commission’s proposal of opting for a proportional system for the distribution of unallocated mandates.

31. According to Freedom House, freedom of the press in Georgia has slightly improved when compared to the pre-2012 era but still remains in the “partly free” category. In fact, the World Press Freedom Index 2018 ranked Georgia 61st out of 180 countries, up from the 104th place in 2012. The internet is free in Georgia. Rustavi-2, the country’s most watched television broadcaster and a frequent critic of the government, has been consumed by an ownership controversy after a court ruled that its ownership be transferred to its previous owner, who alleged that he had been pressured to sell it by Mr Saakashvili. The European Court of Human Rights ordered that this decision be suspended *sine die* to preserve freedom of the media. In their letter to the US Vice President, Mike Pence, 22 Georgian NGOs noted that “[r]ecent developments on Georgia’s media landscape

pose a threat to media pluralism in Georgia. Three broadcasting companies are owned by the individuals closely affiliated with the ruling party. Georgian Public Broadcaster, which enjoys significant public funding, has a new management politically affiliated with GD-DG. The only nationwide broadcaster providing alternative critical views – Rustavi 2 – is struggling for survival in a legal battle for its ownership.”

32. Though economic reforms have strengthened the economy, these changes were unevenly felt across society. The real GDP growth rate dropped from 12.3% in 2007 to 2.7% in 2016. However, economic performance was better than expected in 2017 as GDP growth increased to 5% (World Bank, 2018). The World Bank identified the “stronger external environment, higher private consumption and the consistent macro-fiscal policy framework” as the key contributors to the improved GDP growth in 2017. According to the United Nations Development Programme (UNDP), today, 21% of the population lives below the poverty line. Unemployment, underemployment and economic inequality are pervasive.

33. Consequently, the government announced a reform plan to improve its economic development. This plan included liberalising the income tax code as well as governance and educational reform. The educational reforms will try to address employment-related concerns by funding professionals who seek education in understaffed fields. The country has also built on its 2016 Association Agreement with the EU. In line with past commitments, the government adopted a monitoring system for asset declarations by public officials in September 2017 as well as a revised anticorruption action plan. Reflecting these successes, observers noted an improvement in the business environment and the country jumped from 24th in 2016 to 9th in 2018 in the World Bank’s Doing Business survey.

Occupied Territories of Abkhazia and the South Ossetia/Tskhinvali Region

34. Years of *de facto* Russian control of the Georgian territories of Abkhazia and the South Ossetia/Tskhinvali region have led to state-sponsored persecutions and expulsions, displacing ethnic Georgians and dramatically changing the region’s demographics. The regions are increasingly dependent on Russia, which maintains more than 9,000 troops, some 2,600 Federal Security Service (FSB) border guards and heavy offensive armament in the territories. Russia has erected fences and other obstacles along the administrative border line, referred to as the “occupation line” by Tbilisi, displacing residents and disrupting people-to-people contacts. The leaders of these territories, particularly in the South Ossetia/Tskhinvali region, have lobbied for unification with Russia.

35. Life in Abkhazia and the South Ossetia/Tskhinvali region is defined by weak institutions, pervasive poverty, strong control over the press and discrimination against ethnic Georgians. Patronage systems are reportedly common and law enforcement bodies often lack the necessary oversight. Reports suggest that local media are heavily controlled and that there are few opportunities for civil society activity. International observers have struggled to assess the human rights situation in both regions because the *de facto* authorities have persistently denied them access since 2008. Both elections and the judiciary are thought to be heavily controlled by Russian officials.

36. The illegal arrest, torture and murder of a Georgian citizen, Archil Tatunashvili, in the South Ossetia/Tskhinvali region in February 2018 caused a public outcry in the Georgian society as well as strong reactions from the United States and the EU. In response, the government of Georgia approved the so-called Otkhзорia-Tatunashvili list – a black list consisting of 33 persons, mostly Abkhaz and South Ossetian militants, convicted or charged with grave crimes committed against ethnic Georgians in the territories of Abkhazia and the South Ossetia/Tskhinvali region since the early 1990s. These persons will face visa restrictions as well as bans on their financial and property transactions.

37. Despite these tensions, Tbilisi continues to seek ways of promoting contact with people residing in these two territories. The Georgian government’s recently-announced peace initiative

“A Step to a Better Future” aims at fostering trade, education and other links between divided communities. This initiative is likely to face opposition from Russia and the local *de facto* authorities. Support from Georgia’s key NATO and EU partners is important if this initiative is to have any chance of success.

IV. THE REPUBLIC OF MOLDOVA

38. While the Republic of Moldova was once thought of as a beacon among the EU’s Eastern Partnership states, it has struggled to keep its European integration prospects alive in recent years. The country plunged into a deep crisis in 2014, when USD 1 billion, about 12.5% of the country’s annual GDP, vanished from three Moldovan banks, leading to a sharp fall in the national currency’s value and a freeze in international assistance by the EU, the IMF, and the World Bank. Following the scandal, the nominally pro-European government suffered a crushing loss of trust, discrediting European integration among much of the population. In 2016, the country elected a pro-Russian candidate, Igor Dodon, as President.

39. As a parliamentary republic, the Republic of Moldova retained its nominally pro-European government, but it remains to be seen if the pro-European coalition will survive the parliamentary elections scheduled for early 2019, following a vote in Parliament to reschedule the elections that were previously to be held in November 2018². A poll conducted by the International Republican Institute (IRI) in June 2018 found that 69% of Moldovans think that their country is moving in the “wrong direction”. In the same poll, when asked what the most important problems that the country is facing are, 35% indicated low income/pensions, with 31% indicating corruption and 30% indicating unemployment (IRI, 2018).

40. These developments are symptomatic of the poverty, corruption and weak rule of law that define the state. Though there are opportunities for improvement, mainly through cooperation with the EU in the framework of the Moldova-EU Association Agreement (AA) that entered in force in July 2016, appreciable change requires political will. In an April 2018 report, the European Commission again highlighted the need for the Republic of Moldova to reform its judicial sector and increase its fight against corruption. The European Parliament, in a report from June 2018, also made special mention of the need for further investigation into the bank fraud that took place in the country in 2014 (European Parliament, 2018).

41. Chief among the Republic of Moldova’s problems is growing oligarchic power consolidation. Observers suggest that the country is captured by oligarchic interests and that its systems reward the vested interests of a few politicians and oligarchs (TI Moldova, 2017). The most powerful of these officials is Vladimir Plahotniuc. In addition to running companies involved in oil, banking, hospitality and real estate, he owns about 75% of the Moldovan media, including four television channels and three radio stations (Popsoi, 2018). Observers allege that Mr Plahotniuc has exploited geopolitical tensions for his benefit. President Dodon’s close relationship with the Russian President, Vladimir Putin, whom he meets with regularly, allows Mr Plahotniuc and the nominally pro-European government to present themselves to Western countries as a necessary bulwark against Russian influence and thus avoid condemnation (Calus, 2018).

42. Following the entry into force of the AA, the government launched a series of reforms designed to introduce European standards in governance, the economy and the judiciary. These reforms had some positive effects. The country somewhat recovered from the 2014 banking fraud and its economy is currently growing by about 4% a year. Inflation has declined, and budget deficits have reduced to 2% of GDP while the public debt has stabilised at about 40% of GDP. The flow of remittances has also stabilised. The Republic of Moldova has also established designated anticorruption institutions and adopted an anti-money laundering law.

² The new President’s stance towards NATO is illustrated by the fact that the opening of a NATO liaison office has been delayed for over a year due to presidential opposition.

43. However, the pace of reforms is not satisfactory by most international standards. In October 2017, the EU withheld a loan because of the Republic of Moldova's failure to implement reforms to its justice system. Moreover, the EU is concerned about the selective use of law enforcement and selective justice in the country. Transparency International Moldova has noted the use of law enforcement bodies for political aims as well as irregularities in court proceedings that favour pro-government officials.

44. According to the EU, more needs to be done to ensure the implementation of the anti-money-laundering legislation and to continue strengthening the operational capacities and independence of the anticorruption bodies. In a June 2018 poll conducted by the International Republican Institute, 82% of respondents reported that corruption was a "very big problem" for the Republic of Moldova and 42% of respondents said that the greatest cause of corruption was the "lack of government control and oversights" (IRI, 2018). In Transparency International's 2017 Corruption Perception Index, the Republic of Moldova ranked 122nd out of 180 countries, far below many of its neighbours. The Republic of Moldova has yet to implement the Venice Commission and the OSCE/ODIHR's recommendations on party and campaign financing.

45. Although the Republic of Moldova has a good record of holding relatively free and well-administered elections, its Western partners, including the Venice Commission, are very critical of the new electoral law establishing a mixed electoral system. The change largely benefits Mr Plahotniuc's Democratic Party, which was at risk of losing seats by falling below the parliamentary threshold in a purely proportional system, and Mr Dodon's Socialist Party, the Republic of Moldova's largest party. Representatives of genuinely pro-European civic movements without links to local businessmen are likely to find it more difficult to be elected in single-mandate constituencies.

46. Anti-government protests broke out in Chisinau in August 2018 over both alleged corruption and the mayoral election in the Moldovan capital. The mayoral election was ruled invalid by a Moldovan court because the winning pro-European candidate urged people to vote via a Facebook live post on election day. The EU, the United States and Canada have all condemned the nulling of the election, saying that it posed a threat to Moldovan democracy. In July 2018, the EU also withheld a EUR 100 million aid package that was to be sent to the Republic of Moldova because of the controversial mayoral election (Harris, 2018).

47. Meanwhile, observers report improvements in minority rights. The United Nations reports that anti-discrimination policies are observed in audiovisual communication and mass media and that judges are trained on how to prevent and combat discrimination. The government approved an action plan to support the Roma people from 2016 to 2020. Further, LGBTI persons can peacefully demonstrate and their rights are largely respected.

48. Despite the dominance of Mr Plahotniuc's media outlets, the media scene in the Republic of Moldova retains a certain diversity. However, according to Freedom House, the country's media is "trapped by the competing interests of political parties and affiliated business groups." The EU has urged the Republic of Moldova to speed up the implementation of the reform of the audiovisual code that would enhance transparency and competition in the sector. The Republic of Moldova has banned re-transmissions of Russian radio and television programmes as part of the country's anti-propaganda efforts – a move that could be explained by the pervasiveness of the Kremlin's disinformation in the country, although the EU had doubts about the proportionality of this decision.

49. The idea of a reunification of the Republic of Moldova with Romania has also recently received attention. In August 2018, thousands of Moldovans rallied in the capital of Chisinau to call for a reunification with Romania. Those who gathered carried Romanian and Moldovan flags and shouted "Unity" and "Bessarabia, Romanian land", the former name of Moldova. (Washington Post, 2018). In a symbolic vote earlier this year, the Romanian parliament also voiced its support for reunification, during a special session marking the 100th anniversary of Moldova joining Romania after World War One (Ilie, 2018).

Transnistria

50. The breakaway region of Transnistria hosts about 2,000 Russian troops as a “peacekeeping” force. The authorities of the Republic of Moldova call on Russia to honour its commitment, made in 1999, to withdraw its troops from Moldovan territory. Chisinau also seeks the transformation of the current peacekeeping operation into a civilian mission under international mandate. NATO has been consistent in urging Russia to abide by its international obligations, including respecting the territorial integrity of the Republic of Moldova. The *de facto* authorities have periodically championed annexation by Russia. In the region’s so-called “2016 presidential campaign”, candidates largely competed to show their loyalty to Russia. The local economy depends on Russian aid. Since 2006, Transnistria has not paid for Russian natural gas provided by Gazprom. Rather, debt continues to build for the region, which Moscow expects Chisinau to pay. By 2017, Chisinau’s debt totalled roughly USD 6.5 billion, of which USD 5.8 billion are a result of Transnistria (Necsutu, January 2018).

51. In August 2018, for the third year in a row, Russia held a joint military exercise with Transnistria separatist troops simulating an attack on the Dniester River, the *de facto* border with the Republic of Moldova. Moldovan authorities said these exercises were unauthorised and utilised unregistered amphibious vehicles. Both Moldovan and OSCE observers were banned from inspecting the military equipment used in the exercises. In July 2018, the UN General Assembly passed a Moldovan resolution asking Russia to withdraw its troops from Transnistria (Necsutu, August 2018).

52. The democracy and human rights situation in Transnistria is unsatisfactory. As is the case in most frozen conflict zones in the Black Sea region, the government has severely reduced opportunities for political competition and maintains a justice system where arbitrary and politically motivated arrests are common. Dominating almost all aspects of life in the area is Sheriff Enterprises, a monopolistic business conglomerate owned by the region’s richest man. The region’s self-proclaimed President, Yevgeny Shevchuk, lost an election in 2016 to a candidate backed by Sheriff Enterprises. While in power, Mr Shevchuk attempted to reduce Sheriff’s economic grip on the country. After his loss, Mr Shevchuk fled to the Republic of Moldova. Though ethnic Moldovans comprise a significant minority of the region’s population, they face severe discrimination by ruling authorities, according to the Freedom House. Crime, including human trafficking, is common.

V. RUSSIA

53. Despite having the formal attributes of a democratic state, such as elections, a Parliament, political parties and a liberal Constitution, Russia has slid increasingly into a full-scale autocracy under Mr Vladimir Putin, who has led the country either as President or as Prime minister since 1999. Having entered his fourth term as president in 2018, Mr Putin has already been at Russia’s helm longer than any other Russian leader since Stalin. Except for a brief period in 2011-2012, when mass protests forced the Kremlin to introduce temporary liberalisation measures, such as more flexible party registration rules, the regime has methodically tightened its grip on power and subjugated all sectors of state and society, including main media channels, the Parliament, political parties, oligarchs and federal entities.

54. On basic democracy and human rights indicators, Putin’s Russia fails across the board. Freedom House identifies Russia as one of the least free countries in the world. Since 1999, all elections in Russia have failed to meet OSCE standards. The unabashed falsifications and ballot-stuffing during the 2011 parliamentary elections prompted mass protests on the streets of Moscow unseen since the early 1990s. In 2018, thousands of protesters joined Alexei Navalny, an anticorruption crusader and the country’s most prominent opposition figure, in protesting Mr Putin’s fourth inauguration – later Mr Navalny was one of the 1,600 detained people across the country. In September, during the regional elections, Mr Navalny inspired nation-wide protests, whilst serving his 30-day jail sentence, in response to the government’s plan to raise the retirement age by five years. This resulted in over 1,000 demonstrators being (often forcefully) detained at protests across the country, in 33 towns and cities (RFE/RL, 10 September 2018).

55. To buttress the crumbling credibility of Russian electoral institutions, in 2014, the Kremlin appointed a renowned civil society activist, Ms Ella Pamfilova, as the chair of the Central Electoral Committee. Under her watch, the technical side of the voting process somewhat improved, but the overall environment of suppressing the opposition and tilting the playing field in favour of the incumbent remained intact. Most blatantly, the authorities refused to register Mr Alexey Navalny as a candidate in the 2018 presidential elections. Authorities indicted Mr Navalny on trumped-up criminal charges. His brother Oleg was given a prison sentence and was effectively held as a hostage to pressure Alexei Navalny into silence, before being released in June 2018.

56. The Presidential elections were not the only vote in 2018 to be marred by irregularities – the Kremlin-backed incumbent won the Moscow mayoral elections with 70% of the votes after two independent liberal candidates were not allowed to run against him (RFE/RL, 4 September 2018). Meanwhile, the Parliament has been turned into a rubber-stamp institution with no actual power. Real opposition parties were purged from the Parliament in 2003, while individual parliamentarians associated with the democratic opposition lost their seats in 2016 elections. The role of the opposition in the State *Duma* is performed by the far-right Liberal Democratic Party, headed by Mr Vladimir Zhirinovskiy, and the reformed Communist Party, which unites tenets of Stalinist and conservative Orthodox ideologies. The pro-Putin *United Russia* party controls more than two-thirds of the seats in the *Duma* and 77 of 85 regional governor positions.

57. Most opposition figures and journalists face constant harassment and attacks by hackers; the details of their private life are leaked on the Internet. Some regime critics are attacked physically by unknown men (*Ekho Moskvy* journalist Tatyana Felgenhauer), poisoned (opposition figure Vladimir Kara-Murza), imprisoned (Oleg Navalny and head of the Chechnya office of *Memorial*, Oyub Titiev), forced into exile (businessman Mikhail Khodorkovskiy, journalist Yulia Latynina, economist Sergei Guriev, and head of Jailed Russia—an organisation that provides assistance to inmates—Olga Romanova) or even murdered (politician Boris Nemtsov, journalist Anna Politkovskaya, civil activist Natalya Estemirova, and lawyer Sergei Magnitski). The activities of independent civil society organisations, such as *Memorial*, which is devoted to collecting information on the crimes of Stalinism, and *Golos*, an independent election monitoring NGO, are regularly obstructed, including by designating them as “foreign agents”³, a term which has extremely negative connotations in the Russian language.

58. The media, especially television, is under the heavy-handed control of the government. According to a 2016 poll by the independent Levada Center, also labelled as “foreign agent,” television remains the primary source of information for 80% of Russians. Major television channels do not permit any criticism of the regime and especially not of Mr Putin. Selected opponents are occasionally invited to primetime shows, such as that of a prominent propagandist, Vladimir Solovyov, only to be interrupted as they speak, verbally assaulted, and booed by the audience. The last bastions of free speech—the *Ekho Moskvy* radio station, *Dozhd* TV, and the *Novaya Gazeta* newspaper—are kept for façade purposes, but their reach is limited. In 2016, 259 journalists were jailed (US Helsinki Commission, 2017). In 2017, two investigative journalists, Nikolay Andrushchenko and Dmitriy Popkov, were murdered, and in 2018 the investigative journalist Maksim Borodin (who earlier reported on the deaths of Russian mercenaries in Syria) died mysteriously.

59. The internet used to be relatively free in Russia, which greatly helped internet-savvy activists such as Mr Navalny, but the government has taken steps to exert greater control over this domain. These efforts include forcing a change in ownership on the popular social media platform *vKontakte* and the online news portal *Lenta.ru* and adopting a law banning anonymous web surfing software (VPNs) that allows users to hide their IP addresses. Russian social media users also face prison

³ Under the 2012 Foreign Agent Law, non-profit organisations in Russia that receive foreign donations and engage in “political activities” must register and declare themselves as “foreign agents”. In 2014 and 2015 this law was further expanded to cover a larger range of institutions (Human Rights Watch, 2018).

sentences for “liking” or reposting messages that the authorities deem inappropriate, such as ones challenging the legality of the Russian illegal occupation of Crimea or criticising Russia’s actions in Syria.

60. There exist further concerns over privacy on the internet as, in April 2018, Russia began procedures to shut down the popular encrypted messaging application *Telegram* over alleged terrorism concerns. The blocking of Telegram, which is widely used not only by the public but also by prominent officials, is difficult to enforce due to Virtual Private Networks (VPNs) which still enable users to log in. The ban led to over 12,000 Russian citizens taking to the streets on 30 April 2018 to protest that decision. In August 2018, it was announced that the authorities were considering a reversal of the ban if Telegram agreed to provide data of terrorist suspects to the authorities. Subsequently, Telegram updated its privacy policy noting that the company might share user data with the authorities, provided there was a court decision. The conflict with Telegram is significant as the Kremlin’s efforts to curtail internet freedom might mobilise those parts of society that were hitherto uninterested in politics and had no quarrel with the regime.

61. Despite Mr Putin’s claim to have liberated Russia from the clutches of oligarchs and the criminal anarchy of the “wild 1990s”, Russia remains a profoundly—and increasingly—corrupt state. According to Transparency International, Russia is the most corrupt country in Europe and one of the most corrupt countries in the world (ranked 135th out of 180). The state sector in Russia expanded from 35% of GDP in 2005 to 70% in 2015 (Aslund, 2017). While the regime cracked down on the oligarchs of the 1990s, a new class of immensely wealthy people, often owing their wealth to their personal ties with Mr Putin, has emerged. These officials include Gennady Timchenko, Arkady and Boris Rotenberg and Yuri Kovalchuk. According to investigations by Mr Navalny, the Prime Minister, Dmitri Medvedev, has also accumulated wealth measured in billions of US dollars, while Mr Putin is believed to have created an offshore financial empire managed by a proxy, his family friend musician Sergei Roldugin. The Putin-era oligarchs lack the independence their predecessors had in the 1990s.

62. Corruption permeates all levels of the administration, and is especially visible in major infrastructure projects, such as the 2014 Winter Olympics in Sochi and the building of the Kerch Strait Bridge that will connect the Taman and Crimean peninsulas. There is no systematic approach to reducing corruption and cronyism. The sentencing of former economic minister Alexei Ulyukayev for allegedly trying to solicit a USD 2 million bribe, for example, is more a manifestation of inter-elite fights than a concerted campaign. Moscow’s inability and unwillingness to seriously tackle corruption fuels public discontent. Many thousands of Russians participated in anticorruption demonstrations across Russia between March and November 2017 and in April and May 2018.

63. The ideological grounds of Mr Putin’s regime are notoriously flexible, but they generally reflect the tenets of social conservatism, including the rejection of “decadent” Western liberalism, an emphasis on “traditional values”, the paternalistic nature of the state, ultra-patriotism, Orthodox religion and blatant militarism. In practice, this ideology leads to growing obscurantism in Russian society, the ban of non-mainstream religious movements such as Jehovah’s Witnesses, the censorship of the film industry and the art scene, as well as laws banning “gay propaganda”⁴. The Russian Parliament recently decriminalised acts of domestic violence not involving serious bodily harm.

64. It is particularly regrettable that Russia’s appalling human rights record and the absence of the rule of law have been extended to the regions of Ukraine and Georgia under *de facto* Russian control.

⁴ The most shocking case of attacks on the LGBT+ community was reported by *Novaya Gazeta* journalists in 2017. They discovered that more than 100 gay men were abducted and tortured, and some even murdered, by the authorities in Chechnya. The authorities deny all accusations and closed the investigation. *Novaya Gazeta* journalists themselves faced multiple threats for their investigation. In general, the human rights situation in Russia’s North Caucasus is dire: there are numerous reports of abductions, torture and extra-judicial killings.

VI. NATO ALLIES

65. **Romania** has done much to improve on democratic norms, the rule of law and human rights since joining the EU in 2007, and it is ahead of its neighbours in the region in many areas. It is a stable democracy with a vibrant civil society and free media. In 2017, the country's economy is estimated to have grown by an impressive 6.9%. Nevertheless, in the EU context, Romania still lags in some areas. An EU member since 2007, Romania has not yet been able to join the Schengen area or the Eurozone. In its accession to the EU, Romania was subjected to the EU's Cooperation and Verification Mechanism (CVM) to address shortcomings in judicial reform and the fight against corruption. During its ten years under the CVM, Romania created key institutions and enacted important legislation to address these gaps. In its latest progress report from July 2018, the European Commission (EC) reported that the "ongoing reform of the justice laws risks undoing progress achieved in the last 10 years and harming judicial independence". However, the EC did note a "positive assessment of the judicial system and the role of the magistracy in pursuing reform" (European Commission, 2018).

66. Much has been done to stamp out high-level corruption. Since 2013, the National Anticorruption Directorate (DNA) has reportedly sent to trial 68 High Officials, one Prime Minister, two Deputy Prime Ministers, 11 Ministers and former Ministers, 39 deputies and 14 senators. Meanwhile, Romania has improved its standing in Transparency International's Corruption Perception Index, going from 43 points in 2014 to 48 in 2017 – with 0 representing highly corrupt and 100 representing no corruption. The European Commission's President, Jean-Claude Juncker, has announced that he expects Romania to be in a position to terminate the CVM by the end of his term in 2019.

67. Differences regarding corruption remain a large aspect of the political landscape in Romania. In July 2018, President Klaus Iohannis gave into pressure from the Social Democrat-led government to remove Romania's chief anticorruption prosecutor, Laura Kovesi, from office after months of ignoring calls to do so. The government claims that Mrs Kovesi overstepped her mandate and that her approach to fighting corruption was selective. Since her appointment in 2013, the EU has applauded the anticorruption prosecutor's role in raising the conviction rates for corruption among top business and political leaders in Romania (Hopkins and Peel, 2018).

68. Much of the country's progress can be described as two steps forward, one step back. Periodically, ruling coalitions have adopted legislation that could be interpreted as attempts to create loopholes for corruption and the reduction of the independence of judiciary. These legislative initiatives are criticised by the opposition, civil society and the European institutions. On two occasions, controversial legislation prompted mass protests. Protests in early 2017 were reportedly the largest in the country's history since the end of the Cold War. The protesters succeeded in inducing the government to repeal the legislation, exemplifying participatory democracy. More recently, tens of thousands of Romanians protested legislation adopted in December 2017. The European Commission, the US State Department, seven EU member states, thousands of Romanian justices, and the country's President, Mr Klaus Iohannis, criticised the legislation as potentially encroaching on judicial independence. In April 2018, the Group of States against Corruption of the Council of Europe (GRECO) published a report on Romania, expressing serious concerns about certain aspects of the laws on the status of judges and prosecutors and about draft amendments to the criminal legislation.

69. In August 2018, mass anti-government protests – led by members of the large Romanian diaspora⁵ – broke out again across Romania against more legislative changes which critics claim will weaken the rule of law in the country. Protests turned violent, especially after the police used tear gas and water cannons to disperse crowds, resulting in more than 400 injuries to both protesters and security personnel. President Iohannis condemned this excessive use of force.

⁵ Between 3 to 5 million Romanians are working abroad.

70. According to the Council of Europe, Romania has made progress in promoting minority cultures and education, but it noted that a coherent legal framework for the protection of minority rights is still lacking. In particular, Romania was urged to do more to combat discrimination of the Roma people.

71. While it is an entrenched and free democracy with a fast-growing economy (3.8% in 2017), **Bulgaria** has more work to do to tackle corruption. Like Romania, Bulgaria has been subject to CVM procedures since 2007. The country is making progress towards meeting the requirements for joining the Schengen area and the Eurozone. Bulgaria has received passive access to the Schengen information system and a positive assessment of its most recent application for the European Exchange Rate Mechanism (ERM 2) and the Banking Union within the EU. In the first half of 2018, Bulgaria successfully managed to accomplish its role in the rotating Presidency of the Council of the EU.

72. The European Commission's regular assessments emphasise the country's progress, particularly in terms of tackling organised crime, but the country's record in reforming its judiciary and fighting corruption is generally seen as less positive than that of neighbouring Romania. The Commission points out "a clear need to accelerate the pace of reform" and "to create an atmosphere of open debate and transparency on key decisions", while the Council stressed that "overall progress now needs to be further accelerated urgently".

73. Overall, the new Bulgarian government, which has been in place since mid-2017, appears determined to put the reform process back on track. A new anticorruption bill was recently vetoed by the President, only to be re-adopted again by the Parliament, overruling the veto. The bill establishes a new body charged with investigating top officials and allows that body to use wiretapping. The critics of the bill are concerned that it does not ensure the independence of the new body or offer full protection to whistle-blowers.

74. While these recent reforms are expected to have a positive effect, the current situation in Bulgaria is far from optimal. The Centre for the Study of Democracy in Sofia recently produced a scathing report on corruption in Bulgaria, going as far as to claim that state corruption has reached dimensions that can be described as state capture. Bulgaria still lacks a track record of final court decisions on convictions in high-level anticorruption cases. Anticorruption campaigners also point to the influence of certain business entities, such as the privately-owned Russian energy company Lukoil, and the signs of corruption surrounding the case of the collapse of the Corporate Commercial Bank (Rankin, 2017).

75. Reporters Without Borders currently ranks Bulgaria lower in the World Press Freedom Index than any other EU member, mainly due to "an environment dominated by corruption and collusion between media, politicians, and oligarchs". The watchdog also suggests that the government allocates EU funding to certain media outlets in a non-transparent manner. Human rights groups also criticise a member of Government and leader of United Patriots, the junior partner within the ruling coalition, for making insulting statements *vis-à-vis* the Roma minority, and it should be noted that this member of Government was sentenced by a first-instance court to refrain from similar infractions in the future. The Government has adopted a National Strategy for Roma Integration and adopts annual reports on specific steps in the integration of the Roma people. Nevertheless, Amnesty International criticised Bulgaria for not doing enough to address the cases of hate speech and hate crimes directed at minority groups, including Turks and Roma. In March 2017, Bulgarian nationalists attempted to block the country's border to prevent Bulgarian Turks residing in Turkey from participating in the Bulgarian elections. Sofia accused Ankara of trying to interfere in Bulgarian elections by using Bulgaria's sizeable (9% of the population) Turkish minority, while President Recep Tayyip Erdogan slammed Bulgaria for "putting pressure" on the Turkish minority.

76. More positively, Bulgaria has been praised for its progress in implementing GRECO's recommendations on corruption prevention with respect to members of Parliament, judges and

prosecutors. GRECO welcomed the efforts by the Parliament of Bulgaria to better involve civil society in the legislative process, tackle breaches of ethical rules by MPs and strengthen the obligation for members of the judiciary to present regular asset declarations.

77. Bulgaria was also one of the first EU Member States to adopt the working definition of antisemitism that was agreed upon by the International Holocaust Remembrance Alliance (IHRA) in 2016. The Government appointed a Deputy Minister of Foreign Affairs as National Coordinator for the fight against antisemitism. During its presidency of the Council of the EU, Bulgaria placed the topics of freedom of speech and expression, freedom of religion and belief and combating antisemitism high on the EU agenda.

78. Some members of the government as well as the opposition have vehemently opposed the plans for Bulgaria to ratify the Istanbul Convention on preventing and combating violence against women and domestic violence. In July 2018, the Bulgarian Constitutional Court ruled that the Convention does not conform to the Bulgarian constitution, thus making its ratification virtually impossible. Human rights groups have criticised the Court's decision.

79. Faced with mounting external and internal pressures, **Turkey's** political system has undergone substantial changes. In July 2016, Turkey was shaken by a brutal military coup attempt that claimed 251 lives and left more than 2,000 people wounded. If successful, the coup would likely have had disastrous consequences for regional security and led to a civil war. All major political parties united in their condemnation of the coup.

80. The coup was widely and firmly condemned by the Euro-Atlantic community. However, there is a prevailing view among Turkey's Western allies and human rights groups that the government's actions in the wake of the coup have been disproportionate. This view was expressed repeatedly by members of the NATO PA during the Assembly's Annual Session in Istanbul in November 2016.

81. Reportedly, some 50,000 people have been detained (excluding those who later released) and 150,000 civil servants and academics have lost their jobs, while 1,500 civil society organisations, 19 labour unions, over 2,000 schools, and more than 150 media outlets have been closed. Members of Parliament from the pro-Kurdish Peoples' Democratic Party (HDP) have been prosecuted. Following the passage of a May 2016 law that lifted the parliamentary immunity of 138 MPs, 12 HDP deputies, including those in party leadership positions, were arrested on terrorism-related charges. By March 2017, the state of emergency had allowed the government to replace the mayors in an estimated 82 out of 103 municipalities controlled by an affiliate of the HDP (Freedom House, 2018). The Turkish government established a so-called OHAL (State of Emergency) Commission for citizens affected by the purges and, according to the government, the cases of some 40,000 employees have been reviewed to date.

82. For nearly two years after the coup, Turkey remained under a state of emergency, which was finally ended in July 2018. The government argued the state of emergency was necessary given the severity of the threat and claimed that the principles of necessity and proportionality were strictly observed. This view was not shared by President Erdogan's critics, both domestically and in the West. For instance, the European Parliament noted that the state of emergency has been "used to silence dissent and goes far beyond any legitimate measures to combat threats to national security".

83. European politicians and human rights watchdogs have repeatedly expressed their concern over the detention of several prominent civil society activists, including Taner Kilic, the president of Amnesty International Turkey, and the businessman Osman Kavala, an organiser of the Gezi Park protests in December 2013. Trade union organisations have expressed their protest against the arrest of Elif Cuhadar, an executive committee member of the Turkish trade union KESK. Human Rights Watch has collected information on 13 cases of torture and ill-treatment of coup-related detainees with varying degrees of severity. The Turkish authorities have also been criticised for their stance on LGBT+ initiatives. Ankara imposed an indefinite ban on any event organised by LGBT+ organisations following three consecutive bans of the Istanbul Pride march. On

a positive side, in recent months, Ankara seems to have stopped hinting at the possible re-introduction of the death penalty, a move that, according to EC President Jean-Claude Juncker, would effectively block Turkey's EU accession bid.

84. By most accounts, the space for media freedom in Turkey has narrowed in recent years. According to the Turkish Journalists' Association, about 160 journalists are in jail, with most being detained after the failed coup. The detention of Deniz Yucel, a German journalist accused by Ankara of espionage activities, has strained the relations between Germany and Turkey. Mr Yucel was released in February 2018, but German officials claim that five other Germans are still in a Turkish jail on unsubstantiated charges. In March 2018, the Financial Times reported the sale of Dogan Media Group, which owned the newspapers *Hurriyet* and *Posta*, and the television stations CNN Turk and Kanal D, to Demiroren Holding (Pitel, 2018). The sale of "some of Turkey's most prominent media titles" to Erdogan Demiroren, a majority shareholder of Demiroren Holding with "ties to President Recep Tayyip Erdogan", raised concerns regarding the government's tightening grip on the Turkish press. Specifically, the sale of Dogan Media means that "over 90 per cent of [Turkish] media [in circulation] is controlled by those with close ties to [President] Erdogan" (Bucak, 2018).

85. The constitutional system became defined by super-presidentialism following the April 2017 referendum, which the government won by a narrow majority. OSCE/ODIHR monitors concluded that the referendum "took place on an unlevel playing field". The constitutional changes were designed to introduce a US-style system where the President also heads the cabinet and the Parliament is institutionally separated from the executive, with MPs being prohibited from serving as ministers. However, in practice, the new Turkish system lacks the elements of checks and balances that are inherent in the US model, including the requirement that the Parliament authorise key appointments and be able to compel executive branch officials to testify. In Turkey, the President retains the right to dissolve the Parliament and has increased powers *vis-à-vis* the judiciary. The Venice Commission concluded that, by removing necessary checks and balances, the amended Constitution "would risk degeneration into an authoritarian presidential system". Nevertheless, the Parliament retains meaningful powers and has the potential to play a role as guardian of the Turkish democracy.

86. These constitutional changes officially came into force after Turkey's recent early presidential and parliamentary elections on 24 June 2018. Turkish voters re-elected Mr Erdogan by 52.5% of votes, extending his term for the next five years as President of Turkey. Mr Erdogan's main adversary, Muharrem Ince, the candidate of the Republican People's Party (CHP), won 30.8% of the presidential polls (Guler, 2018). By winning an overall 53.6%, the electoral alliance between Erdogan's Justice and Development (AKP) party and the Nationalist Movement Party (MHP) secured the majority of the parliamentary seats. Notably, the pro-Kurdish HDP, whose leader Selahattin Demirtas was running for presidency from jail, passed the electoral threshold and entered the parliament by securing 11.6% of the votes. The OSCE election observation mission concluded that "voters had genuine choice in Turkish elections, but incumbent president and ruling party enjoyed undue advantage, including in media".

87. Over the course of 2018, Turkish-US relations have deteriorated, mainly over the case of US pastor Andrew Brunson, detained in Turkey on alleged terrorism and espionage charges. The US administration dismisses the charges as not supported by the evidence. In August 2018, the US Department of Treasury imposed sanctions on two Turkish ministers (Justice and Interior) in relation to the detention of Brunson. The US administration followed up on these sanctions by doubling tariffs on Turkish steel and aluminium. Currently, pastor Brunson is held under house arrest until his next trial.

88. From January to September 2018, the Turkish lira lost more than 40% of its value against the US dollar. This occurred due to a combination of factors, ranging from the consequences of the credit-fuelled growth, decreased investor confidence and the worsening of relations with the United States. The government seeks to direct the monetary policy, and, at the time of writing, it is

not clear if Turkey's central bank will be able to demonstrate its independence and increase the interest rates above the levels suggested by the government.

89. Developments in Turkey in 2016-2017 convinced Freedom House to change its assessment of Turkey's status from "partly free" to "not free". Consequently, Turkey became the only NATO country in this category (Albania and Montenegro ranked as "partly free"). According to Transparency International's Corruption Perception Index, Turkey ranks 81st among 180 countries, scoring 40 points—down from 50 points in 2013. Among NATO Allies, only Albania's score is lower.

90. Political polarisation in Turkish society is deep. According to a public opinion survey by the Center for American Progress (CAP), supporters of the ruling AKP differ dramatically from supporters of the opposition CHP and HDP in how they assess political and socio-economic realities in Turkey. While more than 60% of AKP supporters assess these realities favourably, only 6% of CHP supporters share that view (Makovsky, 2017).

91. On the other hand, the CAP poll suggests that the alarmist warnings of growing religious fundamentalism in Turkey are unsubstantiated. The overwhelming majority of Turks continue to support the secular model. Atatürk, the father of secular Turkey, is viewed positively by more than 80% of the population. The support base of the ruling AKP is also mostly pro-secular: only a quarter of its supporters support a "Sharia state", and younger Turks—including AKP voters—are even less supportive of the centrality of religion in state affairs (Makovsky, 2017).

92. According to Article 2 of the Constitution, Turkey is a democratic, secular and social state governed by the rule of law. Since the establishment of the Republic of Turkey, there has been a considerable increase in the rate of women's participation in areas including education, employment and decision-making mechanisms. A Strategy Paper and Action Plan on Women's Empowerment has been prepared to cover the period of 2018-2023. Nevertheless, initiatives that seem to contradict the Western secular model are occasionally announced, such as the proposal by President Erdogan to criminalise adultery. According to the President, "[Turkish] society holds a different status in terms of its moral values. This is an issue where Turkey is different from most Western countries" (Rezaian, 2018). According to the gender gap index of the World Economic Forum, which assesses access to health services, educational attainment, economic participation and political empowerment, Turkey ranks 130 out of 144 countries surveyed. Just 34% of women in Turkey work, by far the lowest proportion within the OECD, where the average is 63% (Lowen, 2018).

VII. CONCLUSIONS: ENHANCING THE EURO-ATLANTIC COMMUNITY'S APPROACH TO THE BLACK SEA REGION

93. Many countries in the Black Sea region face substantial obstacles to achieving international standards pertaining to human rights, the rule of law and democratic governance. Parts of the region have deteriorated alarmingly, particularly in territories under *de facto* Russian control, where authorities use the difficult security situation and/or the threat of terrorism to justify breaches of civil liberties. This situation creates a vicious cycle and distorts the balance between liberties and security. The General Rapporteur believes that democratic backsliding in parts of the region contributes significantly to the current levels of tension and undermines the efforts towards reconciliation and dialogue among Black Sea states.

94. As an intergovernmental political-military alliance, NATO has been mainly involved in the Black Sea region through: introducing reassurance measures for NATO Black Sea Allies (Tailored Forward Presence) and assisting partner countries – Georgia, the Republic of Moldova and Ukraine – in the fields of defence and security sector reform and public diplomacy. While the NATO Membership Action Plan states that aspirants must demonstrate commitment to human rights and the rule of law, NATO lacks a clear mandate and the capacities to carry out comprehensive assessments of democratic progress in aspirant countries, let alone in its own member states. Political dialogue

within the framework of the NATO partnership policy has mainly focused on practical cooperation in a military context.

95. However, the General Rapporteur is convinced that democratic governance, the rule of law and human rights should be more prioritised in the Alliance's partnership strategy. Similarly, an open discussion on ways of promoting the liberal democratic world order within and outside the Alliance should become a legitimate subject of NATO's institutional agenda. As the then US State Secretary, John Kerry, said after the coup attempt in Turkey: "NATO also has a requirement with respect to democracy, and NATO will indeed measure very carefully what is happening" (Sloat, 2018).

96. The EU, with its immense soft power and institutional and financial capacities, has far greater tools to promote reforms and democratic standards across the Black Sea, as it has previously done in Central and Eastern Europe. The EU's Black Sea Synergy Initiative, launched back in 2007, needs to become more ambitious and better funded. The General Rapporteur supports the calls that the EU's involvement and support be strictly conditional on partners' progress in improving human rights, democracy and the rule of law. To improve the quality of reforms and to ensure their implementation, efforts to strengthen administrative capacities and culture as well as to involve civil society and the expert community in consultation processes should be prioritised. The activities of the Black Sea NGO Forum, a "home grown" platform for debate, communication and cooperation among civil society representatives, governments and international organisations active in the wider Black Sea region, including on issues such as democracy and rule of law, deserve special attention and further support, since this platform also has a role to play in enhancing societal resilience across the region. European leaders should react swiftly and resolutely whenever concerns arise regarding the persecution of human rights activists, infringements on media freedom, selective justice, cases of torture, the oppression of national minorities, election fraud and other violations of human rights and liberties. There can be no excuses for delaying the adoption and implementation of rigorous anticorruption policies.

97. Ultimately, the Black Sea states themselves need to do more to promote democratic standards across their region. Strengthening people-to-people contacts as well as regional organisations such as the Black Sea Economic Cooperation (BSEC) is key to achieving durable reconciliation and stability in the region. The international community should continue to be united in calling on Russia to revisit its revisionist policies in the region and to end the violation of territorial integrity of Georgia, Ukraine and the Republic of Moldova. The General Rapporteur is also convinced that faster progress in introducing European standards of democracy and the rule of law by Georgia, Ukraine and the Republic of Moldova will serve as a powerful pull factor for the populations of their regions under *de facto* foreign control.

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NATO PARLIAMENTARY ASSEMBLY

COMMITTEE ON THE CIVIL DIMENSION OF SECURITY (CDS)

Sub-Committee on Democratic
Governance (CDSDG)

CIVIL PROTECTION IN THE HIGH NORTH AND THE MEDITERRANEAN

Report

by [Jane CORDY](#) (Canada)
Rapporteur

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I. INTRODUCTION – NATO AND CIVIL PROTECTION

1. NATO's involvement in civil protection, namely policies for the protection of civilian populations against disasters and other emergencies, dates back to the 1950s, with the establishment of NATO's Civil Emergency Planning Committee. While not a central task for the Alliance, civil protection occupies an important place in NATO's comprehensive approach to security. Over the years, NATO has developed ways of assisting member nations in preparing for and responding to natural and man-made disasters as well as addressing the civil effects of terrorism and of the use of WMDs. Contribution to civil protection has become an important element of the Alliance's "soft power", particularly in relations with NATO partners.

2. The end of the Cold War and NATO's increased focus on out-of-area operations allowed the Alliance to place a stronger emphasis on civil protection policies, especially with regard to disaster response. In 1998, following a Russian proposal to the North Atlantic Cooperation Council (later the EAPC), NATO established the Euro-Atlantic Disaster Response Coordination Centre (EADRCC) to coordinate disaster relief efforts among NATO and partner countries, and in countries where NATO is engaged in military operations. The Centre is active year-round and operates on a 24/7 basis. It involves NATO's 29 Allies and all partner countries. Since 2000, the EADRCC has conducted, on average, one large consequence-management field exercise every year.

3. However, the EADRCC is only used if called upon, and its role is restricted to coordination rather than operational management. In emergency response, member states as well as relevant international organizations, particularly the United Nations, play a primary role, while NATO's role is subsidiary. Military assets, such as NATO's Airborne Warning and Control System (AWACS), the NATO Response Force (NRF) and the Multinational Chemical, Biological, Radiological and Nuclear (CBRN) Defense Battalion have also been engaged in some civil emergencies. The most prominent cases of NATO involvement in disaster response include the responses to Hurricane Katrina in the United States in August 2005 and to the earthquake in Kashmir, Pakistan, in October 2005. It is also worth recalling the EADRCC's role in coordinating the multinational humanitarian assistance effort that supported refugees during the Kosovo war in the late 1990s.

4. In search and rescue (SAR), NATO holds annual *Dynamic Mercy* exercises that alternate between the Atlantic Ocean and the Baltic Sea. The exercise aims to develop inter-regional cooperation and coordination between the civilian and military SAR units of Allied and partner nations. This coordination is crucial for rescuing lives at sea. NATO is also engaged in developing capabilities for rescuing submarine sailors. It regularly conducts submarine escape and rescue (SMER) exercises to improve multinational submarine rescue cooperation and interoperability. The latest SMER exercise—*Dynamic Monarch*—took place in 2017 in the eastern Mediterranean and focused on saving lives rather than warfighting. Allies, including the United Kingdom, France and Norway, also launched the NATO Submarine Rescue System (NSRS), which consists of jointly-owned submarine rescue platforms¹.

5. The NATO Parliamentary Assembly's (NATO PA) Committee on the Civil Dimension of Security (CDS) has developed a strong focus on civil protection. In 2006, it adopted a comprehensive report on this topic, analyzing the complex network of policies and instruments that give NATO a role in civil emergencies. However, several new challenges have since emerged, including the changing geopolitical environment on NATO's eastern, southern and northern flanks.

¹ The NSRS consists of two sub-systems that can be mobilized independently of each other 1) the Intervention Remotely Operated Vehicle (IROV) that can be rapidly mobilized to a distressed submarine in order to provide life support and prepare the site for 2) the Rescue System, which consists of a free-swimming manned submersible, a Portable Launch and Recovery System, a decompression system and other associated support equipment. The NSRS can be deployed anywhere in the world and is designed to maximize the use of any potential aircraft and ship. - [https://www.royalnavy.mod.uk/The-Fleet/Submarines/~media/Files/Navy-PDFs/The-Fleet/Fighting-Units/Submarines/NSRS%20Factsheet.pdf](https://www.royalnavy.mod.uk/The-Fleet/Submarines/~/media/Files/Navy-PDFs/The-Fleet/Fighting-Units/Submarines/NSRS%20Factsheet.pdf)

6. This report will focus on two regions where the issue of civil protection has become particularly acute in recent years: the High North and the Mediterranean. While very different, these regions present equally daunting challenges for civil protection. Due to climate change, technological advances and renewed competition between Allies and Russia, there is growing civilian, economic and military activity in the High North. These factors, in turn, complicate efforts to protect civilians, the environment and infrastructure – efforts that are already made difficult by the sheer size of the High North, the harsh climate and the lack of infrastructure.

7. The Mediterranean faces a different type of civil protection challenge: the refugee/migrant crisis prompted by turbulence in the Middle East and North Africa (MENA) region. The shocking losses of life at sea have tested the conscience of the world and particularly the Euro-Atlantic community.

8. This report will provide further assessment of these challenges, take stock of the existing civil protection – primarily SAR – capabilities in these regions and discuss ways of improving the multilateral responses to these challenges, including NATO's potential role.

II. CIVIL PROTECTION AND EMERGENCY RESPONSE IN THE HIGH NORTH

A. THE CHANGING ARCTIC

9. The Arctic region² is experiencing rapid transformation due to climate change. In the last 70 years, the Arctic amplification effect has caused the Arctic to warm up twice as fast as other parts of the world. Since 1979, the Arctic ice cap has shrunk about 13% per decade, and the trend is accelerating³. Meanwhile, the thickness of Arctic ice declined by 65% between 1975 and 2012. January 2016 was 5°C warmer than the 1981-2010 average for the region. If current trends continue, experts estimate that the Arctic will be ice-free during the summer months by 2040. Sea ice is becoming less thick and more likely to break apart causing more mobility. This increased mobility may lead to more ice-related hazards. The thawing permafrost is also releasing carbon dioxide and methane into the atmosphere, thus exacerbating the greenhouse effect⁴. Thawing permafrost also causes extensive damage to highways, railroads, airstrips, and other infrastructure. Furthermore, Arctic ecosystems face significant stress and disruption. Even if the Paris Agreement succeeds in keeping the rise of the Earth's temperature well below 2°C above pre-industrial levels, winters in the Arctic are still expected to be warmer by 5-9°C compared to the period between 1986 and 2005 (The Economist, 2017).

10. These warming trends as well as technological advances make the Arctic more accessible for longer periods of the year, offering new opportunities for human activity in the region. New strategic **shipping routes** are gradually opening in the north, namely the Northern Sea Route (NSR) along the Russian and Norwegian coasts and the Northwest Passage (NWP) consisting of several routes through the Canadian archipelago and along Alaska's northern shoreline. The NSR holds particular economic interest. While Russia has introduced high tariffs for transit, the NWP has no fee system (Melia, Haines, & Hawkins, 2017). It also cuts the length of usual routes between east Asia and western Europe by about a third. Recognizing growing interest in this route, Russia has also developed a series of urban centers along the NSR. As the Arctic ice cap shrinks, the Transpolar

² In this report, *Arctic* is used interchangeably with *High North*, which is defined as the area north of the Arctic Circle (66°33'N).

³ The acceleration is attributed to the feedback loop: as the ice cap shrinks, less sunlight is reflected and more of it is absorbed by the water. Warmer ocean water further melts the ice from beneath.

⁴ According to Arctic Council's Arctic Management and Assessment Programme, near-surface permafrost has warmed by more than 0.5°C since 2007-2009 and, by mid-century, the area of near-surface permafrost is expected to decrease by 35%. It is estimated that Arctic soils hold about 50% of the world's soil carbon. While thawing permafrost is expected to contribute significantly to global warming, the amount of greenhouse gas released so far has been relatively small.

Sea Route (TSR) in the central Arctic Ocean may become a third and even more attractive option than the NWP and NSR.

11. There were 71 transits through the NSR in 2013, up from just four in 2010 (transit numbers dropped to 19 again in 2016, likely due to renewed tensions between Russia and the West). Thirty-three vessels crossed the NWP in 2017, up from just five in 2007, including, for the second time, the *Crystal Serenity*, a cruise ship with more than 1,400 passengers and crew on board (Headland, 2017).

12. The Arctic's wealth of **natural resources** has also attracted commercial interest. The US Geological Survey estimates that the region has extensive reserves of up to 90 billion barrels of oil and 1,699 trillion ft³ of natural gas. While the US and Canadian governments have banned offshore drilling in the Arctic⁵, Russia's national oil and gas companies, Rosneft and Gazprom, are expanding their operations and Norwegian authorities have started to issue hydrocarbon exploration licenses. Some observers predict that some USD 100 billion will be invested in non-renewable natural resources and infrastructure construction in the region within the next decade (Geiselhart, 2014).

13. Despite the ban on drilling, Canada and the United States have joined Russia in extracting other natural resources in the North, such as zinc, iron ore and nickel. There is also a discussion in Greenland on whether or not to mine its vast uranium resources using investments from Australia and China. The warming waters also offer new opportunities for fishing certain species, such as cod, in the North.

14. That said, the potential for shorter transportation routes and natural resource extraction should not be overstated. The extent of ice coverage is still largely unpredictable, preventing shipping companies from using Arctic sea routes for regular services. Additionally, interest in natural resource extraction in the Arctic has diminished substantively due to falling global oil prices and the effect of Western sanctions on Russian companies⁶ (Zysk & Titley, 2015). For the time being, commercial activity in the region is likely to grow only modestly.

B. SAR AND EMERGENCY RESPONSE IN THE HIGH NORTH: CHALLENGES AND CAPABILITIES

15. As human activity in the High North increases, so does the probability of incidents requiring SAR operations. Vessels and offshore oil and gas platforms create the potential for accidents, including colliding with ice or catching fire. These incidents can severely threaten not only the environment but human life as well. In terms of shipping casualties, 55 incidents were recorded in 2016, up from just eight incidents in 2006. Particularly worrisome is the increasing presence of large cruise ships carrying over 1,000 passengers. An emergency evacuation of a cruise ship of this size would require a mass rescue operation (MRO), an endeavor that no Arctic country could currently manage on its own. On a smaller scale, helicopters, small private aircraft, and adventure tourists on skis and private boats constitute another growing risk group for emergencies (Ikonen, 2017).

16. Emergency management in the Arctic is a complex and risky endeavor because of turbulent weather, uncertain ice conditions, vast distances, and environmental concerns. The Arctic spans 14.5 million km², which is larger than the European continent (10 million km²), and has a population of about 4 million people. Average winter temperatures are as low as -34°C. The harsh environment makes it difficult to operate aircraft and helicopters while ships face the problem of icing, which can

⁵ According to a recent report, President Donald Trump seems to be re-evaluating this ban. <https://www.cnbc.com/2018/01/04/trump-aims-to-open-arctic-pacific-and-atlantic-to-offshore-drilling-in-ambitious-new-plan.html>

⁶ Due to Western sanctions, transit traffic via the NSR has dropped from 1.18 million tons in 2013 to a mere 39,000 tons in 2015. <https://jamestown.org/program/russian-military-build-up-in-arctic-highlights-kremlins-militarized-mindset/>

lead to the failure of some ship functions. Collisions with icebergs could also create emergency situations, including the abandonment of the ship. During the long Arctic winters, extended periods of 24-hour darkness and restricted visibility due to weather further complicate navigation. Due to the sparseness of the population, infrastructure – such as ports, landing strips and hospitals – is lacking (Steinicke & Albrecht, 2012). These factors can only be mitigated to a very limited extent.

17. In smaller emergencies, authorities in the High North can largely rely on local responders and volunteer resources. However, as activity in the region increases in frequency and scale, advanced SAR capabilities that can handle emergencies of a larger scale and of higher complexity are needed. Responsible emergency-preparedness authorities must extend their seasonal presence (usually limited to the summer months) as well as their overall capabilities, situational awareness and cross-border cooperation. Responsibility for emergency preparedness in the High North is distributed across different national authorities, with the leading SAR authorities being either civilian, such as the Icelandic Coast Guard, or military, such as the Danish Navy.

18. In some nations, such as Canada, search and rescue is a shared responsibility. Due to the country's immense size, range of terrain and unpredictable weather, many partners and jurisdictions are involved in Canada's National Search and Rescue Program, including the civilian Canadian Coast Guard for maritime SAR, the Royal Canadian Air Force for aeronautical SAR, as well as provincial and territorial authorities. In the remote North, the Canadian Rangers – a roughly 5,000-strong reserve force from over 200 different northern communities – can also assist in ground search and rescue efforts. Often referred to as the military's "eyes and ears in the North", many Canadian Rangers are indigenous and bring highly valuable local knowledge to ground search and rescue operations in isolated areas.

19. The Arctic's vast expanse and limited infrastructure make helicopter airlifts extremely difficult. Investing in new helicopter bases is difficult to justify considering the still limited amount of shipping in the region. At this time, other means of rescue are very time intensive, with little ability to rescue large numbers of survivors. **Icebreakers** are especially important to SAR operations. Experts, however, are concerned about the "icebreaker gap" of the littoral Arctic states, which have small and ageing fleets. The US fleet consists of only two operational icebreakers (CRS, 2018). A new icebreaker is planned but limited activity in the region might not justify the costs of USD 1 billion per ship (Fountain, 2017). Canada's Coast Guard has 15 icebreakers, including two heavy icebreakers, but they are reaching the end of their design life. Canada is exploring various options to replace its icebreakers. In June 2018, the Government of Canada announced that it would be acquiring three converted medium commercial icebreakers to support interim icebreaking capability. Nevertheless, increasing demand for icebreaker service support is leaving the fleet stretched (LeBlanc – Senate of Canada, 2018). Russia is the only country to possess robust icebreaker capabilities with over 40-icebreakers, including six heavy polar, nuclear-powered vessels (Charron, 2017).

20. Because communications satellites do not fully cover the Arctic region, **communication technology** in the High North is limited. Building infrastructure for broadband technology is complicated by short construction seasons and difficult maintenance conditions. Since 1999, large ships have been equipped with communications, warning and alert systems within the Global Maritime Distress and Safety System (GMDSS), mainly using the COSPAS-SARSAT⁷ satellite program established in 1979 by Canada, France, the former USSR and the United States. However, due to the gap in satellite coverage, distress alerts can only be detected globally up to about 70-75° north (Steinicke & Albrecht, 2012). SAR officers place high hopes in the new Medium Earth Orbit Search and Rescue (MEOSAR) system, which will become the dominant space-segment capability of the COSPAS-SARSAT program. MEOSAR satellites will pick up the distress signals in near real time with more accuracy than the current system, which can take up to two hours.

⁷ COSPAS (КОСПАС) is an acronym for Space System for the Search of Vessels in Distress in Russian, while SARSAT is an acronym for Search and Rescue Satellite-Aided Tracking.

21. Communication between different SAR stakeholders is another cause for concern. All Arctic states have their own vessel and air-traffic services with different reporting systems (Ikonen, 2017). Information on military units, which are often the most readily available resources for SAR operations, might be considered sensitive by military authorities, further complicating cross-border cooperation. Moreover, language barriers continue to obstruct communication (Sydnes et al., 2017).

22. **Norway** stands out among the Arctic nations in terms of developing adequate SAR capabilities in the High North. In May 2018, members of the NATO PA Sub-Committee on Democratic Governance (CDS DG) visited Bodo, Norway, which hosts the Joint Rescue Coordination Center North Norway (JRCC NN). Bent-Ove Jamtli, Director of JRCC NN, told the delegation that Norwegian SAR services are coordinated by two JRCCs – one in Sola (for southern Norway) and one in Bodo (for northern Norway). SAR services are performed through a cooperative effort involving governmental agencies, voluntary organizations and private companies. All relevant state and municipal institutions and services are obliged to participate with all available resources if asked by JRCC. The Center had to deal with about 3,000 incidents in 2017, most of them in the sea, and this number increases each year. Norway's 12 aging Sea King SAR helicopters will be replaced by 16 new AW-101 helicopters by 2020 with an expanded radius of operation. Norway's SAR capabilities also include a number of other important assets, such as NH-90 naval helicopters, the CGV Svalbard icebreaker and the M/S Polarsyssel expedition and research vessel. JRCC NN cooperates closely with Norway's armed forces, for instance, by occasionally requesting the assistance of the F-16 fighters from NATO Quick Reaction Alert air base in Bodo. Voluntary organizations – such as Norwegian alpine or glacier rescue teams – are instrumental to the success of Norway's SAR operations. One must also note a good level of cooperation between Norwegian and Russian SAR services in protecting human lives and infrastructure in the framework of the Barents Agreement.

23. Finland and Sweden also have adequate SAR capabilities in their part of the High North, however they do not have access to the Arctic Ocean. Therefore, their area of responsibility is less challenging. In **Finland**, responsible authorities for SAR in the High North are the Finnish Border Guard and the Air Navigation Services Finland. Additional authorities and organizations also get involved in SAR operations, such as the Emergency Response Service Administration, the Finnish Armed Forces, the Vessel Traffic Service, with involvement also of the police and custom authorities. The Finnish Border Guard conducts joint exercises with the Swedish Coast Guard. In **Sweden**, the Swedish Maritime Administration (SMA) is responsible for maritime and aeronautical SAR in the Arctic (Ikonen, 2017). According to SMA, its helicopter unit is "fully dedicated to nation-wide airborne search and rescue services". The large fleet of AgustaWestland AW139 helicopters is stationed in five stations: Umea, Stockholm, Visby, Gothenburg and Ronneby. Other actors involved in SAR operations in the Arctic include fire brigades and the Swedish Coast Guard, a civilian authority supervising rescues and providing assistance at sea 24 hours a day, 365 days a year along the entire Swedish coastline.

24. The **United States** keeps most of its SAR assets in southern Alaska, but during summer months the US Coast Guard (USCG) also opens Forward Operating Bases in more remote locations to support economic activities there. In terms of air assets, the USCG mostly relies on helicopters based primarily out of Kodiak Air Station, which stand alert and ready to respond. However, these helicopters do not have refueling or de-icing capabilities, which limits their scope of intervention. Often this leads to dependency on the Alaska Air National Guard's combat SAR squadrons for cases beyond 300 miles. In terms of maritime assets, the USCG's fleet of ships provides platforms, capabilities and resources for marine vessels in distress and for SAR operations in the most remote areas. Vessels are of great value in SAR missions but "response times for cutters in the Arctic are slow" (Smith, 2017). Other partner organizations can also be requested to assist in SAR missions, especially above the Arctic Circle where the USCG and the United States Air Force (USAF) do not have a permanent presence. These include the North Slope Borough Search and Rescue – primarily responsible for "provid[ing] SAR services for the Alaskan Natives that live within the Borough" – and the North Slope commercial operators. Despite the limited capabilities of these organizations, their

presence in the North Slope enables quick response times and their regional expertise is crucial in this dangerous area. However, maintenance issues and the lack of infrastructure on the North Slope often makes it difficult to conduct SAR operations, for aircraft as well as for marine vessels. Practical collaboration between the different actors involved is also a challenge.

25. **Iceland's** Coast Guard operates three vessels, several rescue helicopters and one maritime surveillance aircraft, which can operate from short airfields. Inside the country, there are about 100 SAR teams, consisting of volunteers, that focus mostly on assisting the rapidly growing number of tourists. Since 1985, Iceland operates the Maritime Safety and Survival Training Centre which provides safety and survival training for seamen. According to national law, it is mandatory for all seamen to attend courses there. Nevertheless, a nation the size of Iceland requires international support in major emergencies.

26. Canada and Denmark (Greenland) face the greatest SAR challenges due to the vastness of their area of responsibility compared with the size of the population. Until recently, experts assessed that **Canada** had only limited infrastructure in its northern territories and that “any attempt to mount even a small-scale operation would be difficult” as Canada’s most substantial SAR facilities are located thousands of kilometers away in the south (Steinicke & Albrecht, 2012). However, the current government of Canada has taken important steps to improve the situation. In November 2017, Ottawa launched the USD 1.5 billion Oceans Protection Plan, which, in addition to setting environmental goals, envisages the provision of new capabilities to the Canadian Coast Guard to effectively respond to safety incidents. The Department of National Defence and the Canadian Armed Forces also announced a new policy entitled “Strong, Secure, Engaged” that calls on a military spending increase of 70% over the next decade. Much of this funding aims to improve SAR capabilities and surveillance in the Arctic. The government has reaffirmed its commitment to develop and put into polar orbit a new generation of radar satellites, known as the RADARSAT Constellation, that will enable Canadian forces to see through clouds at night to track vessels.

27. **Greenland**, the world’s largest island, has a population of just over 50,000. SAR platforms are limited to one helicopter operated by Air Greenland. This helicopter is equipped with hoists, so it can rescue persons in distress from ships and water, including fishermen stranded on drifting ice floes. Greenland applies a whole-of-society approach to SAR, involving traditional local fishermen and hunters, recreational boats and hikers. The Danish Arctic Command supports local efforts by stationing one Arctic patrol frigate with an on-board helicopter and two Arctic patrol vessels in summer; it only provides one ship in winter. Experts note that, in the case of a mass rescue operation, local resources would be overwhelmed, while remote locations would hinder a swift arrival of international assistance (Steinicke & Albrecht, 2012). In October 2013, the Danish state auditing agency, *Rigsrevisionen*, concluded that the Danish forces received insufficient funds and equipment to fulfil their Arctic tasks, including SAR and environmental protection (Wezeman, 2016). The Danish Navy is advising cruise ships to sail in pairs in Greenland waters in order to have the necessary capacity to house hundreds of people in the event of an emergency.

28. **Russia** is the source of both problems and opportunities for civil protection in the High North. As noted, Russia has the most developed infrastructure in the region, due to both the economic⁸ and the military significance that Moscow attaches to the Arctic. As part of a wider military modernization program, Russia has engaged in a large-scale military build-up in the High North. In December 2014, Moscow announced the creation of a North Unified Strategic Command based in Murmansk. Russia also established or reopened six military facilities and deployed additional troops in the region. In 2017, President Vladimir Putin and Prime Minister Dmitri Medvedev visited the modern 14,000 m² base in the Franz Josef archipelago, thus reaffirming Russia’s foothold in the Arctic. Furthermore, the Russian Northern Fleet enhanced its capabilities and increased the number as well as the scale of its exercises in Arctic waters.

⁸ According to the Council on Foreign Relations, 20% of Russia’s GDP, including 95% of its natural gas and 75% of its oil, come from its Arctic region.

29. Russia has an extensive network of urban centers and infrastructure along its vast Arctic coast to harvest Arctic mineral resources and provide services to the NSR. In 2015, the Russian government released its Integrated Development Plan for the Northern Sea Route 2015-2030. The plan stresses the importance of providing safer and more reliable navigation on the NSR as well as the strategic importance of the NSR for Russian national security. Russia has five SAR centers along the NSR, manned by some 280 personnel, and the country is building another four (LeBlanc, 2018). Military assets provide an additional SAR cover for the NSR.

30. However, Russia's assets in the region are outdated and in critical condition. The country lacks adequate backup infrastructure, such as repair docks, fueling stations, communication systems and rescue hubs (Dushkova et al., 2017).

31. This brief overview of SAR capabilities in the High North suggests that these capabilities are in short supply and unevenly distributed. Multilateral cooperation is therefore a vital precondition to having adequate civil protection in the area.

C. MULTILATERAL COOPERATIVE FRAMEWORKS IN THE HIGH NORTH

32. Arctic governance is a patchwork of national laws, bilateral treaties and international agreements. Apart from national regulations⁹, the most relevant **international conventions** applied in the Arctic include the 1974 International Convention for the Safety of Life at Sea (SOLAS), the 1979 International Convention on Maritime Search and Rescue (SAR Convention), the 1982 United Nations Convention on the Law of the Sea (UNCLOS)¹⁰ and the 2014 International Code for Ships Operating in Polar Waters (Polar Code).

33. The Polar Code, which came into effect on 1 January 2017, is a major advance in providing guidelines for Arctic shipping. It establishes safety requirements for ships navigating Arctic waters and advances environmental protection by banning all discharge of waste. The Code is mandatory, but its enforcement depends on the member states and it is mute on penalties for noncompliance. Discussions about whether and how to extend the Polar Code are underway at the International Maritime Organization.

34. In terms of **regional cooperation**, the **Arctic Council** stands out as the key organization that involves the governments of Canada, Denmark (through Greenland), Finland, Iceland, Norway, Russia, Sweden, the United States as well as six representatives of indigenous populations. Several countries are recognized as observers, including NATO members France, Germany, Italy, the Netherlands, Poland, Spain and the United Kingdom. Founded in 1996, the Arctic Council has evolved into a regional organization that provides joint analysis on Arctic issues, including SAR, and facilitates legally binding intergovernmental agreements. In 2013, the Arctic Council's first permanent secretariat was set up in Tromsø, Norway. Recognizing the Arctic's global relevance, observer status was extended to countries as far away as China and India. Government officials of the member states meet twice a year, while ministerial summits are held every two years. In May 2018, the Arctic Council launched a best practice web portal, designed to raise awareness of the provisions of the Polar Code and to facilitate the exchange of information and best practices among all those involved in or potentially affected by Arctic marine operations.

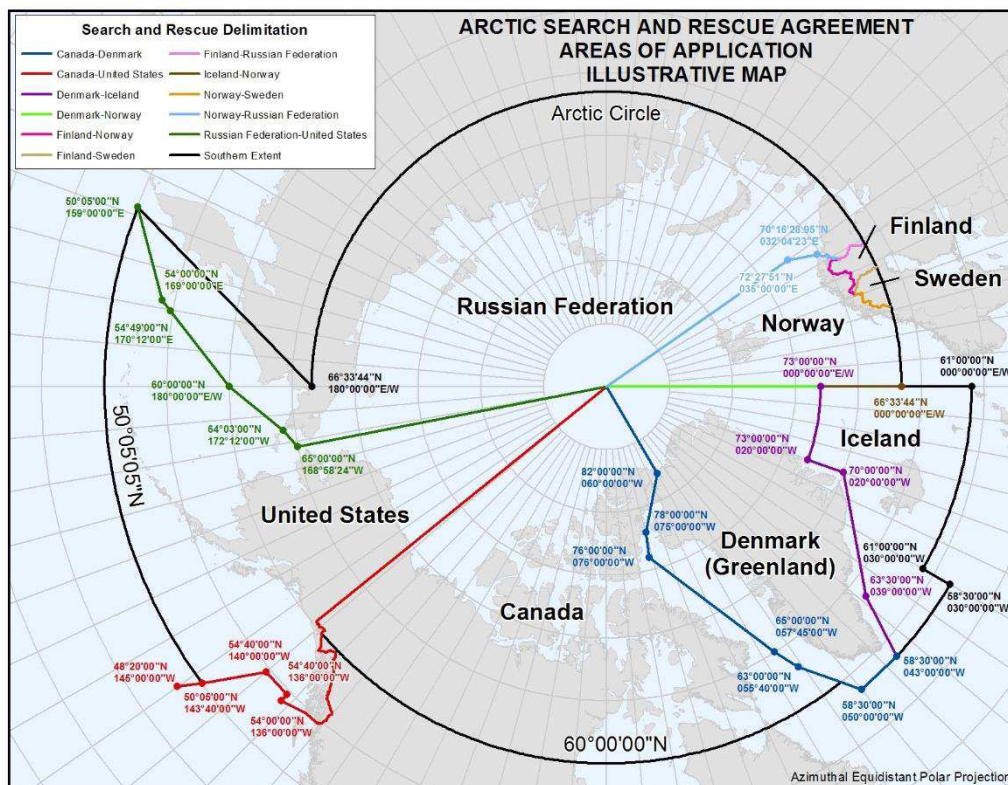
35. Pan-regional cooperation on SAR was not possible until after the end of the Cold War, when, in 1993, Russia, the United States and Canada held the first *Arctic Search and Rescue Exercise* (SAREX) in Siberia to improve SAR interoperability between these countries. Since then, SAREX

⁹ Unlike its polar counterpart in the south, the Arctic is divided by the national jurisdictions of the eight High North states, Canada, Denmark (Greenland), Finland, Iceland, Norway, Russia, Sweden and the United States.

¹⁰ The United States is not an official party to UNCLOS but has engaged in the Arctic according to its standards.

and other bilateral and multilateral SAR exercises, such as the 2016 *Arctic Chinook* exercise, which simulated a MRO from a 200-passenger cruise ship in Alaska, are held regularly.

36. The Arctic Council's major achievement is the signing of the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic in 2011. Also known as the **Arctic SAR Agreement**, it is the organization's first legally binding document and obligates signatories to delimit zones of responsibility for SAR¹¹. The eight nations agreed to set up an aeronautical and maritime rescue coordination center (RCC) under one command and to bear the costs of SAR capabilities in their area of responsibility. The agreement encourages all parties to cooperate by sharing information and infrastructure and participating in joint exercises and research initiatives, as well as through regular scheduling of reciprocal visits by SAR experts. Notably, the Agreement allows non-Arctic states to be included in the conduct of SAR operations. In 2011, Canada hosted the first SAR tabletop exercise in the framework of this Agreement.



37. While it may be too early to assess the effectiveness of the Arctic SAR Agreement, some experts note that the delimitation of zones of national responsibility is not a silver bullet. The lesson learned from the 2013 SAREX exercise is that any mass rescue operation would necessarily be international, as no one nation has enough resources to conduct such an operation alone (House of Lords, 2015).

38. In addition to the Arctic SAR Agreement, the Arctic Council's second major accomplishment is the 2013 Agreement on Marine **Oil Pollution** Preparedness and Response in the Arctic (MOSPA). The agreement commits signatories to monitor for oil spills within their national jurisdictions, have appropriate equipment and contingency plans to respond to spills in a timely and effective manner, notify all affected parties in case of a transboundary oil spill and provide mutual assistance if an incident exceeds a signatory's capacities. Since the Agreement came into force in 2013, three joint exercises have been conducted under MOSPA.

¹¹ It is important to note that, according to the Agreement, "the delimitation of search and rescue regions is not related to and shall not prejudice the delimitation of any boundary between states or their sovereignty, sovereign rights or jurisdiction."

39. Norway experienced devastating oil rig accidents in 1977 and 1980¹², and hence revisited its policies to emphasize safety and environmental standards and to shift to a risk-based, proactive regime with working legal requirements. Russia, on the other hand, is seen by its Arctic neighbors as the most expansive actor in offshore oil and gas production and as the one with the least regulatory clarity. An oil spill in the Arctic would be particularly damaging given the fragility of the region's ecosystem. Therefore, as Canadian scholar Michael Byers put it, "more cooperation is needed, and quickly, on regional standards for oil spill prevention" (Bouffard, 2017).

40. Other relevant regional frameworks include:

- 1) The Arctic Council's working group on **Emergency Prevention, Preparedness and Response** (EPPR). The EPPR identifies gaps, collects information, develops strategies and facilitates coordination among national emergency preparedness authorities. Since 2015 the group's mandate explicitly includes SAR issues.
- 2) The **Arctic Coast Guard Forum**, which was established in 2015. This forum is held twice a year to foster multilateral cooperation in maritime SAR. Although officially independent from the Arctic Council, it brings together coast guard officers from the Arctic Council member states. Designed to coordinate the pooling of information and resources and the sharing of best practices, the forum held its first joint SAR exercise in Iceland in September 2017.
- 3) SAR issues are also discussed in regular meetings of defense officials in the framework of the **Arctic Security Forces Roundtable**. Russia has not attended these meetings since its relations with the West soured in 2014. Russia's involvement in the activities of the Arctic Council remains unaffected, however.
- 4) Cooperation in the Barents Sea is promoted by the **Barents Euro-Arctic Council** - composed of Denmark, Finland, Iceland, Norway, Russia, Sweden and the European Commission. One of its working groups deals with SAR issues. The group has developed an operational tool, the Barents Joint Rescue Manual, and organizes regular joint *Barents Rescue* exercises.
- 5) In 2011, Canada, Norway and Russia installed a common regional broadcast system for **navigational and meteorological warnings**.

41. While four out of five Arctic littoral states and five out of eight Arctic Council members are NATO Allies, **NATO's** involvement in the Arctic, including in the SAR domain, is limited and *ad hoc*. In 1996, in the framework of the Partnership for Peace Programme, NATO sponsored a SAREX exercise involving military units from Russia, Canada and the United States that focused on common SAR procedures and the delivery of humanitarian assistance (Steinicke & Albrecht, 2012). NATO's regular *Cold Response* exercises focus on improving warfighting skills in Arctic conditions, yet the exercises also involve the local populations and civil authorities, including environmental officers. NATO's Allied Command Transformation also conducts science and technology investigations in the region using unmanned underwater vehicles and a research vessel to study the predictability of ocean and acoustic environments. As noted, NATO conducts annual *Dynamic Mercy* exercises in regions adjacent to the High North, the Atlantic Ocean and the Baltic Sea.

42. NATO currently has no official mandate or presence in the Arctic and views within NATO differ on whether there should be explicit Arctic involvement. For years, the overt involvement of NATO in the Arctic has not been a preferred option for some Allies. Canada, for example, has often characterized the Arctic as a zone of cooperation – not confrontation. While Canada's new defense policy "Strong, Secure, Engaged" suggests that Canada will "[c]onduct joint exercises with Arctic allies and partners and support the strengthening of situational awareness and information sharing in the Arctic, including with NATO", its position continues to prioritize peaceful and cooperative approaches to Arctic concerns over militarization.

¹² The 1980 incident resulted in the deaths of 123 out of the 212 people who were present on the collapsed rig.

43. At the 2017 Halifax International Security Forum, NATO Secretary General Jens Stoltenberg presented the Alliance's plans to create an Atlantic Command covering the Arctic, an initiative broadly supported by Allies, including the five High North NATO members. In June 2018, Allied defense ministers agreed to establish the Atlantic Joint Force Command (JFC) to be hosted by the United States in Norfolk, Virginia. The new Command will ensure that NATO can successfully conduct operations in the northern Atlantic.

III. ADDRESSING THE HUMANITARIAN CRISIS IN THE MEDITERRANEAN

A. THE MEDITERRANEAN: THE WORLD'S MOST LETHAL SEA ROUTE FOR MIGRANTS AND REFUGEES

44. Unlike the Arctic, the Mediterranean Sea is one of the world centers of maritime activity. The high level of marine traffic naturally entails the risk of accidents that require SAR operations. Most vulnerable are the refugees and migrants who embark on perilous sea journeys in search of a better and safer life in Europe. While migratory flows across the Mediterranean are not new, they have gained particular momentum in the past five years, triggered by the outbreak or deterioration of conflicts on Europe's southern flank.

45. In 2015, Europe experienced the largest influx of refugees and migrants since World War II, with more than 1 million arrivals via the Mediterranean, resulting in a humanitarian and political crisis. While the number of sea arrivals has significantly decreased since then, the Mediterranean remains the deadliest migratory sea route in the world. For 2017, the United Nations High Commissioner for Refugees (UNHCR) counted 172,301 migrant arrivals in Europe by sea and another 3,139 that died or disappeared before reaching the shore. According to the International Organization for Migration (IOM), crossing the Mediterranean has claimed about 15,000 lives since October 2013 when the crisis first made headlines. These figures are shockingly high, and, in all likelihood, the total number of actual arrivals and fatalities is much higher.

46. Irregular migration via the Mediterranean takes place along three main routes: the Eastern Mediterranean route from Turkey to Greece; the Central Mediterranean route from Libya to Italy; and the Western Mediterranean route, mainly from Morocco to Spain. The routes vary significantly in terms of the number of sea crossings and the composition of nationalities among sea arrivals, as well as in length and lethality.

47. At the outset of the crisis, most arrivals from conflict-ridden countries in the Middle East came via the **Eastern Mediterranean** route. About 885,000 of the roughly 1 million sea arrivals to the EU in 2015 were registered on Greek islands. In terms of country of origin, the largest group was Syrians, followed by Afghans and Somalis. Although the journey is relatively short, with some Greek islands situated just a few kilometers off the Turkish coast, at least 804 migrants lost their lives along the Eastern Mediterranean route that year (IOM, 2018).

48. The 2016 EU-Turkey Agreement has caused the surge in sea crossings along the Eastern Mediterranean route to ebb as abruptly as it had started. According to the Agreement, Turkey would stem the flow of migrants embarking towards Greek islands, while the EU would accelerate the visa liberalization process for Turkish citizens and mobilize funding to support Turkey's hosting of about 3 million Syrian refugees. Moreover, the Agreement allows for all undocumented migrants arriving in Greece to be deported back to Turkey. For each Syrian being returned to Turkey, another Syrian would be resettled from Turkey to the EU. In the two years since the Agreement became operational, irregular migration via the Eastern Mediterranean has dropped by 97%. In 2017, Greek authorities registered 42,319 undocumented sea arrivals and 62 deaths at sea. However, there has been an increase of sea arrivals from Turkey to Greece since the beginning of 2018.

49. Turkey has shown great generosity in hosting more than three million refugees from Syria and elsewhere. However, while the Agreement has been praised for reducing both irregular migration and the number of deaths in the Eastern Mediterranean, it has also engendered criticism, largely for potentially infringing on human rights and refugee law. In most cases, undocumented migrants have successfully appealed the decision to be returned to Turkey by arguing that Turkey is not a safe country. As of 12 March 2018, a total of 12,489 refugees registered in Turkey were resettled in the EU, but only 2,264 migrants were returned to Turkey.

50. With the enactment of the EU-Turkey Agreement, the **Central Mediterranean** has become the main entry point for undocumented migrants arriving in Europe by sea. Stemming irregular migration from Libya has always been challenging. While Morocco, Tunisia and Algeria adopted legislation criminalizing the exit of undocumented migrants or the facilitation thereof, Libya did not follow suit (Fargues, 2017). With the collapse of the regime in 2011, Libya became a major transit hub for cross-Mediterranean migration. Libyans as well as migrants from across North Africa, the Sahel and sub-Saharan Africa continue to embark on perilous sea journeys to Europe, taking advantage of the porous borders and the weak points in state authority.

51. The Central Mediterranean route is also the most dangerous as the distance from North Africa to Italy is significantly longer than that of the Eastern Mediterranean route. In 2016, the number of sea arrivals in Italy peaked at 181,436, while 4,578 migrants lost their lives on this route. Despite a significant reduction of departures from Libya over the past year, the figures for 2017 remained high with 119,369 arrivals in Italy and 2,873 deaths at sea. On 29 June 2018, at least 100 people died after a boat carrying roughly 123 refugees and migrants sank off the coast of Libya.

52. Some observers argue the EU-Turkey Agreement caused a migratory shift from the Eastern Mediterranean to a longer and more perilous route. While departures from Libya indeed increased in spring 2016, the composition of nationalities shows that the migrants arriving in Europe via the Central Mediterranean route are not those who are stopped in Turkey (Fargues, 2017). Even after the route from Turkey to Greece was barred, the vast majority of sea arrivals in Italy still came from sub-Saharan Africa (UNHCR, 2017).

53. Regarding the **Western Mediterranean**, traversing the Strait of Gibraltar is the shortest possible way to cross the sea. However, cooperation between Morocco and Spain has kept the number of arrivals relatively low. Migratory flows temporarily shifted to the Atlantic, where migrants embarked on long and extremely dangerous sea journeys from Mauritania or Senegal to the Canary Islands. Recently, irregular migration along the Western and Atlantic routes substantially rose again: sea arrivals in Spain more than doubled compared to 2016, with 28,349 arrivals by sea (European Commission, 2018). The similar composition of nationalities among arrivals in Italy and Spain suggests that efforts to stem irregular migration in the Central Mediterranean shifted migratory flows to the West.

B. SAR CAPABILITIES IN THE MEDITERRANEAN

54. Until recently, SAR operations in the Mediterranean were conducted on an *ad hoc* basis, mainly by merchant vessels and coast guards of the Mediterranean littoral states. However, the alarming increase in fatal sea crossings in recent years spurred the gradual formation of a proactive emergency response system in the region, particularly along the dangerous Central Mediterranean route. Today, various actors are involved in the region, including the EU, NATO, NGOs, individual states and merchant vessels, but often with very different approaches and geographical areas of operation. As international law obliges all shipmasters to render assistance to any person in distress at sea, all these actors engage in rescue operations to some extent, even though they might not operate under a primarily humanitarian mandate that focuses on SAR.

55. The wreckage of a migrant boat off the coast of Lampedusa on 3 October 2013, which left 366 people dead or missing, prompted a fundamental change in the region's emergency response

system. Within two weeks of the incident, the **Italian** government launched *Mare Nostrum*, a major rescue and border control operation under the authority of the Italian Navy. With a considerable budget of USD 12 million a month, *Mare Nostrum* saw the deployment of both sea and air assets along the Sicily Channel between Italy and Libya. Before the operation was discontinued a year later, it saved the lives of about 150,000 people in over 400 SAR operations. High operational costs and dwindling public support, however, led to its end on 31 October 2014.

56. To replace *Mare Nostrum*, the **EU's** Border and Coast Guard Agency (**Frontex**) launched *Operation Triton* in November 2014, thereby answering calls from Italy to share the burden. *Operation Triton* ran in parallel to *Operation Poseidon*, a similar Frontex-led operation in the Aegean Sea that started to operate in 2011. Responding to the surge of irregular migration via the Mediterranean and several large-scale accidents, the EU tripled the resources and assets for *Poseidon* and *Triton* in 2015. At the same time, *Triton* also expanded its operational area from 30 to 138 nautical miles south of Sicily. Although the mandates of both operations were focused on border control and surveillance, the participating vessels took part in numerous SAR operations that assisted migrants in distress.

57. On 1 February 2018, Frontex replaced *Operation Triton* with *Operation Themis*, again responding to Italian demands for fairer burden sharing. While *Triton* required those rescued to be taken to Italy, *Themis* leaves this decision to the country coordinating the rescue. However, as Italy's Maritime Rescue Coordination Center in Rome continues to coordinate the overwhelming majority of SAR operations in the Central Mediterranean, the changes under *Themis* serve primarily as a political message from Italy to its Mediterranean neighbors that the country is assuming a more assertive stance on addressing irregular migration (Deutsche Welle, 2018).

58. When addressing the NATO PA Committee on the Civil Dimension of Security at the Spring session in Warsaw in May 2018, Fabrice Leggeri, Executive Director of Frontex, noted that the agency is primarily a law enforcement body, but that it also has other responsibilities, such as risk analysis, capacity-building assistance and SAR. He said that Frontex had assisted with the rescue of more than 34,000 people in 2017 alone and helped save more than 280,000 lives in total since 2015. He noted that the agency has access to satellite images from the European Satellite Centre (SatCen) and regularly exchanges information with other multinational bodies, including Europol and NATO's Allied Maritime Command (MARCOM). He further noted that Frontex has developed a rapid reaction mechanism: if a member state requests support in a crisis situation, Frontex can deploy a rapid reaction force within five days – a capability each member state must contribute to by law. Mr Leggeri also informed the Committee that Frontex is in the process of developing autonomous aerial capabilities, which will allow the agency to engage in SAR without deploying vessels.

59. Further incidents prompted the EU to launch the EUNAVFOR MED, also known as *Operation Sophia*, in 2015. While the operation's initial mandate was limited to identifying, capturing and disposing of vessels and enabling assets used for migrant smuggling and trafficking, it has significantly evolved since then. Legal as well as political obstacles prevented the full implementation of the planned mandate, which provided for the eventual expansion of anti-smuggling operations to Libyan territorial waters. However, neither of the groups claiming to be Libya's government granted the EU permission to enter Libyan waters, nor did the UN Security Council (Tardy, 2017). A 2016 amendment to the operation's mandate added capacity building and training of the Libyan Navy and Coast Guard to its tasks. The mandate was amended again in 2017 to include surveillance activities on illegal trafficking, with the information gathered in this context to be released to competent Libyan authorities. Meanwhile, confined to international waters, *Operation Sophia's* sea and air assets participate in SAR missions when needed. To date, they have been involved in the rescue of more than 40,000 people.

60. EU member states are working bilaterally and multilaterally to stem human smuggling and trafficking in source and transit countries, including Libya, despite the difficulties of operating in such a volatile environment. As part of *Operation Sophia*, the EU trained and monitored about 200 Libyan

Navy and Coast Guard personnel in 2017, and it is planning to train an additional 90 in 2018. With the overall objective of increasing security in Libya's territorial waters, these programs aim to enhance the capacity to conduct SAR activities as well as to disrupt smuggling and trafficking from and to the Libyan shores. Supported with EU funding, Italy is also planning to set up a maritime rescue center in Tripoli in 2018 (Tardy, 2017). While certain aspects of EU and Italian cooperation with Libya remain a concern from the perspective of human rights NGOs, a reduction in the levels of migrant smuggling has been achieved. According to the International Organization for Migration, the Libyan Coast Guard rescued over 20,300 migrants in 2017. Further efforts to disrupt smuggling networks and trafficking should center on providing support and protection to migrants, refugees, and internally displaced persons in Libya.

61. **NATO's Operation Sea Guardian** actively supports the EU's efforts to enhance maritime security in the Mediterranean by providing *Operation Sophia* with information and logistics support. Launched in October 2016, *Sea Guardian* operates under NATO's MARCOM and covers a wide array of duties, with maritime situational awareness, counterterrorism and regional capacity building at its core. Since February 2016, NATO ships and aircraft have also assisted EU authorities in stemming illegal trafficking and migration in the Aegean Sea by conducting reconnaissance, monitoring and surveillance activities and sharing any relevant information gathered in this context with Frontex and the Greek and Turkish Coast Guards. Although NATO's operations and assistance missions in the Mediterranean generally do not focus on SAR, like all ships, they have the duty to help when made aware of people needing rescue nearby.

62. Since 2014, a growing number of **NGOs** conducting SAR operations in the Central Mediterranean have worked to develop a proactive emergency response system. The first NGO to actively pursue rescue operations was the Malta-based Migrant Offshore Aid Station (MOAS). It was later joined by other organizations from across Europe, most notably *Médecins Sans Frontières* (MSF), Sea-Watch, *SOS Méditerranée*, Proactiva, Sea-Eye, *Jugend Rettet*, and Save the Children. Some of these NGOs have large surface vessels, allowing them to carry out entire SAR operations – from picking up people in distress to disembarking them at a safe port. Organizations with smaller capabilities focus on providing emergency medical care, life jackets and water while waiting for larger vessels to arrive.

63. These NGO SAR activities in the Central Mediterranean have spurred tension among the different actors involved. Italian authorities have accused NGOs of colluding with smuggling and trafficking networks. In July 2017, the Italian Ministry of Interior, in consultation with the EU Commission, drafted a "Code of Conduct for NGOs Undertaking Activities in Migrants' Rescue Operations at Sea". Among other things, the code clearly prohibits NGOs from entering Libyan waters or transferring those rescued to other vessels, and it obliges NGOs to allow Italian law enforcement personnel on board their vessels. Some NGOs initially refused to sign the code, arguing it violates international maritime law and reduces rescue capacity. However, Italian authorities made clear that any failure to subscribe to the code would come at a high cost. The NGOs *Jugend Rettet* and Proactiva, for instance, had their vessels confiscated by Italian authorities and are now under investigation for abetting irregular immigration. Except for MSF, all major NGOs involved in SAR in the Mediterranean eventually agreed to sign the code after negotiations with and concessions from the Italian Ministry of Interior.

64. Libyan authorities have also accused some NGOs of operating too close to the Libyan coast, thereby violating the country's sovereignty. In August 2017, the Libyan Navy and Coast Guard started to reassert their authority over the country's SAR zone, restricting the access of NGO vessels to Libyan territorial waters as well as international waters off the Libyan coast. Confronted with a simultaneous clampdown by the Italian and Libyan authorities, most NGOs have suspended their rescue operations.

65. **Merchant ships** have also been involved in SAR operations on an *ad hoc* basis. At the height of the migrant and refugee crisis, merchant shipping was at the forefront of mitigating the loss of life in the Mediterranean. In 2015, the International Chamber of Shipping (ICS) called on EU member states to launch a proper SAR mission to ease the strain on commercial ship operators. The development of the proactive SAR system outlined above resulted in a significant decline in rescues by merchant vessels. However, commercial ships continue to regularly assist SAR operations when called upon by a Rescue Coordination Center. The ICS has expressed concern that many of the seafarers involved are not trained to conduct large-scale rescue operations and sometimes suffer psychological harm from these experiences.

66. The growing number and complexity of actors involved in managing migratory flows in the Mediterranean have prompted the EU to establish certain coordination mechanisms. Under the auspices of *Operation Sophia*, **SHADE MED** (Shared Awareness and De-confliction in the Mediterranean) has been established as a forum aimed at fostering dialog and easing tensions between different actors involved in maritime security operations in the Mediterranean. SHADE MED was held for the fifth time in November 2017, attracting 156 participants from 94 organizations, including NATO as well as relevant NGOs.

67. Under mounting pressure from the Italian government to take “concrete steps” towards better burden sharing, EU leaders agreed – during the last **European Council in June 2018** – on a new migration deal. They agreed to adopt a “comprehensive approach to migration that combines more effective control of the EU’s external borders, increased external action and the internal aspects, in line with our principles and values”. EU leaders decided to create “controlled centers” – i.e. secured refugee camps funded and managed by the EU on EU territory. These centers will aim to provide “rapid and secure processing allowing to distinguish between irregular migrants, who will be returned, and those in need of international protection, for whom the principle of solidarity would apply”. However, member states are free to choose if they want such centers to be set up on their territory. In addition, member states agreed to strengthen EU external border controls by allocating more funds for Frontex and some Mediterranean countries. In line with this, they agreed to launch the next tranche of the Facility for Refugees in Turkey and to allocate an additional EUR 500 million for Africa.

68. The Council also announced plans to establish “regional disembarkation platforms” in third-party countries, most likely in North African countries, to process the asylum applications of people rescued at sea outside the EU. The idea is to separate economic migrants and refugees before they embark on a journey to Europe in order to reduce the number of people trying to reach the EU. The agreement provides for a collaboration with the IOM and the UNHCR on this question, but without further details. The deal also plans to boost EU support for the Libyan Coast Guard.

69. Member state leaders appeared mainly satisfied with this migration deal. “Italy is not alone anymore”, claimed Prime Minister Giuseppe Conte. The agreement was also praised by British, German and French leaders as a “European solution” to what is currently, according to Chancellor Merkel, “perhaps the most challenging topic for the European Union”. In contrast, some leaders, such as Austrian Prime Minister Sebastian Kurz, adopted a more cautious posture, while the prime ministers of the Czech Republic and Slovakia criticized the decision to strengthen Frontex rather than providing more support for member states’ border guards. The agreement has also been criticized for its vagueness in terms of its actual implementation.

70. The migration deal has also been criticized by some human rights NGOs, such as Human Rights Watch, who claim that the reinforcement of border controls will only encourage smuggling while pushing people fleeing violence and determined to reach Europe to take more perilous routes. They also claim that the creation of “controlled centers” contravenes Europe’s founding principle of solidarity and its duty to observe human rights, especially in regard to migrants’ and refugees’ rights to liberty. Furthermore, the externalization of the asylum policy appears as a way to push this responsibility onto other actors, outside Europe. The problem is that these actors often fall short of

meeting international human rights standards in many ways. The Rapporteur is convinced that, while implementing the deal, the EU must insist on a radical improvement of conditions and the protection of human rights in existing facilities on the other side of the Mediterranean.

C. AUGMENTED SAR CAPABILITIES – LIFESAVING OR COUNTERPRODUCTIVE?

71. To a much greater degree than in the Arctic, SAR in the Mediterranean is heavily politicized due to its linkage with the refugee and migration crisis. There is a debate on whether SAR operations encourage more and riskier sea crossings. Some stakeholders, including some EU authorities, argue that augmented SAR capabilities only create the impression of a safer route and help smuggling networks and traffickers achieve their aims at lower costs. These arguments have had tangible effects, causing some member states to withdraw from missions that involve SAR activities. The United Kingdom, for example, had initially refused to participate in Frontex-led operations in the Mediterranean, arguing “they create an unintended ‘pull factor’, encouraging more migrants to attempt the dangerous sea crossing and thereby leading to more tragic and unnecessary deaths” (Benton, 2014). Currently, however, two British Border Force cutters are deployed in support of Frontex operations *Themis* and *Poseidon*. Other actors, including NGOs, argue that migratory drivers are more complex and advocate for a humanitarian approach that focuses on saving the lives of those in immediate distress regardless of the consequences (see e.g. MSF, 2017). During his presentation to the CDS, Mr Leggeri, director of Frontex, stressed that while the agency has a duty to rescue anyone in distress at sea, one must not encourage criminal networks seeking to exploit SAR capabilities.

72. Several studies have examined the relationship between attempted sea crossings and rescue activities along the most frequented Central Mediterranean route (e.g. Heller & Pezzani, 2017; Steinhilper & Gruijters, 2017). In general, comparative analyses of trends in sea crossings during periods with low and high numbers of proactive SAR activities do not support the claim that rescue activities encourage more sea crossings. For instance, Italian authorities reported slightly less sea arrivals from November 2015 to May 2016, when a significant number of state and non-state actors actively pursued rescue operations along the Central Mediterranean route, compared to the same period the year before, when Frontex’s *Operation Triton* was the only proactive SAR mission and had not even been expanded yet (Steinhilper & Gruijters, 2017). In other words, a similar number of people attempted to cross the Central Mediterranean irrespective of the extent of SAR capabilities along the route. While these analyses only demonstrate statistical correlations (or better, the lack thereof), they strongly suggest that augmented SAR capabilities have little effect on the number of attempted sea crossings.

73. Smugglers’ tactics and operations locations have shifted in recent years, leading to riskier crossings in the Central Mediterranean. Namely, since late 2015, smugglers have tended to stay within Libyan waters, using fishing boats or rubber dinghies rather than sailing vessels (which were the preferred means of transportation prior to 2015), with less fuel, water and food on board (European Commission, 2017; MSF, 2017). There are two potential explanations for these changes. Riskier smuggling practices may reflect the expectation that migrants, once they are on the high sea, will be picked up and transported to Europe as part of rescue operations. It is also possible that smugglers prefer to stay in Libyan waters in reaction to the deployment of EU *Operation Sophia* and Frontex forces, whose presence means smugglers can no longer navigate with impunity in international waters (Heller & Pezzani, 2017).

D. POST-RESCUE CONDITIONS

74. Migrant flows have put strain on refugee camps in Greece and Italy as well as on detention centers in Libya. The EU has instituted several “hotspots” in Greece and Italy to speed up the registering, identifying, and debriefing of asylum seekers. However, each hotspot currently exceeds its capacity by at least 2,000 people and camp infrastructure is under strain as a direct consequence of this overpopulation. Poor conditions – such as lack of sanitation, the spread of disease, and lack

of safety for children and women – have been noted by several international organizations working within the camps (UNHCR, 2018).

75. In addition, migrants frequently feel unable to navigate an asylum system that is still slow and overloaded by too many applicants. The ambitious EU plan to relocate refugees and asylum seekers from Italian and Greek camps to other EU countries – should the applicants meet certain conditions – has only relocated around 33,000 people instead of the 100,000 originally planned. Germany took a third of those migrants. However, even Germany's program recently ended, leaving thousands of migrants stranded in camps with deteriorating conditions.

76. The situation is dire in Libya, where regulations for camps or the detention of undocumented migrants are far weaker than EU regulations. Serious human rights violations in migrant camps and detention centers have been reported by international NGOs. For example, there have been reports that detention center guards have sold people into slavery (BBC News, 2018). The Office of the UN High Commissioner for Human Rights (OHCHR) expressed dismay at the EU's decision to assist the Libyan Coast Guard in catching undocumented migrants as Libya has proven incapable of guaranteeing humane conditions for these migrants. The EU has stated that, while it is working with the Libyan government to intercept boats and put in place search and rescue operations, it does so with the understanding that centers in Libya comply with international humanitarian standards.

77. While conditions in camps or detention centers are challenging for all migrants, observers consider women and children to be the most vulnerable. Children, in particular those travelling unaccompanied, require more assistance from host countries, as they are at increased risk of assault or abuse. Similarly, women and girl refugees and migrants experience various forms of gender-based violence. For example, they are vulnerable to abuse – sometimes from coast guard personnel, host country authorities or men in their camps – as well as trafficking and sexual exploitation (Fry, 2016; Shreeves, 2016).

78. The refugee and migration crisis shows that the **Dublin Regulation**, which determines which EU member state should be responsible for examining an application for asylum, requires a serious overhaul. The regulation's provision that asylum applications be processed by the country that first allowed entry has placed a substantial burden on Europe's southern nations. Italy and Greece especially have struggled to provide for their asylum seekers. This situation has led some member states to suspend the enforcement of the Dublin Regulation. For instance, the German government has periodically refrained from sending asylum seekers back to Greece and Hungary and has *de facto* suspended the regulation for Syrian applicants.

79. The European Commission has proposed amendments that the European Parliament has approved, along with some amendments of its own. Key reforms include a shared responsibility of all EU countries towards asylum seekers, so that if a country's capacity to accommodate asylum seekers is significantly overwhelmed, applications to that country will be re-directed to other member states. The reform proposal has been criticized – albeit for different reasons – by several EU states, including Germany, the Czech Republic and Hungary. Without the member states' agreement, it will be difficult for the European Parliament to push forward the proposed amendments.

IV. CONCLUSIONS

80. In the current strategic environment, characterized by blurring lines between war and peace, cooperation is needed between the military, civilian and non-governmental sectors to protect populations from old and new threats. While NATO has provided civil protection for over 60 years, this role is becoming increasingly important for the Alliance as it embraces a more comprehensive approach to security. NATO has developed several niche areas of expertise – including border security, surveillance, early warning, disaster relief and submarine SAR – that could significantly

contribute to the global response to humanitarian crises. NATO's contribution in this area does not only help save lives, it also enhances the Alliance's global standing and bolsters its *raison d'être*.

81. NATO and its members should provide an adequate response to new challenges to civilians which are arising on the Alliance's southern and northern borders. Given that NATO's core mandate is collective defense and that its capabilities are limited, NATO's non-military involvement in the High North and the Mediterranean will remain complementary to the efforts of other actors. However, there are certain areas where the contribution of NATO and its members could be enhanced and expanded.

82. Namely, when it comes to the High North, the Rapporteur would suggest:

- Ensuring that the Alliance's reformed command structure has the capacity to monitor and assess naval activities and contribute to improving situational awareness in the Arctic;
- Contributing to the interoperability of SAR units in the region by holding exercises such as *Dynamic Mercy* in Arctic conditions;
- Offering support to the Arctic Allies in developing adequate SAR assets, including satellite coverage and communications technologies, as well as surveillance and delivery drones in remote Arctic regions;
- Welcoming initiatives to establish jointly-owned bi- or multi-national SAR bases in remote areas, where participating nations would provide SAR capabilities on a rotational basis;
- Encouraging dialogue among all High North nations to clarify the role of militaries in providing disaster relief and SAR, particularly in multilateral operations;
- Urging all Allies to ensure the full and rigorous implementation of the Polar Code and requesting the development of even higher international safety and environmental standards; and
- Promoting best practices, including the requirement for ships to travel in pairs when traversing remote areas.

In addition, the Euro-Atlantic community should continue to lead global efforts to reduce greenhouse emissions. The implementation of the Paris Agreement is paramount in order to stabilize the impacts of climate change on the Arctic.

83. Regarding the Mediterranean, the Rapporteur emphasizes:

- NATO should continue providing logistical and information support to the EU, Frontex and national coast guards through its operations in the Aegean Sea and through *Operation Sea Guardian*, potentially expanding the coverage of NATO assets to the Western Mediterranean and employing new NATO capabilities such as the Sicily-based Global Hawk remotely-piloted aircraft (RPA) as part of the Alliance Ground Surveillance (AGS) initiative;
- The Allies should strongly consider holding *Dynamic Mercy*-type exercises in the Mediterranean;
- The coordination of various actors and operations in the region should be further enhanced through SHADE MED;
- NATO should do more to assist North African states, and particularly Libya, in training and otherwise assisting their coast guard, while demanding that the recipients of this assistance comply with international standards for the treatment of refugees and migrants and provide improved conditions to ensure their protection and well-being;
- The new European Border and Coast Guard Agency should receive sufficient funding, as well as human and material resources, including surveillance drones; and
- The Allies should reform the Dublin Regulation to ensure fairer burden sharing and a collective, rather than strictly national, approach to problems linked with migrant and refugee surges.

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NATO PARLIAMENTARY ASSEMBLY

COMMITTEE
ON THE CIVIL DIMENSION OF
SECURITY (CDS)

COUNTERING RUSSIA'S
HYBRID THREATS:
AN UPDATE

Special Report

by [Lord JOPLING](#) (United Kingdom)
Special Rapporteur

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I. INTRODUCTION

1. Although it is not a new term, “hybrid warfare”¹ became a buzzword in the international political discourse following Russia’s invasion in Ukraine and its illegal annexation of Crimea in 2014. Hybrid warfare can be defined as “the use of asymmetrical tactics to probe for and exploit weaknesses via non-military means (such as political, informational, and economic intimidation and manipulation) [that] are backed by the threat of conventional and unconventional military means”². In NATO’s context, “hybrid warfare” entails a campaign against an Ally or the Alliance by means that are not expected to trigger Article 5 of the Washington Treaty, which enshrines the principle of collective defence.

2. The current security environment in Europe and North America is filled with hybrid activity. This special report will focus specifically on the Kremlin’s use of hybrid tactics because Moscow’s hybrid toolbox is arguably the most sophisticated, resourceful, comprehensive and concerted. It also focuses on Russia because Russia’s 2014 military doctrine clearly identifies NATO as its primary threat. Russia’s hybrid warfare primarily targets the Euro-Atlantic community and the countries in the “grey zone” between NATO/EU and Russia.

3. Western experts agree that, while Russia is a declining power and greater challenges are likely looming over the horizon, in the short-term, Russia poses the most serious threat to the international order. In fact, Russia’s decline might be an incentive for the Russian president, Vladimir Putin, to use available means to revise the post-Cold War settlement sooner rather than later (Foreign Affairs, 2017). Hybrid methods can give significant advantages to the “weaker side” (Saarelainen, 2017). For example, they exploit the problem of attribution, wherein attacks can be difficult to trace back to the government of a specific country. These tactics are also aided by globalisation. Power dynamics are no longer based on just material means and increasingly focus on the ability to influence others’ beliefs, attitudes and expectations – an ability that has been boosted enormously by new technology and the interconnectedness of the Information Age (Smith, 2017).

4. Moscow’s use of hybrid techniques is neither random nor spontaneous. It is a manifestation of a well-thought out, well-funded and coordinated strategy. Recent findings of the US intelligence agencies, which link two very different types of hybrid methods – interference in the US elections and the use of Russian mercenaries in Syria – to the same pro-Kremlin oligarch, Mr Yevgeny Prigozhin³, are a case in point.

5. The awareness of Russia’s disruptive activities in the West has grown considerably since the invasion in Georgia in 2008, and even more so since the illegal occupation and annexation of Crimea in 2014. In her speech in November 2017, the British Prime Minister, Theresa May, directly accused the Kremlin of trying to “undermine free societies” and “sow discord in the West” by mounting a sustained campaign of cyber espionage and disruption on governments and Parliaments across Europe. In a rare joint statement issued on 15 March 2018, leaders of the United Kingdom, France, Germany and the United States condemned the Salisbury chemical weapon attack as an assault on British sovereignty, “highly likely” committed by Russia. In August 2018, the United States introduced new sanctions on Russia over the Salisbury attack that would prevent Russia from obtaining sensitive electronic components and other dual-use technologies from the United States. Twenty-eight NATO Allies and partners expelled over 150 Russian officials from their territories, in

¹ The term “hybrid warfare” has been in use since at least 2005. It was subsequently used in reference to the strategy used by the Hezbollah in the 2006 Lebanon War.

² As defined in the 2015 NATO PA Defence and Security Committee General Report [Hybrid Warfare: NATO’s New Strategic Challenge?](#) [166 DSC 15 E bis].

³ Mr Prigozhin, known as “Putin’s cook”, built his restaurant and catering empire largely owing to state contracts and his proximity to President Putin. The New York Times writes that – according to Mr Prigozhin’s critics, including opposition politicians, journalists and activists, as well as the United States Treasury and the special counsel to the US Department of Justice, Robert S. Mueller III – Mr Prigozhin is the Kremlin’s go-to oligarch for various covert missions.

a show of solidarity with the United Kingdom. NATO condemned the first use of a nerve agent on NATO territory, and reduced the maximum size of the Russian Mission to NATO by a third, thus sending a clear message to Russia that there are consequences for its unacceptable and dangerous pattern of behaviour.

6. This report aims at further improving awareness of Russia's hybrid activities, including political interference, low-level use of force, espionage, crime and corruption, disinformation and propaganda, cyberattacks, economic pressure and sanctions-busting, as well as showing how several techniques reinforce and complement each other. The report will examine the counter-measures adopted by the Euro-Atlantic community and offer thoughts on additional means of response to enhance resilience and defend our populations against these complex threats.

II. HYBRID TECHNIQUES IN THE KREMLIN'S PLAYBOOK

A. THE ORIGINS AND THE FRAMEWORK

7. Moscow's use of hybrid warfare dates back to the Soviet era when the concepts of "active measures"⁴, "*maskirovka*"⁵ and "reflexive control"⁶ were developed. Hybrid methods were revived in Russia in the 2000s due to the renewed identification of the West as its strategic adversary, exemplified by Mr Putin's speech at the 2007 Munich Security Conference. Hybrid warfare was also adopted in response to the stark disparity between Russian and Western conventional military and technological capabilities and "soft power", and as a response to advances in information and communications technology, which have allowed for the emergence of new avenues for targeting the societies and political systems of potential adversaries.

8. Moscow's intention to use hybrid methods is articulated in several documents, the most recent being the 2014 Military Doctrine, the 2015 National Security Strategy and the 2015 Information Security Doctrine. These documents advocate the development of an effective means to influence public opinion abroad and, where necessary, a Russian resort to "non-traditional" methods. In his oft-cited article outlining the principles of hybrid warfare, Russia's chief of general staff, Valery Gerasimov, pointed out, *inter alia*, that "[t]he information space opens wide asymmetrical possibilities for reducing the fighting potential of the enemy" (NATO StratCom, 2015). In February 2017, the Russian defence minister, Sergei Shoigu, publicly announced the creation of information operations forces "for counter-propaganda purposes." Russia also streamlined the decision-making process in hybrid warfare by setting up the National Defence Management Centre (NTsUO) in 2014. This body coordinates the activities of military structures, but also of security and civilian agencies such as the Federal Security Service (FSB), the Federal Protective Service (FSO), the Foreign Intelligence Service (SVR), the Ministry of Interior and the State Atomic Energy Corporation, Rosatom. The NTsUO is seen to have "an incredibly expansive list of oversight, monitoring, and decision-making functions for state defence." According to Russia expert Roger McDermott, the NTsUO represents a step "toward conducting more integrated security operations in the future." The body is designed to give Russia the edge over NATO in taking decisions in a shorter time-frame. At the same time, other hybrid techniques in Russia's arsenal are intended to sow discord among and within NATO Allies in order to slow down NATO decision-making (Thornton, 2016).

⁴ Subversive political influence operations, ranging from media manipulation to targeting political opponents.

⁵ Camouflaging military activities for the purpose of denial and deception. An example is the concealment of offensive weapons transported to Cuba prior to the 1962 Cuban Crisis.

⁶ Feeding an opponent selected information to prompt him to make knee-jerk decisions that are favourable to the Kremlin. Timothy L. Thomas, a prominent expert on Soviet "reflexive control", provided an example of how Soviet leaders paraded fake missiles and planted fake documents for Western intelligence to conclude that Soviet nuclear power was more formidable than it actually was.

9. Moscow justifies its use of hybrid methods by portraying itself as a victim of the West's "information aggression." Sergei Naryshkin, Russia's foreign intelligence service chief, accused the United States and its allies, particularly the United Kingdom, Poland, the Baltic States and Sweden, of waging a covert hybrid war against countries in the Commonwealth of Independent States (CIS). Mr Naryshkin further accused the West of trying to drive a wedge between CIS countries and of obstructing Eurasian integration. Mr Naryshkin also accused the West of interfering in the "democratic processes" of sovereign members of the CIS (Belsat, 2017).

10. As prominent Russia expert Mark Galeotti puts it, the Kremlin's focus on hybrid techniques "reflects the parsimonious opportunism of a weak but ruthless Russia trying to play a great power game without a great power's resources" (Calabresi, 2017). In the following chapters, this report will provide a brief overview of Russia's hybrid techniques.

B. POLITICAL INTERFERENCE

11. While Moscow has long been suspected of interfering in the politics of its so-called "near abroad", there is mounting evidence of its efforts to influence political developments in established Western democracies through a combination of cyberattacks, leaks of stolen data, the use of internet bots⁷ and trolls⁸, disinformation and support for fringe political parties⁹. According to Estonia's Foreign Intelligence Service, Russia is cultivating a network of "influence agents" – politicians, journalists, diplomats or business people who are pushing Russia's agenda in Western Europe. The Special Rapporteur wishes to list some of the facts and statements that, taken in their entirety, suggest a deliberate policy by Moscow to meddle in recent elections and referenda in the West. These interventions tend to back political parties, candidates or referendum proposals that oppose the established system (Galeotti, 2017). The Rapporteur wishes to stress that Russian meddling in no way implies that Moscow's interference was the decisive factor in the outcome of the concerned elections and referenda.

12. The most salient example of the Kremlin's interference was its attempt to influence the presidential election in the **United States** in 2016. In January 2017, the US intelligence community published a report stating that: "[Mr] Putin and the Russian Government aspired to help President-elect Trump's election chances when possible by discrediting Secretary Clinton." The report also assessed "with high confidence that Russian military intelligence [released] US victim data obtained in cyber operations publicly and in exclusive to media outlets and relayed material to WikiLeaks." The report also notes that "these activities demonstrated a significant escalation in the directness, level of activity, and scope of effort compared to previous operations." Department of Homeland Security (DHS) officials admitted that the Russians targeted the voter registration rolls of 21 US states, managing to penetrate "an exceptionally small number of them." The DHS was able to determine that "the scanning and probing of voter registration databases was coming from the Russian government" (McFadden, Arkin & Monahan, 2018).

13. Individuals associated with the Russian government stole and published thousands of emails of US politicians and bought Facebook ads, while Russia-backed bots and trolls posted false stories on social media and in the comments section of articles. During the presidential election, the Russians ran over 3,000 adverts on Facebook and Instagram to promote 120 Facebook pages in a campaign that reached 126 million US citizens (House of Commons, July 2018).

14. Senior Trump Administration officials, including the then-secretary of state, Rex Tillerson, and the US ambassador to the UN, Nikki Haley, branded Russia's alleged meddling in the presidential

⁷ Software applications designed to generate messages (e.g. tweets) automatically.

⁸ People who post controversial, provocative, inflammatory or off-topic messages online.

⁹ The techniques used by the Kremlin to target Western electoral processes are explored in detail by the NATO PA Science and Technology Committee's 2018 report [Russian Meddling in Elections and Referenda in the Alliance](#) [181 STC 18 E fin].

election an act of "hybrid warfare" and accused Russia of trying to "sow chaos" in elections across the world.

15. The **UK** Parliament is investigating Russian interference in the Brexit vote. Damian Collins, chair of the parliamentary Digital, Culture, Media, and Sport Committee, noted that the first batch of data received from social media companies show that pro-Kremlin accounts were trying to "influence political debate in the UK and also to incite hatred and turn communities against each other", while admitting that the evidence collected "could just be the tip of the iceberg" (Burgess, 2017). A report by British company 89up.org found that the Kremlin state media, RT and *Sputnik* pumped out at least 261 articles with a clear anti-EU bias, while pro-Kremlin trolls and bots ensured the broad dissemination of these articles in social media (Euronews, 2018). Another study by British experts found that more than 156,000 Russia-based Twitter accounts mentioned #Brexit in original posts or retweets – predominantly supporting "Leave" – in the days surrounding the vote. These posts were seen hundreds of millions of times (BBC, November 2017).

16. Similar incidents took place in the **French** presidential election, most notably with the eight-gigabyte leak of thousands of Macron campaign documents – several reported to be falsified or fabricated – shortly before the poll. While the French chief of cybersecurity states there is insufficient information to establish this attack came from Russia, the cybersecurity company Trend Micro stated the attack had patterns that were very similar to suspected Russian meddling in the United States (Willsher & Henley, 2017). The director of the US National Security Agency (NSA), Michael Rogers, similarly stated that his agency pinned at least some electoral interference in the French election on Moscow. The NSA warned French cybersecurity officials ahead of the presidential runoff that Russian hackers may have compromised certain elements of the election (Greenberg, 2017). A Russian bank has helped finance the campaign of far-right leader Marine Le Pen, though the party denies allegations of impropriety (Shekhovtsov, 2015).

17. Allegations of possible Russian interference have also reached **Spain** whose latest National Security Strategy includes the threat of misinformation campaigns. While Russia is not specifically mentioned in the document, Spanish officials have been open about Moscow's interference in the Catalan independence referendum. The Spanish defence and foreign ministers stated that many of the profiles that spread fake news came from Russian territory. Reportedly, pro-Kremlin Twitter accounts, including bots, and Russian state media, such as Channel One, *Vesti*, and *Izvestia*, circulated fake or inflammatory anti-Spanish content. Notably, however, RT (formerly Russia Today) seems to have provided a more balanced coverage of the Catalan referendum, possibly because some in the Russian leadership might have thought that going too aggressively against Madrid could be counter-productive (Rettman, 2017).

18. The General Intelligence and Security Service (AIVD) of the **Netherlands**, also reported that, in the context of the Dutch parliamentary elections, "Russia [was] not afraid of using Cold War methods to obtain political influence." In an annual report, the AIVD claimed that Russia tried to influence the election by spreading fake news, but that it failed in "substantially influencing" the election process.

19. Russia continues to nurture links with anti-establishment political parties in the West, particularly among far-right parties. Alternative for **Germany** (AfD), which came third in the 2017 German parliamentary elections with 12.6% of the vote, is remarkably popular among the country's Russian-speaking population. According to the AfD's own estimates, Russian speakers make up as much as a third of its voters. AfD leaders have travelled to Russia and met with officials from Mr Putin's United Russia party and other representatives of the Kremlin. AfD's electoral success is partly explained by rising anti-immigrant sentiments in German society. Pro-Kremlin trolls and bots are known to have bolstered these sentiments. In one notable case, Russian outlets disseminated the fake story of a Russian-German girl, Lisa, who was allegedly raped by migrants (Shuster, 2017).

20. **Greece** also accuses Moscow of bribery and meddling in its internal affairs. In July 2018, four Russian diplomats were banned from Greece after evidence revealed Moscow was trying to sabotage the naming deal between Athens and Skopje, which would pave the way towards an eventual NATO membership for the former Yugoslav Republic of Macedonia¹⁰. Reports have revealed that Russian agents – citizens and officials – have attempted to bribe senior Greek intelligence and military officers as well as to fund far-right groups. This situation mirrors Russia's apparent willingness to influence politics in the Western Balkans and to undermine EU and NATO aspirations in the region. Experts warn that the year 2018 marks the “launch of a renewed Russian campaign in the Balkans” (Galeotti, 2018).

21. One of the key findings of the **Lithuanian** state security department's 2018 annual report was that Russian intelligence and security services were particularly interested in the upcoming Lithuanian presidential elections in 2019.

22. Russia has a dedicated policy to reach out to and support Russian-speaking communities abroad, particularly in the countries of the former Soviet Union. Moscow estimates some 17 million such “**compatriots**” live in its neighbourhood. The three major instruments that support compatriots are the government agency *Rossotrudnichestvo*, which receives USD 95.5 million in funding from the state budget; the *Ruskiy Mir* Foundation, which receives USD 15 million; and the Gorcharkov Foundation for Public Diplomacy, which receives USD 2 million (Kuhrt & Feklyunina, 2017). While the official goals of these organisations appear to be legitimate (e.g. promoting Russia's culture, language and worldview), the activities of these groups can have political consequences, by using Russian-speaking minorities to pressure their governments to abandon sanctions against Russia, for example.

23. Political interference and its actual impact are difficult to measure and prove. Whether it is funding from a Russian bank or cyberattacks by groups traced to Russian territory, it is often difficult to establish a clear and direct link between these actions and the Russian state.

24. In most cases, the Kremlin's interference does not create new societal cleavages or negative trends, it merely tries to reinforce them. The rise of anti-establishment political forces is an old trend. However, the pro-Russian attitudes of the Western far-right – examples of which are mentioned in paragraphs 16 and 19 of this report – are a recent phenomenon, which coincides with Moscow noticing these parties and providing support to them (Polyakova, 2016). Exaggerating the impact of Russian meddling could, in fact, be counterproductive as it could make the Kremlin more important than it really is. However, it should not be downplayed either and further steps to protect political systems in the free world are urgently needed.

C. KINETIC OPERATIONS

25. The term “hybrid warfare” does not refer solely to non-kinetic operations. Experts note that, as part of its hybrid tactics, Russia has employed “a full spectrum of activities, ranging from incitement of violence, kidnapping, and attempted assassination to infiltration and covert action combined with military efforts” (Kramer & Speranza, 2017). The most obvious example of a kinetic operation is the use of professional soldiers without military insignia, likely Russian Special Forces, in the occupation of Crimea and Donbas. These soldiers have since been referred to as “polite men” or “little green men.” While the origin of these troops has never been doubted, the absence of insignia allowed President Putin, at least formally and temporarily, to distance the Russian state from these forces and mitigate international reaction. Evidence of Russian military presence in Donbas is abundant, but, due to the lack of formal attribution of these forces, Russia continues to present itself as a third party in the conflict.

¹⁰ Turkey recognises the Republic of Macedonia with its constitutional name.

26. The degree of plausible deniability varies by context. While the occupation of Crimea was a poorly disguised Russian Special Forces operation, local ownership of the “rebellion” in Donbas was more significant, allowing Mr Putin to downplay the involvement of the Russian state to a mere participation of Russian “volunteers” who took a “leave of absence” from serving in the Russian military. In Syria, Russia’s continuing military involvement after the formal withdrawal of Russian forces is even more shadowy. It has relied on a private paramilitary company, the Wagner Group, which was also active in Ukraine in early 2014 and is, according to media and US intelligence reports, associated with a Russian oligarch, Yevgeny Prigozhin. Since September 2015, the Wagner Group has played a major role in the Syrian government’s reconquest of its territory, operating as an undeclared branch of the Russian military alongside official Russian forces (Hauer, 2018). The clash between these trained Russian mercenaries and US forces in Syria resulted in the deaths of about 100 Russian mercenaries. Such a direct clash between Russian and US soldiers is unprecedented in recent history and could have resulted in a dangerous escalation. However, Mr Putin was able to deny any links between the Russian state and these mercenaries.

27. The presence of private Russian military contractors has also been reported in some African and Arab countries, including the Central African Republic (CAR)¹¹, Sudan or Libya. Companies like the Wagner Group allow Moscow “to enter a foreign (...) environment with minimal risk, and to exploit both political and economic opportunities there” while offering the Kremlin plausible deniability on its involvement (Hauer, 2018).

28. A particularly alarming development is Moscow’s apparent readiness to target its perceived enemies on foreign soil, including with weapons of mass destruction. The collateral damage of the chemical attack on Mr Skripal and his daughter in March 2018 in Salisbury caused the death of a civilian British woman and sent her husband to the hospital. The UK investigation identified two Russian citizens – who travelled to the United Kingdom under the names of Alexander Petrov and Ruslan Boshirov – as primary suspects and linked them to the Russian foreign military intelligence agency (GRU). Independent investigations, including by the prominent independent research organisation Bellingcat, have supported this conclusion. The Russians have claimed that these two individuals travelled to London from Moscow for a two- or three-day visit in order to see Salisbury cathedral. They conveniently neglected to refer to the identification of traces of the *Novichok* nerve agent in their London hotel bedroom. More recent investigations have identified one of the two suspects as a much-decorated GRU colonel, Anatoly Chepiga.

29. Other low-level uses of force by Russia include repeated incursions into NATO airspace¹², alleged involvement in the anti-NATO coup attempt in Montenegro in October 2016 and targeted actions such as the kidnapping of an Estonian officer in September 2014.

30. Russia also engages in regular large-scale exercises, such as *Zapad* and *Kavkaz*, designed to demonstrate Russia’s offensive abilities in eastern Europe for intimidation purposes and – in the cases of Georgia in 2008 and Ukraine in 2014 – to mask invasion. When conducting these exercises, Russia regularly evades its commitments under the Vienna Document to exchange information about its exercises and notify other member states. The scope of these exercises is usually substantially larger than officially declared by Moscow. *Zapad 2017*, for instance, reportedly involved 60,000 to 70,000 troops instead of the officially announced 12,700.

¹¹ Three independent Russian journalists were killed in the CAR while investigating the Wagner Group’s activities there.

¹² One of the most recent incursions occurred on 12 March 2018 over the Estonian island of Vaindloo. According to NATO’s military command, the behaviour of Russian aircraft during such incursions is unprofessional rather than hostile. However, this behaviour could lead to serious incidents, such as the shooting down of a Russian fighter jet over Turkish territory in 2017. The European Leadership Network’s study of 39 encounters between Russian and NATO air and naval forces concluded that these “highly disturbing” violations of national airspace had caused several incidents where an open conflict or the loss of life was narrowly avoided.

D. DISINFORMATION AND PROPAGANDA

31. This Committee's 2015 report *The Battle for the Hearts and Minds* [164 CDS DG 15 E bis] and 2017 report *The Social Media Revolution* [158 CDS DG 17 E bis] explored Russia's disinformation and propaganda machine in detail. These reports show that Russian mainstream media are not merely biased but have been "weaponised" and turned into the Kremlin's foreign policy tool. Margarita Simonyan – the chief editor of RT, which, along with *Sputnik*, is Moscow's flagship foreign language channel to influence international public opinion – claims RT is needed "for about the same reason as why the country needs a Defense Ministry" and that RT is capable of "conducting information war against the whole Western world," using "the information weapon" (EUvsDisinfo, January 2018).

32. Russian state-controlled media fail to meet minimal journalistic requirements: they are not independent and receive weekly instructions from the Kremlin (EUvsDisinfo, September 2017). More importantly, they lack scruples and ethical boundaries, blatantly falsifying evidence and reporting outright lies. Examples of this unethical "reporting" are extensively presented in the abovementioned NATO PA reports. The French president, Emmanuel Macron, has banished Russia's RT and *Sputnik* representatives from his media pool, arguing that they are not journalists but agents of influence.

33. In 2017, Russia's full-scale disinformation campaign continued. EU counter-propaganda experts, in their annual overview, mentioned examples of spectacular claims from pro-Kremlin mouthpieces, such as the imminent threat of civil war in Sweden, a US plane dropping a nuclear bomb over Lithuania, or a report that rape cases in Sweden had risen by a thousand percent (in fact a rise of 1,4% since 2015). Ukraine has remained a target of many of these stories, with Ukrainians often described as fascists and oppressors and Ukraine portrayed as an artificial country and a failed state (EUvsDisinfo, December 2017).

34. While exploiting the diverse and free Western media landscape, Russian state media promote a unified message and narrative. Unlike in Soviet times, this narrative has a less solid ideological base and appeals to a wide range of people with anti-Western, anti-liberal and anti-globalist views. Anti-Americanism is a key element of the narrative, designed to drive a wedge between the United States and Europe. This narrative embraces virtually all fringe ideas that contradict the mainstream Western worldview. An example of an initiative in this area is the new media venture "USA Really. Wake Up Americans" that was launched by the "Internet Research Agency", a Russian troll factory that was indicted for meddling in the 2016 US elections and, according to numerous media investigations, is linked to Yevgeny Prigozhin (EUvsDisinfo, April 2018). This venture, created to combat the "growing political censorship imposed by the United States", mainly targets anti-establishment audiences. Active on social media, it mostly spreads anti-US views and focuses on socially and politically divisive issues.

35. As noted, new breakthroughs in information and communications technology, including the growth of social media, has allowed Moscow to propel its disinformation and propaganda to a new level. Multiple reports show how pro-Russian trolls and bots spread fake news and socially divisive contents in Western societies. NATO's Strategic Communications Centre of Excellence reports that two-thirds of Twitter users who write in Russian about NATO presence in eastern Europe are bot accounts. Online channels are used in other ways, such as creating the illusion of a chemical leak through mass tweeting to generate panic in the US state of Louisiana or having the employees of Russian "troll factories" create false websites (Chen, 2015). Russia also imitates the official websites of Western institutions, for example replicating the website of the European Centre of Excellence for Countering Hybrid Threats, adding a pro-Russian twist. The Centre's website address, which is <https://www.hybridcoe.fi/> has been imitated with the web address <http://hybridcoe.ru/> giving it a professional and legitimate look, while adding anti-NATO and anti-EU content.

36. It must be noted that the Kremlin's disinformation machine could acquire even more efficient tools in the future. The development of artificial intelligence algorithms called Generative Adversarial Networks (GANs) offers the possibility of easily doctoring sound and video and thus create visual contents that could, for instance, convincingly depict a Western leader making a pro-Russian statement or a statement intended to prompt panic and confusion among Western audiences (The Economist, 2017).

E. CYBER AND ELECTRONIC WARFARE

37. Russia uses cyber weapons to carry out hybrid operations such as election meddling, espionage and disinformation campaigns. However, a cyberattack could also be a category of hybrid warfare in its own right. In 2017, multiple large-scale cyberattacks targeting critical infrastructure had serious real-world consequences. The WannaCry ransomware attack¹³, attributed to North Korea, crippled health services in the United Kingdom and other Allied countries. The NotPetya ransomware attack, attributed to Russian hackers by the United Kingdom and other Allies, targeted the Ukrainian tax system but spread to businesses across the country and beyond. Corporate losses from this attack are estimated to be in the hundreds of millions of US dollars. In November 2017, the head of the British National Cyber Security Centre (NCSC), Ciaran Martin, warned that Russian hackers had targeted the British energy, telecommunications and media sectors. Russia is also accused of attacks on the German Parliament in 2015 and the German Foreign Ministry in 2017, as well as the crippling of a French TV broadcasting network (TV5Monde) in 2016. Earlier this year, the BSI – Germany's Federal Office for Information Security – accused the Russian government of carrying out a large-scale cyberattack on German energy providers. Ahead of the US midterm elections, Microsoft declared it had seized fake websites created by hackers linked to Russian military intelligence. These websites were replicating the websites of the Hudson Institute and the International Republican Institute but were in fact redirecting users to web pages created to steal passwords and other credentials (Sanger & Frenkel, 2018).

38. An interesting case demonstrating the link between Russian hackers, Russian "soft power" agents and the Russian state concerns the dispute around the potential separation of the Ukrainian Orthodox Church from the Moscow Patriarchate. Religious and state officials in Russia have been working hand in hand to prevent the split, as it would certainly diminish Russia's influence in Ukraine. As the split has been tentatively approved by the Ecumenical Patriarch Bartholomew I of Constantinople¹⁴, it was revealed that Russian hackers had targeted senior Orthodox Christian figures including top aides to Patriarch Bartholomew I. Reportedly, the same Russian hacker group, Fancy Bear, was associated with the US Democratic National Committee email hacks in 2016 (Satter, 2018).

39. Russia is also suspected of carrying out electronic warfare (EW) attacks. The former commander of United States Army Europe, Lieutenant General Ben Hodges, notes that Russia has developed "a significant electronic warfare capability" over the past three years. On the eve of the *Zapad 2017* exercise, the mobile communications network in western Latvia was jammed, apparently by a Kaliningrad-based communications jammer aimed towards Sweden. A NATO official claimed the incident demonstrates Russia's ability to intercept or jam civilian networks "within a significant radius and with relative ease" (Gelzis & Emmott, 2017). Norway's public broadcaster announced that, during *Zapad 2017*, civilian aircraft operating in East Finnmark, Norway, reported a loss of their GPS signal. Measurements showed the disturbance came from the east. A report by the International Centre for Defence and Security found that further EW capability development by Russia would pose a serious challenge to NATO's eastern flank. Russia uses advanced surveillance techniques, such as drones and covert antennas, to pull data from smartphones used by NATO troops in the Baltic States and Poland (Grove, Barnes & Hinshaw, 2017).

¹³ Ransomware attacks lock victims' computers and/or threaten to release captured data, demanding payment.

¹⁴ Considered "first among equals" in the Orthodox Christian Church.

40. While the problem of attribution in cyberspace is acute, most cyberattacks of this scale have been traced to Russia—often to groups of hackers called Cosy Bear, also known as APT29, and Fancy Bear, also known as APT28¹⁵. The NCSC has accused Russia of using cyberattacks "to undermine the international system." According to a 2017 British House of Commons Intelligence and Security Committee report, the escalation of Russian cyber activities shows Russia is no longer concerned about remaining covert and is adopting a more brazen approach.

F. OTHER TYPES OF HYBRID THREATS

41. While most countries engage in some form of **espionage** and intelligence gathering, the activities of Russian spies seem disproportionate compared to the country's global weight. US intelligence experts warn that the conflict between the US intelligence community and Russian special services is intensifying in ways that could destabilise the bilateral relationship and the broader world order (Beebe, 2017). The US government claims that the number of Russian spies in the United States has considerably increased in the past 15 years (Schmidle, 2017). The United States also suspects that the Moscow-based Kaspersky Lab has used its popular antivirus software to spy on the United States and blunt US intelligence activities. Another example of Russian espionage in the United States is the case of Maria Butina, a Russian woman charged with "working to infiltrate the National Rifle Association (NRA) and influence US politics" (Swaine, 2018). The investigation has revealed her ties to Kremlin-backed banks and Russian oligarchs under US sanctions.

42. Meanwhile, the British secret intelligence service (MI6) has reclassified Russia as a "tier one" threat alongside Islamist terrorism. For comparison, Russia was not even mentioned in the British National Security Council's annual strategic defence and security review in 2010. British experts further assess that Russia employs between 705,000 and 940,000 people across its security agencies. In comparison, the British security agencies put together employ about 16,500 people. Officials also assess that Russian security and intelligence budgets have grown annually by 15-20%, with spending mainly going to operations (Edwards, 2017). Non-NATO neighbours like Sweden have also reported that espionage has increased since Russia's annexation of Crimea (Ringstrom, 2015).

43. Russia experts such as Mark Galeotti, who addressed this Committee at the 2017 NATO PA annual session in Bucharest, detect links between the Kremlin and Russian-origin **criminal groups** operating in Europe. They claim to have evidence that the Kremlin uses these groups as sources of "black cash", cyber attackers, traffickers of people and goods and even targeted assassinations by offering access to the networks of Russian intelligence. Local criminal groups have reportedly assisted Russia's invasion of Crimea and Donbas (Galeotti, 2017). In May 2018, a report by the British Parliament's foreign affairs Committee entitled "Moscow's Gold: Russian Corruption in the U.K." said that London is being used as a "base for the corrupt assets" of individuals linked to the Kremlin. The authors of the report asserted that these financial activities are "clearly linked to a wider Russian strategy" and are a threat to UK national security. The report called for a "coherent and pro-active strategy on Russia, (...) that clearly links together the diplomatic, military and financial tools that the U.K. can use to counter Russian state aggression." The proposed concrete measures include establishing a register of ownership for foreign companies that wish to own property in the United Kingdom, thereby exposing those who "purchase UK property through offshore shell companies, disguising their identities and the potentially corrupt sources of their funding" (House of Commons, 2018a).

44. Russia has a long history of using its **energy** resources as a foreign policy tool¹⁶. It is important to stress that Europe's energy vulnerability has diminished considerably. This is due to the following factors: 1) diversification of supply through additional infrastructure, such as new Liquefied Natural Gas (LNG) terminals in Poland and Lithuania; 2) the development of shale oil and gas reserves in the United States; 3) the EU's steps towards an integrated energy market through the Third Energy

¹⁵ The cybersecurity firm CrowdStrike associated Cosy Bear with the FSB and Fancy Bear with the GRU.

¹⁶ This issue is discussed in detail by the Assembly's Economics and Security Committee's 2018 report *The Energy Security Challenge in Central and Eastern Europe* [070 ESC 18 E].

Package, which forces Gazprom to sell its stakes in European transmission networks; and 4) the “green revolution” in energy, especially the advances in renewable energy and energy efficiency (Russia’s 2017 Economic Security Strategy identified the development of green technology as a threat to its economic security).

45. Nevertheless, Russia retains significant leverage over Europe’s energy market. Russia’s gas supplies to Europe are growing and almost 40% of Europe’s gas imports come from Russia. The EU is currently discussing the controversial Nord Stream 2 project, a new pipeline connecting Germany and Russia while bypassing countries like Ukraine and Poland. Opponents of the pipeline argue that the project undermines the energy solidarity envisioned by the European Energy Union initiative. The Baltic States have taken important steps to reduce energy dependence on Russia, but their electricity markets remain synchronised with the Moscow-controlled electricity network BRELL. The Baltic states are concerned that Moscow will try to sabotage their desynchronisation plans. Lithuania is also highly concerned by the Russian company *Rosatom*’s non-transparent construction of a nuclear power plant in Belarus, 50 kilometres from the Lithuanian capital, Vilnius. Europe’s energy sector, as a whole, needs to improve its cybersecurity resilience from hostile foreign actors (Grigas, 2017).

46. A recent report by the Asan Institute for Policy Studies provides information indicating that Russia has been engaging in **sanctions-busting** as a foreign policy tool. More specifically, circumventing the UN sanctions on North Korea, Russia is believed to have supplied 622,878 tons of undeclared refined oil to this country between 2015 and 2017, which represents around one third of North Korea’s total refined oil imports during the same period (Asan, 2018).

47. Some experts, including British Chief of the Defence Staff Air Chief Marshal Sir Stuart Peach, British MP Rishi Sunak and former NATO Supreme Allied Commander Admiral James Stavridis, warn that the Russian navy could potentially pose a threat to the **undersea cables** that carry 97% of global communications and USD 10 trillion of financial transfers every day. There are no alternatives to these cables. Modern economies and societies depend crucially on this undersea infrastructure, which lacks basic defences (Murphy, Hoffman & Schaub, 2016). Russian submarine activity in the northern Atlantic has increased significantly in recent years, and these submarines have been “aggressively operating” near undersea cables. Russia is significantly expanding its naval capacity, including Yantar class intelligence ships and auxiliary submarines, both of which are specifically able to disrupt undersea cable infrastructure. Sir Stuart Peach claims the United Kingdom and its NATO Allies are ill-prepared to deal with the prospect of such an attack (BBC, December 2017). In June 2018, the United States imposed sanctions on the Russian government’s underwater capabilities, which reportedly helped the Kremlin tap undersea communications cables used by Western countries.

48. Generally speaking, Russia’s hybrid activities pose a threat to the **maritime** environment. Ports and commercial and military vessels are easy targets for sabotage, navigational spoofing and cyberattacks (Kremidas-Courtney, 2018). Considering the vessels’ high reliance on cyber-enabling capabilities, cyberattacks can cause important damage.

III. RESPONDING TO HYBRID THREATS

A. NATO

49. As noted, hybrid attacks present a challenge to the Alliance as they are generally not expected to trigger Article 5 of the Washington Treaty. In the hybrid era, the emphasis falls on Articles 3, which outlines collaboration and mutual assistance short of collective defence, and 4, which obligates consultations when the security of an Ally is threatened. At its summit in Warsaw in 2016, NATO adopted a strategy on the Alliance’s role in countering hybrid warfare. It was reaffirmed that the primary responsibility to respond to hybrid threats rests with the targeted nation. NATO, however, is

prepared to assist an Ally at any stage of a hybrid campaign. The Allied leaders also announced that Allies would be prepared to counter hybrid warfare as part of collective defence and that the North Atlantic Council could decide¹⁷ to invoke Article 5 of the Washington Treaty. Collective action depends on a unified assessment of the threat, a determination that Russia's hybrid tactics aim to prevent.

50. In the wake of Russia's aggression in Ukraine, NATO drafted a Readiness Action Plan (RAP) that tripled the size of the NATO Response Force (NRF) and introduced a Very High Readiness Joint Task Force (VJTF) capable of being deployed within days as a deterrent force. To ensure the efficiency of the VJTF, NATO set up the NATO Force Integration Units (NFIU) in eastern and central Europe. One notable step by NATO was the deployment of four battalions in the Baltic states and Poland, which considerably escalated the cost of potential aggression against these Allies¹⁸.

51. To be fully effective, these military responses must be complemented by efforts to achieve national resilience in areas such as continuity of government, critical government services and cyber networks, energy, food and water supplies and the ability to deal effectively with uncontrolled movement of people. In 2017, NATO produced an Alliance-wide assessment of national resilience which generated an overview of the state of civil preparedness. This identified areas where further efforts are required to enhance resilience.

52. NATO has also improved intelligence cooperation among Allies by establishing a new Joint Intelligence and Security Division (JISD). To reflect the growing need to take a holistic approach, a new branch for hybrid analysis was created within the JISD with a mandate to analyse the full spectrum of hybrid actions by drawing from military and civilian, classified and open sources. Many aspects of hybrid warfare – such as countering disinformation, cyber threats and energy security – are also covered by NATO's Public Diplomacy Division and Emerging Security Challenges Division. NATO has also launched a platform of cooperation with Ukraine specifically dedicated to bringing together experts on hybrid threats.

53. Several NATO-certified or NATO-supported centres of excellence – including the Strategic Communications Centre in Riga, the Cyber Defence Centre in Tallinn, the Energy Security Centre in Vilnius and the European Centre of Excellence for Countering Hybrid Threats (Hybrid CoE)¹⁹ – provide the threat analysis and draft policy recommendations.

54. Since the massive 2007 cyberattack against Estonia by Russian hackers, NATO has made great strides in developing its cyber defence capabilities. The 2016 Warsaw Summit identified cyberspace as the fifth “domain of operations in which NATO must defend itself.” In February 2017, NATO Allies endorsed an action plan that put cyber defence at the core of NATO's collective defence and promoted NATO's cooperation with the industry. Every year for 10 years, NATO has organised a cyber exercise week that involves NATO member states and allies reacting to simulations of cyberattacks that mirror real threats. Through the Cyber Defence Pledge, NATO members have committed to prioritising enhancements to the defences of their national networks – which is of critical importance, given the fact that the Alliance's cyber security is inhibited by the capabilities of its weakest member. NATO has shored up the defence of its own networks²⁰.

¹⁷ All NATO decisions are made by consensus, after discussion and consultation among member countries.

¹⁸ For more details on NATO's Enhanced Forward Presence (EFP), see this year's general report of the NATO PA Defence and Security Committee entitled *Reinforcing NATO's Deterrence in the East* [168 DSC 18 E].

¹⁹ Hybrid CoE is a joint project of NATO, the EU and several NATO/EU member states, inaugurated in October 2017.

²⁰ In 2016, NATO had to ward off about 500 cyberattacks each month.

55. NATO is also increasingly cooperating with the EU on cyber defence: the two organisations have increased information exchange and participated in joint exercises. They have also agreed to cooperate in incident response and crisis management.

B. EUROPEAN UNION

56. With its considerable resources and soft power, the EU is a key player in building Europe's resilience to hybrid threats, particularly disinformation and cyberattacks. The 2016 EU-NATO Joint Declaration lists more than 40 specific areas of cooperation and as many as ten of those relate to strengthening cooperation on hybrid threats. However, EU-NATO cooperation is limited to the international staff of the two organisations and does not involve member states.

57. In April 2016, the European Commission and the High Representative of the EU for Foreign Affairs and Security Policy adopted a Joint Communication on countering hybrid threats. The framework defines the EU's assistance to member states in building their resilience against hybrid threats while recognising that the primary responsibility for countering these threats lies with member states. To improve situational awareness through sharing of intelligence analysis, the EU has established the Hybrid Fusion Cell.

58. As a response to Russia's disinformation campaigns, the EU created the East StratCom Task Force, also referred to as EU "myth-busters". The team of a dozen nationally-seconded diplomats exposes Russia's online disinformation daily. After repeated calls from the European Parliament, the taskforce has finally been granted a separate budget of just over 1 million euros a year. The Rapporteur is convinced that the amount remains inadequate, given the scope of the challenge and the EU's vast financial capabilities.

59. While the EU's recently established Permanent Structured Cooperation on Defence (PESCO) focuses mainly on hard security investments, one of the 17 collaborative defence projects—led by Lithuania and involving nine EU members – led to the establishment of rotational EU Cyber Rapid Response Teams. In December 2017, the EU established a permanent Computer Emergency Response Team (CERT-EU) covering all EU institutions, bodies and agencies. The EU allocated EUR 50 million to develop a cybersecurity competence network connecting private and public entities – including research centres, university programmes, and industry partners – to best tackle the EU's cybersecurity challenges and strengthen individual member state capacities.

C. NATIONAL LEVEL

60. Many NATO and EU member states and aspirant countries have revisited their national security policies in response to Russia's hybrid activities. While it is impossible to provide a comprehensive overview of these efforts within the limits of this report, the Rapporteur would like to highlight several important national initiatives.

61. Regarding **political interference**, the United States launched an investigation into Moscow's interference in its 2016 presidential election, led by US Special Counsel and former FBI Director Robert Mueller. The investigation has indicted 32 people and three Russian entities. The US Department of Justice has also indicted 12 Russian GRU intelligence officers for hacking Democratic Party representatives using spear phishing emails and malicious software. The 12 officers are also charged with releasing sensitive documents and stealing the data of half a million voters. This is the first US official indictment charging the Russian government with intending to influence the outcome of the 2016 election. Moscow denies any involvement and denounces a "conspiracy".

62. Considering mounting evidence of Russia's ongoing efforts to interfere in the upcoming 2018 US midterm elections – including attempts to hack US senators and the creation of fake official websites – a bipartisan group of senators introduced a bill to impose new sanctions on Russia for

meddling in US elections. These sanctions would mostly target the Russian sovereign debt, its energy projects and corrupted oligarchs.

63. Forewarned by events in the United States and informed by US intelligence services, French political forces managed to prepare for impending interference in their presidential election campaign. Then-candidate Emmanuel Macron's team hired cyber experts who suggested setting up decoy email accounts and prepared a communication strategy to deal with potential leakages.

64. German security services successfully minimised foreign interference in the 2017 elections by looking for vulnerabilities in networks. Unusually, the head of Germany's domestic intelligence agency went public to warn citizens about disinformation campaigns and cyberattacks from Russia (EUvsDisinfo, 2016). The British government helped protect its political system by tracking the major perpetrators of these attacks, providing politicians with professional expertise on communications security and working with media and think tanks to promote open discourse that counteracted propaganda. In the run-up to the Swedish elections in September 2018, authorities trained local election workers to spot and resist foreign influence, while Swedish political parties enhanced their email security systems. The Swedish Prime Minister announced the creation of a new agency responsible for bolstering the "psychological defence" of the Swedish public by "identifying, analysing, and responding" to "external influence" campaigns (Rettman, 2018).

65. As previously discussed, NATO's frontline states are concerned about **kinetic threats**, such as armed groups without military insignia. In addition to relying on NATO's support, these countries have an all-society approach to defence. Lithuania, for instance, reintroduced conscription and published a 75-page manual, entitled "Guide to Active Resistance", for distribution in schools and libraries. It includes tips on civil disobedience in case of foreign invasion. Similarly, the US Army has drafted a new strategy for 2025 to 2040. It focuses on enemies that have not declared themselves as combatants in a context where the lines between war and peace are blurred. To meet these foes, the US Army is expected to move toward smaller, "semi-independent" and much more versatile formations able to fight in every domain of warfare simultaneously (Tucker, 2017).

66. Regarding **disinformation**, Germany has taken strict measures to limit hate speech and fake news on social media, imposing heavy fines (up to EUR 50 million) for companies – from Facebook to Google – that do not remove posts that incite hate or violence. In France, legislation has been proposed that would allow the Superior Council of the Audiovisual (CSA), a media watchdog, to take down contents, close user accounts and block websites in order to protect French democracy from fake news during elections. The proposed law would also establish responsibilities for the media to cooperate with the state and be transparent about their sponsored content.

67. NATO Allies in central and eastern Europe have taken aggressive steps to counter Russia's disinformation. Estonia recently increased the budget of its strategic communications department – responsible for countering propaganda – more than 13-fold. The Czech Republic has set up a Centre against Terrorism and Hybrid Threats in its Ministry of Interior to combat propaganda. The Centre uses a Twitter feed to debunk false stories. Lithuania hosts the US-funded Radio Liberty, which broadcasts to Russian and Belarusian audiences in their native languages.

68. In terms of **cyber**, a notable development has been the announcement by the United Kingdom of the creation of a new offensive cyber force of up to 2,000 personnel, which represents a near four-fold increase in manpower focused on offensive cyber operations (Haynes, 2018).

69. Sweden and Finland, non-NATO partners, are increasingly targeted by Russian hybrid activities. Both nations emphasise an educational approach to misinformation instead of restricting access to it. Both countries launched programmes to teach children to differentiate between real and fake sources as early as primary school. These tips are presented in entertaining formats, including in one of Sweden's most famous cartoon strips. Finnish Foreign Ministry officials claim that media

literacy education has helped Finns turn away from fake news and propaganda sites and led to the closure of the Finnish-language bureau of *Sputnik* due to low readership (Standish, 2017).

D. MEDIA AND CIVIL SOCIETY

70. Efforts to tackle hybrid threats are not confined to the government, but have proliferated among civil, academic and media organisations. The most prominent civic and academic initiatives to expose pro-Kremlin falsehoods include StopFake.org (an initiative by Ukrainian journalists and students), the Digital Forensic Research Lab (an effort by the US-based Atlantic Council think tank) and the Baltic “elves” (volunteer internet users in the Baltic states taking on pro-Kremlin trolls).

71. Traditional media have set up numerous fact-checking mechanisms, including the BBC’s *Reality Check* and *Le Monde*’s ‘Les Décodeurs’. Leading German and Swedish newspapers teamed up to prevent foreign information meddling during the election period. Recently, all major Lithuanian news outlets, the Baltic “elves” and Lithuania’s Military Strategic Communications unit launched a joint initiative called *Demaskuok.lt* (“Debunk.lt”) aimed at monitoring and debunking disinformation before it spreads in the country. The partners are using advanced algorithms and artificial intelligence to scan thousands of news articles in Russian and Lithuanian in order to detect potential fake news and disinformation. The initiative has generated considerable interest in NATO and EU circles.

72. Social media and technology giants, such as Facebook, Microsoft, Twitter and YouTube, mainly focus on removing terrorist-related contents. However, Facebook has cooperated to an extent with US authorities in the investigation of Russian meddling in US elections, and it unveiled new transparency guidelines related to advertising. In the same vein, Twitter has launched a battle against fake and suspicious accounts. The goal is to tackle the flow of disinformation on the platform and “better protect users from manipulation and abuse” Del Harvey, Twitter’s vice president, said. More than 70 million accounts were suspended in May and June and it continues. Most of these accounts are Russian and similar to fake accounts used to interfere in the 2016 US election. The company also announced “major changes to the algorithms it uses to police bad behaviour” (Timberg & Dvoskin, 2018).

73. However, there is a growing pressure on social media companies to do more. In May 2017, the Home Affairs Select Committee of the British Parliament published a report that criticised social media firms for being “shamefully far” from tackling illegal and dangerous content. The absence of national borders in the cyber space makes it difficult for national legislators to force meaningful change, given that there is no commercial incentive for companies to share information with lawmakers or allow them to scrutinise their contents.

IV. CONCLUSIONS AND RECOMMENDATIONS

74. Russia’s use of hybrid tactics poses a clear challenge to the Euro-Atlantic community. While Russia is much weaker economically and culturally, it often seems to have the edge in hybrid warfare because it has a unified decision-making process and a clear anti-Western agenda. The Kremlin is also not bound by the same ethical constraints as many NATO members, as manifested, *inter alia*, by the rigging of the recent Russian presidential ‘elections’ in favour of the incumbent – to the extent of stuffing ballot boxes in front of the cameras, setting up “troll factories” and even targeting individuals with weapons of mass destruction on foreign soil. The Kremlin exploits the open media landscape in the free world while eradicating free speech domestically and turning its media channels into weapons of mass deception. It sponsors extreme political movements in the West while persecuting the opposition at home.

75. Russia’s hybrid machine is innovative and difficult to predict. In most cases, the Kremlin exploits and aims to amplify cleavages that already exist in Western societies. Therefore, it is imperative to focus on building the overall resilience of a society and addressing domestic grievances, rather than on efforts to predict Russia’s next move. Examples from Sweden and Finland

are particularly relevant in this regard. Hybrid defence efforts should primarily be oriented inwards, rather than outwards against a specific country. The Alliance should harness the powers of democracy, free speech, basic human rights and the rule of law in a more proactive way to counter the vulnerabilities of a hybrid threat.

76. That said, the Rapporteur would like to offer several concrete proposals to enhance the Euro-Atlantic community's response to the Kremlin's hybrid operations:

- The Allies should revise their education policies to ensure that schools promote genuine, fact-based debate and critical thinking. New generations – who are avid social media users – ought to be encouraged to come out of their virtual bubbles and recognise signs of trolls and bots. Conventional armed forces play a supporting role in hybrid warfare, but the existence of an educated, patriotic and resilient society is our first line of defence.
- An effective response to hybrid threats depends on seamless teamwork, across different areas. There is a need for better coherence and coordination within NATO, especially by pulling together the available civilian and military assets.
- There is a need to increase strategic awareness. Member states must be able to assess events on the ground quickly and unanimously to respond effectively to Russia's hybrid threats. This effort requires greater intelligence sharing, reinforcing links between domestic agencies and a renewed discussion of the role of Special Forces in coordinating military assistance among NATO member states and partners. Some commentators suggest creating a designated "East Hub" for NATO, akin to the "South Hub" in Naples, Italy. However, the Rapporteur believes priority should be given to making full use of existing structures, such as NATO's Joint Forces Command located in Brunssum, the Netherlands.
- NATO members that have not yet designated specific government units charged with countering fake news and hostile propaganda with facts round-the-clock ought to do so. Existing NATO and EU capabilities, such as NATO's Public Diplomacy Division and the EU's East Stratcom Task Force, should receive additional financial, technological and human assets in order to better provide credible responses to hybrid warfare as often as possible.
- While focusing on domestic resilience, restrictive measures – such as the removing fake news, imposing penalties for spreading hate speech and blacklisting and freezing the assets of the most active Russian disinformation warriors – should continue to be applied. Members should seriously consider targeting the Western assets of corrupt Russian elites.
- Electoral structures should be designated as strategic infrastructure. National security and cyber institutions should offer their assistance to political parties and candidates in protecting their data and networks.
- While cyber defence is growing in priority, more creative thinking and multilateral cooperation across the Alliance is needed to enhance the security of our networks and systems. The Allies should consider strengthening their retaliatory capabilities in cyberspace, allowing NATO to call upon Allies to use, where appropriate, their offensive cyber capabilities in support of NATO operations. The protection of undersea communication cables should be prioritised.
- While welcoming the progress made in deepening NATO-EU cooperation on countering hybrid threats, more can be done in this area. The Rapporteur recommends the two institutions consider establishing a joint Brussels-based platform for combating hybrid threats. The organisations should also consider creating small NATO-EU counter-hybrid teams tasked with information fusion and analysis to enhance situational awareness (European Parliament, 2017).

- It is imperative to continue efforts to diversify energy imports and promote energy efficiency, including by implementing the vision of the EU Energy Union.
- To limit the space for Russian hybrid warfare, the problem of “grey zones” in eastern Europe must be addressed. Leaving eastern European countries in limbo is an invitation for further Russian aggression and tensions with the West. Georgia, Ukraine and Moldova, as well as the Western Balkan countries, should be given a clear membership perspective both in NATO and the EU. Their accession should be based solely on their implementation of membership criteria.

77. The Rapporteur supports the view that NATO should mainstream its role in responding to hybrid threats in its strategic documents. For example, the former British foreign secretary, William Hague, recently urged the Allies to consider revising the Washington Treaty and introducing an Article 5B. The new article would make clear that hybrid attacks would trigger a collective response from the Alliance. While changing the Treaty, which has withstood the test of time, might not have wide support among the Allies, the Rapporteur is convinced that the Allied leaders should initiate the drafting of the Alliance’s new Strategic Concept to reflect new global security realities, including the rise of hybrid threats. As Mr Hague put it: “The updating of NATO [...] would mean that the Western alliance, so accustomed to the black and white choice of peace or war, would at last be adapting to the new world so beloved of President Putin and displayed in his election victory—a world of permanent grey.”

78. In conclusion, the Rapporteur wishes to stress that the Kremlin appears determined to disrupt collective European decision-making and reduce the influence of the United States on the continent. In its attempts to weaken the Euro-Atlantic security community, Moscow challenges our collective vision of a Europe that is whole and at peace. It is a daunting challenge, but the Euro-Atlantic community has the capacity to counter it if it acts in the spirit of solidarity. The wide international reaction to the outrageous use of chemical warfare on UK soil demonstrates that the international community is becoming aggressively impatient in response to Russia’s hybrid tactics. As the British Prime Minister, Theresa May, put it in her remarks to Russian leaders: “We know what you are doing, and you will not succeed. Because you underestimate the resilience of our democracies, the enduring attraction of free and open societies and the commitment of Western nations to the alliances that bind us.”

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RESOLUTION 445

on

UPDATING THE RESPONSES TO RUSSIA'S HYBRID TACTICS*

The Assembly,

1. **Acknowledging** that the awareness of Russia's use of hybrid tactics against the Euro-Atlantic community has grown considerably in recent years, but **mindful** that these tactics continue to pose a serious challenge to Euro-Atlantic stability, security and unity as well as to our vision of a Europe whole, free and at peace;
2. **Alerted** by the clear anti-Western agenda of the Kremlin and the complexity of its hybrid toolbox that ranges from political interference to use of force, targeted assassinations, aggressive espionage, exporting crime and corruption, weaponising information, conducting cyberattacks and applying economic pressure;
3. **Applauding** the adoption – at the 2016 Warsaw Summit – of the NATO strategy to counter hybrid threats and the subsequent decision of the 2018 Brussels Summit to establish Counter Hybrid Support Teams as well as the statement that there can be no return to “business as usual” until there is a clear change in Russia's actions that demonstrates compliance with international law and its international obligations;
4. **Welcoming** the deepening of NATO-EU cooperation in countering hybrid threats as well as important initiatives undertaken by national governments, and traditional and social media outlets as well as civil society actors to counter Russia's disinformation campaigns and cyberattacks;
5. **Condemning** in the strongest terms the use of a nerve agent in Salisbury, United Kingdom, and **praising** the unity and support demonstrated by the Allies to the British government;
6. **Denouncing** Russia's meddling in recent elections and referenda in the Euro-Atlantic area, and **deeply concerned** by the similar threat posed to upcoming elections as well as by the Kremlin's support for fringe political movements in the West;
7. **Condemning** the illegal construction of the Kerch bridge by Russia, combined with its policy of selective access denial and arbitrary detaining of Ukrainian and foreign vessels in the Azov Sea, and **deeply concerned** by new security, economic and ecological threats to the region;
8. **Reiterating** its firm support to the investigation conducted by the Dutch authorities on the downing of flight MH17 in Ukraine, and **calling on** the Kremlin to comply with UN Security Council Resolution 2166, take responsibility and fully cooperate with all efforts to establish accountability;

* Presented by the Committee on the Civil Dimension of Security and adopted by the Plenary Assembly on Monday 19 November 2018, Halifax, Canada

9. **Cognisant** of Russia's continued hybrid warfare against Georgia aimed at undermining Georgia's European and Euro-Atlantic aspirations and at discrediting Western values;
10. **Believing strongly** in the resilience of democracy and the ability of open societies to prevail against hybrid threats;
11. **URGES** member governments and parliaments of the North Atlantic Alliance:
 - a. to reflect the new global security realities in the next NATO Strategic Concept and to take the Russian hybrid threat into account;
 - b. to reiterate the position that hybrid attacks can trigger the Allies' right to collective defence;
 - c. to consider discussing hybrid threats in the framework of the NATO-Russia Council;
 - d. to redouble efforts to build resilience among their civil society against any type of hybrid attack, including by revising education policies in order to promote critical thinking and cyber literacy from an early age;
 - e. to continue applying restrictive measures, such as applying fines in cases of hate speech, and encouraging social media companies to increase their capabilities in removing fake news and identifying fake or automated accounts;
 - f. to consider introducing targeted sanctions in solidarity with the United Kingdom, and other members recently targeted by Russia's hybrid attacks;
 - g. to enhance coherence and coordination between NATO civilian and military assets, as well as between NATO and the EU, in responding to hybrid threats;
 - h. to increase strategic awareness by enhancing intelligence sharing and cooperation between domestic agencies and strengthening further NATO's Joint Intelligence and Security Division;
 - i. to continue investing in the development of well-trained local Special Forces as the first port of call in scenarios involving the use of mercenaries and armed men without military insignia;
 - j. to enhance further a coordinated and comprehensive cooperation with aspirant partners in the Western Balkans and Eastern Europe on countering Russian hybrid warfare tactics;
 - k. to adopt a coherent and pro-active strategy to target the Western assets of corrupt Russian elites;
 - l. to design specific government units and support media and civil society initiatives in the field of debunking fake news and identifying hostile propaganda and to provide existing EU and NATO capabilities with additional financial, technological and human support;
 - m. to recognise the importance of developing cyber capabilities enabling Allies to impose costs on those who harm them in cyberspace and allowing NATO, where appropriate, to use these cyber capabilities to support its operations;
 - n. to identify electoral structures as strategic infrastructure and to offer assistance to political parties and candidates in protecting their data and networks;
 - o. to continue efforts to diversify energy imports and promote energy efficiency.

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RESOLUTION 446

on

SECURITY AND COOPERATION IN THE HIGH NORTH*

The Assembly,

1. **Alarmed** by the speed of the climate change in the Arctic regions;
2. **Mindful** of the growing geostrategic importance of the Arctic as the changing climate creates new opportunities for shipping, exploitation of mineral resources, fishing and tourism, as well as for military activities;
3. **Concerned** that – while the threat of an armed conflict in the Arctic is still low – it cannot be entirely ruled out that a possible spill-over of tension between Russia and NATO Allies, as well as China's increasing engagement, could lead to more strategic rivalry in the region;
4. **Acknowledging** the scale and scope of Russia's military build-up in the Arctic, including the revamping of the Northern Fleet, the establishment of military infrastructure across the region, the development of anti-access and area denial (A2/AD) capabilities, and dramatic increases in air and submarine activity on the Alliance's borders;
5. **Recalling** that at the 2016 Warsaw Summit, the Alliance committed to strengthening its maritime posture in the North Atlantic and to improving the Alliance's comprehensive situational awareness in the region to deter and defend against any potential threats, including against sea lines of communication and maritime approaches of NATO territory;
6. **Welcoming** NATO's decision to establish a new Atlantic Command in Norfolk, Virginia, (United States);
7. **Mindful** of the different perspectives among the Allies on the scope of NATO's presence in the Arctic, yet **persuaded** that NATO can offer added value in the region;
8. **Aware** that the increasing human activity in the region raises serious concerns relating to human security and the protection of critical economic infrastructures, particularly in the context of harsh weather conditions and limited search and rescue (SAR) capabilities;
9. **Convinced** that international cooperation as well as close partnership between the military, public and non-governmental sectors are essential in order to provide adequate civilian protection in the High North;

* Presented by the Committee on the Civil Dimension of Security and adopted by the Plenary Assembly on Monday 19 November 2018, Halifax, Canada

10. **Highlighting** the role of the Arctic Council as the main vehicle for cooperation in the Arctic;
 11. **Emphasising** that interstate relations and Arctic economic development should adhere to international law, both customary and case law, as well as relevant international conventions and rules, including the Polar Code;
 12. **URGES** member governments and parliaments of the North Atlantic Alliance:
 - a. to steer international efforts towards promoting cooperation in the Arctic in a spirit of responsible stewardship, and preventing tensions and competition in the region from becoming insurmountable;
 - b. to adapt NATO strategic posturing in the High North to the new security realities identified in the Assembly's 2017 report "NATO and Security in the Arctic", including supporting the Allied Arctic littoral states in developing adequate defensive assets and capabilities and organising more joint exercises such as *Trident Juncture*;
 - c. to bolster NATO's enhanced situational awareness through greater expertise in the Arctic region;
 - d. to promote and exchange best practices in terms of SAR and contribute to the interoperability of SAR units through joint exercises both among NATO countries and with non-NATO countries;
 - e. to maintain and further develop constructive cooperation with Russia in the fields of search and rescue, fisheries and scientific research;
 - f. to support the work of multinational frameworks, such as the Arctic Council, and to ensure full compliance with international law, both customary and case law, the implementation of the Polar Code and the further development of higher international safety and environmental standards for the High North;
 - g. to ensure that Indigenous peoples and communities are adequately consulted and represented throughout decision-making processes concerning the Arctic region;
 - h. to strengthen efforts to minimise the impacts of climate change on the Arctic, especially by reducing greenhouse emissions and implementing the Paris Agreement.
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NATO PARLIAMENTARY ASSEMBLY

DEFENCE AND SECURITY COMMITTEE (DSC)

REINFORCING NATO'S DETERRENCE IN THE EAST

General Report

by [Joseph A. DAY](#) (Canada)
General Rapporteur

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I. INTRODUCTION

1. NATO's most conspicuous steps to adapt its defense and deterrence posture since 2014 are being taken in the Alliance's eastern European territories. Increased Allied presence in the form of rotating forces, equipment stockpiles and exercises is changing the balance of conventional forces to deter a resurgent, revisionist and increasingly capable Russia. This general report will review and assess the Alliance's 'tripwire' deterrence via the establishment of the Enhanced Forward Presence (EFP) in Estonia, Latvia, Lithuania and Poland, as well as the Tailored Forward Presence (TFP) in the Black Sea region.

2. Increased Alliance presence in both regions is meant to signal the credibility of the Alliance's post-2014 defense and deterrence posture – which includes the balance of conventional and nuclear forces, as well as missile defense and arms control initiatives. Significant contributions from the United States and Canada underscore the transatlantic security imperative of the efforts to reinforce the Alliance's eastern flank. According to officials at NATO HQ, the EFP and TFP are intended to communicate Alliance cohesion and capability in the face of an evolving threat to Allied populations and territory.

3. As this report highlights, the current configuration of conventional forces in the Alliance's eastern territories remains insufficient. In the instance of a contingency in any region along the eastern flank, particularly in the Baltic States, the Alliance would be at pains to reinforce any operation to repel an invading force and return the area to the *status quo ante*. This is due to two critical remaining challenges: first, the ability to move necessary military equipment and personnel to and across the region due to cumbersome bureaucratic and logistical hurdles; and second, the lack of a sufficient number of European member states high-readiness rapid reaction forces currently available for deployment in the event of a crisis.

4. Russia has neither of these problems and can bring overwhelming force and manpower to bear upon the region quickly. Russia has the advantage of efficient internal lines of communication and a restructured brigade-focused army, which permits rapid deployment. In addition, Russian modernisation allows these forces near-peer capabilities in firepower and mobility, as well as air defense systems.

5. The Alliance is taking steps to overcome these critical hurdles. In the fall of 2017, NATO HQ announced the creation of two new commands in Norfolk, Virginia and Ulm, Germany. Both will assist with the coordination of the movement of troops across the Atlantic and within Europe. In addition, the United States is increasing its investment in the European Deterrence Initiative (EDI) and Allies are increasingly investing in the personnel and equipment needed to make the current rebalancing of conventional forces available for NATO's defense and deterrence posture. More still needs to be done.

6. This paper continues the Defence and Security Committee's reporting on NATO's evolving post-2014 adaptation, which has followed the Alliance's reconsiderations of the proper weight to be given to the mix of forces comprising its deterrence and defense posture. NATO's ability to reinforce its conventional capabilities along the eastern flank remains a vital security concern.

II. NATO'S NEW SECURITY CONTEXT

7. As this Committee discusses frequently, the Alliance's eastern and southern flanks are new sources of threat, instability and potential conflict. As NATO SACEUR, General Curtis Scaparotti told the audience at the Joint Committee Meetings in February: "We now have to manage crises, stabilize, and defend in an environment shaped, manipulated and stressed by strategic challenges. The two principal challenges we face are Russia and violent extremism. Both have strategic destabilization efforts that go after the foundation of our security and target its key institutions. They

attempt to turn the strengths of democracy into weaknesses.” The recent buzzword for this in NATO HQ briefings is the commitment to 360-degree security in a complex and distributed environment.

A. NATO-RUSSIA RELATIONS DRIVING EASTERN DEFENSE AND DETERRENCE RECALIBRATION

8. NATO-Russian relations are hovering close to historic lows. Russia’s annexation of Crimea unleashed escalating tit-for-tat sanctions, dangerous rhetoric and acrimonious distrust. As a result, brinkmanship is at its highest levels since the Cold War (Frear, Kulesa and Kearns, 2017; Boulègue, 2018).

9. The size, scope and pace of Russian military modernization, a change in military doctrine and aggressive nuclear rhetoric and conventional military actions are critical variables driving NATO’s defense and deterrence posture in the eastern part of the Alliance (NATO Warsaw Declaration, 2016). Russian saber-rattling via ongoing operations in Ukraine and Syria, large-scale ‘snap’ military exercises against the "spirit of the Vienna Document" and disruptive military activities in the seas along the Alliance’s eastern flank from the Baltic to the Black Sea are also highlighted in the official Warsaw Summit Declaration.

10. The deployment of modern anti-access/area-denial (A2/AD) capabilities along NATO’s eastern flank also gives Russia the potential to reduce or even block Allied freedom of movement within its own territories and water spaces.

11. In the interim, Russia has engaged in aggressive disinformation campaigns via multiple media outlets to sow discord and confusion across member states of the Alliance. Russian interference in Western democratic processes via election manipulation is a particular point of contention and division in many Allies’ domestic political discussions. Cyber interference is now one of the ways in which Russia is continuing its long history of political interference. In addition, for years, Russia has used its supply and control of natural resources to bully its neighbors.

12. As the past four years have demonstrated, Russia is ready to use any means available – from hybrid tactics, to conventional operations, to nuclear menacing – to leverage its power over the Alliance. Ultimately, its goal is to break Allied consensus and reduce Washington’s say in the future of European security.

B. DISRUPTIVE DOCTRINE AND MILITARY MODERNIZATION VIEWED MORE CLOSELY

13. NATO officials point to Russia’s changed military doctrine and military modernization as particular drivers of the Alliance’s defense and deterrence posture changes in the eastern territories.

Doctrinal Shift

14. In 2014, a few months after the intervention in Ukraine, Russia published its new military doctrine. The document marks a fundamental change of direction in Russian foreign policy. While Russia’s 2010 military doctrine openly contemplated cooperation with NATO, four years later, the updated doctrine considers the Alliance as a *de facto* competitor.

15. The 2014 military doctrine repeats much of the language of its 2010 predecessor, but the tone is strikingly more hostile toward NATO. While both doctrines list NATO under the category of “main external military dangers”, the 2014 publication characterizes the Alliance as acting against Russia rather than simply having the *desire* to do so. In particular, the 2014 doctrine highlights NATO’s activities in central and eastern Europe as a threat to Russian national interests (Sinovets and Renz, 2015). It notes the intention to increase Russian efforts to protect Russian interests in its immediate neighborhood, moving from the Arctic down through eastern Europe to the Black,

Mediterranean and Caspian Seas. NATO's deployment of missile defense systems and the implementation of "global strike" are designated as major military dangers for Russia. Additionally, the doctrine views the use of information and communication technology for political-military purposes as another major threat to the Russian Federation and its allies (Russian Embassy to the UK, 2015). As such, the Russian government interprets the Maidan and other "Color" Revolutions as attempted or successful external interference to drive regime change by the West, which merits reciprocal response, possibly in the form of election meddling in the West.

16. Russian military modernization, exercises and rhetoric in recent years confirms this shift in strategy.

Russia's Increasingly Modernized, High-Readiness, Deployable Forces

17. As previously reported in this Committee, Russia continues its now decade-long concerted effort to build a modern, professional and high-readiness suite of armed forces. Increased investment is impacting the quality of the forces dramatically.

18. The Russian army of 2018 is a far cry from that of 2008. After relatively hobbled performances in the Caucasus during the first two decades after the demise of the Soviet Union, particularly during the Georgian War of 2008, Russia instituted a massive military reform project, termed the "New Look." In addition to structural reforms, a massive arms procurement policy, the State Armaments Programme (SAP), has reversed decades of decline and significantly improved the Russian military's ability to sustain firepower and maneuver over time and distance (Giles and Monaghan, 2014; IISS, 2018). Russian defense spending increased 16-fold in nominal terms from 2000-2015 (IISS, 2015). In recent years, Russia has consistently dedicated 3-4% of its GDP toward force modernization (IISS, 2018).

19. Though military spending was somewhat slowed in recent years due to the sanctions-stressed Russian economy and depressed global oil and gas prices¹, Russia now fields very capable land, air and sea forces. New Russian equipment has increased the ability for precision strikes at distance, state-of-the-art air defense systems and highly-mobile and powerful equipment, for example the SU-57 5th generation stealth fighter, the T-14 *Armata* tank and the dual-use *Iskander* tactical ballistic missile systems, among others (IISS, 2018; RAND, 2018).

20. Restructuring is making the Russian army more brigade-focused, which allows for quicker mobility. In addition, the number of volunteer (or contract) soldiers has increased dramatically – up to approximately 360,000 out of a total of about 900,000 personnel in the armed services (IISS, 2018; Golts, 2017). The professionalization of the army allows for a larger number of units to be ready for short-notice deployment. Russia has also reinforced its Western Military District, sending units from its inner regions and activating new armored, infantry, artillery and air defense formations – the Western District now bases up to 400,000 forces, approximately 80,000 of which are within close proximity to the Baltic States (RAND, 2018; IISS, 2015).

21. Finally, the Russian military has been training its forces via large-scale 'snap' exercises, which emphasize sustaining combined-force operational scenarios over time and distance. These exercises have been augmented by the real battlefield experiences of combined-arms operations in both Ukraine and Syria, where Russia is not only testing troop readiness, but also the efficacy of its new, modern weapons systems.

¹ Oil and gas revenues surpass 35% of Russia's annual budget, up from only 9% in 2000. See, US Energy Information Administration, Russia: International Energy Analysis and Data, October 31, 2017. www.eia.gov/beta/international/analysis.cfm?iso=RUS

III. CHANGES TO NATO'S DEFENSE AND DETERRENCE POSTURE – EAST

22. NATO responded to Russia's 2014 annexation of Crimea by revamping the NATO Response Force (NRF) via the Readiness Action Plan (RAP), which sought to scale the number of forces capable of responding to a contingency to 40,000 and to make them more flexible and adaptable, with the objective of guaranteeing rapid reinforcement and mobility. After its reform, the NRF contains air, land, maritime and Special Operations Forces (SOF) components.

23. The RAP also established the Very High Readiness Joint Task Force (VJTF) as the spearhead of the NRF, capable of deploying 5,000 brigade-level troops within two to seven days' notice to the periphery of the Alliance. At the same time, NATO Allies held land, sea and air military exercises, from the Baltics to the Black Sea region and established new air and maritime policing missions².

24. By 2016, Allies recognized the necessity of larger-scale adaptation across the Alliance to create a more modern mobile and dynamic deterrence posture to face the realities of a far more complex security environment.

25. In light of continued deterioration in NATO-Russia relations, NATO Allies decided at the July 2016 Warsaw Summit to further strengthen the Alliance's posture in order to deter potential adversaries from using force against NATO member countries: the Enhanced Forward Presence in Poland and the Baltic States and the Tailored Forward Presence in the Black Sea region are the key resulting initiatives in NATO's eastern territories. During the Warsaw Summit, then-US President Barack Obama committed to using US defense funds in reassurance and support of the European Allies' defense efforts, referred to as the European Reassurance Initiative (ERI). These initiatives were reaffirmed at the most recent NATO Summit in Brussels in July 2018.

IV. THE EFP AND TRIPWIRE DETERRENCE

26. NATO's EFP consists of the deployment of four rotating multinational battlegroups, stationed in Estonia, Latvia, Lithuania and Poland. These forces are over 4,500 strong and are drawn from 17 different NATO member states under the lead of four framework nations: Canada in Latvia, Germany in Lithuania, the United Kingdom in Estonia, and the United States in Poland. The four battlegroups are under NATO command as they report to a new multinational division headquarters based in the Polish 16th Mechanized Division in Elblag, which will in turn answer to the Multinational Division Northeast (MND-NE) Headquarters in Szczecin in Poland. The four battlegroups became fully operational on 28 August 2017 after the completion of all certification exercises (CERTEX). The MND-NE will reach full capability by December 2018.

27. From a conventional power perspective, the deployed battalions are clearly insufficient to defend against a large-scale, conventional Russian offensive, a point driven home to the Defence and Security Committee during its table exercise with members of the RAND Corporation research staff during its January 2017 visit to Washington.

28. The table exercise summarized the findings of the RAND Corporation's study on NATO's ability to repel a concerted attack on the Baltic States. According to the study, the longest it would take Russian forces to reach either Tallinn or Riga would be 60 hours. As RAND Corporation researchers told Defence and Security Committee members, despite efforts to bolster the Alliance's deterrence posture in the region in terms of forces and equipment, NATO would in fact need about 35,000 soldiers already on the ground and with much better equipment, such as air defense systems and heavy armour, to thwart a serious Russian invasion.

² This Committee addressed in greater detail the impact of the decision in a previous report, *NATO's Readiness Action Plan: Assurance and Deterrence For The Post-2014 Security Environment*, by Xavier Pintat, [167 DSCFC 15 E bis].

29. As of February 2018, EFP rotating battalions only interpose 4,692 troops, and they are distributed across a wide geographic area: in Tapa, Estonia a battlegroup led by the United Kingdom, operating with Estonian forces and supported by Denmark and Iceland has 1,001 NATO troops; the forces based in Adazi, Latvia number around 1,170 and are led by Canada and supported by Albania, Italy, Poland, Slovakia, Slovenia and Spain; German forces lead a battlegroup of 1,404 troops in Rukla, Lithuania, supported by Croatian, French, Dutch and Norwegian forces; and, finally, a US-led battlegroup with 1,117 troops from Croatia, Romania and the United Kingdom is based in Orzysz, Poland. (See Appendix)

30. While perhaps insufficient as standalone forces in the instance of a full-scale attack by Russia in the region, the EFP serves as a tripwire for a whole-of-alliance Article 5 response in the instance of an aggressor's potential action against any Allied territory and/or populations. Ultimately, the EFP seeks to bolster the credibility of the Alliance's deterrence posture in what had been perceived as a strategically vulnerable part of the Alliance.

V. THE TAILORED FORWARD PRESENCE

31. At the Warsaw Summit, NATO also established the Tailored Forward Presence in the Black Sea region. Based on a proposal by Romania, the TFP bolsters NATO's presence in the land, air and maritime domains (Romania's Permanent Delegation to NATO, 2017).

32. The NATO PA was reminded of the geostrategic importance of the Black Sea during the 2017 Annual Session in Bucharest, where the NATO Secretary General, Jens Stoltenberg, noted the Alliance's desire to increase its efforts to project stability across the region in response to Russia's illegal activities in Ukraine.

33. The land component of the TFP includes a multinational brigade in Craiova and a Combined Joint Enhanced Training Initiative (CJET). The Multinational NATO South-East Brigade reached Initial Operational Capability in April 2017 and was officially inaugurated on 9 October 2017. The core of this multinational formation is the Romanian 2nd "Rovine" Infantry Brigade, a brigade of up to 4,000 soldiers³, which is complemented by a separate deployment of 900 US troops already in place (Emmott, 2017). The CJET is a regional platform for cooperation, aimed at ensuring a continuous Allied presence in the region, through participation in exercises and training activities.

34. The TFP's maritime component involves integrated training and more exercises with the participation of the NATO Standing Naval Forces. An example of the TFP's recent Black Sea maritime efforts is the July 2017 multinational maritime exercise *Sea Breeze*, which included assets from the Standing NATO Maritime Group Two Task Unit Two (SNMG2 TU.02)⁴ and other maritime assets from both Allied and partner states. The exercise played out both in the Black Sea and on Ukrainian territory with the participation of Belgium, Bulgaria, Canada, France, Georgia, Greece, Italy, Lithuania, Norway, Poland, Romania, Sweden, Turkey, Ukraine, the United Kingdom and the United States.

35. The TFP's air component, NATO's enhanced Air Policing (eAP), is manned by rotating Allied forces patrolling the Romanian and Bulgarian airspace. On 31 December 2017, Canada concluded its four-month contribution to the eAP, after having deployed approximately 135 Canadian Armed Forces personnel and four CF-188 Hornets at the Mihail Kogalniceanu Air Base in Romania. During the mission, *ATF-Romania*, Canadian Air Forces also participated in joint training exercises with their

³ Also known as Scorpions Brigade, it was previously deployed in Afghanistan and in Iraq.

⁴ SNMG2 is one of NATO's four Standing NATO Maritime Groups (SNMGs). The SNMGs are a multinational, integrated maritime force made up of vessels from various Allied countries. These vessels (including their helicopters) are permanently available to NATO to perform different tasks ranging from participating in exercises to actually intervening in operational missions. <http://www.mc.nato.int/media-centre/news/2016/nato-and-partner-country-forces-participate-in-exercise-sea-breeze.aspx>

Romanian counterparts, demonstrating their readiness in terms of medical support, flight safety, aircraft maintenance, command and control, and policing (Strong, 2018).

36. At the NATO defense ministerial meeting held in Brussels on 8-9 November 2017, the United Kingdom announced its decision to redeploy four RAF Typhoons to work with Romania to police the Black Sea skies on a permanent basis (Wills, 2017). The decision came right after two Typhoon jets were scrambled in September to monitor Russian planes heading towards British airspace; a similar incident occurred in January 2018 (Hartley-Parkinson, 2018). In July 2017, RAF Typhoons scrambled in response to Russian Air Force Tu-22 Backfire strategic bombers heading south near NATO air space over the Black Sea.

US European deterrence initiative

37. The Trump Administration's December 2017 National Security Strategy (NSS) defines the current international security environment as one of global competition at all levels. In the document, Russia is identified as seeking peer-rival status *vis-à-vis* the United States. The document underscores that an important line of effort to counter this is to build stronger alliances. The NSS emphasizes Washington's desire to remain active in Europe: "A strong and free Europe is of vital importance to the United States" (NSS, 2017).

38. US policymakers also worked to dispel any lingering doubts in delegation members' minds about the United States' Article 5 commitment during the Defence and Security Committee's most recent visit. As Thomas Goffus, Deputy Assistant Secretary of Defense (DASD) for European and NATO policy, noted: "The United States' Article 5 guarantee is iron-clad." Mr Goffus continued by stating that the United States would focus on the European Deterrence Initiative (EDI) during the upcoming summit in Brussels: "Deterrence is what we do together, rather than the US-focused European Reassurance Initiative, as the EDI was previously known."

39. The EDI includes plans for additional forces, prepositioned brigade sets and other support assets in Europe, with the increased number of forces coming from the combination of additional forces and the deferral of previously planned force reductions. It also provides support for an additional armored brigade combat team (ABCT). The EDI, therefore, funds the maintenance of two ABCTs, two Fires Brigades and air defense, engineer, movement control, sustainment and medical units in the region, which would be sufficient to sustain a division (US DOD, 2018).

40. The ERI/EDI has funded a significant increase in US presence in eastern Europe, which supports more exercises, infrastructure, equipment prepositioning, and partner capacity development efforts. In many ways, the proof of US commitment is in the USD 10+ billion already spent or planned to reinforce Allied defense and deterrence in Europe.

41. The United States recently announced a planned allocation of USD 6.5 billion to the EDI in 2019, a USD 1.7 billion increase from last year and USD 3.1 billion more than was allocated in 2017.

42. During the February 2018 NATO PA Joint Committee meetings held in Brussels, briefers reiterated the United States' commitment to Europe is strong and a paralleled surge in defense investment is now expected from the United States' European Allies.

Exercise Trident Juncture 2018

43. *Trident Juncture 2018* [TRJE18] is scheduled to take place in Norway in October and November and will include 40,000 personnel, 130 aircraft and 70 vessels from the 29 NATO members, Sweden and Finland. The exercise is comprised of three main phases: deployment and redeployment, a live field exercise and a command post exercise. Within the live field component, training will be divided between land, air and sea and will take place across Norway and the North

and Baltic Seas. The exercise is a major test for the Very High Readiness Joint Task Force (VJTF), which will be certified at the end of TRJE18 (See Appendix I for Map).

44. Beyond logistical and climatic concerns, organizers also point to Russia as a potential challenge. The exercises proximity to Russia and the inclusion of non-NATO members—Sweden and Finland—is sure to heighten Moscow’s interest. Norwegian Defense Minister Frank Bakke-Jensen stated: “There will be an opportunity for Russia to practice different methods of influence. So, we must be prepared to be exposed to false news and influence, both in advance, during the exercise, and afterwards” (Taylor, 2018). The Committee will remain focused on the progress and success of Trident Juncture 2018.

VI. BARRIERS TO ENTRY – THE CHALLENGES OF DEFENDING THE EAST

A. RUSSIAN REGIONAL A2/AD CAPABILITIES

45. From a conventional tactical point of view, NATO’s tripwire deterrence relies heavily on reinforcements being deployed from the center to the periphery of the Alliance on short notice. Even if the decision to deploy the NRF and its VJTF is taken in due time, Russia could easily outmatch NATO’s forces by simply denying them freedom of movement to and inside the targeted area through the effective use of its A2/AD capabilities (Baroudos, 2016).

46. Russia is in the process of fielding an impressive variety of A2/AD systems in and around the Baltic Sea region, the Black Sea, the Eastern Mediterranean and the Barents Sea. When fully operational, these systems will substantially limit NATO’s ability to reinforce Allies by land, air and sea (NATO STO, 2017). By mid-2016, the Russian Federation had already introduced air defense, coastal defense and electronic warfare capabilities as well as ballistic missiles in Kaliningrad, in Syria, and later in Crimea (IISS, 2017). Russia’s A2/AD exclusion areas were extended with the deployment of the S-400 air defense system to Syria in November 2015 and to Crimea in August 2016; each has a range of up to 250 miles. Advanced Russian air defense is also operated in cooperation with Belarus and Armenia through the Joint Air Defense System (Weinberger, 2016). According to the Lithuanian Minister of Defense Raimundas Karoblis, Russia has also permanently deployed *Iskander* missiles in Kaliningrad (AFP, 2018).

47. The TFP serves as a means of monitoring the evolution of Russia’s A2/AD capabilities in and around the region. This is especially true considering that Romania is home to the Aegis Ashore Ballistic Missile Defense site. The NATO Science and Technology Organization (NATO STO) is currently conducting an analysis on Russian A2/AD capabilities in order to address existing vulnerabilities (NATO STO, 2017).

48. In particular, given their geographical location, the three battlegroups deployed in the Baltic States could be trapped behind the Russian A2/AD wall. As noted by the Defence and Security Committee, the only weakness in the Russian A2/AD bubble in the Baltic Sea is the Swedish island of Gotland.

49. In September 2017, Sweden held its biggest military exercise since the early 1990s. *Aurora-17* involved 19,000 Swedish soldiers and a foreign contingent of seven NATO countries (the United States, Denmark, Estonia, France, Latvia, Lithuania and Norway), plus Finland. The objective of the exercise was the defense of the Swedish island of Gotland from an attack coming from territories roughly corresponding to Kaliningrad and Belarus (Winnerstig, 2017). After the exercise, following decades of absence, Sweden decided to reinstate a permanent military presence on the island. Commenting on this decision, former US Army Europe Commander General Ben Hodges reaffirmed Sweden’s and Gotland’s importance for NATO: “You have a strategically very important task here. I do not think there is any island anywhere that is more important” (The Local, 2017).

B. THE ZAPAD 2017 EXERCISE

50. *Aurora-17* was held a few days before the start of Russia's large-scale military exercise *Zapad 2017*. While Russia holds yearly large-scale exercises⁵, there are several factors which make *Zapad 17* worthy of further consideration. The exercise was the first exercise held in the west⁶ – specifically in Belarus and in Russia's Kaliningrad *oblast* – since 2013 and therefore since Russia's intervention in Ukraine and the deteriorated relations with NATO (IISS, 2018).

51. Russia was deliberately vague about the number of troops and equipment deployed for the exercise. Official statements stated 12,700 personnel participated, just short of the 13,000 threshold which would require the presence of international observers under the 2011 Vienna Document. While Belarus had indeed invited a small number of observers, Russia was vague about the number of personnel deployed to Kaliningrad for the exercise. Estimates for the total number of personnel deployed in both Belarusian and Russian territory range between 50,000-60,000 (IISS, 2018).

52. Russian Defense Minister Sergei Shoigu described the exercise as a counterinsurgency operation against extremist groups benefitting from external support. Russia tested, *inter alia*, its air and missile defense systems, which were successful as air and land reinforcements to the hypothetical armed groups operating in the exercise. In addition to conventional components, Russia also added asymmetric components to the exercise, testing its ability to repel diversionary-reconnaissance groups and counter-electronic warfare. The exercise's counterinsurgency components transitioned to conventional warfare (IISS, 2018; Boulègue, 2017). Some analysts have underscored the significance of this, as Russia tends to rehearse tactics it plans to deploy later in a real scenario—a striking example being Russia's use of its *Spetsnaz* (Special Forces) during the 2013 exercise, which were subsequently an essential element to the annexation of Crimea (Mizokami, 2017).

53. The main takeaways from *Zapad 2017* are twofold. First, despite NATO's post-2016 reassurance efforts, Russia's ambiguity about the size and scope of the exercise was successful in rattling many Allied and partner governments, particularly in NATO's eastern territories. Second, Russia showed its capacity to conduct a range of operational theatre tactics, from heavy combined-arms to asymmetrical.

C. THE VOSTOK 2018 EXERCISE

54. From 11 to 17 September 2018, Russia held its largest military exercise since the Soviet Union's *Zapad 81*. Minister of Defense and General of the Army Sergei Shoigu claimed *Vostok 2018* involved approximately “300,000 troops; more than 1000 planes, helicopters, and drones; up to 80 combat and logistic naval vessels; and up to 36,000 tanks, armoured-personnel carriers, and other vehicles” (Synovitz, 2018). The main exercise centered on Tsugol training facility in Zabaykalsky *krai*, but activities reached across eastern Siberia. General of the Army Valery Gerasimov highlighted multiple new technologies and armaments being tested, among them upgraded T-80 and new T-90 tanks, the new SU-34 and SU-35 airplanes, Mi-28 and Mi-35 attack helicopters, as well as *Iskander* missile systems (TASS, 2018). The size and scope of the operations is a clear demonstration of force by the Kremlin, which hopes to project military capabilities comparable to the Soviet Union.

55. In addition to Russian forces, both Chinese and Mongolian forces participated as well, with the People's Liberation Army sending 3200 troops and 900 pieces of weaponry (Higgins, 2018). China's presence at *Vostok 2018* underscores a growing strategic partnership between Moscow and Beijing. This could signal a response to the US National Security Strategy, which stated both nations

⁵ Russia's policy is to rotate the regional focus of its exercises yearly; other than *Zapad*, which literally translates as West, there are also *Kavkaz* (Caucasus), *Tsentr* (Center) and *Vostok* (East).

⁶ *Zapad* means west in Russian. Russian exercises rotate annually along cardinal points – as noted below, *Vostok*, or east, is taking place in the fall of 2018.

“challenge American power, influence, and interests, attempting to erode American security and prosperity;” with both Moscow and Beijing signaling to Washington their desire for closer cooperation, particularly at the security level (NSS, 2017). Furthermore, through *Vostok 2018* Russia and China can mirror NATO’s *Trident Juncture* exercise and develop the image of their strategic partnership as a peer competitor to the West.

56. Concurrent with *Vostok 2018*, the Russian Navy reinforced its contingent of warships in the eastern Mediterranean. On 1 September 2018, 26 Russian warships and support vessels along with 36 planes took part in a naval exercise off the coast of Syria (Coker, Saad and Gall, 2018). As Russian forces engage in naval training in the eastern Mediterranean, only a few hundred miles away, Russian-backed Syrian forces prepare to oust the last vestiges of the opposition forces in Idlib province. These military maneuvers near Syria are another way Russia is seeking to project its renewed global reach and ambitions.

57. Despite stalled NATO-Russia cooperation attempts, communication channels remain open between the two. To prevent unintended conflict and ease tension, the NATO-Russia Council met in May 2018 to discuss *Vostok 2018* and Exercise *Trident Juncture 18* (RFE/RL, 2018). Additionally, military-to-military lines of communication are used to provide transparency in military activities.

NATO’s Northeastern Flank – A Weakness Exposed

58. As noted above, in January 2017, RAND Corporation political scientists told the Defence and Security Committee that NATO’s capabilities, posture and capacity to defeat a Russian attack on the Baltic States with its conventional land and air forces were too weak to return the region to the *status quo ante* without serious conflict escalation. While the EFP, VJTF and US EDI have certainly changed the balance of forces calculations, these remain insufficient when considering Russia’s advantages that persist, particularly in the Baltic area.

Russian Local Advantages Remain Significant

59. NATO’s focus on out-of-area stability operations after the Cold War, particularly after the 9/11 terrorist attacks, diverted attention from heavy combined-arms capabilities, artillery and missile defense (RAND, 2018). This trend, coupled with the cuts to defense spending and investment, has hollowed out the conventional capabilities of most European forces, which compromises the ability to reinforce or sustain deployed forces⁷. A recent study of the abilities of the British, French and German armies to generate and sustain armored brigades in the Baltics found that each would likely be able to deploy and sustain a heavy brigade, though at different rates and at great sacrifice (Shurkin, 2017). The study found that, of Europe’s three largest armies, only France could deploy one battalion within a week and a brigade within a month. Recent reporting on the operability of many major German military systems reveals Germany’s contributions are even less likely (Buck, 2018).

60. By contrast, Russia has spent the last decade honing the specific capabilities NATO’s European and Canadian forces are now lacking. Russia has strengthened and improved its combined-armed forces, making them more mobile and lethal. In addition, Russia is exercising these capabilities at an accelerated rate and is even testing them in real combat operations in Ukraine and Syria. All of these improvements have indeed made Russia a near-peer competitor, as outlined in the recent US NSS.

61. In the Baltic region, Russia maintains a significant advantage in integrated air and missile defenses, long-range artillery and heavy armor (IISS, 2015; RAND, 2018). Finally, Russia’s internal lines of communication, both road and rail, would allow Moscow to launch and sustain operations in the region rapidly.

⁷ This topic is examined in detail in the DSCTC report *Burden Sharing: New Commitments in a New Era* [170 DSCTC 18 E rev.1 fin].

62. As such, despite recent efforts to change the balance of conventional forces in the Baltics in the Allies' favor, Russia would still dominate any conflict in the short- to medium-term until the Alliance would be able to bring, likely across the Atlantic, overwhelming resources to bear upon the conflict.

VII. ADDRESSING NATO'S KEY REMAINING HURDLES TO MILITARY MOBILITY AND DEFENSE INVESTMENTS

63. A robust and effective defense of all of NATO's territories and populations is essential. To get there an effective deterrence posture must be in place to dissuade any potential adversary from even considering an attack anywhere within the Alliance at any given moment. To overcome the challenges to an effective defense and deterrence policy for NATO's eastern territories, national Parliaments need to find the ways and means to address the following challenges.

Military Mobility and Bureaucratic Delays

64. During the Cold War, ensuring the mobility of troops and equipment was a priority and was reviewed during frequent exercises. Cold War infrastructure included readiness for support, command and control, as well as for destruction, denial and diversion. It also incorporated multi-layered communication lines, hardened storage for ammunition and fuel and a central and northern European pipeline to bring fuel to forward operating bases. While some of this infrastructure still exists today, it only reaches the frontier of NATO's Cold War borders (Jacobson, 2018). As NATO moved its borders further east, attention to infrastructure and connectivity with the new members did not follow (Novaky, 2017). Today, NATO faces two main military mobility problems; the first concerns infrastructure itself, the other legal regulations.

65. Today, the Alliance has significant infrastructural deficiencies. First, it lacks the necessary infrastructure to transport modern military equipment at speed over long distances due to critical shortages in rolling stock to load and unload along the rail lines of communication. In addition, there is insufficient material for military bridging. Infrastructure in certain states is not physically capable of sustaining the weight of state-of-the-art military vehicles and is in urgent need of modernization. In the Baltics, for example, the rail gauge narrows at the Polish border (Jacobson, 2018).

66. The Alliance also faces significant bureaucratic delays at member state borders when clearing the transfer of equipment and forces. US General Ben Hodges (Ret.) was particularly outspoken about his unhappiness with the current bureaucratic ordeal concerning the movement of troops at border crossings. He noted the irony of having very high readiness forces and then not being able to move them fast enough because of bureaucracy (Schultz, 2017). During the NATO PA February Joint Committee Meetings, members learned cumbersome bureaucratic regulations cause unnecessary delays, even in key areas of vulnerability. It was estimated that, even working 24 hours a day and not taking unforeseen problems into account, it could take weeks to move a considerable number of vehicles across some borders in Europe (Schultz, 2017).

67. Establishing a more coherent and straightforward legal framework within the Alliance – often informally referred to as a “Military Schengen Zone” – should go hand in hand with infrastructure modernization. At this point in time, the above-mentioned troop and equipment border transfer requests can even be unexpectedly denied (EEAS, November 2017). While the issue has been badly neglected, there are consistent joint efforts that should be able to deliver significant results in a relatively short period of time.

The Example of the Suwalki Corridor

68. The thin strip of land connecting Poland and Lithuania is increasingly referred to as the Suwalki corridor. Its location between the Russian enclave of Kaliningrad and Belarus makes it a potential choke point between the Baltic States and the rest of the Alliance's eastern territories. The Suwalki corridor bundles the key challenges to building and maintaining an effective deterrence in NATO's eastern territories: infrastructural deficiencies, red tape and a critical imbalance of forces and equipment, as well as insufficient storage facilities to handle any potential surge in Allied military activities in the region.

69. In the event of a contingency in the Baltic region, the Suwalki corridor would become a lifeline between the Baltic States and Poland. As such, the Alliance must have in place an effective early warning system to detect a possible incursion, developed infrastructure for the quick deployment of troops, and the necessary manpower ready to defend the territory. As noted in this report, it currently does not.

Initial Steps Taken: Adapting NATO's Structure

70. In July 2018, NATO Secretary General Jens Stoltenberg confirmed the addition of two new commands to update the Alliance's force structure. First, the NATO Joint Force Command for the Atlantic will be stationed in Norfolk, Virginia to assist not only with increasing security in the Atlantic, but also to coordinate the transfer of reinforcements across the Atlantic in the event of a contingency in Europe. Another new command to assist with the logistical and bureaucratic hurdles associated with moving troops and supplies across Europe will be built in Ulm, Germany. Further, a new Cyber Operations Centre will also be established at the Supreme Headquarters Allied Powers Europe (SHAPE) in Mons, Belgium.

71. Allied efforts in the North Atlantic are also increasing to reflect the rapidly evolving security environment in the region and the need for increased presence to protect vital assets and key transatlantic sea lanes. In August 2018 the US Navy reactivated the Second Fleet, which will serve as a deterrent to increased Russian activity along the United States' eastern coast and across the North Atlantic. The UK Navy similarly announced an increased presence in the North Atlantic with the stated objective of protecting transatlantic submarine communication cables.

72. Further, to address the challenges of reinforcement, the Alliance announced a new initiative at the July Summit in Brussels – the NATO Readiness Initiative, often referred to as the "30-30-30-30 plan". The new initiative requires NATO to have available, from a common pool of forces, "an additional 30 major naval combatants, 30 heavy or medium maneuver battalions, and 30 kinetic air squadrons, with enabling forces" ready to deploy within 30 days or less of being put on alert. The implementation of the plan can be understood as a challenge to all NATO members to meet the demands of the Alliance's new defense and deterrence posture.

73. In addition, at the Brussels Summit, Allies also endorsed the Enablement Plan for SACEUR's Area of Responsibility. While short on details of how it will be implemented at the national level, the plan commits nations to work assiduously to "improve the necessary legislation and procedures, enhance command and control, and increase transport capabilities" (NATO Brussels Declarations, 2018). As such, the Summit declarations note the need to address the abovementioned key challenges currently impeding the efficient transfer of equipment and personnel across the Alliance. The remaining question is the degree to which each nation, particularly those in the eastern territories, will take up the challenge of implementing the Enablement Plan.

Increased NATO-EU Cooperation Needed To Help Solve The Problem

74. In December 2017, addressing existing barriers to military mobility at the legal and infrastructural levels was identified as an area of cooperation between the EU and NATO (Council of the EU, 2017). Within the EU, military mobility is likely to become the first flagship initiative of the EU-led Permanent Structured Cooperation (PESCO), as EU High Representative for Foreign Affairs and Security Policy Federica Mogherini vows to have an action plan for military mobility ready by March 2018 (European Council, 2017; EU Commission, November 2017).

75. The European Union identified improving the resilience of transport infrastructure as a key element in countering hybrid threats; as such, it is a fundamental part of the EU-NATO cooperation framework (EU Commission, July 2017). Cooperation with the EU is necessary in order to map out existing legislation concerning the movement of troops. Indeed, military equipment is currently excluded by the customs union; as such, military mobility is still regulated by a complex mix of NATO, EU and national regulations, which leads to uncertainties and significant delays (Fiott, 2017).

76. In March 2018, the European Commission published an Action Plan on Military Mobility to address regulatory hurdles and infrastructure deficiencies delaying military mobility across the European Union (European Commission, 2018). Most of the deadlines for key EU projects are set for the end of 2018 and 2019. An important first step set for the end of 2018 is the streamlining of custom formalities for military operations. Additionally, through the European Reassurance Initiative, the United States has invested in specific logistical improvement, such as the modernization of railheads to decrease unloading times for tanks in eastern Europe (Peel and Acton, 2018). In fact, infrastructure modernization to improve military readiness is identified as a key objective of the EDI, which dedicates USD 337.8 million of its 2018 budget to it and over USD 800 million in 2019.

77. Although infrastructure improvements are a major issue across the Alliance, there have been some positive developments in eastern Europe. For example, renovations continue along European Route E67, which runs from Prague to Helsinki by way of Poland, Lithuania and Estonia. Still, progress has been rather piecemeal; despite some localized advancements on the *Via Baltica* expressway, the project is years away from completion. Bottlenecks in the Suwalki corridor in both roads and rail leave the whole corridor strategically vulnerable (Hodges, Bugajski and Doran, 2018).

78. Other infrastructure projects undertaken in the Baltic region include expanding the Polish port of Gdansk. The EU Transportation Coordinating Committee recently approved EUR 1.9 billion for the modernization of facilities, the dredging of the port and improved road and rail connections (Maritime Journal, 2016). This will make the port more accessible to larger vessels and improve the transit of personnel and military supplies. In light of Russia's use of natural gas as a political tool in eastern Europe, important steps forward for regional energy security are being taken. Polish and Lithuanian gas transmission operators have approved a grid connection agreement this year, which, when completed in 2022, will provide a strategic energy link between Poland and the Baltic States (Ministry of Energy of the Republic of Lithuania, 2018).

VIII. CONCLUSIONS

79. Certainly, conventional forces are only a part of NATO's defense and deterrence posture. NATO's nuclear forces are also a core component of the Alliance's overall capabilities. The purpose of any deterrence posture, however, is to convince an opponent that any potential benefit to be gained from a military action would be wiped out by the overwhelming costs of such an action – thereby making the action unthinkable.

80. The conventional imbalance in NATO's eastern territories provides an unnecessary hypothetical temptation. If Russia were to test Alliance resolve, quick escalation would be disastrous.

81. Much can and should be done to bolster the balance of conventional forces in the region to erase any such temptation, no matter how slight or improbable it may be.

82. NATO's Enhanced Forward Presence and Tailored Forward Presence revolve around three central messages. The first is signaling Alliance solidarity in the face of Russian regional aggression and threats. The transatlantic security imperative of the new defense and deterrence efforts in the region is underscored by Canada and the United States leading the multinational battlegroups in Latvia and Poland. The second is the resolve to deter further aggression by demonstrating more robust capabilities in the region. The third is NATO's resolve to counter a limited incursion in the area.

83. *These messages can be strengthened in the following ways; Considerations for NATO Parliamentarians:*

84. **First**, the deployment of additional ground forces and equipment to the east remains an imperative. By doing so, the mobilization dilemma identified above would be mitigated: the increased numbers of troops and weapons stocks would greatly reduce deployment times.

85. **Second**, all Allies can support the NATO-EU initiatives to strengthen infrastructure and reduce legal and bureaucratic hurdles to military equipment and personnel transfers to the east. NATO parliamentarians can act domestically in their own Parliaments to move such legislation and funding initiatives forward. Such investments would clearly have an impact ranging far wider than just the transfer of military materiel – better roads, bridges, communication infrastructure, ports and airports, etc. can all have far-ranging economic impacts and demonstrate the political will to share Allied burdens.

86. The burden-sharing debate often overlooks the positive security and defense impacts such investments can have, not to mention the political will to demonstrate unity of purpose by regional Allies to "do their part". As Lieutenant General Carsten Jacobson told the delegation at the February 2018 Joint Committee Meetings: "When vital equipment cannot cross borders without intense bureaucracy and lengthy procedures – and we have seen delays not just for days, but for weeks in recent exercises – we simply cannot show Alliance capabilities across Alliance territory. This subject needs to be addressed urgently; it is a political task."

87. **Third**, European Allies should have faster deployment times than those outlined above. They should also have the resources necessary to sustain these deployments. All Allies should be able to contribute in a substantive way. Targeted investments to address force deficiencies are an imperative.

88. Regional Allies also need to invest in modern low-tier air defense systems, capable intelligence, surveillance and reconnaissance (ISR) systems, sensors and radars to give Allies a more complete air picture, as well as in defense capabilities that are more difficult to track, such as man-portable air-defense systems (MANPADS). In the absence of larger air defense systems,

investing in capabilities like Stinger missiles would be a clear means to change Russian calculations about their ability to dominate the air and ground if there is a contingency, even in the short-term.

89. **Fourth**, Allies must invest in the means to overwhelm and degrade Russia's A2/AD systems. This means investing in 5th generation fighters like the F-35, jamming systems, as well as longer-range precision missile systems to target and destroy any Russian attempts to degrade the Allies' ability to operate inside Allied territory.

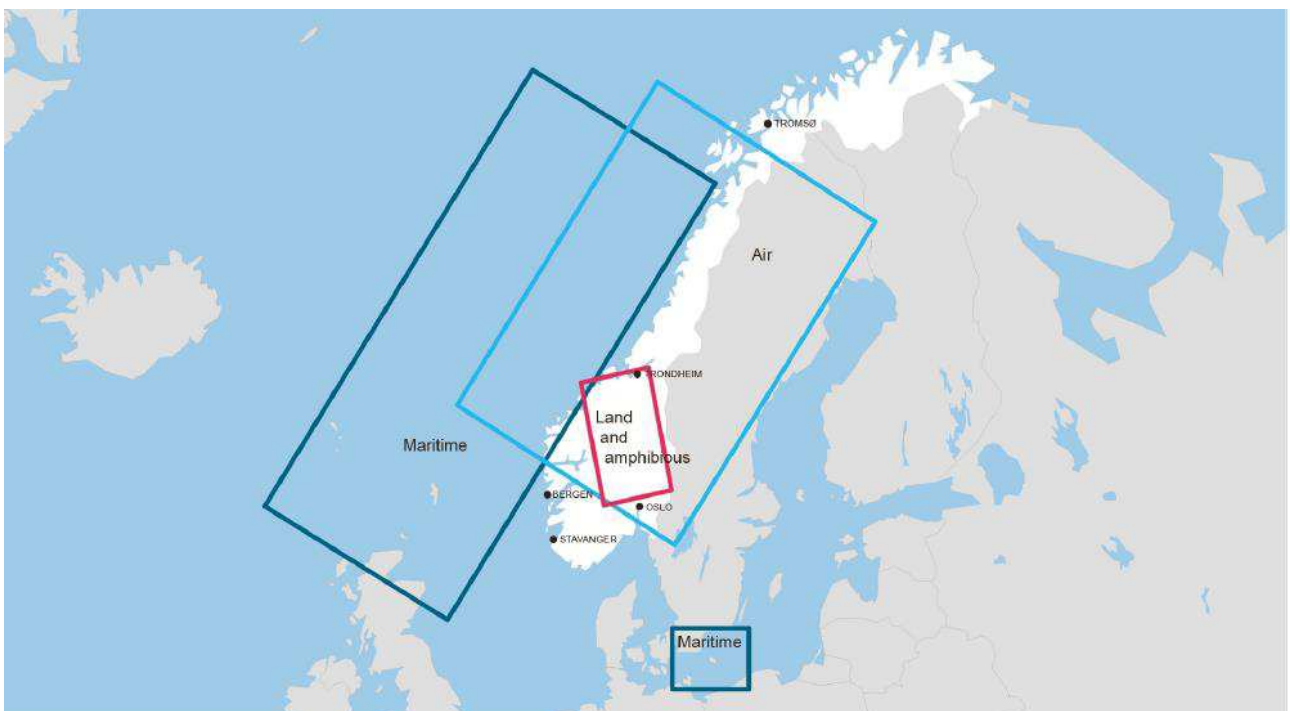
90. **Finally**, as mentioned in the 2017 Sub-Committee on Transatlantic Defence and Security Cooperation (DSCTC) report on burden sharing, the North Atlantic Council determined that the Alliance requires a new, modern, dynamic and mobile deterrence posture. The necessary means to implement this new posture must follow. This translates to increased Allied defense spending in the right kind of equipment and force structure to ensure NATO can respond to today's evolving security challenges and threats to international stability. Ultimately, however, NATO's ability to do so will be addressed only when the political will is present for a whole-of-Alliance solution to deliver the necessary capabilities in terms of personnel and resources.

APPENDICES

NATO Enhanced Forward Presence



Map of Exercise Trident Juncture 18



The Suwalki Corridor



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NATO PARLIAMENTARY ASSEMBLY

DEFENCE AND SECURITY COMMITTEE (DSC)

Sub-Committee on Future Security
and Defence Capabilities (DSCFC)

NATO SPECIAL OPERATIONS FORCES IN THE MODERN SECURITY ENVIRONMENT

Report

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I. INTRODUCTION

1. NATO Special Operations Forces (SOF) are executing a range of critical missions in today's complex international security environment. For example, a coalition of international Special Forces is supporting local forces in the fight against Daesh, and other Special Operations task groups (SOTGs) are embedded across the Middle East and Africa and work to help forces focus on small unit tactics, techniques, and procedures as well as military operations. Beyond the struggle to counter violent extremism, NATO SOF are also working to help Allies maintain an edge over rising near-peer threats.

2. Small in footprint and highly specialised, Special Forces can be seen as a precision instrument at the disposal of nation states seeking to perform a range of difficult tasks in an increasingly challenging operational environment and beyond. Further, as this report will document, Special Forces also provide plenty of other benefits to achieve policy goals at a fraction of the cost with a relatively high rate of success.

3. A key part of today and tomorrow's international security environment is playing itself out in a *grey zone* of competition between NATO and its principal foes. This murky terrain below the threshold of war is one not particularly suited to NATO's strengths. Robust, capable, and interoperable Alliance Special Forces will be an essential element to a whole-of-Alliance strategy to overcome the challenge.

4. NATO Special Operations Headquarters (NSHQ) is working to train, advise, and assist NATO Allies and partners to achieve this, but much more can be done at the Alliance and national levels to increase resilience and heighten situational awareness. NSHQ is still short of the resources necessary to accomplish the increasing number of tasks it is being assigned. More broadly, Allies across the board are seeking to develop increasingly capable and effective Special Operations Forces to hone their situational awareness and response capabilities. Despite their efforts, however, research indicates that most Allied SOF are neither large enough nor sufficiently resourced to accomplish the accelerating pace of tasks assigned to them, particularly those requiring effective strategic reach outside of Europe. Parliamentary attention to the allocation of adequate funding to make national Special Forces fit for purpose in today's security environment is essential if we are to remedy this problem.

5. This report examines the new, dynamic role Special Forces play in today's operations, training, and planning. Ultimately, the report will seek to broaden the NATO member states' legislators' understanding of the costs and benefits of increased use of SOF in a challenging security environment. As is clear from this report, parliamentarians need to think seriously about the role and use of SOF, as well as understand the hurdles to the appropriate interagency cooperation necessary to address critical issues such as resourcing and operational oversight.

DEFINING SOF: WHAT DO SOF ACTUALLY DO?

6. Special Forces are by nature designed to respond to complex and dynamic security missions. They are expected to innovate quickly enough to stay ahead of the most difficult security challenges facing any state. Today, they are a vital element of most Allies' armed forces, yet their duties and tasks are often poorly understood. NATO *Allied Joint Doctrine for Special Operations* defines SOF as engaged in "military activities conducted by specially designated, organised, selected, trained, and equipped forces using unconventional techniques and modes of employment". The definition goes on to specify: "These activities may be conducted across the full range of military operations, to help achieve the desired end-state. Politico-military considerations may require clandestine or covert techniques and the acceptance of a degree of political or military risk not associated with operations by conventional forces. Special Operations deliver strategic or operational-level results or are executed where significant political risk exists."

7. Three broad categories can encapsulate Special Forces' principal tasks: Military Assistance (MA), Special Reconnaissance (SR), and Direct Action (DA) – these mission sets are common to all NATO member state SOF.

8. *Military Assistance* consists of training, educating, advising, and supporting partners (most often in the partner's area of responsibility). Military assistance is often provided by the Allied power until the partner is able to carry out its tasks independently. MA activities, however, can lead to cross-pollination, as they can bring new information/insight into an area for both *special reconnaissance* and *direct action* tasks. *Special Reconnaissance* tasks are essentially intelligence, surveillance and reconnaissance (ISR) activities to inform areas or mission sets that are extremely dangerous, hostile, or politically sensitive. *Direct Action* can be defined as any action taken by Allied SOF – from precision strike operations or targeted killings to arrests of war criminals, etc. – to complete a mission.

9. In addition to the above, Special Forces often play a key role in several other types of tasks from counterinsurgency (CI), counterterrorism (CT) or chemical, biological, radiological and nuclear (CBRN) defence to hostage rescue/release operations.

MODERN SPECIAL OPERATIONS FORCES

10. The year 2001 marked the start of a new era for Special Forces across the Alliance. The United States boosted SOF capabilities and used them to spearhead the Global War on Terror in the wake of the September 11 terrorist attacks. Special Forces' prominent role in counterterrorism operations had two principal effects: first, US SOF's operational successes drastically improved their reputation and perceived usefulness; second, as a result of the successful expanded use of Special Forces, many Allies followed suit to improve and expand their own SOF capabilities.

11. US Special Forces' effectiveness in post-9/11 counterinsurgency and counterterrorism operations fuelled new investment rapidly. The United States increased defence outlays to bolster the ranks and capabilities of its Special Forces by almost five-fold from 2001 to 2016, going from USD 2.3 billion to USD 10.4 billion (Naylor, 2016). The United States' use of Special Forces for missions and operations continues to grow, as global terrorism threats remain high. During the first 200 days of the Trump presidency, for example, the US Special Operations Command (USSOCOM) carried out more than 100 operations, representing a five-fold increase over President Barack Obama's final 200 days (Zenko, 2017).

12. In parallel to the United States, many European countries also have well-trained, effective and dynamic modern Special Operations Forces – and attention to these forces is only growing. Among the larger European militaries, it should come as no surprise that both the United Kingdom and France have a long tradition of developing and deploying Special Operations Forces for a range of tasks from direct action and special reconnaissance to military assistance. Since 2001, both nations have been vital partners to US global counterterrorism efforts, and both nations have taken leading roles in areas such as Libya, Iraq, Syria, Mali, and beyond. At home and abroad, both France and the United Kingdom have proven to be not only key SOF innovators, but also essential contributors to Allied operations and training missions.

13. Beyond the larger NATO militaries, increased attention to SOF is also changing the force structures and contributions of many other medium and smaller Allies to NATO missions and tasks – Spain, Norway and Lithuania are excellent examples of this trend. Their varying size, geography, and threat perspectives demonstrate the growing trend across the Alliance to invest in dynamic and innovative modern SOF.

14. As a delegation from the NATO PA Sub-Committee on Future Security and Defence Capabilities (DSCFC) learned on a recent visit to Spain, the Spanish Special Forces are evolving quickly. Spain has recently begun raising its defence expenditures and a 2016 review of its force structure resulted in the reorganisation of its army brigades for increased deployability via more

efficient mechanised formations and Special Operations Forces (Mix, 2018). The greater emphasis on SOF follows the 2014 creation of the Joint Special Operations Command, which sought to organise Special Operations Forces across all branches of the Spanish military (Villarejo, 2016). In addition, Spain has created a fourth Special Operations Force, the *Grupo de Operaciones Especiales* (GOE), which increases its ability to deploy its SOF abroad. The Spanish Special Operations Command (SOCOM) is also currently leading the Special Operations element of the 2018 NATO Response Force (NRF).

15. The Norwegian Special Operations Command (NORSOCOM), established in 2014, combined the two Norwegian SOF units under one new autonomous command, allowing the Norwegian SOF (NORSOF) a more comprehensive approach to tackling complex challenges such as hybrid warfare tactics or violent extremism. Now an independent military branch, NORSOF is equivalent to the Norwegian Army and Navy (Deblanc-Knowles, 2015). NORSOCOM indicated in 2016 its intention to establish a Special Operations Air Component (SOAC). Norway is also investing in greater C4ISR¹ technology for its Special Forces in its announced procurement for 2017-2025 (Norway MOD, 2017). Norway is currently hosting NATO's *Trident Juncture 2018* exercise, which is serving as a major test for the Very High Readiness Joint Task Force (VJTF), in which Allied Special Forces play a key role.

16. Understanding the limitations of its conventional forces, Lithuania has placed stronger emphasis on its Special Operations Forces' tactical units to create a more versatile and flexible military response capability (Andriskevicius, 2014). In 2014, Lithuania assigned 2,500 troops to a rapid reaction component of the Lithuanian Armed Forces (LAF). This rapid reaction SOF component is a means of providing a swift response in the event of a hybrid contingency, to which conventional forces would likely be too slow to respond. Lithuania also hosts the annual *Flaming Sword* exercise, which brings together NATO member states' and partner nations' SOF. The exercise's value is in its focus on strengthening Allied SOF interoperability when responding to a localised hybrid incident, which then scales quickly to broader conventional conflict.

17. As is clear from the examples of Spain, Norway, and Lithuania, the post-2014 international security environment is driving an Alliance-wide renewed focus on the development of modern SOF. Some Allies are also expanding the role of women among their ranks.

THE GROWING ROLE OF WOMEN IN SOF

18. While still a controversial subject, the integration of women into SOF has demonstrated clear benefits to the handful of nations that have begun doing so. With an ever-increasing reliance on SOF units across a broad range of missions, the integration of women into SOF units is providing NATO member states with new, valuable in-theatre operational capabilities. For example, in 2014 the Norwegian Special Forces created the *Jegertroppen*, an all-female Special Forces training programme, focusing on surveillance and reconnaissance. Norwegian officials note that in Afghanistan, intelligence gathering and relationship building, two crucial aspects of counterterrorism operations, were being hampered because the all-male SOF units were unable to interact with women in the conservative local population. Outside Afghanistan, these capabilities have also proven useful in Iraq, Syria, and off the coast of Somalia during counter-piracy missions (Korpela, 2016).

19. In 2017, however, the US Army's 75th Ranger Regiment had its first woman meet the standards to join the unit after completion of Ranger Assessment and Selection Program 2. This also comes after two women completed Army Ranger School after the United States opened all combat roles to women (Tzemach Lemmon, 2017). When it comes to Navy and the Air Force, despite women being recruited for training, neither branch has seen a woman pass the difficult standard requirements for admission into the forces (Swick and Moore, 2018).

¹ C4ISR - Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance

20. While Canada has some women SOF personnel, it is currently working to broaden the operational capabilities women can provide to Canadian Special Forces. Canadian officials note that increased participation from women SOF will allow for greater flexibility when carrying out operations, particularly highlighting the fact that mixed-gender teams would likely be less conspicuous in operations than an all-male team (Brewster, 2018).

II. TODAY'S SECURITY ENVIRONMENT – OPPORTUNITIES AND CHALLENGES FOR SOF

21. NATO's scramble to adapt post-2014 can be lumped into two broad challenges: Russia and jihadi-inspired violent extremism. Thinking of these as distinct poles seeking to undermine the peace and security of Allied populations and territory, however, masks the complexity of the threats they pose. In the longer term, NATO will need to find the means to adapt its force structure and policies to defend Allied populations and territories from both near-peer competitors, such as Russia and China, and powerful non-state actors probing to find exploitable weaknesses in Allied consensus and commitment.

22. Russia is a revisionist state opposed to the political, economic, and security arrangements dictated by the Euro-Atlantic community in Europe. Emboldened by recent advances in its conventional military capabilities, Russia is increasingly aggressive in its political, economic, and security brinkmanship with the West. Russia is far from a strictly conventional threat, however, which requires only the calculation of the right balance of conventional, nuclear, and air and missile defence systems to counter it. In reality, Russia also poses a suite of asymmetrical challenges, some of which are more often associated with non-state armed groups and criminal networks than with modern nation states.

23. Terrorist organisations exploiting religious motives are a major security challenge for all Allied states today. The number of European and North American citizens committing violent acts in the name of extremist ideologies is growing, and it is testing the limits of national police forces and causing deep civil society turmoil (Vidino et al., 2017). Intelligence estimates put the number of Europeans rushing to join Daesh after its rapid rise in 2014 at 5,000; about 1,500 of these are expected to try to return home (Renard and Coolsaet, 2018).

24. Pressured by active military campaigns against them in Syria, Iraq, Libya, and Afghanistan, Daesh leaders are encouraging people to act with any means available wherever they can. As a result, random stabbings and vehicle slaughter have accounted for the highest number of successful attacks in recent years – one study identified 51 such lone wolf attacks in the three years from June 2014 to June 2017 (Vidino et al., 2017).

25. In numerous conflicts around the world, from Afghanistan to the Middle East to West Africa, armed groups are wreaking havoc on weak states and causing the displacement of large numbers of local populations, many of whom are swelling the ranks of refugee and migrant flows into Turkey, Europe and, across the Atlantic, into Canada and the United States. Today's international terrorist groups, such as Daesh, are also using methods and tactics more associated with state actors – holding territory, taxing civilians, building more structured conventional-style fighting forces, etc. As such, these groups are having an even more profound impact on the ground, in war-torn societies seeking to find a means of political and social reconciliation. Transnational groups, local non-state armed groups, and "lone wolf" individuals all employ terrorism tactics from a position of relative weakness to disrupt and sow fear and doubt about the current political order's ability to maintain peace and security.

26. This complex spectrum of threats is forcing political leaders and policy advisors to expand their understanding of security in new ways as they seek to find the appropriate instruments of national power – diplomatic, informational, military, economic, financial, intelligence, and law enforcement

(DIME-FIL) – to match the near and longer-term goals to maintain the peace and security of the populations for which they are ultimately responsible.

DISRUPTIVE TACTICS SHORT OF WAR: THE GREY ZONE AND NEAR-PEER COMPETITION

27. Expanding our understanding of security is made more difficult by the fact that many threats to NATO today operate in what many academics and, increasingly, policymakers, call the *grey zone*. Between war and peace, grey zone competition exists below Article 5. The term encapsulates the myriad disruptive tactics that can be used to gain advantage over an adversary short of provoking a conventional conflict. In the grey zone, state and non-state actors “employ threats, coercion, co-option, espionage, sabotage, political and economic pressure, propaganda, cyber tools, clandestine techniques, deniability, the threat of the use of force, and the use of force to advance their political and military agenda” (Roberts, 2016).

28. States, or any other actor trying to challenge a state, have two basic strategic choices when it comes to designing defensive frameworks – matching (as the United States and the USSR did in the Cold War) or offsetting, which means investing in and exploiting the capabilities necessary to undermine their competitor’s advantage (Goldman, 2011).

29. Given the conventional and (still) technological superiority of NATO member states, particularly the United States, NATO Allies’ adversaries are investing in and honing their grey zone capabilities. By doing so, NATO’s adversaries are seeking the means, short of war, to disrupt at the political, social, economic and security levels. As a result, concern about a wide range of potential disruptors, from terrorist attacks to election meddling to disinformation campaigns, is shifting the understanding of defence and deterrence today for all NATO members.

30. Given their training, education, and operational dynamism across a range of tasks, there is an increasing tendency to see Special Forces as a key element of the defence, deterrence, and situational awareness needed by Allies facing threats emanating across the increasingly broad spectrum of security challenges facing NATO today.

III. SOF IN THE MODERN INTERNATIONAL SECURITY ENVIRONMENT

ALLIED SOF AND COUNTERTERRORISM

31. As noted above, SOF have become the *de facto* military instrument of choice for the broader global counterterrorism campaign begun in the aftermath of the 9/11 attacks. There are two main kinds of SOF deployment: *direct* missions to find, track, obtain evidence on, arrest, neutralise or destroy key terrorist capabilities; or, *indirect* methods, which often involve SOF train, advise, and assist missions of partner forces (both state and non-state). Both direct and indirect missions in the era of the global war on terror have been extremely successful. Examples of both abound; in the case of Iraq, coalition forces’ efforts in pursuit of al-Qaeda from 2005 to 2011 decimated their capability, avoided a sectarian war, and thereby saved countless Iraqi civilian lives. Further, it can be argued the training, advice and assistance provided to the Iraqi Special Forces over the same period proved to be the lynchpin that saved Baghdad from falling during the darkest hours of the 2014 Daesh onslaught upon the country. The US operation to track and eliminate Osama bin Laden was able to add a degree of closure to the trauma of the 9/11 attacks.

32. SOF prevail in today’s counterterrorism policy environment for a simple reason – their effectiveness at achieving operational objectives with the most appropriate means for mission requirements. Policymakers, however, should be wary of the overuse and longer-term policy-strategy mismatch that result from an overreliance on SOF.

**POTENTIAL PROBLEMS OF LONG-TERM CT STRATEGY AND RELIANCE ON SOF –
THE EXAMPLE OF DAESH AND THE TALIBAN**

33. Many Allied nation's most recent SOF-heavy operations should underscore a key attribute about the use of SOF: Special Operations are almost always part of a larger strategic goal, which requires support not only from other military instruments of power, but from national ones as well, such as economic and political. While SOF can help achieve tactical success, broader strategic goals necessitate an investment of more sustained effort and political will. At times, however, some nations deploy SOF to capture or eliminate "high-value" targets within a specific terrorist organisation, with the objective of precipitating the organisations' collapse or obsolescence.

34. As studies have shown, high-value targeting strategies have not been as effective as hoped (Long, 2016). Despite efforts to decapitate and erode certain groups' leaders and effective middlemen, the strategy is largely ineffective due to these groups' organisational strategy – highly-institutionalised groups such as the Taliban have proven to be able to absorb shocks to their leadership structure quickly.

35. Further, those groups that have been beaten down through the attrition of a high-value capture and kill strategy, such as Daesh, have found ways to regroup, resource, and re-emerge. As the state part of the Islamic state of Iraq and the Levant (ISIS) fails, the group will retreat to what all armed terrorist groups seem to do today – plan to regroup by using a mix of international and regional terrorism and local insurgency to keep their cause alive, maintain relevance and then resurge. Unfortunately, the conditions on the ground in Iraq and Syria today likely still offer ripe spaces for the group to resurge.

36. In addition, it should be noted there are clear legal and human rights issues regarding targeted killing outside of the legally prescribed battlefield. This issue is at the centre of the current debate in the United States about the need for a new authorisation for the use of military force. Further, the divergent perspectives on the question of what are and what are not extrajudicial killings fuel social media speculation and distrust, not to mention the propaganda of the very terrorist organisations our nations' forces are fighting.

A. RUSSIAN USE OF SOF

37. Russia is using SOF to disrupt and destabilise its near abroad in an effort to maintain influence and control over political developments in those regions. The most recent example is the annexation of Crimea.

Russia's Annexation of Crimea and Continued Interference in Ukraine

38. As this Committee debated in its 2015 report on Hybrid Warfare [166 DSC 15 E bis], Russia's interference in and subsequent annexation of Crimea were an example of all elements of Russian state power combined to achieve a short-term strategic outcome. Russian Special Forces played a key role in Moscow's ability to deceive, disrupt, and then seize territory in Ukraine.

39. In the early months of 2014, Ukrainian civil society was in a very public struggle for its future, its options being either to remain in the Russian sphere of influence or to move further toward the Euro-Atlantic community via closer association with the European Union and NATO. By the end of February, Russia had initiated a large-scale snap exercise of up to 150,000 personnel, which was able to divert attention from Russian actions in Crimea. Quickly, a large-scale cyberattack was launched against Ukrainian public and private institutions, which was followed by the classic electronic warfare tactic of jamming communication systems on Crimean institutions. The electronic warfare attack was able to isolate the peninsula from Kyiv so it would not be able to muster a coordinated response. Soon, unidentified Russian Special Forces infiltrated and seized key military and government locations across the peninsula. Russia also used a disinformation campaign and

diplomatic efforts to push through a trumped-up referendum on independence. All the tactics used managed to stay short of war while still achieving the desired political outcome.

40. Russia continues to interfere in Ukraine. The sustainment and training of insurgent forces in eastern Ukraine is an excellent example of a Russian military assistance mission. Moscow's support of proxy forces blocks Kyiv's ability to control all Ukrainian territory and thereby distracts it from its efforts to further its Euro-Atlantic integration projects. Non-military means to destabilise Kyiv include: the use of control of natural resources to exert economic and political pressure, cyberattacks, the use of criminal networks, etc. All of this is happening under an incessant barrage of propaganda and *dezinformatzia* or fake news to unanchor people's perceptions of truth by keeping various narratives of any particular news event alive, to even the reinterpretation of recent and long historical past.

41. It is clear from the above that Russia conceives of its military forces, including its SOF, as assets to be used in support of all elements of its national power, which it uses towards its grand strategic goals. This differs significantly from the Alliance. NATO Allies seem to conceive of their forces as assets to be deployed in defence of their national instruments of power. This will lead to a perpetual strategic imbalance and weakness when faced with Russia. As a result, NATO continues to respond to Russia, rather than anticipate its actions.

NATO'S RESPONSES TO THE EVOLVING SECURITY ENVIRONMENT – WHAT ROLE FOR A COORDINATED SOF EFFORT?

42. NATO is responding to the Russian challenge via a range of initiatives to update its defence and deterrence posture post-2014. These include NATO's increased presence in its eastern territories via the Enhanced Forward Presence and the Tailored Forward Presence. The Alliance is also working to coordinate its deterrence along the southern flank via initiatives such as the Hub for the South in Naples. The ability to respond and to reinforce Allied forces in the event of a contingency is also reflected in a revised NATO Response Force, an expanded command structure, the *Readiness Initiative*, and the *Enablement Plan* for SACEUR's area of responsibility.

43. More broadly, however, the institution of new missions and operations, as well as centres of excellence, and the expansion of the Alliance's structure are part and parcel of the push for all Allies to engage with what is being called *360-degree security*. It is essentially a call on Allies to be resilient in all domains (including cyber), to be aware of and have the ability to respond to rapidly evolving security situations around them, and, ultimately, to work with partners to project stability abroad.

44. A key question, therefore, is how NATO is working to coordinate the training and interoperability of Allies' SOF to meet the diverse range of tasks they are increasingly being asked to face as the Alliance develops its new defence and deterrence posture.

B. EVOLUTION OF THE ROLE OF SOF IN NATO²

45. In 2010 Allies established the NATO Special Operations Headquarters (NSHQ), which was designed to be a standing headquarters with a coordinating function, rather than a NATO Special Operations Command. NSHQ's core function is the coordination of the development of SOF capability and interoperability for Allies and Partners³. A key element of NSHQ's efforts is encapsulated in the NATO SOF School, which provides training and education "to build Alliance and Partner Nation SOF capability, capacity, and interoperability". Currently, the school offers 27 different

² The information provided below extends from a number of interviews and briefings the author and NATO PA Defence and Security Committee staff had with NATO SOF Commanders at NSHQ and the NSHQ Commanders Conference, and with staff at the Global SOF Foundation (GSF). Any fault of misinterpretation is our own.

³ A task greatly assisted by NATO's Battlefield Information Collection and Exploitation Systems (BICES). Currently, all NATO and approved SOF partners are able to share, access, and collaborate on all releasable information on BICES.

resident courses focusing on professional development, operational studies, intelligence and technical exploitation operations, SOF air development, and SOF medical training and education.

46. Beyond NATO Allies, current NSHQ development with partners is focused on heavily resourced programmes in Ukraine, Georgia, and Tunisia. While NSHQ sees a benefit in expanding its partner development programmes, this is still not a political priority at NATO.

C. NATO SOF AND POST-2014 ADAPTATION

47. As noted above, a key element of NATO's response to Russia's 2014 annexation of Crimea was the revamping the NATO Response Force (NRF) via the Readiness Action Plan (RAP), which sought to scale the number of forces capable of responding to a contingency to 40,000 and make them more flexible and adaptable, with the objective of guaranteeing rapid reinforcement and mobility. The RAP also established the Very High Readiness Joint Task Force as the spearhead of the NRF, capable of deploying 5,000 brigade-level troops within two to seven days' notice to the periphery of the Alliance⁴. Following its reform, the NRF contains air, land, maritime and SOF components.

48. NSHQ's principal role in the NRF is to coordinate Allied SOF capability development in order for nations to complete the Long-Term Rotation Plan for the NRF, including establishing the NRF Special Operations Component Commands (SOCC) and the Task Groups (and Units) beneath them. As building the SOCC is the most challenging role for Allied nations to fill, NSHQ has a dedicated *Zero to NRF SOCC* programme, which provides a five-year structured approach to developing a nation's ability to provide a SOCC. The programme includes education, training, exercises, and evaluation. Depending on the need, the programme can also include NATO assistance in the provision of Communication Information Systems (CIS) and other enabling capabilities the nation may not be able to resource independently.

49. As NATO continues to adapt its defence and deterrence posture, Allied SOF have a key role to play. NSHQ is seeking to transition from the above-mentioned operational command and control capability to providing a strategic theatre Special Forces capability to the Alliance. As a theatre SOF component, NSHQ will be linked more closely to the Director of Special Operations Office at SHAPE to provide strategic advice and synchronise the Special Forces domain across the entire theatre at a level above the Operational Joint Force Commands.

D. NATO SOF REGIONALISATION?

50. There is a desire today to push SOF command, control, and planning to the regional level via an expanded network of SOCCs. Regional SOCCs could be configured by linguistic commonality, geography, historical linkages, or capability. This would translate into a coordination of the member state SOF capabilities in any one region in order to tap into joint tasking, which would then create a clearer regional picture – combined regional SOCCs would then be pulled together to form a more complete intelligence understanding of any form of hybrid developments across Alliance territory, to be compiled into a coordinated picture in Brussels. The ability to have increased assets available and operating at the regional level is an essential element in increasing situational awareness and the capacity for the Alliance to identify and react to hybrid scenarios – in some ways, clearing up some confusion that can reign in the grey zone.

51. Another principal driver behind NATO SOF regionalisation is that NATO SOF are having a hard time filling the required number of SOCCs according to their ambition levels. As many nations are still short on resources and capability, the creation of composite SOCCs with discrete roles for each nation, allowing for a stronger, more resilient network, is still lacking. Some nations are already

⁴ This Committee addressed in greater detail the impact of the decision in the 2015 report [NATO's Readiness Action Plan: Assurance and Deterrence for the Post-2014 Security Environment](#) [167 DSCFC 15 E bis] by Xavier Pintat (France).

responding and acting accordingly. For example, Belgium, Denmark, and the Netherlands recently signed a Memorandum of Understanding on the creation of a Composite Special Operations Component Command (C-SOCC) in June 2018. The C-SOCC is expected to have initial operational capability by 2019 and full operational capability by 2021 (NATO, 2018).

RECENT ALLIED SOF EXERCISING

52. There is also momentum to increasingly coordinate Allied SOF exercising and training. For example, in 2016 NATO SOF units trained together during the exercise *Cold Response*. Recognising the Arctic as a new potential arena for strategic competition, 14 Member States and partner nations carried out exercises in Norway aimed at enhancing the capabilities of NATO SOF teams during cold weather operations.

53. In June 2018, the USSOCOM Europe-led exercise *Trojan Footprint 18* took place, which brought together Special Operations Forces from 13 NATO Member States and partner nations. The *Trojan Footprint* exercise takes place every two years. The focus of *Trojan Footprint 18* was the “rapid deployment of SOF into a crisis, the establishment of multinational mission command structures, and the integration of SOF and conventional forces.” *Trojan Footprint 18* took place in Estonia, Latvia, Lithuania, and Poland, incorporating both air and sea assets (Weisman, 2018). As noted above, *Trident Juncture 2018* is taking place across Norway, with additional elements taking place in Sweden, Finland, Iceland, the North Sea, and the Baltic Sea. The exercise incorporates significant Special Forces elements and serves as a test of the VJTF’s certification in the revised NRF.

IV. SOF AND PARLIAMENTARY OVERSIGHT

54. As previously discussed, SOF can play an important role in the grey area between war and peace. However, as this grey area is inherently vague and used to justify a wide array of activities, there are growing concerns about accountability.

55. These accountability concerns manifest in two ways. First, Special Forces traditionally do not require parliamentary approval for specific deployments. Second, governments usually report successful operations, but often keep silent over botched operations. Consequently, the public perceives SOF operations to be more reliable than they might be in reality because of selective use of data.

56. For many valid reasons, secrecy is still a predominant feature of SOF operations. Still, while SOF units are, in principle, under the same military justice system as regular troops, the secrecy of their operations means that courts are often unable to access full files, including the identity of the personnel. As such, the lack of information surrounding operations makes personnel hard to prosecute for serious mistakes and negligence - if not worse. It is also difficult for parliamentarians to ensure SOF personnel have the appropriate training, equipment, and leadership in place to deal with the consequences of mistakes, which is essential to refining best practices.

57. A quick overview of the role several member states’ parliaments play in overseeing their Special Forces in their national security policy highlights a range of approaches taken to institute democratic control over Special Forces across the Alliance.

SELECTED OVERVIEW OF ALLIED PARLIAMENTARY SOF OVERSIGHT

The United Kingdom

58. In 2015, this Rapporteur made an enquiry in the House of Commons after the Prime Minister's cabinet vowed to increase the SOF budget by GBP 2 billion. The cabinet failed to explain why such an increase was needed. This Rapporteur also oversaw a parliamentary inquiry that debated whether the Ministry of Defence should lose its immunity from prosecution— over incidents during exercises after the incidental deaths of three Special Air Service (SAS) candidates during a selection event (Moon, 2015; Townsend, 2016). Crown immunity makes it virtually impossible to prosecute the Ministry of Defence for failures of duty of care towards personnel.

59. In the United Kingdom, any information concerning Special Operations activities is highly classified. UK parliamentarians have discussed the release of information concerning these operations on multiple occasions, most notably as a means of requesting further details over the British Special Air Service's involvement in the global war on terrorism.

60. Details over operations are excluded from UK Freedom of Information Act and from its 30-year rule on the public disclosure of government documents. Former British Defence Secretary Philip Hammond was quite outspoken over the government's policy: "We never comment on the disposition of our special forces anywhere in the world and that will remain our policy" (Moran, 2016a). Indeed, on its public website, the British Ministry of Defence does not acknowledge SOF as deployed troops (The British Army, 2018). Available data has either been approved by the Ministry of Defence or leaked. The United Kingdom's SOF involvement in Libya was revealed incidentally by King Abdullah II of Jordan during a briefing with the US Congress (Ramesh, 2016).

The United States

61. Since 2001, the United States Congress has authorised the president to use the means necessary, including the armed forces, to prosecute what has become known as the Global War on Terrorism. The first Authorization to Use Military Force (AUMF) allowed the president to "use all necessary and appropriate force" against any actor or organisation that aided or abetted the 9/11 terrorist attacks. The second AUMF, passed on 11 October 2002, gave the president the authority to "use the Armed Forces of the United States as he determines to be necessary and appropriate" to defend the nation against continuing the threat posed by Iraq. The US Congress has not passed an additional AUMF since, and the Obama and Trump administrations have continued to argue these two AUMFs are sufficient to engage in military activities related to the war on terrorism outside of Afghanistan and Iraq, which often involve SOF military assistance or direct action.

62. There has been considerable debate about the need for a new AUMF in the United States in recent years. In many respects, this is a debate about how much authority to use military force should be in the hands of the US executive branch, given that the US Constitution actually allocates a fair amount of control in this respect to the US Congress – practice over the years, however, has significantly reduced this role. In the wake of the October 2017 killings of three US soldiers in Niger, debate has increased.

63. Despite this, the House and Senate Armed Services Committees are regularly briefed, both orally and in writing, about US military programmes and the authorisations under which they are operating. Still, there is clear concern growing in the legislative branch about the extent to which US Special Forces are being used. In November 2017, for example, congressional representatives from both the House and Senate Armed Services Committees voiced their concerns over the increasing use of SOF at a policy forum organised by the Global SOF Foundation, where they argued US SOF units are fatigued by repeated and uninterrupted deployments (Brimelow, 2017).

France

64. In France, the *Commandement des Opérations Spéciales* (Special Operations Command, COS) was established in 1992 following the blueprint of USSOCOM. As of 2017, the Ministry of Defence had recognised 25 operations conducted by French Special Forces since the COS' inception, but it is likely many more were conducted in secret (Schumacher, 2017). The COS established a prominent role for itself in the French defence strategy, as it managed to secure a considerable budget to invest in new technological capabilities (Guibert, 2018). On the other hand, its missions are characterised by the same lack of information found in the United States and in the United Kingdom.

65. In recent years, French military involvement in Libya was made public only through a journalistic investigation by *Le Monde*. As a consequence, then-Minister of Defence Jean-Yves Le Drian launched a criminal investigation into this violation of national defence secrecy (Guibert, 2016). In 2017, the government announced the death of a French soldier in Iraq, without revealing either his identity or the exact place of his death, to preserve the larger objectives of the mission; France had never recognised an official deployment of troops in the area (Kujawski, 2017). From a legal perspective, the secret deployment of Special Forces could be considered a violation of the French Constitution: in principle, the French Constitution says the French president should always give notice to the Parliament within three days of a military operation, while a deployment of more than four months would require parliamentary approval (Thomas, 2015). In order to shed light over the COS' activities, its Commander, General Grégoire de Saint-Quentin, had a Committee hearing in June 2016. At the hearing, General de Saint-Quentin argued discretion to be an intrinsic characteristic of COS missions, in order to maintain a strategic advantage in the theatre of operations (*Assemblée Nationale*, 2016).

Challenges of Parliamentary Oversight of SOF in Other Member States

66. Problems concerning lack of parliamentary oversight are also present in other NATO countries. In 2016, Italy reorganised its Special Operations' command structure, allocating authority over Special Forces missions to the secret services. As such, the Italian government acquired full control over their deployment, effectively removing any parliamentary oversight role. The reform coincided with reports that Italian forces have been operating in Libya: most likely, the government wanted to avoid a parliamentary debate over such a divisive issue (Kington, 2016). In Canada, Special Forces share a similar fate to their US counterparts: their use has grown significantly in recent years for counterterrorism operations, but it seems to have done so away from public knowledge or oversight by parliamentarians (National Post, 2015).

67. As noted above, secrecy is a crucial part of success for operations conducted by Special Forces. However, this should not come at the cost of at least some form of democratic control of the use of these armed forces. While recognising the strategic importance of SOF, parliamentarians should still be able to exercise some form of real control over their activities. Aside from conducting parliamentary hearings, parliamentarians usually have voting powers over defence budgets, and therefore also over SOF funding. Parliamentary information requests about exactly what their nation's SOF forces are requesting funding for in their budgets may shed more light on the types of activities they will be executing. Funding spent on new equipment and technologies for effective intelligence, surveillance, and reconnaissance operations is money well spent; non-traceable funding, however, will raise more than a few eyebrows about the ways in which any nation's Special Forces are directing national resources.

V. CONCLUSIONS: WAYS FORWARD FOR NATO PARLIAMENTARIAN CONSIDERATION

68. Capable Special Operations Forces are essential to dealing with the challenges of today and tomorrow's international security environment. International security competitors and those elements seeking to undermine the Alliance will increasingly attempt to do so via grey zone tactics – coercion, co-option, espionage, sabotage, political and economic pressure, propaganda, cyber tools, clandestine techniques, etc. These instruments allow competitors to attempt to remain below the threshold of Article 5, which would bring to bear the overwhelming power of the Alliance into a conflict – which, at present, any opponent would lose. To parry competitors' grey zone tactics, Allied Special Forces can provide essential special reconnaissance, intelligence, and precision operations.

69. The increased demand for Special Forces' services, however, is straining the ability for Allied nations to fill their ranks with soldiers capable of performing the demanding missions asked of them. Further, many Allies' SOF are currently lacking the necessary strategic reach to accomplish their tasks outside of continental Europe. Special Forces need the strategic reach capabilities to execute their missions – this means, for example, investing in capabilities like the C-17 or the A-400 and the necessary accompanying tanker support.

70. The Alliance has the means to provide uniform, capable, and interoperable SOF across all member states. The key channel through which this happens is the NATO Special Operations Headquarters. As the Alliance is adapting, so is NSHQ.

71. Member state parliamentarians should know, however, that NSHQ is faced with the dilemma many institutions and services face in today's security environment: limited resources being stretched over too much demand. For example:

- NATO's demands with regards to fielding special operation commands will soon need to scale to include another level of battalion-level HQs.
- The Alliance's increased demand for policy planning from NSHQ, which at current levels is diverting precious resources away from other institutional core tasks.
- NSHQ is perennially understaffed. It is currently running at only 70%. Member state parliamentarians should inform themselves about what their nation is doing to support this critical institution to Allied-wide capable SOF development.

72. The drive for an increasingly regionalised Alliance SOF presence still lacks the necessary political will. Regionalisation would provide clear benefits: regional NATO SOF component commands would allow for an expanded situational awareness capacity and a clear edge in terms of speed and accuracy. The Alliance desperately needs this in the face of hybrid tactics, which attempt to sow chaos, confusion, or discord about the reality on the ground. We must recognise that security competition between NATO and its competitors is increasingly played out in the grey zone, and that a more efficient SOF structure would increase the clarity of the security picture facing the Alliance.

73. A more efficient regionalised SOF presence would bring significant resilience and strength to the Alliance's new defence and deterrence posture. Coordinated regional SOF would assist greatly with Brussels's oft-repeated desire to have a 360-degree security posture backed by a dynamic and mobile deterrent – which a cadre of elite, highly educated, trained, and rapidly deployable SOF across the Alliance's disparate regions would strengthen greatly. A regional NATO SOF architecture would increase Alliance understanding of the new, more nuanced and complex, challenges to its security.

74. We must ask ourselves several basic questions:

- Do we have an understanding beyond the balance of forces assessment used when examining Allied conventional defence posture?
- Do we have capable, able, adaptable and structured forces available, on a regular basis, to deal with a Ukraine-like attack on our countries?
- Can we afford to delay putting the regional structures in places to provide the responses we require?

75. Ultimately, Special Operations Forces should be thought of as a complement to a broader whole-of-government approach to security, rather than as a panacea to complex issues. Parliamentarians need to think seriously about these issues and work to attain the right kind of interagency cooperation to address these growing and complex challenges.

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NATO PARLIAMENTARY ASSEMBLY

DEFENCE AND SECURITY COMMITTEE (DSC)

Sub-Committee on Transatlantic Defence
and Security Cooperation (DSCTC)

BURDEN SHARING: NEW COMMITMENTS IN A NEW ERA

Report

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I. INTRODUCTION

1. NATO is implementing ambitious new initiatives to adapt its defence and deterrence posture in response to a rapidly evolving complex international security environment. In parallel there is a rising expectation all NATO Allies must do more to invest in the success of these initiatives. The most vocal proponent of increased spending is coming from the US executive.
2. The United States' expectations of its Allies to do more is increasing the pressure on the already substantive shift in the burden sharing debate made at the 2014 Wales Summit, when Allies committed to moving toward dedicating 2% of their GDP toward defence spending by 2024 – 20% of this increased spending, it was also stipulated, should be dedicated to purchasing new equipment and research and development (R&D).
3. Among Allies, the burden sharing debate intensified due to the persistent fall off of NATO Europe and Canada's defence spending in the wake of the Cold War, even while the United States took the opposite course after the 9/11 attacks. Increased pressures on the United States globally and the perception of some Allies' decisions to opt out of NATO operations or tasks in recent years have only increased the temperature of the debate surrounding Allied contributions.
4. Despite criticism of the 2% guideline due to its definitional and conceptual shortcomings, the Wales defence spending commitment has anchored the Alliance to the benchmark.
5. This report will briefly highlight the history of the burden sharing debate in the Alliance and the main criticisms of the 2% guideline. It will then highlight the levels of new defence investments across the Alliance by region. It will conclude with an attempt to underscore the value in focusing on effective new defence investments by all Allies, as well as suggest several steps forward NATO parliamentarians can take to increase their inputs as the burden sharing discussion continues to gather political importance over the coming years.

II. BURDEN SHARING DEFINED AND IN CONTEXT

6. For the purposes of this report, **burden sharing** is defined as *the relative weight of the distribution of costs and risks across Allies in pursuit of common goals*.
7. Burden sharing in NATO is subject to the political-military nature of the Organisation – the Alliance's core identity is defined by efforts to guarantee the safety and security of Allied populations and territories. Ultimately NATO is a consensus-based organisation which implies that any operation, adaptation or other kind of collective action is *de facto* a common political goal to which Allied resources must be committed.
8. Allied peace and security is the central goal of the Alliance. Throughout NATO's history, the pursuit of this goal has inevitably produced a debate about the necessary means to achieve it and the ways in which these means will be employed.
9. In the case of NATO, the burden sharing argument has perennially revolved around just how much of any appropriate military asset each Ally is able to deliver to accomplish any task. When taken together, these tasks ultimately seek to maintain peace and security within the Alliance and even to project stability abroad. To achieve this broad-based goal, NATO defines three core tasks: collective defence, crisis management and cooperative security.

Burden Sharing as defined by NATO

10. NATO defence planners utilise metrics measuring financial input and military output as well as percentages of deployable armed forces, airframes and vessels, staff positions in NATO's Command and Force Structures, as well as the requirements of the Response Force to have a clear assessment of contributions by each individual member state across the Alliance (Mattelaer, 2016).

11. NATO uses seven metrics for assessing individual countries' defence contributions, including the 2% of GDP formula, the 20% target of national defence budgets dedicated to equipment purchases and R&D, the percentage of deployable armed forces and the actual contributions deployed to NATO in terms of land forces, aircraft, ships and personnel dedicated to the NATO Command Structure (NATO, 2017a).

III. BURDEN SHARING AS A PERENNIAL CHALLENGE IN NATO

12. The burden sharing question has been central to Allied political leaders' discussions since NATO's founding in 1949. At the time, the relative power balance between post-war Europe and the United States clearly indicated the latter would play the dominant role in shaping the Alliance. US political leaders did, however, anticipate their agreement to any form of treaty-bound collective security alliance with their post-WWII allies would lead to a burden sharing dilemma. As Secretary of State Dean Acheson told the US Congress during the NATO ratification hearings in 1949, the newly forming Alliance must guarantee "nobody is getting a meal ticket from anybody else so far as their capacity to resist is concerned" (Czulda and Madej, 2015).

13. To pre-empt the burden sharing problem, Article 3 was inserted in the Washington Treaty, which underscored the Allies' obligations to invest in their own forces to make the whole of the Alliance stronger as well as to bolster each nation's capacity for self-help.

14. In drafting the Washington Treaty, the Alliance's founding fathers knew all too well the credibility of collective defence ultimately depends on the political will of all NATO Allies to sustain it. As such, expectations of Allied defence spending proportionate to the necessity of maintaining capable forces were understood to be a fair price for every Ally to pay for the increased security guaranteed by NATO membership. The principle of self-help attempted to ensure no Ally would become a weak link in Allied efforts to defend their populations and territory.

15. Despite various forms of political pressure on Allies to increase their defence spending by the United States, defence investment clearly remains a national prerogative. Throughout the history of the Alliance, a tacit understanding always existed acknowledging each Ally would inevitably have ebbs and flows in their domestic political and economic circumstances, which may preclude a steady or even increased defence investment at any given time. The essential, therefore, was to encourage a steady increase over time and to not call out individual members for 'failing' to live up to these expectations at any given time. The reason for this was clear – the maintenance of Allied solidarity always overrode any momentary shortcoming (Lunn and Williams, 2017).

A. WHY THEN THE 2% GUIDELINE?

16. Prior to its initial endorsement at a 2006 NATO Defence Ministerial, a benchmark of 2% GDP defence spending for aspirants emerged as a logical and feasible goal for incoming member states who at the time were spending approximately 1.7% GDP on defence (Lunn and Williams, 2017). In parallel, as Allies were taking the lead in Afghanistan in 2003, median defence spending among European NATO Allies and Canada had fallen to 1.7% GDP. Therefore, 2% became a guideline for aspirational Allied defence investments as a means of backstopping continued "peace dividend" defence spending cuts and as a goalpost for incoming members.

17. Unfortunately, the 2% defence spending guideline for Allies surfaced just before the 2008 financial crisis, during which defence budgets became prime targets for cash-strapped governments across the Alliance. To make matters worse, a growing divergence in transatlantic defence spending was well underway in parallel.

18. After the 2001 terrorist attacks, defence spending by the United States increased dramatically. The United States assumed a global war footing as it sought to defend and deter against terrorism – the most obvious and burdensome were its commitments in both Afghanistan and Iraq. NATO member states invoked Article 5 for the first time in the history of the Alliance in defence of the United States and soon took the lead in Afghanistan. As the Alliance's expeditionary operations and missions continued, however, a growing number of Allies began to reduce their commitment or even to reject partnering in Washington's conception of broader Atlantic security – the starkest example being NATO's Libya operation, which functioned more as a coalition of the willing than a whole-of-alliance effort.

19. In parallel, instead of an increase in the defence expenditures necessary to continue assisting in Atlantic security tasks, declines in NATO Europe and Canada continued. By 2011, median NATO European and Canadian spending had declined to 1.52% GDP. The transatlantic gap in defence investments had grown to approximately 70%, as the United States now accounted for USD 712 billion of the USD 1.012 trillion total Allied defence spending. In light of the ever-widening transatlantic defence spending gap and the waning political will to commit to US-defined Atlantic security interests, what had previously been confined to grumblings in Washington grew to sharp public rebukes and chastisements by 2011. Robert Gates, then US Secretary of Defense, openly questioned the future of the Alliance in the absence of stronger political will and renewed defence investments from European Allies to participate in NATO missions and operations more capably (Shanker, 2011).

20. Secretary Gates' remarks reflected the strain the United States was facing at the time, as it was bogged down in "forever" wars in the broader Middle East and beyond. Still, the comments reflected the dire reality – the transatlantic gap had become a chasm, and, as Mr Gates bluntly stated: "[...] there will be dwindling appetite and patience in the US Congress – and in the American body politic writ large – to expend increasingly precious funds on behalf of nations that are apparently unwilling to devote the necessary resources [...] to be serious and capable partners in their own defense" (Shanker, 2011).

21. Mr Gates continued with a stark depiction of the strain the burden sharing dilemma had wrought upon the Alliance as he lamented the growing divide "between those willing and able to pay the price and bear the burden of commitments, and those who enjoy the benefits of NATO membership but don't want to share the risks and costs" (Shanker, 2011).

B. TOWARD THE WALES 2014 JOINT 2% COMMITMENT

22. The rapidly deteriorating security environment of 2014 brought the burden sharing debate front and centre as a swift set of political decisions by the North Atlantic Council (NAC) sought to bring about the most significant adaptation of Alliance posture and structure since the end of the Cold War. As NATO looked to make its deterrent posture more mobile and dynamic to face a range of conventional and non-conventional threats from the east and the south, attention necessarily returned to ensuring member states were investing in the required means to achieve this new deterrence posture and subsequent force readiness.

23. As the Defence and Security Committee's (DSC) general report [\[168 DSC 18 E|fin\]](#) on NATO deterrence demonstrates in greater detail, the new forces and structures needed to support the Readiness Action Plan (RAP) and the Very High Readiness Joint Task Force (VJTF) required significant quality defence outputs from all Allies. Given the perceived range of threats from the conventional to the asymmetrical, an emphasis on increased spending as well as a focus on new

equipment acquisition and research and development made their way into the defence investment commitment at the Wales Summit by September 2014. NATO Heads of State and Government for the first time made a public statement confirming their intentions to increase their defence spending toward 2% GDP, at least 20% of which would be focused on equipment purchases and R&D¹. Such a joint commitment was a radical departure from previous efforts to address burden sharing concerns.

IV. THE 2% DEBATE: LIMITATIONS AND BENEFITS

24. This Assembly discusses and debates the question of burden sharing in NATO with regular frequency. The question of the necessity of allocating 2% GDP to defence spending is always a central part of the discussion. According to both NATO PA Defence Committee discussions and the broader policy world, there are four principal points of debate: 1) The lack of consensus about the definition of defence spending; 2) The appropriateness of a blanket 2% expectation for all Allies; 3) The question of broadening defence investment expectations to incorporate risk; and, perhaps most relevantly, 4) The concern the 2% benchmark is too focused on inputs rather than outputs.

A. DEFENCE SPENDING DEFINED AND CRITICISED

25. NATO defines defence expenditures as including defence ministry budgets, pensions, peacekeeping or humanitarian operations, research and development costs², financial assistance by one Ally to another, and expenditure on NATO infrastructure. Benefits to veterans or war damage repairs, as well as civil defence expenditures are excluded (NATO, 2017b).

26. The argument put forward in Assembly debates and in academic writings about the lack of clear definition of defence spending rests on the notion that reported figures from individual members across a range of organisations vary too much to make a clear assessment of who is spending what and how. For example, reports of national defence spending by NATO and the UN on the same member state can vary significantly – in 2013 the United Kingdom reported USD 62.3 billion to NATO and USD 57.7 billion to the UN (IISS, 2017). (The United States currently allocates approximately USD 60 billion additional funds to the Overseas Contingency Operations budget; European Deterrence Initiative (EDI) funding is drawn from this sum. This finding is not found in US declared defence spending when calculating along the above parameters.

27. Further complicating the issue is the fact there is no consistent measure of GDP either – from the IMF to the World Bank to varying national measures, all broad-based GDP calculations differ from one another slightly.

B. IS 2% VALID FOR ALL?

28. The crux of the criticism surrounding the blanket application of a 2% benchmark is straightforward. Some Allies have global security interests extending beyond NATO Euro-Atlantic security responsibilities. The United States and, to some extent, France and the United Kingdom dedicate a portion of their defence spending to goals extending beyond the remit of NATO's Euro-Atlantic responsibilities. For example, the United States allocates approximately 3.6% GDP to defence spending, but how much of this is purposed exclusively to its Pacific interests? By contrast, it can be argued all of Estonia's 2.14% benefits NATO-related security interests (Dobbs, 2017).

C. WHAT ABOUT RISK?

¹ It should be noted, however, that Germany and Canada joined forces during the Wales Summit to ensure the 2% guideline was not going to become a legal commitment, but rather a non-binding benchmark (Driver, 2016).

² "Including those for projects that do not successfully lead to production of equipment."

29. Including a measure of risk in Allied activities is also a valid criticism. While two Allies may deploy forces to any particular operation, one may not allow for their forces to be in the line of fire while the other does. Good examples of Allies consistently willing to assume greater operational risks are Denmark and Norway – from counter-ISIS training and precision-strike missions to active combat roles in Afghanistan. Still, while both nations have increased their investments from 1.17% to 1.21% GDP and from 1.5% to 1.61% GDP respectively over the past four years, they fall relatively far below the 2% benchmark (NATO, 2018).

30. Should the weight of such contributions be greater given the value of their outputs? This argument leads directly into the most often cited criticism of the 2% benchmark – too much emphasis on inputs, rather than on the quality of outputs.

D. INPUTS, OUTPUTS OR BOTH?

31. Many critics contend that simply measuring inputs neglects the core issue at hand in this era of adaptation. The real focus should be on those capabilities and contributions that most effectively reinforce NATO's deterrence and collective defence. What good, for example, is 2% if over 70% of that sum is dedicated to personnel costs? Further, if new equipment purchases focus disproportionately on items such as tanks, how fit for purpose would such acquisitions be for the Alliance (Braw, 2017)?

32. The *input versus output* argument is clearly the most valid criticism of the 2% benchmark. It has spurred on the current persistent buzz rhetoric from NATO HQ seeking to get Allies to focus on *cash, commitments, and capabilities*. The alliteration is a means of driving home three key ideas: 1) inputs are a *de facto* necessity to have outputs; 2) political commitment is necessary to make increased defence funding available, and 3) the combination of the two should be focused on the acquisition of the capabilities necessary to address security challenges to the Alliance.

33. Critics of the 2% benchmark also note the NATO definition of defence expenditures (as outlined above) does not address some of the broader, and ultimately more nuanced and difficult to calculate, challenges to security today. This extends from the range of political, economic, and social disruptions caused by hybrid tactics to dealing with the root causes of terrorism and climate change through such channels as development assistance and new regulations. Actions to bolster whole-of-government resilience in the face of potential non-conventional hybrid tactics do not figure in the above-mentioned criteria for Allied defence spending reporting.

34. The most often cited example of an alternative approach is the 3% proposal made by Wolfgang Ischinger at the February 2017 Munich Security Conference. Ischinger's proposal would include 3% to deal with "crisis prevention, development assistance, and defence". The 2% defence spending metric would be coupled with the UN goal of nations dedicating of .7% GDP to development aid, etc.

V. WARSAW DOUBLES DOWN ON ADAPTATION INCREASING PRESSURE ON THE 2%

35. In the wake of the Wales commitment, decisions to expand the breadth and depth of NATO adaptation at the 2016 Warsaw Summit only further reinforced the sentiment Allies needed to accelerate defence investments to meet the "2&20 pledge" and, for those member states not already meeting the standard, a credible plan to achieve the benchmark by 2024 was expected.

36. A key milestone achieved at the Warsaw Summit is the Joint Declaration formalising NATO-EU cooperation. The statement identifies seven concrete areas of cooperation, namely hybrid threats, maritime security, cyber security, defence capabilities, defence industry and research, joint exercises and building resilience in Europe's East and South. The current security environment likely grants the statement more weight than it would in a different geopolitical context. The declaration offers the

22 members NATO shares with the EU unprecedented opportunities for increased cooperation, joint capability development, cost-effective platforms for enhanced complementarity and duplication elimination.

37. The remaining post-Warsaw challenges relate to the Alliance's ability to show continued solidarity and credibility in the face of unpredictable security challenges – such as Russia's reactions to NATO's new posture – and the ability to maintain unity in circumstances of continued refugee and migrant flows and conflict in regions along NATO's Southern and Eastern flanks.

38. Although the Alliance is witnessing an overall convergence of threat perception in terms of a NATO-wide agreement on the severity of the various geographical and resilience challenges, geography still dictates the security perceptions of all member states. For example, Southern European NATO states perceive the challenges in the Middle East and North Africa (MENA) region to be of more immediate concern than the Central-Eastern European and Baltic states. Such a divergence of perspective still challenges the Alliance's ability for collective action.

39. There is an imperative today for all Allies to understand the dichotomy between Eastern and Southern flank challenges is false; threats to any Ally's security will inherently affect the entire Alliance.

A. RECENT US VIEWS ON BURDEN SHARING

40. President Donald Trump is dramatically accelerating the burden sharing debate. During his campaign, candidate Trump called NATO "obsolete", claimed European countries "owe massive amounts of money" to NATO and pointed out the unfairness of "free-riding" towards US taxpayers (Rohac, 2017). President Trump's statements only served to sharpen previous US leaders' criticism of the burden-sharing dilemma in the Alliance. US Secretary of Defence James Mattis has also warned the United States might "moderate its commitment" if Allies do not shoulder more of the burden (MacAskill, 2018).

41. During the 2018 annual NATO PA Defence Committee visit to Washington, US policymakers also delivered a loud and clear message: The United States is increasing its commitment to NATO, and it expects increased investments in parallel from its Allies. Officials told the delegation the Trump Administration would make burden sharing among Allies one of its principal goals at the July 2018 NATO summit in Brussels. The other main priorities, deterrence and defence as well as counterterrorism, officials stressed, go hand in hand with Allies' responsibility to meet their defence spending commitments. The Director of the Office of European Security and Political-Military Affairs at the Bureau of European and Eurasian Affairs, Michael Murphy, told the delegation: "The Wales Pledge is at the forefront of US officials' minds in the run-up to Brussels." Mr Murphy insisted all Allies must be able to present credible plans to get there, to which he added only approximately 13 were currently on track to do so. "If these numbers are still present at the summit, this will be problematic – please carry this message back to your governments and constituencies," he warned.

42. Burden sharing was indeed a key element of the NATO Brussels summit. The myriad variables driving increased investment in domestic defence programmes and Allied tasks have had a clear impact across the Alliance. In Brussels, Allies again pledged their commitment to the 2014 Wales Defence Investment Pledge, with promises "to submit credible national plans on its implementation, including the spending guidelines for 2024, planned capabilities, and contributions" (Brussels Summit Declaration, 2018).

B. RHETORIC VERSUS REALITY – THE RENEWED US COMMITMENT TO EUROPEAN SECURITY

43. The Trump Administration's December 2017 National Security Strategy (NSS) defines the current international security environment as one of global competition at all levels, as the

administration views both China and Russia as seeking peer rival status *vis-à-vis* the United States. An important line of effort to counter this, the document contends, is to build stronger alliances. The NSS underscores Washington's desire to remain active in Europe: "A strong and free Europe is of vital importance to the United States" (NSS, 2017). The NSS also says the United States "expects" Allies to fulfil their defence spending commitments but stops short of making US support conditional (Brattberg, 2018).

44. US policymakers also attempted to lay to rest any lingering doubts in delegation members' minds about the United States' Article 5 commitment during the Defence and Security Committee's most recent visit. As Thomas Goffus, Deputy Assistant Secretary of Defense (DASD) for European and NATO Policy, confirmed: "The United States' Article 5 guarantee is iron clad." Mr Goffus also stated the United States would continue to focus on the European Deterrence Initiative (EDI): "Deterrence is what we do together, rather than the US-focused European Reassurance Initiative (ERI), as the EDI was previously known."

45. The United States recently announced a planned allocation of USD 6.5 billion to the EDI in 2019, a USD 1.7 billion increase from last year and USD 3.1 billion more than allocated in 2017. As the DSC's general report highlights more thoroughly, the ERI/EDI has funded a significant increase in US presence in Eastern Europe, which supports more exercising, infrastructure, equipment prepositioning, and partner capacity-development efforts. In many ways, the proof of US commitment is in the USD 10+ billion already spent or planned to reinforce Allied defence and deterrence in Europe.

46. The United States' recent increased investments come on top of an already substantial existing commitment by Washington to guarantee the security of all Allies, particularly those in Europe. For example, the United States maintains about 68,000 active military personnel and an additional 16,000 Department of Defense civilian personnel in its own as well as shared facilities across Europe. The 2018 US defence budget allocates USD 24.4 billion to cover the expenses of US military assets in Europe. Further, as noted in the Committee's [161 DSC 17 E](#) report on NATO's ballistic missile defence initiative, the backbone of NATO's current ballistic missile defence system is funded directly by the US Missile Defence Agency's budget. The United States also funds approximately 22% of NATO common funding to support and maintain facilities, common procurement of new equipment, as well as an increasing pace of training, exercises, and operations. The United States also maintains a relatively small amount of direct bilateral military assistance to individual Allies and partners in Europe.

VI. TRENDS IN DEFENCE SPENDING

47. Relatively stable economies and the steady growth of European member states make it no longer possible to hide behind the pretext of lingering effects of the financial crisis. The EU bloc is the globe's second largest economy when measured as a collective GDP. According to Eurostat, the EU's statistical office, Eurozone GDP is growing 2.5% on a yearly basis and 2017 represented the fifth consecutive year of growth.

48. It is clear Europe is investing in defence again. This represents a sharp contrast with the pre-2014 period, when the Euro-Atlantic region was the sole region exempted from global defence expenditure growth (IISS, 2015). Additionally, the most recent report from NATO shows that defence spending by European countries and Canada has risen from USD 256 billion in 2016 to a projected USD 312 billion in 2018 (NATO, 2018). As the NATO Secretary General, Jens Stoltenberg, said quite succinctly about the changing dynamics in NATO Allied defence spending this past June: "We now have four consecutive years of real increases in defence spending. All Allies have stopped the cuts. All Allies are increasing defence spending. More Allies are spending 2% of GDP on defence and the majority of Allies now have plans to do so by 2024. Across European Allies and Canada, we expect a real increase this year of 3.8%. This means that, since 2014, European Allies and Canada

will have spent an additional USD 87 billion on defence. When it comes to capabilities Allies have committed to investing 20% on their defence spending on major equipment. This year, 15 Allies are expected to meet the guideline, and I count on more to do so in the coming years” (NATO, 2018).

49. Defence spending is driven by both increased threat perception and regional economic growth, but total spending continues to decline when compared to most countries’ GDP growth rates (Jane’s Defence Weekly, 2018a).

A. NORTH AMERICA

1. United States

50. The United States is putting considerable emphasis on increased defence spending. The 2019 National Defense Authorization Act, passed by Congress and signed by President Trump in August 2018, allocates USD 716 billion to defence spending and investment – an increase from President Trump’s earlier request of USD 686 billion (US DoD, 2018). If all of the authorised spending allocations are funded, this will represent an approximately USD 76 billion increase in defence spending by the United States since 2015. As noted above, this figure does not include the billions being spent, for example, on the European Deterrence Initiative, which falls in the Overseas Contingency Operations budget. Defence spending in the United States is witnessing its fastest increase rate in a decade (Jane’s Defence Weekly, 2018a).

51. The Third Offset Strategy has also played a role in budget allocations in terms of raising awareness of the United States’ eroding technological edge and the imperative of sustaining US advantage through innovation in equipment and military doctrine.

2. Canada

52. The Canadian Prime Minister, Justin Trudeau, has expressed a commitment to reverse the decline in Canada’s defence spending and enhance its role in NATO. Indeed, Canada’s recent defence policy review, “Strong, Secure, Engaged” (SSE), includes a renewed emphasis on hard power and the will to decrease reliance on the United States on defence matters through substantial investments (IISS, 2018). The Government of Canada released figures in May 2018 showing that capital spending fell short in the SSE’s first year by USD 2.3 billion. Figures predict further shortfalls, with the SSE promising USD 24.3 billion in spending for the 2020-2021 fiscal year while the Department of National Defence’s 2018-2019 Departmental plan is forecasting total spending at USD 20.1 billion for the same period, a USD 4.2 billion shortfall (CGAI, January 2018; Canadian Department of National Defence, 2018).

53. Defence spending only rose by USD 1.1 billion over three years from 2014 to 2017, however, leading some to question how Canada will fulfil its above-stated ambitions. The Canadian Global Affairs Institute has attributed the underspending to “a dysfunctional defence procurement system at Canada’s Department of National Defence” (CGAI, May 2018).

B. EUROPE

54. Defence spending continued to increase on aggregate across European NATO member states in 2016, from USD 255.7 billion to USD 256.5 billion from 2015 to 2016 and showing a 0.3% increase (Béraud-Sudreau and Giegerich, 2017). In terms of defence expenditure as share of GDP in European NATO Allies, a steady decrease can be seen from 2009 when the spending was 1.69% on average, reaching 1.45% in 2013 and going as low as 1.40% in 2015, only to rebound slightly in the past three years to 1.5% in 2018.

55. Overall, in real terms, NATO Europe has steadily increased total defence spending by about USD 40.5 billion since 2015 (NATO, 2018).

1. EASTERN EUROPE

56. Defence spending in Eastern European states has witnessed a 24% increase in real terms between 2014 and 2017, clearly motivated by Russia's illegal annexation of Crimea, ongoing conflict in eastern Ukraine, and Russia's large-scale "snap" military exercises in the region. Budgetary projections indicate Eastern Europe will deliver the fastest growth in defence spending, which rose to an average of 1.6% GDP in 2017 from 1.3% in 2013 and is predicted to reach 1.8% by 2020 (Jane's Defence Weekly, 2018a).

a. Poland

57. As the largest frontline state in Europe's Eastern Flank, Poland's key strategic position makes it particularly vulnerable to Russian interference and potential aggression. With regards to burden sharing, Poland surged over the 2% threshold in 2015, only to waver and decline from 2016 to 2017. According to the most recent reporting by NATO, Poland's budget is to grow to USD 12.08 billion in 2018 to bring total defence spending to 1.98% GDP (NATO, 2018). Poland is poised to complete construction for the land-based Aegis Ashore ballistic missile defence system this year and plans to acquire new F-35 Lightning II jets and used F-16 fighter jets from the United States and the 3D mobile surveillance radar NUR-15M (Adamowski, 2017a).

58. The Polish government says it is committed to reattain a defence investment level equalling 2% in the near future and even intends to increase it to 2.5% by 2030 (IISS, 2018).

b. Romania

59. Romania has increased its defence budget from USD 2.6 billion to USD 3.6 billion from 2014 to 2017 (NATO, 2018). Romanian defence spending is estimated to reach 1.93% GDP in 2018. The government's plan is to reach USD 5 billion by 2020, which would push it above the 2% benchmark.

60. An active NATO member, host of the Aegis Ashore missile defence system and of several multinational NATO forces, Romania is only 200 miles away from Crimea. After the inauguration of the Aegis Ashore in 2016, President Vladimir Putin warned Romania and Poland they are in Moscow's "crosshairs" (Hope, 2017). In response, Romania set out plans to purchase the US-made Patriot missile and air defence system.

61. Furthermore, Romania is also an enthusiastic participant in the EU's Permanent Structured Cooperation (PESCO) and related defence integration initiatives. As the EU's fastest growing economy, Romania's procurement list includes fast corvettes, armoured troop carriers, multiple-launch rocket systems and Intelligence, Surveillance and Reconnaissance (ISR) systems (McLeary, 2017).

c. The Baltics

62. Directly bordered by Russia, including its Kaliningrad exclave, Lithuania, Latvia, and Estonia see NATO membership as vital to their security strategies. Due to their perceived vulnerability, the three states make up a key strategic area to NATO's Enhanced Forward Presence battalion deployments. In parallel, all three states have dramatically increased their defence spending.

63. Overall military spending in the Baltic is poised to double in real terms compared to 2014 (Jane's Defence Weekly, 2018a). Estonia's defence budget has been steadily growing from USD 480 million in 2013 to USD 637 million in 2018. Latvia's defence budget more than doubled from 2013 to 2018, going from USD 281 million to USD 701 million. Lithuania followed suit by increasing spending from USD 355 million to USD 1.06 billion over the same period (NATO, 2018).

64. All three states have ambitious procurement goals both independently and jointly, including a plan for an air defence covering all three territories. Estonia's procurement plans include 11,000 automatic firearms during 2018-2021, infantry fighting vehicles, K9 howitzers, communications systems, Unmanned Aerial Vehicles (UAVs) and long-range anti-tank missile systems. The Latvian government also plans purchases of combat vehicles and M109 self-propelled howitzers (Adamowski, 2017b).

65. With a vast spurge in defence spending, Lithuania plans to acquire PzH 2000 self-propelled howitzers, the Norwegian Advanced Surface-to-Air Missile System (NASAMS), as well as transport and combat helicopters. Additionally, Riga's and Vilnius' defence procurements are to be synchronised for both armed forces following a recent agreement (Adamowski, 2017b).

66. In tandem with Eastern Europe becoming the fastest growing defence spender, these states are all forecast to meet the 2% of GDP target, together with the United States, the United Kingdom, Turkey and Greece.

2. SOUTHERN EUROPE

a. Italy

67. Although Italy recognises the threat posed by Russian aggression, Rome's principal defence concerns focus across the Mediterranean. Italy's defence spending trends are slightly volatile, but still in decline, moving from USD 26.6 billion in 2013 to USD 25.78 billion in 2018 (NATO, 2018). The Eurozone crisis has exposed significant structural economic weaknesses in the country, which have contributed to the decline in spending.

68. A defence white paper and a parallel defence plan were released by the Italian government in 2017 outlining goals to increase personnel, expand joint exercising, and upgrade equipment. Despite sector volatility, Italy retains a strong defence industry and remains an active member in NATO exercises, air-policing missions and operations while also leading the EU's *Operation Sophia* in the Mediterranean (IISS, 2018). As such, Italy is expected to maintain a line of continuity in defence as it is deepening involvement in key European defence projects and military operations (Marrone, 2018).

b. Greece

69. Before the Eurozone crisis and economic difficulties, Greek armed forces have traditionally been well-funded. Although in recent years major procurement has been halted and military exercises reduced, Greece is now strengthening maritime-patrol and anti-submarine-warfare capabilities, bolstering surveillance in the Mediterranean, enhancing rotary-wing transport capability and upgrading its F-16 fleet (IISS, 2018).

70. In 2013, Greece spent USD 5.31 billion on defence. It declined steadily in ensuing years, though 2017 did witness a small growth from USD 4.64 billion to USD 4.75 billion when compared to 2016. Greece is estimated to spend USD 5 billion in 2018. In 2013 Greece allocated 3.08% of its GDP to defence, in 2017 it had fallen to 2.38% (NATO, 2017b). While Greece still technically makes the 2% GDP commitment, this has only been possible due to the severe contraction of the Greek economy in recent years.

71. Greece is often an example highlighted by critics of the 2% guideline, as over 70% of the country's total defence spending goes to personnel costs, including pensions, rather than concrete investments in armed forces and readiness (NATO, 2018). In 2018, however, Greece is expected to spend 12.4% on equipment and another 24% on functional expenditures.

3. WESTERN EUROPE

72. Western Europe averaged only a 2% increase in 2017 (Jane's Defence Weekly, 2018a). While Eastern Europe is prioritising military modernisation and procurement, the larger Western European powers such as France and the United Kingdom struggle to sustain and develop capabilities proportional with the size and scale of their global ambitions.

a. France

73. The French President, Emmanuel Macron, has announced simultaneous cuts and increases: almost USD 1 billion in cuts to the 2017 defence budget to limit public deficit coupled with an increase of USD 2 billion to the 2018 budget. The French defence budget declined from USD 52.3 billion to USD 46.1 billion from 2013 to 2017 (IISS, 2015, 2018). The 2018 defence budget, however, increased to bring French defence spending as a percentage of GDP up to 1.82 from 1.77 in 2017, equalling a total of USD 52 billion. The 2018 budget also confirmed the will of the French government to reach the 2% GDP spending objective by 2025. On July 13 2018, the military programming law for 2019-2025 – passed by both chambers of the representative government – noted the intention to invest EUR 295 billion in defence from 2019 to 2025 (Ministère des Armées, 2018). France has made it clear it seeks to maintain full spectrum capabilities to meet global security challenges to French and Allied interests. The increased investments outlined in the new military programming law will be crucial for it to be able to do so.

b. The United Kingdom

74. As Europe's largest defence spender, the United Kingdom's defence budget decreased to USD 50.7 billion in 2017 from USD 52.6 billion in 2016, far below the 2014 USD 65.6 billion figures (IISS, 2018; NATO, 2017b). In 2018, however, it is expected to increase to USD 61.5 billion. In January, the British government disclosed the initiation of its third defence review which will assess the UK's security posture and set spending priorities. After the Brexit referendum, the government launched the National Security Capability Review to ensure that British capabilities are able to meet its foreign policy targets (Jane's Defence Weekly, 2018b).

75. Britain's defence review is said to formulate an industrial strategy, to adapt procurement to current requirements, and to aim to integrate cyber and electronic warfare as well as artificial intelligence considerations when enhancing defence capabilities. Brexit is likely to increase the British commitments to NATO, as the terms of third country participation in the EU's new defence pact, PESCO and the European Defence Fund (EDF) scheme have yet to be determined.

c. Germany

76. Defence has traditionally been a politically sensitive issue in Germany for clear historical reasons. Recently, however, the motor of Franco-German cooperation on defence has been driving the European Union's unprecedented cooperation on security matters. As a staunch promoter of European integration, Germany's hopes are that instruments such as PESCO, the EDF and Coordinated Annual Review on Defence (CARD) will not only boost European capabilities and strengthen the EU pillar in NATO, but also deepen European integration. The development of the EU's Common Security and Defence Policy (CSDP) has been a key focus of German foreign policy.

77. After a sharp decline in 2014-15 from USD 46.1 to 39.8 billion, Germany's defence investments have been steadily increasing, reaching USD 44.6 billion in 2017 (IISS, 2015, 2018). Defence is high on the current German government's agenda, with Minister Ursula von der Leyen announcing an intention to increase the defence budget by USD 4-5 billion annually until 2030 (Moelling, 2016). Consequently, Germany is expected to spend USD 51 billion in 2018 (NATO, 2018).

78. Germany's contribution to NATO burden sharing by meeting the 2% target has been widely present in the debate, as Minister von der Leyen reaffirmed this goal – though it is highly unlikely, given the pledged increases come nowhere near the approximately USD 70 billion additional funding needed to reach this goal.

79. A slate of recent reports about the lamentable state of the land, air, and sea forces show the energy to renew defence investments is sorely needed in Germany. At present, reports indicate not a single one of Germany's 212A-type submarines is able to leave port. This is part of a broader trend wherein entire German weapons systems are unusable due to lack of funding for spare parts and proper maintenance (Buck, 2018).

Trends in European Equipment and R&D Investments

80. European defence spending on major equipment and research and development for future weapons systems is increasing across the board but focuses on priorities defined by differing threat perspectives. Total defence investments reached USD 58.7 billion in 2017, with northern and central European states outpacing their southern and western neighbours in terms of rate of increased investment. Broadly speaking, the kinds of investments can be divided into two principal categories: defence acquisition for power projection or for territorial defence – with the geographic divide between the two again falling around divergent poles of threat perception. Accordingly, Western and Southern European Allies are acquiring more ISR systems and naval and air assets, while central and northern European Allies are acquiring more combined heavy arms systems such as armoured vehicles, artillery systems, and air defences (Béraud-Sudreau and Giegerich, 2018).

VII. INTRA-EUROPEAN GAP

81. European military spending has sustained four consecutive years of real growth. NATO's European member states on aggregate have sustained between 3-5% defence budget increases over the past three years. In 2017 the largest increases in real-term defence spending growth were in the Baltic States, Germany, and Romania (NATO, 2018). Yet, there is some variation across regions, as spending in northern and central Europe grew by 5.5%, while southern and western Europe only saw an increase of about 2.5% (Béraud-Sudreau and Giegerich, 2018).

82. A closer look upon member's defence spending reveals underlying problems preventing a clear-cut assessment of proportional inputs and outputs. While a full harmonisation of defence planning among nations is far-fetched, solutions for greater congruity are needed in order to identify metrics for ensuring defence spending is converted into concrete outputs beneficial for the Alliance's post-2014 adaptation.

83. Lack of defence cooperation between European countries is estimated to cost anywhere from EUR 25 to EUR 100 billion every year in needless duplications of effort or extra subsidisation needed to make up for the lack of economies of scale. As such, the current state of the European defence market is characterised by protectionism, duplication, and fragmentation. Recent approximations place 80% of procurement and over 90% of research and technology projects in the hands of national authorities (European Commission, 2017a, b). The EU's landmark defence projects such as PESCO and its financial stimulus for joint capability development and research, the European Defence Fund, aim to remedy the current fragmentation.

84. To assess progress across the Alliance, NATO Allies agreed to submit defence spending plans by the end of 2017 which should outline means of achieving the 2% target by 2024. The exercise proved less useful than intended: several countries submitted three-year plans while others planned beyond 2024, and many failed outright to plan to reach the 2% target. Currently, 15 out of 29 countries have announced clear plans of reaching the target.

VIII. CONCLUSIONS

85. Aware most NATO member states are now increasing their defence spending, the Alliance is seeking to find the means to maintain momentum towards the spending pledge goal. As a result, an effort is being made to paint a clearer picture of what increased defence spending efforts by Allies are producing. As of March 2017, Allies are expected to publish annual defence spending plans detailing three key elements – cash, capabilities, and commitments: a) how much they are spending and how they intend to reach the defence spending pledge goal if they have not already; b) how they are investing in NATO-required capabilities; and, c) what contributions are made to and planned for NATO's current operations and missions.

86. The results have been mixed, as some plans do not go far enough while others surpass the 2024 goal set out in the Defence Spending commitment of 2014. Some Allies have yet to submit them. Clearly the ability to produce feasible and acceptable plans will continue to be an Alliance priority.

87. Still, as this draft report highlights, the Alliance's relatively radical shift on the burden sharing debate at the 2014 Wales Summit imposes upon Allies a criterion to which they have now all committed. Much of the debate surrounding burden sharing today centres on the shortcomings of the 2% guideline: it lacks clear definition; US defence funding serves global interests, while most Allies' serves Euro-Atlantic security interests; it does not calculate risk; it fails to emphasise the quality and effectiveness of outputs, etc.

88. Despite the rhetoric and challenges laid down by both Candidate and President Trump, however, the United States has in fact doubled-down on its commitment to European security – the EDI is funding a significant increase in US presence in Eastern Europe, supporting more exercising, infrastructure, equipment prepositioning, and partner capacity development efforts. In many ways, the proof of US commitment is in the USD 10+ billion already spent or planned to reinforce its already significant commitment to Allied defence and deterrence in Europe.

89. Another clear message coming from Washington is the bipartisan Congressional support for a strong Alliance. As the US delegation to the NATO PA has noted on several occasions, the increased efforts by the United States to bolster European security is strongly supported by the United States Congress – in both houses, by both parties. The political will to sustain and reinforce the transatlantic link is evidenced by the high levels of support for European security in the 2019 National Defence Authorization Act (NDAA), reported by the House Armed Services Committee this past May. The 2019 NDAA passed the US House of Representatives in a 359-54 vote in July, while it passed the US Senate 87-10 in early August. Further, the United States Senate has recently expanded the breadth and depth of its support for NATO via the re-establishment of the Senate NATO Observer Group this past July. The strong role the US Congress plays in shaping US foreign and security policy should not be overlooked, and the signals are clear – the United States is doing its part to meet the challenges facing the transatlantic security environment and it expects its Allies to step up and do the same in the interest of transatlantic collective security.

90. As is made clear by the recent publications of the US National Security Strategy and the National Defense Strategy, the United States feels the pressure of a changing international security environment. To stave off the challenges of potential near peer competitors, it will not only boost its domestic defence investment efforts, it also views strong alliances as key to taking on the challenge. In fact, the NSS even underscores the vital nature of European security to the United States – a key reminder of the importance of the transatlantic link.

91. NATO Europe and Canada clearly now feel the pressure of the changing security environment both in the Euro-Atlantic area and globally. This is driving new investments in defence – particularly in Eastern Europe. Still, many Allies remain far from achieving the expectations of the "2&20 pledge" on defence investments. And, while arguments against the limitations of the 2% guideline are

certainly valid, inputs are certainly needed for quality outputs, which all Allies now realise are vital to build and sustain the mobile and dynamic defence and deterrence posture outlined at the last two summits.

IX. STEPS FORWARD FOR NATO PARLIAMENTARIANS

92. NATO has a relatively well-established means for identifying Allied defence sector shortcomings – the NATO Defence Planning Process (NDPP). The NDPP runs on a four-year cycle to align NATO military staff needs to fulfil their missions with what Allies are actually bringing to the table. Member state parliamentarians can familiarise themselves with the NDPP and their country's level of coordination and synchronisation in their defence planning and procurement processes to meet the needs set forth by Alliance military leaders.

93. NATO parliamentarians can also solicit information from their respective defence establishments about how their nations are not only responding to NATO requirements, but also working to streamline spending to make their current contributions more effective. In addition, as all Allies are likely to seek to channel new spending into their defence sectors, it is imperative such spending is well allocated – more focus on new effective equipment, research and development or exercising over top-heavy personnel costs should be a priority.

94. NATO parliamentarians can and should also familiarise themselves with the breadth and depth of NATO adaptation decisions made at Wales, Warsaw, and Brussels. This will bring a greater understanding to the need for increased defence spending that will contribute effectively to the Alliance today.

X. EXPANDING THE DEBATE TO STRENGTHEN ALLIED SECURITY

95. It is clear from recent ministerial meetings and briefings the United States expects NATO European Allies to do more in the fight against terrorism. The United States will likely continue to take the lead in the denial of safe operating space for terrorist groups across the globe – but it will certainly look to its Allies for assistance when addressing the more long-term challenges of investing in the broader security measures needed to address the root causes of violent extremism.

96. Perhaps European Allies can thereby broaden the burden sharing debate accordingly and demonstrate their willingness to step up in this arena by expanding their commitment to development aid and democratic assistance programmes throughout the MENA region and beyond. Such a measure would expand the 2% debate on defence spending and make it more similar to the 3% criterion put forward at the last Munich Security Conference that is more focused on the broader issues of the complex causes of security challenges today.

97. The insistence on the new alliteration – cash, commitment, and capabilities – highlights the way to think about the needs for a unified Allied commitment to fulfilling the political goals they have set for themselves to tackle the new security environment and thereby continue to guarantee the peace and security of NATO populations and territory.

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NATO PARLIAMENTARY ASSEMBLY

DEFENCE AND SECURITY COMMITTEE (DSC)

AFGHANISTAN: THE NEXUS OF LOCAL AND REGIONAL SECURITY

Special Report

by **Wolfgang HELLMICH** (Germany)
Special Rapporteur

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I. INTRODUCTION

1. Increased violence in Afghanistan, driven by a resurgent Taliban and other insurgent forces, is forcing international attention back to the country. Tactical and strategic gains by the Taliban coupled with persistent institutional corruption continue to drive the attrition of the Afghan National Defense and Security Forces (ANDSF) and have altered the balance of forces on the ground. In the face of this worsening situation for the Afghan government and its forces, NATO Allies and their international partners are stepping up their efforts.

2. Allies agreed at the Brussels meeting of NATO Heads of State and Government on 25 May 2017 not only to continue NATO's *Resolute Support Mission* (RSM) in Afghanistan, but to increase financial and personnel contributions as well. Allied efforts in Afghanistan over the next few years will be critical to turning around the increasingly tenuous security situation on the ground.

3. In August 2017, the Trump administration announced the United States would let 'conditions on the ground' guide its efforts to assist the ANDSF as well as the United States' parallel counterterrorism mission in the country. To help achieve its goals, the United States is effecting a mini-surge of its forces and resources dedicated to Afghanistan. The Trump administration has made it clear participation in Afghanistan is a part of its interpretation of burden sharing in the Alliance – it expects its Allies to contribute more to NATO efforts to achieve the broader mission in Afghanistan; a stable country that will never again become a wellspring for international terrorism.

4. New rules of engagement are allowing international forces to work more closely with the ANDSF to help build a more effective fighting force in operations. In addition, international pressures seem to be bringing a much-needed government focus on rooting out corruption in the nation's security institutions. Further, the Trump administration has eased restrictions on war fighters in the battlefield and, as a result, US-led airstrikes doubled in 2017.

5. The United States is also increasing pressure on regional states to play a key role in future peace and security in Afghanistan. Attention is being paid to Pakistan's insufficient efforts to deny the Afghan Taliban and other designated international terrorist groups the freedom to operate in regions bordering Afghanistan.

6. This special report will provide a thorough overview of the evolution of the security situation in Afghanistan, from the state of the insurgency to the status of the ANDSF. A focus of this report, however, will be the complex regional variables at play in the fight for the future of Afghanistan. It will conclude with steps forward for the consideration of NATO member state parliamentarians.

II. TRUMP ADMINISTRATION / US POLICY

7. After months of consultations, US President Donald Trump announced a new 'Afghanistan and South Asia policy' in a speech to troops at Fort Myer in Arlington, Virginia on 21 August 2017. Departing from his predecessor's policy, which included a gradual military drawback from Afghanistan, Mr Trump reaffirmed a continued US commitment to the NATO-led *Train, Advise and Assist* (TAA) and US counterterrorism missions. Among other things, the new US strategy provides for the deployment of several thousand additional troops, relaxed rules of engagement for US forces and increased pressure on neighbouring states to contribute to the stabilisation of Afghanistan. Moreover, discarding the Obama administration's calendar-driven withdrawal or sunset clause, it specifies any future military withdrawal will be conditions-based (The White House, 2017). Beyond these broad strategic revisions, the president's speech outlined few details. For instance, the metrics to assess the conditions mentioned in the revised sunset clause remained undefined.

8. While the new strategy downgrades the importance of political engagement with Afghan governance issues, it clearly strengthens the US commitment to military efforts in Afghanistan. More

specifically, it proceeds on the assumption the Taliban can be forced into negotiating a political settlement by subduing them on the battlefield (IISS, 2017). To achieve this goal, President Trump asked NATO Allies and partner countries involved in Afghanistan to follow the United States' lead in increasing troops and funding, thereby also linking the mission in Afghanistan to the burden sharing debate¹.

9. The Trump administration's broader regional policy is changing quite significantly as well. The administration is now putting significant pressure on regional actors critical to the broader security outcomes in the region as well as the specific battlefield conditions inside of Afghanistan. This broader regional approach is a key element to what will ultimately determine the contours of the Trump administration's approach to Afghanistan; the challenges of regional variables in Afghanistan are highlighted in detail later in this report.

III. RSM UPDATE

10. At the 2016 Warsaw Summit, NATO Allies and partners agreed to extend the *Resolute Support Mission* beyond 2016, continue funding for the ANDSF until the end of 2020 and strengthen political and practical support for Afghan government institutions. These commitments were formally announced in the Warsaw Summit Declaration on Afghanistan and reaffirmed at the May 2017 meeting of NATO leaders in Brussels.

11. RSM's objectives have remained the same: to prevent Afghanistan's retreat into a sanctuary for terrorist forces capable of exporting violence and instability, as well as to provide the conditions and support for Afghanistan to sustain its own security, governance and development.

12. To achieve these goals, RSM will continue to train, advise and assist the ANDSF, the Ministry of Defence (MoD) and the Ministry of Interior (MoI) with a new focus on more tactical-level TAA. Operating through regional and functional commands in Kabul, Mazar-i-Sharif, Herat, Kandahar and Laghman, NATO and partner forces work closely with a range of different ANDSF elements, including the police, air force, special operations and conventional ground forces (Resolute Support, 2018a). In an effort to replicate the success of US Special Forces' training for the Afghan Special Security Forces, the new US Afghanistan and South Asia policy provides for more US and Allied advisors to spread down to the battalion and brigade levels of Afghan conventional forces. Previously, save a few exceptions, conventional forces were only advised at the corps level (US Lead IG, 2017).

13. Moreover, RSM forces continue to make use of some combat enablers to address the ANDSF's capability shortcomings. These include intelligence, surveillance and reconnaissance (ISR) assets, artillery systems, aerial fires and logistical support such as medical evacuation (US DoD, 2017). Importantly, the modification of the US forces' rules of engagement under the new Afghanistan and South Asia policy removed some caveats limiting US fires and air support in close proximity with hostile fighters (Wasserbly, 2017). As a result, US Forces operating in Operation *Freedom's Sentinel* (OFS) and the *Resolute Support Mission* increased their air operations significantly. In 2017, for example, they conducted 1,248 sorties with at least one weapon released – compared to 615 in 2016.

14. The Trump administration's revised Afghanistan and South Asia policy has translated into a significant increase of RSM force levels. Since the announcement of the new strategy last August, the United States has deployed 3,000 additional troops to Afghanistan, of which 2,400 are assigned to NATO's RSM (SIGAR, July 2018). Another 1,000 members of the newly created US Security Force Assistance Brigades (SFAB) are planned to be deployed starting from February 2018.

¹ This year's DSCTC report [\[170 DSCTC 18 E rev. 1 fin\]](#) investigates the burden sharing debate in the Alliance today as its central theme.

Specifically trained for combat advising, the SFAB will train, advise and assist the conventional ANDSF at the battalion level (SIGAR, January 2018; Wellman, 2018).

15. President Trump's call on NATO Allies and partners to follow suit has had its effect as well. Following the most recent meeting of NATO Defence Ministers in November 2017, NATO Secretary General Jens Stoltenberg announced the size of NATO's mission in Afghanistan would increase from about 13,000 to approximately 16,000 personnel. Apart from the United States, another 27 RSM-troop-contributing nations also pledged to raise troop numbers (NATO, 2017). The German Defence Minister, for example, announced plans to increase the size of the German forces in Afghanistan from 980 to 1,300 personnel (Sprenger, 2018). NATO's newest member, Montenegro, has also pledged to increase troops by about 50% (Tomovic, 2018). To date, all contributing nations have pledged to increase either materiel and/or personnel support efforts to RSM.

16. Taking the already deployed reinforcements into account, RSM currently consists of 16,229 troops from 39 contributing nations (26 NATO Allies and 13 operation partners). With 8,475 troops the United States remains by far the largest force contributor. In addition to the NATO-led RSM, US troops are conducting counterterrorism and air operations as part of USFOR-A's Operation *Freedom's Sentinel*, amounting to a current total of approximately 14,000 US military personnel in Afghanistan (US DoD, 2017). Despite welcoming the recent troop reinforcements, US and NATO officials stated they continue to fall below international commitments and warned contingent shortcomings might endanger both the successful completion of the mission and effective force protection².

IV. THE ANDSF AND THE INSURGENCY

A. THE ANDSF

17. With the start of NATO's RSM in 2015, the Afghan security forces have taken sole responsibility for security throughout Afghanistan. As the ANDSF are now about to enter their fourth fighting season since they took the lead against the Taliban-led insurgency, NATO officials are optimistic about their development. In November 2017, RSM Commander General John W. Nicholson stated the momentum has shifted in the ANSDF's favour – a clear difference the “stalemate” between government and insurgent forces he spoke of just seven months before (Nicholson, 2017a, 2017b). Supreme Allied Commander Europe General Curtis Scaparrotti echoed General Nicholson's perception during a more recent visit to Kabul in February 2018 and said he is certain “the Taliban cannot win on the battlefield” (Resolute Support, 2018b).

18. In early 2017, Afghan President Ashraf Ghani began implementing his four-year strategy to reform the ANDSF, now commonly referred to as the ‘ANSDF Road Map’. The plan aims to: 1) strengthen fighting capabilities, particularly in the special operations and air forces; 2) improve leadership capacity; 3) increase the unity of effort and command between MoD and MoI; and 4) reduce corruption across all Afghan security forces. The goal of these efforts is to bring 80% of the population under government control, forcing the Taliban into peace talks by 2020. The following assesses progress on President Ghani's ANSDF Road Map.

² It should be noted, however, that with the completion of the SFAB's deployment, the size of US forces is expected to surpass 15,000 this year.

ANDSF Road Map Progress

19. Implementation of President Ghani's ANDSF Road Map has been slower than some expectations, but it has been producing concrete results since 2017. Following the abovementioned scheme outlined by the government in Kabul, the following significant steps have been taken. First, to increase the size and capabilities of the Afghan special operations and air forces: the Afghan National Army Special Operations Command (ANASOC) expanded its training facilities, graduating four instead of two Afghan Special Security Forces (ASSF) companies each year; while the Afghan Air Force (AAF) received the first eight of 159 UH-60 Black Hawk helicopters, thus beginning the overhaul of the AAF's current fleet of 47 ageing Mi-17s (Hecker, 2018). Second, regarding leadership development, the MoI replaced 13 of its senior leaders, including even the Minister. In the MoD, five of the six Afghan National Army (ANA) corps commanders were removed and replaced with younger commanders, three of whom have special operations training and experience. Moreover, a standardised and comprehensive evaluation process has been imposed on all ANA commanders. Third, the Afghan Border Police (ABP) was renamed the Afghan Border Force (ABF) and transferred from the MoI to the MoD. The Afghan National Civil Order Police (ANCOP) is due to follow suit later in 2018, bringing all offensive security forces under MoD control (US DoD, 2017). The transfer of ABP and ANCOP to MoD's administration is expected to further support the MoI's efforts to engender efficient law enforcement and root out corruption (US DoD, 2018).

20. President Ghani's Road Map also outlines a plan to shift the Afghan National Police's (ANP) focus from counterinsurgency operations to traditional community policing. The Afghan National Police consists of four main branches and three sub branches and is under the authority of the Interior Ministry³. Among the main branches, the Afghan Uniform Police (AUP) constitutes the largest policing force with 99,068 authorised personnel and has a diverse range of tasks from traffic policing, to fire fighting and intelligence gathering, which make it the backbone of the ANP. The ANP's efforts to become an effective civilian-policing force, however, are hamstrung by its active participation in counterinsurgency (COIN) operations alongside the ANA. Because ANP forces are not "sufficiently trained or equipped" for COIN operations, "the near-constant prospect of combating" insurgent forces fuels the high-levels of attrition in the ranks of its personnel (US DoD, 2018). Thus, although it is too early to measure its effectiveness, President Ghani's goal of redefining the ANP's role and responsibilities to transform it into a skilled and capable police force remains vital.

21. Corruption, specifically public extortion, is also cited as another source of inefficacy greatly undermining ANP operations. Unjustified fines and taxes imposed upon the public, most commonly at checkpoints, by Afghan police officers are some examples of daily extortion. More importantly, ANP forces are also accused of accepting bribes from "criminals and insurgents in return for turning a blind eye" to their activities (UNDP, 2007). Accordingly, widespread institutional corruption within the ranks of the ANP hinders its forces from providing fair and sufficient crime fighting and civilian policing. Thus, reducing corruption across all of the Afghan security forces stands as one of the major initiatives emphasised by President Ghani's reform plan.

22. The ANDSF continue to operate below their authorised levels of 195,000 ANA and 157,000 ANP personnel (352,000 total). Although the ANDSF's total size has been more or less stable over the past year, as expressed above, both the ANA and the ANP suffer from high levels of attrition. Desertion accounts for about 70% of all personnel losses, with poor leadership being the most cited underlying driver (US DoD, 2017). Beyond numbers, the high turnover rate of 25-30% per year also prevents the ANDSF from developing a more experienced force. Specifically, recurrent lengthy deployments, the expectation of participating in near constant combat operations, as well as challenging living conditions contribute to the issues of reenlistment in the ranks of the ANP and ANA (US DoD, 2018). Upon RSM recommendation, the ANA has established a bonus scheme for

³ The four main branches of the ANP are the Afghan Uniform Police, the Afghan Personnel and Pay System, the Afghan Border Police and the Afghan Anti-Crime Police; the three sub branches are the Afghan Local Police, the Afghan Public Protection Force and the Counter Narcotics Police of Afghanistan.

personnel who serve the full duration of their enlistment (US Lead IG, 2017). It is, however, too early to assess the effectiveness of these efforts. In addition to the multilaterally funded ANDSF, the 30,000-strong Afghan Local Police (ALP) is supported by the United States and overseen by the MoI (US DoD, 2017).

23. The Afghan government and USFOR-A are currently reviewing plans to establish a new force under the MoD, called the Afghan National Army Territorial Force (ANATF). This force, which will consist of 7,500 ANA officers and 28,500 locally recruited personnel, is meant to prevent insurgents from regaining ground in government-controlled areas. Pilot programmes in selected provinces are planned to start in 2018, with a possible second round in 2019 (US DoD, 2018). If the ANATF model proves to be successful, it will allow the ANA to free up resources for offensive operations in the short term and to transition into a smaller and more affordable force in the long term (US DoD, 2017). Observers have raised concerns the proposed force will merely serve to train and equip private militias that will be most interested in advancing their own agendas. While the ANATF would bring militia forces under MoD control, this concern is not unjustified. Previous projects involving locally recruited forces, most notably the ALP, have had a mixed track record, providing security in some areas and committing human rights abuses against the local population in others (US Lead IG, 2018).

24. ANDSF casualty rates remained similar to the previous reporting year with fire and improvised explosive device (IED) attacks and, to a lesser extent, mine strikes as the main causes (US DoD, 2017). In addition, insider attacks within the ANDSF ('green on green attacks') and on RSM forces ('green on blue attacks'), though declining, continued to be a concern as they adversely affect force morale and foster mistrust between Afghan and international forces. To address the danger of insider attacks, the MoD adopted a new policy in September 2017, which provides for improved force protection procedures for ANDSF and RSM personnel, such as enhanced screening mechanisms. A similar policy is planned for the MoI. To support the MoD and MoI in this endeavour, RSM has created an Insider Threat Advisor (ITA) position (SIGAR, January 2018).

B. THE TALIBAN

25. As the Taliban failed to achieve their operational goal of capturing a provincial capital in 2017, they started to shift their focus to districts over the course of the past year. The group was able to take temporary control of some district centres through infiltration techniques rather than frontal assaults. However, the ANDSF, often with international forces' air support, proved to be effective in recapturing lost territory relatively quickly (IHS Jane's, 2017; US DoD, 2017). Although the Taliban have been pushed out of most urban centres, they were able to increase territorial control in rural areas slightly, where the government lacks effective representation. According to the latest RSM estimates based on data from October 2017, the Taliban hold about 14% of the country's 407 districts, while the government is in control of approximately 56% of them (Burns and Baldor, 2018). The remaining 30% are contested. In terms of population control, RSM assessed insurgents control about 10% and the government approximately 60% of the population, with the remainder being contested (US DoD, 2017).

26. The failure to capture urban centres even at the district level has led the Taliban to shift to increasingly guerrilla-style warfare against ANDSF bases, checkpoints and convoys across the country, as well as to high-profile attacks against civilians in Kabul and other major cities. From 17-19 October 2017, for instance, the Taliban launched a series of attacks in the provinces of Paktia, Ghazni and Kandahar, killing over 100 people, mostly police and military personnel (ICG, 2017b). These incidents demonstrate the Taliban's increasing focus on attacking ANDSF facilities, allowing the group to steal military equipment and weakening morale within the Afghan forces (UN, 2017). In January 2018, the Taliban claimed responsibility for two high-profile attacks in Kabul. On 21 January, a raid on the Intercontinental Hotel killed 22 people, most of whom were foreigners. A week later, a bomb hidden in an ambulance detonated in one of the capital's most protected areas, close to government buildings and embassies, killing over 100 people (ICG, January 2018). Most recently,

on 10 September, the Taliban carried out four attacks in northern Afghanistan killing at least 57 Afghan police officers (Rahim and Abed, 2018). The four attacks were the latest in a series of targeted attacks by the Taliban against Afghan security forces.

27. The pace of violence against security officials picked up after a three-day ceasefire was observed among the Taliban, the Afghan government, and international forces in the region during the Eid al-Fitr (ICG, July 2018). Although the violence dropped significantly during the temporary ceasefire, the Islamic State of Iraq and the Levant-Khorasan Province (ISIL-K) was the only exception and carried out an attack that killed at least 26 people. However, the adherence showed to the temporary truce by both Taliban and Afghan forces signified a “strong domestic constituency for peace” as President Ghani offered “unconditional talks” with Taliban (ICG, July 2018). Moreover, US officials and Taliban are reportedly preparing to hold potential peace talks, with the exchange of prisoners being a key starting point (Ahmad, 2018). The reports of potential peace talks were strengthened after US diplomats and Taliban representatives met in Doha in July where they laid the groundwork for future negotiations (Popaizai and Wilkinson, 2018).

28. Integration between the Taliban and the Haqqani network has further progressed, causing some observers to call the distinction between the two groups obsolete (US DoD, 2017). Infighting between the Taliban’s leader, Haibatullah Akhundzada, and the head of the Haqqani network, Sirajuddin Haqqani, has reportedly been settled with the help of Pakistani mediation. Nevertheless, the rift allowed Haqqani to consolidate his influence within the *Quetta Shura*, the Taliban’s leadership council (IHS Jane’s, 2017). Observers have noted these developments with concern, as the Haqqani network has historically been less committed to limiting civilian casualties (US DoD, 2017). Moreover, on 4 September 2018, the Taliban officially confirmed the death of Jalaluddin Haqqani, the founder of the Haqqani network. Although Jalaluddin Haqqani’s death is not expected to affect the operations of the Haqqani network, it marks a significant symbolic loss for the militant group.

C. DAESH IN AFGHANISTAN – ISIL-K

29. The territorial hold of ISIL-K continues to decline due to US counterterrorism operations, ANDSF operations and fighting with the Taliban (US DoD, 2017). Particularly, the group’s stronghold in the south of the Nangarhar province has suffered from an intense US airstrike campaign. By the end of 2017, ISIL-K’s territorial control had diminished to three districts in the province – down from nine in late 2015. Elements of the group, however, appear to have relocated to other parts of the country, most notably to Kunar and Jowzjan provinces (US Lead IG, 2018; Nicholson, 2017b).

30. Despite territorial losses, the group proved to be resilient in its ability to conduct high-profile attacks. In an effort to stir sectarian conflict, ISIL-K has focused on attacking Afghanistan’s Shi’a community. On 28 December 2017, the group claimed responsibility for killing at least 41 and wounding 84 people in a suicide attack at a Shi’a cultural centre in Kabul (SIGAR, January 2018). ISIL-K was also partly responsible for the spike of attacks against civilian and military targets in Kabul in January 2018. It claimed the attack on Save the Children’s Kabul office on 24 January, which killed at least three people, as well as the raid on a military academy on 29 January, which killed 11 ANDSF personnel (ICG, January 2018). Most recently, on 6 September 2018, ISIL-K conducted twin bomb attacks in Kabul’s predominantly Shia Qala-e-Nazer neighbourhood, killing 20 people.

31. USFOR-A and ANDSF operations as well as attrition are taking their toll on ISIL-K’s base of available fighters. The group is trying to compensate for its heavy personnel losses by recruiting disaffected members from other insurgent groups in the region, most notably former Taliban and *Tehrik-i-Taliban Pakistan* (TTP) members (US DoD, 2017). So far, however, increased pressure on ISIL-affiliated fighters in Syria and Iraq has not swelled the ranks of the organisation’s Afghan branch (Nicholson, 2017b). According to RSM statements in December 2017, the total number of ISIL-K members throughout Afghanistan amounts to about 1,000 people (Bunch, 2017).

32. ISIL-K continues to have difficulties gaining local support and funding. The group's ideology does not resonate with the larger civilian population and competition over illegal revenue sources continues to bring the group into conflict with the Taliban and other insurgent groups (US DoD, 2017). The competition over members and resources between the Taliban and ISIL-K is also fuelled by recent reports of possible peace talks between the United States and the Taliban. While ideologically the Taliban's local agenda continues to clash with ISIL-K's goal of establishing a global caliphate, on the battlefield the Taliban prove to be stronger, as more than 150 ISIL-K fighters were recently forced to surrender to Afghan security officials after being defeated by the Taliban in Jowzjan in August 2018 (Sahak, 2018). Thus, ISIL-K finds it hard to emerge as a major force in the face of the Taliban's enduring regional presence.

D. OTHER INSURGENT GROUPS

33. Limiting the threat emanating from al-Qaeda remains a priority for US counterterrorism efforts in Afghanistan. The group maintains a limited but resilient presence in eastern, north-eastern and, to a lesser extent, southeastern Afghanistan. Moreover, its regional affiliate, al-Qaeda in the Indian subcontinent, was able to settle in the southern and southeastern parts of the country as well as in Pakistan. Al-Qaeda's current focus is ensuring its survival and sponsoring local armed groups rather than going on the offensive (Giustozzi, 2018; US DoD, 2017). Other violent extremist organisations, most notably the Taliban, continue to provide al-Qaeda members with safe haven and support, which USFOR-A assesses as "probably the greatest obstacle to eliminating their presence in Afghanistan" (US Lead IG, 2018). However, there is no evidence to suggest coordination between the groups at the strategic level (US DoD, 2017).

V. STATUS OF THE CIVILIAN SECURITY ENVIRONMENT

34. The general security situation for Afghan citizens remains precarious. The United Nations Assistance Mission in Afghanistan (UNAMA) reported 10,453 conflict-related civilian casualties in 2017, which included 3,438 deaths and 7,015 injured. For the first half of 2018, UNAMA documented 1,692 deaths – the highest number of civilian casualties at mid-year for "any comparable time over the last ten years" (UNAMA, 15 July 2018). Although the overall numbers remain high, the year-on-year casualty count is decreasing for the first time since 2012 (UNAMA, February 2018). In addition to the persistently high number of casualties, the conflict has also caused the displacement of over 445,000 civilians in 2017 (UNOCHA, 2018). This brings the number of internally displaced people in Afghanistan to 2 million, with another 2.6 million refugees living outside the country (Amnesty International, 2018).

35. According to UNAMA's latest report, the number of casualties attributed to combined IEDs has surpassed those caused by ground engagements in 2017. The mission voiced concern about the surge of sectarian-motivated attacks against places of worship and religious leaders, including ISIL-K's growing focus on attacking the Afghan Shi'a community. In the summer of 2018 alone, ISIL-K claimed two attacks on the Shi'a community. In June, suicide bombers targeted a gathering of Afghan religious scholars, killing at least 12 and injuring 17 (Mashal and Sukhanyar, 2018). Meanwhile, in August two suicide bombers attacked Shi'a worshippers in the Paktia province, injuring 81 and killing 25 (Al Jazeera, 2018).

36. Of all conflict-related casualties in 2017, UNAMA attributed nearly two thirds to anti-government elements and one fifth to pro-government forces, with the remainder being caused by unattributed cross-fire during ground combat, explosive remnants of war and shelling from Pakistan into Afghanistan.

37. There has been substantial debate on the human costs associated with growing airstrikes by international and Afghan forces. In fact, UNAMA's 2017 figures present the largest year-on-year casualty count caused by aerial fire since records began in 2009. Putting these numbers into

perspective, however, the mission states the increase in civilian deaths and injured is relatively low compared to the significant rise of aerial operations over the course of the past year, resulting in an overall reduced harm ratio. Commenting on the discussion, Major General James B. Hecker, Commander of NATO's Air Command in Afghanistan, said RSM's training for Afghan pilots includes developing the necessary hard skills but also "a mindset that prevents civilian casualties to the greatest extent possible" (Hecker, 2018).

VI. GOVERNANCE

A. ELECTIONS AND ELECTORAL REFORM

38. In addition to the challenges directly associated with security and security sector reform, the Afghan state continues to face mounting political challenges. In this context, General Nicholson has stressed the importance of holding credible and timely elections to increase government legitimacy and social pressure on the Taliban (Nicholson, 2017b). The implementation of electoral reforms in preparation for the parliamentary and district council elections scheduled for October 2018 and the presidential elections due to take place in April 2019 is progressing relatively slowly. Both political and technical issues, including challenges associated with voter registration, security concerns and political disputes, have stalled progress on electoral preparations.

39. At the heart of the new electoral law passed in November 2016 is the commitment to link voters to specific polling centres in order to reduce ballot-box stuffing, which was the most common form of fraud during the 2014 presidential elections (SIGAR, January 2018). Ambitious plans to introduce a biometric voter registration and verification system have been discarded, as the procurement process for biometric machines proved unfeasible in the short term. New plans require citizens to present their *tazkera*, the Afghan National Identification Card, directly at one of the polling centres to obtain a paper-based voter registration certificate (SIGAR, January 2018; Yawar Adili, 2017b). However, about 10 million Afghans adults do not possess identification documents, most notably women, refugee returnees and internally displaced persons (Darnolf, 2018; NRC, 2016). Observers have stated that the Afghan Central Civil Registration Authority (ACCRA), which is in charge of issuing civil documentation, lacks both the institutional capacity and the appropriate funding to issue *tazkeras* to all eligible voters prior to voter registration (Darnolf, 2018).

40. Along with the passing of the new electoral law, the government appointed new members to the Independent Election Commission (IEC) and the Electoral Complaints Commission (ECC) in November 2016. Lately, the IEC and the ECC, now the two main bodies in charge of administering and overseeing the elections, have come under criticism by political parties and civil society institutions. Specific allegations include the lack of progress, internal division and poor leadership (UN, 2017). On 15 November 2017, President Ghani removed the IEC's chairman, Najibullah Ahmadzai, from office after five of the commission's seven members had accused him of incompetence. The president's decision came after a coalition of opposition groups and protest movements demanded the dismissal of all commissioners. With six of ten IEC Secretariat positions unfilled and electoral preparations increasingly turning into a battlefield between different political factions, observers have raised serious doubt about whether the IEC and the ECC have the capacity to manage the electoral process properly (Yawar Adili, 2017a).

41. In August 2018 the ECC announced that 35 candidates, 12 of which are current members of Parliament, will be barred from running in the 20 October 2018 elections due to their connections to armed groups (RFE/RL, August 2018). Whilst the announcement has been praised by some foreign diplomats who claim it will help ensure fair and legitimate elections, domestically it was met with criticism and debates over whether the ECC is truly independent and whether the process of barring candidates was fair and just. This has increased political tensions in Afghanistan, adding to pre-existing security concerns as elections approach. Concerns remain that the dissatisfaction of

those barred from elections and their supporters will spark violence, which could either further delay the elections or at least disrupt them.

42. Ensuring voter security remains a challenge as well. In 2017-2018, the IEC reviewed the location of polling centres throughout the country to assess voter accessibility for the first time (UN, 2017). Out of the approximately 7,300 polling centres, the IEC assessed 1,707 centres across 32 districts as being subject to high security threats (Shaheed, 2018a). In support of safe and fair elections in Afghanistan, in July 2018 UNAMA decided to allocate an additional USD 57 million to the elections budget (UNAMA, 25 July 2018). The US Department of Defense (DoD) stated the United States and NATO Allies are not planning to support election security with significant force levels (US DoD, 2017). However, Secretary General Jens Stoltenberg has offered (limited) NATO assistance for the parliamentary elections in October 2018 amid fears of security issues hampering the election process (RFE/RL, April 2018).

43. The slow pace of electoral preparations – parliamentary elections were initially scheduled for 2015 – puts the legitimacy of Afghanistan’s legislative bodies at risk and causes internal turmoil; particularly because successful local and parliamentary elections are a pre-requisite for long-awaited constitutional amendments. For example, the implementation of the 2014 executive power sharing agreement between the president and the chief executive officer of the national unity government (NUG) will require constitutional amendment; only a *loya jirga*⁴, however, can enact constitutional amendments, and they in turn depend on successful district council elections for their constituency. At the time of writing, the challenge of maintaining local elections coupled with the ongoing power struggle between the president, the legislature, and critics of the national unity government like Mr Karzai have led to political paralysis.

B. EFFORTS TO STEM CORRUPTION

44. Among Afghanistan’s greatest challenges is deeply entrenched public-sector corruption, which threatens to undermine the efficiency and legitimacy of the Afghan government and its security institutions. Although the NUG made combatting corruption a priority when its members took office in 2014, there has been little progress since then. Afghanistan continues to rank near the bottom, as 177th out of 180 countries, in Transparency International’s Corruption Perception Index (Transparency International, 2018). Moreover, 83.7% of all respondents in the Asia Foundation’s latest survey of the Afghan people said corruption is a major problem in Afghanistan as a whole (The Asia Foundation, 2017). Putting these rankings into perspective, Integrity Watch Afghanistan’s (IWA) 2016 National Corruption Survey states that USD 3 billion (almost a sixth of Afghanistan’s GDP that year) was paid in bribes in 2015, an almost 50% increase from 2014 (Integrity Watch Afghanistan, 2016).

45. At the 2016 Brussels Conference on Afghanistan, the NUG committed to draft a comprehensive anticorruption strategy encompassing all government branches. About a year later, on 28 September 2017, the ‘National Strategy for Combatting Corruption’ was officially approved by the High Council on Rule of Law and Anti-Corruption. The National Strategy, however, puts anticorruption activities under the authority of the Attorney General’s Office, while the previous draft anticorruption law provided for the establishment of an independent commission (SIGAR, January 2018). In the absence of an agreement on oversight, progress on the anticorruption law has been stalled. Further, the National Strategy has also been criticised as falling short of international standards and best practices, missing aligned goals and benchmarks as well as not calling for the establishment of a permanent and fully independent anticorruption organisation (SIGAR, January 2018).

46. RSM is specifically involved in efforts to stem corruption in Afghanistan’s security sector. It has, for instance, established a Counter-Corruption Advisor Group (CCAG) to support the MoI and

⁴ A *Loya Jirga* is a traditional grand tribal assembly of elders to which district councils send delegates, and which has a legislative function in the country.

MoD in identifying and targeting corruption networks within their own ranks and to coordinate anti-corruption efforts among Afghan security institutions, RSM and international partners (US DoD, 2017). Moreover, the Combined Security Transition Command-Afghanistan (CSTC-A) and the Afghan Ministry of Finance signed a Memorandum of Understanding in August 2017, allowing the CSTC-A to audit the execution of the United States' on-budget assistance to Afghan security forces and institutions. The CSTC-A has also supported the Ministry of Finance in developing the new 'Afghan Personnel and Pay System'. Currently under implementation, the new system registers every ANDSF member biometrically, thereby reducing the risk of paying unaccounted for (or 'ghost') soldiers (Nicholson, 2017b; SIGAR, January 2018). CSTC-A advisors also work with the Anti-Corruption Justice Center (ACJC) and its principal investigative arm, the Major Crimes Task Force (MCTF). Established by President Ghani in 2016, the ACJC brings together investigators, prosecutors and judges to cover high-level corruption cases, meaning those involving losses of more than AFN 5 million or allegations against senior public officials (Resolute Support, 2017; SIGAR, January 2018). However, while the ACJC represents some progress in the Afghan anticorruption efforts, there are worries that it "lack[s] the capacity, resources, or security [it] need[s] to perform [its] function" (SIGAR, July 2018).

The Opium-Corruption Nexus

47. One of the key feeders into Afghanistan's corruption issues, opium trade, provides equally complex challenges to local and regional security. More than 75 per cent of the world's opium comes from Afghanistan (see Annex A) and the value of the opium trade has been estimated to over half (53 per cent) of the nation's licit GDP (UNODC, 2018a). During the course of the war in Afghanistan, the 21st century has seen opium cultivation and trade spike to unprecedented levels. Even during President Ghani's rule – praised for being harsher on warlords than his predecessor Hamid Karzai's administration – cultivation and production have increased. From 2016 to 2017 opium production increased by 87 per cent to reach 9,000 tons (UNODC, 2018a).

48. The increase in opium production has both global and local implications: fuelling regional instability and insurgency sustaining terrorist groups through illicit funds, but also making communities dependent on the income from opium poppy cultivation. The result is rampant corruption at all levels. The large volume of poppy cultivation makes Afghanistan the key provider of opium to not only its immediate neighbours in South Asia but also Europe, via Central Asian and Middle Eastern routes, most of Africa and even the United States (Meyer, 2018). The Taliban's links to narcotics go back to the 1990s, and more concretely following the wake of the 2001 US invasion when, having moved to Pakistan, the Taliban solidified its links to the Quetta alliance, a loose confederation of three tribal clans in control of most of the regional narcotics trade. Displaying their cross-organisational co-operation capabilities, the insurgent Taliban and the drug kingpins agreed to exchange funding provided by illicit trade for security provided by the Taliban and their affiliates. As a result, the Taliban has had between USD 100 and USD 350 million available as funding for its insurgency each year (Meyer, 2018).

49. With the support of the international community, predominantly the United States, the Afghan government has taken various measures to combat the narcotics trade in Afghanistan. However, these have yielded limited results – despite significant opium production in Afghanistan, most drug seizures happen outside the country (notably in the Middle East and Eastern Europe). The Afghan Ministry of Counter Narcotics (MCN), established in 2005 and tasked with the "coordination, evaluation and implementation of the Counter Narcotics law and the National Drugs Control Strategy (NDCS)", has received USD 27.7 million from the US Bureau of International Narcotics and Law Enforcement Affairs (INL) for capacity building purposes since 2008.

50. A key role the Ministry has recently played is implementing the new penal law on counter narcotics, in effect since February 2018. Stricter than the previous law, the new penal law favours prison terms over fines and has criminalised public officials' behaviour that may jeopardise official investigations. While the United States continues to train Afghan authorities on implementing of the

law, results are encouraging as over five hundred cases were adjudicated using the new law between 1 April and 7 June 2018 (SIGAR, July 2018). Meanwhile, within the ANDSF, the Counter Narcotics Police of Afghanistan (CNPA) and specialised units within it – especially the Sensitive Investigation (SIU) and National Interdiction Units (NIU) – conduct key counter narcotics operations. As of July 2018, the CNPA has 2,596 authorised personnel located in all 34 provinces. As of 2016, NATO has played a role in training counter narcotics officers via its Partnership for Counter Narcotics Training with the UNODC to tackle drug trafficking in South and Central Asia.

51. Complementing these operations is the INL's Counter-Narcotics Community Engagement (CNCE) programme established in 2013. Targeting local communities and farmers, the programme funds initiatives "aimed at discouraging poppy cultivation, preventing drug use, and encouraging licit crops" (SIGAR, July 2018). Similarly, the Boost Alternative Development Intervention through Licit Livelihoods (BADILL) programme, implemented by the UNODC, endeavours to diversify licit livelihoods for small-scale local farmers and remove incentives for illicit poppy cultivation. Observers note, however, this initiative has had very limited long-term results in dissuading farmers from opium production (SIGAR, July 2018). As political tensions, the ongoing insurgency, rampant corruption, and illicit trade continue to reinforce one another in Afghanistan, the key in resolving these issues will lie in the cohesion of the national unity government and the success of its negotiations with the Taliban. The more tolerant stance of President Ghani towards the Taliban and his increasingly pro-peace settlement rhetoric spell out a commitment to political stabilisation that is a positive signal for creating the conditions for a lasting peace (Ghani, 2018).

VII. INCREASING FOCUS ON THE REGIONAL DIMENSION

52. It is clear achieving peace and stability requires a political settlement between the national unity government and the Taliban. Less straightforward and thus often neglected when discussing Afghanistan's prospect for peace is the regional dimension of this endeavour. The announcement of the gradual withdrawal of NATO troops in 2011, however, has caused Afghanistan's neighbours to move from the margins to the centre of attention again.

A. PAKISTAN

53. The most crucial neighbour for achieving peace and stability in Afghanistan is Pakistan. Besides Saudi Arabia and the United Arab Emirates, Pakistan is one of only three countries that formally recognised the Taliban regime as Afghanistan's legitimate government between 1996 and 2001. Although then Pakistani President Pervez Musharraf officially cut ties with the Taliban within days of the 9/11 attacks, less conspicuous support channels remain. To date, the Afghan Taliban and the affiliated Haqqani network continue to enjoy safe haven on the Pakistani side of the Durand Line, allowing these groups critical sanctuary to avoid ANDSF and coalition-supported military operations and giving them the space necessary to plan, resource and launch attacks (US DoD, 2017).

54. There is considerable evidence Pakistan's military and especially its Inter-Service Intelligence Directorate (ISI), actively support Taliban activities in Pakistan and Afghanistan. The targeting and subsequent assassination of Osama bin Laden in 2011 drew global attention to the Pakistani military's complicity with various armed groups and the freedom of action these groups' leaderships enjoy in the Pakistani area of operation. More recently, Ahkter Muhammad Mansour, then leader of the Taliban, was killed in a US drone strike in Pakistan in 2016. He was found without any weapons or guards (Gall, 2017). For such a high-profile terrorist group leader to operate so freely in the region suggests at the very least tacit, if not overt, support from the government in Pakistan. In addition, the track record of arrests or disappearances of Afghan Taliban leaders based in Pakistan who make overtures to the government in Kabul or their international partners without the direct consent of the Pakistani government only further highlights the degree to which political and military leaders in Islamabad maintain key influence over terrorist groups (ICG, 2017a).

55. Pakistan's willingness to cooperate and crackdown on Taliban sanctuaries is balanced with a parallel desire by both political and military leaders to maintain armed group proxies active in the region in order to curb India's potential influence in Afghanistan.

56. Since British India was divided into what is now known as the Islamic Republic of Pakistan and the Republic of India in 1947, the two countries have fought each other in four full-scale wars and 43 smaller conflicts (Mitton, 2014). Central to the ongoing dispute is the Kashmir region, which both states claim belongs to their respective territory. Marked by this history of bitter rivalry, the Pakistani military sees Afghanistan as providing critical strategic depth *vis-à-vis* India. In the minds of Pakistani leaders, sustaining strong political influence in Afghanistan can prevent potential encirclement by their long-term rival and, in the instance another war breaks out, provide the government in Islamabad with a reliable ally on its rear flank (Dalrymple, 2013).

57. The 2001 US-led invasion of Afghanistan sought to remove the Taliban from power due to their support and harbouring of al-Qaeda. The US intervention was a critical juncture for Pakistan's role in the region – not only did it lose its agent in Kabul, it also started to decline in importance in relation to the international community's efforts to bring peace and stability to the region. This was due to its lack of initiative in denying safe haven to the remnants of the defeated Afghan Taliban as they fled across the border from US forces. The issue of Taliban and other armed groups asylum in Pakistan's Federally Administered Tribal Areas soon became a key dividing point for international forces on the ground, as well as for the political effort to foster a stable government in Kabul in order to develop a new Afghan state. US-NATO combined efforts knocked the Pashtun out of key positions in Kabul, ushering in a new era where the Tajik-influenced government led by Hamid Karzai⁵ had close ties to India (Mitton, 2014). Hence, in Pakistan's view, backing insurgents was its only realistic instrument to maintain influence in the region.

58. When Ashraf Ghani took office as president of the NUG in 2014, he initially made considerable efforts to improve relations and security cooperation with Pakistan. There were several reciprocal visits to Kabul and Islamabad in late 2014 and early 2015, during which Afghan and Pakistani officials tried to find ways to bring the Taliban to the negotiation table. Initially, officials on both sides expressed beliefs that formal talks were near (Yusuf and Smith, 2015). President Ghani even agreed to send a small number of Afghan troops to be trained at the Military Academy in Abbottabad in early 2015, after former President Karzai had repeatedly rebuffed Pakistani offers to assist in the training of the ANDSF. Shortly afterwards, in April of the same year, the Inter-Services Intelligence (ISI) and its Afghan counterpart, the National Directorate of Security (NDS), signed a Memorandum of Understanding aiming to enhance intelligence cooperation (Katzman and Thomas, 2017).

59. Meaningful action against Taliban sanctuaries in Pakistan, however, failed to materialise and recent high-profile attacks jarred *rapprochement* efforts, eventually causing Afghan-Pakistani relations to deteriorate again. In the past two years, President Ghani has repeatedly called on Islamabad to take decisive action against Afghan extremists launching attacks from Pakistan. At the first meeting of the "Kabul Process" in June 2017, for example, Mr Ghani even accused the Pakistani government of waging "an undeclared war of aggression" against Afghanistan (Dawn, 2017). Pakistan denies supporting the Taliban and other extremist groups, arguing it is being made the scapegoat for other countries' failings in the protracted and gridlocked conflict. Privately, however, civilian government officials say it is the military and particularly the ISI that are standing in the way of concrete measures aiming to clamp down on insurgent groups (Abi-Habib, 2018).

60. These more recent events unfold against the background of a long-standing border dispute between the two countries. Afghanistan refuses to recognise the Durand Line as its international border with Pakistan, arguing it divides Pashtun territory. The border was drawn under British colonial rule in 1893 and has regained attention in 1947, when Pakistan declared its independence and refused Afghanistan's demands to grant Pashtun tribes living on the Pakistani side of the border

⁵ Hamid Karzai served as interim leader of Afghanistan from 2001-2004 and officially as President from 2004-2014.

the right to self-determination (Katzman and Thomas, 2017; Rahi, 2014). Recently, Pakistan has started to build a fence along the Durand Line, with plans to cover 2,400 km by the end of 2018 (SIGAR, January 2018). While Islamabad argues the fence is necessary to regulate cross-border movements and prevent militant incursions, Kabul has voiced strong opposition to the unilateral undertaking and insists on renegotiating the border (Dilawar and Haider, 2017). Despite heightened tensions in the bilateral relationship, military-to-military border cooperation at the tactical level remains largely intact (US DoD, 2017).

61. Many observers were apprehensive about the election of Imran Khan as Pakistan's new Prime Minister in July 2018 due to worries about his policy on Afghanistan. Mr Khan had previously stated the Taliban insurgency is "justified" (Boone, 2012), which raised concerns about Pakistan being a spoiler in the Afghan peace talks (Schmitt, 2018). Prime Minister Khan, however, has thus far been supportive of peace negotiations with the Taliban, having said: "[i]f there is peace in Afghanistan, there will be peace in Pakistan" (Coll, 2018). Given his Pashtun background, Mr Khan could in fact increase ties between Pakistan and Afghanistan should this become a foreign policy priority for his government (McKirdy, 2018).

The Trump Administration Changes the Course of US-Pakistan Policy

62. While US Presidents George W. Bush and Barack Obama prioritised ensuring Pakistan's overall stability to keep the country's numerous militant groups in check and its fast-growing stockpile of nuclear weapons out of the wrong hands, the Trump administration has decided to take a hard line with Pakistan. While presenting the new US South Asia strategy in August 2017, President Donald Trump stated his administration could no longer ignore the sanctuary provided to the Afghan Taliban in Pakistan. As a result, in January 2018, the US government decided to suspend all Coalition Support Fund and Military Financing aid for Pakistan – security assistance worth approximately USD 2 billion – until the Pakistani leadership substantiates its commitment to crackdown on Taliban sanctuaries (Bokhari et al., 2018; Nawaz, 2018). Ahead of his visit to Islamabad in September 2018, US Secretary of State Mike Pompeo announced the United States would cancel USD 300 million of aid to Pakistan "due to a lack of decisive actions in support of the South Asia strategy" (Barker, 2018).

63. Moreover, the Trump administration successfully lobbied the member states of the Financial Action Task Force (FATF) into putting Pakistan back on the 'grey list' of countries not doing enough to combat money laundering and terrorist financing. This grey listing is likely to discourage banks and other financial institutions from engaging with the Pakistani government, complicating the country's efforts to meet its growing financial needs (Abi-Habib, 2018; Masood, 2018).

64. The changing course of US-Pakistan policy under President Trump has sparked substantial debate in the US foreign policy community. Some security experts argue a hardline approach gives the United States increased leverage by limiting Pakistan's capabilities. For example, the reduction in aid stalls military modernisation efforts and could be a long-term setback if no other country can fill the substantial gap left by the loss of US aid (BBC News, 2018).

65. At the same time, however, some observers question whether the strategy of increasing pressure on Pakistan will achieve the desired results, arguing it might actually prove to be counterproductive. Pakistan was on the FATF's grey list from 2012 to 2015 and US military aid to the country was already cut by about 60% from 2010 to 2017 – neither of these measures had any apparent impact on Pakistan's behaviour (Felbab-Brown, 2018; Masood, 2018). While there have been few signs of such measures impacting Pakistan's behaviour toward terrorist groups, the United States has benefited from its ability to use Pakistani roads and airspace to deliver supplies into Afghanistan and Pakistani military bases to launch drone strikes (Aleem, 2018). Some experts, including a former US ambassador to Pakistan, fear these benefits could end if aid is cut off in a highly public manner. Pakistan could obstruct or complicate US operations, as it did in 2011 when it shut down NATO supply routes into Afghanistan after the United States attacked a Pakistani guard

post, or it could pursue closer ties with rivals such as China and Russia (BBC News, 2011; Olson, 2018). Increasing pressure on Pakistan also risks reinforcing the military's perception that it needs Afghan insurgents to compensate for insecurities *vis-à-vis* India, particularly because the Trump administration's South Asia policy also calls for a growing Indian role in Afghanistan (Felbab-Brown, 2018).

B. INDIA

66. Much like its principal rival, India's involvement in Afghanistan is informed by concerns over violent extremism and the potential influence of Pakistan. India strongly opposed the Taliban government, as it viewed Kabul's harbouring of al-Qaeda as a major threat to its security. From New Delhi's perspective, links between al-Qaeda and violent separatist groups in Pakistan directly connected extremism in Afghanistan to instability in the disputed Kashmir region and south east Asia more generally (Katzman and Thomas, 2017). Even after the Taliban's ouster, some of these groups have continued to prove their potency with major terrorist attacks in India and against Indian targets in Afghanistan. Most notable in this regard are the 2008 and 2011 Mumbai attacks, but also the 2008 and 2009 attacks against the Indian embassy and the 2010 attack against an Indian guesthouse in Kabul (Dalrymple, 2013). Eager to prevent any violent extremist groups from regaining power in Kabul, New Delhi supported the Northern Alliance against the Taliban in 2001 with both military advisors and equipment, and it has made considerable efforts to re-establish and solidify bilateral relations since then.

67. India has become one of Afghanistan's largest and most reliable regional partners in terms of trade and development assistance (US DoD, 2017). Since the Taliban's ouster in 2001, New Delhi has funded major civil development and infrastructure projects such as the new parliament building in Kabul and the Afghanistan-India Friendship Dam in Herat Province, completed in December 2015 and June 2016 respectively. India's development assistance to Afghanistan amounts to projects worth USD 2 billion in total and Indian Prime Minister Narendra Modi pledged an additional USD 1 billion for Afghanistan's development in 2016 (Katzman and Thomas, 2017). Meanwhile, the overall volume of trade in goods amounted to USD 383 million in 2016 (SIGAR, January 2018). While India is becoming increasingly involved in Afghanistan's reconstruction and economic development, the Indian government has been careful to stress the civilian character of these investments.

68. Most recently, India has committed to invest USD 85 million in the development of the Chabahar seaport in south eastern Iran (Dawn, 2018). As Pakistan continues to block the land transit of goods from Afghanistan to India and vice versa, the project aims to facilitate trade between India, Iran and Afghanistan while bypassing Pakistan. Launched with a series of trilateral transit agreements in May 2016, the project has progressed relatively slowly as the first consignment of wheat was shipped from India to Afghanistan through Chabahar only in October 2017 (Panda, 2017). On 17 February 2018, Prime Minister Modi and Iranian President Hassan Rouhani finalised agreements on the management of Chabahar, giving operational control of the port to the Indian government for the following 18 months (Dawn, 2018). In addition to sea access, Afghanistan and India have also established a direct airfreight corridor, which was inaugurated with the first cargo flights between New Delhi and Kabul in June 2017 (MEA India, 2017a).

India as Security Partner to Afghanistan

69. The nature of Indian-Afghan relations changed and intensified again in 2011, when the two countries signed a "Strategic Partnership" giving India a formal role in Afghan security for the first time. Importantly, the partnership agreement provided for India to train and equip ANDSF personnel (MFA Afghanistan, 2011). Since then, about 130 members of the Afghan security forces have attended officer-training programmes at Indian military institutions every year (US DoD, 2017). Furthermore, India has begun to supply the ANDSF with combat equipment, thus departing from its previous policy of providing Afghanistan with support equipment only. Most notably, India has donated four Mil Mi-25 attack helicopters to the Afghan Air Force (AAF) to replace their grounded

Mi-35s. As the donated helicopters have also experienced serviceability issues, however, the Indian government announced in 2018 that it would purchase four refurbished Mi-24 helicopters from Belarus for Afghanistan (Gady, 2018).

70. Recent developments suggest India's involvement in Afghan security is likely to increase even further. As a way of coordinating and reviewing the implementation of the strategic partnership at the ministerial level, the agreement established a "Partnership Council" with regular meetings headed by the Foreign Ministers of both countries. The council met for the second time in September 2017, where both sides agreed to strengthen security cooperation and extend India's assistance to the ANDSF. Notably, the council also explicitly called for the end of state-sponsored sanctuaries for terrorist groups attacking Afghanistan (MEA India, 2017b).

71. This does not mean, however, there are no limits to the role India is willing to play in Afghanistan. As part of the new US South Asia policy, President Trump called on New Delhi to contribute more to international efforts aiming to foster peace and stability in Afghanistan. In September 2017, a month after President Trump's address, Indian Defence Minister Nirmala Sitharam met with her US counterpart James Mattis in New Delhi. During the meeting, Mrs Sitharam made it clear India is not going to send troops to Afghanistan but is prepared to increase development assistance and training for ANDSF personnel (Deutsche Welle, 2017). India's restraint in this regard is likely to be first and foremost informed by New Delhi's fears of potential retaliation attacks by Pakistan-backed insurgent groups in India or against Indian targets in Afghanistan.

C. CHINA

72. Beijing's expanding regional investment projects, coupled with concerns that instability and violent extremism in Afghanistan might threaten China's domestic security, drive the country's involvement in Afghanistan. First, despite a relatively small, shared border (92 km), Afghanistan's mountainous and sparsely populated Wakhan corridor connects to China's Muslim-majority Xinjiang province, where Uygur separatist groups seek to establish an independent East Turkestan. China is concerned about the surge of violence in recent years and suspects some of these groups take advantage of instability in parts of Afghanistan and Pakistan to train and plan terrorist attacks in Xinjiang and other parts of China (Huasheng, 2016; Umarov, 2017).

73. Second, Afghanistan's wealth in minerals such as copper, iron and gold, estimated to be worth USD 1 trillion, has attracted major Chinese investments (Barnes, 2017). In 2008, for instance, the state-owned China Metallurgical Group signed contracts to develop Afghanistan's Mes Aynak field, the country's largest copper deposit. Like many other Chinese projects in Afghanistan, however, security-related incidents such as attacks at the site and kidnappings of Chinese specialists have stalled the field's full development (Umarov, 2017).

74. Third, and most importantly, Afghanistan's geographic location in the heart of Central and South Asia means peace and stability in Afghanistan are crucial for the viability and effectiveness of China's massive "One Belt, One Road" (OBOR) initiative. Launched in 2013, OBOR is the centrepiece of Beijing's current foreign policy. It aims to connect China to Central and Southeast Asia, Europe and Africa through a network of railways and highways (the land-based "Silk Road Economic Belt") as well as maritime routes (the sea-based "Maritime Silk Road"). The increase in Chinese investment and engagement in Central Asia through OBOR suggests China could play a significant role in increasing the regional links between Afghanistan and their Central Asian neighbours.

75. In 2016, Afghan Foreign Minister Salahuddin Rabbani and his Chinese counterpart Wang Yi signed a Memorandum of Understanding on enhancing cooperation within the OBOR framework, giving Afghanistan a formal place in China's ambitious infrastructure project (Kumar, 2017). Since then, a new rail route was opened, linking China to Afghanistan through Kazakhstan and Uzbekistan (Wu, 2016). Beijing has also signalled Afghanistan could become part of the China-Pakistan

Economic Corridor (CPEC), a series of infrastructure projects currently under construction which aims to connect China to the Indian Ocean via Pakistan (SIGAR, January 2018).

76. These economic and strategic interests as well as the significant cutback of international forces and partners in Afghanistan after the departure of ISAF have driven Beijing from its traditional place at the sidelines of the Afghan war towards greater involvement in Afghan security issues. The 2012 “Joint Declaration between the People’s Republic of China and the Islamic State of Afghanistan on Establishing Strategic and Cooperative Partnership” marked the beginning of strengthened security cooperation between the two countries. Two years later, as a way of accelerating the implementation of the agreement, Beijing appointed the first Chinese Special Envoy for Afghan Affairs. Moreover, since the NUG took office in 2014, Kabul and Beijing have signed four Memoranda of Understanding on defence and security cooperation and hosted an unprecedented number of reciprocal visits by high-level diplomatic, security and military officials (Umarov, 2017). In 2016, Afghan security forces received their first batch of Chinese military aid, reportedly containing military vehicles, logistical equipment, ammunition and weapons (Dominguez, 2016). Most recently, there have been reports of joint counterterrorism patrols made up of Afghan and Chinese troops operating in the Wakhan corridor along the countries’ shared border (Katzman and Thomas, 2017). While Chinese military assistance and Sino-Afghan security cooperation are still marginal compared to other international actors, they have certainly increased in recent years. In August 2018, reports emerged indicating the Chinese government is planning to open a military base in Afghanistan to host troops undertaking counterterrorism training in neighbouring Xinjiang (Farmer, 2018). However, these claims have thus far been denied (Reuters, August 2018).

77. In addition to growing bilateral efforts, China has launched or participated in a number of regional initiatives aiming to promote the Afghan peace process. Most notably, China is part of the Quadrilateral Coordination Group, the Shanghai Cooperation Organization-Afghanistan Contact Group and the Heart of Asia-Istanbul Process. While all of these regional forums convene regularly, no significant progress towards a peace settlement has been achieved since negotiations with the Taliban broke down in 2015 (UN, 2017). China is nevertheless considered to be in a relatively good position to foster cooperation and mediate between Afghanistan and Pakistan, as it has friendly relations with both governments. With close ties to the Pakistani military and at least some informal links to the Quetta *Shura*, the Taliban’s leadership council, Kabul hopes Beijing will use its relations to bring the Taliban back to the negotiation table (Huasheng, 2016; Jackson and Abbas, 2018).

D. IRAN

78. Iran’s involvement in Afghanistan is mainly driven by its desire to contain US and ISIL-K influence in Afghanistan. Iran’s foremost concern is the increase in ISIL-K attacks against the Afghan Shi’a community. Second, Tehran seeks to limit US military presence in the close vicinity of its border, which the United States may be able to use as a staging ground to pressure or attack Iran (Katzman, 2018).

79. These concerns have led the Shiite-ruled Tehran to expand its ties with the hard-line Sunni Taliban and to support their fighters with money, training and equipment. Thus, the very group Iran vehemently opposed in the 1990s and nearly went to war with in 1998 has now become a useful proxy force to advance Iranian interests in the region (Gall, 2017).

80. Yet, Iranian-Afghan relations are more complex, as both sides recognise – at a meeting in Kabul with Iranian Deputy Foreign Minister Seyyed Abbas Arghchi, Afghan Chief Executive Abdullah Abdullah said “joint cooperation between the two countries of Iran and Afghanistan on fighting terrorism is necessary and the rise of shared threats makes these kinds of cooperation more necessary” (ICG, 27 September 2018). Iran is Afghanistan’s second largest trading partner after Pakistan as well as the most significant exporter of goods to Afghanistan – the total trade between the two coming to USD 1.46 billion in 2016 (UN, 2016). Iran’s commitment to economic cooperation is most evident in the Chabahar Port project with India, under which Iran is due to hand over control

of the port to India in exchange for trade routes from landlocked Afghanistan to be able to bypass Pakistan. Meanwhile, Afghanistan's commitment to cooperation with Iran is evident in its request for exemption from Iran-related sanctions.

81. Moreover, there is also evidence Iran's Revolutionary Guards Corps (IRGC) has been recruiting Afghan refugees to join pro-government militias in Syria since at least 2013. According to Human Rights Watch, potential recruits do not always join voluntarily but are often detained and given the choice between deportation to Afghanistan and fighting in Syria (HRW, 2016, 2017). While they do not pose an immediate risk to Afghan security, their eventual return from Syria might swell the ranks of Afghan insurgent groups with battle-hardened and trained fighters. During a visit to Tehran UN High Commissioner for Refugees Filippo Grandi recently stated Iran is in grave need of further support in order to be able to house, support and educate the large Afghan refugee population (of almost a million civilians) it is currently host to (Lomax, 2018).

VIII. CONCLUSIONS FOR NATO MEMBER STATE PARLIAMENTARIANS

82. It is clear NATO Allies view sustaining their mission in Afghanistan as being of vital importance. NATO Allies and their international partners have a clear goal with their mission in Afghanistan – to ensure Afghanistan will never again become an ungoverned space from which terrorist groups can operate and launch attacks. Achieving this goal has involved almost 17 years of significant investment in personnel and resources – some people have paid the ultimate price to help Afghanistan achieve the peace and stability that have eluded it for the last four decades at least.

83. Military assistance to the ANDSF and financial and diplomatic assistance to the government in Kabul have changed the situation on the ground in Afghanistan in significant ways: the ANDSF are leading the fight against the insurgent forces seeking to undermine the government; access to health care, education and other economic opportunities has expanded greatly since the end of Taliban rule in 2001; a parliamentary democracy, though advancing slowly, is taking hold and working to guarantee rights for all Afghan citizens. Advances in rights for women and girls in the country have perhaps come the farthest of all.

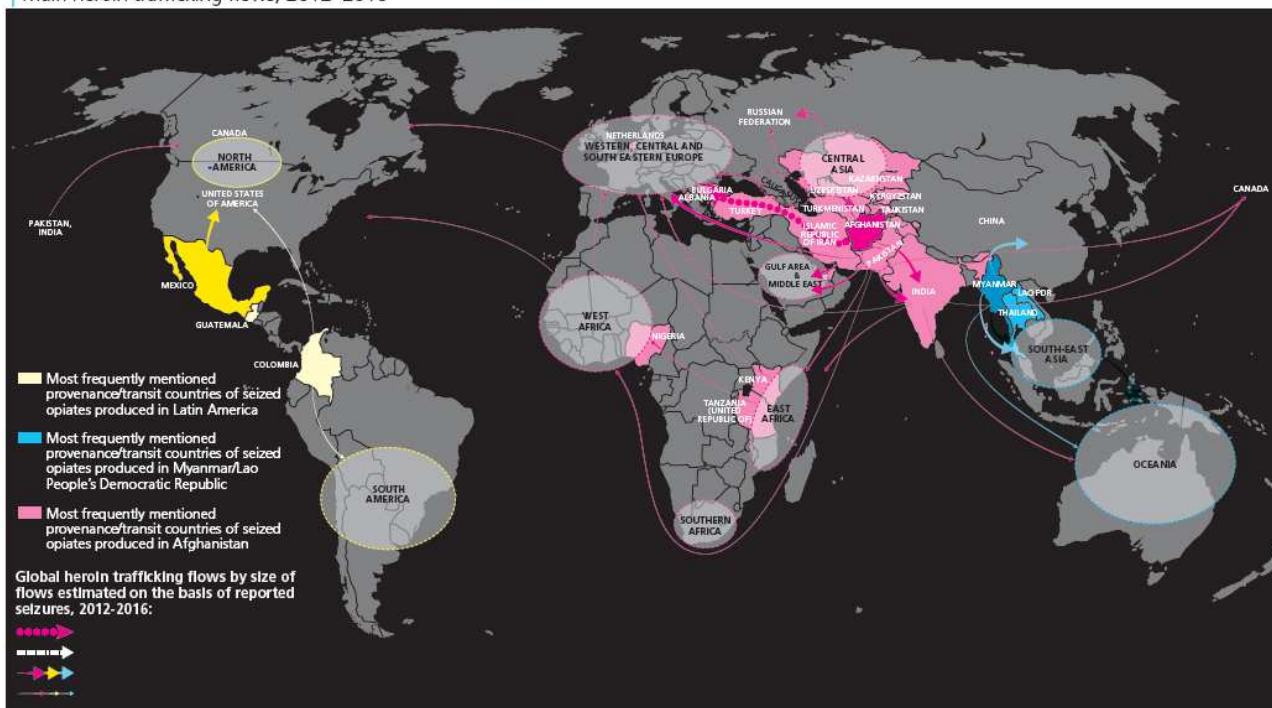
84. While none of these achievements should be discounted, much work remains to be done. This report underscores many areas where sustained attention, resources and political will need to be focused to effect the change necessary: from continued security sector reform investment to increased attention to anticorruption measures. The parliamentary elections scheduled for the fall of 2018 will be a key focus for the government, its international backers and the insurgent fighters seeking to block the installation of a legitimate democracy in the country.

85. This report gives extra attention to the regional dimension of the security challenges in Afghanistan due to its importance for achieving lasting peace. Pakistan's ability to deny the use of its territory as safe haven by the myriad groups fighting in Afghanistan will be crucial. Clearly, international pressure is increasing on Pakistan to take new steps to rectify what all military and policy experts believe to be a key problem for the future of the war in Afghanistan. The complexity of the Pakistan-India dynamic should not be overlooked, however, when examining policies and actions to deal with the Afghanistan-Pakistan border dilemma.

86. As the Trump administration stated correctly in its iteration of its new policy toward Afghanistan – the solution to Afghanistan will require investment from all the elements of US power, not just the military. An obvious conclusion from such a statement is that, ultimately, lasting peace in Afghanistan will be the result of an Afghan-owned and implemented political solution. While the continued strengthening of the ANDSF and the correction of key security sectors may continue apace and change the balance of forces on the battlefield, it is clear a political compromise with the Taliban must be achieved.

ANNEX: GLOBAL HEROIN TRAFFICKING FLOWS 2012-2016

Main heroin trafficking flows, 2012-2016



Source: United Nations Office on Drugs and Crime (UNODC), 2018.

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RESOLUTION 447

on

BURDEN SHARING: NEW COMMITMENTS IN A NEW ERA*

The Assembly,

1. **Concerned** by threats to NATO's territories and populations which could undermine peace and security;
2. **Recognising** this security challenge demands a determined, unified, and capable Allied response;
3. **Recalling** the new adaptation measures decided upon at the 2014 and 2016 Summits in Wales and Warsaw to address these threats;
4. **Welcoming** the readiness and reinforcement initiatives announced at the 2018 Brussels Summit to ensure more rapid and effective Allied responses to any possible contingency in NATO territory;
5. **Aware** a dynamic and mobile Allied deterrence posture requires significantly larger investments;
6. **Encouraged** by continued US investment in European security via such initiatives as the European Deterrence Initiative (EDI);
7. **Understanding** deterrence is a whole-of-Alliance undertaking, requiring investment and sacrifice from all Allies so that NATO is positioned to achieve collective defence, crisis management, and cooperative security in the face of any challenge;
8. **Recalling** that Article 3 of the Washington Treaty commits all Allies to do their part to carry the burden of Alliance initiatives, operations, and tasks;
9. **Remembering** the Defence Investment Pledge undertaken at the 2014 Wales Summit which, *inter alia*, commits Allies to aim to move towards the guideline of spending 2% of their Gross Domestic Product (GDP) on defence by 2024 and investing 20% or more of their defence budgets on major equipment, including related research and development, with a view to meeting their NATO capability targets and filling NATO's capability shortfalls, and **noting** that the Defence Investment Pledge (DIP) is not only Cash, but also Capabilities and Commitments, as the so-called three "Cs" accurately reflect the Allies' level of solidarity, which indeed represents the basic pillar of the Alliance's credibility;

* Presented by the Defence and Security Committee and adopted by the Plenary Assembly on Monday 19 November 2018, in Halifax, Canada

10. **Encouraged** by the economic recovery across the Alliance, which has helped underwrite over USD87 billion in new defence spending by NATO European Members and Canada since 2014;

11. **Noting** that since 2014, the NATO PA has conducted a consequential and positive dialogue on burden sharing that has helped build a political consensus supporting the notion that more must be done to ensure a strong and capable NATO for the future;

12. **Applauding** the fact that five Allies are now spending over 2% of GDP on total defence spending, while 15 Allies have achieved or surpassed the 20% threshold for new investments;

13. **Welcoming** both the 2016 NATO-EU Joint Declaration, which has fostered closer NATO-EU cooperation, and reenergised collective defence efforts in Europe, including rising contributions to the European Defence Fund (EDF) and to the Permanent Structured Cooperation (PESCO) which are helping to deepen defence cooperation among EU member states;

14. **Aware** that the majority of Allies have not yet reached the Defence Investment Pledge guideline, and that Allies have agreed to regularly submit credible national plans for its implementation;

15. **URGES** the member governments and parliaments of the North Atlantic Alliance:

- a. to recognise the challenging and rapidly evolving security environment facing the Alliance, while redoubling national efforts to move towards the 2% guideline for defence spending by 2024 as all Allies agreed at the 2014 Wales Summit;
- b. to aim to increase their annual investments into new equipment and related research and development to 20% of total defence expenditures focused on obtaining a force structure best suited for not only national defence requirements, but also the most effective contribution to broader Alliance security needs according to the NATO Defence Planning Process (NDPP);
- c. to submit credible national plans outlining the steps their nations will take to achieve the type and amount of investment in defence necessary to engage a whole-of-Alliance effort to meet the security challenges facing NATO today and in the future.

16. **ASKS** its own Members:

- a. to familiarise themselves with the NDPP as a means of better understanding both the positive impact of their countries' contributions and the strategic and fiscal benefits of deeper coordination and synchronisation in defence planning and procurement;
- b. to solicit information from their respective defence establishments about how their nations are responding to NATO requirements and streamlining spending to make their current contributions as effective as possible;
- c. to help lead the debate about defence spending and their nation's contributions to the Alliance.



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RESOLUTION

on

REINFORCING NATO'S DETERRENCE IN THE EAST *

The Assembly,

1. **Acknowledging** that NATO's territories and populations face significant conventional and hybrid threats, particularly in the East;
2. **Aware** that NATO-Russia relations are at the lowest point since the end of the Cold War, **cognizant** of Russia's large-scale military aggression against Georgia in 2008, continuous illegal occupation and steps towards factual annexation of the Georgian regions of Abkhazia and Tskhinvali/South Ossetia, and **mindful** that Russia's illegal annexation of Crimea prompted quid pro quo sanctions, rancorous rhetoric, and high levels of mistrust;
3. **Alarmed** by Russia's increasingly escalatory and reckless pattern of behaviour in the form of cyber attacks, the use of force against its neighbours, the illegal use of chemical nerve agents for attempted murder on Allied territory, as well as its insidious undermining of democratic institutions and principles through its use of election interference and disinformation campaigns;
4. **Cognizant** that Russia's doctrinal shift from 2010 to 2014 has reaffirmed NATO as its *de facto* competitor and that it views NATO activities in Central and Eastern Europe as direct threats to Russian national interests;
5. **Concerned** by Russia's deployment of modern anti-access/area denial (A2/AD) systems along NATO's eastern flank, which could impede the Alliance's freedom of movement;
6. **Stressing** the importance of the Enhanced Forward Presence in Poland and the Baltic States and the Tailored Forward Presence in the Black Sea Region as key defence and deterrence measures to secure NATO's eastern flank;
7. **Welcoming** Georgia's engagement in strategic discussion and mutual awareness on Black Sea security and Georgia's contribution to NATO's efforts to enhance Black Sea security;
8. **Recognising** that NATO's eastward enlargement has resulted in the need for strategic enhancements, specifically concerning outdated infrastructure and bureaucratic regulations, which could delay the quick movement of troops and supplies;
9. **Noting** that many of the significant concerns in NATO about infrastructure and regulations impeding military mobility can be found in Suwalki Corridor, the location of which between

* Presented by the Defence and Committee and adopted by the Plenary Assembly on Monday 19 November 2018, Halifax, Canada

Kaliningrad and Belarus makes it a potential choke point between the Baltic States and the rest of the Alliance's eastern members;

10. **Applauding** the EU Transportation Coordinating Committee's EUR 1.9 billion investment in strategic infrastructure in Eastern Europe and other major improvements in necessary infrastructure developments in NATO's eastern flank, and **recognising** that the impetus must now be on NATO and the EU working together to deliver the shared goal of being able to move NATO forces (both EU- and non-EU Member States) across Europe as quickly as possible;

11. **Recognising** the Trident Juncture 2018 exercise in Norway offered a crucial opportunity to test the Very High Readiness Joint Task Force (VJTF);

12. **Commending** the installation of the new NATO Joint Force Command for the Atlantic in Norfolk, Virginia, and the US Navy's reactivation of the Second Fleet as necessary for the protection of the North Atlantic;

13. **Supporting** the NATO Readiness Initiative (30-30-30-30 Plan) as essential to meeting the demands of NATO's new defence and deterrence posture;

14. **Praising** the Enablement Plan for SACEUR's Area of Responsibility as a means of improving NATO forces' response time in a potential crisis;

15. **Upholding** NATO's dual track approach towards Russia, based on a combination of deterrence, defence and dialogue;

16. **URGES** member governments and parliaments of the North Atlantic Alliance:

- a. to continue to ensure the sustainability and readiness of NATO's Enhanced Forward Presence in the Baltic States and Poland, and the Black Sea region, VJTF, and enhanced NATO Response Force;
- b. to address existing barriers to military mobility at the legal and infrastructure levels in Europe through enhanced NATO-EU cooperation;
- c. to invest in the improvement of strategic infrastructure as a necessary element of countering hybrid warfare, such as improved roads, bridges, communication infrastructure, ports and airports and to reinforce the security of energy projects;
- d. to develop an early warning system to detect a possible incursion into the strategically vital Suwalki Corridor, develop infrastructure for quick deployment and sustainment of troops and the necessary manpower to defend the essential territorial link with the Baltic States;
- e. to deepen dialogue and engage Georgia in the framework of NATO's Tailored Forward Presence (TFP);
- f. to further the implementation of NATO's Readiness Initiative which is essential to meeting the demands of NATO's new defence and deterrence posture and its reinforcement;
- g. to demonstrate continued commitment to the Enablement Plan for SACEUR's Area of Responsibility, which is dedicated to improving legislation and procedures, enhancing command and control, and increasing transport capacity;
- h. to address force deficiencies, develop faster deployment times, and make available the resources necessary to sustain deployed forces;

- i. to ensure the Alliance has the necessary means to reinforce Allies in an A2/AD environment, potentially through the acquisition of advanced fighter jets, jamming systems, and longer-range precision missile systems;
 - j. to commit to resourcing Alliance contingency plans, including force allocation needs of Graduated Response Plans that address Eastern threats.
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NATO PARLIAMENTARY ASSEMBLY

ECONOMIC AND SECURITY COMMITTEE (ESC)

THE FUTURE OF THE SPACE INDUSTRY

General Report

by **Jean-Marie BOCKEL** (France)
General Rapporteur

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I. INTRODUCTION

1. Sixty years ago, the Soviet Union successfully launched the first artificial satellite; Sputnik I. This event inaugurated what came to be known as the Space Race, a period of intense direct competition for supremacy in space mainly between the United States and the Soviet Union. It was hardly surprising that other actors were initially excluded from this competition given the scale and costs of the effort the two superpowers were willing to undertake. The US National Aeronautics and Space Administration's (NASA) Apollo programme, for example, employed more than 400,000 people and cost USD 110 billion when adjusted for inflation (Baiocchi and Wel, 2015). Additionally, early space programmes posed inordinate risks and led to various training and spaceflight-related deaths and injuries. These costs far exceeded what most countries were willing to bear, and no individual or private company would ever even have considered embarking upon such an undertaking without state support.

2. Despite these costs, space programs accorded significant strategic and economic benefits. While there is no definitive study on the full technological impact of space programmes, commercial spin-offs from national space programmes have clearly had a major impact on the economy of the United States and is inextricably linked to the digital revolution. The US space programme helped nurture a network of firms capable of commercially exploiting emerging technologies. Thus, the need for advanced computing and smaller electronics for space flight contributed to significant advances in a range of fields from computers to advanced materials. Satellites, which were essentially built by governments for military surveillance and reconnaissance, ultimately enabled global telecommunications and GPS technologies. One study on the macroeconomic effects of the US space programme suggests that each dollar spent on research and development yielded an average of slightly over seven dollars in commercial returns over an 18-year period (Schnee, 2000).

3. The close links between space projects and commercial endeavours are once again a headline generating phenomenon. All the leading space powers are advancing important exploration programmes: China's Moon programme and various Mars programmes (driven by private players such as SpaceX NASA and the European Space Agency (ESA)). Space remains a critical frontier for strategic and economic competition among states, and this effort continues to produce significant technological advances. Moreover, the list of states with national space programs has increased markedly. Europe has pooled its efforts through the European Space Agency, and, since the Lisbon Treaty, it has collectively derived a benefit of scale through EU programmes such as Galileo and Copernicus. China, India and Japan are now prominent players, and a number of other countries have also entered the field. International cooperative programs have resulted in new links being created, often in the form of common projects.

4. Space-related technologies have helped drive this growth and played an essential role in knitting together an interconnected USD 78 trillion global economy (NATO PA, 2017). At the same time, they have enabled nuclear deterrent systems, facilitated ground, air and sea-based military operations, and triggered major advances in meteorology, Earth observation, mapping, the internet and communications. Although the original paradigm for space exploration was one of a Cold War race for predominance, space has also become an arena of significant international cooperation. The International Space Station (ISS) is a perfect expression of interstate collaboration in space, and there are myriad examples of shared missions, international procurement and joint scientific projects.

5. At the same time, space remains an important arena for interstate competition, perhaps best encapsulated in the proliferation of intercontinental ballistic missiles but evident also in areas such as missile defence, military communications, command and control, surveillance and intelligence gathering. The United States government still spends over USD 40 billion annually on space, with the funding largely split between the Pentagon and NASA. European Space Agency member-states spend over USD 6 billion each year while Russia spends an estimated USD 1.6 billion on its space endeavours (European Space Agency, 2016). Precise figures for China remain elusive.

6. A revolution in space funding, exploration and commercialisation is also underway. Spurred by major technological advances and the promise of triggering technological and commercial breakthroughs, new actors, including developing countries, private firms and even individuals are now playing in an arena once dominated almost exclusively by powerful countries. These actors are altering the dynamics of the space industry and raising important commercial and strategic questions for policymakers in all NATO member states. This general report will explore the paradigmatic shift that is now broadly labelled “new space” and identify the key opportunities and challenges that NATO member states confront as this critical dimension of human activity undergoes a revolution in technology, opportunity, expectations and leadership.

II. CHANGING DYNAMICS OF THE SPACE INDUSTRY

7. One of the features of new space is that private firms are no longer simply operating as contractors to nation states but are themselves becoming key protagonists in space. To take one notable example, in 2018, SpaceX launched 15 rockets, which among other things sent a Luxembourg-made satellite to be used by NATO into orbit. It also sent a Tesla automobile into space as a marketing stunt and a way to announce that the company was prepared to reinvent the way companies conceive of space (SpaceX, 2018). In 2017 that company launched 18 rockets and recovered 14 reusable boosters (The Economist, 2018). Blue Origin plans to launch the first tourists into space by April 2019 (Wattles, 2017). Commercial actors are also roiling European markets and compelling traditional actors to up their game. Europe itself has become an ever more important protagonist in space and European firms now rival their American competitors across an array of technologies and are thus helping to advance European ambitions. At the same time, developing countries are making significant advances in their own their space programmes. China may now be spending more on space than the Russian Federation (Clark, 2016). Indeed, more than 60 states currently own and operate satellites, and the space market is growing ever more globalised and diverse (OECD, 2016).

8. Traditionally, investors have considered the commercial opportunities of space to be “high risk, high cost, and [characterised by] long payment periods” (Wakimoto, 2018). In 2011, NASA estimated that the average cost of a manned space shuttle mission was USD 450 million, with unmanned rockets costing roughly USD 420 million each (Bray, 2017). Insurance costs, meanwhile, can amount to USD 800 million (Basak, 2016). This figure is nonetheless a high estimate of the annual insurance market, with insurance representing on average about 10% of the cost of a launch. Even discounting the potentially catastrophic financial and reputational cost of a launch failure, opportunities for significant profit in the industry have long seemed limited. Until 1982, the US government was responsible for launching all civil and commercial payloads within its borders. Launch vehicles themselves were only produced under contract with the US government, and the bidding process for these contracts tended to be non-competitive due to the government’s reliance on a limited number of aerospace giants and its need for supply security over cost competitiveness (Berger, 2017).

9. Several important changes, however, have dramatically reduced barriers to entry and increased private interest in space. First, gradual improvements in managerial practices and the falling cost and size of technology are slashing launch and payload costs. SpaceX has expressly designed its Falcon rockets, for example, to maximise standardisation, which, in turn, has reduced the number of processes and the tooling required prior to any given launch while diminishing unit costs of critical parts. Advances in rocket engine design, meanwhile, have lowered combustion instability and driven down the material costs (Chaikin, 2012). The digital revolution and minutarisation have increased the power of critical satellite technology while reducing its size and weight—key drivers of launch costs.

10. Driven by these changes, the space sector has begun to have a more profound impact on the broader economy. Ever-smaller telecommunications satellites are now playing a pivotal role in corporate strategy by offering space-based solutions to inherently Earth-bound problems (OECD,

2016). As savings from these advances mount, companies are encouraged to build upon existing space-based systems and to develop new capabilities serving an ever expanding array of commercial markets.

11. Reusable rockets are among the most promising of these advances provided the restoration costs, which are currently very high, are under control. This technology substantially reduces costs by allowing officials to launch the same rocket multiple times. In 2010, SpaceX launched a payload into orbit with the rockets returning to Earth for eventual reuse. This made it the first non-government entity ever to achieve this feat. In 2015, it recovered the first stage of one of its rockets (Kluger, 2018). In 2017, it launched one of the most powerful rockets in human history and successfully landed its two outer stages, which can now be redeployed in future missions (Hern, 2018). In 2015, another private company, Blue Origin, designed and launched a reusable suborbital rocket, which will help that company substantially reduce its production costs (Kim and Orwig, 2017).

12. Traditionally government support has been a critical driver of technological change linked to the space industry. Private corporations in the United States, for example, were long granted access to their country's space agency's technical archive. They also benefited from the secondment of NASA experts. These favourable conditions helped these firms to make technological leaps that took decades to refine and billions in public funds to finance (Chaikin, 2012). Cooperation between government scientists and private industry triggered compelling advances in an array of critical components, such as heat shield materials, that ultimately also had important commercial applications (Werner, 2015). Governments have also played a compelling financial role and sustaining the space sector through a system of research grants, contracts, and other agreements with the private sector. Even after a technology's usefulness is demonstrated, it can still require significant direct or indirect public support before it becomes a marketable component or platform. Investment costs can be daunting, and the risks often remain too high for companies alone to shoulder (OECD, 2016). The United Launch Alliance, a joint programme between Boeing and Lockheed Martin, for example, receives roughly USD 800 million a year from the US military through a launch capability contract (Gruss, 2016).

13. In the United States, however, there is a strong risk-taking ethos linked to its entrepreneurial culture, and other financial options have emerged. The role of so called "angel-financiers" played a critical role in the rise of the digital economy. These risk-taking investment companies poured billions of dollars into start-ups with good ideas and talented engineers but little capital to help them bring these ideas to fruition. The success of this model is well documented and some of it has spilled over into the space market. That should hardly be surprising, particularly as the digital revolution itself is a central feature of the new space paradigm. In any case, those pushing the technological and commercial frontiers of space in the United States have financial options that are less available in Europe and Japan, for example. It is accordingly correct to speak of different national models at play in this rapidly changing sector.

14. Managerial revolutions are another element of the story. Driven by competition, leading companies have reduced production costs and sped up production lines by tightening up supply chains, tapping into robotics and digital printing technologies, and even producing key components in-house. The ArianeGroup in Europe, for example, is using digital printers to manufacture its own critical titanium components and has made enormous savings doing so (NATO PA Visit to Paris and Toulouse, October 2018). SpaceX manufactures and assembles more than 70% of its launch vehicles to reduce its dependence on any single supplier (SpaceX, 2013). Off-the-shelf components can play a critical role in driving down costs. SpaceX claims to save between USD 45,000 and USD 95,000 for a single radio compared to the price of radios aerospace companies typically purchase (Koebler, 2015). Blue Origin recently unveiled its own rocket factory that will be responsible for designing and rebuilding reusable rockets (Kim and Orwig, 2015). Virgin Galactic has assembled a vertically-integrated team capable of producing and testing many rocket components in-house (Foust, 2015). For new entrants to the market, expertise is increasingly consolidated within single firms instead of across a multiplicity of vendors and contractors. The process of designing, testing,

and improving products in all of these companies has been streamlined in new and innovative ways. Creative management and new design approaches have thus been central to slashing costs in this burgeoning industry.

15. Increased competition has made such cost-cutting essential. For a long time, government largesse helped insulate the commercial space industry from traditional market pressures. Reflecting its space programme's national security and prestige-based origins, the US government passed laws that imposed restrictions on the ability of foreign companies to work within its borders. This undermined the kind of dynamism that trade competition generally encourages and some of these practices, many of which are rooted in security concerns, persist (Zelnio, 2006). The International Traffic in Arms Regulation (ITAR), for example, sets restrictive rules on the trade of US technologies, and this actually helped galvanise European manufacturers to develop their own technologies outside of US export controls (Hauser and Walter-Range, 2008). ITAR's broad mandate, extraterritorial reach, and slow and unpredictable process, almost paradoxically fed the proliferation of non-US space firms developing their own technologies and pushing the frontiers of space in new directions.

16. In the United States, major companies like Lockheed Martin and Boeing overcame these barriers thanks to exclusive contracts with the US government. But this left smaller competitors effectively barred from the market. The government had few options but to sign exclusive agreements with large space companies. In effect, government policy helped create monopolies or at least oligopolies and this failed to provide sufficient incentives to innovate or drive down costs.

17. In 2014, however, the US Department of State reclassified most commercial, civil and scientific satellites and accompanying equipment under the Department of Commerce's "Commerce Control List" (CCL) making it significantly easier for private companies in the US space industry to sell in the international market. Whilst ITAR still restricts many aspects of the US space industry, this revision constituted an important step towards loosening restrictions that were impeding the market.

18. Lawsuits, policy changes, and a growing awareness of the economic consequences of ITAR rules sparked a degree of rethinking in the United States and elsewhere. New policies have encouraged competition and helped open the commercial market to other actors. This competition has, in turn, created incentives for the industry to build ever cheaper and more capable products. In 2006, NASA stopped using government-operated rockets to resupply the International Space Station and has since relied on private industry (Grush, 2017). A subsequent analysis of this change found that NASA spends roughly USD 89,000 per kilogram of cargo. The same service by a traditional aerospace giant would have cost USD 135,000 per kilogram while a government-run service would have cost USD 272,000 per kilogram. The same analysis also estimated the cost of a start-up firm running a crew rotation for the International Space Station as compared to a similar operation conducted by an aerospace giant. The former would cost USD 405 million while the latter would be priced USD 654 million (Zapata, 2017). According to analysts, SpaceX charges USD 4,653 per kilogram to launch a telecommunications satellite into orbit while traditional aerospace companies charge between USD 14,000 and 39,000 per kilogram (Routh, 2017). This represents a profoundly disruptive change to the industry with long-term commercial, scientific and even military-security implications. The price fall is a function of regulatory change, managerial innovation, competition and critical technical innovation.

19. These advances have also sparked intense interest among well-financed space enthusiasts and entrepreneurs. Motivated by an abiding personal interest in space and driven by a belief that he could dramatically drive down costs, Elon Musk, the US entrepreneur who earned millions after selling his firm Paypal, founded SpaceX with a USD 100 million investment primarily composed of his own money (Tilley, 2016). Jeff Bezos, the founder of Amazon, is selling USD 1 billion of stock a year to finance his aerospace company, Blue Origin (St. Fleur, 2017). These entrepreneurs have a personal interest in space and a belief that they can push out the space frontier while identifying

projects that can generate long-term profits. Their personal wealth has afforded them the opportunity to stretch out investment horizons in this changing but still high-cost and risky business.

III. STATE OF THE CURRENT COMMERCIAL SPACE MARKET

20. Although there has been a tendency to focus on the large players in the US space industry, Europe has emerged as a major player in these markets. The French company Arianespace, for example has been a key innovator in commercial launch services. European satellite manufacturers and operators, such as Airbus DS, Thales Alenia Space, OHB, Eutelsat and SES, rank among the world leaders. The US government, however, spends significantly more on space-related activities than any other country. In 2014, the institutional space budgets of the United States exceeded USD 4 billion, significantly more than any other countries (OECD, 2014). Its commercial space sector has been bolstered by innovation, risk taking and a financial structure that encourages risk taking and seeks to reap large rewards as pay off.

21. The commercial space industry, however, is growing increasingly globalised, and there are challenges to traditional US dominance. European companies, for example, now control about 40% of the world market for satellite manufacturing, launching, and operations (European Commission, 2009). Although its position has recently declined due to launch failures and the rise of less expensive alternatives, the Russian Roscosmos provided NASA with rocket components as recently as 2014 (Wright, 2014). Virgin Galactic, a company founded by a British investor, Richard Branson, has invested substantial resources into commercial spacecraft and suborbital spaceflights.

22. Though rapidly evolving, the current space industry can be divided into three core sectors: Satellites; Launch Services; and Ground Equipment. The following section explores the current environment shaping these sectors and points to the direction in which they are now moving.

A. SATELLITES

23. Satellites make up the most developed sector of the space industry due to their place in the architecture of the global economy. From 2012 to 2017, the number of satellites in space increased from 994 to 1,459. This number is expected to rise to 7,000 within several years (NATO PA visit to Paris and Toulouse, October 2018). Meanwhile, revenue across the sector increased from USD 113.5 billion to 127.7 billion (Bryce Space and Technology, 2017). Though satellites serve myriad functions, the sector itself can be divided into two parts: manufacturing and services. Designing, deploying and maintaining these systems is a highly complex and expensive undertaking, but it can generate enormous paybacks. The generated know-how involved spillovers into other commercial sectors beyond those directly involved with satellite production. The city of Toulouse, France, provides a case in point. Its booming economy is driven not only by its large satellite industry, but also by the spin-offs this sector generates, which have helped launched an array of other industries in everything from digital services to material engineering.

24. While governments and companies across the globe increasingly rely on satellites, the manufacture of these systems remains relatively centralised in a handful of companies that possess the skilled workforce, the scale, engineering capacity, and financial resources needed to produce reliable complex systems. These organisations include the European Thales Alenia Space, Airbus DS and OHB as well as various US companies, such as Maxar Technology (formerly SSL), Boeing, Lockheed Martin, and Orbital ATK. As the above list suggests, the United States is the largest manufacturer of these spacecraft, with Europe and Russia rounding out the list (Canis, 2016). In 2016, government agencies purchased 382 satellites, almost three quarters of all devices launched. Satellite manufacturing has thus been largely driven by government demand. But this demand can fluctuate significantly over time. In 2016, for example, yearly commercial revenue shrank 13.1% partly because the government and private-sector customers had reached the end of their satellite replacement cycles, the period in which an active satellite must be replaced (Bryce Space and

Technology, 2017). Some analysts suggest that the market suffers from significant overcapacity and has been hindered by delayed investment decisions in the conventional geostationary transfer orbit (GTO) satellite market. The expectation is that commercial demand will help reduce reliance on state customers and help fill orders.

25. Satellites are very expensive, but costs are declining with the advent of small satellites, also known as “minisats”, which weigh less than 500 kilograms and “nanosats,” that can weigh as little as 3.5 kilograms. These small satellites are able to carry out certain tasks that were once only conducted by far larger vessels. Rapid advances in consumer electronics have transformed satellite technology and driven down costs and size. As price decreases and performance increases, the cost of manufacturing complex satellites accordingly falls. One small satellite producer, the US-based Orbital Sciences, claimed several years ago that its production and launch costs had fallen to between USD 150,000 and 1 million compared to the typical cost of USD 200 million to USD 1 billion for larger alternatives with similar functionality (The Economist, 2014). British manufacturer SSTL, the world leader in small satellites, offers entry-level solutions for less than USD 1 million. Larger satellites feature functionalities superior to those of small satellites. The Airbus-OneWeb satellite programme aims to launch 900 microsattellites - that weigh between 10 and 20 kilograms - that will collectively provide affordable internet access to the entire world. The first of these micro satellites are being deployed in 2018. This is a highly ambitious trans-Atlantic project that has also demanded very rapid satellite production lines relying on robotics. The project has produced innovation on that front as well. SpaceX also plans to launch thousands of small satellites to enable global internet (Wattles, 2018). These kinds of innovations are believed to have generated an 11% increase in revenue for the Earth imagery industry in 2016 (Klotz, 2017). Payloads averaging 13.1 kilograms are thought to have made up a quarter of all launches in 2016.

26. According to the OECD, the top 25 actors in fixed satellite services, the architecture of which relies on ground terminals, generated USD 12 billion in revenue in 2013. Though the top five players in this particular market represented 70% of that revenue, this share has dropped due to increasing competition from emerging players (OECD, 2014). Satellite broadcasting, meanwhile, is estimated to have a market of USD 92 billion. As of 2017, satellite television made up almost a third of space-related commercial activity (Canis, 2016).

27. Satellite services extend well beyond telecommunications. Earth observation start-ups raised USD 96 billion in 2017. The industry is moving rapidly from the business of collecting imagery from all over the globe to transforming data into actionable intelligence. Data analytics is expected to generate significant earnings for this sector over the coming years (Komissarov, 2018). This information is used to track trends in agriculture, disaster mitigation, mass migration, shipping, as well as to track piracy and other criminal activities including environmental crime. Atmospheric monitoring-satellites track weather patterns and help provide daily weather forecasts as well as predict droughts and floods. Transportation-related satellites provide geolocation services to consumers, delivery trucks, such as FedEx, and ride-sharing services, such as Uber (Canis, 2016). These same kinds of services obviously have important military applications and national security forces and intelligence agencies will remain important clients for the business. It is worth noting that originally, the GPS constellation was a military system and the Galileo programme will have a classified military dimension for EU members only.

B. LAUNCH SERVICES

28. The launch sector is perhaps less a driver of the space industry than it is an enabler for other activities. As much as the industry demands sophisticated electronics and well-engineered devices, it also needs to get this equipment into orbit. This poses a range of financial and technological challenges. In 2017, the United States, China, Russia, the European Union, India, Japan, Israel, Brazil and North Korea conducted 90 launches. Of these, 64 were commercially procured, 13 were not commercially procured, and 13 involved space vehicles (Bryce Space and Technology, 2018).

Between 2004 and 2014, private companies sent an estimated 817 satellites into orbit, with 41% of these relating to telecommunications and 21% relating to Earth observation (Euroconsult, 2015).

29. The commercial launch sector is estimated to be worth USD 5.4 billion and, in 2015, clients booked USD 2.6 billion in launch services (Canis, 2016). While the number of launches ebbs and flows over time, most experts expect an upward trend in the sector's activities and profitability. Declining barriers to entry will likely spur additional growth and there seems to be an ever-larger space for commercial as opposed to government programs. In 2015, US companies conducted eight commercial launches (Dillingham, 2016). Between 2013 and 2018, SpaceX's share of the global commercial market grew from 5% to over 60%, while Roscosmos, Russia's state-run company, saw its share sharply decline from almost 50% to 5% (Hughes, 2017). Government-controlled facilities, such as the Kennedy Space Center in the United States and the Guiana Space Centre (CSG) in Kourou, have traditionally served as launch sites for commercial entities under very different economic conditions. SpaceX uses NASA's facilities almost for free, which is not the case for Ariane at the CSG, which charges EUR 20 million per launch. In the United States alone, there are 19 active and licensed launch sites, ten of which are operated by US states in partnership with private industry. There are an additional three non-licensed sites, which can exist because companies own and operate them and exclusively use their own vehicles (Federal Aviation Administration, 2017).

30. As discussed above, new market entrants and improved rocket technology drive many of these transformations. Reusable rockets, a recent innovation successfully tested by SpaceX in 2018, represent an especially promising advance that will further reduce costs and launch turnaround time. Nevertheless, this production choice which reduces the number of rockets produced, entails an increase in unit price. How quickly this technology will be integrated into the sector's regular services is not yet apparent.

31. One possible limiting factor on the launch industry is the extent to which the sector is "captured" by established companies. As the US Federal Aviation Administration noted in its 2018 assessment of the sector, most satellite operators have exclusive agreements with launch providers and are prohibited from "shopping their services around" (Federal Aviation Administration, 2018). Such exclusivity could limit potential savings insofar as it restricts competition, which invariably leads to higher than necessary prices.

C. GROUND EQUIPMENT

32. The final notable component of the space industry is ground equipment, which refers to the Earth-based infrastructure that directs the information transmitted from satellites to appropriate transmitters and receivers. This infrastructure includes antennas that allow for transmission and reception of different communications signals, such as satellite radio and television. It also includes user terminals, such as rooftop dishes for satellite televisions, large corporate dish antennae, and data accounting and distribution systems, which identify and respond to errors in transmission. Such systems tend to be highly automated and are only occasionally monitored by individuals (Canis, 2016).

33. With revenue amounting to USD 119.8 billion, of the total USD 248 billion revenue of the industry, ground services constitute a significant 34% of the space industry. Its largest segment, consumer equipment, including global navigation systems (GNSS), contributed USD 108 billion of those USD 119.8 billion. (The Space Industry Association, 2018) GNSS systems include small consumer products, such as standalone navigation devices and location-detecting chips in mobile phones, as well as larger, more complicated systems, including traffic control systems, aircraft avionics, and maritime trade networks. An additional USD 18.5 billion is spent on non-GNSS consumer equipment, including satellite television, radio, and broadband terminals, while a final USD 10 billion is spent on network equipment such as satellite news-gathering equipment (Bryce Space and Technology, 2017). Growth in this sector can be attributed to the growing need for GNSS

chips in smartphones and other consumer products. As a result, between 2012 and 2016 alone, GNSS equipment grew from a USD 52.7 billion industry to one that generates USD 84.6 billion (Al-Ekabi, 2017).

D. POTENTIAL FUTURE MARKETS

34. The media spends an inordinate amount of time and print exploring the ambitious plans of emerging space companies and the entrepreneurs that lead them. Elon Musk, the CEO of SpaceX, and Jeff Bezos the owner of Blue Origin, have attracted a great deal of attention, and they have leveraged their personal wealth to build these ambitious firms. Because these firms are somewhat insulated from the immediate shareholder demands, they are positioned to focus on long term project including Moon and Mars missions, asteroid mining and space tourism as well as more immediate activities including rocket engine and launcher production.

35. Tourism in space is not a new concept and was evoked even prior to the advent of the space age. However, in recent years, the notion has become considerably less abstract. Since 2001, brief orbital spaceflight has been available through expensive private ventures costing upwards of USD 20 million (Carrington, 2013). In 2017, SpaceX announced that it had booked two private space tourists for a trip around the moon in 2018 (SpaceX, 2017), but in February 2018, Elon Musk decided to delay the trip until the new Big Falcon Rocket is available (Clark, 2018). Other companies such as Blue Origin and Virgin Galactic have also devoted significant efforts to space tourism, with Jeff Bezos' Blue Origin planning to open the service in 2019 (Clark, February 2018). The Russian Space agency has sent 7 paying clients into space.

36. The sustainability of these efforts, however, remains to be seen given unclear market demand, the possibility of catastrophic failure and potential liability, and the enormous investments that civilian space travel would require. The sector will at best remain a niche market for the extraordinarily wealthy. Short spaceflights, epitomised by SpaceX's effort, appear more likely and feasible than any long-term stay in space given the lack of necessary infrastructure and the high costs of such travel. The US Government Accountability Office does not believe any commercial company will be accredited to fly government astronauts until 2019, suggesting that a sustainable civilian space travel sector is not likely to emerge over the medium term (Government Accountability Office, 2017).

37. A second often discussed commercial enterprise relates to the mining and recovery of natural resources outside of the Earth's orbit. Throughout the universe, there are significant deposits of natural resources that theoretically could be recovered. Asteroids, for example, can contain nickel, platinum, iron, and cobalt. NASA estimates that the asteroid belt between Mars and Jupiter, where over 1 million asteroids exist, has an estimated value of USD 700 quintillion (Desjardins, 2016). Several landings on large asteroids have already been undertaken to demonstrate the technical feasibility of beginning this industry, but the current cost structure would not seem to justify major efforts in this arena, at least at the moment. According to the Keck Institute for Space Studies at the California Institute of Technology, capturing a 500,000kg asteroid would cost around USD 2.6 billion and require significant advances in propulsion systems and ground-based observation, as well as a human presence in lunar orbit (Keck Institute for Space Studies, 2012). Given the costs, resource recovery likely remains decades away. Any natural resource recovery would also likely require a reworking of international treaties, such as the Outer Space Treaty, that prohibit states from claiming celestial bodies.

IV. NATO AND THE COMMERCIAL SPACE INDUSTRY

38. As the Alliance recognised in its 2010 Strategic Concept, maintaining unimpeded access to space is a major priority for the NATO and its members. Moreover, all members of the Alliance depend upon the vast network of shared space assets for deterrence, strategic communications, and navigation. As the NATO Parliamentary Assembly's Sub-Committee on Future Security and

Defence Capabilities emphasised in its 2017 report, *The Space Domain and Allied Defence* [\[162 DSCFC 17 E rev.1\]](#), “NATO needs a whole-of-alliance approach to protect its interests in space to enhance resilience and deter any threat to its space-based capabilities” (NATO PA, 2017).

39. NATO itself is not currently focused on the space domain even if it remains important to areas like intelligence and surveillance and in missile defence. There are currently just six postings in NATO designated as space-operations positions in six different departments. Following the acknowledgement of the support that space assets have provided to NATO missions, especially the 12-year long NATO-led International Security Assistance Force (ISAF) mission in Afghanistan, NATO created a Bi-Strategic Command Space Working Group in 2012. One of the more ambitious but key recommendations for improving NATO’s space capabilities is the proposal for the creation of a NATO Space Operations Centre of Excellence to “offer recognised expertise and experience that is of benefit to the Alliance” (NATO, 2018). At the 2018 NATO Summit in Brussels, a decision was made to forge a joint NATO Space Policy – however, the timeline for the project is not yet established.

40. The emergence of new actors in space and the proliferation of national space programs are likely to increase the importance of these capabilities. While NATO members such as the United States, France, Germany and the United Kingdom are world leaders in the space field, and countries like Canada and Luxembourg play important if smaller roles, an increasing number of countries that were not traditionally players in the market are developing new capabilities. NATO thus confronts a competitive challenge in the space domain. Six countries launched satellites into the Earth’s orbit for the first time in 2017. China has also rapidly increased its capabilities. Although a recent rocket failure has slowed China’s progress, it is nonetheless on track to launch the first module of its space station by 2019 (Jones, 2018). Though its technology remains relatively unsophisticated, North Korea has also become a player in space, largely as a result of its military ambitions. It now appears interested in launching more satellites, and last launched an Earth observation satellite, *Kwangmyongsong-4*, in February 2016 (Panda, 2018). Iran’s missile programme is also a major concern and has been the primary reason NATO has opted to construct a limited ballistic missile defence (BMD). As a range of countries enter this crowded market, NATO members will need to rely on their capacity to innovate to retain a competitive edge.

41. Private actors could pose potential challenges as well as opportunities. In March 2018, a Californian company was accused of launching satellites without government approval. Officials fear that these satellites “pose an unacceptable collision risk for other spacecraft” (Dvorsky, 2018). After a New Zealand company launched a large “disco ball” into space in January 2018, astronomers complained about the bright satellite’s potential to interfere with their ability to observe and study space (Griffin, 2018). Ever lower entry barriers could also potentially engender problems of corporate negligence and misuse and might eventually open the space domain to malicious actors, including hackers and terrorist organisations. Western planners are already concerned about Chinese and Russian anti-satellite programmes and they now need to consider at least the possibility that these challenges could multiply as new actors launch orbital space endeavours.

42. Beyond security, however, space-based systems are an increasingly important part of national and international economic and governance systems in a variety of sectors ranging from telecommunications to environmental monitoring. While NATO serves mainly as a political and military organisation, its members’ economic livelihood increasingly relies on unimpeded access to space and on its capacity to ensure the safety and survivability of space assets. The Alliance has an interest in preserving this economic capacity while deterring any threats that might make use of the space domain. At the technological level, military satellite designs increasingly incorporate elements of self defence capability to cope with potential threats to their survivability.

43. NATO Joint Air Power (JAP) remains highly dependent on member states’ national space-based capabilities as they support Air, Maritime, Land, and Cyber domains. While NATO does not own or control space assets, JAP relies on them for “early and timely warning, space ISR, satellite

communication, - and the provision of Position, Navigation and Timing information.” (NATO, 2018). Space assets have supported US military operations since First Gulf War (1990-1) – nicknamed “the first space war” and have supported critical NATO’s military operations including the intervention in Yugoslavia in 1999, as well as, later, the wars in Iraq and Afghanistan (Tombarge, 2014).

V. OPPORTUNITIES

44. The growing capabilities of the commercial space industry offer several notable opportunities for Allied countries. These include economic benefits linked to spin offs, the possibility for interstate cooperation, and public-private partnerships.

A. ECONOMIC BENEFITS

45. The commercial space market is growing rapidly. Between 2001 and 2011, economic activity in space transportation and related industries increased by 239% (Whealan-George, 2013). In 2015, the global space market amounted to USD 323 billion, while it is projected to grow to USD 1.1 trillion by 2040 (Hampson, 2017; Sabbagh, 2017). While much of this activity is linked to well-established markets (e.g. satellites for the television industry — a business valued at USD 95 billion), space enables an increasingly wide array of economic activities. It is also displacing traditional systems. In the Flanders region of Belgium, for example, geo-fencing and satellite communication have replaced underground sensors in the tram network (Space Foundation, 2017). In the commune of Alban (Tarn, France), a satellite communication system is used to manage the city’s drinking water and to provide real-time management and security of those supplies (Eurisy, 2018).

46. There are plenty of signs to suggest that the commercial space market will play an increasingly important role in the global economy. In its 2016 report, the US Federal Aviation Administration noted that the commercial launch industry had seen few changes in the last five years, but that the lack of observable change “belies what is taking place behind the scenes”. The report further discusses how “[s]everal new launch vehicles are being developed specifically to address what some believe is latent demand among small satellite operators (Federal Aviation Administration, 2017).” The year 2016 was the most significant investment year for space-related start-ups, and investors committed USD 2.8 billion for space ventures. Small satellites, as this report has suggested, provide further opportunities. Various companies have announced plans to use these devices to provide worldwide, fast access to the internet (Scoles, 2018).

47. It is not possible to predict with certainty how these efforts will develop. Taken together, however, they point to the industry’s growing interest in space. This is reflected in long-term investment trends. From 2012 to 2017 investment into space start-ups (USD 10,238.3 million) was nearly three time greater than the total investment in 2000-2012 (USD 3,688.7 million) (Bryce Space and Technology, 2018). This poses a range of regulatory and market structuring challenges that will lead to evolving partnerships between the industry and governments in order to ensure security, foster competition and encourage innovation.

B. INTERSTATE COOPERATION

48. An additional benefit comes in the form of potentially enhanced international connectivity. As discussed, the space industry has become increasingly internationalised. Companies like Thales Alenia Space, Airbus DS and OHB derive enormous benefits from workforces and supply chains that stretch across the European Union. These companies provide a model for similar multinational commercial ventures. They also show how commercial interests can redefine how the notion of national interest is understood. While companies within the United States are somewhat more restricted in their ability to cooperate with foreign firms as a result of ITAR (the US International Traffic in Arms Regulation) and other laws, many other countries do not face such rigorous

restrictions. That said, US firms have forged an array of important partnerships with their European counterparts.

49. Rising commercial interest in space has also triggered a renewed focus on the treaty regimes governing the extra-terrestrial commons. In the United States, Senator Ted Cruz has pushed for revisions to the Outer Space Treaty, which bars states from placing weapons of mass destruction in space and requires non-governmental entities to seek state approval prior to engaging in any space-based activity. He argues that the treaty, designed over half a century ago, is now outdated (Foust, 2017). There are worries that legal ambiguities are undermining the nascent commercial space sector, and that the lack of clarification of property rights could either stifle innovation or lead to conflicts over ownership of space rocks. In other words, the treaty is increasingly seen as outdated. Congress has recently considered the Space Frontier Act of 2018, which would extend the operation and utilisation of the International Space Station and streamline oversight of both launch and re-entry activities, and non-governmental Earth observation activities. The legislation appears to have a degree of bipartisan support in the US Senate with Senator Cruz hoping to pass it by the end of the year (Cruz, 2018).

50. Industry leaders are widely opposed to any revisions to the Outer Space treaty and have expressed reservations about “costly regulatory burdens” and the danger of uncertainty. This discussion is likely to grow more intense over the coming years. When the company Moon Express sought clearance to fly outside low Earth orbit in 2016, for example, it was unclear who within the United States Government had the authority to authorise that operation under the Outer Space Treaty. This issue points to the need to discuss treaty obligations and to undertake an effort to ensure that all participants in space agree to the same principles (Foust, 2017). Although a complete rewrite of the international treaty regime on outer space remains unlikely, there is clearly a need for an updated general code of conduct outlining the responsibility of states in overseeing commercial space activity planned and launched within their borders. The example of France, which amended its space legislation in 2008, is being studied by many countries, including the United States.

VI. CHALLENGES FOR THE FUTURE

51. Amid a field of opportunity, there are also substantial risks and challenges, including the potential cyberattacks, debris, regulatory barriers, and interstate hostility.

A. CYBER THREATS

52. Cyberattacks pose a growing threat to governments, companies, and civil society. While the linkages between this challenge and the space domain have not been widely explored, the potential hazard is no less significant. Attacks can come from individual hackers who want to test their skill, criminal organisations, terrorist groups or states seeking to achieve military advantage. Hostile operations might involve jamming and manipulating satellites to disrupt a communications network, targeting a satellite’s control systems to shut it down or alter its orbit, or targeting ground facilities to inhibit their ability to receive or interpret space-related data (Livingstone and Lewis, 2016)¹. Such attacks could have significant consequences and impact everything from telecommunications to credit card transactions. They could have immediate military implications if they were launched against military satellites, for example, employed for command, control and intelligence gathering purposes.

53. There are signs that some actors are already testing these capabilities. In 2011, the US-China Economic and Security Review Commission, a US government agency, accused China

¹ A basic overview of the technical components of these attacks can be found in the NATO Parliamentary Assembly’s Defence and Security Committee’s 2017 report, *The Space Domain and Allied Defence* [162 DSCFC 17 E rev.1].

of interfering with two US environment-monitoring satellites via a cyberattack on their ground station in Norway (Wee, Wills and Nishikawa, 2011). In September 2014, the US National Oceanographic and Atmospheric Administration had its weather satellite network temporarily taken offline by a serious hacking attempt. US officials again accused China, which denied the allegations (Flaherty, Samenow and Rein, 2014). While these incidents had few long-term national security consequences, they revealed vulnerabilities in space-based systems. These incidents point to the need for secure networks and control systems. In 2014, two Russian researchers identified at least 60,000 internet-connected systems that could be attacked through the internet (Pauli, 2014). In 2017, leaked documents suggested that Russian intelligence services were capable of hacking satellite signals using relatively simple techniques (Bing, 2017). Despite the obvious strategic benefits associated with NATO's increasing reliance on satellite support, that reliance also increases concerns about the vulnerabilities of those systems.

54. While military satellites are generally well-protected and designed with security in mind, commercial satellites tend to be significantly more vulnerable due to a lack of resources devoted to satellite security. Some commercial operations do not consider themselves vulnerable simply because they have not faced persistent threats of attack. Such complacency is dangerous in the current environment, and the private sector needs to dedicate more resources to defending space systems, even those with no military functions.

B. DEBRIS

55. As detailed in previous reports, space-based systems are also increasingly threatened by debris collisions. The number of satellites in orbit is rapidly increasing as states and commercial actors expand their capabilities. These new satellites are, in turn, orbiting in an environment increasingly crowded with defunct or damaged satellites. NASA and the CNES (*French Centre National d'Etudes Spatiales*) currently track thousands of orbital debris and there are millions more, ranging from paint flecks to shrapnel, which are far too small to track (Garcia, 2013). While these materials might seem benign, they travel at incredible velocities and can disable or even destroy large satellites in the event of collisions. The US Strategic Command recorded over 8,000 collision warnings in 2014 alone, 121 of which required emergency evasive manoeuvres (Pellegrino and Stang, 2016).

56. A significant source of concern is that space debris can create more space debris. When one object collides with another in space, both objects can fragment, scattering material that can cause further damage to other satellites and material. On 10 February 2009, a defunct Soviet-era satellite collided with an active American communications satellite, scattering a cloud of debris into higher and lower orbit (Broad, 2009). While not all collisions cause such dramatic structural damage, chips, craters, and erosion can gradually degrade a satellite's structural integrity. At best, these incidents damage multi-million-dollar spacecraft and endanger astronauts on spacewalks. At worst, a collision can lead to Kessler syndrome, a theoretical scenario wherein pieces of debris crash into each other, leading to bigger and more frequent collisions (Szondy, 2018). This worst-case scenario has the potential to fatally contaminate orbital ranges and render them inaccessible for generations.

57. Debris falling onto Earth also poses concerns over liability – whilst there have been no recent falls of debris with significant consequences, there is a concern over the fallout of such an event. For example, after China lost control of its Space Station *Tiangong-1*, it re-entered the atmosphere in April 2018, with most of it breaking apart and burning in the Earth's atmosphere. (Kuo, 2018). Some of the space laboratory's pieces survived the re-entry and crashed into the ocean. Had they crashed nearer to or on land, the issues of liability would have been much graver. The Space Liability Convention of 1972 states that "[a] launching state shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the earth or to aircraft in flight" (UN, 1975). However, thus far, only one claim has been filed under this Convention when in 1978 the Soviet satellite Kosmos 954 crashed on Canadian territory.

58. There have been attempts to reduce the amount of space debris through regulation and sustainable practices. By establishing requirements to reduce debris, Europe has reduced the level of space debris produced by its programs (Pellegrino and Stang, 2016). The Inter-Agency Space Debris Coordination Committee, an international government forum for space debris activities, and the United Nations Committee on the Peaceful Uses of Outer Space have similarly sought to establish internationally accepted protocols and guidelines for preventing substantial releases of space debris. Government and private actors have also explored technological solutions, such as capturing and removing satellites. However, as stated by the European Institute for Security Studies, these technological solutions would require “an internationally agreed legal regime [...] since the owner of the debris is the sole party responsible for it” (Pellegrino and Stang, 2016).

C. TREATY AND REGULATORY ENVIRONMENT

59. Efforts are underway to update national and international space law. Space law experts at the International Law Association have noted that the Outer Space Treaty’s general framework still has “gaps [...] which remain open to interpretation.” These gaps include a lack of clarity regarding the ownership of certain celestial bodies and the legal status of resources there. There also legal challenges linked to controlling the hazards posed by space debris in the Earth’s orbit while rules are needed to govern private sector activity in space. (Currie, 2008) While the 1979 Moon Treaty provides some guidance, including rules on the extraction and management of celestial natural resources, these provisions require substantial international cooperation to ensure enforcement. This treaty obliges states to share extracted resources equitably with other states. To date no spacefaring state has ratified it.

60. This legal void has allowed some governments to pass national laws to regulate space activity, but these laws do not necessarily conform to international obligations and laws in other states. The United States and Luxembourg allow their citizens and companies to possess, own, transport, use, and sell resources extracted from a celestial body. These laws grant ownership after the resources have been extracted to try to avoid conflict with the Outer Space Treaty’s prohibition on corporate ownership of celestial bodies. The head of the European Space Agency’s legal services, Marco Ferrazzani, has expressed an interest in developing new rules pertaining to space mining (Doldirina, 2018). While space mining on any mass scale still appears to be far off, these examples demonstrate the potential for conflict. The absence of a clear international consensus on appropriate conduct in space may lead to contradictory regulations from different national governments. These contradictions, in turn, could either stifle commercial activity or discourage enforcement of these different obligations.

61. A related issue is the existence of Cold War-era national regulatory regimes that inhibit commercial activity. The most frequently discussed example of this situation is the United States International Traffic in Arms Regulations (ITAR), which restricts and controls defence and military-related technologies. The goal of the law is to impede other countries from reproducing US military capabilities, but academics and commercial space advocates have suggested that these regulations can also have unintended consequences that inhibit legitimate commercial developments. Many US companies working on space projects are prohibited from hiring or working with foreign persons without an export license or from sharing minor parts and components. As a result, commercial space companies outside the United States have simply sought to reduce their dependency on US materials (De Selding, 2016).

62. Some organisations, such as the Space Foundation, have urged these regulations to be revised with input from experts in the space industry. Other recommendations have focused on the creation of defence trade treaties to enhance collaboration among companies in Allied states. In this respect, the work of the UN Committee on the Peaceful Uses of Outer Space (COPUOS), especially its Legal Subcommittee, set up in 1959 by the General Assembly, is crucial in directing the development of international law on space exploration.”

63. Most of what passes for governance takes the form of non-legally binding norms as well as UN resolutions and government regulations and practices. Because space law is so limited, national laws assume a degree of importance, particularly the laws of major actors in space. Interestingly there are no binding international laws on debris and debris generation. But an *ad hoc* group has been formed to draft technical regulations to limit debris. It has no legal standing as such, but many countries have adopted these standards as well as other non-binding agreements. This kind of practice helps impose a degree of uniformity to national rules governing activities in space. It also points to the degree to which rule making for operations in space has become a bottom-up rather than a top-down process. It is also worth noting that article 189 of the EU's Lisbon treaty creates a shared competence on some space related matters. The European Space Agency has also helped furnish EU members with a set of shared norms even if these norms, are not elevated to the level of law.

D. INTERSTATE COMPETITION AND THE MILITARISATION OF SPACE

64. The thrust of international laws governing space is to ensure that access to outer space and celestial bodies remains unimpeded. The 1967 Outer Space Treaty, for example, reaffirms the importance of peaceful and lawful exploitation of the domain (UN General Assembly, 1966). Several international agreements reflect the international community's resolve to create an overarching code of conduct for those operating in space. In addition to the aforementioned 1979 Moon Agreement, and the 1972 Space Liability Convention, the Rescue Agreement of 1968 and the Launch Registration Convention of 1975 have sought to regulate the modalities of space exploration. More recent discussions highlight the difficulties of reaching an international agreement on these matters. From 1985 to 1994, an *ad hoc* committee on a Prevention of an Arms Race in Outer Space (PAROS) treaty discussed and negotiated the creation of such an agreement. Whilst China and Russia did propose a Treaty on the Prevention of the Placement of Weapons in Outer Space and of the Threat and Use of Force Against Outer Space Objects (PPWT), the United States continues to oppose the initiative, arguing it is "fundamentally flawed" and lacks important provisions. (Foust, 2014) The discussion of PAROS continues in the UN Conference on Disarmament, and a number of countries remain very focused on matters pertaining to access to space. In its 1999 National Security Strategy, the United States declared that "unimpeded access to and use of space is a vital national interest — essential for protecting U.S. national security" (White House, 1999). The United Kingdom's National Space Policy emphasises the country's reliance on access to space services for a wide array of essential services (Javid and Letwin, 2015).

65. Recent events suggest that space may no longer remain a peaceful common and that there is a real possibility that access might be limited under certain conditions. Speaking before the US House Armed Services Committee's Subcommittee on Strategic Forces, Department of Defense officials stated that the United States "can no longer view space as a sanctuary" because "potential adversaries understand [US] reliance on space and want to take it away" (Marshall, 2015). Dan Coats, the US director of National Intelligence, echoed these remarks in his May 2017 testimony to the Senate Select Committee on Intelligence. He stated that China and Russia felt increasingly compelled to undermine US military advantage as it related to military, civil, and commercial space systems and that both countries "are increasingly considering attacks against satellite systems as part of their future warfare doctrine" (Coats, 2017). In 2015, China unveiled its Strategic Support Force to develop and coordinate its space, cyber, and electronic warfare capabilities (Office of the Secretary of Defense, 2017).

66. The United States' mounting concerns about space-related risks are reflected in President Donald Trump's recent call for the creation of a Space Force and the allocation of USD 8 billion to space security systems over the next five years. In August 2018, the US Department of Defence outlined a plan to create such a force charged with defending US interests with aggressive offensive capabilities (Bachman, 2018). The proposed Space Force would likely assume

responsibilities for the US Air Force's role in tracking the world's active satellites to make sure they do not collide with one another.

67. To date, states have resisted positioning destructive weapons in space. However, various terrestrial weapons systems do depend upon space-based infrastructure and are produced by the private sector. Concepts for intercontinental ballistic missiles are designed and manufactured by private companies following competitive bidding processes in the United States (Erwin, 2018). Both the United Kingdom and France have recently made important investments in long-range missile systems that expand the core capabilities of the Alliance (Baldwin, 2017). SpaceX, meanwhile, has secured classified contracts with defence and security agencies (Seemangal, 2017). Russia and China have developed increasingly sophisticated precision-guided missiles and military communications technology. Both countries have also developed counterspace systems, sought to modernise their military satellites, and developed anti-satellite missiles.

68. While there has not yet been an attack on a commercial spacecraft, these developments could have a potentially chilling effect on the private sector's willingness to invest in the domain. Corporations do not like uncertainty and instability. They are unlikely to respond positively if they see their multimillion-dollar spacecraft threatened as part of a space arms race. It makes eminent sense, therefore, to continue diplomatic efforts to promote the non-weaponisation of space and to discourage threats against spacecraft.

69. Finally, the overarching Space Policy which NATO agreed to create at the Brussels Summit affirms the commitment of Allies to promote the non-militarisation of space (NATO, 2018). Experts are not short of suggestions for the creation of bodies within NATO which would deal explicitly and exclusively with space security issues. Clearly it will not be easy to strike a balance between securing satellites as essential infrastructure for daily activities on Earth and working to avoid or even to trigger a military space race. NATO is well prepared to share expertise and foster consensus-building on these matters in ways that will reinforce security in the broadest sense of the term.

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NATO PARLIAMENTARY ASSEMBLY

ECONOMICS AND SECURITY COMMITTEE (ESC)

Sub-Committee on Transatlantic
Economic Relations (ESCTER)

THE INTERNATIONAL TRADING SYSTEM AT RISK AND THE NEED TO RETURN TO FIRST PRINCIPLES

Report

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I. INTRODUCTION

1. This Sub-Committee on Transatlantic Economic Relations (ESCTER) was created soon after the fall of the Berlin Wall to ensure that international and transatlantic trade issues would remain a central plank of the NATO Parliamentary Assembly's (NATO PA) agenda. The thinking then was that the liberal trading system established after World War II had not only contributed to an unprecedented rise of prosperity on both sides of the Atlantic, pulled millions out of poverty, and encouraged the diffusion of technology and ideas, it had also reinforced the security order. In fact, security, democracy and free trade proved mutually reinforcing. Indeed, an enduring Soviet threat encouraged allied nations to contain potential trade disputes and to move steadily in the direction of trade liberalisation. Those who built the Bretton Woods system knew full well that during the 1930s an array of "beggar thy neighbour" protectionist measures had contributed to the Great Depression, poisoned inter-state relations and had doubtless been a central factor in the descent into World War II. Their instinct to reject those policies proved prescient and highly beneficial.

2. The concern after the end of the Cold War, expressed clearly by members of the US delegation to the NATO PA, was that in the absence of an abiding Soviet threat, Allied countries might be less focused on containing narrow trade grievances. The political will to defend a trade order that had fostered so much prosperity would accordingly weaken. That concern, which has long animated this Sub-Committee, seems to have been entirely justified. Today, the global economy is threatened on many fronts. The campaign for trade liberalisation has suffered myriad setbacks, and the situation could worsen. Job-creating trade is now seen by many voters and politicians as job-killing rather than job-creating. No global agreement on trade liberalisation has been signed since 1995. The United States has pulled out of the Trans-Pacific Partnership (TPP) talks it was leading, the United Kingdom will soon leave the European Union and its future financial and trading arrangement with that bloc is uncertain, the Transatlantic Trade and Investment Partnership (TTIP) between the United States and the EU is in remission and the recent G7 Summit meeting ended in unprecedented transatlantic acrimony over US tariffs on steel and aluminium and the promise of retaliation on the part of America's trading partners.

3. In 2016, 571 of the 771 trade interventions tracked by Global Trade Alert were characterised as discriminatory and only 200 as liberalising. The trend continued in 2017 with an increase of 26% in US trade actions against its G20 partners (World Economic Forum, 2018). Perhaps not coincidentally, the World Trade Organization (WTO) forecasts that the volume of world trade will grow by only 2.8% in 2018, the fifth consecutive year that it has increased by less than 3%. Rising trade tensions are also undermining long-term cross-border investment by companies worldwide. Foreign direct investment globally fell by 23% in 2017 according to the UN's latest World Investment Report. US-China and US-EU trade tensions appear to be driving this decline (Donnan, June 2018). Meanwhile a 2016 YouGov/Economist poll found that less than half of US, British and French citizens see globalisation as a "force for good" (Hu and Spence, 2017). This sentiment is also reflected in the growing appeal of populist and ultra-nationalist movements and parties that are challenging other fundamental liberal democratic norms.

4. Indeed, the very notion of a global economy today is under attack. Trade, immigration, and the movement of capital across borders have all been subject to populist backlashes (Hu and Spence, 2017). Some Western governments have begun to temper their support for trade liberalisation and seem ever more circumspect about the promise of globalisation. The Trump Administration has openly expressed its scepticism of the benefits of free trade and the logic of multilateral trading arrangements, and there is concern that without the leadership of the world's strongest democracy, the international trading system will turn to protectionism and managed trade. Most analysts believe that for a liberal free trade order to flourish, it is essential to have a free-trading "hegemon" to lead it. Fortunately, many in the US Congress support this perspective on US leadership.

5. It is unlikely that either Europe or China is prepared to act as the chief promoter of a global free-trading order should the United States retreat from this historic role. China retains a strong

mercantilist impulse, although it has rhetorically pushed for the preservation of an open global system. It fails to respect some of the key norms that would be required of a free trade hegemon including intellectual property protection and equal treatment for foreign companies. Its financial system remains underdeveloped and vulnerable to shock. Mounting protectionist sentiment is also evident in some EU countries. This has been fuelled by economic stagnation in some regions, exchange rate and fiscal adjustment inadequacies, the migrant crisis and the growing power of nativist politics. Moreover, one of Europe's strongest free trade advocates, the United Kingdom, is set to leave the Union, and its traditional free trade views will no longer be part of the internal EU discussion on trade matters.

6. The international institutions created to help govern the international economic system are also in crisis. Organisations like the International Monetary Fund (IMF), the World Bank and the WTO have had difficulties adjusting to the growing economic clout of developing countries. These important institutions have become the target of political forces that find it convenient to blame them for various economic challenges rather than empowering them to act as effective shock absorbers and rule makers within the international economic space (Hu and Spence, 2017).

7. Of course, it would be misleading to argue that trade and globalisation have not had disruptive effects despite their central contributions to prosperity. There is little question, for example, that trade has been one of several factors responsible for the losses experienced by older manufacturing sectors in developed countries, even if technological developments are a far more powerful driver of these losses. One US study suggests that while trade may account for as much as 13% of all manufacturing job losses in the United States, the rest is linked to productivity gains resulting from automation (Miller, 2016). Manufacturing output has increased in many OECD countries, while the number of factory jobs has shrunk due to technology-driven productivity increases. Technology, of course, creates new jobs in other sectors, but older displaced workers can confront difficulties changing careers, particularly if there are inadequate social and educational support systems to facilitate the transition.

8. Still, this is cold comfort for the millions in the West who have lost jobs and who believe that trade may be a factor in their declining fortunes. Between 2000 and 2016 the United States shed close to 7 million manufacturing jobs, many operating in the tradeable goods sector. The most dynamic job-creating sectors in that same period have been the non-tradable sectors, which generated 25 million jobs, many in the category of lowly paid medium- and low-skilled workers. Wages and benefits in this period stagnated, while inequality rose dramatically in some countries and continues to do so even as the global economy recovers (Hu and Spence, 2017). Across the OECD area, the average income for the wealthiest 10% of the population is now more than nine times that of the poorest 10%, up from seven times 25 years ago (OECD, 2017). In some countries, less progressive tax policies will exacerbate the equity problem induced by technology change, although this phenomenon is often misleadingly attributed to the trading system.

9. Wealth is also concentrating geographically, with one in four OECD citizens living in regions that are increasingly left behind in terms of productivity growth and income and where opportunities to move into more productive sectors are very limited. Such problems can mount over time. Regions with easy access to digital services tend to be better off economically and are better able to move up the production ladder. Regions without that access move downward. But over the long term, the digital economy might ultimately lead to more job losses across a wider spectrum of professions. Not surprisingly, the global financial crisis that began in 2008 accelerated a number of these trends. This triggered a backlash not only against trade, but also against other manifestations of globalisation including immigration, alliances, trans-border financial flows, international economic cooperation and the rules and institutions needed to administer the global economic order.

10. There are certainly legitimate arguments for developing countries to take a cautious approach to trade liberalisation, although embracing it as a goal and moving in a liberalising direction invariably benefits emerging countries. That said, trade liberalisation can produce adjustment costs for

developing countries such as the loss of reliable revenue for the state (from tariff collection), labour shocks made worse by poor social protection for those who lose work as a result of trade, and inadequate financing for restructuring economies suddenly exposed to international competition. Coping with these challenges requires subtle, sequential and well-planned approaches to trade liberalisation (Stiglitz and Charlton, 2005).

II. COMMON MISPERCEPTIONS OF TRADE

11. Public misperceptions about the international trading system allow those opposed to open trade to blame it for a range of ills besetting national economies. Among these misunderstandings is the notion that some countries invariably win and others lose from trade. This zero-sum game vision of trade is inherently mistaken and runs against all evidence regarding the shared benefits of trade. It is also often stated that trade deficits are, in themselves, a bad thing, and that they are primarily the product of “unfair” trade policies carried out by other countries. Another often-heard argument is that workers are better served by protectionist regimes rather than by the open liberal trading order. Finally, there is the traditionally mercantilist national security argument that rendering a country dependent on the international trading system somehow reduces its capacity to act autonomously to defend its core security interests.

12. None of these charges hold up to scrutiny. David Ricardo was the first economist to demonstrate systematically that trade in aggregate is generally a win-win proposition. His simple but highly insightful models suggested that trade allows countries to specialise in the production of those things that they produce the most efficiently while importing those products that they make the least efficiently. Although trade would prove a boon to the trading countries’ most efficient trading sectors and a bust to the less competitive sectors, each country would unambiguously be better off by specialising in those industries to which it is best suited, importing those items which it makes least efficiently and reallocating capital and labour accordingly. Economic modelling has since become far more complex, but David Ricardo’s fundamental insights remain largely valid. It is hardly surprising that trade has been such a compelling driver of economic growth in countries like India that came around to the view that lowering tariffs could be helpful.

13. Countries that engage in the trading system are able to consume more at a lower cost than they would if they were to operate in autarchy. Trade expands markets for domestically produced goods, thereby increasing rewards to both the owners of those exporting firms and their workers. But these are only the most visible impacts. There are also dynamic and often hidden impacts linked to trade. Participating in a liberal trading order generally lowers the cost of inputs of domestically produced goods that can then be exported. In an increasingly integrated world economy tied together by vital global value chains, three quarters of trade today consist of firms purchasing inputs, capital goods or services that contribute to their production. In effect, many leading export firms are also significant importers and gain enormous competitive advantage by sourcing internationally (OECD, 2018).

14. Trade also has powerful impacts on productivity as it unleashes competition which helps to advance organisation, information, knowledge, technology and efficiency among competing firms. Firms operating in more autarchic settings are far less likely to be innovative simply because they face less competition, are less exposed to the winds of change, and enjoy access to fixed, albeit undynamic, markets. Firms seeking market expansion are inclined to see trade as potentially beneficial. Consumers are naturally attracted to a diverse choice of high-quality low-cost goods and should understand that the competition of imports drives down prices and raises quality. When foreign competitors enjoy price and quality advantages, this can compel domestic firms to raise their own level of productivity as a competitive response. This dynamic accords advantages to the firm both in domestic and international markets, while also benefitting consumers. Enhanced productivity will make that firm more competitive internationally and help increase sales in local and international markets. It is not simply the importation of goods that triggers price/quality improvements. The

presence of competitively-priced foreign goods in a particular market can be a significant impetus for local producers to become more efficient. Protectionism has just the opposite impact. It lowers the impetus for domestic firms to raise their productivity thereby making protected companies ever less capable of selling in global markets. Consumers are stuck with higher bills, and over time, job losses mount.

15. Not surprisingly, therefore, open economies tend to grow more quickly than closed economies. Salaries and working conditions are generally higher in companies that trade freely, and there are also correlations between economic openness and productivity growth. Regions undergoing productivity increases tend to have forged important links to the world economy. But perhaps the simplest demonstration that trade is economically beneficial is that countries, and by extension, their firms and consumers, willingly participate in it as they see commercial opportunities that would not exist in strictly autarchic settings. Trade is thus the ultimate expression of commercial freedom. The OECD recently conducted a study in which China, Europe and the United States each imposed a hypothetical 10% tariff on all traded goods. The result was a 1.4% decline in global GDP and a 6% fall in global trade. Importantly, the countries that imposed the trade barrier in the model suffered the worst impacts.

16. It is also grossly misleading to suggest that trade deficits or surpluses are the product of unfair trade practices. Trade balances are essentially determined by national savings rates. A large trade deficit simply suggests that either public or private savings (or both) are negative. This is a hard and fast accounting identity. Domestic savings rates correlate with current account balances which include the trade balance. The United States, for example, has long been a low-saving (high public deficits) high-consuming country, and this is reflected in the negative current account balances it has run since 1981 (Irwin, 2016). It has effectively opted to consume more than it invests, and this decision is partly reflected in low taxes relative to public spending, significant foreign borrowing to underwrite the resulting shortfall, and large trade deficits. Reducing the trade deficit would therefore ultimately require the United States to increase savings by consuming and borrowing less, for example by raising taxes and lowering government spending. This might entail slashing substantial public budget deficits, raising private and public savings, cutting the sale of Treasury Bills to foreign Central Banks (those of China and Japan for example) and/or significantly raising interest rates.

17. According to the US Commerce Department, the US trade deficit grew 12.1% or USD 61.2 billion in 2017, reaching USD 566 billion—a nine year high. The 2018 tax and budget bills are likely to drive this number upward. Deficits are slated to reach USD 1 trillion by 2020, according to the Congressional Budget Office, and US public debt will reach USD 20 trillion by 2020 (Wasson and McGregor, 2018). The US economy has been growing at a healthy clip and this has been expressed, in part, through significant consumer and firm demand for imports. All of these factors will drive trade deficits upwards. Indeed, the United States is slated to enter a period of high dissavings that will invariably be reflected in a significant influx of foreign goods and increased foreign borrowing (Tully, 2018). Bilateral trade arrangements and new tariff regimes cannot impede the onset of this fundamental accounting identity. Protectionist measures could actually have the effect of worsening the trade deficit by raising domestic prices and making exporters even less competitive or more inclined towards offshore production. In any case, significant tax cuts without significant public spending cuts will be reflected in a rising inflow of goods and services. The trade deficit could rise by an additional 5-6% in 2018 as a result.

18. Some might find it ironic that growth in the United States seems correlated to increases in the trade deficit. Although the US current deficit fell from 5.8% of GDP to 2.7% in 2009, millions of jobs were lost in that same period. In the same way, Japan has run current account surpluses for 30 years, but its economy grew very slowly over that entire period. Since 2009, the United States has embarked on a slow but steady economic recovery and the current account deficit has remained at a sustainable 3% of GDP in this period. Thus, the notion that the country has been flooded with imports over the last decade does not hold up to scrutiny. The trade deficit will now increase as the savings rate falls.

19. Some developing countries undergoing rapid growth often run deficits as they need to import substantial capital equipment in order to sustain economic take-off. This is hardly a sign of an unhealthy trade position. A direct correlation between trade surpluses and overall economic health is more fiction than reality. Whether or not surpluses or deficits are a good thing depends very much on particular conditions prevailing in a given country. Perhaps the most important question is whether a current account deficit is sustainable over the long term and whether it reflects an inherently healthy economy that is increasingly productive or one that is suffering structural difficulties.

20. The United States derives unique benefits from the fact that the dollar remains the world's reserve currency of choice. This reduces the burden of internal adjustment because central banks and other economic actors will willingly hold dollars, even though the United States runs persistent current account deficits at levels that would be worryingly unsustainable for other countries. For a less powerful country, running sustained current account deficits would trigger a massive flight out of the national currency. The central place of the dollar in the international monetary order, however, accords the United States far more leverage and flexibility than other countries running long-term budget and trade deficits.

21. It is noteworthy that Germany, Europe's most dynamic economy, has a significantly different macroeconomic and trading profile than the United States. It is a high-savings economy with a very competitive export sector. In 2017, its exports rose 6.3% to EUR 1.28 trillion while imports rose 8.3% to EUR 1.03 trillion. This drove its trade surplus down to EUR 244.9 billion, from a record EUR 248.9 billion surplus in 2016 (Samson, 2018). Because the euro tends to align with Germany's natural exchange rate, the country enjoys a certain exporting advantage over some of its EU trading partners that no longer have devaluation in their toolbox or are less productive than Germany but nonetheless share the same currency. This implicit exchange rate misalignment has been a factor in the rising backlash against free trade in parts of Europe, and the Trump Administration has also cited this in its criticism of Germany's export position.

III. TRADE IN PUBLIC OPINION

22. A quick survey of the contemporary press would give an impression that the public harbours deep suspicion of trade and little or no appreciation for the benefits that it confers. But public opinion surveys belie this perception. Although US support for trade declined rather precipitously during the 2016 presidential campaign, perhaps as a result of the rhetoric employed by some candidates in both parties, US public support for open trading relations has begun to rebound. A Pew Research Center poll taken in April 2017 found that 52% of US citizens believe that free trade agreements between the United States and other countries are a good thing, while 40% see them as bad. Support for trade had troughed in October 2016, when only 45% of the public expressed a positive view of trade. By April 2017, 44% of surveyed US citizens said that trade had definitely or probably helped their financial situation, while 38% said that trade had definitely or probably hurt their situation. These numbers differ only slightly from polling in 2015, and the pro-trade outlook is substantially higher than in 2010 when, in the midst of the global recession, 26% of those polled said that trade agreements had helped their finances, while 46% said they had had a negative impact (Jones, 2017).

23. Perhaps more worrying is the degree to which trade has become a partisan issue in US politics. The positions of party voters have swung wildly over the past decade. In October 2016, 29% of Republicans and Republican-leaning independents claimed that trade was good for the United States. A year and a half before that poll, the figure stood at 56%. By April 2017, Republican support for trade had slightly rebounded to 36%. Democrats, by contrast, have now adopted a far more generous view of trade and have moved away from more protectionist sentiments. In April 2017, 67% of Democrats and Democrat-leaning claimed that free trade agreements have been good for the United States, up from 59% in October 2016. During the Bush Administration, however, Republicans were significantly more supportive of trade than Democrats. In 2006, for example, 44%

of Republicans saw trade as beneficial to their financial situation, while only 31% of Democrats did (Jones, 2017). All of this suggests that support for trade in the United States can be highly volatile and that political, labour and media leadership matters a great deal on these issues.

24. Large majorities of Democrats now support the North American Free Trade Agreement (NAFTA) while a significant majority of Republicans say that this trilateral trade agreement has been bad for the United States. This is the sharpest area of trade discord among the US public (Kull, 2017). Indeed, 51% of US citizens polled in May 2016 saw NAFTA as favourable to US interests, compared to 74% of Canadians and 60% of Mexicans. It is important to note here that in 2016 the United States ran a USD 74 billion trade deficit with the other two NAFTA signatories, and this has been a source of particular US public disquiet (Stokes, 2017). What is often not reported is the fact that these trade flows involve US companies moving components across borders, often multiple times, as part of the manufacturing process.

25. A University of Maryland poll released in October 2017 found that large majorities approve of the United States reciprocally removing trade barriers with other countries and a majority of US citizens favour allowing trade to grow and lowering trade barriers. Large majorities also support trade adjustment assistance programmes for workers who lose their jobs as a result of trade. They also want labour standards included in trade deals. A generational gap is apparent with 67% of US citizens under 30 and 58% of those between 30 and 49 seeing trade as good for the country. Only 41% of those over 50, however, hold a positive view of trade. Older people, of course, confront more barriers to retraining and are often not well positioned to make career changes to adjust to rapidly shifting market conditions. Education is another divider with 61% of those with a postgraduate degree viewing trade positively, while opinion is more evenly divided among those without a university degree. This is not surprising as less educated people have suffered more economic setbacks in recent years.

26. European public opinion on trade matters is also complex and sometimes contradictory. A 2015 YouGov poll revealed that, as in the United States, Europeans harboured concerns and doubts about trade. Although the governments of both Germany and France favoured the TTIP, 43% of the German public felt that further liberalisation of trade with the United States would be bad for their country while 26% believed it would be positive. Despite the pro-TTIP stance of the French government, the French also opposed the idea of that agreement by 30% to 24%. By contrast, a strong majority of US citizens (68%) had no opinion on the TTIP – and those who did were divided. Regarding the specific benefits or downsides of free trade agreements in general, the French and the Germans were divided in 2015, if not slightly negative. The British were more supportive of free trade, with 50% believing that policies leading to lower tariffs and common standards at home and abroad would help rather than hurt British businesses. Moreover, 44% of the British public were also generally positive about the number of British jobs resulting from increased trade. Those living in Sweden, Denmark and Finland shared this kind of optimism (YouGov, 2015).

27. The sharpest critics of trade on both sides of the Atlantic are those who have a sense that the international trading order has not served their personal interests. Such views are particularly salient among sectors where jobs are in sharp decline either because of technological evolution or market changes or because of trade patterns which have made those jobs redundant. In these sectors, the narrative that trade has led to a degradation of living standards and lower growth is most commonly accepted and reiterated. This has created an opening for anti-trade politics. Although technological change rather than trade is actually the leading driver of job loss, it is politically easier to blame trading partners for domestic economic difficulties. Slowing the evolution of technology, by contrast, is not an end with easy political fixes. Tariffs and the erection of non-tariff barriers, however, are part of most states' conventional policy arsenal.

28. Trade theory does provide one explanation for the dissatisfaction of certain groups with the current trading order. In a very important paper published in 1941, Wolfgang Stolper and Paul Samuelson noted that when a country that is relatively better-endowed with capital trades with

a country that is relatively well-endowed with labour, both countries will benefit. But the owners of capital in the country more endowed with capital will be disproportionately rewarded and the return to labour in that country will be relatively less. In the labour-intensive country, the opposite will hold, and labour will be disproportionately rewarded. Although the model seeks to simplify a highly complex set of phenomena, there is some evidence that this “Stolper-Samuelson” effect has been operational in the world economy. In labour-rich China, for example, wages have soared, particularly in the industrialised coastal regions, as China has opened its economy to global trade. It is often said that never before in human history have more people been raised out of poverty more quickly than in China over the past 25 years. In the capital-intensive West, educated workers along with the owners of capital have clearly benefitted from trade. Education is indeed a form of capital so the rewards from trade in the West have generally also accrued to those most endowed with capital in some form including those who are highly educated. Well-trained factory workers in advanced technology industries as well as those with a university degree can be included in the category of beneficiaries.

29. With this in mind, we can see how the rise of China has proven a boon to Western economies even though the benefits have not been evenly shared. Many Western firms have benefitted from access to vast Chinese markets. Western firms that manufacture in China have tapped into a productive Chinese labour market and Western consumers have seen prices fall. China’s relatively low wage structure, infrastructure endowments and organisational sophistication have helped drive down production costs globally. This has not benefitted all Western workers, particularly those directly competing against Chinese labour. Moreover, as many displaced Western workers are located in regions with a heavy concentration of older industries including textiles, clothing, steel and furniture, entire regions, like parts of the American Midwest or older industrial regions in Europe, have suffered as a result of competition from producers in low labour-cost countries like China.

30. An oft-cited paper by David Autor of the Massachusetts Institute of Technology (MIT), David Dorn of the University of Zurich and Gordon Hanson of the University of California, San Diego, suggests that 44% of the decline in manufacturing in the United States between 1990 and 2007 might be attributed to competition from Chinese imports. Between 1992 and 2008, 20-40% of the US current account deficit could be attributed to trade with China as China was not importing nearly as much as it was exporting to the United States. That paper noted: “Adjustment in local labour markets is remarkably slow, with wages and labour-force participation rates depressed and unemployment rates remaining elevated for at least a full decade after the China trade shock commences. Exposed workers experience greater job churning and reduced lifetime income. At the national level, employment has fallen in those US industries more exposed to import competition, as expected, but offsetting employment gains in other industries have yet to materialise” (Autor et al., 2016). The study suggests that there is a link between job losses in some older industrial sectors and trade with China. Employment losses resulting from trade to China largely occurred as imports from that country to the United States soared. Interestingly, however, the market share of Chinese goods in the US market has largely remained constant since 2010, while its rate of domestic economic growth has slowed considerably as its own economy has matured, its wage costs risen, and population aged. In this sense, the greatest changes in the balance of trade between the two countries may have already occurred by now (Irwin, 2016). That China is a major purchaser of US Treasury Bills is not at all incidental to this. Chinese lending helps finance US budget deficits, but it also contributes to a depreciation of the renminbi relative to the dollar which, in turn, is expressed in US current account deficits.

31. Unfortunately for less skilled Western workers, the most dynamic part of the job market has been in positions requiring higher levels of education. The less skilled have been the most hurt by a globalising economy. As suggested above, many job losses are also linked to technological change and attendant job-shedding productivity gains, but it is far more difficult politically to rail against technology than it is to complain about the unfair trade practices of foreign countries. There is thus a tendency on both sides of the Atlantic to blame trade disproportionately for the woes that have beset Western industrial workers over the last 20 years. Countervailing arguments regarding the

gains from trade tend to be discounted. These include benefits to consumers who pay lower prices for a greater variety of goods and services made available as a result of trade, dynamic gains to productivity, falling input prices, job creation in emerging sectors, and overall competitiveness of the export sector.

IV. PROACTIVE LONG-TERM STRATEGIES FOR COPING WITH THE GLOBAL ECONOMY: THE EDUCATION DIMENSION

32. A number of European countries typically respond to upheavals in the job market both by redistributing income through the fiscal system and social safety programmes and by supporting education and job training. These policies have counteracted some of the distributional impacts associated with maintaining an open economy by redistributing some of the gains from trade through public budgets. It is interesting that countries that position themselves to benefit from trade while actively generalising at least part of those gains face less resistance to free trade than those societies where such policies are not in place. Governments can soften the harder edges of the global economy by sharing out part of the gains to the broader society. This works best when this partial redistribution aims above all to raise worker productivity and flexibility while improving international competitiveness. Properly calibrated public policy can work to ensure that societies are better positioned to cope with globalisation and the rapid technological, managerial, and educational changes that must be undertaken if that society is to flourish while embracing inevitable change.

33. The OECD has produced an important report, *Making Trade Work for All*, that provides a kind of manual of best practices for governments intent on ensuring that some of the gains from trade are broadly shared in a way to enhance productivity. The report suggests that providing re-employment and basic income support through unemployment insurance schemes and active labour market programmes will not only build public support for open trade but also help countries flourish in international markets. OECD studies suggest that generalising these policies rather than focusing only on workers displaced by trade constitutes the most effective approach. This gets the state out of the tricky business of determining precisely which workers have lost jobs due to trade and provides a modicum of social protection and support to those knocked out of the job market and seeking to re-enter it (OECD, 2017). Obviously, education is critical, and how societies structure their educational systems over the long run conditions how well they manage their economies in an ever more global setting. Technology, communications, migration, environmental change, trade, and investment have all made the world smaller. Students of all ages today require the cultural understanding, linguistic, cognitive and social skills, core knowledge, and technological prowess to flourish in this rapidly evolving economy.

34. For many countries, this will mean updating national and local education systems so that students as well as older “trainees” are equipped with the cognitive and critical capacities as well as social skills and mindset that they need to help themselves and their societies flourish in an ever more international setting (OECD, 2017). This is not, by any means, easy to achieve, for example in isolated heartland communities far from borders. But even these communities are touched by international market changes, and their educational systems need to prepare people from all walks of life for these changes. Moreover, education should no longer be considered the domain of the young. In a very fast-moving global economy, education must be a life-long endeavour. Failure on this front threatens to exacerbate social and generational divisions and to widen the gulf between those regions which have successfully entered the global economy and those that perceive the global economy as a threat that is best wished away. It goes without saying that this latter “head in the sand” approach is doomed to failure.

V. IS A WESTERN RETREAT FROM GLOBALISATION AND THE MULTILATERAL TRADING SYSTEM POSSIBLE?

35. There is little doubt that the international trading order was long driven by a shared transatlantic interest in open trade, international monetary stability and agreed rules of the game. The Bretton Woods system and the institutions needed to uphold it proved highly effective, not only in transforming these aspirations into a reality, but also in providing a vehicle for many other countries to participate in this system. The General Agreement on Tariffs and Trade (GATT) ultimately transformed into the World Trade Organization, while the IMF eventually became an institution dedicated to preserving global monetary stability after the end of the dollar-gold standard. But with parts of the West abandoning the optimism that once infused economic policy making, the rise of new centres of global economic power, and far more vast flows of private capital and complex value chains determining trade flows, the old international commercial order has changed in fundamental ways. The rise of new economic powers has also altered the strategic chessboard. Countries like China now seem to be preparing to assume leadership roles on their own terms and premised on their own values rather than on those of the West.

36. The withdrawal of the United States from the Trans-Pacific Partnership talks has, at least partly, opened up a door for China to become the arbiter of the trading and monetary order in East Asia. China remains committed to a kind of globalisation that differs in important ways from traditional Western views of the concept. It has played a key role in pushing for the creation of the Asian Infrastructure Investment Bank and the New Development Bank, and it is advancing its commercial interests all the way to Europe through its Belt and Road Initiative. The problem from the Western perspective is that China is still a developing country, and an undemocratic one at that. Its approach to the developing world tends to be transactional and it has hardly internalised the notion of playing the role of the benign hegemon, which sometimes requires the sacrifice of immediate national interest for the sake of the broader system – a role that Great Britain had assumed in the 19th century and that the United States played to great effect in the post-war period. China still seems to harbour a zero-sum view of trade, and its push to acquire Western developed technologies, often in ways that violate international commercial norms, suggests that this is not a country prepared to play a systemic leadership role. China also confronts daunting structural difficulties as well as potential domestic political problems that will continue to distract its attention. Its currency is not fully convertible, its capital markets are not sufficiently developed and its banking system is vulnerable, lacks transparency and is subject to political interference. From the perspective of many analysts, its trade policies can seem blatantly mercantilist. China is thus seen with varying degrees of mistrust by some of its neighbours, not all of whom believe that such a thing as a “peaceful rise” to power is possible, particularly given that this has assumed a blatantly military form in the Pacific. Indeed, China’s rapid military build-up and its highly contested claims on the East and South China Seas tend to reinforce those concerns.

37. While it would be difficult for China today to establish itself as a systemic leader of the international trading order, the United States is also altering its approach. In the post-war period, the United States advanced a multilateral vision for an international trading system that promised ever diminishing impediments to free trade. That vision no longer holds. President Donald Trump, his advisor Peter Navarro, Director of the White House National Trade Council, and the Commerce Secretary, Wilbur Ross, have alluded to the possibility of replacing the multilateral trading system with a series of bilaterally negotiated trading agreements. President Trump told Paul Gigot of the Wall Street Journal: “We’ve also withdrawn from the Trans-Pacific Partnership, paving the way for new one-on-one trade deals that protect and defend the American worker. And believe me, we’re going to have a lot of trade deals. But they’ll be one-on-one. There won’t be a whole big mash pot” (Gigot, 2017). If this is the direction in which the Trump Administration moves, and it is not at all clear if this rhetoric will fully translate into policy, it will mark a fundamental change in the US approach to trade policy (Gertz, 2017).

38. This anti-trade rhetoric was transformed into policy on 8 March 2018 when the Trump Administration, despite strong protests from Republican leaders of Congress, invoked a rarely used national security exemption to impose new tariffs on steel and aluminium imports to the United States, although Canada and Mexico were initially exempted pending the outcome of the NAFTA renegotiations. The EU was also given a temporary exemption in the expectation that some kind of deal on steel and aluminium markets could be achieved. That did not transpire and in late May the United States slapped levies on EU, Canadian and Mexican steel and aluminium. The EU issued a statement that expressed “its willingness to discuss current market access issues of interest to both sides, but has also made clear that, as a longstanding partner and friend of the US, we will not negotiate under threat.” It announced a series of retaliatory measures against US goods. By contrast, South Korea reached a preliminary deal for a permanent exemption from the steel tariffs because it agreed to cap its exports to the United States at 70% of the average export volume of the previous three years (Cassella, 2018).

39. Canada, Mexico, Japan and the European Union collectively supply roughly one half of US imported metal. In August, President Trump doubled tariffs on Turkish steel and aluminium imports as part of a separate dispute. These decisions represent a sharp escalation of pressure on the global trading system and have had a negative impact on broader transatlantic and hemispheric relations. The tariffs have had an immediate impact on the global steel trade. The users of imported steel, including the US automobile and construction sectors, are also paying a high price for the decision.

40. The economic fallout has been ratcheted upwards due to inevitable countermeasures against US goods. Mexico, for example, announced retaliatory tariffs on bourbon, apples, potatoes, cheese and pork ranging from 15% to 25% (Webber et al., 2018). In anticipation of the US tariffs, the EU had already prepared a list of US products that would be subject to elevated tariffs if the United States went ahead with its tariffs. In June, the European Commission reported that it would apply the tariffs to a list of US goods including whisky, motorcycles and pleasure boats. Duties on EUR 2.8 billion worth of US goods went into force in June 2018.

41. Under the EU’s plan, which it says complies with WTO rules, virtually all of the US products on the list face a 25% tariff. The EU estimates that US tariffs on steel and aluminium alone will cost EUR 6 billion in lost exports. The European Commission’s Vice President overseeing trade policy has said that Brussels sees the problem as lying with the President and not with Congress, saying: “If you listen to congressman from both parties or American business, they are still in the same traditional line as the United States has always been. So the problem is quite concentrated on the Administration” (Brunsden, June 2018). Both Canada and the EU have vehemently objected to the invocation of national security as a justification for the US tariffs, particularly given that they are close allies of the United States. The Canadian Foreign Minister, Chrystia Freeland, described the security argument as “frankly absurd” (Swanson, 31 May 2018). Indeed, the decision to invoke the steel tariffs has also complicated US-Canadian relations as well as ongoing NAFTA negotiations. Canada announced countermeasures of CAD 16.6 billion in imports of US steel, aluminium and other products, which is the value of 2017 Canadian exports affected by the US tariffs. Both Canada and the EU will also challenge the US action in the WTO as an illegal invocation of the National Security Exception—Article XXI of the General Agreement on Tariffs and Trade.

42. The US Administration has also announced that it plans to undertake a “Section 232” investigation of the trade in automobiles. The prospect of 25% import duties on cars would be far more ruinous than steel tariffs, all the more so as these would be answered with powerful retaliation (Brunsden and Donnan, 2018). The United States imports roughly USD 190 billion of cars annually (Donnan, June 2018). In July, the European Commission announced that, were the Trump Administration to follow through on its threat to impose punitive tariffs on automobile imports, it could expect global retaliation approaching USD 300 billion of US goods across multiple sectors. This was a day after the US President, citing European automobile tariffs, said: “The European Union is possibly as bad as China, just smaller. It is terrible what they do to us.” The EU warned that if the

United States were to impose automobile tariffs it would plunge the world economy into a very costly trade war that would hit the US automobile sector which accounts for 4 million jobs. The EU's Ambassador to Washington testified at a public hearing on the matter that the EU believes the "Section 232" steel and aluminium investigation lacks legitimacy and factual basis and would lead the United States into a breach of international law.

43. Other important actors are also strongly opposed to the US Administration's plan. General Motors issued a warning that US automobile tariffs would raise the prices of its cars by thousands of dollars, undermine its competitiveness and lead to substantial US job losses. EU owned car companies account for 25% of US production, much of which is then exported from the United States (Brunsden, June 2018). Of roughly 6 million cars exported by the EU in 2016, more than 1 million – just over 16% of the total – were purchased in the United States. The United States is the EU's largest automobile export market. Of the USD 53.6 billion in US car exports in 2016, USD 11.8 billion were generated in the EU market, which amounts to roughly 22% of total US automobile exports (Turak, 2018).

44. President Trump has complained that the European Union discriminates against US-made cars, arguing that US cars face tariff rates of 10% in EU markets while European made cars enter the US market with only a 2.5% tariff rate. This particular discrepancy could be resolved through negotiations. The EU Trade Commissioner Cecilia Malmström and Japan's Hiroshige Seko warned that if the administration were to move forward with this, it "could lead to the demise of the multilateral trading system based on (WTO) rules". There is an additional risk that other US industries could be inspired to seek similar kinds of protection on national security grounds. This would, of course, open the floodgates and trigger a wave of protectionist measures that would, in turn, trigger retaliation—all at the expense of a mutually enriching liberal trading order (Lynch and Paletta, 28 May 2018).

45. Although there is a discrepancy between US and EU tariff rates on automobiles, US and EU tariff rates are largely similar across a broad array of products. In 2017, the United States ran a trade deficit of roughly USD 152 billion with the EU, up from USD 146 billion in 2016. Early indications are that US deficits with the EU will be even higher in 2018, given strong US growth and tax cuts (United States Census). The discrepancy in relative savings rates is the principal driver of this particular deficit.

46. Trade tensions, however, have also taken on an ideological veneer. President Trump has identified the inherently multilateral European Union itself as antithetical to his nationalist trading vision and complained that it prevents the United States from negotiating bilaterally with individual European countries—although blocking such divide and conquer strategies through the construction of a common market has long been a central premise of the European project. This is also an ambition the United States has supported, as it has maintained a broad strategic interest in a strong, united, self-confident and open Europe.

47. In late July, President Trump and the President of the European Commission, Jean-Claude Juncker, hammered out an agreement to halt the "tit for tat" tariff game and to begin talks to lower tariffs and other trade barriers—a process that had already been launched in the TTIP negotiations. Business communities on both sides of the Atlantic strongly supported those talks, which were nevertheless suspended in 2016. The newly announced US-EU talks are slated to work to lower tariffs and other trade barriers, including bureaucratic roadblocks to industrial goods trade and conflicting regulations on drugs and chemicals. It is a good sign that both sides have, at least temporarily, retreated from the abyss and put an end to further tariff imposition, and are now returning to the negotiating table (Swanson and Ewing, 2018). The stakes are high. In 2017, US firms exported USD 283 billion of goods to the EU, which is double what they exported to China. US consumers purchased USD 435 billion of goods exported from the EU (Lynch and Paletta, 30 May 2018). Investment in the United States from the EU 27 totalled USD 259.6 billion in 2017, down from USD 439.5 billion in 2015, while Canada invested USD 66.2 billion in 2017 (DW, 2017). The EU and

Canada are thus critical investors in the US markets, so the risks of a trade war with it are a source of deep concern on both sides of the Atlantic.

48. Trade in digital services poses a key challenge for policymakers and negotiators, particularly as policy in this realm runs right into the matter of social and cultural preferences. The US Commerce Secretary, Wilbur Ross, has recently argued that the EU's General Data Protection Regulation has protectionist implications. That law requires all companies that use consumers' private information to request explicit permission whenever data is collected and to accord web users the ability to download a copy or have it deleted. Companies that fail to comply with these rules face stiff fines. European authorities have already launched several investigations of US firms that may not be in compliance. There is a very strong preference for privacy protection in Europe and the appeal of such protections appears to be growing in the United States as well, particularly in light of the revelations on how Cambridge Analytica and other companies including smartphone manufacturers used private data gathered from millions of Facebook accounts without the users' consent (Dance et al., 2018). Still, there is a cultural gap on privacy, and it is noteworthy that the conflicting preferences of voters and consumers can, in themselves, generate trade tensions. This can be tricky for government trade negotiators charged with tackling these complex matters.

49. A third area of serious transatlantic trade tension surrounds the decision by the Trump Administration to pull out of the Iran nuclear deal and reimpose trade sanctions on that country and on non-US companies that continue to do business with Iran. In practical terms, this means that those European firms that trade with Iran will be denied access to the US financial system. This has elicited sharp European complaints of extraterritoriality and further exacerbated mounting trade tensions within the Alliance. The European Commission, which intends to support the JCPOA as long as Iran is complying with its terms, has announced plans to make direct payments for oil to Iran's central bank and to revive a "blocking statute" from the 1990s that allows companies to ignore US sanctions with no consequences in Europe. That statute would prevent EU courts from enforcing US sanctions judgements. It would also allow companies to recover damages arising from sanctions from the person causing them and to offer euro credit lines to compensate for such sanctions. This, however, will probably not be sufficient to encourage large European firms to trade with Iran as many are active in the United States and would willingly pull out of Iran before abandoning the US market. The French oil company, *Total*, for example, will withdraw from Iran's South Pars gasfield unless the US government grants it a waiver (Peel, 2018). By contrast, French carmaker Renault, which does not sell cars in the US, remains in Iran despite the sanctions. European companies are concerned that Asia is poised to seize the Iranian market if the United States successfully manages to push European firms out (Fleming, 2018). This has now become a source of transatlantic tension.

50. Another sanctions crisis has emerged in the bilateral dispute between the United States and Turkey over the fate of a US pastor who has been held in a Turkish jail on charges of terrorism—charges that US officials have called groundless. In August President Trump doubled tariffs on steel and aluminium imports from Turkey and directly linked this action to the dispute. This has only reinforced the notion among many analysts that trade sanctions are now emerging as a "go to" tool of foreign policy. This tendency, in turn, is feeding pessimism about the viability of the current global trading order and its vulnerability to short-term politics (Kwong, 2018).

51. US business leaders are increasingly concerned about mounting tensions with key trade partners and allies. Myron Brilliant, the Executive Vice President of the US Chamber of Commerce, has warned of the risk of alienating US allies and the potential for a boomerang effect on the US economy. US business leaders, except those in the domestic steel and aluminium industry, are well aware that steel and aluminium tariffs have raised prices for a range of products in the automobile, beverage, farm equipment and food packaging sectors. The US steel industry has successfully objected to hundreds of requests for exemptions made by US companies that rely on specialised non-US steel products (Tankersley, 2018). It is worth noting that steel tariffs imposed by President George W. Bush in 2002 resulted in the devastating loss of 200,000 US jobs in steel-consuming and related sectors (Time Magazine, 2018). Many US manufacturers then

confronted difficulties in finding the high quality or specialised steel needed as input for in their production and were compelled to shift to sourcing finished parts from overseas and/or relocating domestic steel consuming facilities abroad (Global Steel Trade Monitor, 2017). Higher steel costs and retaliation by America's trading partners are factoring into decisions, like that taken by Harley Davidson, to offshore some production. A recent report by Trade Partnerships Worldwide, an economic consulting firm in Washington, D.C., found that President Trump's trade penalties and their resulting retaliation by foreign markets could increase the number of jobs in the steel and aluminium manufacturing industry by some 27,000 over the next one to three years. But these gains would be more than offset by a reduced net employment of about 430,000 jobs throughout the rest of the country (Kiley, 2018).

52. House Speaker Paul Ryan and a number of his colleagues on Capitol Hill on both sides of the aisle have openly opposed the recent tariffs and warned of unintended consequences. Addressing the decision to move ahead with tariffs on steel and aluminium imports from the European Union, Canada and Mexico, Mr Ryan said: "I disagree with this decision. Instead of addressing the real problems in the international trade of these products, today's action targets America's allies when we should be working with them to address the unfair trading practices of countries like China... There are better ways to help American workers and consumers. I intend to keep working with the President on those better options" (Watson, 2018). Congress plays a pivotal role in making US trade policy. Article 1, Section 8 of the United States Constitution gives Congress the power "to regulate commerce with foreign nations". According to this so-called Commerce Clause, the power of Congress in these matters is exclusive. It will be interesting to see how Congress responds if the President opts to follow a protectionist rather than a liberalising course over the coming months. Because neither party is unified on the matter, it is not clear at this juncture if, how or when Congress will ultimately assert its authority on these current disputes.

53. Many of these tensions were revealed at the G7 Summit in Canada in early June when trade moved to the very top of the agenda. The summit was the most divisive in memory. Key US allies, aggrieved that they had suddenly been targeted for tariffs under the rubric of national security, were already in the midst of unveiling a series of retaliatory measures. A chair's summary, released by Canada after meetings between finance ministers and central bankers just prior to the Summit, noted concerns that "the tariffs imposed by the United States on its friends and allies, on the grounds of national security, undermine open trade and confidence in the global economy". Canada's Finance Minister Morneau added that there had been a consensus among America's G7 partners that US actions had been "destructive to our ability to get things done." US Treasury Minister Steven Mnuchin was then asked to convey the "regret and disappointment" of the G7 partners to President Trump (Fleming and Shubber, 2018).

54. Some have pointed to this situation as a sign that multilateral trading order is on the ropes and will soon be replaced by bilateral arrangements. But this is highly problematic. Bilateralism in trade lends itself to zero sum calculus when successful negotiations rely on a win-win spirit. Bilateralism also leads to arrangements that are generally trade-diverting rather than trade-creating. Trade diversion occurs when, because of a series of bilateral arrangements, countries lose the opportunity to import from the most competitive suppliers and/or sell to the highest paying customers. Economies as a whole thereby suffer so-called dead-weight losses. Many countries believe that a multilateral setting for talks provides more room for bargaining flexibility and coalition building. Such conditions are far more conducive to actual trade liberalisation. Bilateralism is thus not an attractive option for many states. Trade economists generally see bilateral solutions as inferior to multilateral approaches to trade and blame both the EU and the United States for edging away from multilateral trade negotiations under the auspices of the WTO. A trading system premised on bilateral trade arrangements would lead to all kinds of trade distortions. It would result in a "spaghetti bowl" of costly rules, arbitrary definitions of product origins, and a huge array of tariffs depending on product origin which, itself, is often difficult to determine given the international integration of production lines. Such approaches also undermine the principle of "most favoured nation rules", "which under the WTO have ensured equal treatment for a broad band of countries" (Bhagwati and Panagariya, 2003).

55. A system of bilateral trading arrangements would also require an enormous bureaucracy to negotiate and administer. Instead of creating an easy way to navigate the international market, an international trading order riddled with bilateral deals would impose a confusing array of rules that would wrap exporters and importers in red tape. Such a system would set aside competition as the driver of trade while elevating the influence of lobbyists and other rent seekers. Since presumably these bilateral deals would not result in similar outcomes, varying tariff and quota requirements would distort trade and lead to sub-optimal outcomes which might compel, say, car companies, to source parts from suppliers which do not offer the best quality-price combinations. Productivity and profitability would suffer enormously as a result.

56. Forging regional blocs has emerged as a superior alternative to bilateralism, although these blocs can have trade-diverting impacts *vis-à-vis* countries outside the bloc. In November 2017, Japan and ten other Pacific countries including Canada agreed to move forward with a vast Pacific regional trading agreement. At Canada's request, the new initiative is called the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), and the initial goal is to fully ratify the deal by 2019. The agreement seeks to eliminate tariffs on 95% of goods traded in a bloc of 500 million consumers that account for USD 13.5 trillion in income today. The agreement has scaled back the investor-state dispute settlement provisions that the United States had been promoting in the TPP talks, and it will afford governments more regulatory leeway than the US had wanted. US companies had been pushing for the right to sue governments, which many governments opposed. The extension of copyright and intellectual property protections, something the United States had long promoted, has also been weakened. If ratified, the CPTPP would be one of the world's most important and comprehensive trade agreements. It is noteworthy that the Pacific region has opted to move ahead without the United States and without some of the principles that the US traditionally advances. The signatories, however, have agreed to leave the door open for the United States to join the arrangement at a later date, although President Trump has indicated that this will not happen during his administration (Donnan, April 2018).

57. There is also uncertainty about the future of NAFTA, which has bound Canada, Mexico and the United States in a very open trading arrangement since 1994. President Trump has stated that the United States hopes not to have to pull out of the agreement but has been very critical of its terms. Negotiations are underway to update NAFTA, although there has been little apparent progress. The primary focus of talks involves rules of origin and how to measure the trade balance among member countries, dispute settlement mechanisms and a sunset clause which would see the agreement expire after five years unless the parties explicitly agree to extend it. The Trump Administration supports stricter rules of origin clauses and the inclusion of a sunset clause while opposing dispute settlement panels. Both Mexico and Canada have warned that a sunset clause would undermine investor confidence as investors work on time horizons that significantly exceed five years. Canada and Mexico both feel that abandoning dispute settlement panels would undermine the enforcement of agreed trading rules. Currently, for goods to qualify for NAFTA's duty exemptions, roughly 60% of the product's inputs must be from North America. The US Administration has called for a minimal level of US content—something again that both Mexico and Canada oppose.

58. It is not clear that there is strong support for these initiatives in the United States either. The automobile industry is particularly opposed to the proposed changes that would radically undercut their current supply chains models, and the US Chamber of Commerce has warned against "poison pill" proposals that might undermine the entire NAFTA agreement (Carmichael, 2017). The Trump Administration's imposition of steel and aluminium tariffs on Canada and Mexico has further setback NAFTA talks and has elicited retaliatory measures from both countries. Moreover, several days after those tariffs were announced, the Trump Administration revealed that it would henceforward seek to deal with Canada and Mexico bilaterally rather than in tripartite talks—something again that both Mexico and Canada vigorously oppose (Swanson and Tankersley, 2018). It is worth noting that the Congress has not granted President Trump the Trade Promotion Authority necessary to negotiate

bilaterally with Canada and Mexico in the context of NAFTA and that the President is therefore is not currently authorised to conduct bilateral talks with them (Webber, 2018).

59. The US Administration has also communicated to its hemispheric partners that if it leaves NAFTA, it will not resort to WTO trading rules and that both Mexico and Canada will therefore confront significantly higher tariffs on goods exported to the United States. The Canadian negotiating team refused to include a non-conforming measure that would have compelled Canada to apply the “most favoured nation” principle to its NAFTA partners.

60. This apparent move away from structures that have so ably facilitated international trade liberalisation has also raised questions about the future of the WTO. The US Administration has been particularly critical of the WTO panel system that adjudicates trade disputes among WTO members. Panel decisions are binding—something that US Trade Representative Robert Lighthizer and the administration strongly oppose. The United States has blocked two appointments to the appellate court, and this triggered a warning from EU Trade Commissioner, Cecilia Malmström, that the administration policy could result in “killing the W.T.O. from the inside” (Porter, 2017). Although the United States has won more than 90% of disputes it has had adjudicated at the WTO, it has lost a similar percentage of cases launched against it. Robert Lighthizer has also declared that the WTO has failed to rein in China’s mercantilist policies and its refusal to uphold patent protections (Donnan, 10 November 2017).

VI. TRADE AND SECURITY

61. Although trade is largely about economics, it also concerns state relations and security. The conduct of trade demands a modicum of good relations among trading partners as well as a shared agreement on the rules of the game. Mutually beneficial trade relations help bind together the state system. As President Franklin Roosevelt’s long serving Secretary of State Cordell Hull once recalled: “When the war came in 1914, I was very soon impressed with two points. [...] I saw that you could not separate the idea of commerce from the idea of war and peace [...] [and] that wars were often largely caused by economic rivalry conducted unfairly. [...] to me, unhampered trade dovetailed with peace; high tariffs, trade barriers, and unfair economic competition, with war. Though realising that many other factors were involved, I reasoned that, if we could get a freer flow of trade—freer in the sense of fewer discriminations and obstructions—so that one country would not be deadly jealous of another and the living standards of all countries might rise, thereby eliminating the economic dissatisfaction that breeds war, we might have a reasonable chance for lasting peace” (Hurlburt, 2016)

62. Cordell Hull and the architects of the post-war international order recognised that protectionism had been a critical factor in deteriorating diplomatic relations in the run-up to World War II. They were determined to make free trade a central plank of the emerging global security order. The Cold War only reaffirmed the importance of open trading relations among Allies. With strong US leadership, tariffs and quotas were progressively reduced both in Europe and in North America. Trade became a critical engine of extraordinarily rapid economic recovery which, in turn, made it possible to underwrite expensive national defense programmes. The newly formed European Communities made trade among Allies a central plank of reconciliation on the continent. As for Asia, US leaders recognised how crucial Japanese recovery would be to Asian stability and the degree to which open trade would be essential to this project. The GATT system ultimately helped multilateralise these liberalising trends both by managing trade disputes and by ensuring that the benefits of free trade could be extended across the world. The genius of US policy was that it recognised that the prosperity created by a free trade order would both foster political stability and lower international tension. As long as this win-win dynamic was in place, there would be a reduced incentive to upend the international order.

63. Unfortunately, over the last 20 years, the perception that trade constitutes a win-win proposition and naturally bolsters domestic and international security has waned. Job losses in the manufacturing sector in industrialised countries are increasingly blamed on trade, even when trade is often not the determining factor. Moreover, some of the greatest beneficiaries of international trade today are considered rivals rather than partners.

64. China, for example, has greatly benefitted from the international trading order. But trade and prosperity have not made China democratic, even if that country is decidedly more plural than it was during the so-called Cultural Revolution. Trade has, however, increased China's stake in a stable international economic order even if it remains a formidable rival to the West and one now capable of financing its very large military complex. NATO countries are all concerned about its poor record on intellectual property protection and its implicit state subsidies to some of its industries. But trade tensions between the United States and its allies make it far more difficult to focus on the challenge from China, at least in a collective fashion. China is demanding a greater say in international economic institutions—many would argue rightfully so given its weight in the international economy—and it will also likely become a far more powerful shaper of the East Asian economic order after the United States pull out of the Trans-Pacific Partnership trade talks, and agreement that also excludes China. So the Chinese example of how trade and security interact provides a mixed message. It has both increased China's stake in the international order while empowering it to shape that order to better conform to its interests, for example, through the One Belt One Road Initiative or through its cooperation with the members of the Association of Southeast Asian Nations (ASEAN) and the Regional Comprehensive Economic Partnership (RCEP) (Hurlburt, 2016).

65. Even though the TPP and TTIP were informed by compelling strategic visions, in practical terms they focused on reducing impediments to trade. Still, each offered new ways to manage diplomatic relations among allies and partners. East Asia, for example, is a highly fragmented region lacking an overarching alliance framework capable of containing rivalries and building stability. Over decades, the United States instead erected a series of bilateral security partnerships for that purpose. But it was long felt that a broader multilateral approach that extended into economic policy was needed to foster a shared-stake regional security, particularly in the face of a rising China. The TPP, which excluded China, offered a framework, at least, for regional commercial cooperation. But the hope was that the habit of working together would spill over to the diplomatic and security realms. The Trump Administration, however, has now adopted a bilateral approach to trade in the Pacific (Donnan and Sevastopulo, 2018).

66. The situation for the transatlantic space is significantly different. NATO has long provided a common security framework for the United States, Canada and much of Europe. At the same time, multilateral trade deals have lowered barriers to trade between Europe and the United States, while NAFTA has done the same for the United States, Canada and Mexico. In the case of the now-suspended TTIP talks, the goal had been to reinforce the transatlantic relationship by further deepening trade ties between the United States and the EU. Unfortunately, strong resistance on both sides of the Atlantic emerged, in part, because these talks addressed issues that traditionally are not considered trade matters as such, but rather concern regulatory issues which can also be construed as non-tariff barriers. Those talks focused on three main areas: market access, specific technical regulations and broader trading rules. The British decision to leave the EU and mounting public opposition to TTIP led to a halt in the talks in 2016. In Europe, a coalition of populists, farm groups, environmentalists and anti-globalisation activists drove the opposition to the talks (Barker, 2016). As suggested above, the recent meeting between President Trump and Jean-Claude Juncker has for the moment eased mounting transatlantic trade tensions with the promise of new talks. But the specific form these take and the outlook for progress remain to be seen. It is worth noting here that Canada and the EU have completed a free trade agreement—the so-called EU Canada Comprehensive Economic and Trade Agreement (CETA)—which provisionally entered into force in September 2017.

67. A number of strategic analysts worry that the foundations of the security-trade nexus are now under pressure. Whereas trade and security were once generally seen as mutually reinforcing—particularly among allies and friends—that relationship today seems less firm. Recent tensions over steel and aluminium could mark a paradigmatic shift in how trade and security are linked in North America and Europe. Much will depend on how the politics are handled.

VII. RECOMMENDATIONS

68. The Western commitment to open trade unambiguously diminished after the financial crisis of 2008. From a position of confidence and strength, many countries in the West appear to have adopted more tentative and defensive postures toward international trade. Although this view belies the preponderance of evidence, it has increasingly captured the imagination of some voters who have suffered economically as a result of shifting economic paradigms, technological advances, educational shortcomings and, more generally, sub-optimal public policy. The risk is that trade protectionism, unilateralism and mercantilism could inspire wealth-destroying policies that would shrink trade, undermine investment, raise prices, kill jobs and poison international relations.

69. Leadership truly matters. The failure of national political leaders to build and sustain a new consensus around the virtues of trade and to construct commercial policies premised on those virtues could have devastating economic impacts.

70. The invocation of protectionist policies invariably triggers retaliation. Trade disputes tend to ratchet upward, particularly when the protectionist impulse is seeping into national politics. Burgeoning trade battles would also have a devastating impact on the global economy and would trigger new geopolitical tensions while weakening solidarity among allies. Moreover, all evidence suggests that poorer people would suffer the most in such a scenario (Fajbelbaum and Khandelwal, 2016). An all-out effort is therefore needed now to prevent a trade war over steel, aluminium and automobiles. Going down that path would be very harmful to the United States and its allies and it would move the world economy in precisely the wrong direction.

71. It is high time to recall the basic principles of international trade. Firstly, a trade deficit is not in itself a bad thing. It can simply be a manifestation of rapid economic growth or restructuring, which requires significant importation of capital goods. Trade balances reflect broader macro-economic phenomena related to savings and investment and are a natural consequence of dissavings and borrowing. Trade balances can also be shaped by misaligned exchange rates by focusing policy on trade balances, *per se*, one thus risks targeting the manifestation of the illness (or source of health) rather than the cure. To assume otherwise is to dismiss overwhelming evidence that trade is a generator of prosperity, jobs and economic dynamism. Citing trade imbalances as the source of economic woes and calling for protectionist solutions can be politically popular even if protectionism might best be characterised as a shortcut to economic ruin. Economists often argue that when seeking to resolve market deficiencies, policymakers are better off focusing their efforts most directly on the source of the problem. Restricting trade to reduce unemployment in a given sector, for example, is the equivalent of using a sledgehammer to crack a nut. The long-term damage will far outweigh any short-term sectoral benefits. Far more nuanced approaches are needed, such as long-term strategies to raise productivity.

72. Indeed, “whole of government” approaches are needed. Trade policy is no longer the domain of trade ministers alone. Redistributing some of the benefits of trade, for example, to underwrite education and training programmes can help prepare workers for future markets rather than leaving them untrained and vulnerable to paradigmatic changes in global markets. Ensuring the public’s skillset is relevant to market conditions, for example, will help position societies to exploit the full potential gains to be had from trade.

73. Those workers who lose in trade thus need access to the tools and resources to reset their careers. Life-long education is increasingly recognised as a vital pillar of a successful internationally oriented economy. A working population that knows that society has its back as it participates in the wealth-generating global economy is more likely to embrace rather than fear that economy. This is precisely the spirit that animates the globally-oriented Nordic countries. These countries welcome rather than fear the world economy, and they benefit enormously as a result. Their high-quality education systems are structured to teach citizens how to flourish in this global setting. These countries ensure that those who suffer setbacks in the dynamic and competitive global market are both taken care of in the very short term and helped to adjust to paradigmatic economic change over the longer term. In this way, social spending to support the safety net might be best seen as an investment, the rewards for which are reaped in the global economy. Social anxieties are also a primary hindrance to the societal embrace of trade. And while those anxieties are a tempting target for political opportunists, it is actually far better to relieve them through innovative and proactive policies rather than undercutting the trading systems which actually generate prosperity. The OECD report, “Making Trade Work for All”, provides some very practical guidance on how states might best structure these approaches.

74. Education and training are key to building societies that approach globalisation with confidence. Students need to develop the analytical, linguistic, and cultural skills for the future economy. This requires a leap of imagination on the part of educators and policymakers. In 2018, the OECD will launch an international assessment of how school systems across member countries and beyond are faring in developing global competencies in young people. This will provide an initial assessment on how education systems are preparing students to function in a more integrated world. Policymakers should pay attention to the results once the assessment is concluded. It will provide a valuable evidence-based yardstick for governments and educators seeking to make school curricula relevant to societies that aspire to flourish in an integrated global economic system. It will also provide broad guidance on best practices that could be useful to school administrators, teachers and policymakers alike.

75. It is also important to develop programmes and networks to help small and medium firms exploit international market opportunities. These firms often lack the know-how, connections and staffing to operate in international markets and, not surprisingly, they are underrepresented in the global economy. Much can be done to reverse this, including reducing burdensome regulations that effectively price these firms out of those markets. Organisational structures that help these firms pool resources to facilitate access to international markets can be particularly fruitful. Related to this is the need for readily accessible infrastructure that facilitates participation in global markets (OECD, 2018).

76. Trade policy is no longer simply the responsibility of trade ministers alone. They are in no position to conduct labour, education, migration, development, tax and environmental policies on their own. All these sectors bear directly or indirectly on how countries manage trade policy and conduct trade negotiations. Whole of government approaches are needed to build an open global economy. This is also in keeping with emerging approaches to growth including inclusive and sustainable development frameworks. When the benefits of economic growth accrue to an increasingly narrow sector of society, the risk of social and political tensions mounts, and economies begin to underperform. Rising economic inequality places a cap on growth potential simply because this becomes a constraint on aggregate demand. Macroeconomic, financial and trade policies can be structured to create the conditions for more inclusive, broadly-based and sustainable growth. This is all the more important at a moment when recent technology trends appear to be concentrating rather than diffusing wealth. Preparing society for the nascent fourth industrial revolution may be the most effective means to ensure that the gains from trade and economic growth are widely shared rather than narrowly hoarded (World Economic Forum, 2018).

77. Most economists would argue that moving away from a multilateral trading order towards bilateralism would be a mistake. It would burden the global trading system with red tape, undercut global value chains and trigger trade diversion, all of which would limit the full prosperity-generating potential of trade. Bilateralism, moreover, will never resolve structural trade imbalances that simply reflect savings-investment imbalances. It is thus time to revitalise multilateral trade negotiations to give a long-term boost to global growth.

78. Multilateral trading arrangements need strong institutions to uphold the rules of the game. Although it is not perfect, the WTO and its panel-based dispute resolution system is charged with upholding this pillar of a rules-based global economic system. If it did not exist, it would have to be invented. This organisation is now under attack by some who reject the very principle of multilateralism. Those who recognise that the multilateral trading system represents a critical catalyst for growth, innovation and peaceful win-win interaction among states need to be prepared to defend it with great vigour and a degree of imagination. Of course, that does not rule out the desirability of meaningful reform. The WTO needs to cope with many of the new challenges to the global trading order including the rising importance of digital economy. A strong rules-based order will only enhance the leverage of states and market actors who are victims of unfair trade practices. Along these lines, North American and European concerns about property rights protection, industry subsidies and overcapacity in countries like China are legitimate and merit attention (May, 2018). The Global Forum on Steel Excess Capacity, created by the G20, has offered a new model for how to manage such disputes without resorting to trade wars. It has worked for the removal of subsidies and other market distorting measures that have created a glut of steel in world markets, which has been a source of mounting trade tension.

79. Efforts should be made to improve international trading rules in order to expand the beneficiaries of trade, to give voice to those whose voices are often not heard in public discussions about trade and to make the system more free, fair and open. Much of this can be achieved by better implementing WTO rules and applying free trade principles in areas, such as agriculture, which have long escaped the logic of liberalisation. International cooperation on matters pertaining to competition policy could also help. Cooperation is also needed to govern the global digital economy which has often avoided the agreed-on rules of the game. Likewise, a consolidated international effort is needed to resolve the problem of base erosion and profit shifting (BEPS) which has allowed multinational firms to avoid paying taxes in local markets from which they derive profits. Labour standards and working conditions have long been excluded from trade discussions. But there is room to do more here as well, and much can be done outside of formal trade talks. This effort is essential to lower public anxiety about trade. Finally, there is ample room to make trade negotiations more transparent and open. Public suspicions about trade are often fueled by secret negotiations where many imagine their own interests are being sold out. Transparency can help alleviate those kinds of concerns (OECD, 2017).

80. The United States and Europe have traditionally shared many fundamental assumptions about trade and its benefits. The TTIP framework was supposed to take the trade relationship to a new level of integration and should be revived. Allied countries should reinforce the commercial partnership. The collective weight of a shared Euro-Atlantic vision for trade is all the more important as the Chinese are advancing a very different view of the global trading system. There is ample room for North America and Europe to advance a shared vision for trade well beyond the Euro-Atlantic area.

81. In this regard, it makes sense to create an informal transnational parliamentary caucus of democratic societies dedicated to defending and improving the liberal trading order. Parliamentarians have a critical role to play in developing trade policy and building public consensus to support it. Their efforts could be strengthened by reaching out to elected leaders who share those goals.

82. Finally trade protectionism never occurs in a vacuum. Unilaterally imposing tariffs or quotas is a shortcut to triggering a trade war. Economic history points to the destructive nature of “beggar thy neighbour” trade wars. No country wins and both international and domestic markets can be severely constricted when this dynamic is unleashed. The experience of the 1930s remains instructive. A dangerous process of deglobalisation was unleashed at a time when a financial crisis made it impossible for the long-reigning hegemonic power, Great Britain, to reassume responsibility for the broader trading order. The rising power, the United States, was not yet politically prepared to take on that burden. A period of competitive devaluations and rising tariffs and quotas followed which essentially amounted to a chain of ‘beggar thy neighbour’ policies that choked off growth in the global economy and led to a degradation in state relations. Some analysts have discerned parallels with the current situation and there are worries that mounting trade strife today could translate into more serious security risks in the future (Barbieri, 2016). In short, unilaterally prioritising national economic growth with no consideration for broader systemic obligations will poison the well for all countries including the most powerful, and it will paradoxically undermine growth for all. At the end of the day, it remains the essential task of leaders to mind the lessons of history.

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NATO PARLIAMENTARY ASSEMBLY

ECONOMICS AND SECURITY COMMITTEE (ESC)

Sub-Committee on Transition and
Development (ESCTD)

THE ENERGY SECURITY CHALLENGE IN CENTRAL AND EASTERN EUROPE

Report

by [Ausrine ARMONAITE](#) (Lithuania)
Rapporteur

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I. INTRODUCTION

1. Broadly defined, energy security is a condition linking the capacity of a country to sustain its vital national interests with the availability of the energy resources needed to fulfil that fundamental mission. In general terms, in a country enjoying a high degree of security, the flow of energy will be uninterrupted and affordable. Increasingly, the definition includes broader considerations, such as environmental sustainability and the capacity of the system to respond with flexibility to sudden imbalances between energy supply and demand. It also, of course, factors in more traditional security considerations and in this manner, it must gauge the resilience of the energy system as a whole in the face of possible external attack from direct military operations or emerging forms of offensive operations such as cyberattacks.

2. The global energy outlook has evolved substantially over the last decade, and the countries of Central and Eastern Europe have been swept up in these changes. Central and Eastern Europe's dependence on Russian gas was a legacy of Cold War industrial and commercial structures that survived both the fall of the Berlin Wall and the integration of some of the countries of the region into Euro-Atlantic institutions. That infrastructure nevertheless accorded Russian companies a powerful position in those energy markets. Consequently, a company such as Russia's Gazprom was able to impose long-term contracts on clients that had few other immediate energy options. Over time, the cost of this dependence became more apparent, particularly in the wake of two Russian-Ukrainian energy disputes in 2006 and 2009 that led to supply disruptions in several European countries. Russia's illegal annexation of Crimea and its aggression in Eastern Ukraine have further exposed this set of vulnerabilities.

3. Those seminal events were a wake-up call for Europe and have helped raise awareness about the risks of overdependence on a single energy supplier. These supply disruptions were politically inspired. They also reflected the emergence of a more assertive Russia with a clear set of grievances about the existing European security and political order and a willingness to act to upend that order. Russia's energy endowments provided it with a powerful lever to express this dissent. It did not have to use this leverage often to demonstrate its potential power. Indeed, Russia has generally been a reliable supplier of energy to the continent, in part, because oil and gas exports are its most important source of income. But this made the events of 2006 and 2009 all the more shocking as they seemed to demonstrate that Russia was willing to sacrifice its immediate commercial reputation for geopolitical purposes.

4. One of the primary upshots of those Russian generated shocks has been a major European push to diversify energy supplies in order to reduce dependence on Russia. Russian aggression, for example, inspired the European Commission to investigate the opaque pricing of Russia's gas monopoly. It also certainly factored into the drafting of the EU's Third Energy Package, which has sought to liberalise Europe's energy sector, challenge Russia's monopolistic commodity pricing and build resilience and new linkages into the energy infrastructure networks of Europe. Doing so would make it easier to move energy in multiple directions throughout the continent should Russia again cut off or threaten to cut off energy supplies. The European Commission has also demanded more transparency, openness, and competition in European oil, gas, and electricity markets, not only because the lack of competition and opaque decision making have given Russia leeway to use its energy as a weapon, but also because doing so simply made economic sense.

5. The EU now has clarified a set of long-term goals to diversify the sources of gas used on the continent, to expand the use of renewable energy, to increase energy efficiency, and to develop a super grid that would help Europe tap into solar power from the south and wind power from the north. Among other things, this would require the development of smart grids at local distribution points that would help reduce peaks in electricity demand (White, 2015).

6. Building greater energy security in Europe demands diverse approaches across a range of sectors. The EU's Energy Union incorporates a number of sectors including energy, research and innovation, transport, foreign policy, regional and neighbourhood policy, the environment, trade and

agriculture in a comprehensive package to ensure a broad conception of European energy security, including environmental considerations. The EU has made the achievement of greater interconnectivity of gas and electricity grids a central goal and sees this as a key vehicle for lowering dependence on Russian gas and encouraging the diversification of energy sources, including an important transition into renewables. It also seeks to ensure greater energy efficiency and a fair deal for energy consumers. By 2020, the goal is to reduce greenhouse gas emissions by 20%, increase the share of renewable energy in the energy mix to 20%, bolster efficiency by 20%, and achieve an interconnection level of 10%. By 2030, these figures ambitiously rise to a 40% reduction of greenhouse gas emission, an increase to 27% of the energy mix from renewable energy, a 30% increase in energy efficiency and an interconnection level of 15%.

7. Progress has been made on many of these fronts. In 2015, for example, renewable use saved an estimated EUR 16 billion in fossil fuel imports. While the European economy grew in 2016, greenhouse emissions fell, except in the transport sector, suggesting a delinkage between growth and energy use (European Commission, 23 November 2017).

8. Energy security in Central and Eastern Europe is thus shaped by a multiplicity of factors, some of which seem distant or not entirely consequential in regional terms. The massive expansion of the oil and gas sectors in North America, for example, is having a profound impact on energy markets in Europe, even if, for example, US oil and gas are generally not shipped directly to Europe. But the so-called fracking revolution has propelled the United States into a new role as the world's "swing producer". This has essentially helped place a lower ceiling on global oil prices and is also having an impact on gas prices, even if Liquefied Natural Gas (LNG) is generally more expensive than natural gas shipped by pipeline. Of course, evolving prices depend on a number of factors, including production efficiency and falling extraction costs. If oil and gas prices rise quickly, US production, including non-conventional energy like hydro-fracked gas and oil, will also increase, and these new markets are helping to check price hikes.

9. The US gas and oil sector has made significant efficiency gains due to technological advances in hydro-fracking and to a recent market shake-out which drove world prices downward. The Organization of the Petroleum Exporting Countries (OPEC) had expected those price falls to force many small American producers out of business. While a shake-out did occur, those firms that survived the price falls emerged significantly stronger and more competitive. Highly efficient oil and gas production in the US market means that shale gas and oil are flowing into the market at lower prices than many had originally imagined. Consequently, the United States has now surpassed Saudi Arabia as the world's largest oil producer and is second only to Russia. US gas production is also soaring. While 15 years ago the expectation was that US imports of gas would rise inexorably, it is now exporting gas through several LNG terminals originally designed to receive gas and now refitted to export it. Several new ports are under construction and significant exports of LNG from Louisiana and Texas have helped create a gas glut that has exercised strong downward pressure on gas prices around the world. The US entry into this market will have a long-term impact on world markets and has the potential to weaken Russia's market leverage in Europe if European and American policymakers choose to encourage supply diversification. Low gas prices are also helping it to replace coal as a fuel for electricity generation in some European countries, thereby helping to move Europe towards its announced carbon reduction goals (Kraussoc, 2017). Finally, the growing reliance on LNG will only increase the strategic importance of defending the sea lines of communication.

10. Although gas is traditionally a segmented local market, the emergence of a vibrant and growing LNG business and new port and pipeline infrastructure have made LNG an increasingly globally arbitrated and fungible commodity. In other words, gas prices can no longer be set in local markets alone, particularly as new LNG producers develop the capacity to move gas to distant markets due to the construction of new pipeline networks. Lithuania's new LNG reception facility in Klaipeda, for example, has helped that country dramatically reduce its dependence on Russian gas and should weaken Russia's capacity to set prices in that region. The Lithuanian facilities have a total storage capacity of 170,000 cubic metres, one jetty and a gasification capacity of 4 billion cubic metres. For

its part, Poland opened the Swinoujscie LNG terminal in 2015. Its initial regasification capacity is 5 billion cubic metres per annum, and with the construction of a third tank, its capacity is due to expand to 7.5 billion cubic metres per annum, which would help the country meet roughly 50% of its annual gas demand. These kinds of projects are clearly of great strategic value to the region. They lower Russian market leverage and, by extension, the Kremlin's potential capacity to deploy that economic weight for non-commercial ends.

11. Russia, in turn, has had no choice but to respond to these changes. It is no longer positioned to impose long-term fixed price contracts on its clients. These clients will increasingly have other options at hand and while Russian gas remains important and relatively cheap, there are now market forces that compel Russia to be more accommodating to its clients. As long as Russia's clients have other options, its leverage will be limited – this is precisely why so many Eastern European countries are concerned about the Nord Stream 2 (NS2) project (see below). Europe's leverage will also rise with the construction of more two-way pipelines that allow gas to be moved in two directions rather than in a unidirectional fashion. Countries with access to flexible lines have other import options should energy supplies be cut in one direction.

12. One potentially important consequence of these market changes is that if Russia fails to construct a more diversified economy, it will remain vulnerable to falling oil and gas prices. The state budget is highly dependent on foreign exchange earnings generated through energy sales. One would think that this vulnerability would encourage the Kremlin to engage in a degree of economic if not political reform. But that hardly seems likely, given the level of corruption in the state and the resistance to change this engenders. It is unfortunately more likely that low energy prices will encourage Russia to adopt more aggressive postures to compensate for economic weakness and to distract public attention from the fact that Russia's leadership has failed to better prepare the country for rapidly evolving global markets in the 21st century. Europe thus must prepare for an adversarial relationship no matter which way prices move.

II. VULNERABILITIES

13. Central and Eastern Europe confront two potential energy vulnerabilities: the need for secure provision and inadequate infrastructure to ensure that supply. These vulnerabilities are often linked, for example when existing infrastructure configurations translate into undesirable levels of energy dependence on any single supplier, particularly when that supplier is inclined to exploit that leverage diplomatically. Indeed, when considering energy security in Central and Eastern Europe, one must specifically take into account how Russia has deployed its energy endowments as an instrument of national power. Imported Russian gas has undoubtedly sustained domestic consumption in Eastern Europe, but the cost of overreliance on Russian energy is potentially substantial as it leaves those countries vulnerable to political suasion.

14. Concerns about this vulnerability have inspired a push for energy supply diversification. Thus, a country such as Lithuania, which until recently met all of its gas needs with imports from Russia, has made a concerted effort to diversify its sources of energy. The LNG facility in Klaipeda now allows Lithuania to source gas from suppliers around the world. Although LNG is typically more expensive than Russian gas, the difference in price should be considered a security premium that many countries might judge well worth paying. Moreover, as suggested above, the price of LNG has fallen as the supply grows. Finally, importing LNG from countries like Qatar and the United States does not exclude purchasing energy from Russia. It simply means that there are increasingly other options on the table should supply disruptions ever take place – and their very existence is likely to discourage such disruptions.

15. It is also important to consider ownership patterns when assessing the security component of energy use. In many countries, energy firms take on the character of monopolistic or oligopolistic firms with all the problems and inefficiencies those structures generate. These include price-setting behaviour, resistance to innovation, predatory behaviour toward potential competitors and the

exercise of untoward and ultimately undemocratic political influence. If national security in the West is about defending democratic values, all of these behaviours might constitute a threat. There is a myriad of cases in which national energy giants promote policies that could be seen as undermining national security interests and democratic governance.

16. Gazprom is Russia's largest energy-exporting company. It has been essentially state-owned since 2005, by which time the Russian state had purchased more than 50% of the company's shares (BBC, 2005; Moore, 2005). Since then, Gazprom has shouldered the dual mission of generating profits for its primary shareholder and serving the broader strategic interests of the Kremlin. That company alone underwrites 13% of the state budget. It is thus burdened with functions that transcend Western notions of profit maximisation and normal corporate responsibility. Not surprisingly, the two missions are not always easily accommodated, particularly as clients and partners need to factor in the potential that Gazprom might be instrumentalised for the Kremlin's purposes. This dynamic adds a degree of risk to doing business with Gazprom and other Russian energy firms (Polak, 2017). These firms generate huge revenues for the Russian state, which, in turn, have been used to underwrite an array of state-led activities that are antithetical to Western interests. These include election interference in Western countries, provocative military deployments, cyberattacks, the occupation of Crimea and the conflict in Eastern Ukraine.

17. Indeed, since 2005, Russia has visibly deployed its energy resources to achieve political and strategic ambitions as defined by the Kremlin. Russian energy revenues, for example, directly financed pro-Russian foreign leaders like Viktor Yanukovich in Ukraine and Alexander Lukashenko in Belarus. They also helped underwrite national election campaigns in both countries in the mid-2000s. Such funding is strategically consequential and has obviously generated a kind of political debt toward the Kremlin. While Viktor Yanukovich is no longer in power in Ukraine, Alexander Lukashenko continues to dominate Belarusian politics and has essentially transformed his country into a Russian protectorate.

18. Russia has also deployed its energy power in less apparent ways even in Western countries, for example, providing gas preferential rates with the expectation that the political elite in recipient countries will adopt more accommodating positions with regard to Russia even in times of diplomatic tension. This dynamic probably shaped the approach of several Western countries that opposed strong sanctions against Russia following the Crimea invasion (Reuters, 2014). While Russian gas and oil endowments have proven a particularly powerful source of political and diplomatic leverage, Russia's significant holdings of nuclear fuel can also serve a similar purpose. Russia is a primary provider of natural uranium to Finland, Bulgaria, the Czech Republic, Slovakia, and Hungary (Buchan, 2014). It also gains potential leverage through its electrical grid system, upon which several Western or Western-oriented countries still rely.

19. Possible cyberattacks on sophisticated grids moving renewable energy pose another set of challenges, although this is an issue of concern for all energy industries. But as distribution networks grow "smarter" and more sophisticated, as they must do to make renewable energy a viable pillar of Western energy strategy, they will become ever more vulnerable to cyberattacks. Indeed, they may be particularly vulnerable, not only as they require highly sophisticated industrial control systems, advanced distribution networks and advanced storage solutions, but also because they pose a direct threat to Russia insofar as they lower its market and diplomatic leverage over the West. Wind farms are linked by highly sophisticated control systems that often tie into computer systems designed for efficiency and not for security as such.

20. In 2013, for example, hackers infected an array of renewable energy facilities and undermined critical control systems. In Ukraine, malware struck the control system of an electricity distribution network, leaving nearly a quarter of a million customers without power (Ruhle and Trakimavicius, 2017). US officials recently revealed that malware of Russian origin has been discovered embedded in a range of US power plants. The FBI characterised the attack as "a multi-stage intrusion campaign by Russian government cyber actors who targeted small commercial facility networks where they staged malware, conducted spear phishing and gained remote access into energy sector networks"

(Borger, 2018). These systems need to be built with both efficiency and security in mind, otherwise they become vulnerable to attacks with potentially devastating and life-threatening consequences.

21. It is also important to consider traditional military threats to critical infrastructure including power plants, pipelines, and energy storage facilities. These threats could emanate both from traditional military forces and from terrorist actors who tend to focus on asymmetrical tactics in which single attacks can have wide-spread and significant impacts. Although NATO members are responsible for protecting critical infrastructure, cooperation both within the Alliance and with partner countries is essential for intelligence sharing about potential threats, crisis response and management, cooperative security training and sorting through collective defence implications. NATO has been dealing with this challenge and has worked on enhancing resilience, preparedness, response and recovery, the exchange of information, training and exercise.

III. NORD STREAM 2



22. Construction of the offshore natural gas pipeline known today as Nord Stream 1 was started in 2006 and completed in 2011. The 1,222km line begins in Vyborg in Russia, runs to Greifswald in Germany, and is owned and operated by Nord Stream AG, of which Gazprom holds 51% of the shares. It has an annual capacity of 55 billion cubic metres, and when the follow-on Nord Stream 2 project is completed, its capacity will double to 110 billion cubic metres by 2019. As a result of current EU restrictions on Gazprom, however, only 22.5 billion cubic metres of Nord Stream's capacity are currently used. This has raised questions about the viability of Nord Stream 2 in addition to strong strategic concerns harboured by a number of NATO member countries.

23. Indeed, the controversial Nord Stream 2 project is rife with national security implications, although how affected countries judge the programme varies considerably. The proposed pipeline would run alongside the existing pipeline and would likely be operational by 2020. The cost of the 1,200km (746 mile) pipeline has been estimated at EUR 9.5 billion (USD 10.3 billion) and construction is scheduled to begin in 2018 (Deutsche Welle, 2018).

24. The controversial Nord Stream 2 pipeline project has illustrated how energy security calculations are now shaping investment decisions in Europe and how divisive these are becoming. The president of the European Council, Donald Tusk, has stated that the pipeline is not in Europe's interest, and nine EU member governments have claimed that the proposed pipeline violates EU rules that prohibit gas companies from owning delivery infrastructure. Moreover, they argue, the pipeline would not be made available to other suppliers. That project would also allow Russia to bypass Ukraine and ship gas directly to Western Europe, thereby driving a wedge between Western Europe and Ukraine (Rivkin and Zuzul, 2018). This prospect has triggered serious and high-stakes infighting among European states, specifically pitting a number of Central and Eastern European states (mainly Poland, Hungary, Romania, Slovakia, Bulgaria, the Czech Republic, and the Baltic states), which perceive this particular project as part of a Russian divide and conquer strategy,

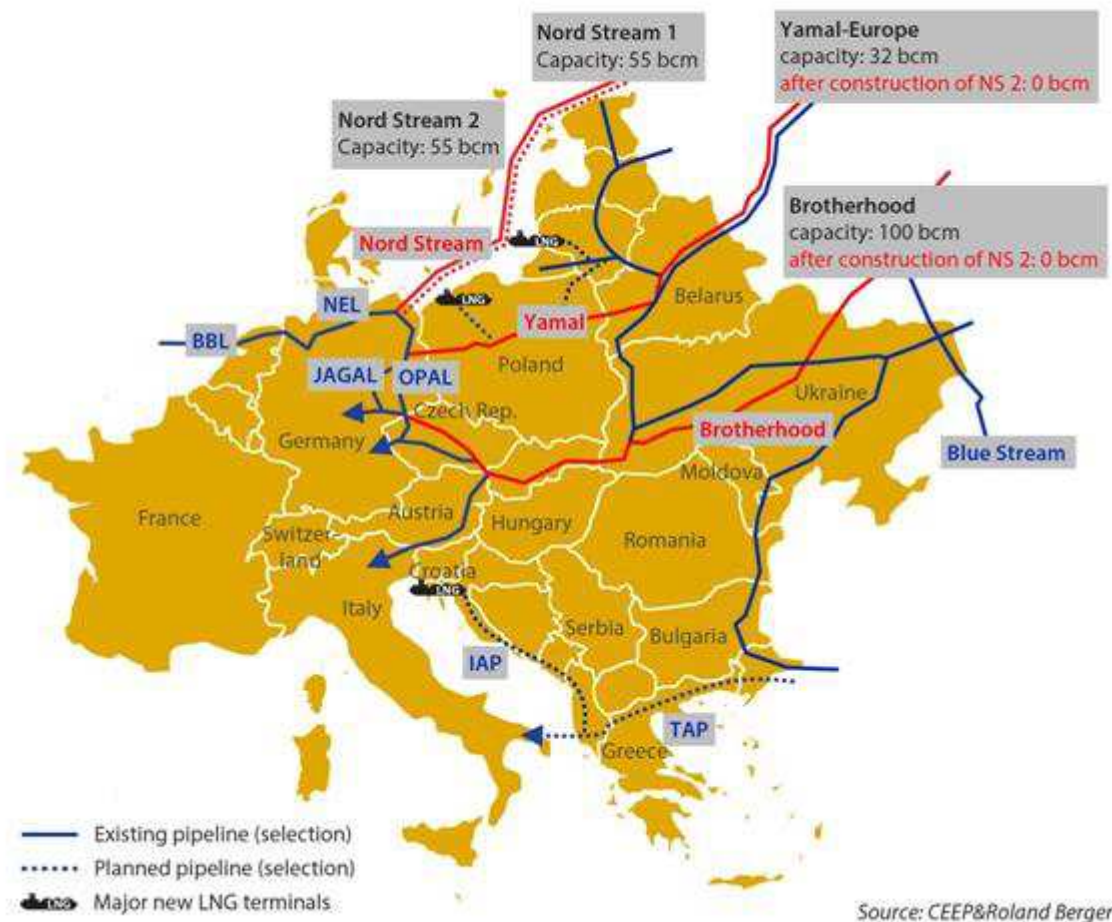
against Germany, which has characterised the arrangement in more economic terms. Poland's authorities responsible for competition policy recently initiated proceedings against six European energy companies, including Gazprom, claiming that they had entered agreements to finance Nord Stream 2 without Poland's consent (The Economist Intelligence Unit, 2018). The fact that the project has fomented such discord among Allied states, however, can already be understood as a win for the Kremlin. Undermining Western solidarity, of course, remains a primary strategic ambition of the Kremlin, and Russian-sponsored energy projects have proven a remarkably effective way for it to achieve these ends.

25. Proponents of the project in Germany see it as bolstering national energy security, insofar as it will provide direct access to plentiful and cheap Russian gas while eliminating the possibility that Russian-Ukrainian tensions might affect its own energy supplies (a significant share of Russian gas is now shipped to Europe across Ukraine). Several Central and Eastern European countries as well as Sweden, Denmark and the European Commission, however, argue that the project diminishes energy security by making the European Union, and particularly its largest gas importer Germany, more dependent on Gazprom for gas supplies and by concentrating the delivery of up to 80% of imported gas through one pipeline. This has struck a blow to European solidarity by pitting German energy policy against the security interests of the Baltic and Nordic states and Poland, all of which strongly oppose the project. Ukraine is also naturally opposed to a pipeline that would bypass its own pipeline infrastructure and thus deprive it of a critical source of national economy.

26. Some of these concerns appear to be registering in Germany, where Chancellor Angela Merkel recently acknowledged widespread concerns on the "political" and "strategic" aspects of the Nord Stream 2 gas pipeline. In April she said that the Nord Stream 2 project is not possible without clarification of how Ukraine's transit role can continue, declaring: "From this you can already see that this is not just an economic project, but that, of course, political factors must also be taken into account." At a summit meeting with Russian President Vladimir Putin in May, Chancellor Merkel sought assurances that Russia would continue to export gas through Ukraine's pipelines even after Nord Stream 2 becomes operational. President Putin has indicated that he would be willing to do so if these shipments "make economic sense" – which hardly represents an iron-clad promise. He is clearly leaving himself a great deal of wiggle room on the matter, and it remains to be seen if this will be enough to convince sceptics of Mr Putin's good intentions (Chazan, 2018).

27. The European Commission has also raised specific concerns about Nord Stream 2. The European Commission's vice president for Energy Union, Maros Sefcovic, for example, has argued that "creating a well-diversified and competitive gas market is a priority of the EU's energy security and Energy Union strategy [...] NS2 does not contribute to the Energy Union's objectives. If the pipeline is nevertheless built, the least we have to do is to make sure that it will be operated transparently and in line with the main EU energy market rules" (Global Risk Insights, 2017).

Figure 5. Pipelines in danger of being cut off after the construction of Nord Stream 2



28. The European Commission argues that the proposed pipeline violates current European energy rules as outlined in the Third Energy Package. Those rules forbid energy companies from holding majority shares in both supply and distribution assets. Moreover, competitors must also have access to those pipelines to thwart the emergence of monopolistic and oligopolistic suppliers. German authorities have rejected this interpretation and claim that the proposed project complies with current EU law. In fact, there has been a legal void on rules governing pipelines from outside of the Union, and last year the Commission asked the Council of the EU for a mandate to close this loophole. In a subsequent proposed amendment, the Commission called for the equal application of the Third Energy Package's rules to all pipelines, including NS2, so that the following conditions would have to be met: ownership unbundling (requiring pipelines not be owned directly by gas suppliers); non-discriminatory tariffs; third party access; and transparency (European Commission, 8 November 2017).

29. The European Commission wants a more competitive, open and integrated energy market operating entirely under EU rules that apply to all gas pipelines to and from third countries. Those pipelines should be subject to the same rules and be equally transparent. The Commission is seeking to eliminate conflicts of interest between infrastructure operators and gas suppliers, and it wants guarantees that tariff setting will be non-discriminatory. Ideally, Europe would negotiate as a block on gas prices and prevent suppliers from pursuing divide and conquer strategies. However, it also agreed to grant existing cross-border pipelines certain derogations on existing rules on a case by case basis, if such derogations are not detrimental to competition or security of supply. According to many independent observers, however, the proposed Nord Stream 2 project currently does not meet these criteria as it is majority-owned by the supplier Gazprom. Additionally, because it is not an existing pipeline, it does not appear to qualify for these derogations.

30. Concerns about the NS2 project are not only European. In meetings in Warsaw in January 2018, then US Secretary of State Rex Tillerson characterised the proposed pipeline as a threat to Europe's security interests (Reuters, 2018). US President Donald Trump has echoed these concerns. The United States Congress has also expressed concerns about the Nord Stream 2 project and specifically included pipelines projects in sanctions passed last year. These sanctions were formally related to the Russian invasion of Crimea, but they were also doubtlessly shaped by concerns about Russian interference in US elections. The bill signed by President Trump leaves the decision to apply these sanctions to the president and requires that he do so in consultation with European Allies. This too constitutes a rather large loophole. US officials have indicated that the five European energy companies that are financing the Nord Stream 2 project could face sanctions and have offered to make more expensive US LNG available as an alternative energy source (Foy and Buck, 2018). Some supporters of the project have claimed that the US is simply opposing a project that would threaten its own future exports of LNG to Europe. But that hardly appears to have been a factor in US political deliberations. Most market analysts believe that the greatest potential market for US LNG is Asia, not Europe, although the United States will undoubtedly be shipping more to Europe in the future as its own LNG capacity increases (Gawlikowska-Fyk and Wisniewski, 2017). Poland, for example, has agreed to purchase LNG from the United States and will not renew a contract with Gazprom that expires in 2022. US LNG imports to Europe rose 22% in 2017 and are likely to continue growing (Rivkin and Zuzul, 2018).

31. The Nord Stream 2 issue has become particularly delicate in German politics and was the subject of tough discussions in the run-up to the formation of the country's new governing coalition there. Some in Germany have cast the issue as pitting those wanting cheap energy against those supporting solidarity with more vulnerable Allies in the Baltic states. Denmark has also decided that it will make approval of any energy pipeline projects contingent not only on standard criteria for such projects, but also on a national security assessment. Denmark alone would not be able to put a stop to the proposed project, although it could block the pipeline from running through its territorial waters.

IV. OLD INFRASTRUCTURE IN CENTRAL AND EASTERN EUROPE

32. It is hard to generalise about Central and Eastern European energy markets as they differ in size and energy mix. Poland and the Czech Republic rely heavily on coal, Hungary uses a high percentage of nuclear power and Slovakia is more balanced. All import significant, though varying, amounts of gas, and the degree of dependence on Russian gas varies considerably throughout the region. Estonia and Romania import relatively little energy due to oil and gas reserves, while Slovakia and Hungary need to import 60% of their energy. Lithuania is the worst off in this regard as 78% of its domestic demand is met with imports (CEEP, 2016).

33. Deficiencies in Central and Eastern Europe's energy infrastructure have exacerbated strategic energy vulnerabilities in Europe. The lack of interconnecting links, north-south connections and two-way pipelines poses a particularly acute problem. Three of the four major pipelines in Europe flow east to west: the Brotherhood (Russia-Ukraine-Slovakia-the Czech Republic with subsections from Ukraine to Hungary), Yamal-Europe (Russia-Belarus-Poland-Germany) and Trans-Balkan (Russia-Ukraine-the Republic of Moldova-Romania-Bulgaria) pipelines. Central and Eastern Europe also lack sufficient gas storage facilities beyond those in Ukraine, and there is no important hub for trading gas—something that further inhibits competition. Although a number of steps have been taken to address the challenge in recent years, problems persist. There are, for example, no connecting lines between Poland and Slovakia or Poland and Lithuania, and several connections still flow in only one direction, such as the pipelines between Croatia and Hungary or Romania and Hungary (CEEP, 2016). The Baltic states remain relatively isolated in energy terms, although Lithuania will build a gas link to Poland. Poland has introduced reverse flows on the Yamal pipeline linking it to Germany, which would allow it to bring gas from Germany if needed. It is also championing the Northern Gate project, which should bring 10 billion cubic metres per annum of Norwegian gas to Poland and other Central European and Baltic countries by 2022 if it goes ahead (Gotev, 2016). This would provide a secure alternative to Russian gas from Nord Stream 2. The

Czechs and Slovaks have also introduced reverse flows on the Brotherhood pipeline, while Hungary has built new connections with Croatia, Romania and Slovakia. Slovakia is pushing for the so-called Eastring pipeline, which would link it to Hungary, Romania and Bulgaria, which would tie Western gas hubs to the Balkans (CEEP, 2016). In the event of disruptions to the supply of gas from Russia, two-way pipelines would add far greater resilience to the system by allowing partner countries to ship gas to countries undergoing supply shocks.

Figure 4. Gas pipelines in the CEE region



34. Energy infrastructure problems are not limited to the gas sector, and some do not directly involve matters related to dependence on Russia. A number of electricity grids in Central and Eastern Europe are old and outdated, cannot cope with renewable energy and suffer uncontrolled loop flows. The Baltic region, for example, is still linked to the IPS/UPS electrical power grid inherited from the Soviet Union (CEEP, 2016). This has led to a problem of overcharging during times of high electricity usage, which heightens the risk of blackouts as far away as Poland and the Czech Republic. There are plans to make this system synchronous with the Continental European system (European Network of Transmission System Operators for Electricity, ENTSO-E) although significant investments will be needed to make this link-up feasible. Full integration is a priority for the Baltic states, which are not comfortable relying on the IPS/UPS system that includes both the Russian and Belarusian electricity grids. Partial remedies were achieved through Estlink 1 and 2, which tied Estonia into the Finnish grid, the LitPol link between Lithuania and Poland and the NordBalt line between Sweden and Lithuania (Joint Research Centre, 2018). Lithuania is also deeply concerned about a huge nuclear power plant the Russians are building in Belarus, 50 km from Vilnius, that fails to meet basic International Energy Agency (IEA) standards. The Lithuanian government fears the plant represents an effort by Moscow to dominate the region's electrical market for both economic and strategic purposes. Alexander Lukashenko essentially confirmed this when he referred to the nuclear plant as "a fishbone in the throats of the European Union and the Baltic states" that they

would not be able to remove. Russia's Rosatom plans to build 19 new reactors around the world, including in Hungary, Finland, and Turkey (Standish, 2017).



Electrical Connections in the Baltic Region

35. Latvia used its Presidency of the European Union to advocate for more grid connections and to build a genuine single European energy market. The goal was to make energy suppliers more secure and member countries less dependent on Russia. In practical terms, this meant setting a goal to integrate the Baltics into the European Network by 2025. It is worth noting that Russia has generally been a reliable energy supplier in the region and that leaving the IPS/UPS system, in which Russia controls frequencies and balances the grid, will cost billions of euros. The links between Lithuania and Poland, and Sweden and Lithuania provide some resilience but do not resolve the fundamental electricity vulnerabilities of the region (White, 2015).

V. ADAPTING TO THE NEW CLIMATE AGENDA

36. The climate change agenda offers both challenges and opportunities to Central and Eastern European countries. Global climate change represents a key strategic challenge to Europe, and concern about this man-made phenomenon is already shaping interactions among allies and trading partners (Raines and Tomlinson, 2016). Although there are areas in which immediate energy security ambitions are clashing with longer term climate goals—the use of domestically produced brown coal comes to mind here—there are also areas of overlap (Buchan, 2014).

37. The growing share of renewables in the overall energy mix provides an illustration of the latter case. Indeed, one of the most attractive elements of emerging renewable energy technologies is not only that renewable energy is relatively clean, but also that it can lower energy dependence on energy-supplying countries that are either unstable or actively engaged in efforts to destabilise the international order. Just as the explosive rise of the LNG industry, linked in part to the growth of hydro-fracking in North America, has created a new globally fungible energy commodity capable of undercutting Russia's oligopolistic control of Central and Eastern European gas markets, so too is an ever more efficient renewable energy industry contributing to energy security in Europe. Over the past decade, renewable energy has risen from 15% to 30% of the electricity mix in the EU (Ruhle and Trakimavicius, 2017).

38. As is the case with rising LNG use, however, significant investments are needed to increase the share of renewables in the broader energy mix. A change in traditional mindsets is also required, as there remains a great deal of scepticism about these technologies even as profits in the industry begin to soar. Germany and Denmark have both made large investments in renewable energy, and Germany recently achieved a milestone when, for a brief period of time, all of its electricity needs were met by renewable energy (NATO PA, 2018).

39. A joint Dutch and German project to support renewable capacities through cross-border auctions reveals how sophisticated this market is becoming and the degree to which it is now subject to normal market price setting, which is helping it achieve serious efficiency gains. During one of these cross-border auctions for photovoltaic (PV) solar energy tenders, for example, PV tenders sold for record low prices. Wind power prices are also falling rapidly, and this renewable is growing increasingly competitive with traditional fuels for generating electricity. But serious bottlenecks remain, including the enduring problem of intermittency—in other words, coping with those periods when there is little wind or sun to power generators. Until that problem is resolved, and it likely will not be anytime soon, traditional energy sources will be required to backstop electricity networks. This obviously comes at a cost, as it demands that legacy systems remain on line even if the returns on investment in these systems plunge due to plentiful and ever cheaper renewables.

40. The challenge for Central and Eastern Europe lies not so much in the technologies themselves as in the sheer costs of transitioning the economy to best deploy these technologies. Renewable energy cannot simply be run through existing energy infrastructure. It requires significant investment in new and smarter grids to move energy from windmills and solar farms to regions where insufficient power is being generated at any given moment. Even off-grid solutions, including home-generated power, require investment and regulatory reform. There are clear financial roadblocks to transitioning to these major systems, as well as strong political resistance from legacy energy firms and national monopolies that stand to lose from this kind of paradigmatic change.

41. That said, if diversification is understood to contribute to energy security by reducing dependence on any single supplier, renewables will represent a key and ever more important element of that solution. Even if renewable energy prices are higher than carbon-based fuels—and their price is rapidly falling—there is nonetheless a security premium embedded in these prices. In other words, there are environmental and security benefits linked to the use of these energy sources over carbon-based fuels that are not fully reflected in their price. This is one reason many governments have elected to subsidise renewable energy use, and they have done so to facilitate the transition from so called 19th century carbon-based energy to 21st century renewables. This is no small undertaking. The transition will be very expensive and complex, and it will require critical public/private partnerships and investments to drive the industry forward. The potential security benefits are likely significant.

42. There are also security benefits linked to the use of domestically produced coal, and this is an argument heard in several Central and Eastern European countries that currently produce coal and rely on its use. This is undoubtedly true insofar as domestic coal use can reduce dependence on Russian gas or Middle Eastern oil. But coal's future is problematic given its rather dire environmental consequences. Although it will continue to be used, short of a breakthrough in dealing with the carbon emissions problem, its real costs may be prohibitively high for it to endure as a viable energy option for much of the region. This, however, is not a view shared in all EU countries. There is, for example, dissent from Poland, which is well-endowed with brown coal, the use of which it sees as critical to its own energy security.

VI. CORRUPTION, ENERGY AND THE ENERGY SECURITY CHALLENGE

43. Energy markets and the incomes they generate have long been both a source and target of corruption. The significant rents generated by the industry, the persistence of politically protected monopolies and oligopolies in the sector and the important role played by states create a welter of opportunities for those who would use those levers for self-dealing or for broader political purposes—all to the great disadvantage of energy consumers and public well-being. As a general rule, the less transparency and competition in the sector, the more opportunities for corruption. Those with access to the generation and distribution of energy and related industries are best positioned to monetise this access through corrupt practices or to translate this access into broader political leverage (Ruth, 2002). Given the size and importance of the energy sector, when it is corrupted or used for influence

peddling, it can have broad systemic implications with significant spill-over effects on the international system.

44. There are myriad cases of corruption in Eastern and Central European states linked to the energy sector. Not surprisingly, many of these involve Russian companies and so-called middle men controlling prices and access to energy commodities (Aslund, 2010). The problem, of course, is not limited to Central and Eastern Europe, and there are many cases of energy-industry-driven corruption in Western Europe and North America (Kupchinsky, 2009).

45. The corruption-energy nexus is particularly threatening to weak states and to those transitioning to democratic and market norms (Dempsey, 2013). Weak states are more vulnerable to penetration by external actors with significant resources and driven by a focused agenda. There have been myriad instances of corrupt relations between Gazprom and local oligarchs in Europe who have essentially been paid kickbacks in exchange for supporting favourable energy deals with Russian firms (Open Democracy Roundtable, 2017). These practices have long made it difficult to subject the energy sector to normal democratic scrutiny, and they have provided Russia with a key source of leverage in the domestic affairs of a number of European states. Moreover, this kind of corruption undermines open competition and limits investments in countries that need to attract foreign capital and stand to benefit from more open competition. Corruption has slowed the evolution of the energy sector in many countries, reduced competitiveness and raised costs to consumers and energy-dependent business alike. Bribery and kickbacks undermine the rule of law and public faith in democratic institutions and practices. There are countless incidents of Russian interference in the energy sectors of Ukraine, Lithuania, Hungary, Poland, Slovakia, Bulgaria and in the Western Balkans (Dempsey, 2013). There are important cases of conflict of interest and ethical matters in which politically linked Westerners earn millions by pushing projects that actually weaken Western security. The risk here is that such lobbying, which has been apparent even in some of NATO's leading countries, subverts the integrity of the democratic process and undermines faith in political systems that are so easily penetrated by actors whose intention is actually to undermine Western security and increase the vulnerability of Alliance members and partners (BBC, 2017).

VII. THE UKRAINE CASE

46. Energy corruption in Ukraine has been strategically consequential and terribly detrimental to the country and its citizens. Ukraine's energy sector is rife with vulnerabilities. It is one of Europe's least energy-efficient countries and is two to three times as energy intensive as neighbouring Poland and Slovakia. Although part of the problem relates to the legacy structures and practices of the Soviet Union, poor governance, political instability, corruption and conflict with Russia have all complicated efforts to address these structural problems. The energy sector accounts for 12.6% of GNP, but its costs are very high, and this engenders a misallocation of resources that would be far better invested in other industries. In this sense, the energy sector in Ukraine is as much a hindrance as it is a generator of economic activity. It is in dire need of reform, but political instability, a very poor regulatory system, corruption, war and isolation have all complicated that country's energy transition—although some important reforms have been undertaken.

47. The Maidan revolution, the Russian occupation of Crimea and Russia's armed aggression against Ukraine have all shaped the country's energy profile. After the Crimean invasion, Russia ended discounts on gas sold to Ukraine, which had once been used to compensate Ukraine for the use of the Russian naval base in Sevastopol. It also ended coal deliveries from Donbas, which is now occupied by pro-Russian militia. These changes collectively constituted a shock to Ukraine's energy sector and have led to important changes including price liberalisation. The occupation of Crimea, the conflict in Eastern Ukraine and Russia's militarisation of the northern Black Sea have resulted in the loss of valuable Ukrainian gas fields to Russia. They have also raised risk premia in the region, which some have argued might have been one of Russia's goals in its aggression against Ukraine. This has discouraged investment in Ukraine's gas sector and lowered its potential to provide Europe with an alternative to Russian gas (Barrasso, 2018). As a result, the sector remains

underinvested in, its gas fields are underexploited, and its governance structures are inadequate to the needs of the country.

48. Ukraine also hosts vital pipelines linking Russian gas to European markets. These pipelines have an annual capacity of 145 billion cubic metres and thus carry more gas than both Nord Stream pipelines combined. As mentioned above, new pipelines bypassing Ukraine threaten the Ukrainian transit business, although Ukraine also has substantial gas endowments itself. Gazprom has refused to adhere to both EU regulations and Ukrainian legislation that would apply these rules in a new transit agreement. Russia is also refusing to implement the Stockholm arbitration court's decisions of 2017 and 2018.

49. Tensions with Russia inspired Ukraine to join the Energy Community of Eastern and Southeastern European countries working to adopt the EU's energy market legislation—although this has proven particularly daunting in Ukraine's case given the power of those vested in the status quo. It also began to push for reverse flows of gas from Poland, Slovakia and Hungary in order to lessen its dependence on Russian gas. Whereas in 2013 Russia was the only supplier of gas imported into Ukraine, today Ukraine imports no gas from Russia. The introduction of reverse flow pipelines from Slovakia in 2014 allowed Ukraine to import gas from other suppliers. Production of its own gas rose and now meets three-fifths of national consumption. The country has a relatively large shale gas endowment, but its capacity to exploit those reserves remains limited and, again, the conflict with Russia as well as pervasive corruption impose a high-risk premium for foreign companies. Ukraine, however, remains committed to developing its conventional gas capacities. Both the International Monetary Fund (IMF) and the EU have strongly encouraged Ukraine to restructure this behemoth to introduce more competition in what are essentially rigged markets.

50. There has been some good news, however. In July 2018 the Supervisory boards of Naftogaz and Main Gas Pipelines of Ukraine signed a Memorandum of Understanding that committed them to separate the production and transmission portions of Naftogaz—something the EU and the United States have strongly encouraged. This should help open up the Ukrainian market and could lower the risk of corruption in the business.

51. Political resistance to these changes has been fierce as Naftogaz has become something of a cash cow for parts of the political class and oligarchs with a vested interest in the status quo. Currently, this state-owned company simply does not meet international standards of transparency, efficiency and accountability. It contains myriad conflicts of interest that impede reform and ultimately inflict heavy costs on Ukrainian taxpayers and energy consumers. But the political system at large also pays a price, as this company is at the centre of an array of murky dealings that undermine public faith in the rule of law.

52. Naftogaz has also been engaged in a long dispute with Gazprom over previous contracts and distribution and transit issues. The ongoing case has held up the restructuring of Naftogaz – or, at the very least, it has provided a convenient excuse to delay these reforms. Russia clearly sees the Nord Stream 2 project as a way to circumnavigate this legal dispute while, in the larger sense, punishing Ukraine for its broader resistance to Russia's regional ambitions. If Nord Stream 2 is built, Ukraine stands to lose EUR 2 billion a year in transit revenues (Antonenko et al., 2018). Ukraine thus has an interest in settling the dispute with Russia and reforming its energy industry governance structures so that it operates in a significantly more transparent and honest fashion and in a manner that fully meets European governance standards. The problem, of course, is that Russia is not at all likely to abandon its aggressive posture and has made it clear that it has a vested interest in destabilising Ukraine.

53. Ukraine also needs to enhance energy efficiency to increase security. It managed to reduce gas consumption from 50.4 billion cubic metres in 2013 to 33.3 billion cubic metres in 2016, although this reduction was largely linked to the economic crisis and the fact that it has lost control of a large portion of its energy-intensive industrial base in the Donbas region, now controlled by pro-Russian militia groups. After reaching a credit agreement with the IMF, the government significantly reduced

energy subsidies. Higher energy prices have naturally triggered both a reduction of consumption and an added incentive to increase energy savings, both at the household and municipal levels. It has also led to a degree of government savings, as the state-owned gas company, Naftogaz, was subsidising Russian gas for Ukrainian consumers. More vulnerable citizens now benefit from direct cash support to help pay for energy for home heating and cooking. This is more effective than simply lowering the cost of energy, as doing so reduces incentives to save energy. The government also passed a law requiring all households to have heat and hot water meters, which will provide critical information to consumers seeking to save money and energy. It will also embark on a building modernisation programme to introduce greater energy efficiency in the country's building stock. All of this is essential but not sufficient as the government still spends more on wasted energy than on efficiency measures (Antonenko et al., 2018).

54. Ukraine is one of the largest consumers of electricity in Europe. Many of its anthracite-powered plants are in the war zones of the east, but most of its capacity is in thermal power (24.5GW of Ukraine's total power generation of 55.3GW). Nuclear power accounts for 13.8GW, hydro 5.9GW and renewables only 0.9GW. Problems of pricing, security, access to raw materials and low investment plague the industry. Coal-burning plants long relied on anthracite coal from the eastern regions of Donetsk and Luhansk, but shipments of that coal have stopped, and Ukraine has relied on imports from Russia. The government now intends to convert anthracite-burning plants to lower-grade bituminous coal use in order to lower this dependence. The country's electricity infrastructure is aging and not up to European standards. Integration with Europe's grid would require huge investments and would result in new pressures to meet European environmental standards.

55. Ukraine's current stock of power generating plants will soon have to be replaced. The government intends to expand the number of nuclear power plants in the country and is seeking to diversify its supply of nuclear fuels in order to become less dependent on Russian sources. It also has ambitions to raise the share of renewable energy in the national energy mix to 11% by 2020. But this will demand large investments at a time when the budget is extremely tight. Ukraine's transmission lines are among the least reliable in Europe, as they are responsible for the loss of as much as 12% of generated electricity—a figure that is more than twice as high as the Organisation for Economic Co-operation and Development (OECD) average (Antonenko et al., 2018). Although the European Bank for Reconstruction and Development (EBRD) has helped finance system upgrades, it is estimated that an investment of about EUR 5.1 billion is still needed. This will be essential if Ukraine is ever to integrate into the European grid as the government has indicated it hopes to do by 2035 (Logatskiy, 2017).

56. Finally, in 2017 the Ukrainian government adopted a new Electricity Market Law that will be operative in 2019. It will introduce more open competition in electricity markets, including the freedom to buy and sell electricity, greater choice for consumers and third-party access to the grids. The goal has been to break up existing monopoly and monopsony power through greater competition. This is clearly a move in the right direction, but there is strong entrenched resistance to such reforms even though Ukraine's system is in deep crisis and riddled with debt. The government continues to resist the idea of privatising key energy assets and this inspires a degree of pessimism as to how far the current reform effort can go.

VIII. SOUTHEASTERN EUROPE

57. There are essentially three ways to move energy overland between Asia and Europe: through Russia, through Iran and through Azerbaijan. Given the unique strategic challenges posed by Iran and Russia, the relative strategic importance of Azerbaijan and the South Caucasus has increased because of the region's energy endowment and of several important pipelines linking the Caspian to Europe. Because of the unresolved Nagorno-Karabakh conflict, the corridor is narrowed to 95 kilometres. Currently three critical pipelines pass through this region: the Baku-Tbilisi-Ceyhan pipeline linking Azerbaijan to Turkey, the Baku-Supsa pipeline, which brings Azerbaijani oil to the Black Sea, and the South Caucasus pipeline from Azerbaijan to Turkey, which will soon be part of

the South Caucasus system that will deliver gas from the Caspian to Italy. This corridor is thus both highly valuable and vulnerable. Russia has a clear interest in discouraging the movement of Azerbaijani energy to Europe and it seems very willing to exercise both diplomatic and military leverage in the South Caucasus to further this ambition (Gurbanov, 2018).

58. Southeastern Europe faces many of the same problems as Central and Eastern Europe. It too is relatively dependent on Russian gas, plagued by aging infrastructure and left vulnerable because of a lack of interconnections and two-way pipelines. The Trans-Adriatic Pipeline (TAP), which will bring Azerbaijani gas from the Shah Deniz 2 field to Southern Europe, is part of a proposed grand Southern Gas Corridor (SGC), which is seen as one potential remedy to the rigidly structured gas markets of the region. The SGC is slated to play a fundamental role in the EU's overall strategy to enhance European energy security. The project has become all the more important now that the Nord Stream 2 project is underway. Chancellor Merkel's recent visit to Azerbaijan provided an opportunity for her to show her dedication to the notion of diversifying European energy supplies despite the Nord Stream 2 project. The Chancellor faced criticism from the Trump administration at the NATO Brussels summit for the Nord Stream project and has suggested that American LNG might be a safer alternative to Russian gas. Germany is the world's largest importer of natural gas, and Russia has the largest endowment of natural gas. That there is an important energy trade between the two is hardly shocking. German authorities maintain that this trade is driven entirely by commercial consideration. The problem lies in how that trade is structured and what it means for Germany's partners, who worry that Russia could put itself in a position to disrupt the flow of energy to the continent (Karasz, 2018). Chancellor Merkel's endorsement of the effort to move Azerbaijani gas from the Shah Deniz 2 fields to Europe was timed to demonstrate that Germany is willing to include broader security concerns in its energy strategy (Chazan, 2018).

59. Completion of the Southern Gas Corridor (SGC) now seems likely and represents an interesting contrast to previous failed efforts to strengthen regional energy links, like the Nabucco project. That said, the SGC does confront public resistance in southern Italy, which will host the terminus for the TAP (Gurbanov, 2018). The SGC includes the Shah Deniz 2 gas field in Azerbaijan, the South Caucasus Pipeline extension (Azerbaijan-Georgia), the Trans-Anatolian Pipeline through Turkey (TANAP) and the TAP. This broad project is seen as a far better option than the now-cancelled South Stream pipeline that would have moved Russian gas under the Black Sea to Bulgaria. That particular project was cancelled, as it was incompatible with EU competition regulations—a standard that should be applied to Nord Stream 2. South Stream also caused serious security concern in Brussels and in Washington. It is noteworthy that the Trump administration has now extended a specific waiver on US sanctions on Iran and those doing business with Iran to encourage development of the Shah Deniz gas field, something it has not done, by contrast, for BP, which has been working with the National Iranian Oil Company to develop the Rhum natural gas field in the North Sea (Gordon, 2018). In any case, Russia has been very active in the region's energy markets. Russia's Foreign Minister Sergey Lavrov recently noted that his country is not walking away from the Southern European market and hopes that its TurkStream project will move Russian gas to Southern Europe.

60. Corruption, political interference and low levels of investment have posed acute problems for the energy sector in the Western Balkans, where the stakes are particularly high as the region as a whole confronts an array of obstacles to transition and Euro-Atlantic integration. High-level corruption cases in Albania, Bosnia and Herzegovina, Croatia, Kosovo, the former Yugoslav Republic of Macedonia¹, Montenegro and Serbia are indicative of the deep-seated problems in the sector (Prelec, 2014). Corruption cases have covered the entire gamut of industrial activities from hydroelectric construction, through privatisations, to tendering for new projects and government investments in the sector. Even more worrisome perhaps is that journalists, NGOs and state prosecutors who have sought to expose this lawlessness have faced intimidation and official pressure to silence the voice of whistle-blowers (Likmeta, 2014). A 2014 study suggested that tens of millions of euros have been lost as a result of corruption in the energy sector in Southeastern

¹ Turkey recognises the Republic of Macedonia with its constitutional name.

Europe. This is particularly worrying as the European Union has made a priority of helping the region refashion its energy infrastructure to help it meet its energy sustainability goals. By definition, moving to more efficient and sustainable energy markets requires progress in the fight against corruption. Unfortunately, corruption remains one of the most compelling obstacles to successful democratic and market transition throughout this region.

NATO and Energy Security

61. NATO's own role in building energy security has been the subject of some discussion and debate for a number of years. Energy security writ large is generally more a matter of structuring markets than it is about hard defence, so there are obviously other institutions beyond military ones, like the International Energy Agency, that have enormous responsibilities in formulating international efforts to bolster energy security. That said, defending critical infrastructure is very much part of NATO's remit, and providing that security has become all the more challenging given the rise of cyber war techniques. Energy itself is a strategic asset, and it is vital to the functioning of military forces. Defence planners must ensure both that the societies they are defending have access to this vital strategic asset and, of course, that their militaries do as well. Threats to those supplies are diverse and can emanate not only from state actors, but also from sub-state actors such as pirates operating along or near maritime choke points. Terrorist attacks on vital energy assets have also increased sharply in recent years and this has made it essential to harden the defence of these assets. NATO provides an important vehicle for sharing information, intelligence and best practices to lower the risks of such attacks and to cope with them should they occur. The Alliance has also worked to lower fuel costs for its forces while raising environmental awareness in member militaries—work that is also shared with partner countries.

62. Lithuania is now hosting the NATO Energy Security Centre of Excellence to develop and share expertise across the Alliance on all aspects of energy security. In modern, highly integrated economies, attacks mounted even by small groups of terrorists can have a devastating economic, social and even political impact. Critical energy infrastructure is thus a favourite target for those seeking to inflict massive costs on societies through the conduct of low-cost terrorist operations. It is also worth noting here that energy disputes have long been a source of international tensions and have been factors in previous wars.

63. At the 2008 NATO Bucharest Summit, Allied heads of state and government gave NATO a mandate to work on energy security matters. Again, this posed a challenge for an organisation largely focused on traditional military matters. The Alliance, however, has subsequently structured its work on energy security in three areas: raising strategic awareness of those energy matters with direct security implications, protecting critical energy infrastructure and enhancing energy efficiency in the military (Grubliauskas, 2014). NATO relies on other institutions, such as the International Energy Agency, to enhance its own situational awareness, but it has become something of an intelligence clearinghouse on energy-related matters and their links to hard security. NATO also consults with its partners on energy security issues as diverse as resource competition, climate change and the ways these shape the broader security landscape.

IX. CONCLUSION

64. Diversification and assurance of energy supply are key to energy security for Europe and North America alike. But these pose a particular challenge for Eastern and Central Europe, which has long relied heavily on Russian gas and oil, leaving the region vulnerable to Russian suasion. The development of new interconnections, north-south links, two-way pipelines and LNG reception facilities will help enhance energy security, as will investments in transformative and clean renewable energy sources. The growth of the LNG market and the construction of LNG terminals in Europe is now transforming natural gas into a more "fungible" commodity that moves internationally and is priced globally. Building even more hubs and reception ports in Europe will only enhance security. As US LNG production increases, it could strongly contribute to Europe's energy security both by

supporting the construction of LNG import capacity and pipelines and by increasing gas exports to the continent. Both would expand the list of gas suppliers to Europe, thus making European and international gas markets more fungible and competitive while reinforcing transatlantic energy links (Collins and Mikulska, 2018).

65. But there are also reasons for concern. The construction of the Nord Stream 2 pipeline makes little geopolitical sense for Eastern Europe and could leave it more vulnerable to energy blackmail. The project is now underway but continues to foment discord between Eastern and Western Europe and there are concerns in Brussels that Russia will be tempted to exercise price discretion to reward or penalise countries over which it seeks to exercise influence (BBC Monitoring, 2018.) That pipeline, now under construction, will likely deepen Europe's reliance on Russian gas, give Russia new sources of leverage over western democracies, further weaken Ukraine, and provide additional income to a Russian government that is increasingly intent on destabilising Europe and undermining democratic institutions on both sides of the Atlantic through both traditional military and non-military means. Efforts are needed now to mitigate the worst potential impact of the project and particularly to ensure that Ukraine is not left to its own devices. Fortunately, LNG is now poised to compete with Russian gas in several markets. Its falling price and growing availability, along with the growth of renewable energy, have reduced Russia's price-setting leverage on the continent and could help mitigate the impact of Nord Stream 2. LNG will invariably remain more expensive than Russian gas piped into the continent, but security has its costs and this so-called externality needs to be more systematically factored into energy pricing and energy decision making. Efforts such as the proposed Three Seas Initiative to link up LNG infrastructure between ocean terminals in Poland and Croatia make good strategic sense. The Three Seas Initiative seeks to unite 12 countries in the region between the Baltic, Adriatic and Black Seas through energy infrastructure. Finding new ways of bringing energy from the Caspian to Europe should remain a priority.

66. Although improved infrastructure is key to bolstering Central and Eastern European security, so too are enhancements in the regulatory environment. Linked-up international approaches are needed, such as the construction of a genuine European Energy Union. The Union could negotiate gas and oil contracts as a block, collectively plan for new infrastructure, work out responses to potential supply emergencies, and foster regional cooperation efforts. Ensuring open market competition and transparency is also an essential component of developing genuinely secure energy markets. Making Central and Eastern Europe more energy efficient can help lower dependence on imports from unstable or threatening regions. Infrastructure investment is also needed in the electricity sector, particularly in power generation and transmission lines. Coping with loop flow problems and building systems that can readily handle renewables are essential to European energy security as a whole and demand collaborative solutions.

67. Fossil fuel subsidies persist in much of Central and Eastern Europe. Not only is this a burden on national budgets, it also slows the process of energy transition to a more efficient use of carbon fuel and an increasing use of cleaner and more strategically secure renewables. Subsidising carbon-based fuels use is often designed expressly to protect vested interests in the status quo. Such subsidies invariably slow the emergence of new energy sectors that promise to generate jobs in the future and build greater energy security.

68. Energy control and grid management systems are becoming ever more sophisticated and efficient, but they are also increasingly vulnerable to cyber or other attacks. These systems need to be made more secure, and perhaps even redundant, to resist hacks which, at their worst, can represent an act of war designed to paralyse critical national systems. National security officials and the private sector need to deepen consultation and ensure that an effective partnership is in place to safeguard these systems. This will be as critical a challenge as diversifying energy supplies over the next several decades. As NATO bolsters its own cyber defence capabilities, it can play a role in helping to coordinate efforts among Allies and partners to defend this critical infrastructure.

69. Poor budgetary transparency and oversight both in the public and private energy sectors create opportunities for corruption. It is therefore essential for the public to demand this transparency

and for governments to insist upon it. Failure to do so will almost invariably result in corruption, and when the scale of this mounts, it will pose a clear threat to democratic governance, economic health and national and regional security. The breakup of energy monopolies will help open energy markets and, by extension, render them more secure, resilient, and capable of serving national economic and security interests. Doing so can attract investment from the private sector, which, for apparent reasons, must be a partner in building a more secure energy future for the continent.

70. Codes of conduct for international companies operating in Europe are essential and need to be applied universally. Open competition and a level playing field are critical conditions for attracting investment. Along these lines, it has made no sense to exempt a company like Gazprom from European rules that prohibit gas companies from owning the very pipelines that move gas to markets. These rules also prohibit pipeline companies from limiting access to those pipelines. Fortunately, under Article 9 of the EU's antitrust regulation, the European Union has recently imposed a set of rules on Gazprom that should help limit anti-competitive behaviour. These include:

- No more contractual barriers to the free flow of gas. Gazprom has to remove any restrictions to cross-border gas resale that are placed on customers.
- An obligation to facilitate gas flows to and from isolated markets. Gazprom will enable gas flows to and from parts of Central and Eastern Europe that are still isolated from other member states due to the lack of interconnectors, namely the Baltic States and Bulgaria.
- Structured process to ensure competitive gas prices. Relevant Gazprom customers are given an effective tool to make sure their gas price reflects the price level in competitive Western European gas markets, especially at liquid gas hubs.
- No leveraging of dominance in gas supply. Gazprom cannot act on any advantages concerning gas infrastructure, which it may have obtained from customers by having leveraged its market position in gas supply.

The Commission claims that these obligations will essentially address its competition concerns and achieve its objectives of enabling the free flow of gas in Central and Eastern Europe at competitive prices (European Commission, 2018). But vigilance on these matters remains essential.

71. Gazprom's monopoly over the gas sector in several European countries is equally unacceptable. With international support, these countries need to muster the political will to diversify their energy base and generalise the rules of the game so that the playing field is even. Codes of conduct are also needed to exercise more control over former state officials and politicians who move quickly from positions as regulators to that of lobbyists for Russian and other energy firms. Ultimately, parliaments have an essential role to play in ensuring that energy markets are diversified, open and transparent. It is their essential duty to establish procedures and laws to ensure a broad energy base and competitive and transparent markets unimpeded by political favouritism and corruption.

72. NATO's efforts both to factor energy security considerations into its strategic vision and to defend critical energy infrastructure from physical and cyberattacks make eminent sense. This awareness is essential in the maritime sector, as ever more LNG is transported via ships.

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RESOLUTION 449

on

OPPORTUNITIES AND CHALLENGES IN A CHANGING SPACE ARENA*

The Assembly,

1. **Acknowledging** that space represents a critical arena of both global competition and cooperation, a bastion of the global economy and technological development and a vital scientific frontier;
2. **Understanding** that space has become an important military theatre with space-based satellites playing an essential role for ground, sea and air forces for many national militaries including those of NATO members;
3. **Noting** that the space sector is undergoing fundamental changes due to digitalisation, components miniaturisation, and the growing role of private actors;
4. **Recognising** that the so-called realm of “new space” promises enormous scientific and economic rewards but also poses new risks;
5. **Affirming** that among these risks are the potential presence of bad actors, the development of weapons systems that operate in orbit and from Earth, the vulnerability of communications – from earth observation and digital space architecture to cyber and even physical attacks – as well as the proliferation of man-made debris in vital orbits;
6. **Concerned** by the increasingly disruptive nature of space warfare programmes in China and Russia, including China’s growing use of Anti-Satellite (ASAT) capabilities and Russia’s satellite jamming and spoofing capabilities;
7. **Applauding** international collaboration in space across a range of areas including access to launch vehicles, and shared information on accidents in launch and in space, as well as scientific projects like the International Space Station and the Mars Rover;
8. **Recognising** that NATO operations are highly dependent on national space capabilities in everything from intelligence, ground surveillance, navigation, early warning and radar to disaster management;
9. **Applauding** the overarching Space Policy which NATO agreed to develop at the Brussels Summit in 2018 and the commitment of Allies to promote the non-militarisation of space;

* Presented by the Economics and Security Committee and adopted by the Plenary Assembly on Monday 19 November 2018, in Halifax, Canada

10. **Acknowledging** that there is a need to update international laws governing space operations on matters ranging from the militarisation of space and space mining to debris generation;
 11. **URGES** member governments and parliaments of the North Atlantic Alliance:
 - a. to work to ensure that space remains an arena of global cooperation despite its importance to national military and intelligence establishments;
 - b. to make a priority of establishing commonly shared rules and norms to provide more effective governance of the global commons in space, particularly as those commons grow more crowded with state and non-state actors;
 - c. to strengthen rules and norms that aim to minimise the problem of debris in orbits in which vital satellite systems are operating, including sharp restrictions on testing and deploying anti-satellite weapons systems;
 - d. to deepen collaboration with private companies to ensure that their satellites are protected from any cyberattack;
 - e. to develop more effective fora engaging major players in space with the goal of fostering meaningful dialogue and decision making on space policy;
 - f. to encourage NATO to develop a focused space policy, interoperability and capability sharing across the Alliance, not because space will be the next frontier of conflict, but because NATO capabilities are increasingly dependent upon space-based assets.
-

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RESOLUTION 450

on

ENERGY SECURITY: A STRATEGIC CHALLENGE FOR THE ALLIANCE*

The Assembly,

1. **Acknowledging** that energy security is a major concern for the North Atlantic Alliance as overreliance on any single supplier of energy for Europe leaves NATO members strategically vulnerable;
2. **Applauding** the European Commission's investigation into the opaque pricing of Russia's gas monopoly and efforts to increase connectivity in energy markets;
3. **Supporting** the efforts made by the European Commission to reform European energy markets by introducing liberalisation measures, building new linkages in energy infrastructure networks, and challenging Russia's monopolistic commodity-pricing practices;
4. **Recognising** the important contributions that new pipelines networks, like the Southern Gas Corridor from Azerbaijan to Southern Europe, and the planned EastMed gas pipeline from the South East Mediterranean sea to Europe, can make to collective energy security;
5. **Noting** that advancements in hydrofracking, Liquefied Natural Gas (LNG), and renewables offer partial alternatives to energy sourced through unstable regions of the world;
6. **Aware** that Russia's use of natural gas as a tool of political coercion, as it was used against Ukraine in 2006 and 2009, can trigger major supply interruptions for Europe;
7. **Alarmed** by the destabilising effects and undue influence that overreliance on Russian energy can have on Europe and the Alliance, especially when Russia actively engages in foreign election interference as well as other forms of political subterfuge while continuing to occupy Crimea and support Russian-led military forces in the temporarily occupied territories of Ukraine in the Donetsk and Luhansk regions;
8. **Aware** that conventional threats to energy infrastructure from state and non-state actors remains a chief concern of NATO members;

* Presented by the Economics and Security Committee and adopted by the Plenary Assembly on Monday 19 November 2018 in Halifax, Canada

9. **Recognising** that even if energy security is mainly the concern of governments and international institutions like the European Union and the International Energy Agency, there is nonetheless an important role for NATO to play in ensuring energy security across the Alliance;
 10. **Welcoming** NATO's efforts both to factor energy security considerations into its strategic vision and to defend critical energy infrastructure from physical and cyberattacks;
 11. **Cognisant** that even if individual members have differing perspectives on how to best ensure energy security, the Alliance remains resolutely committed to promoting the secure, affordable, and uninterrupted flow of energy in Europe and North America;
 12. **URGES** member governments and parliaments of the North Atlantic Alliance:
 - a. to promote transparency, diversification, and security within European energy markets and throughout the North Atlantic region;
 - b. to accordingly invest in renewable energy and other energy sectors that provide a partial alternative to Russian gas and oil;
 - c. to work to bring more oil and gas from the Caucasus, Central Asia and the Eastern Mediterranean to European and world markets and to identify potentially profitable and secure infrastructure to make this possible;
 - d. to be prepared for cyberattacks aimed at energy infrastructure;
 - e. to counter corruption in the energy sector;
 - f. to demonstrate a commitment toward greater solidarity and security by building more interconnectors and LNG hubs, while working for an even higher level of electrical grid integration;
 - g. to ensure that Ukraine is not isolated in energy security terms despite Russian efforts both to build pipelines around that country and to raise the risk of investing in Ukraine's energy industry.
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NATO PARLIAMENTARY ASSEMBLY

POLITICAL COMMITTEE (PC)

INSTABILITY IN THE SOUTH

General Report

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General Rapporteur

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I. INTRODUCTION

1. The Arab uprisings of 2011 (and their national aftermaths) have led to a collapse of the regional order, thus transforming the Southern Mediterranean shores into a basin of persistent instability. The continuing volatility and conflicts in NATO's southern neighbourhood directly affect the security of the Alliance. Threats emanating from terrorist groups and the migration crisis are largely due to economic, social and political factors as well as weak governance in NATO's Mediterranean partners.

2. At the Warsaw Summit NATO Heads of State and Government agreed to put a premium on pursuing a 360-degree security approach. In this context, the Allies agreed to increase their support "to the efforts of the international community in projecting stability and strengthening security outside their territory, thereby contributing to Alliance security."

3. While progress has been made in tackling the manifold challenges, the overall security and stability of the region remains volatile and the situation in some countries has even deteriorated. Due to the complexity of the crises, the situation is not expected to improve soon. Therefore, if the Alliance wants to stabilise its southern neighbourhood it needs to continue, and indeed increase, its attention and support for its partners in the Mediterranean.

4. After providing a brief update on the recent developments in Syria and Iraq your Rapporteur briefly analyses the key drivers promoting insecurity and instability in North Africa. The paper argues that the continuing volatility of the region is also impacted by developments to the South, particularly in the Sahel zone and the Gulf of Guinea. The Rapporteur concludes by providing a brief overview of NATO's efforts in support of its Mediterranean partners.

5. The report is an update of the Assembly's monitoring of the developments in the Middle East and North Africa (MENA) region and serves as a basis for discussion among the members of the Political Committee and the Assembly as a whole.

II. THE SITUATION IN SYRIA AND IRAQ: AN UPDATE

A. SYRIA

6. The war in Syria, which entered its seventh year in March 2018, has had a devastating effect on the population and the infrastructure of the country. The conflict is a major source of instability far beyond Syria's borders, fuelling radicalisation, refugee flight and tension between outside powers. Since the beginning of the conflict in 2011, vast parts of the country have been destroyed, more than 400,000 people have been killed, approximately 6.5 million people have been internally displaced and almost 5.6 million Syrian refugees have registered with the United Nations High Commissioner for Refugees (UNHCR).

7. The military, intelligence and logistics support provided by Russia, Iran and Hezbollah has enabled the Assad regime to regain control of large swaths of the country. With the military balance tipped in their favour, Syrian government forces, backed by their Russian and Iranian allies, have recaptured the Damascus suburb of Eastern Ghouta after a five-year siege. Several reports have accused the Assad regime of using chlorine gas as part of their airstrike campaign. If these allegations are confirmed, the incident in Eastern Ghouta once again demonstrates the blatant disregard of the Syrian regime for the international agreements it has signed, including the Chemical Weapons Convention. The international community needs to hold the Assad regime accountable for the use of chemical weapons against its own people. Your Rapporteur wants to point out that in a joint statement on August 21, 2018 France, the United Kingdom, and the United States warned the Syrian regime that they would not tolerate the use of chemical weapons in any assault on Idlib.

8. While Russian President Vladimir Putin, Turkish President Tayyip Erdogan, and Iranian President Hassan Rouhani failed to agree on a ceasefire at a meeting in Tehran on 7 September 2018 Russia and Turkey announced an agreement to establish a demilitarised zone around Idlib province on 18 September. However, at the time of writing the forces of the Syrian regime are preparing to launch an offensive against the rebels' last stronghold in Idlib in the north-west of the country. Idlib province is mainly controlled by the jihadist alliance Hayat Tahrir al-Sham (HTS), the core of which is al-Qaeda's former Syrian affiliate Jabhat al-Nusra. Although Turkey, Russia, and Iran had agreed to establish a de-escalation zone in the area in September 2017 fighting has intensified since December 2017, when government forces, boosted by Russian air support, launched a major military campaign to dislodge HTS and conquer the province. There is considerable concern about the consequences of a military assault on Idlib; an official from the United Nations Office for the Coordination of Humanitarian Affairs (OCHA) warned that an attack could create the century's "worst humanitarian catastrophe" (AFP, 2018). Idlib, the last remaining stronghold of the opposition, is home to an estimated 3 million civilians, at least 1.2 million of whom are internally displaced, and an estimated 70,000 rebel fighters.

9. The involvement of foreign actors has further complicated the already complex situation in Syria. In the North-Western province of Afrin, in the close vicinity of the conflict in Idlib, Turkey has launched Operation "Olive Branch" against the People's Protection Units (*Yekîneyên Parastina Gel*: YPG) and Women's Protection Units (*Yekîneyên Parastina Jin*: YPJ), the armed wings of the Kurdish Democratic Union Party (*Partiya Yekîtiya Demokrat*: PYD). The Turkish offensive began in January 2018, shortly after the United States signalled an open-ended military presence in Syria as part of a broader strategy to prevent the resurgence of Daesh. In this context, a US military spokesperson announced plans to create a 30,000-strong Syrian border protection force drawing on the Kurdish-led Syrian Democratic Forces (SDF). While Turkey's stated objective is to remove the PYD from its southern borders, observers have argued that another aim of the operation is to convince the United States to reverse its support for Kurdish forces as the anti-Daesh campaign draws to a close.

10. Turkey's operation "Olive Branch" in Northern Syria also exposed differences in the Allies' Syria policy. As part of their campaign against Daesh, the United States has provided the YPG-dominated SDF with military equipment and supported their ground-combat operations with airstrikes and Special Forces operations. Meanwhile, under the leadership of the PYD, *de facto* autonomous governance structures were established in the YPG / YPJ-held territories (commonly referred to as "Rojava", short for "*Rojavayê Kurdistanê*" / "Western Kurdistan"). Turkey considers the recognition of an autonomous Kurdish region in Syria in the close vicinity of its border as a major security threat. More specifically, Ankara is concerned that this would allow the PYD, which it regards as the Syrian branch of the PKK, to use Northern Syria as a staging ground for attacks on Turkey. Moreover, Turkey is apprehensive that an autonomous Kurdish region in Syria would encourage similar moves by Kurdish separatist groups within Turkey.

11. These events unfold against the backdrop of continuing international efforts to defeat Daesh. After the liberation of Raqqa by US-backed SDF forces in October 2017 Daesh no longer controls any major Syrian city. However, Daesh's battlefield losses have not eradicated the organisation or its ideology. Instead, it seems likely that the group will adjust its tactics and transition from open combat to insurgency. Moreover, other fighters may seek refuge in ungoverned spaces across the region or return to their home countries, where they could continue to inspire and enable attacks. In any case, the lack of a joint, coordinated, Allied approach towards Syria risks eroding the achievements in the fight against Daesh and other terror groups.

12. The situation on the ground is compounded by the fact that negotiations to end hostilities and find a political settlement have not produced any progress either. The two main peace initiatives held another set of talks in January 2018 – the UN-led Geneva process convened in Vienna, while a Syrian National Dialogue Congress organised by Russia, Turkey and Iran took place in Sochi. Both peace conferences focused on constitutional issues, but longstanding disagreement over the fate of

Syrian president Bashar al-Assad continues to stall the negotiations. As the military position of the Assad regime is improving, its diplomatic stance is hardening.

B. IRAQ

13. In Iraq, Daesh is on the defensive as well. The Iraqi Security Forces (ISF), backed by coalition air and special operations, were able to regain control over one third of the country that had been under Daesh's control at the height of the group's power. On 9 December 2017, half a year after the liberation of Mosul, Iraqi Prime Minister Haider al-Abadi proclaimed victory over Daesh in Iraq and the end of major military campaigns. However, like in Syria, the group's territorial contraction does not mean the end of Daesh as an organisation, but rather a shift to insurgency tactics. In addition to frequent small-scale attacks against security forces and civilians, the group maintains the ability to conduct high-profile attacks. For instance, it claimed responsibility for two concerted suicide bombings in central Baghdad on 15 January 2018, killing at least 38 people.

14. The root causes that led to the emergence of Daesh in Iraq remain. Prime Minister al-Abadi has engaged in efforts to reverse the sectarian policies of his predecessor, Nouri al-Maliki, who consolidated power among Shi'a elites. However, years of Daesh's occupation and targeting of the Iraqi Shi'a and Christian populations in particular have exacerbated sectarian tensions. Reconciliation is likely to be a difficult endeavour, and the low turnout in the national parliamentary elections in May reveals the population's growing disillusionment with the ruling elites and the political system. The violent protests that erupted in the south of the country in July and September 2018 were clear showcases of the Iraqis' growing discontent over corruption, unemployment and lack of basic services such as electricity and clean water. According to the 2017 youth unemployment index of the World Bank, almost 18% of the 15-24 old, who represent 62.8% of the Iraqi population, are unemployed. Soaring unemployment, especially in the areas that were once controlled by Daesh, continues to fuel further instability. At the time of writing no government has been formed; it appears doubtful that Haider al-Abadi, who acts as caretaker Prime Minister, will be able to secure a second term.

15. Over three years of intense combat have left vast parts of the country in ruins. In February 2018, Kuwait hosted an international fundraising conference dedicated to Iraq's post-war reconstruction. While participants made pledges worth USD 30 billion, mostly in credits and investments, the conference fell short of raising the USD 88 billion the Iraqi government estimates necessary to rebuild the country's shattered economy and infrastructure. In addition, about 2.6 million Iraqis remain internally displaced and 8.7 million are in need of humanitarian assistance. While Iraq does have meaningful energy resources that could be used for reconstruction, corruption remains an important impediment to attracting international investors. Transparency International's 2017 Corruption Perceptions Index ranked Iraq as the 11th most corrupt country (169th out of 180 countries).

16. The conflict has also put additional pressure on the already strained relationship between the federal government in Baghdad and the Kurdistan Regional Government (KRG) in Erbil. Proposed by KRG President Masoud Barzani, the KRG held a referendum on Kurdish independence in late September 2017. The federal government in Baghdad declared the referendum "illegal" and did not recognise its results. In addition to introducing punitive measure against the KRG, including a ban on international flights to the regions under Kurdish control, Prime Minister Haider al-Abadi also ordered the ISF to retake Kirkuk. This effectively restored Baghdad's control over the disputed territories that Kurdish Peshmerga fighters had taken from Daesh in 2014. The loss of Kirkuk plunged Kurdistan into economic and political problems and led to the resignation of KRG President Masoud Barzani. The ban on international flights to the Kurdish controlled regions was lifted in March 2018. Most recently, the Iraqi parliament approved the new budget, which cuts the KRG's share from 17% to about 12,6%. Efforts to move beyond the standoff have largely proved unsuccessful so far.

17. Manoeuvring between state and sub-state or non-state actors remains a challenge within Iraqi security forces as well. Most notably, the Popular Mobilization Forces (PMF), an umbrella organisation of about 60 militias that formed as the ISF collapsed under Daesh advances in 2014, both strengthens and contests state security structures. A law passed in November 2016 vaguely defines the PMF both as an independent military institution and as part of the official security forces under the auspices of the Prime Minister's office. However, the 60,000-strong PMF cannot be understood as a unified bloc. While some of these groups are expected to disband or integrate into state security forces, others formed long before 2014 and are likely to resist any moves aiming to curtail their independence. Although a number of security reforms have been implemented there are still numerous forces and militias which operate outside the control of the federal government. Some PMF factions are now entering the political sphere, as part of the political alliance Fatah, or Conquest, which has gained the second place in the Iraqi elections. In any case, how to deal with these groups will be one of the challenges in building a stable and peaceful Iraq after defeating Daesh.

18. Another important issue that will influence the future development of Iraq is its bilateral relationship with its neighbours, particularly with Iran. It remains to be seen if, and how, the new government in Baghdad will (re-) define Iraq's relationship with Iran, particularly with regard to Tehran's influence in the country.

III. DEVELOPMENTS IN NORTH AFRICA

19. Instability in Syria and Iraq has repercussions beyond their borders and exacerbates an already volatile security situation in North Africa. The uprisings of 2011 toppled the governments of Tunisia and Libya, while the political ramifications in Algeria, Mauritania and Morocco were not as dramatic. Despite their profound differences, however, the five countries face similar challenges that impact European and Euro-Atlantic security. Albeit to varying degrees, they are all confronted with challenging demographic developments (youth bulge), a stagnant economy, illegal migration and violent forms of political Islam. The situation in Libya, in particular, continues to adversely affect the security in the region. Vast swaths of its territory elude government control and Libya's society is deeply divided between different factions. The action plan for Libya, proposed by the United Nations' Special Envoy to Libya, Ghassan Salamé, to revive and extend the Libyan Political Agreement (LPA) has not been implemented. At the time of writing more than 100 people have been killed in the fights between rival militias in Tripoli despite a UN-backed ceasefire since late August.

A. ECONOMIC STAGNATION AND YOUTH UNEMPLOYMENT

20. Economic and social challenges are key drivers of regional instability. Despite their differences, all countries in North Africa suffer from high levels of unemployment. In 2017 about 12% of the total population in North African countries was out of work, a number that is twice as high as the average unemployment rate in middle income countries. Mitigating these challenges is complicated by a particular age structure in North African societies, which is commonly known as the 'youth bulge'. Except for Mauritania, birth rates across the region have been decreasing in recent years, and the countries under investigation are about to reach a "demographic turning point". Currently, however, young adults account for a large proportion of the population in North Africa while the job creation rate lags behind the growth of the working-age population. The political instability that has troubled the region in recent years, has exacerbated the situation, causing a decline in tourism and foreign direct investment.

21. These factors put additional pressure on the region's already strained labour markets. The numbers draw a clear picture: with about one third of the 15 to 24-year-old population out of work, the youth unemployment rate in North Africa is higher than in any other region in the world. Moreover, those who manage to enter the workforce often suffer from precarious and informal working conditions. High-skilled, university-educated young people are frequently underemployed, i.e. they

are unable to find adequate jobs according to their skills and availability. In sum, many young people are stuck in economically vulnerable situations or in jobs that do not meet their expectations. Particularly disadvantaged are women and those living in rural areas.

22. The Arab uprisings of 2011 showed that economic hardship of this magnitude involves serious risks for the region's socio-political stability. The turmoil that swept through the area seven years ago started with Tunisia's Jasmine Revolution and was prompted by frustration over deteriorating socio-economic circumstances. The push for Ben Ali's ouster was first and foremost motivated by the belief that democracy would entail a more inclusive development and new economic opportunities. In a poll for the Arab Barometer later in 2011, 68% of Tunisians stated economic conditions were of primary concern for the country whereas only 2% saw the democratic transition as the country's most important challenge.

23. The issues of economic stagnation and youth unemployment remain highly relevant across the region. In January 2018, many Tunisians marched the streets of Tunis again. Opposing the recently passed budget law, which entails new austerity measures, protesters called for "a fall of the budget", slightly adapting the 2011 demands for a fall of the regime. The re-emerging protests are indicative of a growing sense of injustice and frustration caused by the post-revolutionary leaders' failure to deliver on their promises to redress the population's economic grievances. The successive failure of nine cabinets to curb unemployment and inflation have led President Beji Caid Essebi in July 2018 to call for the resignation of Prime Minister Chahed. On the other hand, Tunisia's continuing decentralisation efforts can, over time, generate a more equitable distribution of resources, thus improve service delivery across the country.

24. In Egypt, the government launched an ambitious economic reform plan in 2016 to attract foreign direct investment and convince international donors of the government's ability to recalibrate the economy. Although the reforms were successful in securing a USD 12 billion International Monetary Fund (IMF) loan, they have also increased economic hardship for the majority of Egyptians. At the same time, fears of instability and terrorism took their toll on the country's tourism sector, one of the Egyptian economy's key streams of revenue and an essential source of foreign currency earnings. While more than 14 million visitors came to Egypt in 2010, numbers dropped below 5.3 million in 2016. The government of Abdel Fattah al-Sisi has not been able to deliver the prosperity and security it promised, and the austerity measures that were introduced harshly impact Egypt's middle class and the poor in particular.

25. The civil war in Libya had detrimental effects on the country's vital infrastructure as well as on oil and gas production. Smuggling and human trafficking have become highly lucrative, thus alluring young adults with more opportunities and higher revenues. Smuggling is increasingly seen as an ordinary occupation, rather than a crime. While there have been a few signs recently that Libya's oil production is slowly recovering, the fractured political landscape and the rampant corruption cast a shadow over the country's economic development.

26. Algeria's and Mauritania's socio-economic situation is also volatile, due to declining prices for oil in Algeria and extractive resources in Mauritania. Riots by disenchanted youth in Algeria's South in 2016 already indicated that the country's social peace is threatened. The unresolved succession question in Algeria and the constitutional issue in Mauritania (i.e. whether President Mohamed Ould Abdel Aziz will change the constitution to allow him another term) further exacerbate socio-political tensions.

B. ILLEGAL MIGRATION AND HUMAN TRAFFICKING

27. North Africa continues to be both a destination as well as a transit hub for illegal migrants from the Sahel and Sub-Saharan Africa. Seeking to reach Europe, refugees and migrants often traverse the Sahara and then wait in Algeria for a suitable opportunity to reach Europe via Morocco, Tunisia or Libya. Entering directly by crossing Libya's Southern border is just as common. The European Union estimates that about 90% of illegal migrants come from or through Libya. Taking advantage of the porous borders and general lack of state authority in the country, African migrants that travel to Libya either search for economic opportunities or use it as a stepping stone to migrate across the Mediterranean to Europe.

28. Another reason why Libya, already home to more than 200,000 internally displaced people (IDP), is a particular cause for concern is the proliferation of the slave trade. Many migrants are extremely vulnerable to ill treatment and abuse by traffickers and armed groups. The International Organization for Migration (IOM) drew attention to this issue in 2017. There are numerous reports about Sub-Saharan migrants being sold and bought, then held captive in disastrous conditions, where they often suffer numerous forms of abuse, including forced labour, torture and sexual violence.

29. To protect migrants from criminal networks along travelling routes, the African Union, the European Union and the United Nations established a joint task force in November 2017. The second half of 2017 saw a significant drop in the number of migrants attempting to reach Europe through the central Mediterranean. This is likely due in part to the efforts of one-member state, Italy, which engaged in a cash-for-migration-control strategy for Libya. The medium-to-longer term impact on Libya, particularly with regard to institution building, remains to be seen, as this approach also resulted in the co-option of militias which had been deeply involved with human smuggling before. More generally, a European focus on limiting the migration flow from the MENA and Sub-Saharan regions risks strengthening the power and influence of militias and other groups whose main concern is resource predation.

C. JIHADISM / MILITANT ORGANISATIONS / TERRORISM

30. The continuing instability of the MENA region provides favourable conditions for jihadist groups, as it facilitates recruitment and allows them to operate relatively freely. This has led to a revival of al-Qaeda in the Islamic Maghreb (AQIM) and allowed Daesh to expand westwards.

31. In Libya, in addition to divisions along tribal lines, three nominal governments are vying for dominance. The resulting political instability and competition for natural resources are key factors of the chaos and insecurity in Libya. The country's fragmentation and its vast ungoverned spaces allow non-state actors, including violent extremist groups, to operate and build support. Daesh franchises made significant territorial gains in Libya in 2015, making the country its first target to expand outside of Iraq and Syria. Although the group lost its stronghold in Sirte in December 2016 and no longer controls territory in Libya, it remains active throughout the country. Libya's precarious security situation has serious repercussions on the proliferation of violent extremist groups in the entire region. The civil war resulted in the unregulated proliferation of weapons, explosives and military equipment throughout the region via established trafficking routes.

32. The consequences are acutely felt in Tunisia as well, where a surge of terrorist incidents since the 2011 uprisings threatens the fragile democratic transition. Terrorist groups increased their activities considerably after 2011, as demonstrated by the wave of high-level attacks in 2013 and 2015. The developments in Tunisia and Libya seem to confirm lessons from Syria and Iraq, "that jihadists' influence is more a product of instability than its primary driver".

33. In Egypt, Daesh-affiliated groups continue to wage an insurgency in the Northern part of the Sinai Peninsula. While their attacks initially targeted security forces, terrorist groups are increasingly

focusing on civilians, most notably Coptic Christians and Sufi Muslims. The attack on the al-Rawda mosque in November 2017 killed more than 300 people, making it the deadliest terrorist attack in Egypt's recent history. Moreover, jihadist groups have demonstrated their ability to expand their activities beyond Northern Sinai to Central and Southern parts of the Peninsula as well as to urban centres in the Nile Delta. The security forces' harsh crackdown on all Islamist groups and the government's heavy-handed approach towards the opposition in the context of the Presidential elections in March 2018 risk polarising communities and further fuelling radicalisation.

34. In addition to jihadi activities in the region, North Africa is one of the top sources of foreign fighters who leave their home countries to join militant groups in Syria and Iraq. Tunisia has produced the highest number of foreign fighters per capita globally. Authorities in the region have to find ways to stem radicalisation before people are able to leave the country. They will eventually have to face the challenge of how to prevent returning fighters from filling the ranks of AQIM- and Daesh-affiliates in North Africa and reintegrate them into society.

IV. SECURITY ISSUES IN THE SAHEL AND THEIR IMPACT ON THE STABILITY IN THE MENA REGION

35. Stability in North Africa is not only affected by developments within these countries' borders, but also to a large extent by spill-over from the Sahel region. In the South, the Mediterranean littoral states share borders with the Sahelian states of Mauritania, Mali, Niger, Chad and Sudan, all of which face numerous security challenges, including a lack of control over their territories and the inability to manage their borders effectively.

36. Due to weak governance, high levels of population growth, persistent poverty, armed conflict, and the devastating consequences of climate change the security situation in the Sahel is extremely precarious. The Libyan conflict has further exacerbated the region's fragile security situation. In addition to the high number of IDPs in the county, the fighting has unleashed a stream of displaced people, weapons and armed combats from Libya to the Sahel. The collapse of the Libyan state has caused a proliferation of non-state actors across borders and regions, rendering the traditional division in security terms between North Africa and the Sahel obsolete.

A. DEVELOPMENTS IN MALI

37. The 2012 jihadist insurgency in Mali alerted the world to the fragility of the Sahel region. The collapse of the Libyan state prompted a surge of arms and trained militants into Mali. Returning fighters swelled the ranks of AQIM and affiliated jihadist organisations as well as Tuareg rebellion groups in Mali, where they joined forces to launch a large-scale insurgency against the Malian state. These groups had widespread access to weapons and held deeply violent and anti-Western ideology. The French-led intervention in January 2013, Operation Serval, was aimed at dismantling these groups before they gained more power and influence.

38. Although the intervention managed to push back the insurgency and restored the legitimacy of the Malian state, the security situation in Mali's Northern and Central provinces remains unstable. Little progress has been made in implementing the "Bamako Agreement" of 2015, which was supposed to initiate an era of peace and stability in the country. As a result, disillusionment and frustration among the population are growing – as is the risk that demobilised militants may take up arms again. Instead, insecurity has increased and spread to other areas of Mali. Jihadist attacks have increased in numbers, sophistication, and scope not only in Northern and Central Mali but also in Western Niger and Northern Burkina Faso. There are also signs that Daesh and al-Qaeda-affiliated militants cooperate and that fighters from other MENA regions are swelling their ranks.

B. AL-QAEDA IN THE ISLAMIC MAGHREB'S 'SAHELISATION'

39. The developments in Mali are indicative of the broader security concerns caused by violent extremist groups that emerged in North Africa and shifted their focus to the Sahel. Established during the Algerian civil war, the Salafist Group for Preaching and Combat (GSPC) continued to operate after the war had ended and eventually pledged allegiance to al-Qaeda in 2007. Since then, the group has rebranded itself as al-Qaeda in the Islamic Maghreb (AQIM) and developed into the region's most significant terrorist organisation in terms of number of members and potential for violence.

40. Rather than defeating the terror organisation, Algerian counterterrorism efforts have pushed AQIM to relocate to Algeria's southern neighbours. There, the group found a safe haven in the Sahel region's vast open spaces and porous borders. Exploiting the Sahelian states' weak counterterrorism capabilities AQIM established itself and forged close ties with local communities and tribes. It was able to incorporate pre-existing grievances in the narrative of militant Islamism, for instance with parts of the marginalised Tuareg population in Mali and Niger. Over the past decade AQIM was thus able to extend its foothold beyond Algeria to Niger, Tunisia, Mauritania, Chad, Libya and Mali.

C. BOKO HARAM AND THE LAKE CHAD BASIN CRISIS

41. Besides Libya's South-West (the Fezzan), the Lake Chad basin is considered a key centre of jihadism and a transit hub for smuggling people and goods. The basin region, spanning the borders between Chad, Cameroon, Nigeria and Niger, is an example of the devastating consequences of environmental degradation and violent conflict. The drying-up of Lake Chad to less than 10% of its size in 1963 has had severe consequences for the approximately 50 million people living in the area. Water shortages, crop failures and collapsed freshwater fisheries have accelerated poverty and tensions between different groups competing for the scarce resources that remain.

42. Apart from these long-term challenges, the region is strained by an almost decade-long terror campaign by the jihadist group Boko Haram. Established in Northern Nigeria in 2002, the group became increasingly violent after the death of its founder in 2009 and spread in the broader Lake Chad area to Cameroon, Chad and Niger. In 2014, the Multinational Joint Task Force (MNJTF), comprising forces from Benin, Cameroon, Chad, Nigeria and, until recently, Niger, launched a crackdown on Boko Haram. As a result of growing military pressure, the group's members split into three factions – one extremely violent faction, a second that pledges allegiance to Daesh and a third that aligns with al-Qaeda. Boko Haram was classified as the world's deadliest terrorist group in 2014, but casualty numbers dropped significantly following the group's military defeat by the MNJTF.

43. Nevertheless, the security situation in the Lake Chad basin remains extremely fragile, causing severe humanitarian hardship and security repercussions beyond the directly affected area. According to the latest UN report on West Africa and the Sahel, more than 5 million people in the basin area are currently receiving humanitarian assistance and some 2.4 million people suffer from forced displacement.

D. MARITIME SECURITY IN THE GULF OF GUINEA

44. Another source of instability in the region is the Gulf of Guinea, where piracy has surged in recent years. Attacks have primarily taken the form of low-level robberies targeting oil tankers and cargo vessels. Recently, however, kidnappings for ransom have become more prevalent, as the decline of global oil prices has reduced the financial benefits resulting from oil theft. These attacks are increasingly violent with assailants using more sophisticated weaponry such as AK-47s and various types of machine guns.

45. This adversely affects the advancement and prosperity of Africa's vital blue economy. Ninety percent of Africa's trade is carried by sea with the Gulf of Guinea functioning as an important transit

hub, most notably for petroleum products. Maritime security is crucial to extract revenue from the 5.4 million barrels of oil produced in the Gulf every day. In the wrong hands, gains from oil theft may contribute to the financing of terrorist activities in the Sahel.

46. Moreover, piracy poses a direct threat to seafarers and vessels transiting or operating in the region, including those flagged by NATO member states. Surpassing the waters off the Horn of Africa in terms of piracy and armed robbery at sea, the Gulf of Guinea is now considered to be the most dangerous region in the world for seafarers. According to the International Chamber of Commerce, there were 46 incidents of piracy and armed robbery in the area in 2017, including 10 incidents of kidnappings at sea. The number of unknown cases is estimated to be significantly higher, as reporting these incidents negatively affects corporate safety records and has few tangible benefits. Western crew members are frequently targeted, as they can be ransomed for more money in case they are captured.

V. REGIONAL SECURITY IN THE MENA REGION AND NATO

47. In light of the multifaceted challenges emanating from the South, the 2016 Warsaw Summit stipulated projecting stability and strengthening security in the MENA region as priority goals for NATO. Since then, the Alliance has been involved in the region in a number of ways, including military operations, training missions and partnership building.

48. A NATO Hub for the South, based at NATO's Joint Force Command in Naples, was discussed at the Summit in 2016 and agreed upon by NATO Defence Ministers in February 2017. The Hub, formally known as NATO Strategic Direction South (NSD-S), is designed to improve the Alliance's awareness and understanding of the threats coming from Africa and the Middle East through the collection and analysis of shared information and intelligence. The Hub for the South will also further promote partnership, cooperation and dialogue with MENA partners. As such, the Hub is an ambitious project meant to ensure that NATO is ready to project stability in the South at any given time, by coordinating and synchronising the Alliance's activities in a wide range of areas, from counter-terrorism to tackling illicit trafficking of weapons, narcotics and human beings.

49. The Hub, which is an integral part of NATO's "Package for the South", was declared fully operational at the 2018 NATO Summit. It is a welcome addition to EU-NATO cooperation, as it could coordinate with the EU's Permanent Structured Cooperation (PESCO) in the realm of counter-terrorism.

50. NATO's maritime operations in the Mediterranean are crucial to NATO efforts to stabilise the region. To that end, the Allies agreed to launch *Operation Sea Guardian* in November 2016. Led by NATO's Allied Maritime Command (MARCOM), *Operation Sea Guardian* has succeeded *Operation Active Endeavour*, launched in 2001 under the Article 5 framework. In contrast to *Active Endeavour*, which was conceived purely as a counterterrorism mission, *Sea Guardian* aims to boost maritime situational awareness, counter-terrorism efforts, and capacity building in and around the region. Moreover, *Sea Guardian* is also providing the EU's *Operation Sophia* with information and logistics support in the Mediterranean. NATO Allies have also been involved in the EU training programme for the Libyan coastguard to counter irregular migration and smuggling across the Mediterranean.

51. In response to Libya's request for NATO's assistance in providing advice to develop its security architecture, the North Atlantic Council agreed in principle to provide advice to Libya in the area of defence and security institution building, in accordance with the previous decisions of NATO's Heads of State and Government at the Wales and Warsaw Summits. NATO plans to implement a measured and step-by-step approach, taking into account the complex and fluid political and security situation in the country, in complementarity with the support that is already being provided to Libya bilaterally by Allies, as well as by the UN and the EU. The 2018 Brussels Summit affirmed that NATO remains committed to providing advice to Libya in the area of defence and security institution building, and

mentioned the possibility of developing a long-term partnership, which could potentially lead to Libya's membership in the Mediterranean Dialogue.

52. Allies also decided to support the Global Coalition Against Daesh through the deployment of NATO's AWACS surveillance flights, while several Allies committed to provide air-to-air refuelling capabilities. NATO's first AWACS operations had already started by October 2016. At the 2017 Brussels Summit, NATO member states decided to formally join the Global Coalition Against Daesh, thus stepping up the Alliance's efforts. As such, AWACS surveillance aircraft flight time sensibly increased, and NATO agreed to share information with the Coalition. After Daesh's territorial losses in Syria and Iraq, NATO has recently reaffirmed its commitment to the Global Coalition, as it moves from combat operations to stabilisation efforts. NATO's membership in the Global Coalition enables it to take part in the Coalition's meetings at different levels, including on the coordination of training and capacity building.

53. More recently, Allies have begun to gradually increase their involvement in Iraq. On 15 February 2018, at the request of the Iraqi government and the Global Coalition Against Daesh, NATO Defence Ministers agreed to expand the Alliance's military training mission in Iraq. Earlier, from 2004 to 2011, Allied forces had trained 15,000 Iraqi officers under the NATO Training Mission - Iraq (NTM-I). While the mission was discontinued in 2011 due to disagreements over the status of forces agreement, the Alliance agreed to resume its training and capacity building activities in 2015. In April 2016, NATO forces began training Iraqi officers, first in Jordan and later also in Iraq. Training programmes are based on the 'train-the-trainer' approach and focus on countering improvised explosive devices (IEDs), de-mining, military medicine, and civil-military planning. Currently, this mission is based on a small core team, which organises and facilitates mobile training teams, i.e. teams that only stay in the country for short periods of time. NATO Secretary-General Jens Stoltenberg also signalled that the Alliance is considering a more permanent presence of NATO instructors in Iraq and the possibility of building defence schools and academies. At the NATO 2018 Summit, the Alliance also announced the launch of a non-combat training and capacity building mission in Iraq. The role of the mission will be advising Iraqi officials, as well as to "train and advise instructors at professional military education institutions." Overall, NATO's mission in Iraq will be to maintain "a modest and scalable footprint", while supporting the ongoing efforts of the Coalition and other international actors accordingly.

54. The deteriorating security situation in the Gulf of Guinea prompted regional as well as international stakeholders to collaborate in the fight against maritime crime long before 2016. For instance, the Gulf of Guinea littoral states agreed to establish integrated maritime security structures in 2013. Since then, three regional surveillance centres and two coordination centres have started to operate. Other responses to maritime crime in the region have been initiated by the African Union, the Economic Community of West African States (ECOWAS), the Economic Community of Central African States (ECCAS), the International Maritime Organization (IMO), the EU and the G7 Friends of the Gulf of Guinea (G++FOGG). NATO is contributing to this security architecture with the Maritime Domain Awareness for Trade – Gulf of Guinea (MDAT-GoG). Run by the French and British navies, the MDAT-GoG pools security updates, reviews risks and provides guidance on vessel operating patterns in the Gulf area.

55. More generally, NATO maintains a good level of cooperation with the African Union (AU). NATO first assisted the AU in 2005, under the framework of the African Union Mission in Sudan (AMIS), by providing airlift for troop rotations and training, in what was the Alliance's first operation on the African continent. NATO also supported the African Union Mission in Somalia (AMISOM) in 2007, again with airlift support for AU peacekeepers. Aside from specific operations, NATO provides continuous operational, logistic and capacity building support, and is involved in the operationalisation of the African Standby Force through exercises and training. NATO and the AU continue to coordinate their activities and objectives with other organisations, in particular the United Nations and the European Union, and with bilateral partners.

56. In addition to NATO-led operations, Allies contribute to enhancing stability in the South through a number of multilateral or bilateral frameworks. In the Sahel region, for instance, Allies are active as part of Operation Barkhane (France's broader regional counter-insurgency campaign that superseded Operation Serval), the United Nations Multidimensional Integration Stabilization Mission in Mali (MINUSMA), and the European Union's training missions in Mali and Niger. In 2017, Burkina Faso, Mali, Mauritania, Niger and Chad launched the Joint Force of the Group of Five for the Sahel (G5 Sahel), a 5,000-strong multinational counter-terrorism force, to complement the aforementioned missions and prepare for the exit of foreign troops in the long-term. The group is now backed by two Security Council resolutions, has set up its headquarters in Sévaré in Mali and completed its first mission in the border area of Burkina Faso, Mali and Niger last November. However, logistical and funding constraints prevent the force from becoming fully operational, which has prompted the EU, one of the group's major donors, to double its financial assistance.

57. NATO's Partnership Cooperation Menu (PCM) outlines all the cooperation activities open to partners. It comprises a wide range of areas, including activities related to Military Education, Training and Doctrine, Defence Policy and Strategy, Arms Control and Non-Proliferation, Defence Investment, Civil Emergency Planning, Crisis Management, Armaments and Intelligence. Participation by Mediterranean Dialogue (MD) countries in PCM activities has steadily increased over the years. In 2016 as well as in 2017, more than 1,000 activities were offered to MD partners.

58. While NATO efforts to stabilise the MENA region have proved to be at least partially successful, they are insufficient to address the multifaceted threats emanating from its Southern flank. In many cases, NATO is not – and should not be – the first responder. Instead, the Alliance focuses on supporting the efforts of national authorities and multilateral organisations, most notably the AU, the EU and the UN, which are at the forefront of addressing security challenges in the South.

VI. CONCLUSIONS

59. The security challenges emanating from the southern flank remain of serious concern to the Alliance which has therefore a strategic interest in a stable southern neighbourhood. NATO does make an important contribution to the stability of its MENA partners through its political dialogue and particularly through its assistance to MD and Istanbul Cooperative Initiative (ICI) partners. At the 2018 Brussels Summit NATO Heads of State and Government confirmed this commitment and they decided to build a stronger and more dynamic relationship with NATO's southern partners.

60. These decisions represent a gradual honing of NATO's cooperation with the Southern partners; they will deepen the footprint of the Alliance in the region, albeit only incrementally. As the threats from the South are more diffuse than those emanating from its Eastern flank the Alliance has now a "Framework for the South" - but not a fully-fledged strategy towards the MENA. This reflects the constraints that NATO as an organisation is facing when tackling the challenges emanating from the region. The underlying causes promoting instability and conflict on NATO's southern flank are manifold. They include, among others, acute food and water crises as a result of environmental problems, a youth bulge and hyper-urbanisation, as well as lack of social and economic opportunities which facilitate radicalisation and all kinds of extremism. These factors are aggravated by poor governance and weak state institutions. As a political-military organisation the Alliance does not dispose of the necessary instruments to address these issues or to assist MENA partner countries in tackling them. Moreover, the expectations and demands of NATO's MD and ICI partners also differ while their bilateral relationships are sometimes complicated, if not partly antagonistic.

61. So where should NATO go from here? In the view of your Rapporteur, the Alliance needs to address the immediate security threats – which currently are in Iraq and Syria, as well as in Libya.

62. Libya remains a security flashpoint. As long as there is no unified government there will be no progress and the country will remain in a state of chaos. The involvement of foreign actors which

pursue competing agendas and support rival factions is a main factor that has impeded the implementation of the UN action plan. NATO Allies should therefore agree on a joint policy towards Libya and use their diplomatic leverage to influence outside actors to force the actors on the ground to agree to implement the UN action plan. Following this, NATO should provide advice to Libya in the area of defence and security institution building.

63. While NATO is not a player in Syria, the Alliance has a strategic interest in ending the civil war in the country. While the options for NATO, and NATO Allies, appear limited for the time being, NATO should obviously continue its engagement within the international coalition fighting Daesh to defeat the terror organisation on the battlefield. What is more, NATO Allies need to consider if and how they will be prepared to be involved in any post-conflict settlement. While the Assad regime appears to have won on the battlefield the Allies have leverage in shaping post-war Syria as the reconstruction of the country is likely to require some kind of contribution on their part. To that end, NATO Allies need to develop a common approach.

64. In Iraq, the Allies need to sufficiently resource the non-combat training and capacity-building mission that was agreed upon at the 2018 Brussels Summit. Moreover, NATO Allies should consider additional measures to assist Iraq in its efforts to stabilise the country and fight terrorism. For example, in order to improve the effectiveness and sustainment of the Iraqi security structures NATO could expand its activities that promote transparency, accountability and good governance within Iraq's national security institutions and other government structures. NATO has already organised several workshops in the context of NATO Building Integrity Policy.

65. An effective way for the Alliance to increase stability on its southern flank is to help its regional partners build resilience against security threats. NATO should therefore continue its engagement with and support for its southern partners. What is more, the Alliance should also explore ways to further develop its relations regional organisations like the League of Arab States, the Gulf Cooperation Council, as well as with the AU. NATO should coordinate its initiatives with the European Union. In contrast to the Alliance, the European Union - which includes 22 of the 29 Member states of the Alliance and shares the same interests in the MENA region - is playing an important role in economic development, the promotion of good governance, democracy, rule of law and human rights. For example, the European Union's counter-terrorism policy comprises measures which are crucial in improving governance of the partner countries in the South. If applied effectively this can help Iraq, as well as other MENA countries, to address the underlying causes that drive extremism and allow terror organisations as Daesh to thrive. However, NATO and the EU can only provide assistance; the ultimate responsibility for developing good governance rests with the partner countries. Therefore, NATO needs to encourage MD partner countries to work to foster inter-ethnic and inter-sectarian reconciliation and to pursue an inclusive political process.

66. Finally, your Rapporteur wants to stress once again that it is crucial that NATO Allies provide the necessary resources to implement the decisions already taken as well as the ones they will take in the future. If the Allies were to limit themselves to distributing mere declarations without offering the necessary military hardware to underpin the operations this would not only be counterproductive to achieving the goals for these operations, but it would also be counterproductive in that it would undermine NATO's credibility in the longer term.

67. NATO's Southern Flank will remain unstable and will require the attention of the Allies. Your Rapporteur intends to continue to focus on this region.

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(PCNP)

SECURITY IN THE WESTERN BALKANS

Report

by [Raynell ANDREYCHUK](#) (Canada)
Rapporteur

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I. INTRODUCTION – THE WESTERN BALKANS AND EURO-ATLANTIC SECURITY

1. Few regions in the world can claim a cultural, religious and demographic diversity richer than the Western Balkans. One of the most famous quotes from Josip Broz Tito, former President of Yugoslavia, states it quite clearly: “I am the leader of one country which has two alphabets, three languages, four religions, five nationalities, six republics, surrounded by seven neighbours, a country in which live eight ethnic minorities” (Hunter, 2017). As NATO focused on Afghanistan, the fight against extremist groups and the challenges from the South, and an increasingly assertive Russia, the Western Balkans region has somehow fallen off the radar screen.

2. This dearth of attention to the Balkans may also be attributed to the prolonged period of relative stability that the region has enjoyed. After the Yugoslav wars in the 1990s and early 2000s, NATO and the EU increased their presence in the region providing peacekeeping and state-building capabilities to the war-ridden countries. This increased involvement and the accession to either organisation by some of the newly independent states fostered a widespread assumption that democratic reform in the region had now become irreversible. However, this was overly optimistic, as developments in recent years have shown.

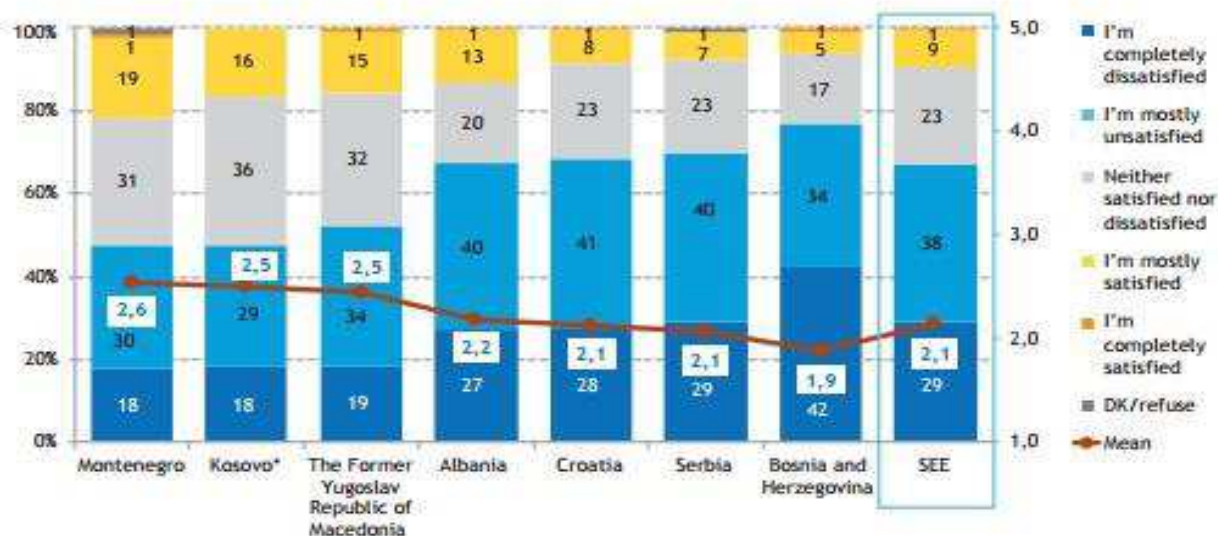
3. This short paper provides a general overview of the security situation in the Western Balkans. It discusses the legacies of the Yugoslav era and its violent conclusion, the emerging security challenges in the region, as well as the region’s Euro-Atlantic integration. Finally, the report recommends that NATO and the European Union become more engaged and encourage the countries of the region to continue their reforms with tangible and achievable goals, which will benefit both the Western Balkans and the Euro-Atlantic area.

II. REGIONAL DYNAMICS – THE LEGACIES OF THE PAST AND CURRENT CHALLENGES IN THE WESTERN BALKANS

A. ECONOMY: THE STATE OF PLAY

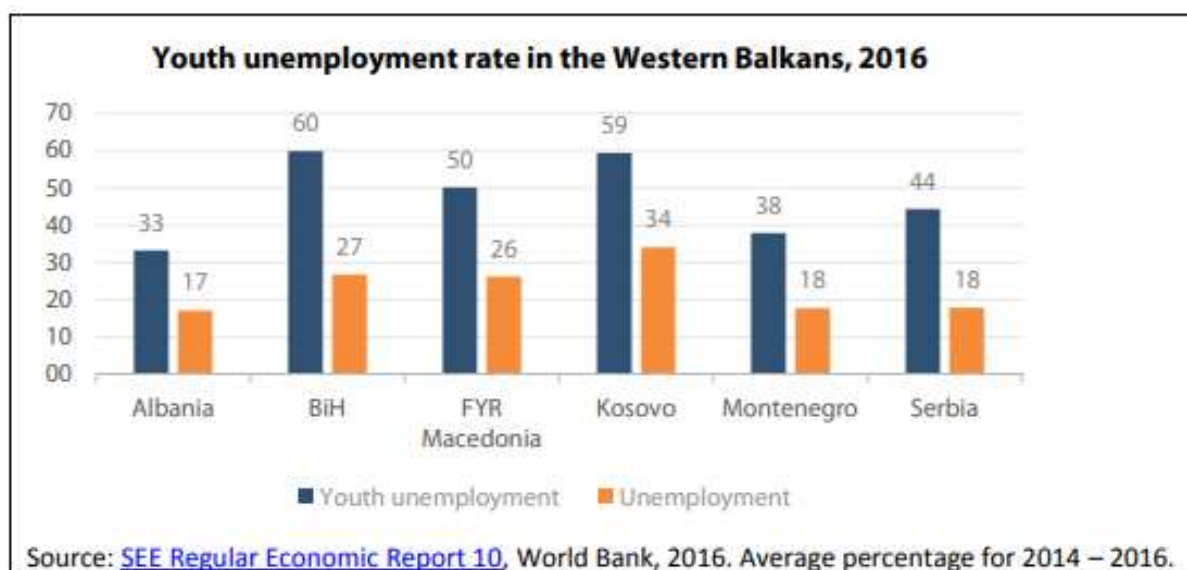
Figure 5: How satisfied are you with the economic situation in your society?

(All respondents - N=7026, share of total, %)



4. Despite predicted improvements, many Western Balkan countries continued to struggle in 2018. At the end of 2017, the World Bank anticipated economic growth to stay above 3% for 2018 and 2019, due to rising consumption, low inflation rates and the improvement of the economic situation worldwide. However, even if this growth figure could be achieved, it would take the Western Balkans 60 years to reach income levels on par with the EU average. Furthermore, several countries have still not overcome the 2008 financial crisis. Serbia, Bosnia and Herzegovina (BiH) and Montenegro have not yet returned to a GDP level on par with what it was prior to the break-up of Yugoslavia. Unsurprisingly, there is significant discontent with the economic situation among the populations of the Western Balkans.

5. Unemployment remains the main economic concern throughout the Western Balkans. According to the World Bank, it is one of the main factors hindering the development of the region; the situation is particularly worrisome for younger generations, with youth unemployment rates surpassing 50% in the former Yugoslav Republic of Macedonia*, BiH and Kosovo. While highly educated youth are able to find a job more easily, the non-competitiveness of salaries encourages them to migrate, causing a brain drain which puts an additional burden on an already aging and shrinking population. This phenomenon is particularly harmful for the less populous countries of the region. High unemployment rates and massive migration make Western Balkans households heavily reliant on remittances. The World Bank estimated that levels of remittance in the Western Balkans are on average around 10% of GDP, with the peak being at 17% in Kosovo. While remittances are believed to be helpful in the short run, they damage national competitiveness and increase the risk of government corruption.



B. NATIONALISM AND BILATERAL DISPUTES

6. The Yugoslav wars remain in the memories of many people in the newly formed Western Balkan countries. Coming to grips with the past has only been partially achieved and reconciliation among the peoples of the Western Balkans is still a work in progress. In a region where historic conflicts, ethnicity and religion are still entrenched, nationalism can all-too-easily be exploited by populists. In this political climate, underlying tensions can resurface and be manipulated at any time. The assassination in January 2018 of Oliver Ivanovic, a controversial Kosovo Serb politician who supported the integration of the Serbians living in Northern Kosovo is a reminder of the enduring tensions and risks caused by nationalism and border disputes in the region (Gallucci, 2018). Even more telling of the depth of issues surrounding these disputes is that following the murder of Ivanovic

* Turkey recognises the Republic of Macedonia with its constitutional name.

the Belgrade and Pristina governments recognised the need to cooperate on the investigation, yet months later had failed to do so.

7. Building trust among the countries of the Western Balkans has been a cumbersome process. A climate of general mistrust among Western Balkan countries has created an environment where countries tend to shun cooperation with each other. This is an obvious obstacle to Euro-Atlantic integration, as cooperation would facilitate and speed up necessary reforms. As a matter of fact, all the Western Balkan countries still have at least one territorial controversy with one of their neighbours. This is a serious issue and the EU Enlargement Strategy of February 2018, in a clear change of policy, stresses that no country will be allowed to join if it still has pending bilateral disputes.

8. While most of these territorial disputes appear manageable in the short- or medium term, two major issues have prevented closer cooperation between the countries of the region.

- Serbia, taking into account UNSCR 1244, still regards Kosovo as an integral part of its territory. The two parties have failed to make any step forward since the EU-brokered 2013 Brussels Agreement, which has faced serious implementation issues (Phillips, 2017).
- The name dispute with Greece has blocked the former Yugoslav Republic of Macedonia's bids to both the EU and NATO for many years. However, in mid-June 2018, following a new round of negotiations Greek Prime Minister Alexis Tsipras and Zoran Zaev, Prime Minister of the former Yugoslav Republic of Macedonia, announced a historic agreement on the name issue. However, given the nationalistic protests in both countries, it remains to be seen if the population will accept the agreement (Casule, 2018).

At the time of writing, the first hurdle to be cleared is a referendum set for 30 September in Macedonia where the public will be asked "Are you for EU and NATO membership by accepting the agreement between the Republic of Macedonia and the Republic of Greece?" Recent polls in the former Yugoslav Republic of Macedonia suggest that there is no consensus on the name question. Meanwhile in Greece, a recent opinion poll by the Proto Thema newspaper showed that "up to 70 percent of Greeks object to the name compromise".

9. The territorial disputes in the Western Balkans are based on ethnic or religious divisions. This is, in effect, both the cause and the result of the split-up of Yugoslavia. Some observers suggested that one of the possible agreements between Serbia and Kosovo would envisage the province of Northern Kosovo, populated by ethnic Serbs, being conceded in exchange for the recognition of independence. While some locals have sought this resolution, it has until recently not been viewed favourably by the NATO Allies and the EU, who now seem more open to the idea. The EU High Representative for Foreign Affairs and Security Policy, Federica Mogherini, has indicated she wants an agreement between Belgrade and Pristina to be reached by the end of her term, and the US National Security advisor John Bolton has stated that he no longer opposes the idea (The Economist, 2018). Reasoning along those lines, however, would open a Pandora's box of territorial claims - the most concerning being the Serb-majority Bosnian constituency of *Republika Srpska* - which would risk altering the current precarious stability of the region (The Economist, 2018).

C. TOWARDS MORE REGIONAL COOPERATION

10. For too long, the countries of the Western Balkans have regarded their relations with their neighbours as a zero-sum game, which has prevented them from addressing the underlying issues, such as the dire economic situation which continues to hamper progress. At this point in time, all the Western Balkan countries have a lower GDP than any other successful applicant to the EU at the time of entry (Peel and Buckley, 2018).

11. It is therefore necessary to encourage countries to start to pursue mutual, overarching goals and overcome parochial interests. Valuable time has been lost, but there is hope in sight. For example, the EU Western Balkans Summit of May 2018 emphasised increasing connectivity in areas from infrastructure creation, notably highways and rail links, to expanding the EU's Energy Union into the Western Balkans through the completion of a Regional Electricity Market and the creation of a single regulatory space under the Energy Community Treaty. These commitments follow last year's EU Western Balkans Summit of July 2017 which laid out a roadmap to improve regional integration. At the Summit, the Western Balkan countries signed the Transport Community Treaty, with the objective of building new infrastructure projects and improving existing ones. The EU will provide part of the funds, with the goal of attracting new investors in the medium term. The Western Balkan countries also agreed to form a Regional Economic Area (REA) to facilitate the flow of goods, services, capital and highly-skilled labour. The project will not be EU-led, implementation will depend on the goodwill of the parties. The creation of the REA is an important step forward. It is not an alternative to EU membership, but it can help advance necessary reforms in the economic realm, thus facilitating accession to the EU.



12. It is especially regrettable that the declaration to establish the Regional Commission for the Establishment of Facts on War Crimes and Other Serious Violations of Human Rights on the Territory of Yugoslavia (RECOM), was not signed at the Summit in London in July 2018. Prevailing issues of competing narratives of the 1990s wars and frequent political tensions that these narratives facilitate were to be addressed by a common fact-finding mission which would be a major step toward regional reconciliation. It is hoped that RECOM, an initiative born out of regional civil society cooperation, will be established in the future.

D. GOVERNANCE AND RULE OF LAW

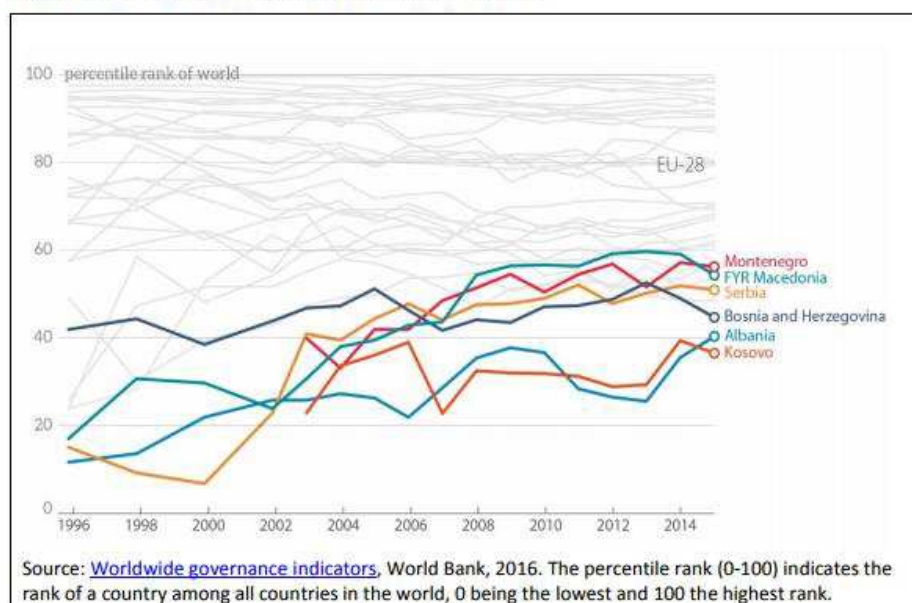
13. Ever since the break-up of Yugoslavia, the dynamics between the newly formed states in the region have been characterised by regional and intra-national tensions. Differences of language, religion and ethnicity were exploited by populist and national leaders, who have all-too-often fuelled them for political and personal gain. Magnifying and distorting populist and nationalistic themes, such as playing up quarrels with bordering countries and ethnic minorities, has led to a marginalisation of economic reform in public discourse in the countries of the region. In the past, the political elites in the Western Balkans have focused more on maintaining the status quo that has kept them in power than on pushing for necessary reforms (Less, 2016; Mujanovic, 2017).

14. As a result, the countries of the Western Balkans are still grappling with longstanding structural deficiencies of the socialist era. There has been some process in introducing Foreign Direct Investment (FDI)-friendly policies, with FYR Macedonia rising to 11th in the World Bank's Doing Business Rankings, and Montenegro, Serbia and Kosovo all being top 50. However, the industrial sector remains uncompetitive and needs urgent modernisation, the banking system is weak, and the poor regional economic integration is further impaired by underdeveloped infrastructure. Corruption even at the highest institutional level remains widespread, to the point that analysts have observed symptoms of state capture (Fouéré and Blockmans, 2017). In Transparency International's Corruption Perceptions Index Western Balkan countries continue to trail behind their European neighbours, with transparency rankings ranging between 64th (Montenegro) and 107th (the former Yugoslav Republic of Macedonia).

15. In the countries aspiring to NATO and/or EU membership the adoption of anti-corruption measures encouraged and promoted by the EU – such as the implementation of preventive anti-corruption bodies, of national anti-corruption strategies, and of the Regional Anti-Corruption Initiative (RAI) – were often not implemented and had little effect. Yet, addressing rule of law on a regional basis has left reforms vague and does not allow for targeted improvements from the different sets of problems that individual nations within the Western Balkans are facing. Moreover, within each individual country, improvements by law enforcement agencies and the judiciary in applying the law still do not root out low-level corruption, resulting in low levels of trust in the judiciary (Marovic, 2017). According to the latest Balkan Barometer, 64% of people in the Western Balkans do not trust their courts and judiciary, 71% perceive it as not independent, and 75% agree that the judiciary is affected by corruption (RCC, 2018).

16. In 2016, according to the EU Communication on the status of enlargement, Western Balkan countries had made little to no progress on the status of corruption since their applications, with one country even sliding back. The Commission reported that the main obstacle towards reform is the lack of political will to implement the legislation in practice, while existing anti-corruption bodies are systematically and intentionally hampered by limited human and financial resources. The 2017 Freedom House's Nations in Transit report highlights that civil society in the Western Balkans is under constant threat, while elections are constantly plagued by visible irregularities. While the EU Enlargement Strategy of 2018 does not provide an assessment of the current status of the fight against corruption, its stark and frank language leaves no doubt that prosperity and a better quality of life in the region can be reached only through serious measures against corruption for it to be "rooted out without compromise".

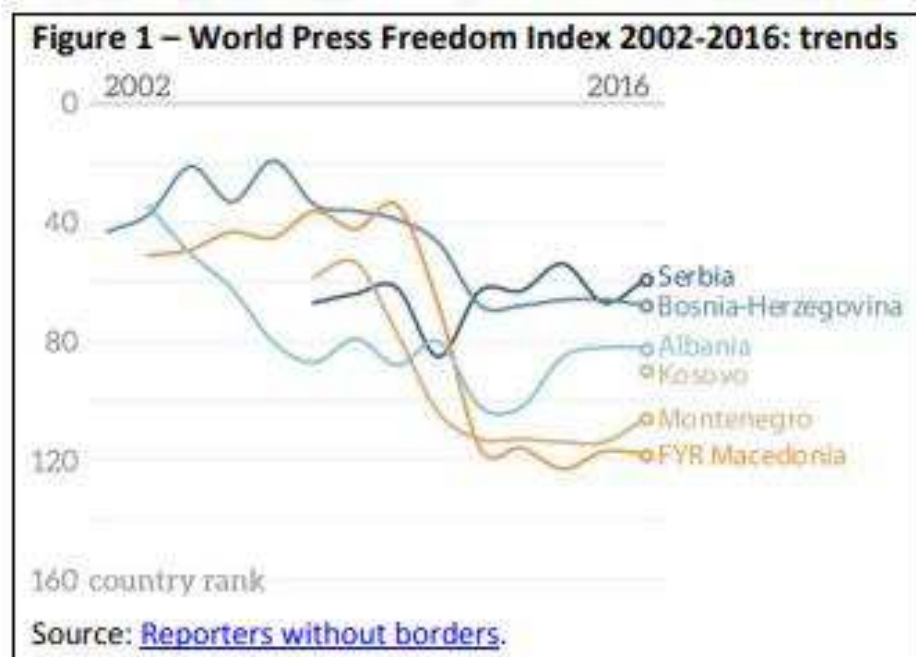
Figure 1 – Control of corruption in the Western Balkans



17. The problems of poor governance and corruption have been facilitated by Western tolerance of these practices, participants of the NATO Parliamentary Assembly's 96th Rose-Roth seminar that took place on 7-9 November 2017 in Ljubljana, Slovenia, learned. As the EU attempts to temper "enlargement fatigue" it has rewarded pro-EU individuals or parties despite shortcomings vis-à-vis the rule of law. This is also made worse by fears of regional instability present since the 1990s, leading to what experts call a 'retreat into stabilocracy' – "the search for stability in Europe's periphery has motivated EU leaders to turn a blind eye to the intimidation of opposition and creeping authoritarianism" (Tcherneva, 2017; Marovic, 2018). The region would be well served by a far higher degree of transparency and accountability. All too often, cronyism and corruption are at the foundation of wealth distribution, as political elites are motivated by a fear of losing access to public monies, while voters are driven by the potential for patronage awards. Avenues must therefore be opened up for new political actors.

18. The current state of freedom of the media across all countries of the region is also alarming. The Media Clientelism Index of 2017 indicated that the situation for media freedoms in the Western Balkans countries has gradually gotten worse during the 2016/2017 period. The report noted such problems as "non-transparent political and financial influence" i.e. "stagnation of media reforms, dubious transfer of ownership... and penetration of organized crime in media ownership". Additionally, the issue of "attacks on journalists and editors as well as on independent media outlets" was observed in all countries across the Western Balkans. As the existing legislation to protect media freedom largely goes ignored, media bias is a serious issue due to clientelism, politicisation, corruption and insufficient political will to promote pluralism. Public service broadcasters have structural flaws, making the news they produce unreliable: the broken and non-transparent funding model causes their editorial policies to be very vulnerable to external pressure. Furthermore, countries are not inclined to share precise information about the ownership of media outlets, nor about the level of public financing towards private media, raising reasonable doubts about their impartiality (Lilyanova, 2017b).

19. Independent reporters are often victims of physical and verbal intimidations, according to the Balkan Investigative Reporting Network (BIRN), which monitors threats and attacks against freedom of speech across south-east Europe. The World Press Freedom Index by Reporters without Borders shows that freedom of the media in the region has consistently declined in the last decade.



III. THE IMPACT OF A CHANGING SECURITY ENVIRONMENT ON THE WESTERN BALKANS

20. The complex situation in the Western Balkans is further compounded by external factors and external actors.

A. CHINA AND THE BELT AND ROAD INITIATIVE

21. Although a relatively new player in the Western Balkans, China's economic and financial clout in the region has increased significantly in recent years. Since 2012, China's 16 + 1 model has focused on Chinese engagement with 16 European countries – 11 EU Member States plus 5 nations in the Western Balkans. Despite the model being set up as 16 + 1 in reality most of the deals struck are bilateral between China and one of the 16 European nations rather than deals comprising many nations. Of the \$9.4bn worth of investment deals the 16 + 1 has brought to Europe, around \$4.9bn is concentrated in the 5 Balkans nations – Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Montenegro, and Serbia. This comes even though the 5 non-EU states have a GDP roughly one-sixteenth the size of the 11 EU Member States (Hillman, 2018). Chinese investment in the region has begun to fill a void for the Western Balkans as many western nations and firms have financially ignored infrastructure improvements in these nations.

22. Chinese projects in the Western Balkans are an aspect of its growing global interests and activities, known as the Belt and Road Initiative (BRI). The BRI is an ambitious project proposed by the Chinese President Xi Jinping, to create new sea and land routes that resemble the old silk road, connecting east and west. It has brought much investment to south-eastern Europe where projects focus on transportation infrastructure. China is particularly engaged in Serbia; Beijing and Belgrade have also taken steps to improve relations by establishing visa free travel which began in 2017. They are aligned on several foreign policy dossiers, including the non-recognition of Kosovo – due to China's own separatist regions of Tibet and Xinjiang. Increasing Chinese activities in the Western Balkans highlight the need for the EU to remain engaged in the Western Balkans, also because the sustainability of some of the infrastructure projects and their compliance with EU laws are in question.

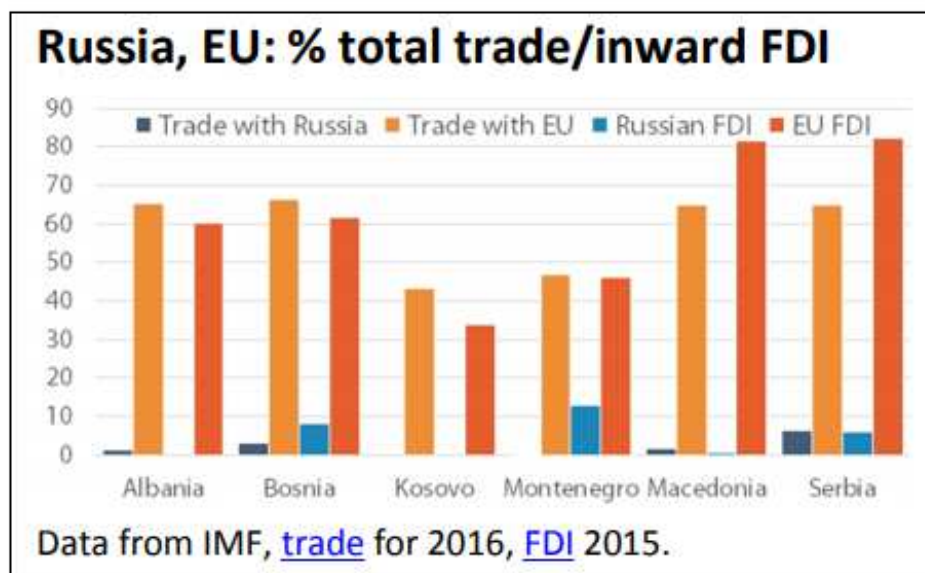
23. China has also invested in Albania, Bosnia, and the former Yugoslav Republic of Macedonia. Recipient countries in the region see Chinese investments, which often come in the form of a loan, as good, and perhaps also sometimes as a preferable alternative to the loans of the EU because the former are generally not linked to conditions relating to reforms. This is also combined with the fact that many Western nations remain wary of investing in the region.

B. RUSSIA: HISTORICAL INFLUENCE, COMPETING PRESENCE

24. In contrast to China, Russia has strong historical connections to the Western Balkans. Moscow's engagement in the region is also due to the close cultural, linguistic and religious similarities between Russians and Orthodox Slavs. In particular, the connection with Serbia is quite strong at a political level, as Russia firmly opposes Kosovo's independence and vetoed a UNSC resolution which would have qualified the massacre of Srebrenica a genocide. While Russia's engagement with the Western Balkans receded in the early 2000s, Moscow asserted its presence again in the past decade under President Vladimir Putin. By offering incentives, e.g., via loans, energy projects, trade and other investments, Russia has increased its engagement with the region, thereby trying to delay the integration of the Western Balkans into the EU. Moreover, Moscow is using every opportunity, including corruption and bribes, and at times the Russian Orthodox Church, to advance its interests and to bolster anti-Western sentiment, in particular among Serbs, and to undermine Western influence throughout the region. Russia's efforts in the region are facilitated by entrenched authoritarian elites, who are frustrated that the EU accession process is not proceeding fast enough, and have stalled reform processes. At the same time, the economic situation in Russia and the weak rouble limit Moscow's ability to compete with the EU at a regional level.

25. Russia's dominance, as the main gas exporter to Serbia, the former Yugoslav Republic of Macedonia, and Bosnia and Herzegovina, allows for it to utilise one of its primary geopolitical

leverage points - energy politics - across the region. Russia is actively exploiting the dependency of the countries of the region on energy deliveries. Russia is not only trying to maintain its dominant energy position, but even to expand it. However, it is unclear whether Russia will be able to succeed, as some of the announced projects, such as the Druzhba-Adria pipelines or the South Stream pipeline, are either delayed or put on ice. On any other economic issue, ranging from external aid to FDI, the EU's presence greatly outmatches Russia's.



Martin Russell, "Russia in the Western Balkans", EPRS, July 2017

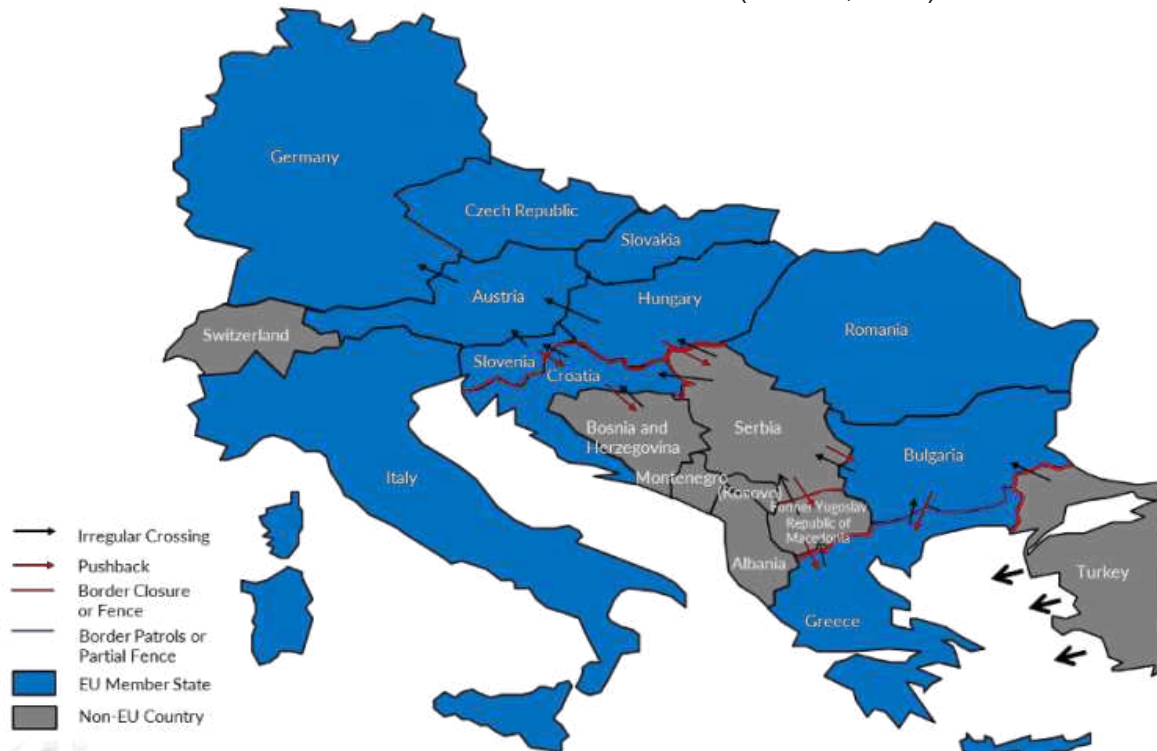
26. As a result, Russia is far from being capable of significantly moulding the future of the region. For the Western Balkans, the strategy envisaged is subtler, related to the already mentioned Russian cultural and historical 'soft power'. In this sense, Russia is trying to establish itself as a key player in the information sector: the infamous Sputnik news agency opened in Belgrade in 2014 and is providing its typically serviceable anti-Western narrative. Sputnik contributes to polarising public opinion, presenting distorted and biased versions of the EU and NATO's contributions to the region (Byrne, 2017). Moreover, Russia provides support for civil society organisations and political parties which are aligned with its political agenda. These policies can best be summed up as "crude opportunism" as in the Balkans "[Russia's] goal is to undercut and upset the existing institutions and rules set by the West" (Bechev, 2017).

27. While current Russian engagement with the region can certainly be seen as an interference in Euro-Atlantic integration, it is an indirect admission that the Kremlin's influence in the Western Balkans cannot go past "spoiler tactics". The most recent example of such tactics has been noted by the former Yugoslav Republic of Macedonia PM Zoran Zaev's allegations that attempts to disrupt FYR Macedonia's name referendum in September can be traced to Russia. As a result, in July Greece expelled two Russian diplomats for trying to undermine the recent name deal with the former Yugoslav Republic of Macedonia. Moreover, unlike NATO and the EU, Russia has no boots on the ground, economic relations with the region are decreasing and there are no plans to enlarge either the Eurasian Economic Union or the Collective Security Treaty Organisation to include the Western Balkans, providing for few tangible Russian avenues in the region (Bechev, 2017).

C. WESTERN BALKANS: A TRANSIT REGION

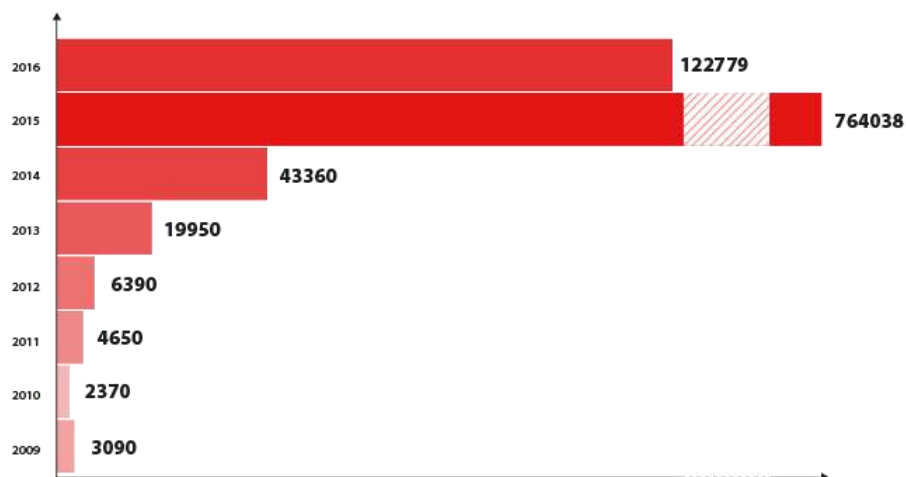
28. The geostrategic positioning of the Western Balkans between Europe's West, East, and the Mediterranean Sea has since the end of the Cold War turned it into a transit region. In the midst of liberalisation and privatisation, a series of wars, and political transition away from communism, the Balkans became an area for the illicit trade of goods from Asia and Africa into Western Europe, and more recently a corridor in the refugee crisis.

29. The European refugee crisis started in 2015 and affected, if indirectly, the Western Balkans. At first, countries opted to facilitate the movement of asylum seekers; then, pressure from bordering EU member states led to a domino effect of border closures (Greider, 2017).



Alice Greider, "Outsourcing Migration Management: The Role of the Western Balkans in the European Refugee Crisis", Migration Policy Institute, 17 August 2017

30. Frontex, the European Border and Coast Guard agency, estimates that there were more than 760,000 illegal border crossings on the Western Balkans route in 2015, a dramatic increase from the 40,000 of the previous year (Frontex). The Western Balkans, themselves countries of origin of migration towards the EU, were both unequipped and unprepared to handle a crisis of such proportions. As such, they only tried to speed up the passage of people towards the countries of destination (Greider, 2017).



Frontex, Illegal border crossings on the Western Balkans route in numbers, 2017

31. As the crisis continued, EU countries started to limit the passage of refugees. In turn, Serbia and Croatia started to introduce quotas for the number of people allowed to cross per day, while the former Yugoslav Republic of Macedonia -Greek border became the theatre of violent incidents, with reported use of tear gas to control the flow of migrants. The EU's March 2016 agreement with Turkey

to curb illegal migration effectively closed down the migration route to the EU coming from Greece. In turn, the former Yugoslav Republic of Macedonia closed its border with Greece, effectively trapping all the migrants left in the Western Balkans. Indeed, Western Balkan countries were encouraged by the example of EU countries such as Bulgaria and Hungary to adopt a hard-line approach, harshly repressing any attempt by refugees to proceed further North.

32. While the EU-Turkey deals certainly relieved some pressure on the region regarding the influx of migrants, it is only a temporary stopgap solution. In June 2018, it was reported that more than 5,500 refugees and migrants from Asia and North Africa entered Bosnia. Albania is also seeing a rise in migrants entering its borders. Between January and May, authorities caught 2,311 migrants - up from 162 during that same period of 2017 and more than double the number of around 1,000 for the whole of 2017. The route through Albania is thought to be a new route smugglers are using to move people into the EU. Bosnia reported an unusually high influx of migrants directed towards the EU coming from Pakistan, Algeria, Afghanistan and Turkey – signalling that the crisis is far from over. However, the recent reports from Frontex suggest that the increase in use of the so-called western Mediterranean route will shift the movement of people from the eastern route passing through Eastern Europe and the Balkans to Southern Europe, especially Spain and Portugal.

Figure 4. The three branches of the Balkan route through South-Eastern Europe



Note: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Source: UNODC.

33. Meanwhile, irrespective of the refugee crisis, although definitely bolstered by it, organised crime and illicit trade have been an enduring issue in the Western Balkans since the breakup of the former Yugoslavia. The region sits on the western branch of the “Balkan route” which is primarily used to transfer drugs from Afghanistan (the world’s leading heroin producer) to Western Europe. Whilst South East European countries are first and foremost transit countries, some evidence of storage facilities suggests that heroin is being adulterated and repackaged in Albania, Kosovo and FYR Macedonia. In addition to this, there has also been a rise in cannabis production in Albania, which has easily entered Western European markets thanks to the transnational organised crime networks that operate in the Balkans.

34. The Western Balkans are not only a drug smuggling route, but a major transit region and - since the 1990s wars - a source of illegal arms into the EU. As such, the proliferation of organised crime and trafficking in the Western Balkans are a concern for not only regional but also more widely European security. Much like the illegal substance and arms smugglers, human traffickers also benefit from the organised crime networks and legacies of the 1990s Yugoslav wars. During the

wars, the spike in emigration, a lack of law enforcement, and political instability combined to create conditions in which human traffickers began operating. The refugee crisis in Europe has once again created similar conditions, sparking fears of increases in human trafficking as criminals go on to capitalise on the despair of refugees travelling to Western Europe.

35. Bilateral cooperation between Western European NATO member states and the Balkan governments has yielded significant results in terms of successful raids on trafficking rings (US Department of State, 2017). It is recommended that this cooperation continue as the effects of the refugee crisis continue to shake the region. One of the deepest concerns about organised crime in the Western Balkans is how intertwined it is with both high and low-level corruption. However, supporting the regional governments in their attempts to combat illicit trade is a crucial step in helping sever these links. It is therefore highly recommended that the recent cooperation between NATO and the UN Office for Drugs and Crime continue to develop. Thus far 450 counter narcotics officers from Central Asia, Afghanistan and Pakistan have received training – these capacity building courses would also highly benefit the Western Balkans.

D. ISLAMISM, RADICALISATION AND FOREIGN FIGHTERS

36. The Western Balkans have a significant Muslim population: Islam is practiced by 28% of the population in the former Yugoslav Republic of Macedonia, by more than 50% in Albania and Bosnia, and by 95% in Kosovo. However, religious fundamentalism spread considerably during and after the Yugoslav wars, due to the influx of fundamentalist Salafist imams from abroad. Experts claim that the objective of these preachers is to hijack the ethnic identity of Bosniaks (Bosnian Muslims) and Albanians, who practice an essentially moderate interpretation of Islam, and replace it with a hard-line extremist one. The newly formed states did not have the capabilities or the expertise to tackle this phenomenon, leading to several terrorist attacks – albeit with a limited number of casualties – and a few Islamist enclaves, such as the Bosnian village of Gornja Maoca.

37. The emergence of Daesh had a double effect on the Western Balkans. On the one hand, the influx of refugees put pressure on already troubled economies; and on the other, Syria and Iraq became the ideal destination for the aspiring jihadists of the region.

38. Regarding internal security issues, Daesh's main online publication, Rumiya¹, explicitly threatened the Balkans in an article titled "The Balkans - Blood for Enemies, and Honey for Friends" in June 2017 (Trad, 2017). So far, the terror organisation has not claimed responsibility for any attack in the region. However, in November 2016, the group had planned simultaneous attacks in Albania, Kosovo and the former Yugoslav Republic of Macedonia, with the top target being the Israeli national football team, which was scheduled to play in Tirana, and its supporters. Twenty-five people were arrested by the former Yugoslav Republic of Macedonia and Albanian police forces, in what was a remarkable show of cooperation between the security services of the two countries.

39. It is estimated that between 900 and 1,000 fighters (often followed by their families) have travelled from the Balkans to Iraq and Syria; while some of them had criminal records or had fought in the Yugoslav wars, the majority of them did not have any previous fighting experience. As Daesh has lost the swathes of land it controlled in Iraq and Syria it appears likely that the Western Balkans will also be confronted with the problem of returning foreign fighters. This raises serious issues, ranging from the legal consequences of the actions committed in Syria to rehabilitation and the return to local civil society.

40. Kosovo has produced more foreign fighters per capita than any other Western nation since Daesh declared its caliphate in 2014. Around 400 Kosovo citizens have joined the group and other Islamist extremist groups since fighting in Syria began in 2012. With EU aspirations, Kosovo has been tough on solving its radicalization problem, indicting more than 120 terrorism suspects and arresting many more, including imams suspected of recruiting people to fight abroad. However, many

¹ Literally translatable as "Rome"

prison sentences are being shortened and some say that rehabilitation attempts are not always effective, leaving still radicalised individuals free. Many Western powers are now working with Kosovar authorities to aid in the attempts to rehabilitate, with fears that Kosovo may become a launching pad for more attacks across the EU.

Country	Total	Women	Children	Returned	Killed	Still in the conflict zone
Albania	136	13	31 ²	40	20	76
Bosnia and Herzegovina	260	56	at least 80	43 men 6 women	44 men 2 women	77 men, 48 women, 46 children
Kosovo	316 ³	38	28	118	59	139 (75 men, 38 women, 27 children)
Macedonia	135	-	-	80	27	35
Serbia	42	-	-	9	11	28
Montenegro	Up to 30	-	-	-	5	-

Asya Metodieva, [Balkan Foreign Fighters Are Coming Back: What Should Be Done?](#), STRATPOL, January 2018

41. Radicalisation will remain a problem even after the fall of Daesh. While Daesh did not claim any terrorist attacks, the region was already a hotbed for extremists, often affiliated to nationalist movements. Given the volatile situation in the region it is important that countries dealing with similar issues that have more expertise continue assisting the Western Balkans. This is in their common interest as some groups in the Western Balkans are connected with radicalised individuals in Western Europe.

IV. THE WESTERN BALKANS AND EURO-ATLANTIC INTEGRATION

42. NATO and the European Union have played a prominent role in supporting post-conflict development and the economic transition and in facilitating Euro-Atlantic integration of the Western Balkans; while the latter objective has been achieved for some countries, other states still remain out of one or both of these organisations.

A. NATO'S ROLE IN THE WESTERN BALKANS: PEACEBUILDING AND ENLARGEMENT

43. NATO's presence in the Western Balkans dates back to the early 90s. After the intervention in Bosnia and Herzegovina and Kosovo in 1995 and 1999, NATO remained in the region as a stabilising force, for example through Operation Allied Harmony in the former Yugoslav Republic of Macedonia. NATO's commitment to the region led to the accession of Slovenia, Albania, Croatia and, as recently as 2017, Montenegro. Following the naming agreement between the former Yugoslav Republic of Macedonia and Greece in June 2018, NATO during its July 2018 Summit formally invited the former Yugoslav Republic of Macedonia to begin membership talks, saying the country could join the organisation following a full resolution of the name dispute. Serbia and Bosnia and Herzegovina, while valuable partners for the Alliance, are currently not pursuing NATO membership.

44. Serbia, which pursues a policy of military neutrality, is a NATO partner country that participates actively in the Partnership for Peace (PfP) programme, without aspiring to become a NATO member. BiH's NATO membership aspirations have been hampered by continuing differences between Sarajevo and *Republika Srpska*. NATO laid out a Membership Action Plan (MAP) for Bosnia and Herzegovina in 2010, implementable under the condition that the political constituencies of the

country transferred the control of their military facilities to the central government. This is fiercely opposed by the political elites in *Republika Srpska*. In October 2017, *Republika Srpska*'s parliament passed a resolution affirming the constituency's military neutrality: a symbolic move, but one that formally show protest against any further step towards NATO integration.

45. At the time of writing, the Kosovo Force (KFOR) is the only NATO military mission still active in the region: after having secured the area, it now helps in the development of an effective security sector in Kosovo, gradually transferring its competences to the Kosovo Police and other internal bodies. In addition to that, NATO has Headquarters in Sarajevo and Military Liaison Offices in Belgrade and Skopje to support defence reforms, foster dialogue and facilitate the participation in the PfP programmes.

46. NATO's activities in the former Yugoslavia were the catalyst that started the cooperation between the Atlantic Alliance and the European Union. NATO had been conducting peace-enforcing operations since 1992, after which both NATO and the EU supported the post-conflict peacebuilding and peacekeeping activities in the region. In March 2003, the EU formally started its first fully-fledged Common Security and Defence Policy (CSDP) mission, Operation EUFOR Concordia in the former Yugoslav Republic of Macedonia, taking over from NATO's Operation Allied Harmony. One year later, the EU launched Operation EUFOR Althea in BiH, after NATO formally ended its Operation Stabilisation Force in Bosnia and Herzegovina (SFOR).

47. The ongoing cooperation between the two organisations remains crucially important for both regional and Euro-Atlantic stability. In the Western Balkans, the EU began to develop its capacities in post-crisis stabilisation force, conducting both civilian and military operations, while NATO remained the ultimate security guarantor in case of any escalation of hostilities. Other than the missions already mentioned, the EU is still present in the Western Balkans, conducting missions with a more civilian focus, such as EUPOL Proxima, which replaced EUFOR Concordia and aims to develop the former Yugoslav Republic of Macedonia's police system, and EULEX Kosovo. In June 2018, the EU announced it was refocusing its mandate for the rule of law mission to end the judicial executive part of the mandate – which supported the adjudication of constitutional and civil justice and prosecuting and adjudicating selected criminal cases - to exclusively focus on the monitoring, mentoring, and advising objectives that provide support to the Kosovo rule of law initiatives and to the Belgrade-Pristina dialogue.

B. EU: THE BUMPY ROAD TOWARDS MEMBERSHIP

48. At an institutional level, the EU has established 16 bodies that foster transnational integration amongst the Western Balkans. These initiatives are further backed by countless financial and diplomatic efforts. To name only a few:

- The Stability and Association Agreement (SAA). All the countries in the Western Balkans, including Kosovo, have signed a SAA with the EU; through this instrument, the EU establishes contractual duties and obligations tailored for each country, with the goal of stabilising the area and preparing for EU membership (Directorate-General for Neighbourhood and Enlargement Negotiations, DG NEAR 2016a).
- The Instrument for Pre-accession Assistance (IPA). Offering financial and technical help, the EU ensures that countries are able to implement their reforms in key sectors. For the 2014-2020 period, the EU dedicated EUR 11.7 billion to the IPA, making it by far the largest donor to the region (Directorate-General for Neighbourhood and Enlargement, DG NEAR 2016b).
- The Berlin Process. Since 2014, the EU has held yearly ministerial meetings in the framework of the so-called Berlin Process, initiated in 2014 to favour EU-integration of the Western Balkans. Each of the meetings of the Berlin Process framework has a theme with the July 2018 meeting focusing on areas of mutual concern, i.e. security. At this meeting, the six nations

agreed to share police and intelligence data to fight terrorism and organised crime (The Economist, 2018).

49. 2018 is widely considered to be crucial for the future of the Euro-Atlantic integration of the Western Balkans, according to the EU Enlargement Strategy released in February. Furthermore, until July, the Council of the European Union was presided by Bulgaria, which made the Western Balkans one of its priorities, hosting the first EU-Western Balkans summit of head of states since Thessaloniki in 2003 in its capital in May 2018.

50. The EU set 2025 as a potential date for the accession of Serbia and Montenegro, which are currently considered the forerunner candidates. That said, the EU Enlargement Strategy notes that none of the Western Balkan countries currently is a functional market economy, given clear elements of state capture and collusion between the state and organised crime. Moreover, the Strategy also stresses the prerequisite of full adherence to the EU's values and the resolution of all bilateral disputes before accession.



51. However, the EU's approach is arguably dictated not only by the situation in the candidate countries, but also by its own internal situation. Barely ten years have passed since the EU member states unanimously decided to admit Romania and Bulgaria, even though their reform process in certain key areas, including corruption and the rule of law, was far from over. In addition, the EU is facing considerable internal challenges of its own, including Brexit and the deterioration of democratic standards in some member states. Given this context, it will be difficult for the EU to balance its enlargement agenda with its own internal reforms and structural changes after the departure of the United Kingdom.

52. The limited success of the EU's approach to the Western Balkans in the past may also have been due to the fact that the democratic agenda and the regional cooperation model pursued by the EU sometimes seemed oblivious of the reality on the ground. Indeed, persistent open disputes over borders paired with ethnic, social and religious tensions remain highly charged. The new Enlargement Strategy now commits the EU to six "flagship initiatives", and one of them is meant to support reconciliation and good neighbourly relations.

53. The official position of DG NEAR is that the EU is in no position nor wishes to impose anything on the Western Balkans: accession and Euro-Atlantic integration, including what it takes to achieve them, remain a free choice. Yet, for a region that remains riddled with unresolved border issues and persistent ethnic tensions, the EU could have given a higher priority to the reconciliation process. Commenting on the EU's enlargement strategy, the NGO Impunity Watch argues that without a stronger commitment by the EU to ensure reconciliation, the ethnic divisions of the region will supersede the efforts towards regional cooperation (Stappers and Unger, 2018). There are clearly competing views within the European leadership on how and when the accession of the Western Balkans should take place. EU Commissioner Johannes Hahn has stated his disagreement with the views of French President Emmanuel Macron on delaying the entry process of Western Balkan candidates into the EU until internal reforms take place - arguing these things can happen simultaneously, as for the EU not to lose influence in the region (Heath and Gray, 2018).

54. The other five flagship initiatives mentioned in the EU Enlargement Strategy are designed to strengthen the rule of law, reinforce engagement on security and migration, enhance support for socio-economic development, increase transport and energy connectivity and create a Digital Agenda. These are areas deemed to be in the interest of both the EU and the Western Balkans; the concrete policies laid out by the EU so far only cover the 2018-2019 period. One wonders whether certain measures (e.g. helping lower – not even removing – roaming fees) would have any impact on the average citizen of the Western Balkans. On the other hand, commitments such as facilitating Serbia and BiH's bid to the WTO would facilitate and reassure private foreign investors and have an impact on both countries' economies.

55. Perhaps the biggest shortcoming of the EU and NATO's approach to the Western Balkans was to have kept them on "autopilot mode". A renewed focus of the EU and NATO on the Western Balkans is therefore overdue. The engagement of the EU and NATO should remain unwavering and adapt to new challenges, as the region remains of crucial importance due to its geographical proximity, and its cultural affinity and economic ties with the rest of Europe.

V. CONCLUSIONS: NATO AND THE WESTERN BALKANS – THE WAY AHEAD

56. The security of the Western Balkans is crucial for European and Euro-Atlantic security. What happens there affects us all. While this region has come a long way already in overcoming the difficult legacy of the past, the countries of the Western Balkans still confront a range of internal and external challenges. These include limited socio-economic progress, the temptation of nationalism and populism, old and new forms of corruption, disinformation and lack of information about NATO and the EU, the influence of radicalism, Russia's attempt to interfere in local politics and democratic processes, and migration movements from and through the region.

57. The developments in recent years have shown that the European Union and the Alliance cannot take progress in Western Balkan democracy for granted: the risk of backsliding is ever present. There are many worrying signs that a kind of vacuum has been created in the region which is being filled by forces with a decidedly anti-democratic and anti-Western agenda. There was a false assumption that democratic reform in the region was inevitable, but this was overly optimistic. More active international engagement is essential to encourage and sustain reform processes. While it is true that the Alliance is facing multiple challenges, it cannot afford to let the Western Balkans off its radar. The Western Balkans are of eminent importance to Europe and indeed to Euro-Atlantic security. Not only is the region at our door step, several countries from Southeastern Europe are already NATO member states. Moreover, another country in the region, the former Yugoslav Republic of Macedonia, will join once the naming dispute is resolved, and NATO Allies continue to support the membership aspiration of Bosnia and Herzegovina.

58. There must not be a security vacuum. NATO's continued military presence and its political engagement with partner countries of the Western Balkans are crucially important for regional stability. The EU should show its political support and affirm that its door will remain open for the accession of the Western Balkan countries when they are ready. The EU needs to foster and push for the continuation, and indeed the deepening, of the reform processes. For this, it is important to be involved politically and not to only foot the bill. The process of European and Euro-Atlantic integration can have a transformative effect that helps strengthen democratic institutions and consolidate respect for human rights and for the rule of law – which are the foundation for economic progress and political stability.

59. The relations among the Western Balkan countries must not be considered as a zero-sum game. The countries of the region need to understand that they are much better off when they cooperate. In no other region than in the Western Balkans has close cooperation between NATO and the EU been as instrumental for stability and security. Both organisations can do more to encourage the countries of the region to work together and not against each other.

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NATO PARLIAMENTARY ASSEMBLY

POLITICAL COMMITTEE (PC)

Sub-Committee on Transatlantic
Relations (PCTR)

NORTH KOREA'S CHALLENGE TO INTERNATIONAL SECURITY: IMPLICATIONS FOR NATO

Report

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Rapporteur

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I. INTRODUCTION

1. The Democratic People's Republic of Korea (DPRK – North Korea) poses considerable challenges for regional and international security. Despite recent diplomatic engagement with the DPRK, the security situation on the Korean peninsula remains a global flashpoint. This report emphasises that the developments on the Korean peninsula and the policies pursued by the regime in Pyongyang pose a serious security threat to NATO and its partners. As a result, the threat demands greater engagement by NATO and NATO Allies.

2. The volatile security position in North-East Asia has direct security implications for NATO Allies. In addition to threatening the two NATO partner countries in the region – the Republic of Korea (ROK) and Japan – the DPRK has also directly threatened the United States. Additionally, Pyongyang is now capable of levelling credible military threats against all Allies. As NATO Secretary General Jens Stoltenberg stressed at the 2018 Munich Security Conference, “North Korea continues to develop its nuclear and ballistic missile programmes, which pose a threat to us all. All Allies are now within range of North Korean missiles. Pyongyang is closer to Munich than it is to Washington DC and therefore we must put maximum pressure on North Korea to abandon its nuclear programme, by political and diplomatic means and, not least, through effective economic sanctions.” Secretary General Stoltenberg also declared that North Korea's ballistic and nuclear weapons programmes “pose a global threat which requires a global response” (Kelly, 2017). At the 2018 Brussels Summit Allied Heads of State and Government expressed full solidarity with NATO partners in the region -- Australia, Japan, New Zealand, and the ROK – and called on all nations to maintain decisive pressure on the DPRK, including by fully implementing existing UN sanctions.

3. Additionally, the DPRK has established illicit arms smuggling networks throughout the Middle East and North Africa (MENA) that help Pyongyang finance its ballistic and nuclear weapons programmes. The funding derived from these operations sustains DPRK nuclear activities, which undermine non-proliferation efforts. The small arms and ballistic missiles technology trafficked throughout the Middle East by the DPRK threaten NATO's interest in regional stability.

4. This report first identifies the security threats emanating from the DPRK. It then examines how China and Russia have made only limited contributions to de-escalating the crisis, in part because of the ways in which they have undermined the international sanctions regime. The report explores the military, or kinetic, option for eliminating the DPRK threat – highlighting the grave consequences of a war on the Korean peninsula. While the recent diplomatic activities – including the Singapore Summit between US President Donald Trump and Chairman Kim Jong-un – are ongoing, it remains to be seen if the DPRK regime is willing to abandon its nuclear and missile programmes and if a negotiated settlement can be reached. The international community should therefore redouble all efforts to resolve this threat, which this report concludes should include a more forward-leaning approach from NATO and NATO Allies. The world must remain clear-eyed about the DPRK's record of violating previous nuclear agreements and stand ready to continue the campaign to isolate Pyongyang in the absence of verifiable progress towards denuclearisation and the ceasing of other destabilising behaviour. The report specifically identifies the enforcement and expansion of the DPRK sanctions regime as well as increased maritime interdiction efforts as areas where NATO and its member states can make valuable contributions to countering the DPRK threat. This report serves as a basis for discussion among members of the Political Committee and has been updated for the Assembly's 2018 Annual Session.

II. NORTH KOREA'S CHALLENGES TO REGIONAL AND INTERNATIONAL SECURITY

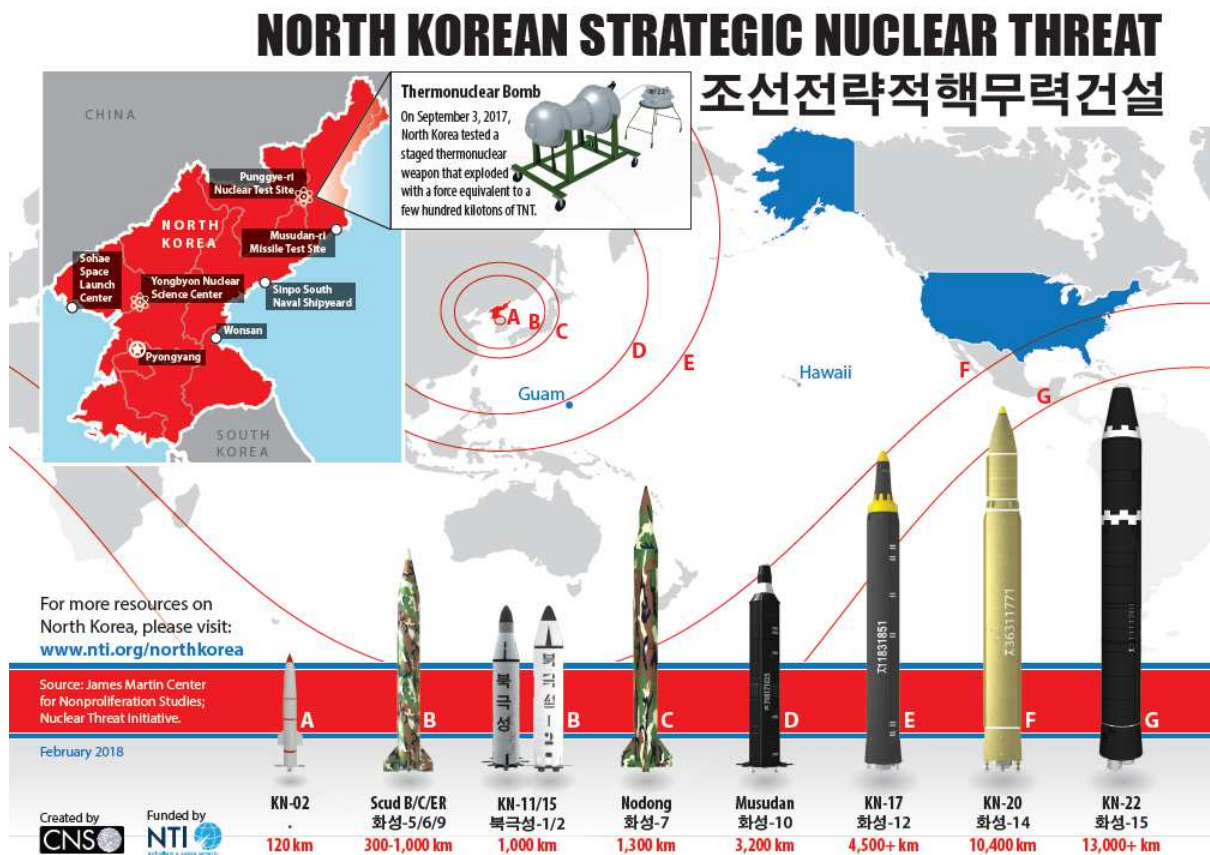
5. The spectre of conflict has loomed over the Korean peninsula since the early days of the Cold War. However, recent advances in the North Korean ballistic and nuclear weapons programmes coupled with the aggressive policies pursued by North Korean dictator Kim Jong-un have made the Peninsula a top issue on the international security agenda.

6. The DPRK has long been an outlier in the international arms control regime. The country withdrew unilaterally from the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in January 2003; never joined the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and has conducted six increasingly sophisticated nuclear tests since 2006.

7. In September 2017, North Korea carried out its sixth nuclear test, which the regime claimed was a test for a hydrogen bomb. Intelligence services estimate that the DPRK’s nuclear arsenal may comprise 20-30 nuclear weapons. The US Department of Defense (DoD) estimated the number to be greater than 50.

8. In addition to its increased nuclear testing under Kim Jong-un, the DPRK also accelerated its ballistic missile testing. Since 2012, the DPRK has conducted more than 80 ballistic missile tests. In 2017, North Korea conducted 20 ballistic missile launches, including three intercontinental ballistic missiles (ICBMs). The US intelligence community assesses that North Korea now has the capability to produce the engines for advanced ballistic missiles and is no longer reliant on importing engines (UN POE, 2018).

9. The latest missile test conducted in November 2017 represents a significant development for the DPRK ballistic missile programme. The Hwasong-15 reached an altitude of 4,475 kilometres with a flight time of 53 minutes. It is estimated that the Hwasong-15 has a range of 13,000 kilometres. The US Department of Defense has assessed that the DPRK is making steady progress toward having the technical ability to reconfigure a nuclear warhead for eventual deployment on a long-range ballistic missile.



10. Taken together, these developments in the DPRK's ballistic and nuclear weapons programmes soon will put the US mainland and European capitals within range of a North Korean nuclear-armed ballistic missile. It is important to note that the UN Panel of Experts – convened to assess, among other things, North Korea's illicit weapons programmes – found in its March 2018 report that the DPRK has yet to demonstrate the successful atmospheric re-entry of its ICBM technology.

11. In his New Year's address to the people of the DPRK in 2018, Kim Jong-un threatened to start mass-producing nuclear weapons and missiles. The DPRK has developed and expanded its nuclear programme in violation of international agreements and the regime in Pyongyang continues to defy UN Security Council resolutions. On several occasions in the past, the regime has threatened to attack South Korea, Japan, and the United States.

12. The DPRK arsenal also includes chemical and biological weapons. Pyongyang's chemical weapons development dates back to the 1950s. The DPRK is not a party to the Chemical Weapons Convention (CWC). The country is believed to have the third largest chemical weapons stockpile worldwide. The 2016 Defence White Paper of the Republic of Korea's Ministry of National Defence estimates the DPRK's arsenal to contain between 2,500 to 5,000 tons of nerve agents, blister agents, blood agents, and other chemical weapons. The DPRK used the nerve agent VX to assassinate Kim Jong-nam, Kim Jong-un's half-brother, in Kuala Lumpur Airport (Malaysia) in 2017.

13. In addition, it is suspected that the DPRK maintains an offensive biological weapons programme - despite being a party to the Biological and Toxin Weapons Convention (BTWC) and the Geneva Protocol. The DPRK is at the very least capable of producing and weaponizing biological weapons and the 2016 Defence White Paper from the ROK Ministry of National Defence estimates that Pyongyang has anthrax and smallpox agents, among others.

14. The DPRK is the most militarised society in the world. Approximately half of the population is either actively serving in the two-million strong armed forces, in the reserves, or supporting the military sector. The DPRK has the world's fourth largest military and the largest artillery force. Most of the estimated 13,000 artillery pieces are within striking distance of Seoul. With an estimated defence spending that surpasses 25 % of the country's GDP, the DPRK has the world's largest military both in terms of manpower and defence spending proportional to population and national income. Between 2004 and 2014, it spent an annual average of USD 3.5 billion on military expenditures.

15. The DPRK's nuclear, ballistic, chemical, biological, and conventional weapons programmes pose a direct threat to global and regional security, but the illegal smuggling of these weapon technologies to state and non-state actors adds another dimension to the DPRK threat.

16. North Korea has supplied ballistic missile technology and missile parts to countries in the Middle East and North Africa region, including Egypt, in violation of international sanctions. After being notified by the United States of potentially illicit North Korean cargo aboard the shipping vessel the Jie Shun, Egyptian authorities in 2017 were compelled to intercept the ship, which was carrying 30,000 rocket-propelled grenades and components worth USD 26 million. This constituted the largest seizure of munitions in the history of the DPRK sanctions regime. The UN Panel of Experts March 2018 report notes that the crates containing the weapons "were prominently marked 'Al-Sakr Cairo' followed by an address identical to that on the shipping documentation, which listed the consignee as Al-Sakr Factory for Developed Industries," which is Egypt's primary missile research and development company.

17. Numerous African countries reportedly have purchased arms and other military equipment from North Korea in recent years, in contravention of UN sanctions. These include Angola, Burundi, the Republic of Congo, the Democratic Republic of Congo, Egypt, Eritrea, Ethiopia, Libya, Mozambique, Sudan, Tanzania, and Uganda. Additionally, North Korea has provided military training to a handful of African countries, also in violation of UN sanctions. This cooperation dates back

several decades. For example, during the 1980s, North Korean troops backed Angola's left-wing People's Movement for the Liberation of Angola (MPLA) government, supported President Robert Mugabe in Zimbabwe against Joshua Nkomo, and assisted the Democratic Republic of Congo's President Joseph Kabila's efforts to regain control over the country.

18. Recent reports, including that of the UN Panel of Experts, highlight the continuing trade in weapons between North Korea and Syria. Pyongyang and Damascus have a longstanding relationship dating back to the Cold War. Current trade between the two countries includes the sale of items to Syria that could be used for the production of chemical weapons. The Syrian civil war has been particularly profitable for North Korea as it has generated additional demand for North Korean weapons. Pyongyang is suspected to have sent technical advisers, engineers, and possibly combat troops to Syria to assist the Assad regime against the opposition. Cooperation with the DPRK also allowed Syria to construct a nuclear reactor based on the design of North Korea's Yongbyon reactor. Israeli airstrikes destroyed this reactor in 2007.

19. Experts estimated that the revenues from the DPRK's cooperation with Iran on nuclear and missile technology and arms sales alone could be as high as USD 2-3 billion annually. There is also evidence of DPRK arms sales to the Houthi insurgents in Yemen and to Hezbollah in Lebanon. Around the world DPRK embassies and diplomats continue to use a broad range of deceptive measures to generate revenue for the regime, according to UN reports. For example, recent reports highlight the pivotal role of the DPRK embassy in Cairo in selling missiles, military hardware and services to many countries in the MENA region.

20. In August 2018, a UN report noted that "[North Korea] has not stopped its nuclear and missile programs and continued to defy Security Council resolutions through a massive increase in illicit ship-to-ship transfers of petroleum products, as well as through transfers of coal at sea during 2018." The report also highlighted that North Korea has been cooperating militarily with Syria as well as attempting to sell weapons to Houthi rebels for their fight in Yemen. The independent experts also found evidence of Pyongyang's violation of an export ban on textiles by sending more than USD 100 million in goods to China, Ghana, India, Mexico, Sri Lanka, Turkey, and Uruguay between October 2017 and March 2018.

21. Though not directly within the scope of the security challenges posed by North Korea, your Rapporteur would be remiss if this paper did not mention the DPRK regime's abhorrent treatment of the North Korean population of 25 million people as well as the abuse and imprisonment of foreign visitors.

22. The oppressive regime in Pyongyang has a human rights record that is among the worst in the world for continued systematic, wide spread, and gross human rights violations. The Commission of Inquiry (COI) established by the United Nations Human Rights Council concluded that the regime in Pyongyang has committed multiple crimes against humanity, including extermination, murder, enslavement, and torture. Hundreds of thousands of North Koreans have perished in prison camps (International Bar Association, 2017). The DPRK regime diverts domestic resources and sometimes blocks international aid from reaching vulnerable North Korean populations. North Korea is the only country in the world where a literate, industrialised, urbanised population suffered a famine in peacetime.

23. For many years, the North Korean regime has imprisoned foreign nationals and used their cases for political leverage. In January 2016, DPRK authorities arrested US citizen Otto Frederick Warmbier, an American student studying in the Rapporteur's home state of Virginia and sentenced him to 15 years of hard labour for "anti-state acts" allegedly committed during a visit to North Korea. Mr. Warmbier died shortly after being released from detention due to systematic mistreatment while incarcerated in the DPRK. The North Korean government continues to imprison foreign nationals, including a large number of Japanese and South Korean citizens (Ryall, 2018).

III. THE ROLE OF CHINA AND RUSSIA

24. In the case of North Korea, the People's Republic of China (PRC) has a wolf by the ear, and it can neither hold him, nor safely let him go.

25. Recent demonstrations of independence from Beijing by Kim Jong-un showcase how unwieldy the DPRK-PRC relationship can be: Kim Jong-un has purged pro-Chinese North Korean officials, including the brutal execution of his uncle Jang Song-thaek. Kim Jong-un also chose the week of the BRICS (Brazil, Russia, China and South Africa) summit in Beijing to detonate a nuclear weapon. In addition, he had North Korean agents assassinate his half-brother Kim Jong-nam, who had been living in Macao under Chinese protection.

26. That being said, the relationship has also developed into one of necessity: Pyongyang is economically dependent on China. The PRC accounts for 80-90 % of the DPRK's foreign trade, and in 2016, China provided 6,000 of the 15,000 barrels of crude oil North Korea consumed per day (Energy Information Administration, 2017). Moreover, diplomatic relations between the DPRK and the PRC have increased considerably immediately before and after Kim Jong-un's summits with South Korean President Moon Jae-in and US President Donald Trump. While Kim Jong-un had not visited China since he took power in 2011, he visited Beijing three times in 2018 to meet with Chinese President Xi Jinping.

27. China has a significant interest in the stability of the Korean peninsula. The PRC is particularly concerned about a collapse of the DPRK that would likely result in huge refugee flows across the border. Moreover, an imploding North Korea would have a serious negative economic and social impact on the regions of north-eastern China that are dependent on cross-border trade. China also considers the DPRK as a buffer against the democratic ROK and, by extension, the United States. Additionally, Chinese officials and scientists have expressed fear over possible radioactive material leaking from the now closed Punggye-ri nuclear testing facility, which could contaminate neighbouring Chinese provinces of Heilongjiang, Jilin, and Liaoning (Taylor, 2018). For these reasons, China may support the cessation of nuclear testing in the DPRK.



Map of North Korea and DPRK nuclear sites

28. Although the PRC generally implements its obligations under the United Nations Security Council resolutions targeting the DPRK, Chinese companies and banks are suspected of assisting the DPRK regime in circumventing existing sanctions, thereby enabling the latter to finance its nuclear and missile programmes. Chinese companies continue to facilitate DPRK exports of coal and iron ore and the import of vital fuel products. China blocked US efforts in 2017 to place an oil embargo on North Korea.

29. There are some recent signals that China is willing to use its immense leverage over North Korea to influence the current crisis. China appears to have reduced imports from North Korea by 78.5% and 86.1% in January and February of 2018 (CNBC, 2018). However, these actions may be meant to signal to Kim Jong-un that this crisis will be resolved on China's terms. It was not until Kim Jong-un agreed to meet with ROK President Moon Jae-in and US President Donald Trump that Kim Jong-un rushed to Beijing for a meeting with President Xi.

30. Russia and the DPRK have a longstanding relationship stemming from proximity and close Cold War ties. Recently, Moscow has made overtures to Pyongyang that it seeks a closer relationship consistent with Russia's intentions to increase trade with North Korea and promote its own Far East development agenda. Moscow is a primary aid donor to the DPRK and it recently forgave USD 10 billion of Soviet-era debt. Russia is also host to 40,000 North Korean labourers (Ha and Zilberman, 2018). Bilateral trade between Russia and North Korea doubled in the first quarter of 2017. In 2017, Russia emerged as North Korea's second-largest trading partner. Trade was around USD 78 million. Although this is down from a peak of USD 112 million in 2013, it was a slight increase on 2016 despite a dramatic expansion of international sanctions against Pyongyang.

31. The Russian ports of Nakhodka and Kholmsk have been used for the transshipping of North Korean coal exports after the UN Security Council banned them in August 2017. There are also reports that Russian oil exports to North Korea are much higher than publicly known. According to unconfirmed reports in December 2017, gasoline prices dropped in North Korea and some suggest that increased Russian exports were behind the drop in prices. North Korea's illicit procurement activities and increased trade with Russia have somewhat reduced Pyongyang's economic dependence on China. The UN Panel of Experts has published findings on possible Russian sanction violations involving imported DPRK iron, steel and coal; the operation of DPRK bank and arms sales representatives in Russia; and extensive shipping related violations beyond the transshipment of North Korean coal.

32. From South Ossetia and Abkhazia to Crimea and Syria, Russia has pursued a geopolitical strategy of fomenting conflict, uncertainty, and instability abroad. It is consistent with this strategy to work against the resolution of the crisis on the Korean peninsula if Russia perceives the North Korean threat as a source of strategic uncertainty. Though it has supported DPRK sanctions at the UN, Russian enforcement of UN sanctions is weak to say the least. In late August 2018 Russia blocked the original report of the UN Security Council Sanctions Committee on North Korea on the implementation of sanctions against North Korea and its nuclear programme, which had initially named Russian ships when citing "a massive increase in illicit ship-to-ship transfers of petroleum products," for North Korea (The Guardian, 2018).

IV. THE KINETIC OPTION

33. Increased provocation and threats by Pyongyang, advances in DPRK ballistic and nuclear weapons technology, and the inability or unwillingness of North Korea's two largest patrons to convince the regime to pursue denuclearisation has produced grave concerns and immense frustration among the international community.

34. In August 2017, after two ICBM tests by North Korea, US President Donald Trump publicly threatened to consider a military strike against the DPRK. The kinetic option would have profound global security implications. More than 25 million people living in and around Seoul are within range of North Korean artillery. Casualty estimates for a conflict involving only conventional weapons are as high as 300,000 in the opening days of a large-scale conflict with the DPRK. Those estimates only grow if one considers the DPRK's potential deployment of its arsenal of nuclear, chemical, and biological weapons. The costs of recovery and reconstruction following a military conflict could be astronomical and would likely generate requests for massive amounts of assistance from NATO countries.

35. The Korean peninsula is one of the most militarised regions in the world and any security crisis would have the potential to spill over into neighbouring countries, particularly Japan and China, as well as Russia. One does not need to enumerate the various military operations from surgical strikes to the deployment of ground combat troops into North Korea to appreciate that the military option is fraught with unintended consequences and risks immense death and destruction. It should be an option of last resort and remains the least preferred alternative to resolving the crisis on the Peninsula.

V. IMPROVING DPRK SANCTIONS: IMPLEMENTATION, ENFORCEMENT, AND EXPANSION

36. One alternative to the kinetic option that has received a degree of international support is the establishment and development of a robust sanctions regime targeting North Korea. The UN Security Council (UNSC) adopted 11 resolutions between 2006 and March 2018 addressing North Korea's malign activities and illicit weapons programmes. Seven of those resolutions have been adopted since 2016 as the pace and intensity of work on UN DPRK sanctions has increased. As permanent members of the Security Council, China and Russia have supported the adoption of these resolutions and the associated sanctions.

37. The resolutions adopted before 2016 primarily targeted the DPRK's activities directly related to its arms programmes and proliferation. Among other restrictions, the resolutions implemented an embargo on arms trade as well as nuclear and missile dual-use technologies, and established cargo inspections for shipments to and from North Korea suspected of carrying prohibited products. The continued development of North Korean nuclear and ballistic missile technologies have proved that the weapons-related bans were insufficient.

38. Therefore, sanctions have been imposed on several sectors of the North Korean economy and have further limited the DPRK's access to international financial systems. Starting with Resolution 2270 of 2 March 2016, the UNSC adopted sectoral sanctions, which currently cover more than 90 % of North Korean exports.

39. Financial services sanctions prohibit, among other things, new joint ventures with DPRK entities or individuals, the transfer of gold to or from the DPRK, public or private financial support for trade with the DPRK, any relationship with DPRK banks, and the provision of insurance to DPRK vessels or vessels believed to be involved in prohibited activities.

40. Asset freezes have been authorised against individuals trading bulk cash, evading sanctions, or supporting the DPRK's nuclear-, missile-, or weapons of mass destruction (WMD)-related programmes. UN Member States have also been asked to expel DPRK diplomats engaged in sanctions evasion, DPRK nationals who represent certain designated entities, and any foreign national working for a DPRK bank or financial institution.

41. Interdiction and inspection-related sanctions have been expanded to include the designation of additional shipping vessels subject to assets freeze, seizure, or denial of entry into port. Since 2017, UN Member States are now required to de-register, seize, inspect, and impound vessels that are believed to be involved in prohibited activities.

42. Bans have been placed on selling or supplying North Korea with aviation fuel, gasoline, jet fuel, rocket fuel, and all condensates and natural gas liquids. Security Council resolutions adopted in 2017 also limit refined petroleum products and crude oil.

43. UN bans on natural resources have had an impact on the North Korean economy. North Korea is rich in natural resources, but UN sanctions now prohibit the trade of DPRK lead and lead ore, copper, nickel, silver, zinc, gold, titanium ore, vanadium ore, rare earth elements, agriculture, wood, and coal.

44. Sanctions also prohibit the trade of DPRK seafood and fishing rights, the export of DPRK textiles, and the sale to the DPRK of industrial machinery, transportation vehicles, iron, and steel. Some important humanitarian exemptions exist in the UN sanctions regime.

45. Despite the myriad restrictions (of which this report only includes a partial list) on the North Korean economy intended to punish its threatening behaviour and deter the pursuit of illicit weapons programmes, the regime in Pyongyang remains a pariah state committed to the development of increasingly sophisticated ballistic and nuclear weapons technology. There are several reasons the international sanctions regime has thus far failed to bring about the desired results.

46. First, the North Korean economy is relatively isolated and the DPRK has developed methods of effectively evading sanctions. It has used a broad range of measures, including the use of shell companies and foreign-flagged vessels, the transshipment of DPRK goods for export, sending North Korean workers abroad to produce revenue from remittances. The regime also engages in overtly criminal operations, such as drug trafficking, counterfeiting foreign currencies, and the digital hijacking of bank accounts. According to the UN Panel of Experts' latest report, the DPRK managed to generate USD 200 million in 2017 through the export of coal and other commodities on the sanctions list, mostly to China, Russia, Malaysia, and Vietnam. Despite NATO countries' support for and compliance with UN sanctions, Europe remains a locus for North Korean sanctions-evasion activities. Several recent incidents were documented in the Panel of Experts 2018 report. In 2017, Austria closed 12 bank accounts associated with North Korean embassy personnel; DPRK iron and steel exports were sent to France, Germany, and Slovakia throughout 2016 and 2017; and DPRK embassy property in several European countries has been advertised as available for lease as recently as 2018.

47. Second, enforcement of and compliance with the DPRK sanctions regime can be improved. The Russian transshipping hubs mentioned earlier in this report could be shuttered. The 2017 Panel of Experts report included a list of 16 banks – several of them operating out of China – that have not been designated by the UN but which the Panel implicated in several violations of UN sanctions. This list includes, among others, First Eastern Bank, Rason; First Trust Bank Corporation; Ryugyong Commercial Bank; Koryo Commercial Bank; Haedong Bank; Hana Banking Corporation; and Kumgyo International Commercial Bank. These banks could be sanctioned.

48. Oversight and regulation of the maritime insurance industry should be strengthened. As recently as January 2017, the Luxembourg- and London-based company West of England P&I and the US-based company American Club P&I provided insurance to DPRK ships and ships travelling to the DPRK in violation of UNSCR 2270 (2016) and UNSCR 2321 (2016) (Huish, 2017). The UN Panel of Experts has recommended that, "maritime protection and indemnity insurers include a clause in all contracts, stipulating that all transfers involving violations of the resolutions, in particular prohibited ship-to-ship transfers and petroleum products transferred to the Democratic People's Republic of Korea, be voided." However, self-regulation of the industry is not the most effective

method of sanctions enforcement. Denying maritime insurance to North Korean shipping can be one of the most effective tools to deter North Korea's behaviour.

49. Third, there is still room to expand the DPRK sanctions regime. NATO Allies could be encouraged to expedite the repatriation of DPRK labour ahead of the 24-month timeline included in UNSCR 2397 (2017). Maritime insurance restrictions could be expanded to all DPRK vessels and vessels engaged in trade with the DPRK. Instead of limits on refined petroleum products and crude oil, the UN could pursue outright bans similar to those placed on the sale of some natural resources. Countries could also adopt and enforce secondary sanctions targeting the banks that continue to support trade and business with North Korea. This would effectively cut off those banks from the international financial system and impose a cost few would be willing to bear.

50. Finally, the international community must make clear once again the carrot it is willing to offer to convince North Korea to abandon its nuclear weapons programme. Such incentives are essential to the success of sanctions regimes intended to deter undesirable behaviour. In response to illicit Iranian nuclear activities, the UN established a robust sanctions regime that drove Iran to the negotiating table. But it was the promise of relaxed sanctions and increased international trade that convinced Iran to reverse its nuclear programme and adopt the Joint Comprehensive Plan of Action (JCPOA), with which it is in compliance to this day. Articulating incentives for denuclearisation is an essential component of any diplomatic engagement with North Korea. The recent meetings and declarations between US President Donald Trump and North Korean leader Kim Jong-un as well as between Chairman Kim Jong-un and South Korean President Moon Jae-in are intended to secure the verified denuclearisation of the DPRK in a peaceful manner. Secretary of State Mike Pompeo has visited North Korea at least four times to further this diplomatic effort and in October 2018 reportedly came to an agreement during a meeting with Kim Jong-un to plan a second meeting between President Trump and Kim Jong-un.

51. However, at the point of writing it is too early to tell if the DPRK leadership is prepared to implement its international obligations in exchange for a declaration that ends the Korean War and a roll back of the international sanctions' regime. After the Singapore Summit, there were widespread reports that the US intelligence community (IC) had confirmed that the DPRK was expanding activities at the factory that produced the country's first ICBM. Another US IC report detailed DPRK efforts in the wake of the Summit to conceal its nuclear activities. There is significant concern that the DPRK is misleading the international community regarding the magnitude and content of its illicit nuclear program. (Washington Post, June 2018). With these setbacks in mind, it is necessary to enforce a robust sanctions regime until the DPRK demonstrates a verifiable commitment to denuclearisation. And just as was the case with the JCPOA, NATO countries could play a role supporting, financing, or brokering an agreement on denuclearisation.

VI. NATO AND MARITIME INTERDICTION

52. Beyond sanctions and directly relevant to the NATO mission is the need for more robust maritime interdiction activities targeting shipments in violation of UN DPRK sanctions – particularly interdiction efforts that disrupt North Korea's arms distribution networks in the MENA region.

53. To increase the pressure on the DPRK, the international community has sanctioned companies and vessels that are involved in illicit trade. In this context, the UN announced a new round of sanctions in March 2018 against 21 companies and 28 vessels involved in smuggling prohibited goods in and out of the DPRK (Nichols, 2018). Other recent measures introduced to prevent North Korea's illicit shipping activities include US sanctions of six cargo ships in January 2018 and the UN Security Council blacklisting of four vessels in December 2017. To help enforce sanctions against illicit shipments, the US Treasury Department issued a global shipping advisory that identifies the methods North Korean vessels use to evade sanctions, including turning off transponders, changing ship identities, and conducting ship-to-ship transfers. The restrictions

placed on the sale of DPRK goods and arms are only effective if they are enforced, which will require global maritime operations that intercept, inspect, and impound illicit DPRK shipments.

54. NATO and NATO Allies have an interest in supporting these enforcement efforts and countering the proliferation of WMDs. The recent Panel of Experts report details the illegal cooperation between Syria and North Korea on chemical and ballistic missile weapons programmes. The report includes information on “more than 40 previously unreported shipments from the Democratic People’s Republic of Korea to the Syrian Arab Republic between 2012 and 2017 by entities designated by Member States as front companies for the Scientific Studies Research Centre of the Syrian Arab Republic.” The Panel of Experts also published findings that DPRK technicians continue to “operate at chemical weapons and missile facilities at Barzah, Adra and Hama,” and that 13 shipping containers bound for Syria were concealing enough DPRK acid-resistant tiles for a large-scale industrial chemical weapons project.

55. Syrian dictator Bashar al-Assad has repeatedly used chemical weapons on Syrian civilian populations. The attacks constitute a particularly horrific and condemnable aspect of Assad’s brutality and are in violation of the Chemical Weapons Convention. The use of chemical weapons has escalated the war and contributes to the ensuing humanitarian crisis in Syria, which has already resulted in more than 400,000 deaths and the displacement of 11 million Syrians – four million of whom are in NATO member Turkey and one million of whom have sought refuge in Europe (Syrian Refugees, 2016).

56. In October 2016, NATO launched Operation *Sea Guardian* to, among other things, perform maritime interdiction, and counter the proliferation of weapons of mass destruction. For the performance of maritime interdiction, assets may be “assigned for quick-response actions and may use Special Operations Forces and experts in chemical, biological, radiological and nuclear (CBRN) weapons to board suspect vessels.”

57. NATO has Standing Naval Forces (SNF) that provide the Alliance with a continuous naval presence and carry out scheduled exercises, manoeuvres and port visits. They have been deployed in the past. For example, Operation *Unified Protector* was critical to the implementation of a maritime arms embargo on Libya in 2011. NATO has also been assisting Frontex (the European Union’s border management agency), and Greek and Turkish national authorities in their efforts to tackle the migrant and refugee crisis in the Aegean. Between 2009 and 2016, Operation *Ocean Shield* contributed to international efforts to suppress piracy and protect humanitarian aid shipments off the Horn of Africa. A similar operation could and should be established to counter illicit DPRK trade and proliferation activities.

VII. CONCLUSIONS AND RECOMMENDATIONS

58. North Korea continues to present a grave security risk for international security as long as it does not fully implement its international obligations, including the elimination of its nuclear, chemical, and biological warfare capabilities and ballistic missiles, and the termination of all related programmes. The area of the world within range of North Korea’s ballistic and nuclear weapons continues to grow, and the DPRK’s illicit weapons programmes undermine existing non-proliferation regimes and international arms control agreements. Pyongyang is also destabilising the highly volatile MENA region in Europe’s neighbourhood. This is primarily due to its continuing proliferation activities, which include the sale of conventional and nonconventional arms and the provision of weapons-related technical expertise. In fact, the 2018 UN report states that “prohibited military cooperation with the Syrian Arab Republic has continued unabated.” Therefore, Allies, and NATO as an organisation, must clearly and directly focus on dealing with the threats emanating from the DPRK.

59. This report recommends that NATO Allies improve enforcement of existing DPRK sanctions as well as support the expansion of the DPRK sanctions regime at the UN and/or through their own national legislation.

- a) NATO Allies should support the adoption of comprehensive restrictions on maritime insurance for DPRK vessels and vessels engaged in trade with the DPRK.
- b) NATO Allies should target banks that violate UN sanctions with secondary sanctions – effectively cutting them off from the international financial system.
- c) NATO Allies should increase their already-enhanced scrutiny over the actions of North Korean diplomats operating in their countries, to ensure that they are not abusing their diplomatic status by engaging in commercial or other activities.
- d) NATO Allies should immediately implement the restrictions on North Korean labourers adopted in 2017.

60. The DPRK's limited international trade is primarily through shipping vessels. It has approximately 240 vessels in its merchant fleet. Therefore, interdiction of illicit shipping emanating from North Korea would increase significantly the pressure on the DPRK's political leadership. Interdiction efforts would also help restrict North Korea's proliferation of WMDs. Maritime forces will be needed to effectively implement interdiction efforts and it would be in the interest of all Allies, and indeed the international community, to contribute to global maritime operations that seek to disrupt illicit North Korean trade.

61. Therefore, NATO should:

- a) implement the interdiction and counter-proliferation components of Operation *Sea Guardian* in order to help address the DPRK threat to international security.
- b) help prevent illicit trade with North Korea through the deployment of naval assets much like the United Kingdom's recent deployment of a British warship to the waters around North Korea (Kelly, 2018).

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on

REINFORCING NATO'S CONTRIBUTION TO TACKLING THE CHALLENGES FROM THE SOUTH*

The Assembly,

1. **Emphasising** that a secure, economically and socially stable Middle East and North Africa (MENA) is of strategic importance for the Alliance;
2. **Acknowledging** that the underlying causes fuelling instability and conflict in the region include a broad range of economic, environmental, and social issues as well as ineffective governance;
3. **Recognising** that instability in the area has provoked massive migration flows towards member states at the borders of the region, which have become for those countries a possible cause of instability;
4. **Recognising** that the Alliance as an organisation does not have the necessary instruments to address these underlying causes that fuel radicalisation;
5. **Noting, however,** that NATO does make an important contribution to the stability of the MENA region through its political dialogue and particularly through its assistance to partner countries of the Mediterranean Dialogue (MD) and the Istanbul Cooperation Initiative (ICI);
6. **Recognising** the essential role of Operation Barkhane for Euro-Atlantic security;
7. **Appalled** by the actions of the regime of Bashar al-Assad against its own population, including the barbaric use of chemical weapons, but **aware** that only a negotiated political solution on the basis of United Nations Security Council Resolution 2254 can produce a lasting solution to the conflict;
8. **Commending** the Iraqi security forces and the Government of Iraq for their success against Daesh and for the restoration of sovereign control over all Iraqi territory, but **aware** that Daesh and other terror organisations remain a serious threat unless the underlying causes fuelling radicalisation are addressed;
9. **Stressing** that the war in Syria and the instability in Iraq is a major source of instability far beyond their borders, exacerbating an already volatile security situation in the MENA region and beyond, adversely affecting trans-Atlantic security in its entirety;

* Presented by the Political Committee and adopted by the Plenary Assembly on Monday 19 November 2018, Halifax, Canada

10. **Recognising** that the involvement of foreign actors which pursue competing agendas and support the rival factions is a main factor that has impeded the implementation of the UN action plan for Libya;
11. **Recognising** that hybrid strategies are not exclusively used against our countries, and that we must envisage their potential use by different adversaries, some of which might come from the South;
12. **Noting** that the volatile security situation of North Africa is not only affected by developments within the region, but also by spill-over effects from other parts in Africa and that we cannot forget that there is a serious terrorist threat with roots in the region, which demands greater attention to the South;
13. **Recognising** the efforts made so far by Spain, Italy, Greece and other countries in the face of the migration challenge resulting from insecurity and instability in North Africa, and the need to provide assistance and support to those countries in managing migration flows in a sustainable, inclusive manner;
14. **Welcoming** the decisions taken by Allied Heads of State and Government at the 2018 Brussels Summit that aim at building a stronger and more dynamic relationship with NATO's southern partners and **highlighting** the importance of NATO's Hub for the South for improving the Alliance's awareness and understanding of the threats coming from the Middle East and Africa;
15. **Noting** that NATO's cooperation with the African Union is an integral part of both NATO's Framework for the South and the Alliance's efforts in projecting stability;
16. **Emphasising** the fact that 22 of the 29 Allies are also members of the European Union which shares the same interests in the MENA region, and **recognising** that the EU is playing an important role in economic development and in the promotion of good governance, democracy, rule of law and human rights in the Middle East and in Africa as well as the efforts made by the EU in the region, by means of the Common Security and Defence Policy (CSDP), with missions that are important for the security of our allies, such as EUTM Mali, EUTM RCA and EUTM Somalia;
17. **URGES** member governments and parliaments of the North Atlantic Alliance:
 - a. to continue assisting NATO partner countries in the MENA region in capacity building and other defence-related activities that help the partners create professional and accountable security institutions, which is central to improving the stability of partner countries and the whole MENA region;
 - b. to provide adequate financial and personnel resources to implement the non-combat NATO training mission in Iraq and encourage the Iraqi government to address the shortfalls in good governance;
 - c. to develop a joint, coordinated, Allied approach towards a political solution to the war in Syria that is acceptable to all main stakeholders and also holds the Assad regime accountable for its human rights violations and the use of chemical weapons;
 - d. to agree on a shared policy towards Libya in the area of defence assistance and security institution building, as well as to use diplomatic leverage to force the actors on the ground to implement the UN action plan;
 - e. to expand and deepen collaboration between NATO and the European Union in the MENA region, including by assisting partners in building their capacities and fostering resilience;

- f. to enable NATO exploring ways to expand and deepen its relations with regional organisations to help them improve their capacities to address security threats in the MENA region and in other parts of Africa;
 - g. to further enhance the operability of the Hub for the South in Naples (NATO Strategic Direction South – Hub);
 - h. to consider how NATO can strengthen military cooperation between Allies to stabilise the G5 Sahel countries.
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NATO PARLIAMENTARY ASSEMBLY

SCIENCE AND TECHNOLOGY COMMITTEE (STC)

RUSSIAN MEDDLING IN ELECTIONS AND REFERENDA IN THE ALLIANCE

General Report

by **Susan DAVIS** (United States)
General Rapporteur

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I. INTRODUCTION

1. Russia under President Vladimir Putin has become deeply dissatisfied with the liberal international order—so much so that the Russian state is actively seeking to undermine it. It is unclear what marked the turning point. Many point to President Putin’s speech at the 2007 Munich Security Conference when he harshly criticized the United States, NATO and even the European Union (EU) and called for a new world order. Others point to Russia’s military actions in Georgia in 2008 or in Ukraine since 2014. What is clear today is Russia’s desire to return to geopolitical zero-sum games and reclaim what it considers its spheres of influence. To reshape the international order along those lines, Russia seeks to undermine its most stalwart defenders in Europe and North America. The Russian regime seeks to destabilize their democracies and, indeed, the very idea of liberal democracy in order to prop up its own position.

2. Russia’s subversive efforts take many shapes and forms. While Russia has used force in support of this strategy, most efforts are non-military and seek to probe and exploit weaknesses in others through, *inter alia*, political and informational means, economic intimidation and manipulation (NATO PA, 2015). In 2018, the Committee on the Civil Dimension of Security (CDS) of the NATO Parliamentary Assembly (NATO PA) examines Russian overall hybrid operations in its special report *Countering Russia’s Hybrid Threats: An Update* (NATO PA, 2018).

3. To complement the CDS report, the General Rapporteur of the Science and Technology Committee (STC) has decided to focus this general report on one of the most worrying hybrid threats: meddling in elections and referenda via cyber and information operations. The Russian way of cyber and information warfare is to attack and/or exploit the very institutions that make liberal democracies strong, particularly freedom of the press, freedom of speech, and free and fair elections. As is becoming abundantly clear, Russia has targeted several elections and referenda over the last few years. This conduct is unacceptable. Credible elections and referenda are at the heart of liberal democracy. Elections are the expression of the will of the people and therefore the basis of a government’s authority. Referenda are a highly valued form of direct democracy in many polities, including the Rapporteur’s home state of California. If citizens lose trust in either of these processes, their democracies are at severe risk.

4. The challenge of Russian cyber and information operations, including against elections and referenda, is a strategic challenge for the Alliance. It requires responses at every level, in all forums and through every channel. As elected representatives of the people, it is of utmost importance that the lawmakers of the Alliance address the challenge and that the NATO PA devise clear and strong recommendations for Allied governments and parliaments.

5. This general report, adopted in Halifax, Canada in November 2018, first addresses the different motivational drivers behind Russian meddling in elections and referenda in the Alliance. Second, it examines a few important elections and referenda in the Alliance where meddling took place or was a serious concern. Third, it discusses a range of policy responses, which served as the basis for a resolution, also adopted at the 2018 NATO PA Annual Session.

II. RUSSIA’S MOTIVATIONS BEHIND MEDDLING IN ELECTIONS AND REFERENDA

6. Despite the rhetoric of its leaders, Russia cannot compete toe-to-toe with NATO members. Its Gross Domestic Product (GDP) amounts to about USD 1.3 trillion compared to the United States’ USD 19 trillion and the EU’s USD 17 trillion. By 2020, Russia is projected to spend USD 41 billion on military spending compared to NATO’s USD 892 billion—at a time when Russia is militarily overstretched due to its involvement in conflicts around the globe (Meakins, 2017). Moreover, its government remains beleaguered by severe corruption and an inability to address growing social problems, including severe poverty and inequality.

7. Perceiving itself as being at a dangerous disadvantage against potential adversaries, Russia's "weakened geopolitical position forces it to play the role of spoiler to assert its interests" (Beaulieu and Keil, 2018). Russian leaders have thus, *inter alia*, used cyberattacks and other instruments that the Soviet Union once called "active measures" or information operations to discredit liberal ideals and undermine democracies. Information operations are not a new addition to Russia's toolkit, but their reach and effectiveness have been increased by the vast and often unsecured cyberspace, which "allows for the high-speed spread of disinformation" (Fried and Polyakova, 2018).

8. While digital technology is undeniably a force multiplier, it is imperative to recall that information operations "are very human in design and implementation" (Watts, 2017). Those engaging in information operations try "to shape the target's preferences in line with the pre-defined aims of the sender" which involves "an active learning process on the part of the target" (Splidsboel Hansen, 2017). Information operations thus rely very much upon cutting-edge social, behavioral and cognitive sciences (Paul and Matthews, 2016).

9. The specific aims of Russia's meddling vary, depending on the circumstances, and they are not mutually exclusive. Indeed, analysts argue that the Russian leadership follows an "operationally opportunist approach" (Beaulieu and Keil, 2018). First, Russian meddling aims to **exacerbate pre-existing tensions within a society**. Wherever Russian meddling has been suspected, hackers and trolls have demonstrated a sophisticated understanding of the anxieties that divide a country. In the United States, Russian operatives purchased advertisements that inflamed religious and political grievances to undermine its civil society (Lecher, 2017). In Germany, Russian bot networks exploited debates over the government's refugee policies to try to weaken Chancellor Angela Merkel (Meister, 2016). Moreover, in Spain, Russian media and Russian bot networks fanned Catalan separatism, contributing to one of Spain's biggest constitutional crises of the modern era (Emmott, 2017). These incidents show Russia's use of technology to weaken a sitting government, undermine the opposition or make liberal democracy appear undesirable (Alandete, 2017b).

10. Importantly, these divisions are not created out of thin air. Not every person who is involved in a divisive political debate is a Russian agent, nor is every bot network operated by Russian government operatives. Instead, Russian operatives insert themselves where they believe they can make an impact. Operatives exploit existing animosities by amplifying and elevating the most extreme voices to distort a country's public discourse. Media outlets like RT, which operates on a budget matching some of the biggest global media groups, provide conspiracy theorists and radical groups with the opportunity to spread their message. During the 2016 US elections, Russian agents masqueraded as US citizens on Facebook and Twitter to fuel highly partisan debates. Speaking about Russian bot activity, John Kelly, the founder of a social media marketing firm, noted that "[t]he Russians aren't just pumping up the right wing in America. They're also pumping up left-wing stuff — they're basically trying to pump up the fringe at the expense of the middle" (Rutenberg, 2017). As Mr Kelly told the US Senate: "The extremes are screaming while the majority whispers" (Kelly, 2018). In short, Russian meddling plays on existing fault lines in a society.

11. Second, Russian meddling seeks to **undermine faith in liberal democratic institutions**. Since the so-called color revolutions of the early 2000s, Russian leaders have, in the words of political sociologist Larry Diamond, "behaved as if obsessed with fear that the virus of mass democratic mobilization might spread to Russia itself" (Diamond, 2016). By weakening democratic institutions, Russian leaders see a way to weaken their perceived adversaries and level the playing field. Suggestions of corruption or official misconduct can force democratic governments to turn inward to deal with discontent and apathy within their own electorates. As early as the 2012 US presidential election, Russian media reported that US democracy was a "sham" and suggested, "that US election results [could not] be trusted and [did] not reflect popular will" (Office of the Director of National Intelligence, 2017). Following protests in Catalonia, observers argued that Russian bots circulated messages suggesting Spain was violent and undemocratic (Milosevich-Juaristi, 2017).

12. Moreover, delegitimizing democracy helps Russian leaders sell their system of government to citizens within Russia and abroad. As stated by the Minority Staff of the US Senate Committee on Foreign Relations: “If Putin can demonstrate to the Russian people that elections everywhere are tainted and fraudulent, that liberal democracy is a dysfunctional and dying form of government, then their own system of ‘sovereign democracy’ [...] does not look so bad after all” (Minority Staff of the Committee on Foreign Relations, 2018). [Russian political leaders use the term “sovereign democracy” to describe the current political system in the country.] A weak West distracts from problems at home and provides a justification for holding onto power. Further, it makes Russia look more attractive to potential allies who could be alienated by the perceived failures and hypocrisies of the liberal democratic world order. If all politicians are corrupt and all elections are fraudulent, then there is no point in pursuing democracy at all (Zygar, 2016).

13. Third, Russian meddling tries to **advance politicians and political groups perceived as amenable or friendly to Russian influence and discredit those seen as hostile**. In Europe, Western intelligence agencies have, for example, reported Russian support for parties and organizations that undermine NATO and EU cohesion or advance Russian economic and political interests (Foster, 2016). In France, then-candidate Emmanuel Macron, noted for his opposition to many of Russia’s policies, suffered a major cyberattack that threatened to derail his candidacy. In contrast, his main rival, known for her pro-Russian views, was invited to the Kremlin and received extensive positive coverage by Russian media outlets.

14. A study by the Center for European Policy Analysis found that *Sputnik*, a Russian media outlet, granted “disproportionate coverage to protest, anti-establishment and pro-Russian members of the European Parliament” and did so in a deceptive fashion that “fit the [station’s] wider narrative of a corrupt, decadent and Russophobic West” (Nimmo, 2016). Movements that exacerbated internal tensions, threatened the cohesion of the EU and attacked NATO expansion tended to receive support from the Russian state. Movements that supported the opposite tended to be attacked or vilified.

15. Lastly, Russian meddling tries to **foment chaos and uncertainty in Western countries**. In July 2016, RT and *Sputnik News* published false stories about a US airbase in Incirlik, Turkey being overrun by extremists (*Sputnik News*, 2016). Observers reported intense activity by pro-Russian bot networks and social media aggregators that amplified the story and spread conspiracies about the imminent capture of nuclear missiles by terrorists (Fox, 2017). In January 2016, Russian-speaking communities in Germany were consumed by rumors that the government had covered up the rape of a girl by migrants. Russian media outlets and later also Russia’s Foreign Ministry spread the story, which insinuated that the official version of events was not to be trusted (Rutenberg, 2017).

16. Alina Polyakova of the Atlantic Council argues that the goal of such stories and of Russian meddling more broadly is to “manufacture some sort of political paralysis while at the same time raising the level of pro-Russian voices” to “destabilize politics and sow chaos” (Luhn, 2017). Individuals are induced to distrust their governments and mainstream media outlets in favor of conspiracies and rumors. The line between fact and fiction becomes blurred, making it easier for false or deceptive narratives to enter the public discourse (Fox, 2017). This confusion can be used to undermine the fabric of a society. It can also be used to support narratives within Russia about an impending global calamity that necessitates strong domestic leadership (Weisburd, Watts, and Berger, 2016).

17. In short, Russian misinformation and disinformation seek to accomplish multiple, interrelated goals to undermine the West and promote the interests of Russia’s leaders. They allow Russia to spread narratives that can influence, to its advantage, the way individuals, both at home and abroad, interact with political systems. Without resorting to direct military confrontation or substantial investments, Russian leaders thus seek to shape international affairs in their favor.

III. WHAT WE KNOW: RECENT RUSSIAN MEDDLING IN ALLIED COUNTRIES

18. Attribution in cyber space is notoriously difficult. This fact is especially true for information operations, which seek to create an environment of doubt, mistrust and confusion. Targets often prefer to conceal or downplay security breaches rather than face the embarrassment of public exposure. Social media platforms used to spread false or misleading narratives tend to be secretive with their data. The government agencies charged with investigating these incidents traditionally operate discreetly. Moreover, many of the components involved in information operations, including hacks, misreporting and bot networks, are just as available to private citizens as they are to state actors.

19. As such, it is difficult to discuss Russian interference without caveats. Although the Russian government is widely believed to have sponsored operations to discredit and destabilize liberal democracies, the extent and specifics of these operations remain unclear in many instances. In general, few government or parliamentary documents provide detailed, substantiated accounts of influence operations across the Alliance. Consequently, this section relies, in part, on public reporting and government statements to better understand allegations of Russian election and referendum interference in the United States, the United Kingdom, France, Germany, Spain and the Netherlands. These cases are illustrative because they involved a high number of credible reports alleging Russian cyber meddling and/or active steps initiated by governments and parliaments to prepare for any foreign meddling.

20. To keep this report concise, it focuses on cases of election and referendum meddling in Allied countries only. However, many of the patterns have been very similar in other countries, notably the former Yugoslav Republic of Macedonia¹, Georgia, Moldova, Montenegro (before it joined the Alliance), Sweden and Ukraine. Indeed, Russia first tested its cyber and information capabilities to influence domestic politics in NATO partner countries, especially in Georgia and Ukraine. Allies have already identified many lessons and best practices from their partners' experiences, as the Committee heard at the 2018 Spring Session. Going forward, the Alliance should continue to learn from partners, but also contribute to their resilience against such operations.

A. THE UNITED STATES

21. The US Presidential election of 2016 presents the most high-profile case of Russian meddling in elections. Four principal efforts were pursued: theft of information; selective dissemination of information; a propaganda campaign; and efforts to hack into voting systems across the country (Van de Velde, 2017).

22. Several key executive branch, Congressional and expert assessments have already been released publicly, but the investigations into Russian interference remain on-going. At the executive and Congressional levels, notable documents include:

- the January 2017 US Intelligence Community Assessment produced by the CIA, NSA, and FBI;
- the March 2018 House Permanent Select Committee on Intelligence Report adopted by the Majority Party;
- the March 2018 Minority Views on the House Permanent Select Committee on Intelligence Report; and
- the July 2018 Senate Select Committee on Intelligence's initial findings on the 2017 Intelligence Community Assessment.

23. What has become abundantly clear from all official and expert investigations is that Russia interfered with and sought to undermine public faith in the US democratic process. Although Russia

¹ Turkey recognises the Republic of Macedonia with its constitutional name.

and, previously, the Soviet Union have frequently attacked liberal democracies and sought to influence the outcomes of specific elections in the United States, Russia's actions in 2016 represented a significant escalation in activity, scope and directness.

24. Overt intrusions into public and private organizations as well as propaganda and disinformation enabled the Russian campaign. As reported in the January 2017 Intelligence Community Assessment, Russian intelligence officials targeted the personal and professional email accounts of officials associated with both parties (Office of the Director of National Intelligence, 2017). Clinton campaign chairman John Podesta had his email compromised after he mistakenly clicked on a spear-phishing email (Osnos, Remnick, and Yaffa, 2017). In his January 2017 testimony before the US Senate Select Committee on Intelligence, the then-director of the FBI, Mr James Comey, similarly claimed that Russian intelligence targeted and gained "limited access" to the Republican National Committee by compromising old email accounts and state-level Republican party organizations (Senate Select Intelligence Committee, 2017). However, according to the January 2017 Intelligence Community Assessment, Russia "did not conduct a comparable disclosure campaign" (Office of the Director of National Intelligence, 2017). Think tanks, lobbying groups, and other politically relevant individuals were also targeted as early as March 2016 (Office of the Director of National Intelligence, 2017).

25. Using this illicitly collected information, Russian officials launched a propaganda and misinformation campaign that relied on state-funded media, third-party intermediaries and paid trolls. Throughout the campaign, the fictitious DCLeaks and Guccifer 2.0, as well as WikiLeaks, contacted journalists and published emails, private phone numbers, campaign documents and other documents. Deputy Attorney General Rod Rosenstein made clear that DCLeaks and Guccifer 2.0 "were created and controlled by the Russian GRU [the Russian Main Intelligence Directorate]" (De La Garza 2018). These publications generated negative campaign coverage from established trendsetting news outlets, such as The New York Times (Watts and Rothschild, 2017).

26. Further, these events were extensively reported by Russian media outlets, including English-language outlets such as RT and *Sputnik*. RT, formerly known as Russia Today, is an international cable and satellite television network modelled after Western 24-hour news networks like CNN and the BBC. *Sputnik*, a government-run news commentary website and radio broadcast service, models itself after brash internet news sites like BuzzFeed. Both organizations are widely accused of serving as vehicles of Russian propaganda and amplifying extreme voices in their host countries (Rutenberg, 2017). Indeed, in 2017, the US Department of Justice required RT America to register under the Foreign Agent Registration Act. During the election, these sites used information disclosures to bolster their narrative about the failings of Western liberal democracy.

27. These activities were exacerbated by a coordinated campaign on social media platforms to highlight these disclosures, spread false stories and delegitimize the US government. On Facebook, officials have uncovered at least 120 fake Russian-backed accounts that spread messages seen by 29 million US citizens (Solon and Siddiqui, 2017). These pages include attempts to organize 129 offline, real-world events that were seen by 338,300 people in the United States (Volz and Ingram, 2018). It is unclear how many of these events were attended and how many people participated (Seetharaman, 2017). As of January 2018, Twitter had identified at least 50,258 Russian bot accounts that posted information related to the US election.

28. On both Facebook and Twitter, Russian accounts allegedly spread messages thought to be disruptive to US civil society or beneficial to Russian goals. This disruption effort included stealing identities and posing as fake US citizens, operating social media pages and other internet-based media targeted at a US audience and amplifying the views of real but divisive US citizens (Department of Justice, 2018). Messages sought to exploit and enrage both sides of controversial issues, including gun rights, immigration, LGBT rights and police use of force (Lecher, 2017). They also sought to directly influence the outcome of the 2016 US presidential election. This "firehose of falsehood," as RAND Corporation researchers describe it, produced high volumes of

misinformation over many different channels to demoralize and divide the public (Paul and Matthews, 2016).

29. In addition to these attacks, US officials claim that Russia targeted some voter databases during the 2016 election. On 22 September 2017, the US Department of Homeland Security informed 21 states that Russia had attempted to access state voter databases (Borchers, 2017). The Senate Intelligence Committee assessed that “[i]n a small number of states, these cyber actors were in a position to, at a minimum, alter or delete voter registration data; however, they did not appear to be in a position to manipulate individual votes or aggregate vote totals” (Burr et al., 2018). Though these databases can contain the usernames and passwords of election officials or the names, dates of birth, gender, driver’s licenses, and partial Social Security numbers of voters, it is unclear what the hackers planned to do with this information.

30. The 2018 US midterm elections took place in the interval between the writing of this report and its discussion at the 2018 NATO PA Annual Session. These elections were widely expected to be a target for Russia and possibly other foreign governments attempting to influence US politics. Indeed, a few instances of meddling had already emerged at the time of writing. In July and August 2018, Facebook, Twitter, and Microsoft announced the removal of accounts. On 31 July 2018, Facebook removed 32 pages and accounts from Facebook and Instagram without attributing responsibility on who stood behind the attempt to influence the midterm elections (Roose, 2018). An additional 652 group pages and accounts were removed by Facebook and 284 accounts by Twitter on 22 August (Lapowsky, 2018). Both Russian and Iranian accounts were included in this group, which also highlights the broader threat of foreign meddling coming from countries beyond Russia (Solon, 2018). The Microsoft Corporation also deleted and seized accounts reportedly created by the GRU, which were targeting the Hudson Institute and the International Republican Institute – both prominent conservative think tanks. Over the past two years, Microsoft has furthermore shut down 84 fake websites over allegations of using phishing emails to gain access to networks (Dwoskin and Timberg, 2018). Spear-phishing attacks on US members of or candidates for Congress appear to have continued since the 2016 elections, which has prompted individual political campaigns to hire expensive cyber and information experts on staff.

31. In response to signs of continued attempts at interference, the US executive branch and Congress have taken active steps to secure the midterm elections. Since January 2017, over 60 bills related to election security have been introduced in the US Congress. In the 2018 omnibus spending bill, the US Congress included USD 380 million in funding for the Help America Vote Act (HAVA). Efforts to institute clear sanction mechanisms against election interference have also been advocated. Senators Marco Rubio and Chris Van Hollen have championed the bipartisan Defending Elections from Threats by Establishing Redlines Act (Deter Act) as one avenue to dissuade foreign interference in the midterms. In September 2018, President Donald Trump signed an executive order on Imposing Certain Sanctions in the Event of Foreign Interference in a United States Election. In a joint statement, Senators Rubio and Van Hollen expressed their hope to go further on mandatory sanctions for those who might attack the US electoral systems (Van Hollen and Rubio, 2018).

B. THE UNITED KINGDOM

32. After reports of Russian interference in the US presidential election emerged, members of the British public expressed concerns about potential Russian meddling in the United Kingdom's 2016 EU membership referendum and its 2017 general elections. On 8 June 2017, the day of the United Kingdom's general election, the British Government Communications Headquarters (GCHQ) warned British energy companies that their systems might have been compromised by "advanced state-sponsored hostile threat actors." However, it is not known if this incident was related to the elections. Indeed, there were no known hackings or intrusions during the referendum and general elections campaigns (Williams-Grut, 2017). The government states that "to date, [it] has not seen evidence of successful interference in UK elections" (Roberts and Nokes, 2017).

33. Russia's influence in public discourse is unclear. While Prime Minister Theresa May accuses Russia of "planting fake stories" to "undermine free societies" and "sow discord in the West", attempts to study Russia's influence in the United Kingdom have revealed different estimates (BBC News, 2017). Oxford University, for example, found 105 Twitter accounts, tweeting 16,000 times, were linked to Russia. Overall, only 0.6% of tweets with the Brexit hashtag were linked to Russian news sources. Using a list of profile names provided to the US Congress, Edinburgh University found that 419 Russian Twitter accounts tweeted about both the US presidential election and the EU referendum (Booth et al., 2017). The Guardian newspaper found that these accounts were cited more than 80 times by the British press (Hern et al., 2017). A third study by City University of London found 13,500 bot accounts tweeting about the referendum. These bots operated as a "supervised network of zombie agents" and were deactivated or removed by Twitter shortly after polling closed. Bots "tweeted mainly messages supporting the Leave campaign", but researchers did not find evidence of widespread fake news and did not attempt to identify the owner of this network (City Press Office, 2017). Meanwhile, Swansea University and Berkeley University claim to have found 156,252 Russian accounts that mentioned Brexit in the days before the referendum (Reuters, 2017). The disparities in these estimates are the result of differing methodologies and Twitter's refusal to share much of its data with researchers.

34. These and other reports have triggered official investigations. In October 2017, the House of Commons Digital, Culture, Media and Sport Committee began a wide-ranging inquiry linked to Russia during the Brexit referendum and the 2017 general election. In November 2017, the Intelligence and Security Committee announced that it would investigate issues around Russian activity against the United Kingdom (Intelligence and Security Committee of Parliament, 2017). A separate investigation on digital campaigning by the Electoral Commission is also underway (Posner, 2017).

35. In July 2018, the Digital, Culture, Media and Sport Committee released an interim report on disinformation and fake news (UK House of Commons Digital, Culture, Media and Sport Committee, 2018). The Committee acknowledged the role that Russia has played in manipulating popular sentiment during referenda and national elections in Europe and the United States. The Committee offered suggestions on how to make tech companies more responsible for disinformation and fake news being spread on social media platforms. Additionally, the Committee called for a broader investigation into the scale of the problem in order to offer recommendations for actions.

36. Since June 2018, the actions of two prominent Brexit campaigners have drawn increasing scrutiny in the United Kingdom. Andy Wigmore, spokesman for the Leave.EU campaign, and Arron Banks, a major financial backer for Brexit, have faced criticism for their contacts with the Russian embassy in the run-up to the Brexit referendum, including an alleged exchange of confidential legal documents with officials at the Russian embassy and discussions about business deals (Cadwalladr and Jukes, 2018; UK House of Commons Digital, Culture, Media and Sport Committee). According to the Digital, Culture, Media and Sport Committee, the UK National Crime Agency is still investigating the matter at the time of writing.

C. FRANCE

37. During the 2017 French presidential election, then-candidate Emmanuel Macron and his party reported that they had suffered cyberattacks and false reports on social media. In February 2017, Mr Macron's digital campaign reported: "thousands of attempted attacks [against Mr Macron's] servers [from] tens of thousands of computers [...] at the same time" (Beardsley, 2017). Macron campaign officials faced phishing attacks that exposed their networks to external actors (Hacquebord, 2017). On social media, Mr Macron was the subject of several fake stories (Chrisafis, 2018). The source of these attacks remains unclear.

38. Most prominently, Mr Macron was the target of a major coordinated leak designed to damage his candidacy. On 5 May 2017, 36 hours before the French run-off election, a 9-gigabyte file appeared on internet forums and open-source sharing sites (Greenberg, 2017a). The document purported to contain Macron campaign emails, documents, accounting files, contracts and other information meant to embarrass the campaign. According to the Macron campaign, the file also contained "numerous false documents intended to sow doubt and disinformation" (Greenberg, 2017a). The release appeared strategically designed to exploit French laws prohibiting campaign coverage less than 48 hours before the election. Despite a press ban on the publishing of the content, the leak quickly spread over social media (Dearden, 2017). As in the US presidential election, the file and related hashtags were amplified by bots, far-right activists and WikiLeaks (Volz, 2017).

39. Most French cybersecurity experts have declined to attribute this incident to Russia officially. After the election, the French government's chief of cybersecurity claimed that there was insufficient proof to attribute such an attack (Associated Press, 2017). Other French sources have commented on the amateurism of the attack compared to most state-sponsored cyberattacks. Indeed, the Macron team prevented several attacks by inundating the attackers with fake accounts to slow down and discredit the intrusion (Challenges, 2017).

40. However, experts outside France have suggested Russia as a likely perpetrator. Then US NSA Director Michael Rogers stated that the United States "had become aware of Russian activity" in the French election and that US officials told their French counterparts about this (Greenberg, 2017b). In April 2017, a private cybersecurity firm, Trend Micro, reported that the attack on Mr Macron bore characteristics similar to the attack against the US Democratic National Committee (Hacquebord, 2017).

41. Like other Allies, France has taken active steps to address cyber and information operations. One notable recent action was the July 2018 adoption of a law on the manipulation of information during the election period. The so-called fake-news law permits courts to rule whether articles published up to three months before an election are credible or should be taken down. It allows candidates to sue for the removal of fake news stories and forces social media platforms such as Facebook and Twitter to disclose the funding for sponsored content (Young, 2018).

D. GERMANY

42. Germany has faced several threats allegedly connected to Russia. In May 2015, Russian hackers sent phishing emails to members of the German government, including the office of the chancellor. The emails installed a Trojan virus on the computers of MPs and staff members who clicked on it. Over the next three weeks, the hackers scoured the German Parliament's network and collected 16 gigabytes of data (Beuth, Biermann, Klingst, and Stark, 2017). Notably, the hackers relied on human error, targeting the Parliament near a national holiday when the IT department was closed. In 2016, meanwhile, Russian media outlets circulated a false story about an alleged rape to delegitimize the German government (Meister, 2016). After protests by Russian-speaking Germans, the incident earned a rebuke by German officials, who accused Moscow of "political propaganda" (Witte, 2017). Between March and April 2017, a private cybersecurity firm also

identified unsuccessful attempts by Russia to infiltrate organizations aligned with Germany's two largest political parties (Barker, 2017). In March 2018, the German government confirmed reports that its government-run intranet, used to securely exchange information between different ministries and government offices, had been breached by a Russian hacking group. The attack appeared to focus on the Foreign Ministry and was being treated as “an ongoing process, an ongoing attack” (Oltermann, 2018).

43. In the 2017 German federal elections, however, Russian meddling appeared to be absent. While Russian media outlets promoted a high volume of stories that fostered negative views of Europe and Germany's leadership, stolen files from the German Parliament failed to surface. Researchers at the London School of Economics, meanwhile, reported a “coordinated Russian-language [bot] Twitter network”, but their algorithms suggest that these networks were smaller than those deployed in other countries (Applebaum et al., 2017). Researchers with Oxford University found that 15% of Twitter traffic associated with “Alternative for Germany” – a party with pro-Russian views – had automated attributes, while major political parties averaged between 7.3 and 9.4% (Neudert et al., 2017). There is no public evidence to suggest Russia's involvement in this bot activity, nor do most observers think bot activity substantially influenced the election.

E. SPAIN

44. Spain claims that Russian meddling exacerbated tensions surrounding the 2017 Catalonia referendum (Emmott, 2017). In November 2017, Spanish ministers claimed that content related to Catalonia was sent from “Russian territory” and “other locations”, such as Venezuela (Alandete, 2017a). These claims were supported by a researcher at the Elcano Royal Institute, a Spanish think tank. In a report on the Catalan referendum, the researcher reported that trolls and bots disseminated true and false messages on Facebook and Twitter with the goal of provoking outrage toward the Spanish government. The messages characterized Spain as violent and undemocratic and reinforced images of Western instability (Milosevich-Juaristi, 2017).

45. Observers have supported some of these claims. In one study carried out by a researcher at George Washington University, the author found that stories by Russian outlets, such as RT and *Sputnik*, were circulated far more frequently than stories by other global outlets and ten times as frequently as stories by Spanish media counterparts (Alandete, 2017b). “Zombie accounts” spread pro-secessionist and anti-Spanish messages online (Alandete, 2017a). Meanwhile, *El Pais*, a major Spanish newspaper, found that tweets by Julian Assange and Edward Snowden in support of Catalan secession were likely amplified by bot activity, with more than 60 retweets occurring every minute, and attributed this bot activity to Russia (Alandete, 2017c). The Atlantic Council's Digital Forensic Research Lab found evidence to support claims that Russian propaganda had influenced the debate around Catalonia. Notably, researchers found that Assange's tweets received “extra amplification” from pro-Russian bots (Nimmo, 2017).

F. THE NETHERLANDS

46. Concerned by the meddling in the US Presidential elections in 2016, the Netherlands took active steps to prepare for potential Russian interference in the Dutch general elections in March 2017, including through active outreach to US officials by former NATO PA President and then-Minister of Foreign Affairs Bert Koenders (Brattberg and Maurer, 2018). However, Russian interference had already entered Dutch politics on two previous occasions. In October 2015, a group of Russian hackers involved in several other major hacks reportedly breached the Dutch Safety Board in the period leading up to and after the release of its report on the 2014 downing of flight MH17 over eastern Ukraine. In the run-up to the April 2016 referendum on the EU-Ukraine Association Agreement, Russian interference in the debate was seen as well, for example through agents passing themselves off as Ukrainians to influence local political debates.

47. To secure public trust in elections, the Netherlands had already banned the use of electronic voting in 2007 (Brattberg and Maurer, 2018). Before the March 2017 election, the government further strengthened election infrastructure by forbidding the electronic counting of ballots and the use of USB flash drives and email by election officials (Chan, 2017). Additionally, the government raised awareness of past Russian interference in foreign elections while also informing the Dutch public about disinformation and fake news. Furthermore, social media companies instituted a fact-checking function for Dutch newspaper articles (Brattberg and Maurer, 2018). Ultimately, the General Intelligence and Security Service concluded that Russia was not able to “substantially influence” the 2017 Dutch elections beyond the spreading of fake news. Independent experts argue that the fact the elections were carried out “without any noteworthy interference” could either be explained by “active preparations or an apparent lack of Russian effort at interference”, possibly because the Russian government did not want to draw further ire in the Netherlands.

IV. POLICY RESPONSES AND THE WAY FORWARD

48. In almost all reported cases of suspected Russian meddling, a familiar pattern has emerged. First, political parties or government institutions report unauthorized intrusions into their networks. Emails are compromised. Personal data is stolen. These intrusions are then followed by significant, indiscriminate leaks, circulated on social media and magnified by bots, trolls and other accounts. Finally, these leaks are reported on by traditional, trendsetting press outlets that publicize the most sensational revelations. Meanwhile, outlets sympathetic to or controlled by the Russian government publish false or misleading stories that encourage polarized debates and conspiratorial thinking. The result is a bubble of confusion, wherein large amounts of leaked and false information give the impression of a scandal (Toucas, 2017).

49. As detailed in previous sections, there is little doubt that Russian leadership has exploited freedom of speech and of the press to delegitimize democratic institutions in NATO member states. Nor is there any doubt that Russia’s involvement in such operations will continue in the immediate future.

50. The following sections detail a few policy responses to Russian meddling. These recommendations should not be understood as comprehensive or exhaustive as the situation is still developing and much of the surrounding analysis remains outside the public view. Rather, these sections reflect on promising practices by NATO members, approaches recommended by experts and other points commonly broached as part of the discussion on Russian interference (see for example: Fly, Rosenberger and Salvo, 2018 or Salvo and Beaulieu, 2018). Specific solutions will vary from state to state and from target to target. For clarity, policy responses are categorized into four sub-topics: policies that affect election infrastructure; policies that affect information systems; policies that affect social and mass media; and other possible measures.

A. ELECTION INFRASTRUCTURE

51. To date, there are no known cases of hackers altering vote totals in any election. However, there are indications of Russian interest in election infrastructure, such as voter registration systems, voting machines, tally servers and election-night reporting. Member states of the Alliance should therefore carefully analyse the potential threat. In the United States, for example, senior intelligence officials claimed to have “substantial evidence” that Russian-backed hackers gained access to, but did not alter, state websites and voter registration systems in seven states during the 2016 presidential election.

52. To discourage attacks on these systems, the US Department of Homeland Security designated election systems as “critical infrastructure” on 6 January 2017 in order to enhance communication between the federal government and election officials while unlocking additional funding for election security (Newman, 2017). Two bipartisan bills, the Secure Elections Act and the Protecting the

American Process for Election Results (PAPER) Act, have been proposed in the US Congress to enhance these efforts by eliminating paperless electronic voting machines, providing additional funding and assistance to election bodies, and mandating post-election security audits (Stewart, 2018). At the sub-national level, individual states have taken precautions such as the pre-election testing and certification of voting systems as well as requiring ballot reconciliations and audits (National Conference of State Legislatures, 2018).

53. Building on lessons learnt and best practices, your Rapporteur would, in particular, encourage fellow Committee members to explore taking the following steps through their national parliaments and governments:

- conduct regular risk assessments of election infrastructure and remedy any identified gaps or vulnerabilities;
- institutionalize pre-election preparations against election interference;
- mandate post-election security audits;
- provide adequate funding and assistance to election bodies; and
- designate election infrastructure as critical infrastructure.

B. INFORMATION SYSTEMS

54. More common are hacks that compromise the security of humiliating confidential information. As a researcher at the Center for Strategic and International Studies reports, “dumping authentic private information in the public domain is key for an attacker to gain credibility and build an audience they intend to manipulate” (Toucas, 2017). Authentic information serves as a hook for a larger misinformation campaign.

55. Governments can stop or deter some attacks by encouraging vulnerable organizations to adopt traditional cybersecurity measures. For example, most experts believe that organizations should have information technology departments with organization-wide visibility and access. They should be staffed with trained and professional employees who can purchase the necessary hardware and software without prohibitive delays. Meanwhile, all employees and managers should be aware of the threats that they face and how they might avoid unnecessary exposure through proper cyber hygiene. Workers should know to avoid clicking links or downloading content from unknown sources. They should know not to share passwords and personally identifiable information. Also, they should be aware that information posted on social media might be used against them. If individuals suspect a cyberattack, they should know who to contact.

56. Additionally, organizations should have clear and actionable protocols to expedite a response in the event of an intrusion and ought to know when it is appropriate to notify the relevant law enforcement or intelligence agencies. In the United States, for example, staffers at the Democratic National Committee were slow to engage the FBI about alleged Russian intrusions into their network (Lipton et al., 2016). In Germany, parliamentarians rejected cybersecurity assistance from the Federal Office for Information Security because they were concerned “the agency could seek to spy on them” (Beuth et al., 2017).

57. Independent of Russia’s activities, there is growing awareness of the need to develop robust cybersecurity capabilities. In 2016, the EU adopted the Network and Information Systems (NIS) directive, the first piece of EU-wide legislation on cybersecurity. The directive requires member states to develop incident response teams and a national authority competent in the area (Cybersecurity and Digital Privacy Unit, 2017). EU member states should promptly transpose the directive into national law if they have not done so already. In addition to various laws at the state level, the United States federal government passed the 2015 Cybersecurity Information Sharing Act to allow intelligence agencies to share information about cybersecurity threats with technology and manufacturing companies (Karp, 2016). At the same time, several NATO member states have

created military cyber commands to specifically counteract unwanted intrusions. France created such an organization in December 2017, following the presidential election, and similar institutions exist in the United States and Germany (Gramer, 2017). All NATO member states have developed a cybersecurity strategy in some form, though such strategies must be regularly updated to remain relevant (NATO Cooperative Cyber Defence Centre of Excellence, 2018).

58. Several national governments have also implemented laws and regulations that make organizations liable for breaches. The French National Commission on Informatics and Liberty (CNIL) is a cybersecurity regulatory body empowered to inspect corporate networks and enforce national data protection laws. In 2015, it conducted 550 inspections and fined at least one company EUR 50,000 for inadequate security measures (Raul et al., 2016). The United Kingdom, despite its anticipated exit from the EU, expects to implement the NIS Directive into its national law and, following public consultation in January 2018, confirmed that it would fine organizations up to GBP 17 million (EUR 20 million) for failing to cooperate with cybersecurity authorities, to report an incident or to implement appropriate security measures.

59. Internationally, there have been several sustained multilateral efforts to counter Russia's cyberattacks and information operations. In July 2014, the Alliance established the NATO Strategic Communications Centre of Excellence in Riga, Latvia, to research and identify information warfare.

60. The Cyber Defence Policy and an accompanying action plan, approved by all members at the NATO Wales Summit in September 2014, reaffirmed the Alliance's position that international law applied in cyber space and that Article 5 could be invoked in response to a cyberattack. The meeting also launched the NATO-Industry Cyber Partnership to strengthen NATO's relationship with the private sector and achieve specific cybersecurity objectives (Maldre, 2016). At the 2016 NATO Summit in Warsaw, cyber space was recognized as a domain of operations for NATO. Cybersecurity and defense played a significant role at the 2018 Brussels Summit as well. Among other actions, Allies agreed on a way to integrate sovereign cyber effects into Alliance operations and missions and decided to establish a Cyberspace Operations Centre in Belgium to provide situational awareness and coordinate NATO operational activity. Your Rapporteur welcomes these next steps in NATO's cyber defense policies. However, your Rapporteur argues that NATO must become quicker in analyzing cyber threats and better in responding in a coordinated, multidisciplinary way if it becomes necessary. Your Rapporteur also encourages further efforts, as parliamentarians in your respective member states, to ensure individual plans of action, lines of authority, and lines of coordination at the national, regional and local levels.

61. Enhanced coordination on cybersecurity and defense was identified as one of seven urgent needs for NATO-EU cooperation. The July 2018 Joint Declaration on EU-NATO Cooperation noted the intensifying work between the two organizations on hybrid threats, including cyberattacks. The fact that NATO and the EU are both participants in the Centre of Excellence for Countering Hybrid Threats in Helsinki, Finland is a boon in this regard. If circumstances permit, the EU could also be invited to join the NATO Cooperative Cyber Defence Centre of Excellence in Tallinn, Estonia. Moreover, the Digital and Social Media Playbook created by the NATO Science and Technology Organization provides a continually-updated assessment tool to help officials understand the goals and methods of cyber adversaries (NATO PA, 2017).

C. SOCIAL AND MASS MEDIA

62. While more robust cybersecurity measures can reduce risk, they cannot eliminate it entirely. Technical and human errors are certain to create vulnerabilities for even the most diligent organizations (Inglis, 2017). Furthermore, while access to private information can aid a disinformation campaign, it is not necessary to wage it. Misleading or fabricated stories can thrive even in the absence of hacks and leaks through social and mass media.

63. There are primarily two responses to misinformation on social media: one that emphasizes the **responsibilities of technology and media companies** and the other emphasizing the **responsibilities of governments**. Regarding the first approach, legislators and journalists have increased scrutiny of how media companies operate, especially in the wake of the Cambridge Analytica scandal. Following one briefing, US Senator Mark Warner described the efforts of one social media company as “show[ing] an enormous lack of understanding [...] of how serious this issue is, the threat it poses to democratic institutions, and [begging] many more questions than they offered” (Fandos and Shane, 2017). British parliamentarians have similarly described corporate efforts to probe the issue as the “bare minimum” (Shaban, 2018). Third-party experts, meanwhile, have reported aggressive efforts by Facebook and Twitter to scrub data related to Russian interference from their platforms, preventing independent assessments (Timberg and Dwoskin, 2017). Even within the companies, business officials “acknowledge now that they missed what should have been obvious signs of people misusing the platform” (Thompson and Vogelstein, 2018).

64. In response to concerted public criticism, these companies have made some changes to address the misuse of their sites by malicious actors. In April 2017, Facebook published “Information Operations and Facebook” that outlined how a foreign adversary might exploit the platform to manipulate public opinion. In the same month, it suspended 30,000 fake accounts that had been created to influence the 2017 French presidential election (Weedon et al., 2017). In November 2017, Google announced it would “de-rank” RT and *Sputnik*—a process wherein a site is de-emphasized in search results—for their role in spreading disinformation (BBC News, 2017). Twitter identified and suspended 3,814 accounts linked to Russia’s interference operation. These accounts, in total, had approximately 2.7 million followers. The platform also announced that it would counteract highly automated bot accounts through a number of detection tools based on public and non-public account data and activity characteristics (Edgett, 2018). Other websites and apps have received far less scrutiny. However, there is evidence of Russian disinformation campaigns on, for example, Reddit, a social media and news aggregation website, or Instagram, a photo-sharing mobile app (DiResta, 2018). This issue should be followed up vigorously. Companies should continue to harness the promise of emerging technologies by refining their approach to disinformation, using artificial intelligence and big data analytics in particular.

65. Other efforts have focused on fact-checking and informing users of false content. In November 2017, Facebook announced a new portal that allowed users to determine if they liked or followed any accounts linked to Russian propaganda (Yurieff, 2017). In January 2018, the company announced changes to its news feed algorithm and, in October 2017, it announced plans to hire more ad reviewers (Vogelstein, 2018). Prior to the 2017 German parliamentary elections, Facebook began labelling false stories and alerting users to hoaxes (Stelter, 2017). A similar but more vigorous effort took place before Italy’s 2018 parliamentary elections, wherein Facebook partnered with fact-checking organizations to alert users who shared false information about the fact-checker’s findings (Serhan, 2018). A number of independent fact-checking groups have also sprung up from civil society, including StopFake, the Atlantic Council’s Digital Forensic Research Lab, the German Marshall Fund of the United States, Hamilton 68 or the Baltic “elves” (Fried and Polyakova, 2018).

66. Traditional media companies, meanwhile, have taken steps to educate the public on possible misinformation. In France, eight news organizations, including *Agence France-Presse*, *L’Express* and *Le Monde*, joined forces with Facebook and Google to identify false stories circulating on social media (Barzic et al., 2017). *Le Monde*, meanwhile, established its own fact-checking site, *Les Décodeurs*, to help users determine the trustworthiness of a specific website (Albeau, 2017). These new ventures build upon past and current fact-checking efforts, which have been a staple of Western newsrooms since the beginning of the 21st century. Per one estimate, there are at least 34 permanent fact-checking groups active across 20 different European countries (Graves and Cherubini, 2016). Meanwhile, journalists report that newsrooms are having conversations “about [their] paper’s standards for using material of questionable sourcing” and the potential motives behind a source (Peters, 2017).

67. Some lawmakers have found these efforts are necessary but not sufficient. Efforts have also increased to regulate social media activity or make companies liable for illegal content in other ways. In the United States, a bipartisan group of lawmakers proposed legislation to ban foreign-paid social media political advertizing and make political advertizing on social media more transparent overall by putting it under the same regulatory regime as broadcast TV and radio (Kelly and Warner, 2017). Officials across NATO member states have also shown increasing interest in holding social media companies liable for failing to counteract illegal activity facilitated through their platform (Rozenshtein, 2017). The German Parliament approved a new law that requires social media platforms to take down “obviously illegal” material within 24 hours of being notified and makes them liable for up to EUR 50 million in fines if they fail to do so. French President Emmanuel Macron has expressed a strong interest in giving media regulators extra powers to “fight any destabilization attempt by any television channels controlled or influenced by foreign states” and regulating untruths on social media (BBC News, 2018). This led to the bill on information manipulation in pre-election periods (see above). The EU also runs Europol’s Internet Referral Unit which, per a July 2016 report, assessed and referred for removal over 11,000 messages related to terrorist content. Ninety-one percent of this content was removed (Europol, 2016). Though the group puts its focus on extremist content, its activities could serve as a model for other efforts.

68. The second approach to misinformation puts the onus on governments by emphasizing their responsibility to keep the public informed. Russian meddling exacerbates existing fissures in society, but it does not create them. A misinformation campaign cannot take root if no domestic audience is willing to accept the divisive and conspiratorial messages that Russian actors amplify. Thus, this approach emphasizes the responsibility of democracies to establish sources of authority and ensure that debates across the political spectrum operate using the same set of shared facts.

69. Many of these efforts focus on government task forces that target disinformation. The EU, for example, operates the East Stratcom Task Force, a team of diplomats tasked with exposing Russia’s online information through its website, [EU vs Disinfo](#) and a network of over 400 experts, journalists, and think tanks. The European Commission also published a Communication on Fake News and Online Misinformation, for release in 2018, setting out the challenges and outlining key principles and objectives that should guide actions and specific measures the Commission seeks to take (European Commission, 2018). In support of its work on the document, an EU high-level group published a detailed report, formulating a number of recommendations for a multidimensional approach to online disinformation (High-Level Group on Fake News and Online Disinformation, 2018). The Czech Republic opened its Centre Against Terrorism and Hybrid Threats to counter disinformation, hoaxes, foreign propaganda, and extremist messaging within its borders (Colborne, 2017). In December 2016, the US Congress expanded the mission of the State Department’s Global Engagement Center, originally envisaged to counter terrorist propaganda, to include countering state-sponsored propaganda and disinformation. However, despite lawmakers reallocating USD 120 million from the Department of Defense’s budget, it appears the Center has yet to access or spend any money. In January 2018, the British government announced plans to create a new national security unit tasked with “combatting disinformation by state actors and others”, but it remains unclear how this unit will operate and what its mandate will be (Walker, 2018). The German Interior Ministry similarly proposed the creation of a Center of Defense against Disinformation to identify misinformation and educate the public on its dangers (Deutsche Welle, 2016). In the run-up to the 2018 parliamentary elections, the Italian government had an online portal that allowed people to report false content online (Serhan, 2018). On a smaller scale, parliaments themselves can play a role in countering misinformation by holding hearings and releasing reports that reveal false narratives and the actors behind them.

70. As two experts from the Atlantic Council underline, “[w]inning the information war will require a whole-of-society approach” (Fried and Polyakova, 2018). Other efforts thus focus on civil society and the promotion of civic education and media literacy. In Italy, for example, the Ministry of Education unveiled a new curriculum with courses intended to teach Italian students how to identify false news stories and understand how social networks can be manipulated (Horowitz, 2017). In the

United States, several schools have adopted programs to help students understand how false narratives are created and how to identify them (Rosenwald, 2017). Since 2015, all French primary and secondary schools teach a course on moral and civic education. While primarily motivated by concerns over countering violent extremism, the course could serve as a useful forum to discuss misinformation campaigns. Similar programs exist in other Allied states. Though it is not yet clear how these programs will affect current public debates, several recent studies suggest that they help citizens better engage in the political process (Figueroa, 2017).

71. A related approach focuses on strengthening research on cyber and information operations and developing technological tools to deal with them. One EU high-level group, for example, proposes “a network of independent European Centres for (academic) research on disinformation” and urges the European Commission to consider an independent Centre of Excellence (High-Level Group on Fake News and Online Disinformation, 2018). A RAND Corporation scholar has also promoted the idea of a multidisciplinary Center for Cognitive Security (Waltzman, 2017).

D. OTHER APPROACHES

72. Russia uses information warfare because it appears to cause significant disruption at a low cost. As such, democracies could choose to discourage influence operations by imposing real consequences. For one, democracies should pursue actions through their court systems in cases of election interference, as the US Department of Justice has done in its February and July 2018 indictments of several Russian citizens and companies. Another potentially important instrument is sanctions. All NATO members instituted sanctions against the Russian Federation in the wake of the illegal annexation of Crimea in 2014. These sanctions must remain in place until conditions change. However, only one NATO member has implemented sanctions in response to election meddling. In the summer of 2017, the US Congress, in a near-unanimous, bipartisan vote, tasked the White House with imposing additional sanctions on Russia, in part because of its interference in the 2016 elections. In March 2018, after a substantial delay, the White House enacted part of these statutorily mandated sanctions. The US administration targeted five entities and 19 individuals, including the Internet Research Agency and individuals identified by the ongoing special counsel investigation as participants in Russia’s election meddling campaign. Your Rapporteur welcomes these first steps and acknowledges increased enactment of sanctions in recent months but notes that they fall short of the full range of sanctions authorized by Congress. Moreover, your Rapporteur would strongly argue that further sanctions should be discussed at the national and collective levels in response to additional evidence of Russian meddling in democratic processes.

73. Democracies can and should project national and multinational unity when faced with influence operations. Russian interference exploits and tries to exacerbate polarization within a society. Successful interference relies on political actors taking advantage of misinformation for short-term gain, for example by exploiting leaks for political gain. To prevent any future incidence, interference must thus be rebutted firmly and swiftly in a spirit of unity. Political leaders must be able to admit that Russian interference is demonstrably taking place when necessary. Political rivals must work together to condemn it with one voice via clear messages and actionable policies. By developing norms and procedures that discourage exploitation of misinformation, political systems can improve their resilience and deter future information warfare. The will of the people expressed through their votes in elections and referenda must be protected forcefully.

IV. CONCLUSIONS

74. In February 2018, US National Security Agency Director Dan Coats testified before lawmakers in the US Senate Intelligence Committee. As part of his assessment of the worldwide threats facing the United States and its allies, Mr Coats reported that: “We expect Russia to continue using propaganda, social media, false-flag personas, sympathetic spokespeople and other means of influence to try to exacerbate social and political fissures in the United States [...] There should be no doubt that Russia perceives its past efforts as successful and views the 2018 US midterms as a potential target for Russian influence operations” (Senate Select Intelligence Committee, 2018).

75. As Mr Coats’ testimony indicates and this report shows, the problem of Russian election interference is not going away. If anything, recent events suggest that it will be a more significant part of Russia’s toolkit than ever before. With a budget amounting to a few million US dollars, Russian forces can sow distrust and mayhem, build support for friendly politicians, and undermine enemies. While some steps have been taken to counter Russian meddling by means of cyber and information operations, Russia itself has faced few consequences for its interference. Many alleged targets of Russia’s activities remain mired in internal debates that undermine any collective response.

76. To prevent further erosion of liberal democratic principles, NATO member states will need to take concerted efforts to strengthen their electoral processes. This need will become increasingly pressing, as evidence mounts that other countries, including China and Iran, have employed tactics similar to Russia’s. Some of those efforts are detailed in previous sections, but member states will need to examine the pressures and circumstances affecting their country and develop a response accordingly. Russia adapts its operations to its targets and, thus, responses will need to be adapted as well. Your Rapporteur must underline, however, that individual and collective responses must be rooted in our common values, including individual liberty, human rights, democracy and the rule of law. These values can be exploited by an adversary, but they can also be our greatest asymmetric advantage. If we do not uphold these values, we undermine the democratic processes that we wish to safeguard and lose any advantage they provide.

77. As policymakers and agenda-setters, legislators play a particularly large role in this process. Consequently, lawmakers will need to foster dialog within their countries about how to rebut and respond to allegations of interference. They will need to work with their colleagues in other parties to ensure that credible allegations are believed by their constituents and civil society at large. They will need to ensure that allegations are investigated in a fair and impartial manner. While your Rapporteur recognizes the difficulty of these tasks, she hopes that this report can inform discussions and help member states recognize the threat posed by these operations. Indeed, your Rapporteur appreciates the input on the first draft of the report during the Spring Session from members of the Committee – and from associate members who have often suffered from Russia’s cyber and information operations. In particular, your Rapporteur welcomed input on the lessons they and their governments have drawn from cases where their countries were subjected to information warfare – what worked well and what did not. The input was invaluable in preparing the concrete policy recommendations in this final report as well as in the proposed resolution for the NATO Secretary General and Allied governments and parliaments.

79. As the STC’s work over the last few years clearly shows, threats in the cyber and information space are becoming absolutely critical. Before the terrorist attacks of 11 September 2001, the United States suffered from a failure of imagination. The Alliance – whether individually or collectively – must not suffer such a failure again. However, as Mr Coats has recently argued, “here we are nearly two decades later, and I’m here to say the warning lights are blinking red again” (Coats, 2018). The Committee and the NATO Parliamentary Assembly cannot relent and must continue to keep a sharp eye on cyber and information threats. Your Rapporteur stands ready to support this work in any way possible.

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DARK DEALINGS: HOW TERRORISTS USE ENCRYPTED MESSAGING, THE DARK WEB AND CRYPTOCURRENCIES

Report

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I. INTRODUCTION

1. The wish to privately communicate has probably been with humankind forever. The first case of encryption – the use of a private code to encipher and decipher messages – can be traced back to ancient Egypt almost 4,000 years ago (Cypher Research Laboratories, 2014). Until the end of the 20th century, the most powerful encryption technologies were largely in the hands of governments. Today, such encryption technology is widely available, offering several key advantages to users, including:

- **Authentication:** Users can be assured that other users are who they claim to be and not somebody impersonating them.
- **Integrity:** Users can be assured that the data they receive from other users has not been altered (intentionally or unintentionally) between “there” and “here” or between “then” and “now.”
- **Confidentiality:** Users can be assured that data they receive from other users cannot be read by third parties.
- **Anonymity:** Depending on the encryption and other methods employed, users can put distance between their real identities and their digital pseudonyms, granting them various degrees of anonymity.

2. Modern encryption technology has “become a bedrock of the modern internet” (Moore and Rid, 2016). Indeed, encryption *by default* is “becoming the new normal in personal cyber security” (Buchanan, 2016). After all, who would trust online banking or e-government services if we were not reasonably assured that our data is secured by strong encryption? In liberal democracies, private communications also fulfil a vital and legitimate role in support of fundamental human rights, such as privacy and freedom of speech (Chertoff and Simon, 2014). Indeed, modern encryption technology “is a crucial ingredient for any free political order in the twenty-first century” (Moore and Rid, 2016). In authoritarian countries, the ability to communicate anonymously can be a matter of life and death for activists, dissidents and journalists.

3. Like any other technology, modern encryption can have a dark side. Inevitably, its advantages hold much attraction for malicious actors, including extremists and terrorists. Such groups are typically organised in a decentralised manner, where individual members have little to no information about other cells or top officials. Even Daesh, which adopted a more hierarchical and territorial organisation in Iraq and Syria, has increased its decentralisation in step with the loss of territory. In today’s world, such a fluid organising style would be near impossible to maintain if terrorists did not have access to **encrypted messaging services** for propaganda, recruitment, communications, command and control, financing and illicit acquisitions. Modern encryption technology has also enabled the rise of two other cryptographic technologies with the potential to further enable extremist and terrorist operations: the **dark web**, composed of intentionally hidden servers on the World Wide Web, and **cryptocurrencies**, virtual currencies secured through the use of cryptography.

4. This report informs and supports the Science and Technology Committee’s (STC) continuing focus on potentially disruptive technologies with important implications for defence and security policies. The report was adopted in November 2018 at the NATO PA Annual Session in Halifax, Canada.

5. First, the report examines the basics of modern encryption, encrypted messaging services, the dark web and cryptocurrencies. Second, it analyses how extremists and terrorists use these instruments for communications, command and control, financing and illicit acquisitions. Third, it maps some of the most important policy debates surrounding these technologies. Finally, the Rapporteur proposes some recommendations on the way forward.

II. CRYPTOGRAPHIC TECHNOLOGIES: A PRIMER

A. MODERN CRYPTOGRAPHY

6. Until the 1970s, the only way to encipher and decipher electronic messages was **symmetric-key cryptography**, where sender and recipient must have the same key to unlock the message. If someone gains access to the key or cracks the code, communications are no longer secure. During the Cold War, as the complexity of warfare increased dramatically, so did the complexity of ensuring the secure distribution of encryption keys. In the late 1960s, an employee of the British Government Communications Headquarters was the first to propose a new encryption method to solve the problem of key distribution. However, the real turning point came when researchers at Stanford University had the same idea and published their results openly in 1976, enabling researchers around the world to take their ideas further. This was the birth of asymmetric public-key encryption – “one of the most pivotal inventions of the twentieth century” (Moore and Rid, 2016).

7. The mathematics behind **asymmetric public-key encryption** is intricate, but the idea is simple. Those who wish to communicate in private are given a *private key* and a *public key*, which are mathematically linked. Crucially, the public key is visible to anyone. If Alice wants to send a private message to Bob, she will use Bob’s *public key* to encrypt the message. As Bob alone has access to the *private key*, only he can open the message. Not even Alice can read her message anymore. The crucial advantage is that Alice and Bob no longer need to meet to exchange keys or rely on a middleman for distribution.

8. For two decades, the US government and its allies attempted to keep strong public-key encryption out of the hands of the US public and its adversaries, classifying it as ‘munition’ in 1976 and imposing strict export laws (Bartlett, 2014). Nonetheless, as the basics were publicly known and the available computing power outside government control rose dramatically, public-key encryption began to spread – both to private citizens and states outside the West. Despite efforts by the US government, strong public-key encryption could no longer be kept under control, as privacy-minded individuals and libertarian “cypherpunks” employed the technology and advocated its use. In 1996, public-key encryption was then moved to the commerce control list, marking the end of what has become known as the Crypto Wars. Today, public-key encryption is found everywhere, and it is hard to imagine where the internet would be without it. Most internet users employ a degree of encryption by default and often unwittingly when they browse secure web sites or send private online messages or emails for example. However, those who seek stronger privacy protections – whether for benign or nefarious purposes – do not have to look very far. On the internet, an endless trove of information exists on how to shield oneself from those who would like to access one’s data – no matter whether it is governments, criminals or terrorists. In other words, it is easy for those who want to decrease their online footprint to do so, as the requirements for digital literacy and technical skills are low.

B. ENCRYPTED MESSAGING SERVICES

9. Popular social media platforms, like Facebook and Twitter, are increasingly – if not sufficiently – cracking down on extremist and terrorist material. As a result, encrypted instant messaging services have become central for communications, command and control, acquisition and financing.

10. With roughly 1.5 billion users, **WhatsApp** is the most widely used messaging app in the world (Statista, 2018). Since April 2016, it has offered public-key encryption by default, calling it end-to-end encryption. Moreover, WhatsApp works with perfect forward secrecy, which means that users’ private and public keys change automatically and frequently (Greenberg, 2016). Perfect forward secrecy largely solves the problem of intruders secretly stealing private keys and thus compromising future communications. Even if an intruder manages to steal a key, he will only have exposed a small

amount of data. WhatsApp is still widely used by extremists and terrorists, due to its general popularity, high encryption standards and the possibility of bypassing phone verification by using virtual or temporary phone numbers (Stalinsky and Sosnow, 12 September 2017). However, WhatsApp has begun to fall out of favour (Stalinsky and Sosnow, 3 January 2017). For one, WhatsApp usually cooperates with law enforcement. Moreover, extremists have begun to suspect that entry points for law enforcement and intelligence agencies exist in its encryption protocols.

11. As a result, the **Telegram** app has rapidly gained popularity with extremists and terrorists. The app was launched in 2013 by Nikolai and Pavel Durov, co-founders of the **VKontakte** social networking site in Russia. In 2014, the two libertarian-minded brothers refused to grant the Russian government access to certain Ukrainian and Russian accounts on VKontakte. Today, they live in self-imposed exile and no longer control VKontakte. End-to-end encryption is easily enabled on Telegram. In particular, Telegram's "secret chat" mode is considered to have military-grade encryption protocols (Stalinsky and Sosnow, 3 January 2017). These chats do not leave any trace on Telegram's servers, and messages can be set to 'self-destruct' and cannot be forwarded to other users. Moreover, it is easier to use a fake phone number on Telegram than on other platforms. Analysts also argue that the company's reporting of suspect channels is limited, and extremist and terrorist channels are rarely suspended (Stalinsky and Sosnow, 3 January 2017). Telegram disputes this.

12. Other highly encrypted instant messaging services exist, of course. Multiplayer online computer games and many other apps, software or devices have built-in instant messaging services. However, they have (not yet) gained as much popularity with terrorists as WhatsApp and Telegram (Stalinsky and Sosnow, 3 January 2017). The open-source **Signal** app, for example, provides first-rate encryption technology and has recently soared in popularity. Its cryptographic protocol is also the basis of other closed-source apps, notably **WhatsApp**, and of the encrypted modes of Facebook's **Messenger** and Google's **Allo**. It stores no metadata except the last day a user was connected (Lee, 2017). An advantage is that its open-source nature means that it can easily be duplicated, modified and used as a custom, closed-group communication tool, utilising private servers for data exchange. However, Signal is much less user-friendly than Telegram or WhatsApp. Also, large files cannot be sent, and audio quality can be spotty. Blockchain-enabled messaging services exist as well, including **Nynja** which also offers an integrated marketplace and its own cryptocurrency (a feature that Telegram is also considering launching). Other popular highly secure apps include **Kik**, **SureSpot**, **WeChat** and **Wickr**.

13. Daesh has also created its own encrypted app called **Alrawi**. Designed for Daesh members, it is only accessible through the dark web. This makes it very difficult to shut down, but also less accessible. It has been suggested that it is not as secure as other encrypted apps. Some experts believe it was created in reaction to crackdowns on other apps and is used for planning more serious attacks and sharing sensitive communication. Others have argued that Alrawi may be more of a public relations stunt (Niglia, Al Sabaileh and Hammad, 2017).

14. Beyond instant messaging services, other options for encrypted communications exist. For example, the email service **Protonmail** has millions of legitimate users, but is also gaining in popularity among extremists and terrorists. The company does not store messages on its servers, holds no copies of encryption keys and offers the option of self-destructing messages. In 2017, it also launched a dark web service, a Virtual Private Network (VPN) service and the possibility of paying in Bitcoin (Stalinsky and Sosnow, 26 October 2017).

C. THE DARK WEB

15. Experts often describe the WWW as consisting of multiple layers (Microsoft, 2016). The first layer is called the **surface web**. It includes all websites that can be indexed through the automated crawler software of classic search engines. Like a fishing net dragged across the surface of the ocean, however crawler software only analyses and indexes a small portion of the internet however

(Bergman, 2001). The websites which cannot be indexed by traditional crawler software constitute the second layer – the **deep web**. The reasons why they cannot be indexed vary. Some websites might be private and require login credentials. Others, by their very nature, cannot be indexed, such as websites with dynamic or unlinked content.

16. The third layer of the internet is the **dark web**. The dark web consists of servers whose IP addresses are hidden, which makes it nearly impossible to track down the location of web sites that are hosted on them. While some of the websites hosted on the dark web are unindexed, the vast majority can be found through indexing lists (such as The Hidden Wiki), user forums or specialised search engines (for example Ichnid or Torch), even though these tools are often neither comprehensive nor stable. In other words, dark web sites are not hidden *per se*. Potential users do not need special skills or instructions beyond understanding the readily available information found online. However, the potential that they will make mistakes – and thus compromise the anonymity they seek – is large, which is good news for the trained law enforcement and intelligence agents.

17. Dark web sites – often called hidden services – are designed to be untraceable and to enable the circumvention of content restrictions or surveillance (Moore and Rid, 2016). These features serve many legitimate and legal functions (Chertoff and Simon, 2014):

- Journalists use the dark web to protect their sources or share files, for example through the Secure Drop service used by such prominent newspapers as *The New York Times*, *The Washington Post* and *The Wall Street Journal*.
- Dissidents bypass censorship where access to the internet is curtailed, for example by accessing the dark web site of *The New York Times*.
- Human rights activists employ it in authoritarian states, for example in Iran, which has recently begun a severe crackdown on dark web software.
- Many surface websites, for example Facebook, have dark web mirrors.
- Armed forces and intelligence services use it for communications, command and control and intelligence gathering.
- Law enforcement polices it, uses it for sting operations and even maintains anonymous tip lines.

18. It is currently impossible to gather exact data on the extent of the different layers of the WWW, in particular given the large growth and fluidity of deep and dark web sites and the partial or total anonymity of users. In 2016, Microsoft estimated that the surface web amounted to just 0.3% of all WWW pages (Microsoft, 2016). As for the dark web, in a 2014 report, researchers found an average of about 45,000 active sites during a six-month study (Owen and Savage, 2015). According to one expert interviewed for this report, this number has been substantially reduced in recent years, as groups like *Anonymous* take down servers hosting illegal content, in particular child pornography sites. The expert argues that a little less than 10,000 sites exist on the dark web based on the Tor software (see below), the most widely used software to access the dark web.

19. While some recent projects offer access to dark web sites from the surface web, most users must employ special software. **Tor** (previously known as The Onion Router) is the most popular software; another popular one is the Invisible Internet Project (I2P). The technology behind Tor was originally developed by the US Naval Research Laboratory to protect US intelligence communications. Since then, it was released under a free license and further developed by private individuals and organisations. Given the former ties to US government agencies, some dark web users argue against using Tor, as they suspect ongoing intelligence gathering.

20. Tor has two core functions. First, the software hides the Internet Protocol (IP) address and other identifiers of those who want to browse the WWW anonymously. Second, Tor enables users to access sites and hidden services on the dark web. It must be noted that the overwhelming majority of people use Tor simply as an anonymous browser for the surface web. Visits to hidden services

only account for 3% to 6% of Tor traffic (Moore and Rid, 2016). On a technical level, Tor relies on a network of approximately 6,000 computers forming a global network of nodes (so-called relays and bridges) (Tor Metrics, 2018). The user's signal is encrypted in multiple layers – hence the onion metaphor – and always passes through at least three nodes with IPs concealed from all other nodes.

21. Tor (and other networks) do not ensure complete anonymity on their own but must be coupled with other techniques to do so. For example, users could employ 'virtualised' operating systems, which could be contained on a USB stick and thus easily discarded or destroyed to get rid of evidence. Nevertheless, methods exist to gain access to (some) of the information in decrypted form as well as to the originating IP of the users, for example by controlling a large number of nodes or by using server vulnerabilities that 'leak' their originating IP. As a result, some users (especially cyber criminals) have started migrating to other projects which better protect their anonymity, including peer-to-peer and blockchain-enabled projects.

22. Needless to say, the dark web has also attracted malicious actors, including extremists and terrorists, as it is a near-perfect spot to anonymously conduct illegal activities. Indeed, some of the most prominent uses of the dark web are drug and other illegal markets, financial services, extremism, illegitimate pornography (in particular paedophilia), hacking services, gambling, murders for hire, hacktivism and human trafficking (Moore and Rid, 2016; Chertoff and Simon, 2014).

D. CRYPTOCURRENCIES

23. The US Department of the Treasury's Financial Crimes Enforcement Network (FinCEN) defines virtual currencies as "a medium of exchange that operates like a currency in some environments but does not have all the attributes of real currency" (FinCEN, 2013). As FinCEN further notes, a "virtual currency does not have legal tender status in any jurisdiction". Cryptocurrencies are a specific form of virtual currency, secured through the use of cryptography and originally invented to circumvent third parties such as banks.

24. Attempts to create successful virtual currencies in order to cut out traditional financial institutions started, in earnest, in the 1990s (Goldman et al., 2017). Two prominent examples include e-gold and Liberty Reserve. On e-gold, created in 1996, users could buy virtual grams of 'gold' with real-world currencies to shield themselves from market swings. E-gold soon became a haven for criminal activities and had to shut down in 2009. In 2006, Liberty Reserve stepped in to offer an alternative to e-gold – mostly to criminal outfits. It was eventually shut down in 2013.

25. The real turning point for virtual currencies came in 2008 when a person or people using the pseudonym Satoshi Nakamoto released a paper on the principles of a peer-to-peer virtual currency which does not rely on trust between users or on centralised control like e-gold or Liberty Reserve. In 2009, Nakamoto's Bitcoin was available for the first time and cryptocurrencies were born. Early adopters of Bitcoin often emphasised that the cryptocurrency could make government-controlled, centralised money obsolete by replacing it with an alternative that is distributed and decentralised (Marr, 2017). Unsurprisingly, criminals soon entered the market as well.

26. The current Bitcoin and cryptocurrency 'craze' really took off in 2017. Today, over 1,600 other cryptocurrencies exist with just as many uses and specifics. Cryptocurrencies are causing a big stir in financial markets, with a total market capitalisation of over USD 266 billion as of mid-July 2018 - down by over 67% from its high point in January 2018, showcasing the volatility of the market (Coinmarketcap, n.d.). **Bitcoin** is still the most widely used cryptocurrency, with a market capitalisation of over USD 133 billion. This is more than twice the market capitalisation of the second biggest cryptocurrency **Ethereum**.

27. In theory, cryptocurrencies possess many advantages that make them attractive to users, including:

- **Anonymity/Pseudonymity:** Most cryptocurrencies, including Bitcoin, only provide so-called pseudonymity. The virtual identities used for transaction – i.e. users' pseudonyms – do not need to be linked to a real identity but must remain consistent throughout transactions. Thus, if a link between a pseudonym and a real identity is made, the whole transaction history can be connected to this identity. This is one reason why newer cryptocurrencies which come closer to guaranteeing anonymity are gaining in popularity. For example, between mid-2016 and mid-2018, **Monero**, a highly anonymous cryptocurrency, has shot up in value 90-fold and it is now becoming the normal payment method for criminals on the dark web.
- **Mobility:** Transfers can be made to and from any computer enabled to send or receive the particular cryptocurrency.
- **No trust requirement:** Sender and receiver do not need to trust each other. Network nodes verify identities, transactions and blockchains in every transaction.
- **Non-interference:** Decentralised, peer-to-peer cryptocurrencies (like Bitcoin) do not need middlemen such as financial institutions, banks or governments. However, so-called exchanges are proliferating with cryptocurrencies' rising popularity. Exchanges serve as the interface between real and virtual currencies and hold users' virtual wallets.
- **Scalability:** As transfers entail only small processing fees for the foreseeable future, users can transfer even small amounts efficiently. On a positive note, this has offered new tools for people in developing countries with no or very little access to the formal financial system.
- **Security:** If private encryption keys are securely stored on personal devices or in the cloud, cryptocurrencies are very secure. However, if they are stolen, Bitcoins or other currencies are stolen as well.
- **Speed:** Bitcoin transfers take about 10 minutes to be confirmed, but many other cryptocurrencies perform faster and even Bitcoin transactions can be sped up. While this is longer than online payments with credit cards, the advantage for the recipient is that the sender cannot take back the payment once it is confirmed.

28. **Bitcoin transactions** work in the following way (other cryptocurrencies work similarly) (Driscoll, 2013). First, the sender creates a digital signature on the basis of a private key, authorising the unlocking and spending of funds. A mathematical algorithm ensures that no one can copy or forge the digital signature. The amount of Bitcoin is 'sent' to the corresponding public key which all nodes in the network can see. The nodes use the public key and the digital signature to verify that the sender owns the private key – without ever seeing it. Second, the network proceeds to verify the transaction input. The network knows that it is an authorised message, but how can it know that the funds are actually in possession of the sender? The sender therefore references earlier transactions of unspent inputs. The network checks every other Bitcoin transaction ever made to ensure that the inputs have not been spent. This is often called Bitcoin's 'public ledger'. Third, transactions need to pass through the entire network to be verified, which is time intensive. Consequently, the sender could try to trick the network by simultaneously assigning the same inputs to another transaction, i.e. to spend the Bitcoins twice. The network cannot verify which transaction came first. Therefore, it needs to create an order of transactions. Enter the so-called blockchain, which has attracted much attention from insurance companies, governments, industry and healthcare providers. A node can collect a set of transactions into a block and present it as the next block in the chain of transactions. These blocks contain a very specific mathematical problem, which starts a race between nodes to be the first to solve the problem – a problem so complicated that nodes can only keep guessing. The first node to guess right wins a certain amount of Bitcoin – hence the term Bitcoin 'mining' – and the transaction is irrevocably confirmed.

29. Truly anonymous cryptocurrencies are not yet as popular as Bitcoin and others. While pseudonymity is already a large advantage for malicious actors, a public record exists of all transactions carried out by a particular pseudonym. While complicated and time consuming, it is thus possible to track transactions in the Bitcoin blockchain. However, some services on the dark web

can mix Bitcoins from different transactions together. After the **coin mixing**, the same amount is sent but with different coins. This makes it harder to trace transactions back to one person, but given the massive growth in the cryptocurrency market, experts, companies and governments are finding ways to solve this particular problem, too. Those who want to make their transaction less traceable can make use of **other shortcuts**. For example, a cryptocurrency owner can pass the login information and/or recovery passwords of an account to someone else who can then access the account and its contents. In other words, there is no transfer to be traced.

III. HOW TERRORISTS USE CRYPTOGRAPHIC TECHNOLOGIES

30. Since the 1990s, extremist and terrorist organisations have been using internet technologies for various purposes, including data mining, communications, planning and coordination, propaganda, recruitment and mobilisation, training and fundraising (Weimann, 2015). As governments, companies, organisations and activists continue to increase their efforts to confront violent extremism and counter terrorism, extremists and terrorists are progressively turning to cryptographic technologies.

31. Estimates of how many terrorists and followers are active on encrypted messaging services and the dark web or conduct business in cryptocurrencies vary widely. Indeed, for the most part, only anecdotal evidence exists. For example, the number of Telegram users could be anywhere between 10,000 and 80,000 (Stalinsky and Sosnow, 3 January 2017). A snapshot for March 2016 shows that around 700 new Daesh-affiliated channels were opened (Barak, 2016). According to the Israeli Institute for National Security Studies, more than 50,000 websites and 300 forums for terrorist organisations were active on the dark web in 2011 (Rosner, London, and Mendelboim, 2013). However, a thorough study conducted in 2016 analysed 5,205 live websites on the dark web (Moore and Rid, 2016). It showed “the near absence of Islamic extremism”, with only 140 extremist dark web sites. Evidence of cryptocurrency use is even more sparse, with only a few individual cases seen in Gaza, Indonesia and the United States.

A. COMMUNICATIONS, COMMAND AND CONTROL

32. The surface web and instant messaging services have been a key instrument for extremist and terrorist communications, command and control. For example, Daesh terrorists used Telegram as their channel before, during and after the November 2015 Paris attacks (Stalinsky and Sosnow, 3 January 2017). To capitalise on these attacks, Daesh then used social media for propaganda purposes, for example by uploading a video which showed the attackers during the time they spent in Syria (Noack, 2016).

33. As the pressure on them increases, extremists and terrorists are migrating more and more towards encrypted messaging services and the dark web, without giving up their surface presence (Stalinsky and Sosnow, 3 January 2017). Indeed, extremists and terrorists have become very adept at linking the surface web, dark web and messaging services in a highly dynamic fashion that plays to every platform’s advantage: Facebook, Twitter and YouTube can reach large audiences, but are more exposed; encrypted messaging services and dark web sites are more secure and better suited for outreach to smaller groups and individuals but have limited reach.

34. The use of encrypted messaging services for **external communications** has increased markedly in recent years. Telegram, for example, is used, *inter alia*, for recruitment, outreach, announcements, content distribution, the dissemination of information, threats and intimidation, claiming responsibility for attacks and pledges of allegiance (Stalinsky and Sosnow, 3 January 2017). The app has also introduced new features in recent years that make the platform more attractive for large-scale and even public communications. It allows the creation of group chats with thousands of members. These group chats allow members to post their opinions and ask questions. This gives them a sense of belonging and lets them see that they are not alone in thinking the way they do

(Brown and Korff, 2009). Moreover, individuals and groups can launch public channels which anyone can follow, making Telegram more like Twitter (Stalinsky and Sosnow, 3 January 2017).

35. So far, only limited external communications are carried out on the dark web. Its attractiveness for propaganda purposes is likely limited because it is difficult for most people to access. In particular, “novices may be deterred by taking an ‘illicit’ step early on, as opposed to simple, curious Googling” (Moore and Rid, 2016). Most dark web sites would require an invitation and credentials. Moreover, they are not as easy to locate as surface web sites. No central stable repository of sites exists. This is the reason why, in many online forums, extremist supporters and terrorists suggested the creation of a “Jihadwiki” (Weimann, 2015). As noted earlier, however, many indexing lists, forums and search engines have emerged in recent years, making the exploration of the dark web easier.

36. In another sense, the dark web is also seeing more use, namely as a safe haven for propaganda material. After the 2015 Paris attacks, Daesh announced that the *Isdarat* website, which archives the group’s propaganda pamphlets, would be moved to the dark web due to increasing pressure on its surface web sites (Insite, 2015). Despite the website being hosted on the dark web, all media is still channelled through surface web sites such as Google Video.

37. In many **radicalisation** processes, sympathisers move from first encounters in real life or on the surface web to encounters with more limited groups or individuals on instant messaging services. Sympathisers are then slowly groomed and passed on to new contacts who can test them and lead them further on their path of radicalisation. A key advantage is that an interested individual can be ‘tested’, become a member and even carry out a mission without any direct physical contact (Magdy, 2016).

38. Encrypted messaging services are used extensively by groups like Daesh or al-Qaeda in the Arabian Peninsula (AQAP) for **internal communications, command and control**. The possibility of communicating quickly and anonymously with different parts of the world enables terrorist groups to train, plan, and execute attacks. For example, Daesh, AQAP, Ansar al-Sharia in Libya and the former Jabhat al-Nusra in Syria are reported to resort extensively to Telegram’s encrypted communications (Barak, 2016).

39. While it is more difficult to use, the dark web can be and has been used for more targeted communications, command and control. In 2013, encrypted communication was intercepted by the US National Security Agency between al-Qaeda leader Ayman al-Zawahiri and Nasir al-Wuhaysi, the head of AQAP. It was later discovered that this communication took place in the dark web. Chat rooms hosted on Tor, like The Hub and OnionChat, personal messaging tools like Tor Messenger, Bitmessage and Ricochet, which work like messenger applications hosted on the dark web, are some of the options available to those who need to communicate with an added layer of anonymity and strong authentications systems. However, some experts argue that such hidden services on the dark web “are often not stable or accessible enough for efficient communication” (Moore and Rid, 2016).

B. ACQUISITION OF WEAPONS AND OTHER ILLICIT GOODS

40. According to a 2016 Europol review, the internet and social media are being used by Daesh for the acquisition of goods, like weapons and fake identity cards, that are necessary to perpetrate a terrorist attack (Europol, 2016). While there is no way for extremists and terrorists to fully ensure they are not being tracked, anonymous identities, postal boxes, and other low-technology ways of hiding one’s identity make such purchases possible. In particular, Europol highlighted that encrypted applications like WhatsApp, Skype or Viber are relatively safe ways for terrorists to acquire these goods below the radar of intelligence and law enforcement agencies.

41. The dark web, especially Tor hidden services, is a well-known place for malicious actors to buy a multitude of illicit goods. For the moment, few in-depth studies exist on how extremists,

terrorists and other criminals use the dark web market for illicit purchases. Indeed, only a few anecdotal stories are known to the public. After the 2015 Paris attacks, stories circulated that their weapons had been procured over the internet, but these reports have not been confirmed (Persi Paoli et al., 2017). It is confirmed, however, that a teenager who killed several people during a shooting spree in Munich in July 2016 had purchased his gun on a dark web market. The UN has also reported that some terrorist groups have been searching the dark web for information about weapons of mass destruction (Besheer, 2017).

42. Experts at the RAND Corporation conducted the most in-depth study of the weapons market on the dark web, although it provides only a snapshot of a period of one week (Persi Paoli et al., 2017). Over the observed period, the researchers estimated that 52 unique dark web vendors of weapons were active with 811 relevant listings. Pistols were, by far, the most common item to be offered. Interestingly, digital products, such as manuals to manufacture firearms and explosives at home as well as weapons blueprints for 3D printers, were the second most common wares to be sold (of course, many of these digital products can also be retrieved with ease on the surface web). The researchers extrapolated that 136 sales, amounting to about USD 80,000, are generated over the dark web per month. This is marginal compared to the real-world illicit weapons trade. Indeed, the scale of the market remains limited and it only appears to be a viable option for smaller groups or individual actors. Furthermore, the ‘dark web community’ is cautious – if not doubtful – about the viability of the dark web weapons market because of “scamming, heightened policing, and low volume of weapons sales”. Overall, however, the RAND experts judge that “the volume can be considered sufficiently high to be cause for concern for policy makers and law enforcement agencies.”

43. The pseudonymity or even anonymity of cryptocurrencies would make it easier for terrorists to pay for illicit goods. Indeed, all dark web transactions are carried out with cryptocurrencies. However, legal real-world transactions with cryptocurrencies are also increasing in number and could become a risk (Goldman et al., 2017). For example, private individuals in Texas can sell firearms to each other without background checks (Brill and Keene, 2014).

C. TERRORIST FINANCING

44. Terrorist financing takes many shapes and forms. The international financial system is tightly interconnected, and extremist and terrorist groups continue to find loopholes in the system. Moreover, at a smaller scale, terrorists use a variety of loans, welfare benefits, gift cards, person-to-person cash or digital transfers (Goldman et al., 2017).

45. In the digital realm, extremists and terrorists perpetrate cybercrime to enrich themselves, for example by ransomware attacks, although experts believe that the volume of cybercrime in support of extremism and terror is still rather low. Experts also see a trend for calls for donations and the sale of paraphernalia moving towards encrypted messaging services (Stalinsky and Sosnow, 12 September 2017). It is moreover plausible that terrorists could enter or have already entered illicit market places on the dark web to finance themselves, for example by selling illegal drugs, identities or credit card information.

46. Ample real-world financing opportunities exist, but governments and experts have pointed out that cryptocurrencies could add another avenue for terrorist financing. The pseudonymity/anonymity cryptocurrencies ensure, their global reach and the lack of a clear regulatory frameworks all provide opportunities (Goldman et al., 2017). Indeed, regulators have been pointing out the risks for a number of years. For example, the European Banking Authority issued an opinion that put virtual currencies in a high-risk category for terrorist financing (European Banking Authority, 2014).

47. While a few cases have been publicly known and extremists and terrorists have at times advocated for cryptocurrency use, al-Qaeda, Daesh and others have not yet used cryptocurrencies extensively. A host of factors can explain why (Goldman et al., 2017). First, it would require

substantial technological sophistication to use existing cryptocurrencies at a large scale and with the desired degree of anonymity. Second, in many areas where terrorist groups operate, internet penetration is low and cyber infrastructure poor. Third, as terrorists, ultimately, want to create real-world effects, they must convert cryptocurrencies into real-world currency, which “introduces both an unnecessary layer of complexity and an increased vulnerability to the disruption of their operations”. Most importantly, extremists and terrorists have many alternatives to cryptocurrencies. Indeed, it remains entirely “possible to circumvent global rules governing terrorist financing with sufficient ease and frequency that using [virtual currencies] is unnecessary.” In short, cryptocurrencies “become a strategic threat in the counterterrorism context only when they can compete with cash and other readily available means of financing and achieve [scale]”.

48. Based on such analyses, most government entities, regulators and even experts are still unsure about risk levels. The 2015 US National Terrorist Financing Risk Assessment, for example, argued that the risk remains unclear for now (US Office of Terrorist Financing and Financial Crimes, 2015). The UK government has reported no evidence of cryptocurrency cases in the United Kingdom and argues that this risk is “unlikely to increase significantly in the next five years” (UK HM Treasury & Home Office, 2017). Another expert warns against overstating the risk: “terrorist financing via cryptocurrencies is a risk that could grow with time, but one that warrants a measured response” (Carlisle, 2018).

IV. CURRENT POLICIES AND FUTURE OPTIONS

49. The use of cryptographic technologies by extremists, terrorists and other malicious actors presents a host of challenges for policymakers, law enforcement, intelligence services, businesses, private citizens and others. A variety of policies are in place and future options are available. However, there are no silver bullets, and many of the options could either lead to other problems or involve difficult political trade-offs. This section does not aim to be exhaustive but will discuss some of the most important elements and political debates about the way forward.

A. MONITORING, REPORTING AND DISRUPTION BY ACTIVISTS, CITIZENS AND OPERATORS

50. As in real life, citizens should report any suspicious behaviour, content or messages in the digital realm to the operators or relevant authorities. For several years, social media platforms, including encrypted messaging services, have been criticised for letting too much illegal material remain on their platforms for too long. Recently, this has begun to change, as governments have reached out to them or changed laws to compel them. As a result, many detection and reporting systems have improved. Going forward, new technologies, based on machine learning/artificial intelligence and big data analytics for example, should further improve automatic detection and removal mechanisms.

51. In addition to reporting by users and removal by operators, a number of activist groups carry out voluntary monitoring, reporting and disruptive activities under the cover of anonymity that modern encryption provides (Solon, 2017). The hacktivist collective *Anonymous* has long targeted Daesh operations and even ‘declared war’ against the group after the 2015 Paris attacks. Other groups include the Ghost Security Group, Di5s3nSi0N, Daeshgram, KDK and the Hellfire Club. Some of these groups cooperate with law enforcement and intelligence agencies to counter extremism and terrorism. Others, more controversially, go against extremist and terrorist activities by themselves.

52. The debate surrounding the monitoring, reporting and disruption of extremist or terrorist content is a complex and very political one where hard questions arise. What is the line between content that is illegal and must be removed and content that is covered under freedom of speech? Who decides to remove the content - the government, private citizens or political activists? If content is removed, should the people who remove it forward it to law enforcement or intelligence agencies

or at least save the content for evidence purposes? Should governments actively encourage private citizens and activists or even sponsor independent ethical hackers or citizen cyber conscripts, or would that amount to vigilantism? And if the answer is yes, should they be encouraged to be merely reactive or to actively try to penetrate extremist and terrorist groups. In short, this policy debate is still very much unsettled.

B. LAW ENFORCEMENT AND INTELLIGENCE OPERATIONS

53. Law enforcement and intelligence agencies already possess many tools to counter extremist and terrorist activities based on cryptographic technologies. Agencies should and do support the reporting of suspicious activities, but they must also engage in robust operations to monitor and thwart activities as well as attack extremist and terrorist networks.

54. Like in any investigation, law enforcement can try to **compel companies, under existing laws and regulations, to work with them**. Most importantly perhaps, law enforcement can ask for access to the data or metadata of suspects and activities. The success of this approach depends, first, on the availability of data and/or metadata at the company. As more and more applications move towards very secure encryption, less and less data and metadata will be available for access even if companies and organisations want to cooperate. Second, some companies resist complying with government enquiries because of ideological or business reasons; others because they are headquartered in places beyond a government's jurisdiction, where local governments may not have the capacity or will to assist. While it is challenging, government agencies should pursue all avenues allowed under the law.

55. **Policing** activities on encrypted messaging services and the dark web as well as financial transactions with cryptocurrencies is necessarily more complex than policing the surface web. For example, recent operations to take down major illegal markets on the dark web have been long and complex and demanded investigative work both online and offline. Still, technological advances in monitoring, analysing, accessing and disrupting cryptotechnology use by extremists and terrorists, combined with the anonymity such technology also provides to government entities, should make policing progressively easier (Jardine, 2014; Chertoff and Simon, 2014). For example, as two experts point out: "A common misconception is that Tor is resistant to state-level surveillance and that its users can therefore act with impunity. In reality, any suitably resourced entity can launch an attack with high success rates while maintaining a minimal risk of detection" (Owen and Savage, 2015). With the right training, staffing and resources, law enforcement and other entities can thus block or manipulate nodes in the network, unmask Tor users and attack dark web sites (Owen and Savage, 2015; Moore and Rid, 2016).

56. More controversially, government entities can (and many do) also **target encryption systems in a covert fashion**. They could for instance find weaknesses in encryption systems, leave them in place and use them when they want to target individuals or groups. Law enforcement agencies and intelligence services could attempt to gain access to data or metadata in a covert fashion, but they could also seek system-level access and thus access the devices or dark web sites as a whole (Buchanan, 2016). They could then read the text messages as they are being composed on the device, record the phone calls as they take place and monitor other activities. However, such a step would be an escalation from typical wiretap operations because targeted malicious software would have to be deployed. This would be a move from passive collection to active surveillance. The legitimacy and legality of such actions will vary from state to state and depend on whether a state's own citizens or foreign actors are targeted. Perhaps more critically, it would leave encryption systems exposed – if government entities can find vulnerabilities, malicious actors could do so as well. What is more, the tools and vulnerabilities used by governments could also leak out intentionally or by accident. The *Shadow Brokers* case, for example, has been described as one of the worst security breaches of a US intelligence agency. In 2016, a group calling itself the *Shadow Brokers* released a multitude of highly potent hacking tools used by the US National Security Agency, which means that they are now readily available for malicious actors.

57. Law enforcement agencies also work on **identifying and fixing security gaps** in cryptographic technologies. For example, while Bitcoin's code is meant to protect it from being hacked, a weakness could expose the currency to digital threats. At the end of 2017, INTERPOL and the cybersecurity company Kaspersky found a flaw in Bitcoin's public ledger which made it susceptible to malware. In response, a joint project by INTERPOL and European law enforcement agencies will address those elements of Bitcoin which facilitate the avoidance of law enforcement detection – all the while respecting the privacy of Bitcoin users.

58. Another potent component of countering the illicit use of cryptographic technologies would be to increase **international cooperation** at all levels of government and across many lines of efforts, including on investigations, legal prosecution, and operational processes. One important aspect, for example, is to update and adapt Mutual Legal Assistance Treaties (MLAT). MLATs are agreements between different governments (unilateral or multilateral) to exchange information related to an investigation. Allied states should also attempt to establish MLATs with countries of concern, even though this will be difficult if countries do not share the same sense of urgency or values when it comes to policing cryptographic technologies.

C. NEW LAWS AND REGULATIONS

59. In a changing threat and technological landscape, governments should reflect upon their laws and regulations and, if they deem it necessary, should introduce **new laws and regulations** for encrypted messaging services, the dark web or cryptocurrencies.

60. In all Allied countries, vigorous debates about **data and metadata retention** laws are taking place. However, vast political differences exist on this question across the Alliance. Often, these debates pit those who argue for strong privacy rights against those who argue that state security could and should be enhanced by seeking companies to retain (more) metadata or data on their servers (even if in encrypted form) and make them more easily accessible to government agencies during investigations. Typically, companies strongly resist such steps. For one, they fear losing business to other similar but more secure services, in particular those beyond the regulating country's jurisdiction. Additionally, many technology companies are political supporters of strong privacy rights and oppose new laws and regulations on this ground. While such policy debates will remain difficult, policymakers should not shy away from them, given the risk and threats emanating from extremism and terrorism.

61. With the Bitcoin phenomenon continuing unabated, fundamental questions on how to **regulate cryptocurrencies** are not yet settled. Robust counter-terrorist financing tools already exist in national laws, in the financial sector and at the international level and they should be used to their fullest. However, there is ample scope to adapt the regulatory framework and to engage companies and organisations in the cryptocurrency sector to police themselves. Policy debates on how to adapt current laws and adopt new ones to reduce the abuse of cryptocurrencies for money laundering and terrorist financing are taking place all across the Alliance. States can look towards some of the trailblazers in this regard. Outside the Alliance, Japan has generally accepted cryptocurrencies, but it was also one of the first countries to change its legislation. It has introduced, for example, obligatory annual audits and capital requirements for cryptocurrency exchanges as well as other anti-money laundering measures. Many Allies and the European Union are also continuously strengthening their efforts.

62. **Blocking or forbidding certain services or whole technologies**, for example cryptocurrencies, is another option that is at times put forward. However, such an approach might not be viable beyond the short term. For those seeking strong cryptographic technology services, plenty of alternatives exist. It is a consistent trend that extremists and terrorists adapt quickly when pressure on certain platforms increases. In the world of encrypted messaging services, for example, "once a platform becomes less friendly to terrorists, they will migrate to another more secure channel" (Stalinsky and Sosnow, 3 January 2017). In response, some experts have argued for industry-wide

standards or codes of conduct (Stalinsky and Sosnow, 3 January 2017). However, similar problems arise here as well: there will always be individuals or companies who would cater to extremists and terrorists. Some authoritarian states, notably China with its Great Firewall, have tried to fully shield their country from certain services, but such an approach has not shown itself to be effective and would most likely not be seen as legal or legitimate in Allied countries (Buchanan, 2016).

D. WEAKENING OR TARGETING ENCRYPTION

63. More radical and controversial options are sometimes put forward. One possibility would be to **regulate encryption strength**, limiting the strength of encryption protocols in the civilian market while keeping powerful encryption in government hands. Indeed, in the first half of the 1990s, the United States had a two-tiered system in place for a brief period of time (Buchanan, 2016): strong encryption standards were legal in the United States, but only weaker encryption protocols could be exported. In a world with little computing power and few users, a certain degree of control over high-level encryption technology was feasible. However, with digitalisation and globalisation, it is no longer possible to control encryption software and the publicly-known mathematical principles behind it. It is difficult to see how such a two-tiered system could be effective, implementable and even politically acceptable today. This is especially true as emerging or over-the-horizon technologies like artificial intelligence, big data analytics and quantum computing will make it easier to break today's strongest encryption technologies.

64. Another more intrusive response would be to require **“backdoors” in encryption protocols**, which governments could use in criminal or terrorist cases. Theoretically, if citizens can trust the government not to abuse its powers and if the keys to the backdoor remain secure in the government's hands, users could still have adequate cryptographic protection (Buchanan, 2016). However, such an approach might face insurmountable challenges. First, it would require a very high amount of trust in government institutions. It is questionable whether publics in Allied countries would accept this approach, which raises important questions about privacy rights. Second, from a technological standpoint, it is doubtful whether such a system could even work. Some experts argue that it is mathematically impossible to introduce deliberate weaknesses while maintaining a high level of security. Even if possible, introducing backdoors increases the complexity of encryption protocols, making them very vulnerable to state and non-state hackers, thus leaving citizens at greater risk from cyber criminals and hostile governments (Buchanan, 2016). Moreover, in such a situation, developers would probably quickly try to design new encryption techniques to cater to a rising demand for more secure applications (Moore and Rid, 2016).

V. CONCLUSION

65. This report has aimed to highlight the ways extremists and terrorists can and do take advantage of encrypted messaging services, the dark web and cryptocurrencies. As shown, these cryptographic technologies hold important potential for good for a wide variety of actors – from individual citizens to the international community as a whole. However, malicious actors have quickly found ways to use them in malicious ways. It is the task of policy- and decisionmakers to maximise the benefits and minimise the risks from emerging technologies.

66. As the digital landscape is changing, all stakeholders must better understand the evolving use of cryptographic technologies as well as their opportunities and risks. Awareness of and a proactive approach to cybersecurity must spread across the whole of society. Through outreach, cooperation and incentives, governments can support all stakeholders in this process. Moreover, the responsible entities in governments, organisations and companies must be properly resourced, equipped, educated and trained to adapt to the changes that cryptographic technologies bring.

67. Robust policing of and strong regulations for cryptographic technologies are necessary. However, in this particular debate, it is a critical challenge for liberal democracies to continue to

preserve fundamental human rights, such as privacy and freedom of speech, while living up to the challenge of keeping citizens safe from harm. Your Rapporteur agrees with those that see a need for “[a] principled, yet realistic, assessment of encryption and technology” (Moore and Rid, 2016). Policymakers must base their discussions on sound first principles, facts and the possibilities and limits of technologies.

68. Your Rapporteur understands that, political views differ substantially across the Alliance on where acceptable lines for liberal democracies lie on these matters. Yet, he hopes that this report can spark a debate that leads to an agreement about a number of baselines for a transatlantic response to the challenges of cryptographic technologies. Fundamentally, these questions must be answered at the national level. Still, international dialogue and cooperation have been proven to be a key to tackling some of the risks emanating from cryptographic technologies.

69. Your Rapporteur would like to propose a set of concrete policy recommendations for Allied governments and parliaments.

- In all responses, the rights, liberties and freedoms of the people must be recognised, guaranteed, protected and permanently upheld.
- The principles of proportionality and limited government must always be employed. Ordinary people’s lives must not be turned into a hardship by disproportionate measures aiming at more and more control over the society at large.
- Any measures to thwart extremist and terrorist use of cryptographic technologies must be strictly designed for the counter-terrorism purposes.
- Policies should be embedded in the larger framework of countering violent extremism and of counter-terrorism efforts.
- Risk and situational awareness should be raised across the whole spectrum of stakeholders. Government outreach and working with citizens, activists such as ethical hackers, companies, organisations, government entities and others is crucial in this regard.
- Stakeholders should continue to police and take down extremist and terrorist material on messaging services and the dark web. Taking down one group, channel or website may just mean others will take its place, but this is the nature of policing in free societies.
- Law enforcement and intelligence agencies should engage in robust investigations and operations to monitor and thwart activities as well as attack extremist and terrorist networks.
- Research and development efforts to advance technological solutions to police cryptographic technologies should be increased, in particular in artificial intelligence and big data analytics.
- Systematically weakening encryption methods does not provide a viable path forward, as it would undermine security for all.
- International dialogue and cooperation on law enforcement and intelligence operations should be increased, in particular on information sharing, investigations, legal prosecution and operational processes.
- The powers of governments, including those of law enforcement, intelligence and security services, as well as the use of these powers by the aforementioned entities, should be subjected to efficient and effective democratic control and rendered accountable to the people.
- The entire Alliance should strictly renounce all subversive activities (through action or omission) of its own government, intelligence and security complexes, be it national, international or supranational (e.g. in collusion with organised crime and other malicious entities or through newly-created proxies), which might be aimed at deliberately creating, sustaining and/or condoning security risks, threats, synthetic malicious actors, preplanned problem–solution dialectics, psychological operations, inside jobs, false flags, etc. – whatever motive there might be. In other words, the end must not justify the means, and this in itself can dramatically reduce the severity of security issues our citizens, our peoples are faced with.

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NATO PARLIAMENTARY ASSEMBLY

SCIENCE AND TECHNOLOGY COMMITTEE (STC)

NATO SCIENCE AND TECHNOLOGY: MAINTAINING THE EDGE AND ENHANCING ALLIANCE AGILITY

Special Report

by **Leona ALLESLEV** (Canada)
Special Rapporteur

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ACRONYMS

ACT	Allied Command Transformation
AFSC	Alliance Future Surveillance and Control
C3	Consultation, Command and Control
CDT	Cooperative Demonstration of Technology
CNAD	Conference of National Armaments Directors
CMRE	Centre for Maritime Research and Experimentation
COMEDS	Committee of the Chiefs of Military Medical Services
CPoW	Collaborative Programme of Work
CSO	Collaboration Support Office
NATO HQ	NATO Headquarters
NATO PA	NATO Parliamentary Assembly
NCIA	NATO Communications and Information Agency
NDPP	NATO Defence Planning Process
NIAG	NATO Industrial Advisory Group
OCS	Office of the Chief Scientist
R&D	Research and Development
S&T	Science and Technology
STB	Science and Technology Board
STC	Science and Technology Committee
STCTTS	Sub-Committee on Technological Trends and Security
STO	Science and Technology Organization

I. INTRODUCTION

1. On 4 October 1957, the Soviet Union launched *Sputnik*, the world's first satellite. Given the military advantages the technology promised, the launch sent shockwaves through the transatlantic Alliance, and Allies had to race to make up for lost time. NATO cannot be caught off-guard like this again.

2. NATO's most staunch commitment is that Allies stand united to deter any potential aggression and, if deterrence fails, to collectively defend themselves. Consequently, NATO must possess the full range of capabilities to fulfil its duty to deter and defend the citizens of the Alliance. NATO's unrivalled defense science and technology (S&T) edge remains the lifeblood of current and future capabilities. Unfortunately, a real possibility exists that the Alliance could fall behind in defense S&T in the coming years.

3. A brief look at missile technology, artificial intelligence (AI) and quantum technologies illustrates the difficulty of maintaining NATO's S&T edge:

- **Missile technology:** In March 2018, President Vladimir Putin boasted about new nuclear weapons under development, including a heavy intercontinental missile, an 'invincible' cruise missile and an unmanned nuclear-armed underwater vehicle. Shortly after, Russia successfully tested its *Kinzhal* hypersonic missile. China is also investing heavily in missile technology, including two hypersonic weapon systems tested on multiple occasions.
- **AI:** China is investing USD 150 billion in artificial intelligence to become the world's leading AI innovator by 2030. In 2017, China's share of global AI equity funding was 48%, compared to the United States' share of 38% (CBInsights, 2018). Even though Russia appears to be behind the AI curve (global ranking on AI investments: 33rd place), President Vladimir Putin clearly recognized AI's potential when he said in 2017: "Whoever becomes the leader in this sphere will become the ruler of the world" (Soumitra, Lanvin and Wunsch-Vincent, 2018).
- **Quantum technologies:** China is making huge strides in quantum technologies. The government is spending USD 10 billion on a new national laboratory. In 2016, Chinese and Austrian researchers successfully held the first intercontinental video call secured through quantum encryption by way of a Chinese satellite. In 2017, China also launched a land-based quantum communications network with the aim of connecting Beijing and Shanghai over 2000 km.

4. Since US Senator Henry Jackson's visionary leadership over 60 years ago, the STC has remained vigilant in guarding NATO's S&T edge. Alas, in 2017, the Committee – supported by the NATO Parliamentary Assembly as a whole – noted its worry "that NATO's technological edge is eroding" (NATO PA, 2017b). Consequently, the STC is redoubling its efforts to identify the challenges in meeting Alliance goals and to lend political support to rectify any shortcomings. Your Special Rapporteur is eager to carry forward this vital work, to communicate our findings to Allied governments, parliaments and – vitally important – citizens and thus to effect a fundamental change in mindsets.

5. Most Allies and NATO entities are beginning to understand the importance of maintaining the S&T edge. However, your Rapporteur would argue that a much greater sense of urgency must prevail. For one, NATO faces an increasingly volatile and unsettling international situation with challenges and threats from all strategic directions. More importantly in the context of this report, a changing global S&T landscape also presents new challenges in maintaining the edge: potentially disruptive inventions and innovations are increasingly driven by smaller and more commercially-oriented companies as well as by nations or companies outside the Alliance. In short, if the Alliance does not intensify its efforts to maintain the S&T edge, the window of opportunity to adapt to the changing circumstances will rapidly close. And if the window were to close, the Alliance could face a capability gap so significant it would be challenging to remedy.

6. This special report is a direct follow-up to the 2017 General Report *Maintaining NATO's Technological Edge: Strategic Adaptation and Defence Research and Development*, which focused on defense research and development (R&D) spending and reforms (NATO PA, 2017b). In this report, your Rapporteur seeks to answer to the following questions:

- What defines the S&T edge?
- What is NATO's overall mission in maintaining the S&T edge?
- How can NATO evaluate its delivery of the S&T mission?
- Does NATO need new institutions, networks, policies or tools to fulfil its mission?

7. Your Rapporteur presented a first special report at the 2018 Spring Session, where Committee members provided valuable input for its revision. To make this report as complete as possible, the STC Director conducted interviews with 30 national and NATO officials on behalf of your Rapporteur (see Annex 1). The analysis contained in this report draws extensively on these interviews.

8. You Rapporteur hopes to paint a good picture of where NATO S&T finds itself today, where it should be tomorrow and where stakeholders dissent in their assessments. She knows that certain recommendations may require refinement through more in-depth analysis, but the task at hand – ensuring that NATO S&T remains fit for purpose – requires bold ambitions. The STC continues to stand ready to support this task.

9. Your Rapporteur had to make choices to keep the report within a reasonable length. Therefore, while NATO S&T has made S&T capacity building within the Alliance and with partner countries and institutions one of the cornerstones of its agenda, this report is squarely focused on NATO and the Allies. By excluding partnerships, your Rapporteur does not mean to diminish the vital role of partnerships in maintaining the S&T edge. Indeed, in the current S&T landscape these will become ever more important. In particular, the STC should continue to engage in proper discussions regarding the future of research and development in the European Union as well as partnerships with NATO's enhanced-opportunity partners.

II. WHAT DEFINES NATO'S S&T EDGE?

10. Since this Committee was created in the 1950s, its members have been concerned with preserving NATO's advantage in S&T. However, little clarity exists about what defines NATO's advantage in S&T or what the Committee has begun calling the 'S&T edge'. Alas, the research for this report yielded no conclusive answer either. Many interlocutors questioned the premise of the question, arguing that 'S&T edge' could not be properly defined. Even if it could, it would be very difficult to measure – to the point of impossibility. Nevertheless, the conversations generated certain illuminating points.

11. For many interlocutors, the more interesting and valid question was "What constitutes the *military* edge?". This question goes far beyond S&T. It must include analyses of military 'hardware' as well as military 'software', including doctrine, organization, training, leadership, or personnel. Defense analysts have a long history of studying the military edge. Nevertheless, such analyses often turned out inaccurate once conflict broke out or when new information shed light on past analyses. Today, such analyses have become even more difficult.

12. If such traditional metrics are already this difficult, designing valid defense S&T metrics for the Alliance would be even more complex. How do you evaluate whether a nation has the right mix of scientists and engineers, effective S&T processes or a healthy defense industrial or research base to support S&T? How do you account for very different approaches to defense S&T? And how would one aggregate analyses at the Alliance level?

13. Only highly-trained specialists in the various S&T domains might be able to design and measure such metrics. The problem is that such analyses would very quickly run into highly sensitive areas where Allies would not want to share much information amongst themselves. Even if such hurdles could be cleared, it is very difficult to see how the results could be communicated at an unclassified level without revealing too much to any potential adversaries. And even if analysts could come up with metrics, would voters, decision makers and defense practitioners be able to understand what these metrics mean in practice?

14. Interlocutors who argued that metrics could be defined or, at least, roughly characterized suggested several big-picture questions that could be examined (see Table 1). Unfortunately, exploring these questions in an exhaustive and valid way goes beyond the scope of this report.

15. Regardless of metrics, some interlocutors strongly argued that the Alliance may be overtaken in the medium to long term or may already have fallen behind in several S&T areas. Interviewees pointed to a number of S&T areas which should be monitored closely (see Table 2).

Table 1: What could characterize the S&T edge?
<ul style="list-style-type: none"> - What is the global annual distribution of science, technology, engineering, and mathematics graduates? - What is the global annual distribution of registered patents and research articles? - Which country has won the highest number of Nobel Prizes in recent years? - What are the capability and investment trends in key technologies, for example supercomputers, quantum computers or AI? - How many hypersonic weapons tests have China and Russia performed, compared with the Alliance? - How much are China and Russia investing into artificial intelligence, compared with the Alliance? - How long would it take for China and Russia to replicate the cutting-edge capabilities within the Alliance?

Table 2: S&T Areas of Concern
<ul style="list-style-type: none"> - anti-submarine warfare - artificial intelligence - autonomy - big data analytics - chemical, biological, radiological and nuclear defense - cyber defense and security - directed-energy weapons - electronic warfare - heavier conventional capabilities - hypersonic missiles - meta-materials - quantum technologies - space technologies - synthetic biology

16. In conclusion, however, a more nuanced ambition for the Alliance should prevail in the absence of clear metrics, which is well reflected in NATO's S&T mission: "maintain NATO's scientific and technological advantage by generating, sharing and utilizing advanced scientific knowledge, technological developments and innovation to support the Alliance's core tasks". That being said, while defining specific and quantifiable scientific metrics might sometimes prove elusive, merely asking the question focuses the conversation and ensures that creative tension and a challenge function remain in the system. Your Rapporteur encourages the Committee to continue to ask these questions and instill the necessary dynamism into the Alliance.

III. WHAT IS NATO'S ROLE IN ALLIANCE DEFENCE S&T?

17. In an Alliance of sovereign states, the primary responsibility to maintain a robust defense S&T base and to discover, develop and adopt cutting-edge defense technologies naturally lies with NATO member states themselves. Allies must expend sufficient resources on military-relevant S&T and continually re-evaluate and adapt their national processes and institutions. However, in an Alliance united in purpose, extensive and meaningful coordination, cooperation and collaboration of defense S&T adds significant value to national efforts, while establishing interoperability and the necessary overarching command and control.

A. THE NATO S&T COMMUNITY AT A GLANCE

18. To achieve its S&T mission, the NATO S&T community brings together "national S&T capacities, both people and infrastructure, as well as NATO's own research and experimentation capacity" see Figure 1). The Alliance has several NATO entities that support this community.



Figure 1: NATO S&T Community

19. Unified governance of NATO S&T is exercised through the **NATO Science and Technology Board (STB)**, composed of national representatives and NATO S&T stakeholders. The NATO Chief Scientist chairs the STB with the support of two Co-Vice-Chairs from NATO’s International Staff and International Military Staff. The STB promotes coherence of NATO S&T through objectives set out in the NATO S&T Strategy, focuses work through medium-term NATO S&T Priorities (see Table 3) and serves as a focal point for all NATO S&T programs of work.

20. The **Science and Technology Organization (STO)** is the main NATO entity focused on S&T. Led by the STB, it is composed of three executive bodies.

- **The Office of the Chief Scientist (OCS) at NATO Headquarters (HQ):** Managed by the NATO Chief Scientist, the seven-person OCS acts as the bridge between the Collaboration Support Office, the Centre for Maritime Research and Experimentation as well as NATO entities and senior leadership at NATO HQ.
- **The Collaboration Support Office (CSO) in Neuilly-sur-Seine, France:** The CSO in Paris provides a collaborative environment and supports NATO S&T activities through six Panels and one Group (see Table 4). In 2017, the CSO had a staff of 43. The CSO’s core activity is to support and enable the STO Collaborative Programme of Work (CPoW).

Table 3: 2017 S&T Priority Areas
Precision Engagement
Advanced Human Performance & Health
Cultural, Social & Organizational Behaviors
Information Analysis & Decision Support
Data Collection & Processing
Communications & Networks
Autonomy
Power & Energy
Platforms & Materials
Advanced Systems Concepts

Table 4: STO Panels and Group

Applied Vehicle Technology
Human Factors and Medicine
Information Systems Technology
NATO Modelling and Simulation Group
Systems Analysis and Studies
Systems Concepts and Integration
Sensors and Electronics Technology

- **The Centre for Maritime Research and Experimentation (CMRE) in La Spezia, Italy:** The CMRE is a customer-funded in-house STO laboratory. Its team of 161 staff (2017) organizes and conducts basic and applied research as well as technology development and demonstrations. Research areas include autonomous surveillance; port and ship protection; maritime situational awareness; and environmental knowledge and operational effectiveness. The Centre also acts as a knowledge repository for NATO.
21. Several other NATO entities carry out their own S&T related activities and contribute to the programs of work of other NATO S&T stakeholders:
- **Allied Command Transformation (ACT):** Based in Norfolk, Virginia ACT leads NATO's initiatives for the transformation of military structures, forces, capabilities and doctrines to enable NATO to meet its level of ambition and fulfil its core missions. ACT's work concentrates on five lines of efforts: future work; the NATO Defence Planning Process; requirements; capability development; and force development.
 - **The Conference of National Armaments Directors (CNAD):** The CNAD is the senior NATO committee responsible for promoting armaments cooperation between Allies. Chaired by the NATO Assistant Secretary General for Defence Investment, the CNAD supports Allies in defense planning, standardization and interoperability efforts. The CNAD also acts as an advisory body to the North Atlantic Council (NAC).
 - **NATO Industrial Advisory Group (NIAG):** The NIAG is a high-level consultative and advisory body of senior industry representatives under the CNAD. Its role is to facilitate Alliance armaments cooperation; advise on the industrial and technological base; support capability development; and act as an interface between industry and NATO.
 - **The Emerging Security Challenges Division:** The Emerging Security Challenges Division at NATO HQ addresses non-traditional risks and challenges. Mostly focused on policy, the Division has two work strands engaged in S&T related work: a Defence Against Terrorism Programme of Work and the Science for Peace and Security Programme.
 - **The Committee of the Chiefs of Military Medical Services (COMEDS):** COMEDS is NATO's senior body on military health. It seeks improvement in coordination, standardization and interoperability in military medicine as well as in information sharing between Allies and partners.
 - **The Consultation, Command and Control (C3) Board:** The NATO C3 Board focuses on information sharing and interoperability, including on issues such as cyber defense, information assurance and joint intelligence, surveillance and reconnaissance. The Board reports to and advises the NAC, the Defence Planning Committee, and the CNAD.
 - **The NATO Communications and Information Agency (NCIA):** The customer-funded NCIA's mission is to guard NATO's networks; offer timely support during operations; deliver C3 technology throughout NATO; and support Allies in their development of capabilities in the fields of C3, computers, intelligence, surveillance and reconnaissance.

B. THE ADDED VALUE OF NATO S&T

22. Just as with any other policy area in the Alliance, the nations remain fully in the driver's seat – a fact which must be firmly kept in mind when analyzing how to improve NATO S&T. No NATO entity dictates terms to nations on S&T – and none should. This should not be seen as a weakness, however. It ensures that NATO S&T activities are connected to national priorities and directly support national needs and requirements. Moreover, when the NATO S&T community establishes common views and, for example, translates these into NATO S&T Priorities (see Table 3), they have been validated by all 29 Allies.

23. Defense S&T remains firmly anchored within the nations, both in terms of capacities and efforts. At the NATO level, nations *choose* to come together to coordinate, cooperate and collaborate on S&T. Many nations have other forums where they can pursue international defense S&T if they wish to do so. Thus, the quantity and quality of participation depends heavily on the political importance the nation attaches to NATO as well as on national interests, priorities and budgets. As a consequence, it is a question of continued interest for national and NATO S&T leaders to understand how the NATO S&T community can remain a *forum of choice*.

24. Certainly, NATO S&T is not 'the center of the universe' within the Alliance. NATO S&T does not have the resources to compete with defense S&T conducted by nations or even defense companies with large budgets and only has a very limited ability to influence S&T trends. Nevertheless, NATO S&T is a critical enabler to maintain the full range of capabilities necessary to fulfil Alliance missions. The reason Allies choose to invest upwards of EUR 500 million in NATO S&T (mostly through national budgets) is the substantial added value it provides a) in the identification of risks and opportunities and the diffusion of knowledge and expertise, b) in concrete R&D efforts and c) through a range of cross-cutting benefits.

25. **Identification of risks and opportunities and diffusion of knowledge and expertise:** For many Allies – if not all – it is impossible to follow all military-relevant technological trends. For one, governments are no longer the main driver across the whole S&T spectrum. Allies with limited defense budgets can be especially dependent on the knowledge and expertise in the NATO S&T community. The combined Allied perspective provides much better situational awareness and enables NATO S&T to deliver timely, targeted advice and higher-quality cost-effective results.

26. The national and NATO officials interviewed for this process pointed to a number of concrete ways how NATO S&T helps nations and NATO:

- monitoring and understanding key military and dual-use S&T trends;
- staying ahead of S&T trends to avoid strategic surprises;
- improving advice and strategic communications to relevant Allied and NATO decision makers and entities;
- promoting information and knowledge sharing among Allies and within NATO institutions;
- building a consolidated and validated knowledge base in support of national and NATO lines of effort;
- identifying opportunities for coordination, cooperation or collaboration;
- avoiding unnecessary duplication among Allies; and
- encouraging or facilitating the determination of collective S&T targets and priorities.

27. **Concrete research and development efforts:** NATO S&T goes beyond the identification of risks and opportunities and the diffusion of knowledge and expertise. Across NATO entities, the Alliance offers a range of tools to cooperate, coordinate and collaborate on concrete R&D efforts. NATO S&T's role in these efforts is to accelerate capability development through STO activities, as the 2018 NATO S&T Strategy states. Main tools include prototyping, demonstrations, tests and experiments – a topic further examined in the next section.

28. Interlocutors noted in particular that the STO:

- helps sustain or increase S&T and R&D capacity in nations, in particular in those with a smaller S&T base;
- encourages and facilitates high-quality S&T and R&D at the national level; and
- fosters NATO-level and multinational S&T and R&D collaboration.

29. During the interviews, interviewees also identified a range of **concrete cross-cutting benefits** for nations and the Alliance as a whole.

- **Burden sharing:** In the current global S&T landscape and at current budget levels, no NATO member state can shoulder the defense S&T burden alone. NATO S&T enables the sharing of resources; establishes economies of scale; and creates synergies and network effects. Indeed, the return on investment can be very large. One interlocutor argued that his nation leveraged up to 10 times the money put into NATO S&T activities. Even nations with limited defense S&T investment can contribute significantly through niche competencies. Such opportunities will continue to grow. Emerging areas of investment, such as AI, big data analytics, autonomy or cyber, are increasingly driven by software and algorithm development and often only require smart brains – not large capital investments.
- **Capacity building:** NATO S&T brings together scientists, engineers and analysts from government, industry and academia. This helps them gain new knowledge, experience and skills – to the benefit of their nations. Nations who cannot (yet) effectively contribute to NATO S&T efforts or absorb defense S&T developments can volunteer as chairs of activities and build up their capacities over time.
- **Interoperability and standardization:** Interoperability and standardization are key to NATO operations – they are the glue binding NATO’s militaries together on the battlefield. Thus, the earlier in the R&D process member states can work towards interoperability, the better (and cheaper) for the Alliance.
- **Quality assurance:** S&T thrives on peer review. In NATO S&T, national experts can submit their ideas and work to a larger community in classified and non-classified settings – with the former adding substantial value.
- **Building trust and confidence:** The Alliance is built on trust and confidence. Without this, the Alliance could not function. During operations and, at worst, wartime, Allies will need to send troops into harm’s way. Building trust at all levels, including at the S&T level, is therefore immensely valuable.
- **Demonstrating political commitment:** Active participation in NATO S&T demonstrates political commitment to other Allies. This is crucial, especially in times of political strain within the Alliance.
- **Leveraging network effects:** The NATO S&T community provides a network with a well-defined structure. National representatives meet and interface with colleagues outside traditional bilateral relations. This facilitates coordination, cooperation and collaboration in NATO S&T, but can also be leveraged in other NATO entities and lead to bi- or multilateral projects outside NATO S&T.
- **Ease of cooperation:** NATO S&T is a government-to-government relation, taking certain competitive elements out of the equation, especially at lower technology-readiness levels. Allies value the low threshold for initiating collaboration, which normally only requires four nations to start an activity.
- **The US dimension:** For many nations, especially those with limited defense S&T budgets, the continued deep involvement of the United States in NATO S&T is a cornerstone, given that US

defense S&T investment is multiple times the investment in the rest of NATO members. Maintaining a broad and deep presence of the United States in the NATO S&T community must remain a priority.

IV. THE WAY FORWARD FOR NATO S&T: POLICY RECOMMENDATIONS

A. UNLEASHING THE FULL POTENTIAL OF THE NATO S&T COMMUNITY

30. The 2012 NATO S&T Reform aimed to make NATO S&T more effective and affordable. It required NATO S&T stakeholders to break down old barriers, build new effective connections and form a more cohesive NATO S&T community. The community has made huge strides since then. In general, the interviewed stakeholders underlined they were comfortable with the new S&T framework. Within the community there is a growing interconnectivity. Nevertheless, not all barriers have been completely removed nor all connections established or filled with life. The positive aspects of a situation still in flux is that it offers the possibility to make dynamic change before bureaucratic inertia sets in.

31. The distinct parts of the community need to continue building a lively ecosystem where NATO S&T networks can connect and which communities outside the NATO S&T community can tap into or contribute to. Interlocutors argued that this would lead to more coherence, more effective exploitation of existing institutions and networks and more systematic cross-fertilization on key S&T topics.

32. Interviewees singled out a number of communities with which the NATO S&T community needs to better interact: academia; acquisition authorities; defense planners; traditional and non-traditional defense industry; military authorities and operators; national S&T stakeholders; political leadership; and the armaments community. Based on her research, your Rapporteur would thus put forward a number of recommendations.

33. Other communities must be brought into the NATO S&T process earlier to increase the relevance of S&T activities. For example, more defense planners should be brought into the CSO's work during the formulation of the CPoW.

34. The NATO S&T community must work towards more active and systematic engagement with other communities in order to offer S&T perspectives on their problems and needs. For example, the NATO S&T community should engage with national armaments planners to the fullest by engaging with the CNAD framework whenever opportune and meaningful.

35. The NATO S&T community must increasingly engage in the NATO Defence Planning Process (NDPP), making it a focal point for bringing the different stakeholders and communities together (see Table 5). NDPP-driven future requirements are increasingly employed within the S&T community. Nevertheless, substantial work remains to be done. The NATO S&T community should stay ahead of the curve and focus on the 2023-2028 NDPP cycle.

36. The S&T Community must consult more closely and directly with military operators and users and communicate results in a manner meaningful to them. It is clear that military operators and users demand more from the S&T community. The military community desires quick results, which requires mutual expectations management,

Table 5: NATO's Four-Year Defence Planning Process
Step 1 - Establish political guidance
Step 2 - Determine requirements
Step 3 - Apportion requirements and set targets
Step 4 - Facilitate implementation
Step 5 - Review results
<i>Current status: Step 1</i>
<i>Start of next NDPP cycle: July 2023</i>

political leadership from the top and a more agile NATO S&T community that is sympathetic to the military's needs and requirements (see below). This is why prototyping, demonstration, tests and

experiments are crucial (also see below). The new Structured Partnership between ACT and the STO as well as more interaction with Allied Command Operations through this Partnership will further reinforce this. If the NATO S&T community can deliver on this, buy-in from the military community will increase drastically.

37. Building better relationships with national delegations at NATO is central to increasing national buy-in for NATO S&T. It will be difficult and perhaps a strain on resources, but such an effort offers a lot of potential. Building better relationships requires increasing contacts, establishing personal relationships and exploring national needs. The OCS and other NATO HQ-based entities should lead this effort.

38. While NATO and industry are coming closer together, engagement must be intensified. Increased dialogue would enable S&T leaders to indicate what problems they need addressed, and industry can offer insights into current and next-generation S&T. Such industry involvement should start much earlier than it does today, in a more structured manner and at lower levels. It should also include more non-traditional industry players.

39. The interconnectivity of IT systems and databases within NATO and with the nations must be enhanced. To break down barriers and enable more tight interactions, useful data must be easily shared between different stakeholders, including at higher classification levels, for example between the STO and COMEDS.

40. The tight coupling between academia, industry and defense S&T must be strengthened within nations and should be explored at the NATO level. The so-called Triple Helix between academia, government and industry offers great potential for the creation of new knowledge, inventions and innovations.

41. Lastly, frequent parliamentary engagement in national parliaments as well as through the NATO PA is key to delivering better NATO S&T. Parliamentarians are crucial for providing support to robust defense S&T programs. The NATO S&T community must help parliamentary work by providing insight into relevant technological developments and investment opportunities. Your Rapporteur notes that the interaction between the STC and the NATO S&T community – at both the staff and leadership levels – has drastically increased both in frequency and quality, especially after the 2015 and 2017 Letters of Intent between the NATO PA Secretary General and, respectively, the NATO Chief Scientist and the NIAG Chairman. The interactions should continue to improve. NATO and national S&T leaders should increase engagements with parliaments, for example with regular updates on technology trends or by directly supporting NATO PA delegations on S&T matters. Your Rapporteur encourages her colleagues to extend invitations to national and NATO S&T leaders to engage in substantive and regular discussions in their national parliaments. Direct personal discussions are key to understanding the challenges and opportunities that lawmakers must think through to keep their armed forces and the Alliance as a whole at the cutting edge of S&T and, ultimately, preserve the military edge. Your Rapporteur would like to underline that engagement with members of parliament must be targeted and timely. Communications must provide parliamentarians with evidence of the merit and impact of the work performed within the NATO S&T community by showing its relevance to military matters but also to salient societal issues. Engagement must be politically meaningful and digestible, without diminishing the scientific merit behind the messages. The STC should stand ready to provide further insights into what the parliamentary needs are in terms of S&T engagement.

42. Your Rapporteur would also like to note that parliamentarians have a responsibility to increase their S&T situational awareness and knowledge. S&T is ever more present in societies, and parliaments are conducting an increasing number of inquiries focused on S&T risks and opportunities.

B. NURTURING A MORE DIVERSE NATO S&T COMMUNITY

43. As in other parts of the defense and security world, the question of how the NATO S&T community can increase diversity has become crucial. Indeed, the community needs to achieve an improved gender and demographic balance and draw new members into emerging S&T areas where the community's knowledge base is thin. The most pressing concern in the NATO S&T community appears to be the age balance.

44. The STO, for its part, has analyzed the demographics of its network and communicated the results to Allies, who ultimately must drive the change. NATO entities have little leverage over nations, which often want to send their most experienced scientists and engineers. Fortunately, a number of Allies take the challenge of diversifying their defense S&T workforce very seriously. NATO S&T leadership should use its vantage point to the fullest by supporting these efforts and convincing others to do the same.

45. As the Committee learnt on its 2018 visit to San Diego and Silicon Valley, the competition for the best and brightest S&T talent is fierce and the opportunities outside the government and outside defense and security are vast. Allied S&T leaders must be visible and proactive enough to ensure they can attract and retain scientists and engineers of the caliber we will need to maintain the S&T edge. While the private sector can offer financial and certain other incentives that defense S&T cannot, national and NATO S&T leadership must communicate the unique selling points of defense S&T to those it needs to attract into the network. For example, the STO taps into an active network of about 5,000 experts which, in turn, can reach out to an extended network of 200,000 colleagues. The STO network thus constitutes the world's largest collaborative research forum in the field of defense and security. It also offers travel opportunities, a high quality of work and research opportunities the civilian sector cannot provide.

46. Young scientists and engineers often lack enough incentives to engage in NATO S&T work. Scientific and technical work carried out within a NATO context is difficult, albeit not impossible, to transition into publications that count in career advancement. In other words, if young scientists and engineers must go to greater lengths in NATO S&T to advance their careers, why would they bother? The NATO S&T community must investigate how to lower the barriers for meaningful publications.

47. Moreover, the current model of temporary contracts makes it less attractive for young people to apply for NATO positions. Such contracts take them out of national career advancement tracks without being beneficial for their careers. Here, nations need to learn from each other on how to offer opportunities that are not disruptive to budding careers.

48. Three recent laudable initiatives aim to expose more young scientists and engineers to NATO S&T. First, the STB has begun giving out early career awards. Second, the STB hosted a young career event in the side-lines of its last meeting where the young scientists and engineers could present their work and expose it to the senior STB level. These early career efforts should continue. Third, within the CMRE, a career path for young incoming scientists has been recently developed.

49. Moreover, the NATO S&T community should explore:

- how to send a better signal to young scientists and engineers;
- whether to devise a dedicated diversification policy;
- how to establish networks of young scientists and engineers; and
- whether S&T contests could be a good way to tap into new talent pools.

C. ENHANCING THE AGILITY OF NATO S&T

50. Given the challenges the Alliance faces, including an accelerating S&T landscape, increasing agility in the NATO S&T community – in the people, tools, equipment and network – is of utmost importance. Many interlocutors cautioned, however, that this would be difficult and take time. Once

again, the nations are critical, as agility enters NATO S&T through their financial and personnel contributions. Some interlocutors argued that NATO as an institution should not be the leader on agility. For one, the strength of NATO S&T lies in long-term S&T rather than in quick results. Moreover, nations tend to micromanage NATO efforts, which would be counterproductive for agility.

51. The NATO S&T community is indeed working diligently on increasing its agility. The OCS has developed the von Karman Horizon Scanning tool to quickly perform a technology scan on a particular S&T topic (time needed: two to six months) and *ad hoc* initiatives like the Maritime Security Initiative focusing on submarine warfare and naval mine warfare. The CSO has increased its agility through increased leadership by the Director of the CSO; through improved receptiveness and sensitivity to demands by the STB and the NATO Chief Scientist; and through tools such as Technology Watch and S&T Themes focused on operational needs. The CMRE has started to analyze its future options and possibilities from a content, resources and business-model perspective, under the leadership of its Director. ACT is refining the requirement process for development and acquisition and is looking to improve industry cooperation. The NIAG will become more agile by moving away from cumbersome long-term studies and into studies with quicker turnaround times.

52. Throughout the interview process, a number of recommendations stood out favorably for your Rapporteur:

- NATO S&T leadership should actively engage with nations, NATO S&T subject matter experts and military operators and users on the importance of an agile mindset.
- The NATO S&T community should encourage more risk taking in NATO S&T, for example through prototyping, demonstrations, test and experiments (see below).
- NATO S&T leadership should foster a more strategic approach to S&T in the NATO S&T community.
- NATO S&T leadership should encourage nations to make available national experts who are well versed in introducing agility.
- National best practices to increase agility should be collected, analyzed and shared. These best practices should cover such areas as risk management; fast-track development; acquisition; program management; and technology transition. The CNAD Framework for Innovation, which analyzes national innovation initiatives, is a good example that should be applied in other areas.
- New policy tools to facilitate Alliance exploitation of emerging and disruptive technologies must be developed, for example in AI, automation, cyber and big data.
- NATO S&T should continue to foster communities of interest and boost activities focused on autonomy, big data and artificial intelligence, and operations in contested urban environments, i.e. the current STO Themes. The STC will examine the implications of artificial intelligence in the 2019 STCTTS Report.
- A better, more broadly visible and available information management system must be developed to make NATO S&T readily visible and searchable by all relevant national S&T and capability development authorities.
- Information sharing at a higher classification level, including of research data, must be eased to stay at the forefront of S&T. In particular, easing national security clearance processes could facilitate dialogue at the early stages.
- Prepare prototyping, demonstrations, tests and experimentation packages that are ready to be implemented when the demand arises.
- Seed money tools should be developed which can be used without burdensome approval processes, which could be used by military commanders or the NATO S&T leadership to support demonstrations or rapid studies and analyses for example.
- Military commands could create technology ambassadors who could scan the S&T landscape for potential solutions for operational needs.
- Processes at NATO, for example regarding capability development and requirement setting, should be revised and streamlined.

- Competition-based tools, which the NCIA, for example, has experimented with, should be explored.

D. DEMONSTRATING THE VALUE OF S&T TO THE MILITARY COMMUNITY

53. Increasing the use of prototyping, demonstrations, tests and experiments to demonstrate to military operators and users what S&T can already offer them today emerged as a key recommendation throughout the research for this report. Interlocutors – both the stakeholders who carry them out and those who are the beneficiaries – agreed that such efforts need to be stepped up. Such efforts:

- accelerate capability development by bridging the so-called valley of death between research and development;
- help nations understand where they stand on S&T compared to other Allies;
- showcase concrete practical military relevance today; and
- bring problem solvers into contact with those who must deal with problems in operational environments.

54. The NATO S&T community already conducts prototyping, demonstrations, tests and experiments, most importantly in the CSO, ACT and CMRE. The CSO continues to increase the number of Cooperative Demonstrations of Technology (CDTs). In 2018, the number is expected to rise to 18 (up from eight in 2017 and two in the previous years). ACT's experimentation work is of critical importance as well, as it takes place in a realistic operational setting. The CMRE is also increasingly tying its experimentation work into military exercises. Industry's interest in getting involved in demonstrations, tests and experiments is steadily increasing as well.

55. The Alliance needs to elaborate better processes and tools to facilitate the insertion of S&T into operational settings, especially Allied Command Operations exercises and ACT activities. NATO S&T has now proven that its demonstrations and tests do not 'ruin the exercises', as some military operators had feared. The interplay between operators, S&T and industry has also proven productive. All involved have succeeded in breaking down barriers. However, processes should become much smoother and move away from *ad hoc* interactions that are too dependent on personalities.

E. IMPROVING STRATEGIC ENGAGEMENT AND COMMUNICATIONS

56. A key point noted in almost all interviews was the need to strengthen the NATO S&T community's strategic communications. If defense S&T – regardless of the forum – is out of sight, it is out of mind – regardless of S&T's objective merits. Ultimately, the NATO S&T community must create advocates in other communities who are convinced of the value S&T brings to their problems and needs. The S&T community cannot be its own lone advocate. Ideally, communicating the importance of S&T needs to come from the political leadership. In this context, the NATO Chief Scientist plays an instrumental to make STO and NATO S&T more visible at NATO HQ and beyond. Concretely, communications should:

- convey messages in a language understandable and meaningful to the audience;
- provide concrete answers to the question: "So what?";
- focus on concrete, individual success rather than presenting complete but abstract documents;
- offer concrete support and advice;
- showcase S&T's impact and importance; and
- help 'connect the dots'.

58. Some very practical suggestions were mentioned by interlocutors. For one, S&T-minded ambassadors could come together for an ambassadorial event in order to raise the visibility of S&T at NATO HQ. Also, NATO S&T should organize events at NATO HQ on salient and current issues,

for example the value of S&T in responding to the Salisbury chemical attack or its contribution to novel capabilities like the F-35. Moreover, a planned CDT at NATO HQ could further raise awareness and visibility of NATO S&T and set a good example for future CDTs at NATO HQ.

F. REINFORCING THE SCIENCE AND TECHNOLOGY ORGANIZATION

59. Almost all interlocutors agreed that the overall set-up was right to deliver on the NATO S&T mission and that the focus should be on getting the best within the existing organizational model. Nevertheless, some questions on organizational adaptation remain open and very much debated in the NATO S&T community. In particular, further adaptation of the NATO STO and its executive bodies appears to be in order. The current manpower allocations were generated in 2012, when the STO carried out a markedly smaller program of work and there were fewer demands on the STO's three executive bodies. Equally importantly, the strategic environment has changed markedly since then as a result of Russia's destabilizing activism in the Euro-Atlantic area, in particular its illegal annexation of Crimea and its military intervention in Eastern Ukraine. Overall defense budgets across the Alliance are rising to meet this challenge. Thus, a complete review of workload, requirements, manpower and organization is appropriate, based on better data and a better understanding of the evolving threat environment. Now that the STO has been in place for 6 years, it is only proper to fully review it and recommend changes, as appropriate, to the NAC.

1. The NATO Chief Scientist and the Office of the Chief Scientist

60. Most interlocutors argued that creating a NATO Chief Scientist position at NATO HQ in 2012 had been a crucial decision. NATO senior leadership and entities in Brussels are beginning to recognize the NATO Chief Scientist and the OCS, even though it has taken longer than many anticipated. Interlocutors cited a number of important reasons having the STO represented with a Chief Scientist at NATO HQ.

61. The STO is a NATO entity. As such, it needs to be represented at NATO HQ, where it can build up political networks and relationships, which are fundamental for effective policy making in the Alliance. Such trusted networks and relationships increase the agility of the STO as a whole. The STO can now much more easily provide S&T advice to senior leadership and NATO entities based in Brussels when appropriate or demanded, both formally and informally. Indeed, the Chief Scientist is part of the NATO HQ Senior Leadership meeting. He regularly briefs the Military Committee, delivers advice to the North Atlantic Council and works hand-in-hand with other parts of the S&T Community to increase program coherence, for example with the Emerging Security Challenges Division. To increase connectivity, some interlocutors called for the OCS to increase its interface with the Private Office of the NATO Secretary General. For the national S&T representatives, who only meet twice a year at the STB level, having the Chief Scientist in Brussels is also a key additional resource to understand and potentially shape NATO policy. For example, tackling the evolving relationship between the European Union (EU) and NATO on S&T could not be handled at the appropriate political and senior level without the OCS in NATO HQ.

62. Some interviewees questioned whether an organizational structure with three executive bodies in the STO continues to be the right model. The NATO Chief Scientist does not lead the STO as a whole. The Directors of the CSO and the CMRE have their own responsibilities and authorities, which can make day-to-day management complex and dependent on personal relationships. Some thus argued that these positions should be subordinate to the Chief Scientist to allow for better oversight of the STO on behalf of the STB. This question requires more analysis, as this view may be a minority view. The current organizational structure of the STO comes from the NATO Reform of 2012.

63. The NATO Chief Scientist position is filled as a voluntary national contribution. A lively debate exists in the STO whether this remains a sustainable model, as the filling of such a critical position relies on the goodwill (and funding) of individual nations.

2. The Collaborative Support Office

64. The CSO is supplied with core funding from the NATO budget (EUR 5.85 million in 2018). The CPoW has seen significant growth, both in overall activities and in the crucial CDTs, since 2012. The number of activities run each year has increased by 77% in the last ten years – from 141 in 2007 to 264 in 2017. This is a sign of the added value NATO S&T can provide to nations. A number of interlocutors noted that, if the CPoW were to grow even more – which is expected – the CSO would quickly reach a limit as to how many more activities it could support. Already, support for the more strategic efforts is becoming increasingly difficult and the CSO does not have the means to support all proposed CDTs. The CSO, in particular the Director, may have to engage in more direct outreach to national representatives to get activities started. Indeed, some nations have appreciated such a push in the past. Such efforts would require the dedication of time and staff as well as backup by STB members. Some interlocutors called for a slight increase in manpower, with perhaps two to four additional staff. One interviewee argued that the main need was to connect nations better with the CSO, which required increased travel budgets to identify synergies.

65. Financial constraints and the lack of human resources, at times, hinder the valuable participation in the CPoW of representatives from the rest of the NATO S&T community, particularly ACT, the CMRE and the NCIA. Some interlocutors argued that these entities should examine ways of increasing their participation in the CPoW. The CSO for its part should explore ways to improve the value added through their participation in the CPoW.

66. If Allies want to be serious about NATO S&T, they also need to remain engaged and even step up their support. Nations provide continuous support through international military personnel and voluntary national contributions. If that support were to disappear, the CSO would collapse. Currently, critical positions are left vacant because no nation is willing to put forward the necessary voluntary national contributions or international military personnel, which make up more than a quarter of the staff. Moreover, at times, the formulation of opinions in the panels and group is driven by personal interests, rather than by a strategic approach. For example, the possibility of engaging in high-risk/high pay-off activities is not given enough attention, according one interlocutor. Moreover, some interviewees questioned whether there is enough renewal and agility in the program. Indeed, visibility regarding underperforming projects is very limited, due to the lack of monitoring. One interlocutor argued that a more strategic approach to CSO activities was not called for, pointing to the national prerogatives.

3. The Centre for Maritime Research and Experimentation

67. The CMRE is the one institution in the NATO S&T community that almost every interviewee argued is under heavy strain. Opinions vary widely on how to adapt the Centre (or not). The current organizational model and even the future of the CMRE appear very much in question. With the NATO S&T Reform, the CMRE became fully customer funded. The Centre has no core funding, putting severe limits on its room for maneuver, especially in terms of business development, sustainment of assets and long-term projects. Many interviewees argued the customer-funded model, as it stands today, is not valid anymore. If left untouched, the CMRE will not be able to survive. A hybrid model that retains a strong market-based logic, incorporates an element of core funding as well as new tools and maybe charges customers more was proposed by several interlocutors.

68. One interlocutor argued that the CMRE is actually not really customer funded, as most of its revenue stream still comes from one customer (ACT), and was not really in a market – the market wants results tomorrow, but the CMRE is mostly focused on the long term. He argued that governments should step in and pay for the vital long-term S&T the CMRE produces, and that he Centre was a common asset and must be funded like one. Those holding this view advocated to seriously explore NATO common funding opportunities. Beyond a set level of such common funding, one interlocutor suggested that a percentage share of the CMRE's revenue streams could be matched with NATO funds. In other words, the more success the CMRE found on the market, the

more it could invest in the future. Some argued that it would also require the CMRE's mission to be updated and sharpened. One suggestion was adding a focus on research and experimentation in AI and autonomy, given the vast data sets the CMRE continues to generate in these areas.

69. The market does not have a lot of customers beyond NATO entities and Allied and partner nations. It is true that new opportunities exist in EU research programs. However, NATO-EU relations are not yet fully formalized, including on crucial issues such as the exchange of classified information. Could the CMRE then fully tap into this potential? Even if the CMRE could find more novel customer-funding streams, another question beckons: would the Centre's activities drift too far away from core Alliance needs and requirements?

70. While the CMRE offers significant value to nations, military operators and users as well as national S&T representatives do not always communicate this. Advocacy by the CMRE itself and by ACT, its main customer, cannot be enough. Increased advocacy from nations and military commands which clearly benefit from the CMRE is fundamental. And they are beginning to do so. At Allied Maritime Command for example, there is significant appetite for the services the CMRE provides, but more systemic interaction between the CMRE and Maritime Command needs to be developed.

71. On balance, your Rapporteur strongly suggests that the current CMRE model be revisited. It goes beyond the scope of this report to devise robust recommendations. However, she would argue that it cannot be an option to just wait and see if an organisation can survive with a model that is not truly geared for survival. If that were the case, tax payers – and your Rapporteur – would not understand why the Allies needed to pay for an experiment facing such high odds. She would therefore urge for a careful analysis with a view towards making the CMRE fit for purpose. The CMRE is a world-class S&T institution, with capabilities that nations individually or in cooperation would struggle to fill if the CMRE were to fail or would lead to unnecessary duplication. In a time when nations are increasingly worried about maritime situational awareness and anti-submarine warfare, making the CMRE fit for purpose must remain the goal – also as a way to send a strong strategic signal that NATO takes these challenges seriously.

G. EVALUATING NATO S&T ON MISSION DELIVERY

72. As the NATO S&T community is strengthening its efforts and adapting to the new strategic reality, it is imperative to evaluate the community on mission delivery. This will be a difficult endeavor, and perfect indicators for such an evaluation may not exist.

73. For one, measuring how high-quality S&T is translated into capabilities is extremely difficult because of the time lag between S&T and successful development. The invention of the transistor in the 1960s has led to unparalleled applications several decades later, and the end is not yet in sight. How does one measure this? Moreover, the rewards of NATO S&T are normally reaped in nations and the visibility of successes quickly gets lost, even when they circle back into the NATO S&T machinery. Unfortunately, NATO S&T does not “put a string” on its activities to track where the efforts lead. This would be an obvious next step to showcase and track NATO S&T results.

74. No specific metric or ‘dashboard’ for the evaluation of S&T mission delivery exists at this point. Several interlocutors admitted that the NATO S&T community was not doing well enough on evaluating itself and called for a concrete plan to do so. One interviewee argued that it was impossible to evaluate S&T much beyond the input side of the equation. The input side is indeed a good start to evaluate NATO S&T because it is more easily measured and is partly captured in the NDPP process.

75. Most agreed that the NATO S&T Strategy provides a good framework to characterize implementation, in particular through its goals, lines of effort and investment areas (see Table 6). Indeed, the STB will need to develop such a framework to report to the North Atlantic Council on the

implementation of the Strategy. One interlocutor argued that the Strategy was “timeless” and should not be changed every few years. In this way, the community could build up a track record. One interlocutor did, however, argue that the Strategy was still too vague for good metrics, especially ones targeted at individual nations, and lacked accountability instruments.

76. Also, the NATO S&T Priorities (see Table 4 above and Figure 2) serve as a reference frame for topical evaluation and overall coverage, by correlating NATO S&T activities and S&T Targets of Emphasis, which are linked to NDPP defined requirements. Indeed, many interlocutors emphasized the need to base evaluation on the NDPP process. Some interlocutors argued that S&T activity strands should be analyzed to see whether they delivered (although it is unclear how delivery would be measured). If they do not, they should be wound down.

77. National participation in NATO S&T activities should continue to be tracked and analyzed and lead to a more proactive NATO S&T approach to engaging with nations. Drops in participation should be analyzed and followed up on, as they could be a result of the (perceived) lack of concrete benefits for that nation.

Table 6: 2017 NATO S&T Goals, Lines of Effort and Investment Areas	
Goals	• Accelerate Capability Development
	• Deliver Timely, Targeted Advice
	• Build Capacity through Partnerships
Lines of Effort	• Stay at the Forefront of S&T
	• Forge and Nurture Effective Partnerships
	• Promote Prototyping and Technology Demonstrations
	• Enhance Alliance Decision Making
	• Focus on Alliance Needs to Boost Impact
Investment Areas	• Enhance the Network of Partners
	• Intensify Strategic Communications
	• Improve the Programs of Work
	• Promote Coherence

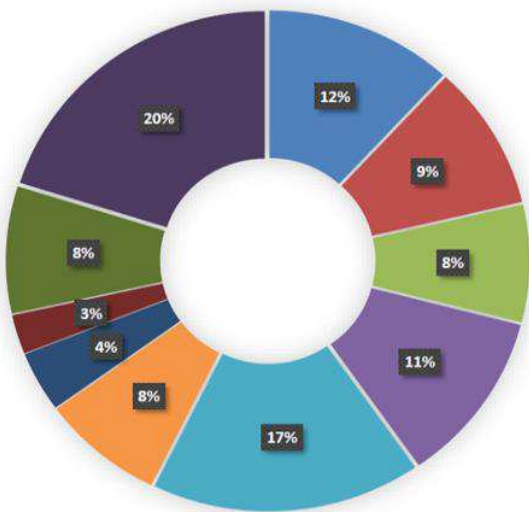


Figure 2: 2017 NATO S&T Activity across the whole NATO S&T Community	
12%	Precision Engagement
9%	Advanced Human Performance & Health
8%	Cultural, Social & Organizational Behaviors
11%	Information Analysis & Decision Support
17%	Data Collection & Processing
8%	Communications & Networks
4%	Autonomy
3%	Power & Energy
8%	Platforms & Material
20%	Advanced Systems Concepts

H. INCREASING TRANSPARENCY ON DEFENCE S&T INVESTMENTS

78. Currently, public NATO reporting on defense expenditure only has four very broad categories, namely expenditure on ‘equipment’, ‘personnel’, ‘infrastructure’ and ‘other expenditure’. Defense S&T and R&D falls under the equipment category. In other words, in NATO’s public reporting, a dollar spent on buying off-the-shelf artillery is counted in the same way as a dollar spent on AI research. While many Allies publish such numbers individually and publicly, it might be useful to do so at the NATO level. NATO’s Defence Policy and Planning Division tracks these numbers, but these statistics are classified.

79. Your Rapporteur explored whether NATO should publish defense S&T and R&D numbers for the Allies, i.e. peeling them off the equipment category. Alas, no clear answer emerged. Of those asked, more than half supported such a move; a fifth answered with a firm no; and the rest did not know what the best move would be.

80. Many – even among those who advocate publishing the numbers – underlined that it would be very difficult to come up with correct and quality-assured definitions and data that would capture the true state of affairs. One could end up comparing apples and oranges. Some even questioned how robust the numbers under the NDPP truly are. Nations vary widely in how they conduct and account for defense S&T and R&D. Some smaller Allies – by choice or due to limited budgets – do not conduct much or any defense S&T, for example. Some Allies do not report all the military relevant S&T and R&D data because the money spent is overseen by ministries or institutions outside the Ministry of Defense’s purview. Allies have widely differing S&T and R&D systems, for example regarding the balance of state and private funds, defense versus broader security-related S&T and R&D spending as well as dual purpose and military S&T and R&D.

81. Those who did not advocate publishing the numbers often cited these difficulties, but also pointed to other factors. Publishing the data might:

- reveal too much to potential adversaries;
- create internal tensions within the Alliance similar to the strain related to the Wales Investment Pledge; or
- would not enhance the public debate, as the trade-off between long-term and short-term benefits of defense S&T/R&D is a complex matter.

82. However, among the latter group, many argued that the NDPP numbers should be made more visible within NATO institutions. Others also suggested that the NATO S&T community might want to get more actively involved in data collection and scrutiny, as it gives insight into the Alliance’s and Partners’ S&T portfolio choices.

83. Those who advocated full transparency used other arguments:

- Public and peer pressure on those Allies not spending enough on defense S&T and R&D should lead to increases in those who undervalue defense S&T and R&D.
- The political mandate lies with the parliament and the people, and transparency should thus be the default option.
- Many nations do publish these numbers already, and it would not be a huge leap to systematize data collection and publishing.
- National S&T leaders could use such numbers to position their nation among its peers and communicate this to political decision makers.
- Publishing these numbers could increase awareness and investment.

84. On balance, your Rapporteur would argue in favor of engaging in a serious discussion with NATO and national leadership to see if these numbers could be published in a meaningful way. They must at least be made more visible within NATO structures.

85. A related question, raised during the discussion of the first report at 2018 Spring Session, was whether the Alliance should define specific budget levels for defense S&T and R&D to complement the Wales Investment Pledge. On this question, the answer was almost uniform: defining specific budget levels for defense S&T and R&D makes little sense. Your Rapporteur would agree.

86. Most importantly, Allies have very different levels of ambition when it comes to defense S&T/R&D. Some nations see themselves as smart developers of military capabilities; others as smart specifiers who want to understand enough S&T to engage with industry in how to develop military capabilities; and a third category of nations see themselves as smart users and customers who will buy off the shelf but understand the deals industry can offer them. As the global leader, the United States will always spend much more on defense S&T/R&D than other Allies – not just in absolute numbers, but also as a percentage of its overall defense budget. At the lower bands of defense expenditure, however, the bandwidth to engage in serious defense S&T/R&D diminishes drastically. Some nations almost exclusively opt for off-the-shelf solutions.

87. Setting a minimum level for all nations might also lead to a degradation of output in other areas. If a nation would argue that sending personnel into military operations rather than spending marginal dollars in defense S&T and R&D, would it be beneficial for the Alliance to force the nation? Setting specific targets could also reduce the flexibility to move resources to favor development, procurement, training, operations or other areas according to NATO needs and requirements. Also, a nation with a small GDP and therefore a small absolute defense budget should perhaps concentrate more on the acquisition of equipment developed by others rather than on developing its own equipment. Others pointed to the fact that reaching the 2% and 20% numbers is hard enough. In Europe, the European Defence Agency (EDA) has identified a 2% target for defense spending on Research and Technology (R&T). However, EDA nations are, in aggregate, at less than 1%. One interlocutor argued that defense S&T/R&D is less about certain targets and more about budget stability, given the long lead times in turning S&T into capabilities.

V. CONCLUSION

88. This report has underlined that Allied governments and parliaments must ensure that the Alliance stays ahead and maintains the S&T edge. The urgency of this strategic challenge is great. As US Congressman and former STC General Rapporteur Tom Marino wrote in 2017: "NATO's technological edge is eroding. Therefore, to safeguard our freedom and shared values, strategic defense R&D policy decisions are necessary and urgent" (NATO PA, 2017b).

89. To meet the challenge, it is essential, first, that Allies live up to the Wales Defence Investment Pledge and move towards spending a minimum of 2% of Gross Domestic Product on defense and more than 20% of defense budgets on major equipment, including related R&D. Your Rapporteur welcomes that Allies have committed themselves to delivering annual national plans which detail how they intend to meet the Defence Investment Pledge in three major areas: cash, capabilities, and contributions. Your Rapporteur laments the fact that these national plans will not be made public. Lawmakers and citizens of the Alliance need to know if NATO and the Allies are achieving their commitments and goals.

90. Second, it is also essential that Allies adapt to the new S&T landscape at the national level, as business as usual is no longer viable. Your Rapporteur thus welcomes recent national initiatives to spur defense technological innovation, for example the new Defence Innovation Agency to be established in France.

91. A third aspect to make NATO fit for purpose on defense S&T and R&D is to increase the added value of NATO. Your Rapporteur believes that much work needs to be done in this area. This report has laid out NATO's role in maintaining the S&T edge and the NATO S&T community's contribution to this effort. Your Rapporteur has laid out a range of concrete and realistic policy recommendations on how to advance NATO S&T and strengthen its contribution to maintaining NATO's S&T edge. These recommendations form the basis of an STC Resolution to be adopted at the 2018 Annual Session. Your Rapporteur hopes that the Resolution will send a strong signal to NATO senior leadership as well as Allied governments and parliaments to get serious about defense S&T in the Alliance. In conclusion, the Committee should continue to closely follow NATO and national efforts to maintain the S&T edge and Alliance agility, keep Allies and NATO on their toes and stand ready to support them.

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ANNEX 1: LIST OF INTERVIEWS

NATIONAL DELEGATIONS TO NATO HQ

Vera ALEXANDER, Deputy Permanent Representative, Canada

Lieutenant Colonel Beverly DE LALLO, Deputy Representative of the National Armaments Director, Canada

Frank DESIT, Representative of the National Armaments Director, France

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Robert WEAVER, Deputy Assistant Secretary General, Emerging Security Challenges Division

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NATO HQ INTERNATIONAL MILITARY STAFF

Lieutenant General Jan BROEKS, Director General, International Military Staff

NATO STRATEGIC COMMANDS

Lieutenant General Jeffrey G. LOFGREN, Deputy Chief of Staff for Capability Development, Allied Command Transformation

Vice Admiral Clive C.C. JOHNSTONE, CB CBE, Commander Allied Maritime Command, Allied Command Operations

COMMITTEE OF THE CHIEFS OF MILITARY MEDICAL SERVICES

Major General Jean-Robert BERNIER, Chair, Committee of the Chiefs of Military Medical Services

Colonel Gerald ROTS, Liaison, Committee of the Chiefs of Military Medical Services

NATO INDUSTRIAL ADVISORY GROUP

John JANSEN, Chair, NATO Industrial Advisory Group

Rudy PRIEM, Vice-Chair, NATO Industrial Advisory Group

NATO SCIENCE AND TECHNOLOGY ORGANISATION

Thomas KILLION, NATO Chief Scientist and Chair of the NATO Science and Technology Board

Pavel ZUNA, Director, NATO Collaborative Support Office

Alan SHAFFER, nominee for US Deputy Undersecretary for Acquisition and Sustainment; former Director, Collaborative Support Office

Catherine WARNER, Director, NATO Centre for Maritime Research and Experimentation

Susanne WIRWILLE, Strategy and Policy Section, Office of the Chief Scientist

Nico POS, Strategic Science and Technology Plans, Office of the Chief Scientist

222 STC 18 E fin
Original: English

RESOLUTION

on

SAFEGUARDING ELECTIONS IN THE ALLIANCE*

The Assembly,

1. **Concerned** that Russia's aggressive actions, including the threat and use of force as well as hybrid operations, are undermining Euro-Atlantic security and the rules-based international order;
2. **Recognising** the overall strategic challenge of Russian cyber and information operations to Allied security;
3. **Recalling** NATO's founding principles of democracy, individual liberty and the rule of law;
4. **Strongly stressing** the need to preserve the institutions that make democracies strong, including freedom of the press, freedom of speech and free and fair elections;
5. **Unequivocally condemning** any foreign attempts to undermine elections and other democratic processes, including referenda;
6. **Denouncing in the strongest terms** Russia's recent targeting of elections and referenda in Allied and partner countries as well as its broader attempts to destabilise democracies in Europe and North America;
7. **Convinced** of the need to deter any foreign interference in elections and in any other type of democratic processes or, failing that, be prepared for and resilient against such interference by developing whole-of-government and whole-of-society approaches as well as national and international responses at every level, in all forums and through every channel;
8. **URGES** member governments and parliaments of the North Atlantic Alliance:
 - a. to conduct regular risk assessments of election infrastructure and remedy any identified gaps or vulnerabilities;
 - b. to institutionalise pre-election processes against potential election interference;
 - c. to consider mandating post-election security audits;
 - d. to provide adequate funding and assistance to election bodies;
 - e. to explore the possibility of designating election infrastructure as critical infrastructure;
 - f. to outline real and credible consequences in case of foreign interference, for example through legal actions and sanctions;

* Presented by the Science and Technology Committee and adopted by the Plenary Assembly on Monday 19 November 2018, in Halifax, Canada

- g. to make use of the possibility of holding consultations under NATO's Article 4 when applicable;
- h. to further develop public-private partnerships and outreach with civil society, private companies and media outlets concerning election interference;
- i. to encourage non-government institutions and organisations central to the democratic process, such as political parties and campaigns, to adopt increased cybersecurity measures, facilitated by government support if required;
- j. to develop better information-sharing procedures with the non-government sector on cyber and hybrid threats;
- k. to further develop cyber and hybrid defence and security strategies, policies and institutions at the national level, at NATO, the EU and beyond;
- l. to develop clear and actionable protocols and action plans as well as lines of authority and coordination at the national, regional and local levels to expedite responses in the event of election interference;
- m. to systematise and institutionalise cooperation on cyber and hybrid threats through the NATO-EU strategic partnership;
- n. to promote civic education and media literacy concerning the threat of foreign interference in democratic processes;
- o. to encourage greater transparency in the social media sector and reasonable access to social media data for independent researchers;
- p. to continue to explore if and how social media activity or companies could be regulated to guard against foreign interference in democratic processes;
- q. to explore how to increase the transparency of political advertising on social media and whether foreign-paid social media political advertising could be banned;
- r. to encourage conversations in the journalist community about standards of use for material of questionable sourcing as well as about the potential motives behind a source;
- s. to encourage and support independent fact-checking initiatives;
- t. to engage in public information campaigns about the threat of foreign election interference and instances of attempted or successful interference;
- u. to encourage increased research on cyber and information operations and develop effective tools, paying close attention to artificial intelligence, big data analytics and other emerging technologies.

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Original: English

RESOLUTION 453

on

MAINTAINING THE SCIENCE & TECHNOLOGY EDGE AND ENHANCING ALLIANCE AGILITY*

The Assembly,

1. **Recognising** that the Alliance finds itself in a new and dynamic strategic reality, marked by growing uncertainty, instability and risks;
2. **Facing** an era of rapid technological change with a shifting science and technology (S&T) landscape and emerging technologies with the potential to disrupt the global strategic balance;
3. **Recalling** NATO's most staunch commitment to stand united to deter any potential aggression and, if deterrence fails, to collectively defend themselves;
4. **Underlining** the critical importance of cutting-edge capabilities to meet NATO's level of ambition and fulfil its core missions;
5. **Stressing** that NATO's unrivalled S&T edge is the lifeblood of current and future capabilities;
6. **Concerned** that NATO's S&T edge is eroding, resulting in increased risks for Alliance credibility and freedom of action;
7. **Emphasising** that effective defence S&T relies on vigorous sustained investment and continuous organisational adaptation;
8. **Welcoming** recent defence budget increases in the Alliance, but **apprehensive** about continued stagnation in defence S&T and research and development (R&D) budgets;
9. **Noting** that NATO S&T is a critical enabler of maintaining the S&T edge in the Alliance, adding significant value to defence S&T in individual Allied nations, notably in burden sharing, capacity building, interoperability and standardisation;
10. **Highly valuing** the crucial role played by the Science and Technology Organization (STO) and the other members of the NATO S&T Community;
11. **Applauding** the significant strides in making NATO S&T more effective, affordable and coherent since the 2012 NATO S&T Reform;

* Presented by the Science and Technology Committee and adopted by the Plenary Assembly on Monday 19 November 2018 in Halifax, Canada

12. **Noting** the highly productive interaction between the NATO Parliamentary Assembly's Science and Technology Committee and the NATO S&T Community, notably through the Letters of Intent with the Chief Scientist and the NATO Industrial Advisory Group (NIAG) Chairman;

13. **Recognising** the need for increased parliamentary S&T knowledge and expertise;

14. **URGES** member Allied governments and parliaments of the North Atlantic Alliance and the NATO S&T Community:

- a. to redouble national efforts to reach the 2% benchmark for defence spending by 2024 as all Allies agreed at the 2014 Wales Summit and allocate at least 20% of their total defence spending toward new equipment purchases and research and development;
- b. to continue adaptation at the national and the NATO level to the changing strategic and S&T realities;
- c. to unleash the full potential of the NATO S&T community by a) improving NATO S&T's military relevance, coherence, resource exploitation and synergies; b) making the NATO Defence Planning process a focal point; c) enhancing active, early and systematic engagement with all NATO S&T stakeholders, in particular with the military community and Defence industry; and d) increasing parliamentary engagement in national parliaments and through the NATO PA;
- d. to nurture a more diverse NATO S&T community by a) improving the age and gender balance in the NATO S&T expert network and b) developing new networks in emerging S&T areas;
- e. to enhance the agility of NATO S&T by a) developing a more strategic S&T approach and b) making available the highest quality scientists and engineers for NATO S&T; c) fostering an agile, innovative and risk-tolerant mindset through, inter alia, sharing best practices across the NATO S&T community; d) developing new policy tools to exploit emerging technologies; e) exploring financial tools for 'seed money' in support of technology demonstrations and rapid studies; f) developing an improved information management system, including at higher classification levels; and g) fostering communities of interest and boosting activities focused on autonomy, big data and artificial intelligence, and operations in contested urban environments;
- f. to demonstrate the value of S&T to the military community by a) increasing the quantity and quality of prototyping, demonstrations, tests and experimentation and b) elaborating better processes and tools to facilitate insertion of S&T into operational settings;
- g. to improve strategic engagement and communications by a) conveying meaningful, timely and targeted support and advice to NATO entities and leadership; and b) showcasing NATO S&T's impact and importance to NATO entities and leadership;
- h. to reinforce the Science and Technology Organization by a) conducting a complete review of workload, requirements, manpower and organisation in light of the new strategic and S&T realities and increased demand for NATO S&T activities and b) conducting a thorough analysis of the organisational and financial model of the Centre for Maritime Research and Experimentation to make it fit for purpose at a time when NATO must strengthen its maritime capabilities;
- i. to evaluate NATO S&T on mission delivery by a) building on the 2018 NATO S&T Strategy, Priorities, Targets of Emphasis and the NATO Defence Planning Process and b) regularly analysing NATO S&T programmes of work to identify gaps and improve programme health;

- j. to increase transparency on defence S&T and R&D investment trends by a) making these trends more visible among Allies and NATO entities at the classified level and b) engaging in a serious discussion on publicly publishing statistics on Allied defence S&T and R&D spending.
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