

# NATO's Current and Future Support for Arms Control, Disarmament and Non-proliferation

by Rose Gottemoeller and Steven Hill

## ABSTRACT

Times may be tough in the field of arms control, disarmament and non-proliferation (ADN). But ADN is by no means dead. This is a moment of opportunity, a chance to look to the future and consider what we should be doing differently to improve the international architecture for ADN in the future. NATO is in the process of considering how it can adapt to continue to be relevant in the changing global security environment. The time is therefore ripe for the Alliance to take on an enhanced role in preserving and strengthening more effective ADN. There are a number of areas in which it can support these efforts. These include specific steps to preserve and implement the Non-Proliferation Treaty, modernise the Vienna Document, adapt nuclear arms control regimes and deal with emerging and disruptive technologies (EDTs). NATO should position itself as a focal point for innovation in the ADN area, including promoting advances in verification, improving the multinational sharing and use of data, and advancing dialogue related to outer space.

*NATO | Arms control | WMD | Nuclear | NPT | Russia | Transatlantic relations*

**keywords**

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by Rose Gottemoeller and Steven Hill\*

## 1. Strategic context

At their December 2019 meeting in London, the Heads of State and Government of the North Atlantic Treaty Organisation (NATO) reaffirmed that they "are fully committed to the preservation and strengthening of effective arms control, disarmament, and non-proliferation, taking into account the prevailing security environment".<sup>1</sup> The reference to the "prevailing security environment" indicates some of the challenges that Allies face in devising and implementing a strategy of support for arms control, disarmament and non-proliferation (ADN) while maintaining and adapting NATO's strong deterrence and defence posture. In a speech at NATO's annual ADN conference two months before the London meeting, NATO Secretary General Jens Stoltenberg was forthright about these challenges. "These are tough times for arms control", he said.<sup>2</sup>

Stoltenberg pointed specifically to Russia's material breach of the Intermediate-Range Nuclear Forces (INF) Treaty, which NATO allies recognised and which brought about the INF's demise.<sup>3</sup> However, he could have referred to any number of developments affecting the security context for NATO Allies. These include not only Russia's violation of the INF but its increased programme of weapons system

<sup>1</sup> NATO, *London Declaration Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council in London 3-4 December 2019*, London, 4 December 2019, para. 4, [https://www.nato.int/cps/en/natohq/official\\_texts\\_171584.htm](https://www.nato.int/cps/en/natohq/official_texts_171584.htm).

<sup>2</sup> Jens Stoltenberg, *Speech by NATO Secretary General at the High-level NATO Conference on Arms Control and Disarmament*, 23 October 2019, [https://www.nato.int/cps/en/natohq/opinions\\_169930.htm](https://www.nato.int/cps/en/natohq/opinions_169930.htm).

<sup>3</sup> NATO, *Statement by the North Atlantic Council on the Intermediate-Range Nuclear Forces Treaty*, 2 August 2019, [https://www.nato.int/cps/en/natohq/official\\_texts\\_168164.htm](https://www.nato.int/cps/en/natohq/official_texts_168164.htm).

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development, exercises and underlying force posture.<sup>4</sup> Beyond Russia, NATO regularly cites its concerns about the Democratic People's Republic of Korea (DPRK) as preventing ADN progress<sup>5</sup> and is also concerned about developments with Iran and the broader Middle East. Chemical attacks in Syria and even on NATO territory challenge the global ban on chemical weapons.<sup>6</sup> China's rise has featured increasingly in NATO's assessment of its security environment.<sup>7</sup> Emerging and disruptive technologies present both challenges and potential opportunities.<sup>8</sup> These are just some of the elements that were on the minds of the Alliance's leaders when they met in London.

As a result of this strategic context, Stoltenberg was certainly right that times are tough in the ADN area. The future evolution of the non-proliferation regime is hotly contested. Bilateral US-Russian arms control stands at a crossroads, and nascent efforts to expand the existing architecture to cover China have already shown that they will be complex and challenging. But ADN is by no means dead. This is a moment of opportunity and a chance to look to the future.

NATO is currently in the process of considering how best to adapt to the future security environment. Stoltenberg's NATO 2030 initiative included convening a Reflection Group composed of eminent experts. In its report the group concluded that

<sup>4</sup> NATO, *Warsaw Summit Communiqué Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council in Warsaw 8-9 July 2016*, Warsaw, 9 July 2016, para. 10, [https://www.nato.int/cps/en/natohq/official\\_texts\\_133169.htm](https://www.nato.int/cps/en/natohq/official_texts_133169.htm). ("Russia's destabilising actions and policies include: the ongoing illegal and illegitimate annexation of Crimea, which we do not and will not recognise and which we call on Russia to reverse; the violation of sovereign borders by force; the deliberate destabilisation of eastern Ukraine; large-scale snap exercises contrary to the spirit of the Vienna Document, and provocative military activities near NATO borders, including in the Baltic and Black Sea regions and the Eastern Mediterranean; its irresponsible and aggressive nuclear rhetoric, military concept and underlying posture; and its repeated violations of NATO Allied airspace.")

<sup>5</sup> For example, the NAC's 2017 statement on the Treaty on the Prohibition of Nuclear Weapons mentions the DPRK nuclear program twice. NATO, *North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons*, 20 September 2017, [https://www.nato.int/cps/ua/natohq/news\\_146954.htm](https://www.nato.int/cps/ua/natohq/news_146954.htm).

<sup>6</sup> NATO, *Statement by the North Atlantic Council on Actions Taken Against the Use of Chemical Weapons in Syria*, 14 April 2018, [https://www.nato.int/cps/en/natohq/news\\_153670.htm](https://www.nato.int/cps/en/natohq/news_153670.htm); NATO, *Statement by the North Atlantic Council on the Use of a Nerve Agent in Salisbury*, 14 March 2018, [https://www.nato.int/cps/en/natohq/news\\_152787.htm](https://www.nato.int/cps/en/natohq/news_152787.htm).

<sup>7</sup> See, e.g., Jens Stoltenberg, *Speech by NATO Secretary General at the 16th Annual NATO Conference on Weapons of Mass Destruction, Arms Control, Disarmament and Non-Proliferation*, 10 November 2020, [https://www.nato.int/cps/en/natohq/opinions\\_179405.htm](https://www.nato.int/cps/en/natohq/opinions_179405.htm) ("The time when China was at the margins of nuclear weapons development is over. As a global power with a large military and a growing nuclear arsenal, it has a responsibility to engage openly and constructively in arms control negotiations. Regrettably, Beijing has so far refused to join any talks. And the lack of transparency on its nuclear capabilities and intentions is of concern. But ultimately, I am convinced that China, like the rest of the world, would benefit from an arms control regime that limits the number of nuclear weapons, increases transparency, and enhances predictability.")

<sup>8</sup> NATO is currently developing an emerging and disruptive technology roadmap that will guide the alliance's work in this area. Mircea Geoană, *NATO's Views on European Defence*, Remarks by NATO Deputy Secretary General at the European Defence Agency's Annual Conference, 4 December 2020, [https://www.nato.int/cps/en/natohq/opinions\\_179983.htm](https://www.nato.int/cps/en/natohq/opinions_179983.htm).

NATO must adapt to meet the needs of a more demanding strategic environment marked by the return of systemic rivalry, persistently aggressive Russia, the rise of China, and the growing role of EDTs, at the same time that it faces elevated transnational threats and risks.<sup>9</sup>

In the ADN area, the report had several recommendations for NATO:

It should play an enhanced role as a forum to debate challenges to existing arms control mechanisms and consult on any future arrangements. NATO should continue to support the strengthening of effective verification regimes and enable monitoring capabilities and enforcement mechanisms. It should develop an agenda for international arms control in key areas of EDT with military application. NATO should further adapt its defence and deterrence posture in the post- Intermediate-Range Nuclear Forces (INF) Treaty setting to take into account the threat posed by Russia's existing and new military capabilities.<sup>10</sup>

The time is therefore ripe for NATO to seize the opportunity to consider what we should be doing differently to improve the international architecture for ADN in the future.

## 2. NATO's advantages and disadvantages as an ADN forum

It is important to remember that NATO has long played a role in this area. At the first NATO Summit in 1957, leaders stated that they would "neglect no possibility of restricting armaments within the limits imposed by security and will take all necessary action to this end".<sup>11</sup> NATO was also instrumental in the development of much of the contemporary ADN architecture, including the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). NATO provided the platform to negotiate, agree and implement the conventional arms control regimes – the Vienna Document, the Treaty on Conventional Armed Forces in Europe (CFE) Treaty, and the Open Skies Treaty. The United States also used NATO to consult closely with Allies on Strategic Arms Limitation Talks (SALT) I and II, the INF, Strategic Arms Reduction Treaty (START) I and II, and the New START Treaty.

The Alliance is positioned to continue this role in the future. As Secretary General Stoltenberg put it in his speech, "we have gone through tough times before. In the past, it took patience, determination and commitment to reach landmark

<sup>9</sup> Thomas de Maizière and A. Wess Mitchell (chairs), *NATO 2030: United for a New Era. Analysis and Recommendations of the Reflection Group Appointed by the NATO Secretary General*, 25 November 2020, p. 12, [https://www.nato.int/cps/en/natohq/news\\_179730.htm](https://www.nato.int/cps/en/natohq/news_179730.htm).

<sup>10</sup> *Ibid.*, p. 13.

<sup>11</sup> NATO, *Final Communiqué. Summit Meeting of Heads of State and Government*, Paris, 16-19 December 1957, para. 15, [https://www.nato.int/cps/en/natohq/official\\_texts\\_17551.htm](https://www.nato.int/cps/en/natohq/official_texts_17551.htm).

agreements. NATO will and must play its part to ensure arms control remains an effective tool for our collective security – now and in the future”.<sup>12</sup>

What are the realistic parameters for NATO's role? First, as in other areas, NATO's ADN policies are based on the fundamental principles of the Alliance. These include the process of continuous consultation among Allies as well as the requirement of consensus of all Allies for decisions to be made. In this connection, there is a continued need to underscore the point that ADN is not an end in and of itself but rather a means of contributing to the security of all Allies individually as well as to their collective security.<sup>13</sup> That is why NATO has consistently seen ADN as complementing Allies' security and defence. This point is worth reinforcing in the current environment.

Second, as mentioned above, NATO has a venerable history of ADN policies that not only provide a solid foundation for future work, but also set the “rails” for such work. These include the “two-track” policy of deterrence and defence on the one hand and dialogue on the other, which has its roots in the seminal 1967 Harmel Report.<sup>14</sup> This balanced approach is the basis of the Alliance's approach to Russia. Russia's actions since 2014 have led NATO to conclude that “[t]here can be no return to ‘business as usual’ until there is a clear, constructive change in Russia's actions that demonstrates compliance with international law and its international obligations and responsibilities”.<sup>15</sup> While allies maintain a willingness to engage in dialogue with Russia under the appropriate conditions, since 2014 the focus has shifted to increasing NATO's deterrence against the whole range of potential threats facing allies. At the same time, NATO should continue to refine the fine balance between deterrence and détente that has served it well over the years. There is now an urgent need to maintain the Alliance's defences while supporting dialogue with Russia. While this dialogue has a multilateral aspect through the NATO-Russia Council, there is also a need for NATO to support US efforts to engage with Russia bilaterally.<sup>16</sup>

<sup>12</sup> Jens Stoltenberg, *Speech by NATO Secretary General at the High-level NATO Conference on Arms Control and Disarmament*, cit.

<sup>13</sup> See, e.g., NATO, *North Atlantic Council Statement on the 50th Anniversary of the Treaty on the Non-Proliferation of Nuclear Weapons*, 5 March 2020, [https://www.nato.int/cps/en/natohq/official\\_texts\\_174104.htm](https://www.nato.int/cps/en/natohq/official_texts_174104.htm) (“Arms control, disarmament, and non-proliferation have made, and should continue to make, an essential contribution to achieving NATO's security objectives and for ensuring strategic stability and our collective security.”).

<sup>14</sup> See, NATO, *The Future Tasks of the Alliance – ‘The Harmel Report’*, 13-14 December 1967, [https://www.nato.int/cps/en/natohq/official\\_texts\\_26700.htm](https://www.nato.int/cps/en/natohq/official_texts_26700.htm).

<sup>15</sup> NATO, *Brussels Summit Declaration Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council in Brussels 11-12 July 2018*, 11 July 2018, para. 9, [https://www.nato.int/cps/en/natohq/official\\_texts\\_156624.htm](https://www.nato.int/cps/en/natohq/official_texts_156624.htm). The Brussels Summit Declaration remains the most comprehensive high-level statement of NATO's Russia policy.

<sup>16</sup> See Rose Gottemoeller et al., “It's Time to Rethink our Russia Policy”, in *POLITICO*, 5 August 2020, <https://politi.co/33uKPXS>.

NATO also has a standing institutional framework within which ADN discussions can occur. These standing structures include the Committee on Proliferation under the North Atlantic Council, which is specialised in ADN-related issues,<sup>17</sup> as well as committees with more general strategic remit such as the Political Committee and Deputies Committee. These formats are well-suited to carry out work on the broader security context for ADN discussions. One particularly relevant example related to the current and future security context is NATO's work on China. Following a historic tasking in 2019, NATO is focused on China's increasing role in the international community, and on the "opportunities and challenges" posed by its growing relevance<sup>18</sup> including when it comes to ADN. For example, at NATO's annual ADN conference in 2020, Stoltenberg called for including China more squarely in the multilateral nuclear disarmament architecture.<sup>19</sup> The November 2020 report by the Reflection Group cited China's military modernisation in all domains, including nuclear, naval, and missile capabilities, as introducing "new risks and potential threats to the Alliance and to strategic stability".<sup>20</sup>

Apart from NATO's committee structure, the Alliance's military structure is an unparalleled source of expertise and experience both on military operations and training, education and exercises. Such expertise and experience are vital in crafting arms control measures – for example, verification regimes – that are effective at controlling weapons without hampering the substance or pace of operations.

Third, NATO has a well-established network of partnerships. This network can be mobilised to amplify the influence of good policies beyond the thirty NATO Allies. At the same time, partners may not always take a consistent line with Allies on all subjects related to ADN. Some, for example, support the Treaty on the Prohibition of Nuclear Weapons (TPNW) whereas NATO does not.<sup>21</sup>

In short, the Atlantic Alliance has the policy foundations, the structures and the relationships to position it well to take on a significant role on contemporary ADN issues. However, while there are definite benefits to the Alliance when it comes to being involved, there are also risks. Allies have different views with regard to the level of NATO involvement in any given process. NATO's engagement may be

<sup>17</sup> NATO has useful factsheets on each of these committees: see NATO website: *Committee on Proliferation (CP)*, last updated 23 March 2020, [https://www.nato.int/cps/en/natohq/topics\\_69282.htm](https://www.nato.int/cps/en/natohq/topics_69282.htm); *Political Committee*, last updated 11 December 2014, [https://www.nato.int/cps/en/natohq/topics\\_115938.htm](https://www.nato.int/cps/en/natohq/topics_115938.htm); and *Deputies Committee*, last updated 25 May 2020, [https://www.nato.int/cps/en/natohq/topics\\_69343.htm](https://www.nato.int/cps/en/natohq/topics_69343.htm).

<sup>18</sup> See NATO, *London Declaration*, cit., para. 6 ("We recognise that China's growing influence and international policies present both opportunities and challenges that we need to address together as an Alliance.").

<sup>19</sup> Jens Stoltenberg, *Speech by NATO Secretary General at the 16th Annual NATO Conference on Weapons of Mass Destruction, Arms Control, Disarmament and Non-Proliferation*, cit.

<sup>20</sup> Thomas de Maizière and A. Wess Mitchell (chairs), *NATO 2030: United for a New Era*, cit., p. 17.

<sup>21</sup> Contrast NATO, *North Atlantic Council Statement on the Treaty on the Prohibition of Nuclear Weapons*, cit., with the approach of some partners.

seen to complicate the political dynamics in certain fora such as United Nations bodies. Experience shows that adversaries are keen to exploit Allied disunity on any individual issue to weaken global perceptions of the Alliance. As a result of these factors, there is a need for some humility about what NATO as an Alliance can realistically achieve in the ADN area. Proposals such as those articulated below seek to respect these constraints and follow the "do no harm" principle when it comes to the many processes being carried out in fora outside the Alliance.

### 3. Secretary General's 2019 proposals

In his 2019 speech, Stoltenberg suggested four areas of focus for how NATO can further contribute to ADN work.

#### 3.1 Preserving and implementing the NPT

The North Atlantic Council adopted a strong statement of support for the treaty on the occasion of the NPT's fiftieth anniversary.<sup>22</sup> Given the decision to postpone the NPT Review Conference as a result of the COVID-19 pandemic,<sup>23</sup> there is a real opportunity for action during the first half of 2021 to support the success of this review conference. The Council's statement, the first of its kind, called upon NPT states parties to work together to make the Review Conference a success. Although most diplomacy leading up to the Review Conference will take place in other fora, Allies could make more use of existing NATO structures as a unique venue in which to prepare their own positions. For example, they could organise briefings by the chairs for the three pillars of the NPT,<sup>24</sup> share national positions and papers and develop positions on existing nuclear risk reduction proposals.

#### 3.2 Modernising the Vienna Document

The Vienna Document, first adopted in 1990 and updated most recently in 2011, is the region's main framework for confidence and security building measures.<sup>25</sup>

<sup>22</sup> See NATO, *North Atlantic Council Statement on the 50th Anniversary of the Treaty on the Non-Proliferation of Nuclear Weapons*, cit. ("We, as NATO Allies, celebrate this visionary Treaty and its remarkable achievements. The NPT remains the essential bulwark against the spread of nuclear weapons, the cornerstone of the global non-proliferation and disarmament architecture, and the framework for international cooperation in sharing the benefits of the peaceful uses of nuclear energy, science, and technology. Allies remain strongly committed to full implementation of the NPT in all its aspects.")

<sup>23</sup> See UN Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, *Letter from the President-designate to all States Parties regarding the postponement of the NPT Review Conference*, New York, 28 October 2020, [https://www.un.org/sites/un2.un.org/files/npt\\_president-designate\\_letter\\_28\\_oct\\_2020.pdf](https://www.un.org/sites/un2.un.org/files/npt_president-designate_letter_28_oct_2020.pdf) (postponing the Review Conference to an unspecified date no later than August 2021).

<sup>24</sup> The three pillars of the NPT are disarmament, non-proliferation, and peaceful uses. At NPT Review Conferences, there is a format convened, with a separate chair, around each of these three pillars.

<sup>25</sup> Organisation for Security and Co-operation in Europe (OSCE) website: *Ensuring Military*

A politically-binding document adopted within the Organisation for Security and Cooperation in Europe (OSCE), the Vienna Document is designed to bolster trust and predictability through transparency and verification measures, thus minimising the potential for conflicts. Russia has a record of violating its commitments under the Vienna Document.<sup>26</sup> There is an ongoing process at the OSCE aimed at modernising the Vienna Document to which NATO can contribute with both high-level statements of political support for modernisation<sup>27</sup> and a package of concrete Allied proposals to be presented in Vienna.<sup>28</sup> This model of NATO providing support for external negotiating processes and helping allies coordinate their positions can be relevant in other contexts as well, including the 2021 NPT Review Conference.

### 3.3 Adapting nuclear arms control regimes

Secretary General Stoltenberg's call to adapt nuclear arms control regimes to new realities was focused on finding ways to include China in a post-INF architecture.<sup>29</sup> One way in which NATO could contribute in the short term would be to harness its ongoing work on China's role to help generate detailed common understandings of how Beijing might stand to benefit from the kind of transparency and predictability that a renewed regime of controls over intermediate nuclear weapons would offer.

### 3.4 Developing new rules and standards for emerging technologies

NATO's secretary general also called for new rules and standards for what are referred to in NATO discussions as "emerging and disruptive technologies" or EDTs. Work is ongoing within NATO and elsewhere to understand the threats and opportunities that such technologies pose, including to identify existing and potential proposals to address the threats and the appropriate venues to do so.

Stoltenberg specifically highlighted risks resulting from the current development of hypersonic missiles and the need to develop new tools to limit their spread. This must be done in a way that does no harm to current and potential future deterrence and defence efforts. As the issue of hypersonic missiles will certainly be on the

Transparency – *The Vienna Document*, <https://www.osce.org/fsc/74528>.

<sup>26</sup> Jens Stoltenberg, *Speech by NATO Secretary General at the High-level NATO Conference on Arms Control and Disarmament*, cit.

<sup>27</sup> NATO, *Brussels Summit Declaration*, cit., para. 47 ("Allies underscore the importance of modernising the Vienna Document [...] actively supporting ongoing discussions at the OSCE, including the Structured Dialogue on the current and future challenges and risks to security in the OSCE area. We call on Russia to engage constructively in these efforts in Vienna.")

<sup>28</sup> See German Federal Foreign Office, *Germany Presents Proposals to the OSCE on Adjusting the Vienna Document*, 23 October 2019, <https://www.auswaertiges-amt.de/en/2259666>.

<sup>29</sup> Jens Stoltenberg, *Speech by NATO Secretary General at the High-level NATO Conference on Arms Control and Disarmament*, cit. ("We also need to look beyond bilateral agreements between Russia and the US. We must find ways to include other countries, such as China. I am firmly convinced that China, like the rest of the world, stands to benefit from increased transparency and predictability.")



agenda of US-Russia strategic security talks,<sup>30</sup> Allies should consider what support, including appropriate messaging, they could provide to this effort. The US should engage with Allies early in this process.

One short-term measure NATO could take to further progress would be for Allies to develop coordinated arguments against existing missile control ideas that they do not consider viable. A good example is the recent Russian proposal for a moratorium on the deployment of nuclear-armed cruise missiles in Europe. NATO officials have explained that given Russia's deployment of the SSC-8, this proposal ignores the reality on the ground.<sup>31</sup> On a longer-term basis, Allies should also consider and develop specific proposals to strengthen existing regimes. As the only multilateral transparency and confidence building instruments concerning the spread of ballistic missiles, the Hague Code of Conduct against Ballistic Missile Proliferation (HCoC) and the Missile Technology Control Regime (MTCR) would be ideal places for renewed focus. Under the HCoC, subscribing states submit an annual declaration dealing with the national policies on ballistic missiles and space-launch vehicles as well as pre-launch notifications on test flights and launches.<sup>32</sup> The MTCR is an informal political understanding among states that seek to limit the proliferation of missiles and missile technology through common export control guidelines, exchange of information and dialogue.<sup>33</sup> The HCoC and MTCR are not legally-binding instruments. Rather, their success depends on political commitment by states. NATO could be a useful forum for states to highlight these commitments.

Finally, Stoltenberg raised the question of how Allies can better contribute to verification through the use of new technologies. He suggested that NATO "should also be harnessing some of these technologies to conduct arms control in more effective and less intrusive ways and improve our verification capabilities".<sup>34</sup> This observation will be the jumping off point for the next section on what additional areas would be appropriate for NATO's work in years to come.

#### 4. Additional areas for NATO work

Based on the observations about what might be possible given the challenges posed by NATO's operating environment, we suggest four additional areas for future work at NATO.

<sup>30</sup> Steven Pifer, "As US-Russian Arms Control Faces Expiration, Sides Face Tough Choices", in *Order from Chaos*, 23 March 2020, <https://brook.gs/2QBADG4>.

<sup>31</sup> Jens Stoltenberg, *Speech by NATO Secretary General at the High-level NATO Conference on Arms Control and Disarmament*, cit.

<sup>32</sup> See the official website: <https://www.hcoc.at>.

<sup>33</sup> See the official website: <https://wp.me/P7XAPI-2R>.

<sup>34</sup> Jens Stoltenberg, *Speech by NATO Secretary General at the High-level NATO Conference on Arms Control and Disarmament*, cit.

#### 4.1 *Becoming a focal point for ADN innovation*

The first broad area of work is harnessing new technologies in the service of an expanded ADN agenda. The Alliance has invested considerable resources in positioning itself as a centre for considering how such technologies will affect Allied security. For example, NATO has developed an "Emerging and Disruptive Technologies Roadmap" that is meant to guide future Alliance work applying to a wide range of technologies.<sup>35</sup> The NATO International Staff has established an Innovation Unit to lend internal momentum to these issues. The Allied Command Transformation in Norfolk is wholly invested in examining the military implications of new technologies. In this spirit, NATO should aspire to become more of a focal point for innovation in the ADN field. For example, if a negotiation on controlling non-strategic nuclear weapons gets underway, then Allies will have an interest in steering the development of technologies that might be used in verification procedures on their territories.

#### 4.2 *Promoting verification*

One of NATO's core principles has consistently been that arms control measures must be verifiable. As the demise of the INF has made clear, there have been enough problems with non-compliance that the adage "trust but verify" needs to be embraced now as never before. This requires taking into full account the benefits accruing from the information revolution. This has been difficult in the arms control verification field, mostly because the difficulties of negotiating new verification methods have seemed daunting. There are other perceived barriers to verification, including legal issues associated with the use of certain verification technologies. Cultural factors are also at play, leading to a potential overreliance on the way business has always been done. Many observers have decried the slow pace at which a new generation of experts is able to emerge.

Various initiatives have emerged in recent years to help modernise verification for the future. For example, the International Partnership for Nuclear Disarmament Verification (IPNDV) is an innovative forum where a diverse group of states can work together to identify verification-related challenges and explore how new procedures and technologies could help address them.<sup>36</sup> NATO Allies have been active in this forum. For example, France and Germany cooperated on the Nuclear Disarmament Verification (NuDiVe) exercise in September 2019. This practical

<sup>35</sup> The Roadmap "uses a bottom-up approach to conduct rapid and tangible demonstrations in realistic operational conditions in order to understand the potential of Emerging and Disruptive Technologies from both the opportunity and threat standpoints and to set the conditions to use them within NATO and its Member Nations". NATO Allied Command Transformation, *NATO Defense Ministers' Meeting*, 27 June 2019, <https://www.act.nato.int/articles/nato-defence-ministers-meeting>.

<sup>36</sup> See the official website: <https://www.ipndv.org>.

exercise included experts from eleven states.<sup>37</sup> The UN also convened a group of governmental experts (GGE) in 2018–2019 to consider the role of verification in advancing nuclear disarmament. The GGE report suggests several areas of potential convergence that could be a useful basis for further multilateral discussion.<sup>38</sup>

NATO could help advance multilateral dialogue on all of these areas. NATO could take stock of the existing work done and build upon this work. For example, in addition to being a credible source of information on the technical difficulties associated with verification, given the Alliance's renewed focus on innovation, NATO could be a productive venue for technical experts from Allies and partners to explore and cutting-edge technical solutions. It could use NATO's existing mechanisms for supporting scientific research to bring together experts to identify scientific work on new and innovative disarmament verification technologies and then to help support this work either through funding (where available) or by amplifying it to broader multinational audiences. Another potentially productive area would be for NATO to convene legal experts to catalogue and discuss legal barriers to verification. NATO's long experience in exercises could support additional practical activities like the French-German NuDiVe exercise described above. Finally, building on NATO's experience in the training and education areas, it could also offset the deficit of younger verification professionals by promoting verification courses at the different NATO training facilities or online.

### 4.3 Advancing data access in support of national technical means

One specific application that is worth NATO's focus has to do with how to integrate new technologies into the concept of national technical means (NTM). The use of commercial satellite imagery in certain contexts, for example to monitor developments in North Korea's missile programmes, is already well developed. As one of us has recently argued, it is time to update the notion of NTM to take into account commercial satellite constellations that may be equally exploited by both sides or all sides in an arms control treaty or agreement, or even outside of a negotiated agreement.<sup>39</sup> A similar question could be asked about the long-range

<sup>37</sup> German Federal Foreign Office, *Putting Nuclear Disarmament to the Test*, 26 September 2019, <https://www.auswaertiges-amt.de/en/2250768>.

<sup>38</sup> UN Group of Governmental Experts, *Final Report of the Group of Governmental Experts to Consider the Role of Verification in Advancing Nuclear Disarmament (A/74/90)*, 15 May 2019, <https://undocs.org/en/A/74/90>.

<sup>39</sup> See Rose Gottemoeller, *Rethinking U.S. Arms Control and Nonproliferation Strategies*, lecture at the Lawrence Livermore National Laboratory, 26 February 2020, <https://cgsr.llnl.gov/event-calendar/2020/2020-02-26>. Enhanced NTM could have a number of benefits, including enabling the use of fewer resources through easing on-site inspection requirements. States may also welcome enhanced NTM as a way to confirm the carrying out of promised unilateral measures, such as elimination of obsolete weapons or closure of certain facilities. Such uses may also help advance the effectiveness of confidence-building and related diplomatic processes. For arguments in favour of greater use of ubiquitous sensing, see, e.g., Rose Gottemoeller, *NATO Nuclear Policy in a Post-INF World*. Speech by NATO Deputy Secretary General at the University of Oslo, Oslo, 9 September 2019, [https://www.nato.int/cps/en/natohq/opinions\\_168602.htm](https://www.nato.int/cps/en/natohq/opinions_168602.htm)

reconnaissance drones that have become a fixture of intelligence gathering and targeting in current military operations, including at NATO.

There may be a useful parallel in the extensive work NATO is currently doing on the strategic use of data. NATO already has in place mechanisms for the secure sharing of information that are based on trust built over the life of a seventy-year-old Alliance. Recent work has focused on specific areas in which data sharing can be enhanced in order to serve important policy goals. For example, one of the recent innovations has been a new policy to promote the sharing of evidence gathered in battlefield settings for use in national criminal prosecutions of foreign terrorist fighters.<sup>40</sup> Adopting this battlefield evidence policy required Allies to agree on a way forward despite different views on data ownership, sharing, and use.<sup>41</sup> This precedent could be useful in helping Allies consider a better sharing of data gathered in inspection processes.

#### 4.4 Contributing to thinking on arms control in outer space

Finally, NATO could leverage the momentum and interest generated by its landmark 2019 decision to recognise outer space as an operational domain<sup>42</sup> to consider how Allies could advance their interests in the long-running discussions of arms control in outer space. NATO has an advantage in framing arms control in this domain, due to its stated approach specifying that the Alliance will not deploy weapons into outer space and that NATO's activities will be conducted in accordance with international law.<sup>43</sup> Arms control in outer space will look different from traditional arms control, focusing more on norms, codes of conduct and other similar initiatives.<sup>44</sup>

In addition to framing the debate in a positive way going forward so that new appropriate norms develop, Allies can also make better use of NATO to ensure that unhelpful initiatives like the longstanding Russian-Chinese proposal for a draft Treaty on the Prevention of Placement of Weapons in Outer Space (PPWT)<sup>45</sup> do

<sup>40</sup> See, e.g., Juliette Bird, "Working with Partners to Counter Terrorism", in *NATO Review*, 16 May 2019, <https://www.nato.int/docu/review/articles/2019/05/16/working-with-partners-to-counter-terrorism>.

<sup>41</sup> See Steven Hill, "Transatlantic Interoperability Challenges", in Matthew C. Waxman (ed.), *The Law of Armed Conflict in 2040*, New York/Oxford, Oxford University Press, 2021 (forthcoming) (citing transatlantic differences over data as a strategic-level challenge).

<sup>42</sup> See, e.g., NATO, *Foreign Ministers Take Decisions to Adapt NATO, Recognise Space As an Operational Domain*, 20 November 2019, [https://www.nato.int/cps/en/natohq/news\\_171028.htm](https://www.nato.int/cps/en/natohq/news_171028.htm).

<sup>43</sup> Ibid.

<sup>44</sup> See, e.g., Christopher Ashley Ford, *Whither Arms Control in Outer Space? Space Threats, Space Hypocrisy, and the Hope of Space Norms*, Remarks at the CSIS webinar on "Threats, Challenges and Opportunities in Space", 6 April 2020, <https://www.state.gov/whither-arms-control-in-outer-space-space-threats-space-hypocrisy-and-the-hope-of-space-norms>.

<sup>45</sup> A draft of the text originally introduced at the Conference on Disarmament in 2008 can be found at <https://www.reachingcriticalwill.org/images/documents/Disarmament-fora/cd/2008/documents/Draft%20PPWT.pdf>. The United States dismissed this proposal characterising the offer

not cause damage by taking up bandwidth in international debates that could be devoted to proposals that have a better chance of attracting consensus. To date, criticisms of these proposals have been made by individual Allies or by the "P3" of France, the United Kingdom and the United States.<sup>46</sup> As has been done in the Vienna Document process, it might be useful for NATO Allies to develop a coordinated position. For example, Allies could consider whether elements of the proposal made by the United States and other partners for transparency and confidence building measures in outer space made during the 2019 session of the UN General Assembly's First Committee, which was ultimately withdrawn for further consultations,<sup>47</sup> could be incorporated into a future unified NATO proposal. That draft resolution welcomed "the engagement of Member States with regional organizations and their member States to explore further the implementation of transparency and confidence-building measures and to examine standards of responsible behaviour in outer space and best practices for space activities."<sup>48</sup> As noted above, the alliance is actively engaged on these issues in the follow up to the adoption of its space policy and declaration of space as an operational domain.<sup>49</sup> NATO could be an incubator of discussions on standards and best practices. This is an example of the considerable synergy between Allies' work at NATO and their broader efforts in the international community.

## Conclusion

Despite tough times for the ADN agenda and a challenging security environment, NATO is well positioned to continue its traditional role as a useful forum for Allies to pursue their collective interests. NATO has many potential advantages to offer, including a long history of support for all of the major arms control treaties, an already-existing architecture for consultations, exercises, and training on ADN issues, established policy like the balanced approach to Russia, and a proven ability to adapt to changing circumstances such as the rise of China and the rapid

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as "a diplomatic ploy by the two nations to gain a military advantage". For a timeline of subsequent events related to the PPWT, see Nuclear Threat Initiative website: *Proposed Prevention of an Arms Race in Space (PAROS) Treaty*, last updated 23 April 2020, <http://nti.org/85TAR>.

<sup>46</sup> A recent P3 explanation of vote in the UN General Assembly's First Committee explained the view of these states on why the Russian-Chinese proposal is not viable. Among other reasons, the proposal contains no firm definition of what constitutes a "space weapon" and lacks verification that would make it possible to confirm that any given state is adhering to its commitment not to place such weapons in space first. See Cynthia Plath, *Explanation of Vote in the First Committee on Resolution: L.50, "No First Placement of Weapons in Outer Space"*, Remarks at the United Nations, New York, 5 November 2018, <https://www.state.gov/explanation-of-vote-in-the-first-committee-on-resolution-l-50-no-first-placement-of-weapons-in-outer-space>.

<sup>47</sup> UN General Assembly, *Advancing Transparency and Confidence-Building Measures for Outer Space Activities. Revised Draft Resolution (A/C.1/74/L.55/Rev.1)*, 1 November 2019, <https://undocs.org/en/A/C.1/74/L.55/Rev.1>. The draft resolution called for was ultimately withdrawn.

<sup>48</sup> *Ibid.*, point 3.

<sup>49</sup> For further information on ongoing NATO activities, see NATO website: *NATO's Approach to Space*, last updated 23 October 2020, [https://www.nato.int/cps/en/natohq/topics\\_175419.htm](https://www.nato.int/cps/en/natohq/topics_175419.htm).

emergence of new emerging and disruptive technologies. While consensus-based decision making can require extensive consultations, when positions are agreed they carry a great deal of political weight and can send a strong signal of support. There is no contradiction between the ongoing process of adapting NATO's deterrence and defence posture and Allies' commitment to ADN. In fact, ADN complements the security of each Ally and Allies collectively. This is even more true in today's challenging security environment, where at least some security challenges are directly linked to Russia's persistent conduct in violation of its ADN obligations (such as the INF Treaty) and its attempts to exploit perceived differences among allies.

With President-elect Joe Biden taking office in January 2021 and conversations on NATO's adaptation such as Secretary General Stoltenberg's NATO 2030 initiative advancing on both sides of the Atlantic, the time is ripe for NATO to take on an enhanced role in preserving and strengthening a more effective ADN. There are a number of practical ways in which NATO could do so. First, in the leadup to the 2021 Review Conference, NATO could use the NAC's recent statement on the occasion of the NPT's fiftieth anniversary as a springboard to host briefings and consultations aimed at further coordinating allied and partner positions. Second, NATO could reiterate its support for modernisation of the Vienna Document during ongoing talks at the OSCE. The election of a new OSCE Secretary General, Helga Schmidt, may serve as impetus for a push on these talks. Third, NATO's recent work on understanding the implications of China's rise will be useful in developing a multilateral understanding of how the arms control architecture can be modified to encompass China and its expanding weapons programmes. Fourth, NATO has begun to take on a key role in understanding the risks and opportunities posed by new and emerging technologies. As NATO finalises its roadmap for future work in this space, it should ensure that the use of such technologies for arms control purposes is part of future discussions.

More broadly, NATO should also position itself as a focal point for innovation in the ADN area. NATO is uniquely placed to host, support and exercise the kind of expert work that is needed to enable technological advances to be harnessed in service of better verification. It can also be a hub to promote a new cadre of young experts in the field through training, professional opportunities, and even research funding. As NATO comes to terms with the strategic value of data, it can improve multinational sharing and use of data for verification-related purposes as well. Finally, with its new space policy and the recent decision on space as an operational domain, NATO is fully engaged on advancing dialogue related to outer space. This should include working toward more dialogue on responsible norms of state behaviour and best practice in space, goals that have been elusive elsewhere in the international community but that might benefit from a more focused, regionally-oriented discussions.

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