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NATO@75 – PRIHODNOST ATLANTSKEGA ZAVEZNIŠTVA V TURBULENTNIH ČASIH

NATO@75 – THE FUTURE OF THE ATLANTIC ALLIANCE IN TUMULTUOUS TIMES

Povzetek Članek poglobljeno obravnava Atlantsko zavezništvo, ki se približuje 75-letnici svojega obstoja. Analizira prevladujoče strateško okolje, v katerem Nato deluje, s številnimi tveganji ter rivalstvi, in obravnava glavne elemente Natove agende pri obvladovanju številnih sedanjih in prihodnjih izzivov evro-atlantske varnosti in obrambe. V ta namen omogoča vpogled v Natova glavna prizadevanja na področjih, kot so odvrčanje in obramba, Ukrajina, partnerstvo, širitev, čezatlantski odnosi, odpornost, ohranjanje in zaščita mednarodnega reda, ki temelji na pravilih, nastajajoče in prelomne tehnologije ter podnebne spremembe in varnost.

Ključne besede *Nato, evro-atlantska varnost in obramba, Rusija, Ukrajina, odpornost.*

Abstract This article takes an in-depth look at the Atlantic Alliance as it is approaching its 75th anniversary. It analyses the prevalent strategic environment in which NATO operates, with its multiple risks and rivalries; and addresses the main elements on its agenda as it manages the numerous challenges to Euro-Atlantic security and defence of today and tomorrow. To this end, it offers insights into NATO's main efforts in such areas as deterrence and defence, Ukraine, partnership, enlargement, transatlantic relations, resilience, upholding and protecting the international rules-based order, emerging and disruptive technologies, and climate change and security. .

Key words *NATO, Euro-Atlantic security and defence, Russia, Ukraine, Resilience.*

Introduction At their summit meeting in Washington in July 2024, NATO Heads of State and Government will commemorate the Alliance's 75th anniversary at a critical time for Euro-Atlantic security and international peace and stability. They will reaffirm NATO's essential and enduring purpose of safeguarding the freedom and security of all its members by political and military means, and the enduring and, in the eyes of most, essential transatlantic bond. They will also, in the words of the 1999 Washington Summit Declaration on the occasion of NATO's 50th anniversary, "declare [...] our mutual commitment to defend our people, our territory and our liberty, founded on democracy, human rights and the rule of law" (Washington Summit Declaration, 1999, para. 1).

In addition, 2024 marks an important anniversary for NATO Allies. Slovenia, together with six other Allies, is celebrating the 20th anniversary of her accession to NATO, another three their 25th, and two their 15th anniversaries.

This article takes a close look at NATO's current state of affairs and analyses the Alliance's main efforts in key areas, including deterrence and defence, Ukraine, partnership, enlargement, transatlantic relations, resilience, the international rules-based order, technology, and climate change and security. It identifies the sources of the Alliance's strength and its value to its members, and offers possible pathways to ensure its continued success into the future. It is based on an in-depth review of NATO primary sources, selected key literature, and the author's own experience in the organisation.

1 THE STRATEGIC ENVIRONMENT

Given the unpredictable state of current international affairs, undue exuberance on the occasion of the Washington summit meeting would seem out of place, for "Europe and North America stand today at a historic inflection point, between a fading era of relative stability and a volatile, dangerous age of disruption that is global in nature and broad in scope. Challenges include, but go beyond, persistent confrontation with a revanchist Russia and competition with a militarily powerful and technologically advanced China. They extend to emerging technologies that are changing the nature of competition and conflict, and digital transformations that are upending the foundations of diplomacy and defense. The scale and complexity of critical economic, environmental, technological, and human flows, as well as the dependency of many societies on such flows, have increased dramatically," as an astute observer of transatlantic affairs and respected colleague, Dan Hamilton, noted after the NATO Summit in Madrid in 2022 (Hamilton, 2022, p 141).

What characterizes this strategic environment, and what is NATO's major challenge over the next decade and perhaps beyond? As so aptly described in the report of the 2020 NATO Reflection Group (NATO 2030, 2020), it is the consolidation of the transatlantic community for an era of strategic simultaneity, in which numerous interconnected threats and challenges all face the Alliance at the same time, including

two systemic rivals, the enduring threat of terrorism, instability along the southern periphery, a dramatically changing technological landscape, numerous vexing non-state threats, and man-made as well as natural risks, including climate change or pandemics such as Covid-19.

2 WHAT MAKES NATO SO SUCCESSFUL?

Against this background, it is worthwhile taking a brief look at what makes NATO such a successful and unique alliance, which has stood the test of time for three-quarters of a century, and which continues to deter aggression, secure peace, and help create the conditions for prosperity. Why is it that so many nations wanted to join the Alliance, and why are there still more who aspire to membership, as demonstrated most recently by Finland and Sweden?

The fact that the Alliance remains wedded to its foundational values is probably the single most important factor in ensuring its durability. Moreover, NATO's longevity and success are rooted in its remarkable ability to adapt to an ever-changing security environment. It has been said that strategic adaptation was the means by which NATO survived, and the means by which it showed its value to its members (Johnston, 2017).

In their final analysis, the Allies continue to recognize that they are better off remaining within NATO than attempting to safeguard their freedom and security on their own.¹ Neither Europe nor North America, for all their strength, are powerful enough to manage the present and future threats and challenges alone, while at the same time dealing with the growing array of non-traditional issues that affect their societies. Given Russia's war of aggression against Ukraine and its far-reaching consequences for Euro-Atlantic and international security and stability, the fundamental purpose of NATO is more demonstrably clear today than it has been for decades, certainly since the end of the Cold War.

One could add other factors: that the Alliance remains the only transatlantic framework that brings Europe and North America together on a daily basis to address vital issues of security and defence through continuous political and military consultation, coordination, cooperation and planning; that NATO's integrated military structure is a unique tool which no other international organization or group of nations possesses; and that it manages to preserve its unity, solidarity and cohesion despite the manifold national interests at play and the occasionally harsh political differences between its members. This is and will remain the Alliance's centre of gravity and the source of its strength and credibility.

Another important element is NATO's consensus principle. This ensures that the voice of every Ally is being heard and that any agreement reached is acceptable

¹ This reflects the author's own experience based on his involvement in Alliance affairs since the 1990s.

to all the Allies. It has fostered habits of cooperation whereby Allies are willing to go along with decisions that do not fully reflect their national positions because they know that there is a greater good at stake which in turn meets their respective fundamental national security interests.

3 STRENGTHENING DETERRENCE AND DEFENCE

Russia's unprovoked and illegal war of aggression against Ukraine, with its second invasion of her neighbour in February 2022, led the Alliance to underscore and re-emphasize NATO's primary task of collective defence at the Madrid and Vilnius Summit meetings in 2022 and 2023, and in its new Strategic Concept. NATO leaders recognized Russia as the "most significant and direct threat to Allies' security and to peace and stability in the Euro-Atlantic area" (NATO 2022 Strategic Concept, 2022, para. 8).

Strengthening the Alliance's deterrence and defence has been at the forefront of NATO's transformation and adaptation since the events of 2014. A remarkable array of political decisions was taken, ground-breaking conceptual and planning work was done on the civilian and military sides of the house, and far-reaching changes to NATO's posture were introduced at the operational level. Moreover, European Allies and Canada began to invest more in their security and defence (Defence Expenditure, 2024).

Russia's brutal assault in 2022 forced the Alliance to accelerate and intensify its adaptation efforts in terms of pace, scale and scope, in order to ensure continued credible deterrence and defence in response to a fundamentally changed Euro-Atlantic security environment.

It has also led to a fundamental and far-reaching change in the Scandinavian security environment. Within a matter of weeks, public opinion in Finland and Sweden turned from a deeply engrained, traditional preference for military non-alignment to support for the bold and truly historic step of applying for NATO membership. Their accession undoubtedly strengthens further the Alliance's deterrence and defence posture across NATO's northern and north-eastern flank, and particularly in the Baltic Sea region, not least by creating a contiguous space. Both countries are security providers and have been close partners to NATO for a long time. They are militarily and technologically advanced, and each country's regional expertise on Russia enhances NATO's understanding of northern European security challenges. The two countries' total defence concepts are models for how to build resilience in Allied societies against disruptive threats (Hamilton, 2022, Wieslander et al., 2023).

On the eve of the Madrid summit in 2022, Estonian Prime Minister Kaja Kallas succinctly captured the security situation and what it meant for NATO's posture by stating that in the event of a Russian invasion, her country would be wiped from the map under existing NATO plans (Hankewitz, 2022). A modest forward presence at

the Eastern flank to be reinforced over time was recognized as a losing proposition in view of the horrific devastation unleashed by Russia on Ukraine (Hamilton, 2022).

As a consequence, at Madrid the Allies agreed on a new baseline for their deterrence and defence posture, including defending “every inch of Allied territory at all times” (Madrid Summit Declaration, 2022, para. 9). Hence the Allies’ commitment at Madrid and Vilnius to further strengthen NATO’s military posture, including by augmenting forward defences and the ability to reinforce any Ally coming under threat. To this end, NATO has put or is putting in place:

- A new generation of comprehensive regional and functional defence plans intended to improve the Alliance’s ability and readiness to deter and defend against any threats from anywhere;
- A larger pool of dedicated combat-capable forces at a higher level of readiness and responsiveness, while harnessing regional expertise and geographic proximity, including additional in-place combat ready forces on NATO’s Eastern flank;
- A more agile, resilient and sufficiently resourced command and control structure;
- A “Defence Production Action Plan” to help promote sustainable defence industry capacity (Vilnius Summit Communiqué, 2023, para. 39).

These far-reaching changes were underpinned by the Allied leaders’ commitment to invest at least 2% of GDP annually in defence, and their affirmation that in many cases expenditures beyond 2% would be needed in order to remedy existing shortfalls. The Allies also committed to investing at least 20% of their defence budgets on major equipment, including related R&D (Vilnius Summit Communiqué, 2023). This trend must be maintained and grown, despite the ever-present other demands on Allied countries’ budgets (Defence Expenditure, 2024).

In January 2024, the Chair of the NATO Military Committee, Admiral Rob Bauer, emphasized “the need for a warfighting transformation of NATO”, as the Alliance was entering into “an era in which anything can happen at any time” (Bauer, 2024). Militarily, the adaptation and transformation of the Alliance’s deterrence and defence posture, in particular the implementation or “executability” of NATO’s new defence plans, will require:

- More troops at higher readiness;
- Capability building and development;
- Better enablement, e.g. logistics, host nation support, military mobility, and replenishment and repositioning of stocks;
- More training and collective exercises to stress test the new plans (Bauer, 2024).

The war in Ukraine is a clear demonstration of large-scale conventional warfare remaining a mix of quality and quantity, of innovation in its means and in how it is being utilized, and of mass that continues to matter. For NATO and its Allies, this poses the double challenge of keeping the technological edge and of reconstituting

their military and defence industrial base at the same time and in a meaningful manner (Cakirozer, 2023).

In response, NATO is pursuing its Defence Production Action Plan to help promote sustainable defence industrial capacity (NATO – News, 2023b); the U.S. government published its National Defence Industrial Strategy in 2023 (U.S. DoD, 2023); the EU is intensifying its efforts in this regard; and many Allies are ramping up production and reforming their acquisition processes, including through multilateral formats, and supported by such players as the NATO Support and Procurement Agency, which has already agreed contracts worth roughly 10 billion US dollars (NATO – News, 2024a). It is key for the Allies to create economies of scale and provide clear demand signals to incentivize investment by industry by working together, while ensuring standardization, interoperability and interchangeability.

At the same time, additional momentum is required to fill long-standing capability gaps, in particular in areas such as integrated air and missile defence or long-range fires. Various multilateral projects are underway to address these issues, very prominently in the shape of the European Sky Shield Initiative which, however, has also shown the political delicacies that can surround such efforts.

Robust exercises, such as Steadfast Defender 2024 (Steadfast Defender, 2024), are an important stress test of the Alliance's ability and capacity to defend its territory and populations against attack, in particular in such areas as readiness, logistics, infrastructure, military mobility, host nation support, and doctrine, and to conduct multi-domain operations and manoeuvre warfare in large(r) formations.

The Alliance must be able to deter threats to its members from all directions and from whatever source, across all domains, while being prepared to defend all parts of NATO territory. This means not only countering challenges from Russia – which are not limited to the East, either geographically or functionally – but also addressing pressures emanating from NATO's south and south-east, as well as coping with transnational threats, and guarding against malevolent disruption of the critical functions of Allied societies.

All this requires major whole-of-government and whole-of-society efforts which go beyond the purely military, as they involve significant political, economic, diplomatic, informational, and societal resources.

4 SUPPORT FOR UKRAINE, PARTNERSHIP AND ENLARGEMENT

NATO leaders are united in their view that Russia's brutal war of aggression has shattered peace and gravely altered the Euro-Atlantic security environment; that Russia has violated the norms and principles that had contributed to a stable and predictable European security order; and that a strong, independent Ukraine is vital to the stability of the Euro-Atlantic area (Madrid Summit Declaration, 2022, Vilnius

Summit Communiqué, 2023). German Chancellor Scholz expressed the concern of many in the Alliance and beyond when he wrote recently that “[a] Russian victory in Ukraine would not only be the end of Ukraine as a free, democratic and independent state, it would also dramatically change the face of Europe. It would deal a severe blow to the liberal world order. Russia’s brutal attempt to steal territory by force could serve as a blueprint for other authoritarian leaders around the globe” (Scholz, 2024).

For these reasons and others, there is currently no alternative to continued support for Ukraine politically, economically, militarily and otherwise. At Vilnius, Allied leaders declared that they “remain[ed] steadfast in [their] commitment to further step up political and practical support to Ukraine as it continues to defend its independence, sovereignty, and territorial integrity within its internationally recognized borders, and will continue [their] support for as long as it takes”. They also welcomed “the efforts of all Allies and partners engaged in providing support to Ukraine,” (Vilnius Summit Communiqué, 2023, para. 10).

NATO’s package for Ukraine at the Vilnius Summit comprised three elements: firstly, a new multi-year assistance programme to help enable the transition towards NATO standards, training and doctrine, to rebuild the security and defence sector and to cover critical needs; secondly, the establishment of a new format for crisis consultations and decision-making was offered – the NATO-Ukraine Council; lastly, NATO leaders reaffirmed that Ukraine would become a NATO member, with the requirement of a membership action plan withdrawn and with an invitation for Ukraine to join the Alliance when the Allies agreed and conditions were met (Vilnius Summit Communiqué, 2023, paras. 10-13, NATO – Opinion, 2023).

At its forthcoming Washington summit and beyond, NATO must determine the what, how, and when of its future relationship with Kyiv. For the time being, there is no fundamental shift discernible in the Alliance’s position towards Ukrainian membership of NATO (McElvoy and Chiappa, 2024). In other words, instantaneous, or almost instantaneous, accession, as in the case of Finland and Sweden, does not seem to be in the cards. This would suggest that the Alliance will continue to bring Ukraine closer to NATO and to strengthen the partnership in every way possible short of Article 5 commitments to help the country resist Russian aggression and continue with its reform efforts. In parallel, several Allies have reached or are in the process of negotiating bilateral security arrangements with Kyiv following the G7 declaration of July 2023 (Gotkowska et al., 2024). Also, the efforts of “capability coalitions” in the context of the Ukraine Defence Contact Group currently led by the United States are ongoing, with more capability areas being covered (Vincent, 2024).

Stronger ties with and support for the other aspirant countries, Moldova and Georgia in the Black Sea region and Bosnia-Herzegovina in the Western Balkans, are of significant importance in order to help them and other partners withstand Russian aggression and destabilization attempts. In this sense, NATO’s partnership policies

in the Euro-Atlantic area would benefit from a sharper and more targeted focus (Kamp, 2024).

At the same time, NATO's door will remain open in accordance with Article 10 of the Washington Treaty, and there are no indications that NATO would wish to modify its long-standing policy.

5 TRANSATLANTIC BURDEN AND RESPONSIBILITY SHARING

A strong transatlantic bond between the North American and European Allies remains the bedrock of the Alliance. Achieving fair burden and responsibility sharing across the Atlantic has been a perennial problem for NATO, with every U.S. administration since the late fifties/early sixties voicing their concern.

Since 2014, the European Allies and Canada have begun to reverse the trend of underinvesting in their defence – a true paradigm shift following twenty-five years of shrinking budgets. Defence expenditures have increased and continue to rise across the Alliance (Defence Expenditure, 2024). This reflects the old truism that nations do react, albeit slowly, to changing security environments and consequential threat perceptions. The fact that Russia's war of aggression has actually deepened strategic dependence on the United States (Hamilton, 2022) is not a contradiction, but merely underscores the extent to which European Allies have underinvested, including by neglecting their defence industrial base.

It is another truism that significantly more needs to be done by the European Allies in this regard – out of enlightened self-interest given the security situation on the continent and beyond, and because transatlantic pressures are bound to grow. This should include Europe's (and Canada's) ability and willingness to shoulder at least half of the military burden required to deter and defend against a revisionist and belligerent Russia; to conduct crisis prevention and crisis management in Europe's vicinity; and to support the United States in safeguarding the international rules-based order, including and perhaps in particular in the Indo-Pacific (Hamilton et.al., 2022). Building European strategic responsibility, however, will be a process, not a one-time event.

An important part of the European effort will be to incentivize and realize NATO-EU synergies in capability development and infrastructure programming in such areas as strategic enablers, military mobility, and enablement. Also, continued multinational efforts in capability development by groups of Allies, together with partners where possible, to address specific regional or functional requirements are useful and increasingly important in order to build the capabilities required, which could then be used nationally, by the EU, and by NATO to bolster the deterrence and defence posture and in support of the other core functions.

6 ENHANCING RESILIENCE

NATO has a long history when it comes to building resilience through civil preparedness. In fact, under Article 3 of the Washington Treaty, with its obligation to develop and maintain the capacity to resist armed attacks, the Allies committed to building national resilience, which is understood by NATO as the combination of civil preparedness and military capacity. The Allies recognized that resilience in this sense depends on the Alliance's military capacity, on the state of civil preparedness of each Ally, and on the coordination and integration of the two (NATO – Topic, 2023b).

Moreover, resilience has a deterrent effect by denying the adversary the ability to achieve its objectives, or at least reducing its chances of doing so. Resilient societies have fewer vulnerabilities which could be leveraged or targeted by their enemies, and can absorb strategic shocks or withstand disruption better. Article 3 and Article 5 on collective defence are thus closely interrelated.

The sophisticated resilience ecosystem that the Alliance built and maintained during the Cold War, however, withered away in the 1990s following the epochal paradigm shift of 1989/90, it being actually one of the first peace dividends, as an astute observer remarked (Meyer-Minnemann, 2016). With the events of 2014 and 2022 and NATO's subsequent efforts to adapt to the new security environment by strengthening its deterrence and defence posture, this lacuna becomes painfully obvious.

Consequently, NATO began to lay the groundwork for a systematic and ongoing effort to improve resilience across the Alliance based on a whole-of-society approach in which all actors, civilian and military, public and private, academia, and civil society would work in synergy in order to be able to anticipate and pre-empt disruptive challenges to its critical functions, and to absorb, respond to, and recover effectively from shocks of every nature across the full spectrum of potential crises.

In 2016, baseline requirements for the Allies were defined in key areas of continuity of government, continuity of essential services, and civil support to military operations.² Civil preparedness was again recognized as being central to Allies' resilience.

As part of their Strengthened Resilience Commitment, adopted at the 2021 Summit, NATO Heads of State and Government underscored that national and collective resilience were an essential basis for credible deterrence and defence and for the effective fulfilment of the Alliance's other core tasks of crisis prevention and management and cooperative security, and were vital in safeguarding Allied societies,

² These include (1) assured continuity of government and critical government services; (2) resilient energy supplies; (3) ability to deal effectively with uncontrolled movement of people; (4) resilient food and water resources; (5) ability to deal with mass casualties; (6) resilient civil communications systems; and (7) resilient civil transportation systems.

populations, and shared values. Resilience is seen as being key to countering the use of military, political, economic, and other instruments of power by potential adversaries and malign actors to undermine the security of the Allies. While resilience is, and remains, primarily a national responsibility, it is also a collective commitment (NATO – Official Text, 2021a).

The 2022 Strategic Concept underscored the importance of resilience as being critical to NATO's three core tasks. Moreover, the Allies agreed resilience objectives which are meant to strengthen NATO and Allied countries' preparedness, and to guide the development of national goals and implementation plans (NATO 2022 Strategic Concept, 2022, Vilnius Summit Communiqué, 2023, para. 61).

NATO recognizes that the Alliance's military instrument of power now depends to a large extent on civil sector support, infrastructure, and expertise, especially in times of crisis and conflict. Consequently, NATO will continue to step up its efforts to secure and diversify supply chains; ensure the resilience of critical infrastructure in all domains and key industries; address the impact of emerging technologies; secure next-generation communications; protect technology and intellectual property; meet challenges to energy security; deal with natural hazards and other effects exacerbated by climate change; and last but not least, ensure its ability to consult, decide and act together.

All this requires comprehensive approaches, vertically and horizontally, including cooperation and coordination between international actors, the whole-of-government and society, the private sector, academia and other centres of expertise. It necessitates public communication strategies and other informational and educational efforts down to the level of the individual citizen, and also investment in resilience-building at the respective local, national and international levels, the exchange of best practices, and the regular and continuous stress testing and exercising of these mechanisms.

Most importantly, it must focus on the strengthening of the democratic resilience of an open society, for the foundation for resilience lies in the NATO Allies' shared commitment to the common values of democratic governance, individual liberty, and the rule of law. Protecting these democratic values and enhancing Allied countries' resilience are inextricably linked, and civil society plays a pivotal role in this process. Disinformation campaigns, interference in electoral processes or other efforts to undermine the credibility and legitimacy of democratic institutions and practices have a direct impact on citizens. Societal resilience begins at the level of the individual and their trust and confidence in the democratic institutions. To this end, engaging, educating and empowering them remains key, including by ensuring access to transparent, timely, accurate and verifiable information, by recognizing their role in support of national and collective defence, and by involving them in and making them a central part of national resilience and civil preparedness strategies,

as the initiatives and experiences in a number of Allied and partner countries with whole-of-society and total defence concepts have shown (Sanchez, 2021).

Resilience in such a strategic sense is also an excellent example for an area where the closest possible cooperation between NATO and the European Union is particularly valuable and necessary, given the comparative advantages the two institutions can bring to the table, with the EU having the power of regulation and NATO being a leader in standardization. On the basis of the Joint Declarations on NATO-EU Cooperation of 2016, 2018 and 2023, ever closer interaction, coordination, and intensification of information-sharing efforts have ensued in a number of key areas, including cyber security and defence, countering disinformation and other malign grey zone activities, counter-terrorism, military mobility, and fighting the Covid-19 pandemic, and increasingly on technology, climate change, the growing strategic competition, and space. Initiatives such as the Euro-Atlantic Centre for Resilience, established in Romania in 2021, which is pursuing a similar business model as the Helsinki European Centre of Excellence for Countering Hybrid Threats, are of importance. They help build strong and vibrant ecosystems and communities of interest, benefitting their members as well as enhancing NATO-EU interaction and cooperation more broadly.

7 UPHOLDING THE RULES-BASED INTERNATIONAL ORDER

In their 2022 Strategic Concept, NATO leaders set out their vision of a rules-based international order very clearly, i.e. “to live in a world where sovereignty, territorial integrity, human rights and international law are respected and where each country can choose its own path, free from aggression, coercion or subversion” (NATO 2022 Strategic Concept, 2022, Preface).

Alliance Heads of State and Government have recognized that the “systemic competition” (Madrid Summit Declaration, 2022, para. 6) from assertive, authoritarian, or simply revisionist powers is posing a growing challenge to the international order. Increasingly, the actions undertaken at various levels and in different guises by these actors, state and non-state, are aimed at undermining this order and the liberal and open societies which support it. Russia’s unprovoked and illegal war of aggression against Ukraine is but one example.

The strategic competition with Russia and China, both materially and ideologically, will stay at the top of the list. Russia remains the primary military threat to NATO and Euro-Atlantic security and stability for the foreseeable future, whereas the rise of China is probably the single most consequential change in the strategic environment of NATO and the international community.

The rise of China as a defining global issue shows the complexity of the challenge for the Alliance to formulate a coherent strategy and policy. From NATO’s perspective, China is on its way to becoming one of the largest, if not the largest, economy in the

world. Beijing is an important trade and investment partner to many Allied countries and Alliance partners across the globe. As a permanent member of the UN Security Council, China plays an instrumental role in dealing with the important issues of our time, including global governance, international trade, or indeed climate change.

At the same time, China has embarked upon ambitious programmes in order to match her military power to her economic might, including the significant expansion of her nuclear arsenal with more warheads and a larger number of more sophisticated means of delivery. Beijing does not share the values on which liberal societies are founded, as evidenced by her actions against her ethnic and religious minorities, developments in Hong Kong, or moves towards creating the systematic surveillance of her own people. China is challenging the international rules-based order by openly threatening Taiwan, coercing neighbours in the region, and hampering freedom of navigation in the South China Sea. There is concern that unimpeded access to other parts of the global commons could also be increasingly jeopardized, in particular, space.

Furthermore, Beijing is acquiring, building, and managing critical infrastructure and strategic resources in Europe and around the world, which in itself is creating dependencies. Additionally, China is actively engaged in international organizations and bodies, with a view to attempting to shape norms, standards and regulatory frameworks to its liking (NATO – Opinion, 2021).

Allied leaders have underscored that NATO's ability to address traditional and unconventional threats in Europe is becoming intertwined with related challenges to Alliance security interests posed by China. While they stated that they were "open to constructive engagement" with Beijing, they pledged to work more closely together to address the "systemic challenges" posed by China to Euro-Atlantic security, including through enhanced shared awareness, resilience and preparedness, as well as by standing up to China's "coercive tactics and efforts to divide the Alliance" (NATO 2022 Strategic Concept, 2022, para. 14).

Allied leaders have also expressed concern over the deepening strategic partnership between China and Russia, and their mutually reinforcing attempts to undercut the rules-based international order; they specifically called on Beijing to act responsibly as a Permanent Member of the UNSC and refrain from providing any lethal aid to Russia (Vilnius Summit Communiqué, 2023).

While NATO remains a regional Alliance for Europe and North America, it is a – if not the – key platform on which to create convergence in responding to the security implications of China's rise, in particular where and when it affects Euro-Atlantic security and stability.

To this end, NATO will want to engage more with its partners across the globe, as this is the best way to help protect the rules-based international order and safeguard

security. The Alliance has stepped up its dialogue and cooperation with like-minded countries in the Indo-Pacific, namely Australia, Japan, New Zealand, and South Korea, for instance in such areas as emerging security challenges and innovation, arms control, maritime security, space, supply chains and resilience in the case of Japan (NATO – News, 2023a), or arms control, new technologies and cyber defence with South Korea (NATO – News, 2024b).

NATO and the Allies have long recognized that their security can be directly affected by instability and conflict in their neighbourhood. Hence the considerable political and material investment in partnerships with neighbouring countries in terms of political dialogue, practical cooperation and crisis management over the past decades. As in the past, the challenges lie in the allocation of required resources, the coordination and harmonization of the Alliance, other international, and national efforts, and the partners' absorption capacity. Furthermore, such assistance efforts must be inherently part of NATO's broader bilateral plans and regional strategies, including by properly balancing Alliance interests and partner demands, not least as aspects of geopolitics and geoeconomics are increasingly becoming a factor.

8 PRESERVING THE TECHNOLOGICAL EDGE

We live in an era of far-reaching and disruptive technological change and advancements which are affecting our societies profoundly and comprehensively. Seen through the prism of security and defence, they can be characterized by four mutually reinforcing developments: (1) contrary to previous periods, defence is now reliant on civil developments, with the process mainly being the preserve of the private sector; (2) the reliability, availability and decreasing costs of the technologies in question; (3) the combination of technologies and their effects, which can be exponential in some areas; and (4) the drastically reduced timescales of the innovation and development cycles (NATO Science and Technology Organization, 2020, NATO Science and Technology Organization, 2023).

Emerging and disruptive technologies are changing, or have already changed, the character and the nature of warfare, and are enabling new forms of attacks – hypersonic weapons being a case in point. Critical areas include, inter alia, artificial intelligence, especially in combination with big data; quantum-based or enabled technologies; autonomous systems; bio- and nanotechnology; hypersonic systems; space; novel materials and manufacturing; energy and propulsion; and next generation communications networks (NATO – Topics, 2023a, Ricart, 2023).

Historically, NATO's superiority has been based on the Allies having the technological edge. There is a risk that without concerted efforts Allied nations and like-minded partners could be falling behind in certain key areas at a time when there is a clear 'first adopter' advantage which malign actors – state and non-state – are today already attempting to exploit, while feeling little or no inhibition to challenge or disrespect

international norms and standards in the process. NATO must redouble its efforts to help the Allies maintain their edge.

Far-reaching steps have been taken by the Alliance in recent years. Individual strategies are under development for the aforementioned priority areas as part of an integrated and comprehensive response to the challenges and opportunities these technologies pose to Allied security and defence. Examples include the AI strategy, which integrates artificial intelligence into such areas as data analytics, imagery, and cyber defence (NATO – Official Text, 2021b), and the quantum technology strategy, with its focus on sensing, imaging, precise positioning, navigation and timing, underwater detection, and cryptography (NATO – Official Text, 2024). In this context, the Allies have committed to the principles of responsible use in accordance with their values, norms and international law (NATO – Official Text, 2021b). Their collaboration and cooperation efforts take place with the support of NATO’s strong institutional base, including, inter alia, NATO’s Science and Technology Organization with its network of several thousand scientists and researchers and world class research institutes, the NATO Communications and Information Agency (NCIA), and NATO’s warfare development command, Allied Command Transformation (ACT), with the affiliated Centres of Excellence, to name just a few of the entities.

Important initiatives in the field of technology were agreed at NATO’s 2021 Brussels Summit and subsequent summit meetings, and include the establishment of the Defence Innovation Accelerator for the North Atlantic (DIANA), a mechanism meant to energize transatlantic cooperation on critical technologies, promote interoperability, and harness innovation in the civilian sector by engaging with academia and the private sector, including small and medium enterprises and start-ups. DIANA consists of regional offices, hubs, test centres and accelerator sites hosted by Allies, and runs competitive industry challenges on specific defence and security issues. A second major step was the decision to set up a NATO Innovation Fund, which is open to multinational funding by Allies on an “opt-in” basis to invest in promising ventures pursuing dual-use and/or emerging and disruptive technologies in areas critical to Alliance security. As of 2023, 23 Allies are participating in the 1 billion euro venture capital fund, which will invest its funding over a 15-year period (Belgium, Bulgaria, the Czechia, Denmark, Estonia, Finland, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Turkey, and the United Kingdom) (NATO – Topics, 2023c).

NATO’s overarching aim is to enable the Allies and the Alliance as a whole to adapt more quickly, strengthen the existing industrial base – (re)establishing it where necessary – in and across Allied countries, and bridge innovation gaps. This will require new partnerships, vertically and horizontally, additional resources, and a great deal of creativity. Ensuring and enabling interoperability, interchangeability and standardization will become ever more important in view of the pace of technological change. Internally, the orchestration and “synergizing” of the multitude of efforts

across the NATO enterprise and its ecosystems is a perennial challenge that needs to be properly managed.

9 COMBATING AND ADAPTING TO CLIMATE CHANGE

Climate change, apart from being a truly existential global threat, is already today a crisis or threat multiplier. For NATO, there are at least three dimensions to consider. Firstly, NATO and the Allies must understand the security implications of climate change and what they mean for Alliance security and defence. Secondly, it is clear that climate change will have an impact on how NATO does business. From infrastructure to equipment, training and exercises, or logistics, NATO must look into how to adapt to these challenges. Lastly, NATO as a responsible international actor will wish to make its contribution to the goal of reducing emissions. While this is primarily the responsibility of each of the Allies, NATO is identifying best practices and should set standards.

At their 2021 Brussels Summit, NATO Heads of State and Government agreed an ambitious action plan on climate change and security (NATO Climate Change and Security Action Plan, 2021). The leaders recognized that NATO was not – nor can it be – the first responder to the challenges related to climate change, but that it has a role to play in a comprehensive response, and it must take into account the impact of climate change on Alliance security in order to fulfil all of its core tasks. They also agreed to significantly reduce the footprint of military activities and installations, without impairing personnel safety, operational effectiveness, and the Alliance's deterrence and defence posture.

The action plan consists of four strands: (1) to increase Allied awareness, *inter alia* through annual climate change impact assessments; (2) to adapt to climate change by incorporating the outcome of its assessments across the entire spectrum of its activities; (3) to contribute to the mitigation of climate change by developing mapping and analytical methodologies on emissions from military activities and installations; (4) to enhance outreach by strengthening exchanges with partner countries and organizations, and by increasing dialogue with civil society, academia and industry. The first reports to track the progress made, review the level of ambition, and inform the way ahead were submitted to the Madrid and subsequent NATO summit meetings (NATO Climate Change and Security Impact Assessment, 2023; NATO Climate Change and Security Action Plan – Compendium of Best Practices, 2023; NATO Greenhouse Gases Emission Mapping and Analytical Methodology, 2023).

Conclusion It has rightly been said that NATO's longevity and success are rooted in its remarkable ability to adapt to an ever-changing security environment while remaining wedded to its foundational values and preserving its unity, solidarity, and cohesion despite the manifold national interests at play. This is and will remain the source of its strength and credibility. In an age of uncertainty, disruption, and looming existential threat, these qualities will be severely tested, as the strain on the Alliance is bound to grow.

Yet, it is precisely this reality that leads the NATO countries, in the sober analysis of their individual national security interests, to the conclusion that the Alliance frame continues to offer the best possible way of organizing their security and defence.

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