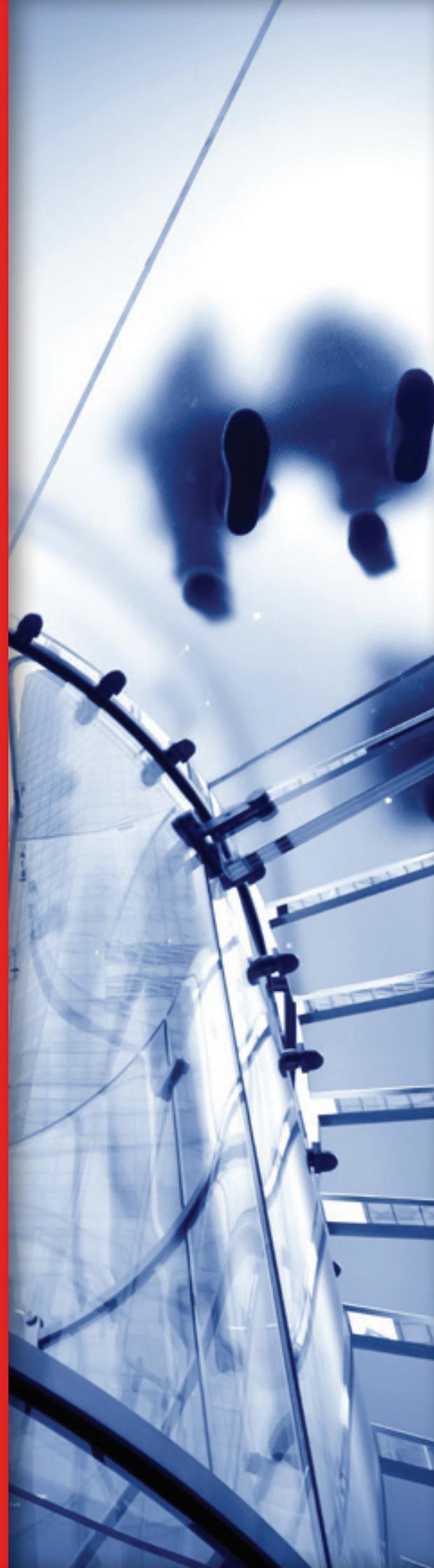


**GLOBSEC NATO  
ADAPTATION  
INITIATIVE**

ONE ALLIANCE

**The Future Tasks  
of the Adapted  
Alliance**



The GLOBSEC NATO Adaptation Initiative, led by General (Retd.) John R. Allen, is GLOBSEC's foremost contribution to debates about the future of the Alliance. Given the substantial changes within the global security environment, GLOBSEC has undertaken a year-long project, following its annual Spring conference and the July NATO Summit in Warsaw, to explore challenges faced by the Alliance in adapting to a very different strategic environment than that of any time since the end of the Cold War. The Initiative integrates policy expertise, institutional knowledge, intellectual rigour and industrial perspectives. It ultimately seeks to provide innovative and thoughtful solutions for the leaders of the Alliance to make NATO more a resilient, responsive and efficient anchor of transatlantic stability. The policy papers published within the GLOBSEC NATO Adaptation Initiative are authored by the Initiative's Steering Committee members: **General (Retd.) John R. Allen, Admiral (Retd.) Giampaolo di Paola, General (Retd.) Wolf Langheld, Professor Julian Lindley-French, Ambassador (Retd.) Tomáš Valášek, Ambassador (Retd.) Alexander Vershbow** and other acclaimed authorities from the field of global security and strategy.

## CREDITS

### **GLOBSEC NATO Adaptation Initiative Steering Committee**

General (Retd.) John R. Allen<sup>1</sup>, Professor Dr Julian Lindley-French, Admiral (Retd.) Giampaolo Di Paola, General (Retd.) Wolf Langheld, Ambassador (Retd.) Tomáš Valášek, Ambassador (Retd.) Alexander Vershbow

### **Observers and Advisors**

General (Retd.) Knud Bartels, James Townsend, Dr Michael E. O'Hanlon

### **Lead Writer**

Professor Dr Julian Lindley-French

### **Contributing Authors**

Ian Brzezinski, Professor Paul Cornish, Dr Karl-Heinz Kamp, Ambassador (Retd.) Stefano Stefanini

### **Project Manager**

Alena Kudzko

*“The Alliance is a dynamic and vigorous organisation which is constantly adapting itself to changing conditions. Given such changes, people in NATO societies want action/protection and are not seeing it. It has also shown that its future tasks can be handled within the terms of the [Washington] Treaty by building on the methods and procedures which have proved their value over many years”.*<sup>2</sup>

— The Harmel Report, “The Future Tasks of the Alliance: The Report of the Council”  
13 December 1967

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<sup>1</sup> General Allen is part of the project team in a private and personal capacity. The major bulk of the work was completed prior to General Allen's appointment as President of the Brookings Institution. Whilst his participation is in agreement with the Trustees of Brookings this report and all associated GLOBSEC NATO Adaptation Initiative reports have no formal or informal links to the Brookings Institution.

<sup>2</sup> [http://www.bits.de/NRANEU/nato-strategy/Harmel\\_Report\\_complete.pdf](http://www.bits.de/NRANEU/nato-strategy/Harmel_Report_complete.pdf)

**H.E. Jens Stoltenberg,**  
Secretary-General,  
North Atlantic Treaty Organisation

November 27, 2017

Dear Secretary-General Stoltenberg,

**The GLOBSEC NATO Adaptation Initiative**

*As leader of the GLOBSEC NATO Adaptation Initiative, and on behalf of the Steering Committee, GLOBSEC and the many leading academics and policy-practitioners who have supported the work, it is my distinct pleasure and honour to present to you the formal outcome of over fifteen months of intense work on the future of NATO. This presentation folder contains the fruit of our labours: three major reports, as well as eight important supporting papers.*

*The main message for the Alliance is clear: NATO needs a forward-looking strategy that sets out how the Alliance will meet the challenges of an unpredictable and fast-changing world. To lay the basis for long-term adaptation, NATO leaders should commission a strategy review at the July 2018 Brussels Summit that could be completed by the seventieth anniversary summit in 2019, and which might be embodied in a new Strategic Concept.*

*This has been an Alliance-wide initiative from the outset that strove to strike a necessary policy balance between nations, policy-makers, practitioners and academic experts. The Steering Committee is living testament to that balance. Professor Dr Julian Lindley-French, our lead writer, from the UK, Admiral Giampaolo Di Paola from Italy, General Wolf Langheld from Germany, Ambassador Tomas Valasek from Slovakia, and former NATO Deputy Secretary General Ambassador Alexander Vershbow of the US all brought a wealth of knowledge and experience to the work. The steering committee was further advised by General Knud Bartels, James Townsend, and Dr Michael O'Hanlon. Particular tribute must be paid to GLOBSEC's Project Manager, and Deputy Research Director Alena Kudzko.*

*Fifty years ago NATO adopted a new kind of defence with Flexible Response, and a new approach when Minister Harmel and his team called upon the Alliance to balance sound defence with committed dialogue to maintain the peace of Europe. NATO was spectacularly successful in accomplishing that mission. Today, in a very different world, an adapted NATO will need to embrace a new kind of flexible response in which defence, deterrence and dialogue come together once again to preserve the peace across the Euro-Atlantic Community, and far beyond. To re-forge NATO in a foundry of contemporary realism so that the Alliance can continue to hold aloft a shining beacon of liberty not just for its own citizens, but many others the world over.*

*Sir, I commend our report to you.*

*With my sincere respects,*

**General John R. Allen**  
Leader, GLOBSEC NATO Adaptation Initiative,  
November 2017

*Dear Reader of the GLOBSEC NATO Adaptation Initiative Final Report,*

*While history books and official archives undoubtedly help us to comprehend the course of humanity and international relations, there will from time to time emerge a generation that is fated to witness the rapidly evolving course of history being written right in front of its eyes. This time, I am afraid, we are the generation facing the challenges of an unravelling international order and deteriorating security landscape. In recent years we have witnessed the return of conventional armed conflict to Europe, re-experienced the threat posed by fundamentalism and terrorism, and gained insights into the destructive potential of cyber and hybrid warfare. These threats have also thrived in an entrepreneurial ecosystem that has been able to quickly and stealthily absorb technological advances.*

*The history (and mission) of GLOBSEC has consistently reflected a series of ground-breaking historical developments in Central and Eastern Europe – the reclamation of democracy, the growth of open societies and the anchoring of the region in the transatlantic community. Since its foundation, GLOBSEC has been committed to making the world a safe, prosperous and sustainable place. Reacting to the profound changes in our strategic environment, GLOBSEC launched its flagship high-level initiative in order to drive debates about adapting our Alliance to the new reality. More than a year ago, the GLOBSEC NATO Adaptation Initiative (GNAI) – chaired by General John R. Allen and ably assisted by a team of scholars, diplomats and military personnel with over 250 years accumulated experience – embarked on a unique and important mission to provide formative guidance for our Alliance, its members and its leaders.*

*To deliver on the promise of this Initiative, we have been engaged in innumerable debates with national leaders, international institutions, defence industry representatives, security experts and the wider public. In doing so, we have consistently sought to better understand how we could provide innovative and thoughtful counsel on making NATO a more resilient, responsive and efficient anchor of transatlantic stability.*

*We feel both truly honoured and privileged to state that this Initiative is to date the biggest endeavour of its kind instigated by a think-tank belonging to a NATO member state after the 2016 Warsaw Summit. And we are even more pleased to present to you the Initiative's Final Report, which offers key policy recommendations for meeting the key strategic objectives of an enhanced and adapted Alliance.*

**Róbert Vass**  
President  
GLOBSEC  
November 2017

# GLOBSEC NATO ADAPTATION INITIATIVE

## ONE ALLIANCE: The Future Tasks of the Adapted Alliance

### EXECUTIVE SUMMARY

#### KEY RECOMMENDATIONS

**NATO is at a crucial decision point.** The Alliance has adapted well in response to the watershed events of 2014 – rebuilding deterrence against threats from the East, increasing its engagement with the Middle East, and forging a closer partnership with the European Union. But as it nears its seventieth birthday, **NATO risks falling behind the pace of political change and technological developments** that could alter the character of warfare, the structure of international relations and the role of the Alliance itself.

NATO cannot stand still, or rest on its laurels. To maintain its credibility as a defensive alliance NATO must embark on a more far-reaching process of adaptation. NATO must ensure it has the capacity to fight a future war if it is to deter and prevent such a war. And it must have the political tools and partnerships to reinforce its military capabilities.

To lay the basis for long-term adaptation, **NATO leaders should commission a strategy review at the July 2018 Summit that could be completed by the seventieth anniversary summit in 2019**, and which might be embodied in a new Strategic Concept. NATO needs a forward-looking strategy that sets out how NATO will meet the challenges of an unpredictable and fast-changing world.

**As the key elements of such a strategy, the Allies must:**

- ▶ **Embrace new geostrategic and transatlantic realities:** Adaptation will only succeed if the Alliance confronts new geostrategic realities, including the need to deter a revisionist, militarily-advanced Russia, whilst also projecting stability to NATO's South, and dealing with threats posed by states such as North Korea. To establish equitable burden-sharing between the United States and its allies, the Defence Investment Pledge (DIP) agreed at the 2014 Wales Summit must be honoured in full, and new money spent well.
- ▶ **Strengthen NATO's deterrence and defence posture to prevent conflict and deter aggression:** Enhancing the readiness and responsiveness of NATO conventional forces must be the over-arching priority, but NATO's nuclear posture and strategy must also be modernised. Along with powerful, agile and resilient conventional forces, Allies need to adopt a warfighting ethos as core Alliance doctrine. NATO must re-establish the capacity for the swift generation of force mass and manoeuvre if NATO is to meet the force-on-force challenge. NATO should promote integrated deterrence, building on reforms to the NATO Command Structure, as well as undertake more systematic contingency planning, to ensure effective command and control across the conflict spectrum.

- ▶ **Establish a high-level of NATO military ambition:** All aspects of NATO's non-nuclear conventional forces must be radically improved, including better integration of cyber and new technologies. Indeed, the strengthening of Alliance conventional forces is the sine qua non of adaptation. Whilst moving towards a new nuclear strategy and posture is also politically challenging, NATO's Nuclear Planning Group must seek to make advances where possible. NATO must at least be able to command simultaneously operations in a large-scale state-to-state conflict (a Major Joint Operation-Plus), and undertake a sustained strategic stabilisation campaign to NATO's south. NATO's crisis management mechanisms are still far too complicated. NATO's role in the defence of the global commons must also be enhanced with multi-domain forces able to operate to effect across air, sea, land, space, cyber, knowledge and information. NATO must train and think as it plans to fight. Impediments to battle-critical information-sharing must also be removed.
- ▶ **Strengthen NATO's role in counter-terrorism:** The terrorist threat to the Euro-Atlantic area will increase. NATO's Counter-Terrorism Policy Guidelines and NATO's support for the Global Coalition to Defeat ISIS are vital. However, NATO must also contribute more to preventing terrorist attacks on its members, including home-grown plots. Whilst this is primarily a national and EU responsibility, with law enforcement and interior ministries in the lead, NATO's newly upgraded Joint Intelligence and Security Division (JIS), with its secure communications links to Allied capitals, could become a clearing-house for exchanging classified terrorist threat information.
- ▶ **Engage with Russia and Ukraine on the basis of principle:** A new political strategy is needed for NATO to better engage with Russia. Dialogue must go hand-in-hand with defence with the goal of managing competition and reducing risks until fundamental differences that prevent a return to cooperation with Russia are resolved. At the same time, the Alliance must help Ukraine, Georgia, and other Eastern European neighbours to defend themselves and continue to promote the Euro-Atlantic integration of the Western Balkans. The Open Door policy, and the possibility of future membership, must be upheld.
- ▶ **Promote a broad NATO security agenda:** The enduring mission in Afghanistan is a reminder that the security of the Alliance does not stop at its borders. NATO needs a broader security role to reinforce the engagement of the Alliance across the Middle East, North Africa and beyond. Defence capacity-building to NATO's south will be an important contribution to peace and security, working closely with regional security institutions, such as the African Union and the Arab League, as well as with individual partner nations.
- ▶ **Craft a smarter NATO:** If the Alliance is to both protect people and project influence and power, NATO should better integrate the many centres of excellence into a network of excellence, and establish new centres to address new challenges. A bespoke Hyper War Centre of Excellence would help generate a coherent approach to future war, and combine work on Artificial Intelligence and expanded NATO cyber defence. NATO urgently needs a coherent approach to the development and application of artificial intelligence (AI) and its family of capabilities to defence and deterrence. Such a Centre would necessarily need to train and educate NATO's civilian and military leadership, and include staff courses for NATO international personnel and member nation civilians.
- ▶ **Create an ambitious and comprehensive NATO-EU Strategic Partnership:** The EU will become an increasingly important foreign and security actor and partner of NATO, with the NATO-EU strategic partnership increasingly important for the management of transatlantic relations. For many Europeans the Common Security and Defence Policy (CSDP) will be a, if not the vehicle for defence policy. The European Defence Agency will also be the mechanism of choice for the development of military capabilities for many Europeans. Therefore, NATO and the EU must overcome current barriers to foster a more substantial and mutually beneficial partnership and reinforce practical cooperation. A NATO-EU summit at heads of state and government level should be held at least once a year.
- ▶ **Foster wider strategic partnerships:** NATO must also create a world-wide network of strategic partnerships and institutions. Indeed, at a time of globalised security NATO needs to better forge functional political, civilian and military partnerships across the world. The creation of consultative councils with states such as Australia, China, India, Japan and South Korea would be an important indicator of such ambition.

- ▶ **Better equip and afford NATO:** NATO must innovate as an alliance and streamline the delivery of new technology and equipment. On average it takes 16 years from conception of military capability to operational effect, which is far too long. Capability fielding timelines must be shortened, and commanders given a greater say in requirements development. NATO should promote a common standard for shared assessment, harmonised requirements and common specifications, expand the use of common funding, and conduct an Alliance-wide platform and systems audit as part of a Future Requirements Framework.
- ▶ **Deepen relations with established defence industries and forge new partnerships with the new defence sector:** Critically, NATO must gain a far better understanding of the impact of new technologies such as artificial intelligence and data mining, together with their defence applications. Many of the companies driving new technologies are not defence giants, nor are many of them defence-focussed. Such companies will need to be sure that if they invest limited people and resources in NATO projects, their existence will not be threatened by sclerotic acquisition practices.
- ▶ **Equip NATO for the future of war:** NATO needs a future war strategy that fully-integrates hybrid warfare, cyber war, counter-terrorism and hyper war, and the continuum between them. Critically, NATO must leverage the impact of new technologies on the security space and battlespace. NATO must better grip and exploit new information technologies, and systematically trawl newly-available artificial intelligence-powered capacities to exploit big data. To that end, NATO should consider creating an agency similar in mission to that of the US Defense Advanced Research Projects Agency (DARPA).

If the above recommendations are adopted, they would take NATO adaptation to a new level and reinforce the Alliance's fundamental goal of preventing war and deterring aggression. Building on the short-term changes dictated by the earth-shaking events of 2014, these recommendations would also equip NATO for the even more formidable changes on the horizon.

■ **THE GLOBSEC NATO ADAPTATION INITIATIVE STEERING COMMITTEE**  
**November 2017**



# **GLOBSEC NATO ADAPTATION INITIATIVE**

ONE ALLIANCE

## **The Future Tasks of the Adapted Alliance**

**FINAL REPORT**

## FINAL REPORT

### 1. 360 DEGREE NATO: ADAPTATION BY DESIGN

*“NATO’s essential mission is unchanged: to ensure that the Alliance remains an unparalleled community of freedom, peace, security, and shared values, including individual liberty, human rights, democracy, and the rule of law<sup>1</sup>.”*

*Warsaw Summit Communiqué, July 2016*

**1.1** 2014 was a watershed year for the Alliance: Russia’s aggression against Ukraine brought to an end a 25-year period in which the West sought to make Russia a partner, and the declaration by the Islamic State in Iraq and Syria (ISIS) of a caliphate took the terrorist threat to a new level.<sup>2</sup> NATO responded by launching a comprehensive process of adaptation reflected in the decisions of the Wales Summit of 2014 and the Warsaw Summit of 2016.

**1.2** Currently, the next NATO high-level meeting, planned for Brussels in July 2018, promises to be an implementation summit with no significant new “deliverables.” This would be a missed opportunity of historic proportions. European and global security are nearing an inflection point, with the advent of new technologies that will transform the nature of warfare, the structure of international relations and the role of the Alliance itself. The 2018 Summit should be the occasion for NATO to set a course for the longer term, to define goals for the next phase in NATO’s adaptation, setting the stage for major decisions at NATO’s 70<sup>th</sup> anniversary Summit in 2019.

**1.3** The 2018 Brussels Summit should commission a major strategic review that would report to the 2019 anniversary summit, and which may in time lead to a new NATO Strategic Concept. However, adaptation is not an event, but a determined Alliance focus, embedded in a continuing process, aimed at preparing NATO to better meet risks, challenges and threats over the short, medium and long term. The primary twenty-first century mission of the Alliance must be to act as a strategic forum for political solidarity, provide a credible deterrent, and promote a smart, affordable defence. This strategic aim must necessarily be built on a powerful, agile and innovative warfighting force able to move swiftly across and through all the domains of twenty-first century warfare – air, sea, land, space, cyber, information and knowledge.

**1.4** Critical to the efficacy of the future Alliance will be the forging of a new relationship between the protection of people and the projection of power, influence and effect. Redundancy, the creation of several systems that prevent an adversary from attacking one system-critical node, and resiliency, grounded in the hardening of systems and structures, must thus be the twin foundations of NATO adaptation from the outset. Indeed, an adapted, reinforced and resilient posture is the only way that a ‘360° NATO’ will be rendered credible, as both a deterrent and a defence, across a spectrum of conflict that stretches from the cold peace of today to a possible hot war tomorrow.

**1.5** The challenge faced by NATO is daunting. The Alliance, and its supporting processes and educational systems, have failed to recognise the extent to which the human capacity to think, decide, act and recover in a future war – so intense it has been dubbed “hyper war” – is fast changing the character of conflict and war. Consequently, the Alliance is in danger of rapid relative decline if it fails to embrace and exploit to the full technological advances in the waging of war. Historically, the side that has generated an equilibrium between decision-making, on the one hand, and technology, on the other hand, is the side that prevails in conflict and war.

<sup>1</sup> “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”. (Brussels: NATO) All subsequent references to the Communiqué are from this cited source. Hereafter referred to for the purposes of this report as ‘Warsaw’.

<sup>2</sup> There are several acronyms and terms used for ISIS. The report uses the most commonly employed ISIS or Islamic State in Syria and Iraq.

**1.6** The adapted and enhanced deterrence and defence sought by the Alliance must necessarily go hand-in-hand with efforts to further enhance both effectiveness and efficiency (E2). Achieving E2 will be vital if the adapted NATO is to field and maintain a sufficiency of military capability and capacity to meet its treaty obligations and, when necessary, rapidly re-direct and reinforce capabilities from East to South to North and vice versa. Adaptation must also enhance NATO's use of the political tools of partnership and diplomatic engagement. Adapted partnerships will assist like-minded states to enhance their own resilience and legitimate self-defence, and help the Alliance project stability beyond NATO's borders. Critically, diplomatic engagement will help manage tensions with Russia and expand the network of countries willing to support NATO's policies and operations. At the same time, the Alliance must help Ukraine, Georgia and other Eastern European neighbours to defend themselves and continue to promote the Euro-Atlantic integration of the Western Balkans. The Open Door policy, and the possibility of future membership, must be upheld.

**1.7** NATO's adversaries already consider themselves at war with NATO and the values for which it stands. Russia, Al Qaeda and ISIS are already seeking to sow disinformation, spread propaganda, and engage in influence operations aimed at undermining NATO and, by extension, EU societies. Both Al Qaeda and ISIS, as Salafi Jihadi organisations, are intent on terrorising the populations of the Alliance. Adaptation to these myriad challenges will thus require leaders to think big about the future of NATO, its political strategy and its partnerships. It will also require the Allies to spend more on defence and better integrate both forces and resources if the Alliance is to be properly equipped and prepared for the coming challenges. At the very least, adaptation will demand an expansion of NATO's political capacities and missions if the Alliance is to face the new and very unholy trinity of hybrid warfare, cyber warfare, and hyper warfare.

**1.8** Momentum and adaptation are the twin aspects of the same strategic question. Therefore, adaptation must return to the first principles of collective Alliance security and defence. The essential contribution of the 2014 Wales and 2016 Warsaw summits was to drive forward a new deterrence and defence posture, and re-posit and re-position the role and purpose of NATO by setting military adaptation against the full spectrum of security challenges facing the transatlantic community, from the East, North and South. The core effort of adaptation must thus be the enhancement of the military capabilities and capacities of the member nations the Alliance serves, combined with the further reform and strengthening of Alliance decision-making, as well as its command and force structures.

**1.9** Even though adaptation must necessarily be pursued along several lines of development, and there is a range of adaptation drivers, the global aim of adaptation must lead to the generation of a new One Alliance concept for NATO: One Alliance in which the security and defence of each member is again the security and defence of all. One Alliance is thus the consequence, and the outcome of an adapted NATO; an Alliance that demonstrably combines peace through legitimate strength, and strength through peace. However, such a goal is not at all clear to NATO's citizens, which begs two questions: why adaptation, and what are the drivers?

## **2. ADAPTATION DRIVERS TO THE EAST AND NORTH**

**2.1** Moscow seeks to revise the post-Cold War settlement. To that end, Russia has established a strategic continuum between hybrid warfare, cyber warfare and hyper warfare to keep the Alliance and its members politically and militarily off-balance, and to achieve escalation dominance. Russia under President Vladimir Putin not only questions the established rules-based system in Europe, Russian strategy is actively designed to disrupt and destabilise it. Russia is actively seeking to establish a sphere of influence that extends into Ukraine, including the Baltic States and the Black Sea region within the territory of the Alliance, and extends through south-east Europe to Moldova and Georgia. Russia is also seeking to actively destabilise democracy in both Europe and North America through hybrid warfare, specifically the use of disinformation and influence operations of which cyber is a key enabler and force multiplier. Moscow's strategy since 2010 is founded on the large-scale modernisation and expansion of its armed forces, both in Europe and beyond. This has enabled Russia to consider embarking on expeditionary warfare not seen since the 1970s.

**2.2** Russia is re-militarising the High North, making it another contested theatre. There is no clearer example of the impact of climate change on strategy than the opening of the so-called North East Passage (also known as the Northern Sea Passage), which would shorten the sea route between Asia and Europe by 3000 nautical

miles. Enormous energy resources are also believed to lie at an accessible depth below the sea-bed of the Arctic Sea. The High North is fast becoming an arena for international competition, most notably between Russia and Norway, but also between NATO partners Sweden and Finland, and Russia. The long-term dispute over the status of the Norwegian island of Svalbard could rapidly become a flashpoint.

### **3. ADAPTATION DRIVERS TO THE SOUTH AND BEYOND**

**3.1** NATO's Southern Flank highlights a fundamental dilemma: how can the Alliance establish both a credible high-end deterrence and defence posture and help sustain the strategic stabilisation efforts needed to secure the southern Allies? NATO faces major threats from, and increasing instability on, its Southern Flank and well beyond. These threats are driven by a toxic mix of demographic change, insecurity over access to life fundamentals, such as food and water, inter-state tensions, the confessional struggle within Islam, the interference of outside powers, the ongoing Israeli-Palestinian struggle, and the broad failure of governance in many Arab states. Since the Arab Spring began in Tunisia in 2011, there have been four civil wars, with Syria simply the worst example. The migration and refugee crisis is being fuelled by the chaos and, as a consequence of the lack of effective governance that has ensued, criminal gangs are now trafficking millions of irregular migrants towards Europe from war-torn countries beyond the region, as well as from the Horn of Africa and sub-Saharan Africa.

**3.2** Russian intervention in Syria and the wider Middle East has exacerbated these problems, while challenging US and Allied primacy in the Eastern Mediterranean. Profound instability is also aiding and abetting Salafi Jihadists in the region, and enabling them to insert and re-insert terrorists into Europe, as well as recruiting them from still-unassimilated Muslim populations across Europe. This is a threat that is likely to increase with the October 2017 fall of Raqqa, the self-styled capital of ISIS. It is a phenomenon that will likely continue due to the ongoing 'Cold War' between Iran and its Shi'a extremist allies, and the Saudi-led Sunni community, and which will likely be accelerated by the physical defeat of ISIS. Moscow's alignment with mainly Shi'a regimes and groupings, while the US deepens its cooperation with the Sunni states and Israel, is likely to extend civil and political strife across the region. The possible collapse of governance in the African Maghreb, and the increasingly fragile nature of Egypt, are likely to reveal a potential major new source of heretofore unanticipated and untapped migration into Southern Europe, exacerbated by external interference in Libya.

### **4. INTERNAL DRIVERS OF ADAPTATION**

**4.1** NATO and the EU are simultaneously under attack and face threats along multiple fronts that are eroding public trust and confidence in both institutions. Populism and the rise of extremist parties, together with the failure of mainstream political parties to address the concerns of millions of citizens, exacerbate this loss of confidence.

**4.2** The 2015–2017 terrorist attacks in France, Belgium, the United Kingdom and Spain have revealed the extent of the growing terrorist threat in Europe. There can now be no question, given those responsible for some of the attacks that mass irregular migration into Europe is beginning to de-stabilise Europe, increase the risk of terrorism faced by European citizens, and cause friction between Europe's increasingly diverse communities. Some of the attackers have come from long-established, but poorly-integrated or assimilated Muslim communities within Europe, and what appears to be increasingly radicalized youth elements in such populations. There is also a growing danger across the Euro-Atlantic community of reactionary, nativist movements morphing into terrorist networks that in turn could be manipulated by external powers. Terror networks of all persuasions also enjoy a growing symbiotic relationship with criminal networks. For the right price, the latter seem more than willing to enable and assist the former.

**4.3** Neither NATO nor the EU possesses all the tools needed to respond to the range of current threats. A combination of burgeoning and increasingly sophisticated terror networks, spreading criminality and Russian destabilisation demands that both NATO and EU, as well as their constituent nations, begin to think differently and more comprehensively about security and defence and the relationship between the two. New approaches and new relationships will be required between intelligence, law enforcement, the security services, armed

forces, ministerial relationships across government, and relationships between governments if the Alliance is to both protect people and project influence and power.

## 5. ORGANISATIONAL & TECHNOLOGICAL DRIVERS OF ADAPTATION

**5.1** If NATO's twenty-nine nations are to buy the right capabilities, which means in turn acquiring the right equipment, the right process must be established to facilitate such an outcome. NATO is slowly realising the Defence Investment Pledge, with more countries joining the 2% Club and total non-US defence spending increasing by 4.3% during 2017. However, if increased funds are to be matched by their efficient and effective application, the Alliance will require a coherent requirements-based capability strategy. This must necessarily lead to Alliance members buying what they need, and not what they want. Such a strategy will doubtless be very challenging politically as the consequent spending plan will lock NATO into certain capabilities, potentially for decades. Such a strategy will also mean a different way of thinking about the NATO Defence Planning Process (NDPP) and the respective (and necessarily increasingly harmonised) NATO and EU requirements development processes. It will also likely require the wholesale reform of the European Defence and Technological Development Base (EDTDB).

**5.2** Advances underway in security and defence-related technologies that span the conflict spectrum from hybrid war at the lower end, to hyper war at the future high end, will be rapid and dramatic. Hybrid war will continue to drive requirements for enhanced intelligence collection, cyber-security and critical infrastructure protection. Given the reliance of Alliance societies on web-vulnerable infrastructures, the effects of a cyber-attack could lead to significant if not catastrophic physical damage. The possibility of such an attack could be used by adversaries to prevent NATO coming to the defence of its member nations. The societal damage could also be profound because hybrid warfare involves an imperceptibility of conflict and promotes ambiguity and confusion about the scale and nature of the threat, as well as the necessary responses. This confusion could easily paralyse decision-making and dislocate increasingly diverse societies, the cohesion and resilience of which can no longer be taken for granted.

**5.3** Hyper war, at the other end of the conflict spectrum, will place unique requirements on defence architectures and the high-tech industrial base if the Alliance is to preserve an adequate deterrence and defence posture, let alone maintain a comparative advantage over peer competitors. Artificial Intelligence, deep learning, machine learning, computer vision, neuro-linguistic programming, virtual reality and augmented reality are all part of the future battlespace. They are all underpinned by potential advances in quantum computing that will create a conflict environment in which the decision-action loop will compress dramatically from days and hours to minutes and seconds...or even less. This development will perhaps witness the most revolutionary changes in conflict since the advent of atomic weaponry and in military technology since the 1906 launch of HMS Dreadnought. The United States is moving sharply in this direction in order to compete with similar investments being made by Russia and China, which has itself committed to a spending plan on artificial intelligence that far outstrips all the other players in this arena, including the United States. However, with the Canadian and European Allies lagging somewhat behind, there is now the potential for yet another dangerous technological gap within the Alliance to open up, in turn undermining NATO's political cohesion and military interoperability.

**Against this backdrop, the Allies must:**

## 6. CONFRONT NEW TRANSATLANTIC CHALLENGES:

**6.1 Embrace new geostrategic and transatlantic realities:** The post-Cold War strategic pause is over. NATO will be tested by peer competitors, global-reach terrorists and criminals, and, of course, the unknown. A major war can no longer be ruled out given the structural insecurities across much of the twenty-first century world. The 2017 nuclear crisis with the Democratic People's Republic of Korea (DPRK) is proof of that. The Alliance today faces new peer and subversive competitors employing a range of strategies and capabilities that pose a threat to the nations and peoples of the Alliance. Equally, whilst the US security guarantee persists, pressures on the United States and its forces world-wide demand that the Allies do far more for their own security and defence, and do far more through the Alliance if the strategic and political cohesion upon which NATO is founded is to be preserved.

**6.2 Re-balance burden-sharing:** The United States provides 75% of Alliance forces and pays some 68% of the cost. The non-US Allies should propose a more ambitious political and military agenda for NATO, and commit the financial resources to make it effective. Allies should not only fulfil but go beyond the 2014 Wales Defence Investment Pledge of spending 2% GDP on defence with 20% per annum invested in new equipment by 2024. Collectively, the 28 non-US Allies must commit to shouldering in time at least 50% of the burden. The roughly 70:30 defence spending ratio between the United States and the rest of the Alliance is simply unacceptable and politically unsustainable.

**6.3 Embrace the new “transactional” environment:** A new spirit of transactional burden-sharing in Washington will require the Allies to make some politically difficult decisions, including further increases in defence spending and extended deployments of forces on tough missions. The Allies must always remember that whilst a transactional mind-set is a reality in Washington, the Alliance is a transformational entity at its heart, grounded in shared values and interests, and is far more than a mere sum of its components.

**6.4 Spend the Defence Investment Pledge (DIP) wisely:** NATO defence planning needs to generate far more traction in national capitals. If the DIP is not honoured, the damage to Alliance solidarity will be profound. Equally damaging will be a failure to spend the new money on the forces and the structures the Alliance most urgently needs to maintain an affordable and credible defence and deterrence posture. This means adhering much more rigorously to the recommendations and commitments made under the NATO Defence Planning Process (NDPP) in order to eliminate priority shortfalls and reduce today’s disproportionate reliance on the United States for most high-end capabilities.

**6.5 Strengthen NATO’s role in counter-terrorism:** With the October 2017 fall of Raqqa, the self-styled capital of ISIS, the terrorist threat to the Euro-Atlantic Area will increase. NATO’s Counter-Terrorism Policy Guidelines, with their focus on awareness, capabilities and engagement, are important. NATO’s support for the Global Coalition to Defeat ISIS is also vital. However, NATO could also contribute more to efforts aimed at preventing terrorist attacks within the territory of its members. While this is primarily a national and EU responsibility, with law enforcement and interior ministries in the lead, NATO’s newly upgraded Joint Intelligence and Security Division (JIS), with its secure communications links to Allied capitals, could become a clearing-house for exchanging classified terrorist threat information among allied internal security agencies on a real-time basis. The EU lacks the secure networks to exchange classified intelligence information in real time, so NATO would be filling a real gap while helping to make its people safer. Adaptation should help generate shared common NATO-EU strategic objectives across the counter-terrorism domain, whilst the European Defence Fund established in June 2017 could help to drive forward joint capability projects.

## 7. STRENGTHEN THE DETERRENCE AND DEFENCE POSTURE

**7.1 Make readiness and responsiveness of NATO conventional forces the over-arching priority of military adaptation:** All aspects of NATO’s non-nuclear conventional forces must be radically improved, including better integration of cyber and new technologies. Indeed, the strengthening of Alliance conventional forces is the sine qua non of adaptation. Work is underway to strengthen such forces and significant progress has been made in areas such Special Operations Forces (SOF) and specialised forces. However, adaptation needs to re-inject momentum across the NATO Force Structure, with particular emphasis on enhanced readiness and responsiveness.

**7.2 Better integrate Alliance forces on the Eastern Flank:** Enhanced Forward Presence is providing active deterrence on NATO’s Eastern Flank. However, significant further effort is needed to properly enmesh NATO’s forward deployed battalions in the Baltic States with local forces, such as the Latvian Home Guard and Estonian Defence League, and further enhance survivability. Such cohesion will be vital for border security, deployed force protection, and defence against hybrid attacks. New rules of engagement and a more robust and responsive command chain up to SACEUR are also being established, so that the forward-deployed battalions have the authority to react quickly to aggression without waiting for a new political decision in Brussels. Such command integration will also be vital to ensure that graduated response planning properly combines both civil and military efforts. At the troop level, NATO must continue to promote improved equipment interoperability.

**7.3 Embrace both agility and resiliency:** NATO's Adapted Force will need to emphasise both agility and resiliency. Even with the enhanced Forward Presence battalions, credible deterrence and defence will still be reliant on the capacity for rapid reinforcement. NATO will not generate much needed sufficient, heavier, and more agile forces until 2021 at the earliest. More Special Operations Forces will be needed, supported by the Very High Readiness Joint (VJTF) Force on a very short Notice to Move (NTM). At present the more unified Russian forces could probably get inside the Alliance's OODA (Observe, Orient, Decide and Act) loop. The enhanced NATO Response Force (eNRF) must become similarly more actionable and more deployable, reinforced by exercising and training that makes NATO's Notice to Move credible. And, whilst the REFORGER concept of the 1980s cannot be re-created (at least not formally), adaptation must see the bulk of NATO's heavier formations being better able to move, fight and stay in theatre, including the capacity to bring sizeable follow-on forces rapidly from across the Atlantic.

**7.4 Modernise NATO's nuclear posture and strategy:** Whilst moving towards a new nuclear strategy and posture is politically challenging, NATO's Nuclear Planning Group must seek to make advances where possible. Russia's revisionist policies since 2008 have already prompted a fundamental reassessment of Russian nuclear strategy and how this affects NATO's nuclear posture. NATO's decision-making processes are being streamlined; the readiness and survivability of the Alliance's dual-capable aircraft (DCA) has been enhanced, the now-arriving 5<sup>th</sup> Generation fighter, the F-35 Lightning, is being incorporated into Alliance forces; theatre nuclear weapons are being modernised, declaratory policy sharpened, and conventional and nuclear exercises strengthened. A more comprehensive and robust approach to exercising is needed to include further integration of conventional and nuclear scenarios.

**7.5 Build strategic redundancy into the Alliance deterrence concept:** A key component of credible deterrence is to build redundancy into strategic plans and preparations. Strategic redundancy is generally associated with maintaining an excess of capacity, but it also involves technological innovations and developments that would render impossible the likelihood of the Alliance suffering a knock-out blow. National strategy must look beyond the short term, to anticipate plausible strategic futures, and to ensure that the long-range capability plan is not geared too tightly to a relatively short-term risk picture.

## 8. ESTABLISH A HIGH LEVEL OF NATO MILITARY AMBITION

**8.1 Strengthen agility with a warfighting mind-set:** The Alliance must take immediate steps to render itself more agile in the face of threats. However, only with a return to a warfighting mind-set would the necessary political impetus be generated to make such reforms. NATO's early-warning system has been improved since Russia's illegal annexation of Crimea in 2014, including the establishment of the Joint Intelligence and Security Division, but more needs to be done to make the Alliance more 'intelligent' and sensitive to hostile acts. NATO's crisis management mechanisms are still far too complicated, not least the Crisis Response System Manual which must be streamlined, and as a matter of urgency. Allies should consider artificial intelligence in creating big data solutions to assist in streamlining NATO decision-making.

**8.2 Fully implement NATO's adapted command structure:** The existing NATO Command Structure was redesigned in 2010 and 2011 to reflect the diminution in the Russian threat and the shift from collective defence to expeditionary operations. While the current structure has proven its flexibility, adjustments will continue to be needed to equip the Alliance with a command structure that is able to "fight tonight" – to command and control Allied forces in a full-scale conflict, whilst still being able to meet NATO's current level of ambition (2 Major Joint Operations plus 6 Small Joint Operations). The command structure needs to be able to handle operations across all the domains of contemporary warfare, including cyber warfare, information operations, hybrid threats, and hyper war and ensure the heightened situational awareness needed for the Alliance to respond quickly enough to short-warning and ambiguous hybrid attacks. In addition, the structure must be truly 360° – able to fight terrorism and manage crises beyond NATO's borders, with enough extra capacity to manage military contributions to the training of partner forces, capacity-building and other measures for projecting stability.

**8.3 Promote integrated deterrence and undertake more systematic contingency planning:** In pursuit of more integrated deterrence the Alliance needs to be far more rigorous, robust and responsive in its planning for a wide range of contingencies across the conflict spectrum. Such planning would reinforce NATO's agility

in the face of a host of threats. Specific steps should include regular intelligence briefings of the North Atlantic Council (NAC) on the most urgent scenarios, deeper NATO discussions on policy, improved simulations and exercises, closer involvement of NATO capitals, and the delegation of further authorities to NATO's military chain of command in a crisis. Regular crisis management exercises (CMX) have highlighted the need for an early delegation of authority, especially in the case of short-warning and ambiguous hybrid attacks, so that NATO is not confronted with a *fait accompli* because of delayed decision-making in Brussels.

**8.4 Build a secure networked NATO:** A more robust secure network for NATO must be created. As ever more and diverse numbers and types of partners become critical to Alliance mission success, networking will need to be enhanced and expanded to enable the secure broadcast of mission critical data and resilience against cyber-attacks. Critical national military and civilian systems need to be better integrated into NATO command structures.

**8.5 Better exploit lessons identified and collective memory:** Too often lessons identified do not become lessons learned, and are consequently lost. There needs to be a more effective framework for the systematic application of such lessons into Alliance mission command practice. Smart defence projects should be established to promote not just the exploitation of lessons, but also the collective memory of the Alliance. That goal would demand that the remit of Allied Command Transformation (ACT) and the Joint Assessment and Lessons-Learned Centre (JALLC) be expanded. Such initiatives will be particularly important if the Alliance is to re-generate significant forces as it relearns some lessons from the past. The old REFORGER exercises of the 1980s, and past best practice over controlling sea lines of communication, still offer relevant experience on how to generate, organise, command and support such a force.

**8.6 Train as NATO plans to fight:** If all Alliance forces are to be transformed into a warfighting force, they will need to be re-equipped both physically and intellectually. Exercising and training are not only a pre-condition for sending credible deterrence messages to any imaginable opponent, they are also a pre-condition for effective adaptation. NATO has already made significant progress under the Connected Forces Initiative (CFI), and through implementation of both the Readiness Action Plan (RAP) and Enhanced Forward Presence. The enhanced NATO Response Force will need to be better able to operate to effect with heavier follow-on units, or with other elements of the NATO force structure. The goal is for the Alliance to swiftly generate compatible and interoperable forces capable of achieving an appropriate level of readiness rapidly, and thus be able to rotate throughout the course of an Article 5 contingency.

**8.7 Transform doctrines and standard operating procedures (SOPs):** Crises could take place simultaneously and come in several forms. NATO must be ready to act across the full spectrum of military missions, demanding the full spectrum of military capabilities and capacities, ranging from warfighting to crisis management operations to counter-insurgency campaigns, including the requirement to conduct counter-terrorism operations. In an emergency, NATO must be ready and able to engage in enduring high-end combat if needs be as part of territorial defence. Doctrine and SOPs must be adapted for just such contingencies.

**8.8 Develop a Flexible Response 2.0 as a new comprehensive approach:** Adopted by the Alliance in 1967, Flexible Response called for mutual deterrence at the strategic, tactical and conventional levels. The threats to the Alliance in recent years have become increasingly diverse, many of which are less easily addressed by military means. NATO needs political, military and civilian tools that can be applied across the conflict spectrum as part of a reenergised comprehensive approach. The non-US Allies should come forward with a more ambitious political and military reform agenda for NATO and commit the financial resources to make it effective.

**8.9 Transform European allies' military forces to become the backbone of Allied out-of-area operations:** Given the centrality of the United States to collective defence and deterrence, it is only fair that Canada and the European Allies takes a larger role in non-Article 5 missions. Over the coming years NATO must become the primary instrument in changing the role of the bulk of non-US armed forces so that they can operate across the conflict spectrum. This will require Alliance forces that have sufficient mass to act as both stabilisation and reconstruction forces outside of Europe, but with sufficient networked, manoeuvre forces able to fight brigade or division-size battles in defence of NATO territory.

**8.10 Establish a broader concept of NATO defence:** NATO will have an important role to play in consequence management in event of natural or man-made disasters. One future threat could involve the use of biological weapons, or managing the consequences of a pandemic, such as Ebola or something worse. Capabilities are needed within both NATO and the EU that would enable an efficient military role in support of public health authorities to quarantine affected areas and to maintain public order in support of civil authorities. This may have to be an expeditionary or deployable capability.

**8.11 Enhance NATO's role in the defence of the global commons:** The global commons – air, sea, outer space and cyber space – are vital to the defence of the Alliance. NATO needs to enhance its role in defence of the global commons, particularly in the maritime/amphibious domain. Such a role would help keep the United States strong where it needs to be strong, and would thus be a critical element in burden-sharing. There could be occasions when the Alliance might need to take the lead in and around its own waters, including the Littoral well beyond NATO territory.

**8.12 NATO must become a hub for extended coalitions:** One of NATO's many unique selling points is the knowledge gained over almost seventy years of force generation and command of complex coalitions. Some of NATO's strategic partnerships build on the co-operation that took place during the Afghanistan campaign with a range of like-minded states the world over. In Europe these states include, inter alia, Finland and Sweden. Beyond Europe these states include Middle Eastern partners Jordan and the UAE, and in the Asia-Pacific region, Australia, Japan, New Zealand and South Korea. Given the globalised nature and impact of crises, the need for the Alliance to work together with such partners will only grow.

**8.13 Improve intelligence and information-sharing to establish a shared threat assessment:** Understanding when an attack is an attack will remain the sine qua non of the Alliance defence and deterrence posture. The speed of conflict and crises is accelerating, which in turn imposes on the Alliance what might be termed the speed of relevance. The protection of the Alliance home base against terrorism, disinformation, destabilisation, and the disruption of critical infrastructures must become better integrated via adapted intelligence and information-sharing. Adaptation rests upon there being a largely-shared view among the Allies about the new security environment and a perception of the shared threat it generates. NATO should leverage the Joint Intelligence and Security Division to achieve such a shared threat assessment, and also consider newly-available artificial intelligence-powered capacities to conduct big data-scaling to quickly distil petabytes of open source information into key indicators of potential threat activity.

**8.14 Conduct active horizon-scanning and campaign design-testing:** NATO should take the lead in a campaign of active horizon-scanning and campaign design and testing, to strengthen strategic foresight analysis to better prepare Alliance forces to meet the full spectrum of contingencies. If the Allies fail to help arrest a free-fall in the competence of governance across significant parts of the developing world, Europe will face elevated levels of immigration and with it the fostering of terrorist networks. Such networks could in time threaten the stability and security of Europe itself, especially if allied with increasingly capable and virulent criminal networks.

## 9. ENGAGE WITH RUSSIA WHILE SUPPORTING THE SECURITY OF ITS NEIGHBOURS

**9.1 Engage Russia on the basis of principle:** Precisely because of Russia's frontal assault on the international rules-based system, a new political strategy is needed to manage what will remain a competitive relationship. This strategy should enable NATO to better engage with Russia via dialogue and diplomacy, even as the Alliance bolsters its deterrence and defence against the multiple threats Moscow poses. At a minimum, engagement should seek to reduce the risks of accidental conflict and restore stability and predictability of military activities. But engagement should also address head-on the fundamental reason why relations have deteriorated in the first place – Russia's aggression against Ukraine, and its violation of the rules that have kept the peace in Europe since the end of World War II. Moscow must understand that the road to any substantial improvement in Allies' relations with Russia, and any easing of sanctions, is contingent upon renewed Russian respect for those rules, starting with an end to its aggression in Eastern Ukraine.

**9.2 Establish a new dual-track approach to defence and arms control:** If NATO's conventional and nuclear deterrent posture is to be adapted to re-establish a coherent defence and deterrence posture, the Alliance

must adopt a dual-track approach to Russia. Dual-track would see Alliance conventional forces significantly strengthened and its nuclear forces modernised, whilst seeking new arms control talks with Moscow. The aims of these talks would include: re-establishing Russian compliance with the 1987 Intermediate-Range Nuclear Forces (INF) Treaty; reducing the imbalance in non-strategic nuclear forces in Europe; enhancing transparency and predictability of conventional forces; and reducing destabilising concentrations of forces along NATO's and Russia's common borders.

**9.3 Support Russia's neighbours in solidarity:** It is vital NATO continues to support Euro-Atlantic integration for the Western Balkans, and keep the door open for other future members over the longer term, if allies' vision is to be realised of a Europe whole, free, and at peace. Helping Ukraine, Georgia and other Eastern European neighbours to defend themselves, and/or resist Russian interference in all its forms, is the best way for the Alliance to discourage further aggression by Russia. The restoration of Ukrainian sovereignty over Crimea is a long-term challenge, much like the illegal annexation of the Baltic States from 1939 to 1989. But Allies should insist that Russia end its undeclared war in Eastern Ukraine's Donbas region and restore Ukrainian sovereignty over the occupied territories in accordance with the Minsk agreements as the prerequisite to improved relations.

## 10. PROMOTE A BROAD NATO SECURITY AGENDA

**10.1 Create new consultative councils for strategic partners:** As the crisis over North Korea's nuclear weapons attests, the security and defence of the Euro-Atlantic Area cannot be distinguished from the wider world in which the Alliance exists. NATO has already forged partnerships in the Middle East and North Africa through the Mediterranean Dialogue (MD), and with four Gulf states through the Istanbul Co-operation Initiative (ICI). Whilst these partnerships continue to face challenges, it is time the Alliance looked more systematically towards developing partnerships in South and East Asia by establishing several consultative councils with China, India, Japan, Korea and others, that build on the Partnership Interoperability Initiative, and are similar in scope to those established with Russia and Ukraine in the 1990s.

**10.2 Increase NATO's engagement in the Middle East and North Africa (MENA):** Allies need to decide whether NATO will remain a marginal player in MENA or assume a more pro-active role to counter instability, weak governance and violent extremism along NATO's periphery. Too often, NATO talks big, but acts small in its southern neighbourhood. This is because of a lack of consensus on the attractiveness of NATO in the region, and an unwillingness to devote significant resources to partnership activities. If NATO wants to prevent the spread of instability, terrorism and illegal migration from across the Mediterranean, it should construct a coalition of allies and partners for intervention in the region, and contribute more to the Counter-ISIS Coalition and other counter-terrorism efforts in the region. One option would be to reinforce NATO's new Hub for the South in Naples, and develop it into a major operational headquarters.

**10.3 Expand NATO-led defence capacity-building in the South:** Allies should propose a major expansion of NATO defence and security capacity-building programmes across the Middle East and North Africa to address the root causes of instability and extremism. Allied efforts now represent a fraction of what the United States (and some other Allies) commit bilaterally. If the Alliance is to project stability to its south NATO must also work more closely with regional security institutions such as the African Union and the Arab League where collaborative relationships might be possible and which would further legitimise the activities of the Alliance.

## 11. CRAFT A SMARTER NATO

**11.1 Free ACT to challenge convention:** NATO faces a crisis of ends, ways and means. Big thinking and new thinking will be needed to ease that crisis. ACT is to some extent the forgotten command. And yet the work it is doing is vital to creating the thinking Alliance that is central to adaptation. The NAC should seize every opportunity to enable ACT to think big about NATO's adapted future. ACT must be given the best and the brightest from across the Alliance to drive forward the adaptation-innovation agenda. For example, knowledge interoperability will be a vital component of NATO's reinvigoration, reinforced by a command chain trained and educated to succeed at every level. ACT's mission should include seeking to better integrate new and existing technologies, as well as force integration and transformation.

**11.2 Reduce or remove impediments to seamless NATO intelligence-sharing:** Much more needs to be done to generate and share the actionable intelligence upon which a more agile NATO will rely. The establishment of the Joint Intelligence and Security Division, as well as NATO's acquisition of five Alliance Ground Surveillance drones, are vital first steps on the road to creating a more intelligence-driven Alliance. However, there are too many legal and political impediments in many Allied nations to timely intelligence sharing with other allies and close operational partners like Sweden and Finland. This is a substantial, persistent, and easily exploitable vulnerability. Such impediments, as well as stove-piping between civilian and military services within some Allied nations, prevent law-enforcement and national intelligence agencies from gaining routine access to time-urgent intelligence information, and limit what is provided to NATO.

**11.3 Promote a NATO standard for shared assessment, harmonised requirements and common specifications:** Too often defence planners mask what is in effect national defence protectionism under the banner of nationally-specific requirements. This protectionism in turn inevitably leads to specific national (and costly) 'solutions', as well as the proliferation of different, over-priced, low-production runs, and often incompatible platforms and systems. NATO should seek to establish more uniform standards for equipment specification and requirements that encourage common platforms and fully interoperable systems.

**11.4 Turn NATO's Centres of Excellence into a Network of Excellence:** The Alliance needs to be far more systematic in turning Centres of Excellence into a mutually reinforcing Network of Excellence that is better functionally streamlined, and more fully-integrated into the NATO Command Structure. There are 24 NATO-accredited Centres of Excellence (COE) covering topics that range from command and control to crisis response and disaster management, from cold weather operations to co-operative cyber defence, and from joint air operations to strategic communications. The centres support a range of activities including; doctrine development, identifying and learning lessons, improving interoperability and capabilities, and testing and validating new concepts through experimentation. Whilst there is a NATO policy on accrediting centres of excellence, most of them are stand-alone initiatives totally dependent on voluntary national contributions of personnel and not subject to tasking by NATO political or military authorities.

**11.5 Establish New Centres of Excellence:** A bespoke Hyper War Centre of Excellence would help generate a coherent approach to future war, and combine the work on Artificial Intelligence and expanded NATO cyber defence. NATO urgently needs a coherent approach to the development and application of artificial intelligence (AI) and its family of capabilities to defence and deterrence. Such a Centre would necessarily need to train and educate NATO's civilian and military leadership, and include staff courses for NATO international personnel and member nation civilians. Such a centre would also afford the Alliance opportunities for industry-partnership in this area of revolutionary technologies.

**11.6 Leverage the NATO Defence College in establishing best practices and sharpening defence education, training and evaluation:** A beefed-up and re-considered NATO Defence College could provide the foundations for a defence education and training centre of excellence. The need to maintain comparative advantage places a particular emphasis on the quality of NATO personnel and the development of a mind-set that challenges officers to succeed at every level of mission command. This aim is of particular importance to the work of Allied Command Transformation and the development of best practice models on NATO Education, Training, Exercises and Evaluation (ETEE) that can be offered across the Alliance. The Defence Education Enhancement Programme (DEEP), together with efforts to enhance e-learning, are all part of adapting and equipping the Alliance for the future.

## 12. FOSTER A GENUINE STRATEGIC NATO-EU PARTNERSHIP

**12.1 Create an ambitious and comprehensive NATO-EU Strategic Partnership:** The purpose of the EU-NATO strategic partnership is to apply big means to big challenges. To that end, the partnership itself must be able to engage across the conflict spectrum. The EU will become an increasingly important foreign and security actor and partner of NATO, with the NATO-EU strategic partnership increasingly important for the management of transatlantic relations. For many Europeans the Common Security and Defence Policy (CSDP) will be a, if not the vehicle for defence policy. The European Defence Agency will also be the mechanism of choice for the development of military capabilities for many Europeans. Effective deterrence also demands a clear continuum

of escalation between economic sanctions, much of which in Europe would fall to the EU, US and Canada, and the military options the Alliance could bring to bear in extremis. Therefore, NATO and the EU must overcome current barriers to foster a more substantial and mutually beneficial partnership and reinforce practical cooperation. A NATO-EU summit at heads of state and government level should be held at least once a year.

**12.2 NATO and the EU must together foster enhanced resiliency:** A strong home front is essential for credible deterrence to deny adversaries the capacity to block an effective response in a crisis, and thus to limit the political choice of allies. In turn it is vital that the nations harden their respective critical infrastructures. By working together to deter and defend against the full array of hybrid threats, NATO and the EU would achieve enhanced resiliency far more quickly than if the two institutions work separately and in isolation from each other. It is essential that NATO and the EU complete work on a joint hybrid “playbook,” and conduct joint NATO-EU exercises using realistic scenarios of potential Russian hybrid aggression not just against the more vulnerable Baltic States, but against any NATO and EU member. Russia’s interference in the 2016 US election shows that all of our countries are vulnerable.

**12.3 NATO and the EU together must promote best counter-terrorism practices:** With the fall of Raqqa, the flow of ISIS jihadists into Europe now poses a clear and present danger to European societies. Beyond integrating watch-lists and intelligence on known suspects and networks Allies and EU member-states together need to become better at sharing best internal/domestic practices with each other. NATO and the EU could act as honest brokers to enable such sharing. These best practices need to be at the heart of any enhanced NATO-EU Strategic Partnership.

**12.4 Focus the NATO-EU partnership on better affording adaptation and better promoting effectiveness:** If adaptation is to be generated via increased European defence spending, it is likely the EU’s European Stability and Growth Pact, as well as EU fiscal and budgetary practices, will also need to be adapted. A deeper, more comprehensive NATO-EU strategic partnership – especially in areas like countering disinformation and propaganda, internal security, and defence capacity-building in Europe’s eastern and southern neighbourhoods, where the two organisations’ mandates overlap – would help to justify such change.

**12.5 NATO and the EU must explore together new ways to collaborate in support of industry, technology-integration and innovation:** The active participation of defence industry partners – old and new – will be critical if the Allies are to generate more bang for their respective bucks/euros/pounds/krone. There are a range of impediments to sound investment, particularly in Europe, including: over-protected national industrial champions; an inability to agree on transnational specifications that prevent effective collaboration; the conflation of industrial policy with defence policy; the hanging of too many systems on too few platforms, which leads to small production runs that, in turn, drive up unit costs; defence cost inflation often driven by rent-seeking defence-industrial primary contractors who use the taxpayer as a subsidy generator; and too many ‘flagship’ political defence projects that de-stabilise defence budgets by preventing the purchase of cheaper alternatives, including off-the-shelf. The new European Defence Fund, which will provide seed money for multinational R&D projects that could help remedy NATO’s critical capability shortfalls, should also aim to eliminate these longstanding barriers.

**12.6 NATO and the EU should jointly improve infrastructure critical to operations and expedite the transit of forces:** National infrastructures in the Baltic States and elsewhere must be upgraded to ensure effective operations can be mounted and maintained. Transit arrangements are already in place for the Very High Readiness Joint Task Force (VJTF) and enhanced NATO Response Force (eNRF) to cross national borders. However, some legislative restrictions still exist in many countries that could add weeks or even months to the onward movement of essential reinforcements. There have been several incidents when local authorities seemed neither to understand, nor accept, the transit rights of Alliance forces. If unresolved such frictions could compromise the ability of the Alliance to deploy forces during a crisis and undermine deterrence along the Alliance’s eastern flank. A “military Schengen Zone” could offer a comprehensive solution to cross-border movements, and could be greatly facilitated by a collective decision by the EU to create such a zone.

### 13. BETTER EQUIP AND AFFORD NATO

**13.1 Shorten fielding timelines and give commanders a greater say in requirements development:** Military commanders and end-users need a far greater say in requirement development, and much greater effort needs to be made to enable operational commands to drive operational requirements. Under the current system of procurement there are too many decisions that need to be made at too many levels, with consensus needed at too many milestones on the road to delivery. On average, it takes 16 years from conception of military capability to operational effect. This is far too long and calls into question the ‘speed of relevance’ of assets. In the current and future security environment, such lag times are security vulnerabilities and thus unacceptable. The Defence Investment Division (DI) and NATO Communications and Information Agency (NCIA) have a critical role to play in accelerating procurement processes and should be given the resources and manpower to do the job.

**13.2 Embrace greater use of common funding:** Given the sheer scale and diverse nature of risks, challenges and threats faced by the Alliance a system that emphasises ‘costs lie where they fall’ is not the best way to make best use of existing resources. Adaptation should look at areas where expanded common funding may be applied, including a possible mechanism for the common funding of campaigns and operations to promote fairness and demonstrable burden-sharing.

**13.3 Conduct an Alliance-wide platform and systems audit:** NATO should undertake an Alliance-wide systems audit of existing platforms and systems, covering campaign critical military and civilian assets. NATO Standards exist across four domains: operational, procedural, material, and administrative, with the aim of facilitating standardisation in support of the NATO Defence Planning Process (NDPP). The aim would be to establish where force synergies can be better fostered, to properly establish shortfalls, and better understand how existing assets might be employed.

### 14. PREPARE NOW FOR A FUTURE NATO

**14.1 As part of a broader strategy review, expand NATO’s hybrid warfare, cyber war, counter-terrorism and hyper war strategies into a future war strategy:** The Alliance must better understand the continuum, and indeed the interaction, between all forms of war in the contemporary age. Allies should support a bigger NATO role in enabling the nations to prevent efforts to undermine political institutions, such as through the use of fake news and interference in elections. The new Joint Centre to Combat Hybrid Warfare in Helsinki is not only an important step on the road to the more effective countering of hybrid threats; it should also mark a new, more operational phase in the NATO-EU strategic partnership. This should include a combined NATO-EU strategy to prevent efforts to undermine political institutions in member nations, in countering radicalisation and violent extremism within Alliance populations, and in defending against highly-sophisticated influence operations, disinformation and so-called “active measures” by Russia, such as the recent hacking attacks and influence operations aimed at influencing the 2016 US presidential elections.

**14.2 Embrace and leverage the impact of new technologies on the security space and battlespace:** NATO should consider creating an agency similar in mission to that of the US Defense Advanced Research Projects Agency (DARPA). If the Alliance is to properly embrace innovation it must as a matter of urgency consider the role of ground-breaking developments in technology, such as artificial intelligence (AI), deep learning, the military application of nano-technologies, as well as the developing and changing threat posed by chemical, biological, and radiological weapons, and missile and other kinetic delivery systems and weapons. Hyper warfare is the idea that future war could take place at such a high level of strategy, technology and destruction that its effects would be worse than the Second World War between 1939 and 1945. Humans must remain at the centre of decision-making and to ensure that virtual barriers must be built into AI. However, ‘intelligent machines’ will play an ever more important role in the conduct of warfare. One role for a NATO DARPA would be to educate leaders and the wider defence community about the role future technologies will play in command, with particular reference to AI. In the longer term, it could be the catalyst for new R&D and systems acquisition projects funded collectively by the Alliance or by groups of Allies.

**14.3 Innovate and integrate as an Alliance:** The need to recapitalise and re-equip European forces through adaptation is vital. Adaptation also affords the Alliance an opportunity to properly consider how best to innovate in transforming structures and practices, how best to integrate new technologies with existing systems and platforms, and what balance to strike between efficiency and effectiveness, and between collective assets and common assets. Looking to the private commercial sector may well offer innovative lessons for the Alliance and opportunities for enhanced collaboration with industry, such as the use by big business of big data for rapid and deep market analysis.

**14.4 Routinise the use of sustained red teaming:** New thinking is an ally of adaptation. Robust ‘red-teaming’ will be needed if adaptation is to maintain momentum. At times such thinking will need to be ‘disruptive’, particularly in the way it challenges strategy, technology and procurement assumptions, not least to better integrate military and civil defence. Non-military national assets will be as vital to the continuum between protection of the home base and societies (critical national infrastructure protection, civil defence and consequence management) and power projection. Advances in simulator capabilities can offer substantial improvements to the methodology of red-teaming. The use of red-teams on exercises will also be vital, together with the better exploitation of new simulation and deep learning technologies.

**14.5 Implement a Future Requirements Framework:** Adaptation should lead to an enhanced and sustained exchange between defence planners, the technology/industrial community, and the broader security policy community. A Future Requirements Framework is needed that would in time help harmonise defence equipment choices by both Allies and Partners, and inform and reinforce the NDPP.

**14.6 Smart up, don’t dumb down:** Adaptation must promote better interoperability. One idea could be to increase from 20% to 25% the annual defence expenditures committed to defence procurement, and increase the proportion committed to research and technology within it. If the gap between the technologies available to individual NATO forces grows too wide, then interoperability will be sacrificed to far more risky and less efficient co-operability. With the United States committed to creating a modernised hi-tech, global reach joint force, together with a \$54bn planned hike in defence spending, the danger of a two-tiered and non-interoperable Alliance is more real than ever.

**14.7 Balance offensive and defensive cyber capabilities:** If cyber is to be made properly into a distinct operational domain, consideration should be given to the creation of a NATO cyber component within the NATO Command Structure. A new balance will need to be struck by the Alliance between offensive and defensive cyber capabilities as part of a package of so-called ‘cyber-effect instruments’. Both Alliance forces and the societies they protect are at present dangerously vulnerable to cyber-attack. Much more needs to be done to make forces, societies and systems more resistant and resilient to such attacks. This will raise significant legal questions for some Allies, as the information war extends the cyber battlefield into the ‘front offices’ of Alliance governments.

## 15. ONE ALLIANCE

*“Adaptation: process by which an organism or species becomes adjusted to its environment”<sup>3</sup>*

**15.1** If the above recommendations are adopted, they would take NATO adaptation to a new level and reinforce the deterrence and defence posture of the Alliance. Building on the short-term changes dictated by the earth-shaking events of 2014, these recommendations would also equip NATO for the even more formidable changes on the horizon, including hyper war, and thus offer a worthy basis for decisions at the NATO Summit in 2018 and at NATO’s 70<sup>th</sup> anniversary Summit in 2019.

### ■ THE GLOBSEC NATO ADAPTATION INITIATIVE STEERING COMMITTEE November 2017

<sup>3</sup> “The Concise Oxford English Dictionary”, Seventh Edition (Oxford: Oxford University Press) p. 11



## MEMBERS OF THE STEERING COMMITTEE

### GENERAL (RETD.) JOHN R. ALLEN

John Rutherford Allen is a retired U.S. Marine Corps four-star general and former commander of the NATO International Security Assistance Force (ISAF) and U.S. Forces in Afghanistan. John R. Allen assumed the presidency of the Brookings Institution in November 2017<sup>1</sup>, having most recently served as chair of security and strategy and a distinguished fellow in the Foreign Policy Program at Brookings. Allen served in two senior diplomatic roles following his retirement from the Marine Corps. First, for 15 months as senior advisor to the secretary of defense on Middle East Security, during which he led the security dialogue for the Israeli/Palestinian peace process. President Barack Obama then appointed Allen as special presidential envoy to the Global Coalition to Counter ISIL, a position he held for 15 months. During his nearly four-decade military career, Allen served in a variety of command and staff positions in the Marine Corps and the Joint Force. He commanded 150,000 U.S. and NATO forces in Afghanistan from July 2011 to February 2013.

### PROFESSOR DR JULIAN LINDLEY-FRENCH

Educated at University College, Oxford, UEA and the European University Institute in Florence, Yorkshireman Professor Dr Julian Lindley-French is Vice President of the Atlantic Treaty Association, Senior Fellow at the Institute for Statecraft in London, Director of Europa Analytica in the Netherlands, Distinguished Visiting Research Fellow at the National Defense University in Washington, as well as a Fellow of the Canadian Global Affairs Institute. Lindley-French is also Strategic Programme Advisor at Wilton Park, an agency of the Foreign and Commonwealth Office. In 2015 he was made an Honorary Member of the Association of Anciens of the NATO Defence College in Rome where he served as a member of the Academic Advisory Board. He is a member of the Strategic Advisory Panel of the British Chief of Defence Staff and was formerly the Head of the Commander's Initiative Group of NATO's Allied Rapid Reaction Corps. He was both Eisenhower Professor of Defence Strategy and Professor of Military Operational Art and Science at the Netherlands Defence Academy and Special Professor for Strategic Studies at the University of Leiden. He was also Senior Fellow at the EU Institute for Security Studies in Paris and Course Director at the Geneva Centre for Security Policy in Switzerland.

### ADMIRAL (RETD.) GIAMPAOLO DI PAOLA

Admiral Giampaolo Di Paola is former Minister of Defense of Italy and Chairman of the NATO Military Committee. Admiral Di Paola joined the Italian Navy in 1963 and graduated from the Naval Academy in 1966. Then he served in higher commanding officers and became a commander of the aircraft carrier Garibaldi in 1989. In 1990 he returned to the Navy Staff. In 1994 he was assigned to the Defence Staff in the Ministry of Defence where he became Chief of the Directorate of Defence Policy (1994–98). He was also the Italian representative to the HLG on nuclear and proliferation issues. From 1998 to 2001, with the rank of Rear Admiral, he assumed the position of Chief of the Cabinet Office of the Ministry of Defence. On the 1<sup>st</sup> of January 1999 he was promoted Vice Admiral. In March 2001 he was appointed Secretary General of Defence/ National Armaments Director. From 27 June 2008 to 17 November 2011, he assumed the position of Chairman of the NATO Military Committee. On 18 November 2011, Admiral Di Paola was appointed Minister of Defence.

### GENERAL (RETD.) WOLF-DIETER KARL LANGHELD

Wolf-Dieter Langheld is the General a.D. of the German Army. From September 2010 to December 2012 he was the Commander of NATO Allied Joint Force Command in Brunssum. General Langheld had 42-year career in the military, which he started as a conscript in a German armored brigade in 1971. Prior to assuming the post of

<sup>1</sup> General Allen is part of the project team in a private and personal capacity. The major bulk of the work was completed prior to General Allen's appointment as President of the Brookings Institution. Whilst his participation is in agreement with the Trustees of Brookings this report and all associated GLOBSEC NATO Adaptation Initiative reports have no formal or informal links to the Brookings Institution.

Commander of JFC Brunssum, General Langheld held numerous high-level positions in the German Army. In 1999, General Langheld took command of the Armoured Infantry Brigade in Augustdorf, a post he held until 2002. Together with part of his Brigade, he was deployed to Kosovo and became Commander of the Multinational Brigade South in Prizren, from December 2000 until June 2001, as part of the Kosovo Force (KFOR). In 2002 General Langheld became Director of Armour and Commandant of the German Armour School at Munster. The following year he was appointed Deputy Chief of Staff, Armed Forces Staff VI (Planning) at the Federal Ministry of Defence, Bonn. In 2005, he assumed the position of Commander of the 1<sup>st</sup> Armoured Division, in Hannover. Since December 2008 General Langheld has been Commander Response Forces Operations Command Ulm. General Wolf Langheld took over the responsibilities as Commander Allied Joint Force Command Brunssum on Wednesday, 29 September 2010.

#### **AMBASSADOR (RETD.) TOMÁŠ VALÁŠEK**

Tomáš Valášek is the director of Carnegie Europe, where his research focuses on security and defense, transatlantic relations, and Europe's Eastern neighborhood. Previously, Mr Valášek served as the permanent representative of the Slovak Republic to NATO for nearly four years. Before that, he was President of the Central European Policy Institute; an independent regional think-tank in Bratislava, Slovakia. From 2006 to 2012, he worked as Director of Foreign Policy and Defence at the Centre for European Reform in London. Previously, he served as Policy Director and head of the security and defence policy division at the Slovak Ministry of Defence. Before joining the Ministry, Mr Valášek founded and directed the Brussels office of the World Security Institute, a Washington, D.C.-based independent defence and security think-tank (2002–2006). From 1996 to 2002, he worked as senior European analyst in CDI's Washington, D.C. office. Mr Valášek is the author of numerous articles appearing in newspapers and journals including the International Herald Tribune, the Wall Street Journal and the Financial Times. He advised the Slovak Defence and Foreign Ministers, the UK House of Lords and the group of experts on the new NATO Strategic Concept.

#### **AMBASSADOR (RETD.) ALEXANDER VERSHBOW**

Ambassador Alexander Vershbow is the former Deputy Secretary General of NATO. Ambassador Vershbow became the Deputy Secretary General of NATO in February, 2012 after serving for three years as the U.S. Assistant Secretary of Defense for International Security Affairs. In that position, he was responsible for coordinating U.S. security and defense policies relating to the nations and international organizations of Europe (including NATO), the Middle East and Africa. From 1977 to 2008, Alexander was a career member of the United States Foreign Service. He served as U.S. Ambassador to the North Atlantic Treaty Organization (1998–2001); to the Russian Federation (2001–2005); and to the Republic of Korea (2005–2008). He held numerous senior positions in Washington, including Special Assistant to the President and Senior Director for European Affairs at the National Security Council (1994–97) and State Department Director for Soviet Union Affairs (1988–91).

## SUPPORTING PAPERS

This project has relied in large part on research and writing done by members of the Steering Committee, experts, and scholars.

- ▶ Steering Committee Scoping Paper. *NATO in a Changing Strategic Environment: The Questions NATO Adaptation Must Address*, by the Steering Committee
- ▶ *The Political Adaptation of the Alliance*, by Alexander Vershbow
- ▶ *The Military Adaptation of the Alliance*, by Karl-Heinz Kamp and Wolf Langheld
- ▶ *Comprehensive NATO*, by Stefano Stefanini and John Allen
- ▶ *Integrated Deterrence: NATO's 'First Reset' Strategy*, by Paul Cornish
- ▶ *Ten Messages for Affording and Equipping the Adapted Alliance*, by Giampaolo Di Paola and Julian Lindley-French
- ▶ *Reanimating NATO's Warfighting Mind-set: Eight Steps to Increase the Alliance's Political-Military Agility*, by Ian J. Brzezinski and Tomáš Valášek
- ▶ *NATO Procurement and Modernisation: Towards an Innovative Alliance with Much More Deployable Combat Capability*, by Michael O'Hanlon
- ▶ *Future War NATO? From Hybrid War to Hyper War via Cyber War*, by General (Retd.) John Allen, General (Retd.) Philip M. Breedlove, Professor Dr Julian Lindley-French, & Admiral (Retd.) George Zambellas
- ▶ Interim Report. *One Alliance? Change Drivers in a New Strategic Environment*, by the Steering Committee

**INSTITUTIONAL PARTNER**



**STRATEGIC PARTNERS**





▸ Vajnorská 100/B  
831 04 Bratislava  
Slovak Republic

▸ +421 2 5441 0609  
▸ [info@globsec.org](mailto:info@globsec.org)  
▸ [www.globsec.org](http://www.globsec.org)