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NATO WARFIGHTING CAPSTONE CONCEPT

CONTEXT

The NATO Warfighting Capstone Concept (NWCC) was approved in 2021. It contributes to the Alliance's efforts to strengthen its deterrence and defence posture and offers a vision in support of maintaining and further developing NATO's decisive military advantage, and continuously adapting the military instrument of power through to 2040. It addresses in particular the newer aspects of great power competition, but Russia's war of aggression against Ukraine demonstrates that even as we prepare our militaries the changing character of war, the traditional use of military force remains a feature of our security environment. Since the approval of the NWCC, the Alliance has made progress towards its implementation in numerous areas, including through broader political-level initiatives to maintain its strategic advantage. These efforts inform and are complemented by ongoing work under the framework of the NWCC.

INTRODUCTION

The changing and evolving security environment puts the Alliance's continued success at risk. While NATO remains a defensive alliance, the operating environment demands new ways of thinking, organising and acting. Russia and terrorist groups and organisations will continue to threaten the Alliance whilst the role and impact of China in particular will grow. Broader security challenges, including those related to demography, climate, resources and public health crises such as COVID-19 will persist.

The operating environment is widening beyond traditional military bounds, with competition among different actors becoming more persistent across all instruments of power. This environment also features more diverse actors, with new weapons and technologies employed in new ways. Successfully upholding NATO's objectives in this operating environment requires a proactive mindset, effective connectivity and speed at scale. Success demands balancing the efforts of the Alliance military instrument of power (MIoP) across shaping[1], contesting[2] and fighting contexts.

Some actors, such as the United Nations (UN) and the European Union (EU), partner nations, industry and open societies will continue to present opportunities to positively influence the operating environment, which is essential for NATO's response to future security challenges. The NATO Warfighting Capstone Concept (NWCC) offers an aspirational North Star vision for warfare development initiatives and the opportunity for engagement with all those who share the values of the Alliance. The North Star vision is informed by the activities of potential adversaries, but is proactively driven by the MIoP's own ambition for success in transitioning towards the 2040 operating environment. The ambition is necessarily high; however, the NWCC offers a realistic and agile path to realize it. The path 'pulls' forward the most important warfare development work. It provides a framework to focus and synchronize efforts to build military advantage, and proactively shape the operating environment to Allies' strengths. It expands decision space for political authorities by focusing on the generation of military options including to create strategic, operational and tactical dilemmas for adversaries.

The NWCC is part of the coherent package of NATO Military Authorities best military thinking. Along with the 2020 Concept for Deterrence and Defence of the Euro-Atlantic Area, the NWCC implements the 2019 NATO Military Strategy, a renewed approach setting out Alliance military-strategic objectives and the ways and means to implement them. Therefore, the NWCC provides a description of the 2040 operating environment and future warfighting to identify implications for the future MIoP. It offers a functional design to which the MIoP shall aspire for success. It provides five warfare development imperatives to focus and synchronize efforts to develop the MIoP. Finally, it puts forward an ambitious set of proposals, alongside an immediately usable realistic path to deliver improvements to the MIoP.

The warfare development imperatives provide an organising principle that promotes coherence across the breadth of warfare development efforts. They offer a new, forward-looking multi-domain (land, maritime, air, cyber, and space) and cross-instruments of power approach to military thinking, organising and acting. They are immediately usable and implementable through the lines of delivery developed with the support of Allies, Supreme Allied Commander Europe, operational commanders and NATO HQ staffs, and engagement with Allies' academic communities.

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1 *Shaping creates the conditions for opportunities to emerge, and actively seeks to seize them as they do so to positively influence different actors, and to restrain, constrain, or compel adversaries' choices, and thereby build or increase advantage over them.*
2 *Contesting is a persistent, broad approach to (re)gain advantage over adversaries and negate attempts to build advantage against the Alliance.*

FUTURE WARFIGHTING

ASSUMPTIONS ABOUT THE FUTURE ENVIRONMENT

NATO has made strides in implementing its strengthened deterrence and defence posture, and has worked to positively shape the security environment. However, the Alliance has to prepare for tomorrow's fight today in an increasingly persistent, simultaneous and boundless operating environment where peer or near-peer states and terrorist organisations will continue to pose a significant challenge. Their actions, and those of other non-traditional actors, will challenge the traditional military focus on geography and Allies' longstanding technological advantage.

UNDERSTANDING A PROJECTED THREAT CURVE

The problem sets outlined in the NATO Military Strategy – strategic competition, pervasive instability, and strategic shocks – are likely to endure and to grow in complexity. Building on this baseline, the Alliance shall collaboratively develop a shared understanding of a projected threat curve out to 20 years. The curve comprises the possible strategic paths of main threats and wider challenges, as well as increasing and pervasive instability and strategic shocks.

ASSESSING THE STRATEGIC PATHS OF RELEVANT ACTORS

Russia, terrorist groups and organisations, and wider challenges, such as China or Iran, could take multiple strategic paths over the next 20 years. They will seek to shape, in their own ways, the operating environment and may attempt to reject or replace the rules-based international order. Their actions range from overt hostility and conflict to partnership. The trajectories of some actors may occasionally intertwine, as exemplified by the joint military activities of Russia and China. These paths are influenced by the development of Alliance's own MIoP. Continuous horizon scanning and study of the paths of potential adversaries and other relevant actors, (comprising their strategies, approach to warfighting, assessed plans and intent, force and capability development) are essential for the Alliance's ability to proactively shape, through warfare development, and to alter other actors' pathways.

CHANGING CHARACTER OF WAR

It is paramount to understand how the Alliance MIoP must conduct future warfighting in the multi-region, multi-dimensional (physical, virtual, and cognitive) and multi-domain operating environment. The fundamental nature of warfare – a clash of wills, violence of action, friction, the fog of war, and centres of gravity – has remained valid for centuries. However, its character continues to evolve, and so must the Alliance's approach to warfighting. Understanding future warfighting is necessary to derive what is required for the design of the 2040 MIoP. The following characteristics define the operating environment of the future:

Persistent. An increasing number of influential actors, both state and non-state, are likely to emerge and compete persistently for power and advantage, including against the Alliance's political and military-strategic objectives.

Simultaneous. Potential adversaries increasingly carry out hostile and benign, as well as cooperative activities simultaneously. They exploit all instruments of power and technology at their disposal. Some simultaneously pursue cooperation in some areas (e.g. trade or arms control) while actively fighting the Alliance in others (e.g. cyberspace or through proxies). To compete, the Alliance must act continuously and simultaneously in shaping, contesting and fighting complex operational contexts.

Boundless. The boundaries will continue to blur between political and military, strategic, operational and tactical to defence and offence, inside and outside Supreme Allied Commander Europe's area of responsibility and between traditional military actions and non-military activities that can have disruptive and destructive effects. The ascendancy of competition in the non-physical and geographically unbound domains (cyber and space) and new capabilities increasingly defy boundaries.

IMPLICATIONS OF FUTURE WARFIGHTING

These new emerging characteristics of future warfighting have implications on the way the Alliance MIoP is developed and employed in the future. While major armed conflict remains a real possibility at least in the short term, the speed with which commanders must decide, act and manage agility across domains challenges traditional military thinking and ways of warfighting. Allied commanders' approach to traditional elements, such as situational awareness, surprise and deception, command and control, generation of mass, fires and manoeuvre, must evolve.

SEIZING OPPORTUNITIES

While the future operating environment is more demanding, the Alliance MIoP has a number of opportunities, including those associated with emerging and disruptive technologies, to make qualitative leaps forward. Existing and emerging military-instrument of power strengths can be fully exploited in a concerted effort to build effective habitual planning relationships with other instruments of power and other relevant actors, enhancing awareness of the operating environment. Improved understanding enables and empowers future multi-domain commanders to have an increasingly better view of an extremely dynamic operating environment and to deliver decisive effects.

WARFARE DEVELOPMENT

Allied warfare development choices and investments today shape the future operating environment. The Alliance needs a long-term warfare development vision, a North Star, informed by the threats and strategic paths of potential adversaries, but driven by the Alliance's own aspiration for success. Such a vision enables Allies to take the initiative in warfare development and shape the widening operating environment to Allies' strengths. The current approach to warfare development is to 'push' or modernize what Allies already have, in response to potential adversaries' activities. To stay ahead of the projected threat curve, the NWCC suggests a 'pull' approach to help Allies identify and pull forward the most important lines of delivery to maintain and build advantage where it is needed most.

FUNCTIONAL DESIGN 2040

The Alliance's ability to shape the widening operating environment to its favour enhances its abilities to demonstrably contest adversaries' activities, building readiness to deter and if necessary defend against adversaries. The 2040 MIoP must be designed to build on its strengths, exploit opportunities as

OUT-THINK

the future Alliance MIoP must anticipate threats and understand the strategic environment better than potential adversaries
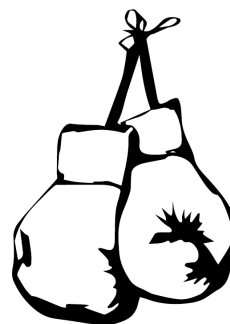
OUT-EXCEL

the future Alliance MIoP must strive for excellence and agility, underpinned by NATO's unique military ethos, culture and diversity and the will to take the initiative and win over any potential adversary under any circumstances

OUT-FIGHT

the future Alliance MIoP must be able to decisively operate across domains, in concert with other instruments of power and actors and simultaneously conduct shaping, contesting and fighting activities

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"THE 6 OUTS"

they emerge and guard its vulnerabilities. The Alliance warfare development approach must consider the adversary but shall pursue a MIoP design that aspires to out-think, out-excel, out-fight, out-pace, out-partner and out-last functions:
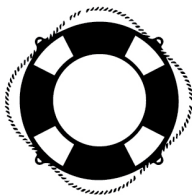
OUT-PACE
the future Alliance MIoP must be able to recognize risks, seize opportunities, decide and act faster than potential adversaries

OUT-PARTNER
the future Alliance MIoP must be able to foster and exploit mutually supportive and habitual relationships and partnership opportunities

OUT-LAST
the future Alliance MIoP must be able to think, plan, operate and adapt with a long-term perspective in mind to be able to endure as long as it takes through strategic competition and any conflict situation

WARFARE DEVELOPMENT IMPERATIVES

Thorough analysis of the future warfighting implications and the aspirational design of the '6-outs' substantiate the derivation of five warfare development imperatives. The warfare development imperatives serve to organize and synchronize Alliance-wide warfare development efforts:

Cognitive Superiority

understanding the operating environment and potential adversaries relative to the Alliance's own capabilities, capacities and objectives

Layered Resilience

ability to absorb shocks and fight-on, across all layers, military, civil-military and military-civilian

Influence and Power Projection

shaping positively the environment to the Alliance's strengths, including generating options and imposing dilemmas on adversaries

Cross-Domain Command

revitalising and enabling commanders' ability to understand the multi-domain operating environment and act rapidly and effectively

Integrated Multi-Domain Defence

protecting the Alliance's integrity to decide and act against threats in any domain, regardless of their origin or nature

Together, these imperatives offer a means for Allies to align their national conceptual and capability development efforts that pertain to the Alliance political and military-strategic objectives. Each imperative represents a critical capacity that the MIoP must strive towards to be relevant and successful in transitioning towards the future. In doing so, the warfare development imperatives promote thinking, organising and acting across all domains. No one imperative shall be considered individually, they need to be developed together. These imperatives underpin a number of critical enablers: focused exploitation of data and technology, agility to develop capabilities, the right people with the right skills, and persistent preparation across the MIoP and day-zero integration with other actors and instruments of power.

Cognitive Superiority

Improving the Alliance's situational awareness and strategic anticipation has been an important dimension of the Alliance's strengthened deterrence and defence posture. Fundamental to the Alliance's ability to shape, contest and fight is expanding knowledge and understanding, with a view to ultimately achieving cognitive superiority. This understanding shall be connected across all-domains, enabled by technology, in order to maximize commanders' ability to anticipate, think, decide and act. Efforts to build better situational awareness and understanding with a view to achieving cognitive advantage over potential adversaries is a priority for the Alliance.

Layered Resilience

The MIoP must support the Alliance's ability to anticipate and resist strategic shocks or surprises, manage consequences, fight through and ultimately out-last and prevail against adversaries. This requires a layered approach, comprising mutually reinforcing 'layers' of military resilience and civilian resilience. The approach supports NATO's comprehensive resilience agenda. It needs to recognize the importance of the continuity of command, military structures and processes, reserve forces, redundancy and the balance between capability and capacity.

Influence and Power Projection

Since its inception in 1949, key Alliance goals promote stability and preserve peace and security, alongside collective defence. NATO has continuously deterred aggression through its mix of nuclear, conventional and missile defence capabilities. It has contributed to restoring and preserving peace through its crisis management operations, arms control and dialogue. It has also promoted and safeguarded shared values and freedom, in particular through its enlargement and partnership policies. However, the 2040 operating environment demands the Alliance to be more anticipatory and proactive. The Alliance MIoP identifies ways to take the initiative, to positively influence other actors, and project power in shaping, contesting and fighting contexts alongside other instruments of power.

Cross-Domain Command

The Alliance's standing military structures in the form of the NATO Command Structure and the NATO Force Structure is unique among all Alliance instruments of power. Integrated military structures could give the Alliance a head start in any contingency, regardless of its nature, source or circumstance. Future success of the Alliance MIoP largely depends on the preparation and ability of commanders to operate in a complex operating environment simultaneously across physical and non-physical domains. This requires commanders to possess a cross-domain understanding. Agile and asymmetrical thinking characterize mission command in 2040, supported by robust and continuously refreshed communication and information systems.

Integrated Multi-Domain Defence

In the future operating environment of more persistent and boundless competition, in which elements of MIoP is simultaneously employed in shaping, contesting and fighting inside and outside Supreme Allied Commander Europe's area of responsibility, the Alliance needs to move towards a more integrated, multi-domain approach to defence, and, ultimately, a more persistent operational posture. This imperative supports the Alliance's strategic anticipation, widens the decision space for political authorities, and is critical for the MIoP's ability to out-fight and out-last any adversary.
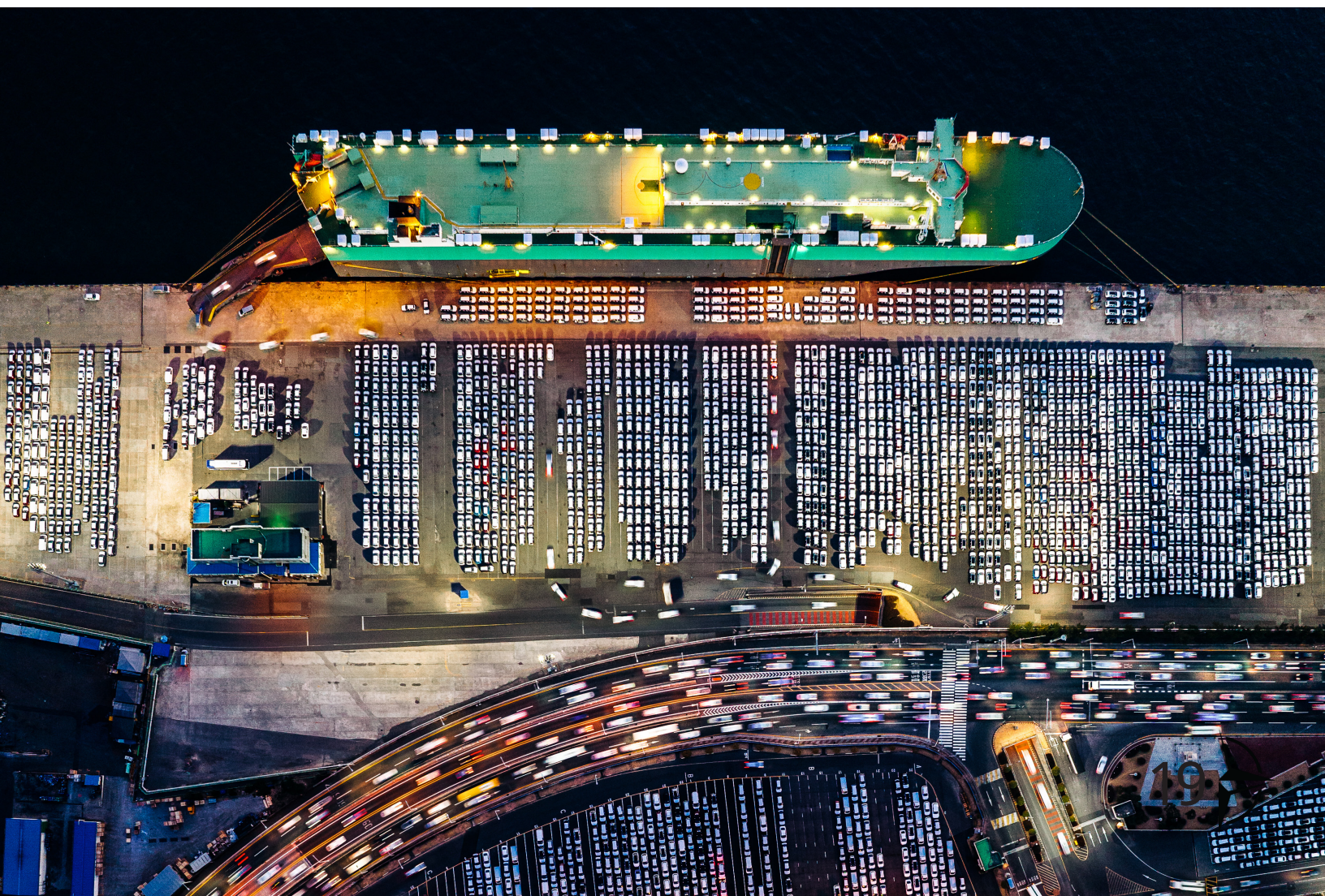
CRITICAL ENABLERS:
Data, Technology, Agility, People, Preparation and Integration

The MIoP must strive for fully data-enabled warfare development and employment, requiring enhanced sharing and all-source fusion of information and intelligence across NATO. This is important for improving the handling of *data* and advanced analytics within the military-strategic decision-making processes and to ensure data quality and the integrity and coherence of information flows.

NATO's continuing efforts to maintain a *technology advantage* must be explicitly geared towards more effective capture of emerging and disruptive technologies to support warfighting, and ensuring defensive capacity against the use of these technologies by other actors. Allies need to improve sharing of technology intelligence and horizon scanning on new scientific and industrial developments inside and outside the Alliance to identify areas of potential overmatch and maintain the technological edge. Additionally, the Alliance benefits from the cultivation of open innovation to explore the potential of new solutions and technologies.

Furthermore, as the rate of commercial-led technological innovation and changes in the security environment accelerates, Alliance and Allies' acquisition structures and processes must become more agile to keep pace. This requires placing *agility* at the centre of the Alliance's warfare development. Allies must consider such approaches as they continue to adapt their capability development processes to allow more agile development, timely delivery and adaptation of military capabilities.

Allies must consider building their recruitment, selection, training, promotion and retention systems that can deliver the *right people with the right skills*. The Alliance and Allies need leaders and staffs that are able to cope with the speed, complexity and data-centric technology of the future environment. In this, NATO and Allies shall take advantage of both gender and diversity as force multipliers, while avoiding the risk of generation gap. The breadth of diversity across the Alliance and NATO's training and education entities (such as the NATO Defense College and NATO School Oberammergau) offer opportunities to pursue this critical enabler.

Persistent preparation has to be engrained within Alliance military culture to out-excel. This includes the development of demanding scenarios and practicing the development of options and decision-making. These exercises must use live and advanced modelling and simulation constructs to identify areas for improvement, build trust in new capabilities and plans, and support leadership development by wargaming, experimentation and realistic training.

The widening operating environment will require better **day-zero integration**. Allies need to be connected with a broad network of partnerships, including partner nations, relevant international organisations such as the UN or EU, non-governmental organisations, civilian actors and industry. The MIoP, in close consultation with political authorities, could take the lead as a hub bringing together networks of actors across instruments of power as a basis for habitual planning relationships. NATO's Command Structure is uniquely positioned to be the backbone of such a global approach and must be flexible enough to work on day-zero.

FRAMEWORK FOR EFFECTIVE DELIVERY OF THE FUTURE MIOP

Warfare development is an essential endeavour for maintaining decisive military advantage. Warfare development activities are primarily driven by national defence priorities and plans. They are harmonised for NATO purposes by the NATO Defence Planning Process and informed in the short-term by other Alliance priorities. Effects of many of today's warfare development decisions may only begin to be seen in the longer-term.

The warfare development imperatives described above offer an organising principle for the Alliance and individual Allies to help focus, sequence, align and where possible, prioritize some of the current and potentially new warfare development activities, without prejudice to the NATO Defence Planning Process.

The path to the North Star vision is subject to continuous discussion by the NATO Military Committee. The NATO Warfare Development Agenda operationalizes the NWCC by providing a detailed framework for implementation. The NWCC and the implementation of all of its elements informs, over time, the NATO and Allies' planning processes, ensuring coherence across the MIoP.

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