



Logistics and Sustainability Focus Area Capstone Concept Vision Paper



PURPOSE. This paper provides a brief narrative of NATO's *Sustainment Capstone Concept* highlighting the overall vision of future Allied sustainment through 2030 and beyond. It expands upon the current timelines associated with the NATO Defence Planning Process and Logistics and Sustainability related Visions & Objectives.

VISION. *In 2030, the Alliance projects and sustains Joint Forces through a network of persistent, agile, scalable and resilient operational support systems. Partnership focused, the Alliance is fully interoperable and forged by a cooperative, innovative and mutually supportive civil and military sustainment environment.*

MOTIVATION FOR SUSTAINMENT TRANSFORMATION. NATO remains committed to sustainment transformation through modernizing forces away from limited legacy sustainment systems derived from Cold War era ways and means, towards collective logistics that realizes maximum support for the Alliance. This sustainment transformation is not limited to purely a change to roles and responsibilities, but to a cultural change across the Alliance on how NATO addresses sustainment challenges in the future. This cultural change sees a shift away from the principle of logistics as a purely national responsibility to the new principle of optimised collective sustainment. Sustainment transformation, shifting towards an optimised blend of national and shared logistics responsibility across NATO, is necessary to gain unity of effort, improved efficiency of scarce resources, and maximize support for the Alliance. With shared sustainment actions, twenty-eight or more separate nations operate collaboratively and thereby gain economies in times of fiscal uncertainty. As with all military transformation within the Alliance, sustainment transformation is necessary to maintain a credible military posture that optimises the readiness and responsiveness advantage NATO has over potential adversaries.

NEW SUSTAINMENT DIRECTION. By 2021, NATO, with the delivered Operations Logistics Chain Management (OLCM) program, is enabled with a fully operationally capable Logistics Functional Services (LOGFS) system which facilitates pre-coordinated plans to meet any NATO Level of Ambition. Although OLCM fosters collective responsibility for NATO logistics, full interoperability requires common sustainment. Beyond 2021 NATO continues modernizing through the subsequent generation of a Collective Sustainment program with greater standardisation and shared awareness of the Alliance's collective readiness state; across the capability development spectrum of Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities and Interoperability (DOTMLPF-I). Increased commonality of systems, acquisition and enhanced standardization enables collective execution of sustainment within multi-national formations, supported by a multi-national command and control structure. This Alliance-led sustainment is heavily integrated with, and supported by, both traditional defence and non-defence industries. NATO leverages the global reach and networked infrastructure of commercial enterprises and greater use is made of all available commercial systems. NATO's readiness is assured further by pre-set contracts and close partnerships with manufacturing, shipping, communications and health communities.

COLLECTIVE SUSTAINMENT ACHIEVED. Building on OCLM, the future of NATO sustainment for a fully interoperable Alliance in 2030 depends on a strategy of achieving collective sustainment objectives of persistence, awareness, agility and resilience. These objectives are accomplished by ways of cooperative, innovative and mutually supporting civil and military sustainment approaches utilizing means of a comprehensive logistics network spanning from national military stores and industrial bases, across strategic distances, and then operationalized collaboratively. This comprehensive NATO sustainment network includes shared responsibility, between NATO and nations, for planning and carrying out the movement and maintenance of forward-deployed forces, continuous operations, and projection of stability with global support.

SUSTAINMENT STRATEGIC OBJECTIVES. To transform sustainment, NATO must accomplish four strategic sustainment objectives. Firstly, it must **Enable Persistent Operational Activity** to ensure Alliance forces can operate globally, continuously and forward where required. Secondly, it must **Realise Shared Awareness** to ensure a comprehensive understanding of sustainment risks, capabilities and resources available to a commander, which then support timely and effective decision making. Thirdly, it must **Enhance Operational Agility** to ensure the right amount of the right sustainment capability is delivered where and when required. Finally, it must **Enhance Resilience** to ensure Allies, Partners, and Host Nations resist, withstand and recover from strategic surprise and shock to sustainment systems. Accomplishing these objectives resolves many sustainment challenges noted at the Warsaw Summit and assures NATO's readiness to address future threats in complex and uncertain environments.

SUSTAINMENT TRANSFORMATION METHODOLOGY. To accomplish these objectives, NATO will follow a focus area staff-developed road map to achieve near and long-term goals, enabling NATO to realize this sustainment vision for the future. The future global operating environment has many implications for sustainment which forces NATO to transform the current paradigm. These include developing approaches to minimize support costs and efforts across the Alliance; developing multinational joint logistics networks where burdens, including stockpiles, are shared; in turn developing strategic hubs to support Alliance operations while ensuring identified gaps and seams are covered; and expanding standardization across more domains of the DOTMLPF-I spectrum. This entails developing long-term theatre support arrangements to account for the enduring nature of threats as NATO moves into the future. Transformation includes delivering the current OLCM program objectives by 2021, and determining what the next generation logistics model looks like. NATO will become more networked, interfacing across the Alliance, with Partners, with civil governments, and with civil support organizations. NATO will become more collaborative with Alliance nations earlier in planning processes, and nations will become more collaborative with each other. NATO will become more innovative, leveraging established relationships with academia and industry to enhance and deliver capability. Moreover, NATO will be forced to re-evaluate where collective and national responsibilities should reinforce, converge and diverge in the future; moving toward an optimized collective sustainment model.

SUSTAINMENT TRANSFORMATION MEANS. To ensure NATO commanders receive the required sustainment, at the required time, and in the required location, sustainment transformation efforts in the future depend on multinational means. In a future environment of constrained defence budgets, NATO leverages innovative advances in alternative energy to achieve persistence, along with full utilization of accessible "Big Data" to achieve awareness. Required means also include in-theatre production, additive manufacturing, and overall logistics footprint reduction to achieve agility. These means couple with technological and scientific advancements in areas such as autonomous systems, remote access medicine and alternative blood products for achieving resilience. Doing so links NATO commanders, through the use of artificial intelligence and cognitive computing, more closely with the vast amounts of data required to sustain the Future Force of 2030 and maintain the technological advantage over NATO's adversaries. Federated systems enable tailorable 'whole-of-government' sustainment solutions to collective defence and scalable responses to strategic crises with mutual understanding and effective communication gained by common doctrine, training and systems. A multinational training centre provides common civ/mil training where civ/mil exercises are routine. Networked production, in-service, and consumer logistics systems enables NATO to orchestrate multinational sustainment solutions that reduce the Alliance's and Partner's wait time for materiel, supplies, services, maintenance, logistics information management, medical support, and Host Nation Support through 2030 and beyond. Establishing Logistics Clusters becomes common practice that fosters more effective collaboration between NATO and other Agencies, Government Departments, International and Non-Governmental Organisations. Efficiency is achieved through coordination, synchronisation of processes, business rules, systems and organizations.

Collective sustainment assures collective readiness.

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