



# SUPPLY CHAINS

## for the Ministry of Defence and the Czech Armed Forces

Long-term experience from armed conflicts clearly confirms the importance of military logistics as one of the decisive factors for the final outcome of military engagements. In earlier wars, it was common to combine centrally managed supply of troops with the use of local resources, including destructive looting. Today's approach is primarily based on centrally managed supply from national resources, complemented—depending on the situation—by cooperation with local authorities and certain groups of the civilian population. Modern military strength rests on the volume and complexity of military technologies, the training of crews, operational art, and, critically, the sustainability of those forces during long-term operations. In medium- and large-scale conflicts, decisive roles are played by modern military technologies, fuels and lubricants, ammunition, communication and satellite technologies, food, water, and the replenishment of units with highly trained specialists. This reflects significant quantitative and qualitative changes in logistics requirements.

### Supply Chains

Military strategic elements monitor and analyse technological developments in warfare and adapt their processes, organizational structures, equipment, and training accordingly. A key process in this area is logistics support, in which supply chains play a central role.

The organisational elements of the Ministry of Defence (MoD) and the Czech Armed Forces (ACR) are currently supplied with materiel in order to support operational tasks through replenishment, modernisation, or replacement of military equipment and armaments, and to maintain weapons and equipment in an operational condition for the fulfilment of training and operational

tasks. This represents a complex system of logistical support, ranging from the provision of spare parts, their storage, transport and delivery to maintenance facilities, through to the specialist activities associated with specific repairs and maintenance.

### Strategic Decision-Making

Achieving these objectives requires a series of strategic decisions, including which equipment will be maintained by commercial providers and which by internal resources and capacities. Such decisions must consider factors such as the technical complexity of the weapons and equipment, the frequency and scope of required maintenance and repairs, the necessary range of spare parts and

consumables for their execution, the demands on technological facilities both in peacetime garrisons and in field and operational deployment, the requirements for mobility in the field, the protection of mobile repair and recovery assets, and other factors.

When maintenance and repair are carried out internally, it is necessary to ensure ongoing professional training for personnel and, above all, to calculate stock requirements, define storage sites, and set up processes for supply and distribution to end users. Similar considerations must be made for the provision of food, medicine, fuels, and ammunition.

Supply is now commonly understood as the process of delivering materiel to military

warehouses and subsequently from those warehouses to the "military consumer." Materiel (items of supply) is provided by contractors who meet the conditions of public or restricted tenders. However, this approach works in peacetime or in situations where there is no risk of delay and security is not under immediate threat.

The Russia–Ukraine war illustrates the necessity of dynamically addressing the "security and substitutability of central strategic suppliers in supply chains", while also developing a network of civilian entities capable of providing spare parts for selected equipment and weaponry, refueling services, and certain repair and maintenance functions. These civilian entities should serve both regional supply chains and, where possible, central needs. Strategic suppliers should be tasked with contingency planning for backup production of critical equipment and materiel in case parts of their production capacity are compromised.

In a similar way, it is also necessary to consider the provision of services for personnel, such as accommodation, catering, laundry, medical assistance, and so on.

### Efficiency of Logistics Services

Recent lessons show that even in conflict situations it is essential to demand and maintain efficiency in logistics management to ensure the effective use of available resources. Such efficiency cannot be achieved without information support. Taking into account the characteristics of modern conflicts and their impact on logistics, it becomes clear that achieving strategic objectives requires registering all available suppliers of products, spare parts, and services not only at the national level but also regionally. These suppliers must then be continuously assessed according to key characteristics.

Given the expected dynamism of situational changes and logistics needs, along with the requirement to execute tasks rapidly and with local knowledge, it is clear that procurement contracts in support of logistical provision cannot be implemented solely at the central level.

It will therefore be essential to develop the capability to establish new independent pro-



urement units dynamically at the regional level (for example, under the command of territorial forces) and, through these units, to conclude contractual arrangements for regional logistical requirements – within the selected area – in shortened timeframes. Such offices, strengthened by logistics experts with materiel knowledge, should build directly on local supplier registries. The consumers of these products and services may include both national forces and allied units.

The supporting logistics information system must be able to dynamically establish such acquisition offices and define their links to central procurement. A crucial element of this support is access to an information system that enables international identification of required materiel in accordance with the NATO Codification System (NCS) standards.

### Integrated Information System

A modern information system should include capabilities to identify spare parts for equipment directly at the site of maintenance or repair. Core functions must include the integration of manufacturer catalogues with materiel identification systems compliant with NATO standards. The system should also support visualization tools for equipment maintenance and repair, including technical breakdowns of equipment and relevant supplementary manuals. It is essential to have information support available also in offline mode. A comprehensive information system

should also be able to instantly identify the nearest location of a required spare part, whether within the national structure, allied units, or civilian suppliers at the regional level. Communication in a multinational environment requires the ability to identify materiel in line with the NATO Codification standards and communicate effectively with allied organizations. Artificial intelligence will play a significant role here, as success on today's battlefield is impossible without digital information support, secure digital communications, and comprehensive security services.

Modern conditions also require the ability to reconstruct supply chains for a specific equipment type, a particular central delivery, or a regional-level delivery.

Features of a modern information system in the field of the 'Chain of Supply' include the ability to identify additional potential suppliers based on specified characteristics, territory, or specific materiel, at both national and regional level.

AURA already provides the Ministry of Defence and the Czech Armed Forces with a range of selected capabilities and is ready, in cooperation with the Ministry's logistics authorities, to expand and enhance information support for current logistics needs at both strategic and tactical levels.

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