NATO Standardization with Focus on Materiel Standardization from a Transatlantic Perspective

By

Henrik Dam

Deputy Director

Strategy Directorate

Outline:

- **Setting the Scene**
- **How do we do Standardization in NATO**
- **Examples of Materiel Standards**
- **NATO Views on Defence Standardization in Europe**

STRATEGIC CONCEPT

"NATO's fundamental and enduring purpose is to safeguard the freedom and security of all its members by political and military means"

Core Tasks:

Collective defence, Crisis management and Cooperative security

The full range of NATO missions requires capabilities developed according to the

POLITICAL GUIDANCE

First step of the

NATO DEFENCE PLANNING PROCESS

Followed by requirements definition, identification of solutions (targets), implementation and review.

Emphasized by

(SUMMIT) INITIATIVES

Example:
Chicago Defence Package with the goal - NATO Forces 2020:

*"A coherent set of deployable, **interoperable** and sustainable forces equipped, trained exercised and commanded so as to be able to meet NATO Level of Ambition. These forces should also be able to **operate together** and with partners in any environment."*

The means include

Smart Defence

Connected Forces Initiative

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Guided by

NATO POLICIES

NATO Interoperability Policy

NATO Policy for Standardization

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NATO Interoperability Policy:

"Interoperability is the ability to act together coherently, effectively and efficiently to achieve Allied tactical, operational and strategic objectives."

"Interoperability has three main dimensions, technical, procedural and human."

NATO Strategy for Enhancing Interoperability:

"The following tools are available to achieve and maintain interoperability:

Standardization

Training, exercises, education and evaluation

Lessons learned

Cooperative programmes

Technical and other demonstrations, trials, tests."

Why do we do Standardization in NATO?

NATO uses Standardization as the main tool to enable our forces to operate together and with partners in any environment, while optimizing resources.

How do we do Standardization in NATO?

A. Top-down

We define interoperability requirements as an integral part of a capability requirement in NATO Defence Planning and deduct solutions which often will be to develop one or more new standards.

In other words: *Standardization is part of NATO capability development.*

Relevant Senior Committees (Tasking Authorities) task their subordinate subject matter expert committees to develop a given standard or agree “bottom-up” proposals, based on their relevance to NATO capability development.

How do we do Standardization in NATO?

B. Bottom-Up

We identify standardization shortfalls in real operations, exercises, tests, training, etc., and adopt solutions which often will be to review or develop one or more new standards.

In other words: *Standardization is a circular cycle*

Relevant Senior Committees (Tasking Authorities) task their subordinate subject matter expert committees to review or develop a standard following “bottom-up” proposals

The principle from the Policy for Standardization is:

"A NATO standard will only be developed when no applicable civil standard is available, to avoid duplication of effort".

Operational standardization is carried out in a number of Working Groups under the Military Committee

For technical standardization the most relevant committees are

The Conference of National Armaments Directors (CNAD)

The Consultation, Command and Control Board (C3B)

Both technical committees have a substantial substructure covering most technical domains and they are the actual developers of standardization.

The portfolio of standards is around 1100 operational, 450 materiel and 150 administrative standards.

Operational standards include common military doctrine (in intelligence, current operations, logistics, operational planning and communications), common operational procedures and training standards.

Materiel standards cover equipment and software design, test and verification.

Administrative standards cover administrative matters but also more technical matters as ammunition safety, quality assurance, life cycle management just to mention some.

Bottom line: NATO Standards are being developed by national experts in committees, not by staff.

The development can be a lengthy process that often involves security and defence industry and also trials and tests to verify the results.

For industrial involvement, the Transatlantic Defence Technological and Industrial Cooperation (TADIC) is a “framework” that is of utmost importance to NATO.

Examples of materiel standards:

In the area of Intelligence, Surveillance and Reconnaissance a number of standards have been developed to allow for sharing of information that is often classified. To enable national systems of different types and generations to provide data into a common “back-bone”, “interface standards” have been developed to allow those systems to plug in.
We call it the **“Plug-and-Play”** principle. In this area, primarily because of the mission-specific information, the standards need to be **military.**

Another example:

In the area of armoured vehicles, NATO has developed a standard for protection levels against different types of fires which is widely used by Defence Industry.
The armour of a vehicle is a clear **military application** but most other parts of such vehicles are based on **civil automotive standards**.

Views on Defence Standardization in Europe

- We welcome initiatives that can improve the overall interoperability of NATO Forces and with Partners.
- We must ensure the Transatlantic dimension of standardization.
- NATO and EU common member states have only one set of forces and one set of defence budgets. We must avoid any unnecessary duplication.
- We encourage the use of open civil standards with the widest possible applicability.
- We need to ensure that our respective defence standardization efforts are complementary.