NATO Policy for Standardization

2018 International Standardization Workshop
October 30 – November 1, 2018
Tysons, Virginia - USA
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- Introduction

- NATO Standardization Policy

- Guiding Principles

- Policy Implementation

- Conclusions

- Quiz

In the museum of Elefsis **a stele of the 4th century BC i**s kept, discovered by D. Philios in 1894. **Its text refers to a decree concerning the manufacture of bronze fittings known as "empolia" and "poloi" to be used for the assembly of the column drums** (as shown in this picture) and the erection of the Philonian Stoa, named after the architect Philon, a portico in front of the much older building, the Telestirion. **The decree comprises strict technical specifications**, and, therefore, constitutes one of the oldest European standards.

NATO POLITICAL GUIDANCE

1. Air and Missile Defence;

2. Aviation Planning;

3. Armaments;

4. Civil Emergency Planning;

5. Consultation, Command and Control;

6. Cyber Defence;

7. Force Planning;

8. Intelligence;

9. Logistics;

10. Medical;

11. Nuclear Deterrence;

12. Resources;

13. Science and Technology;
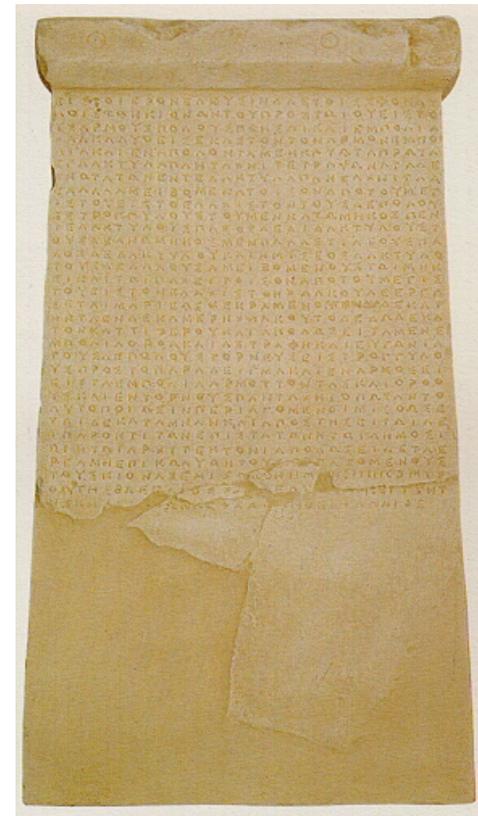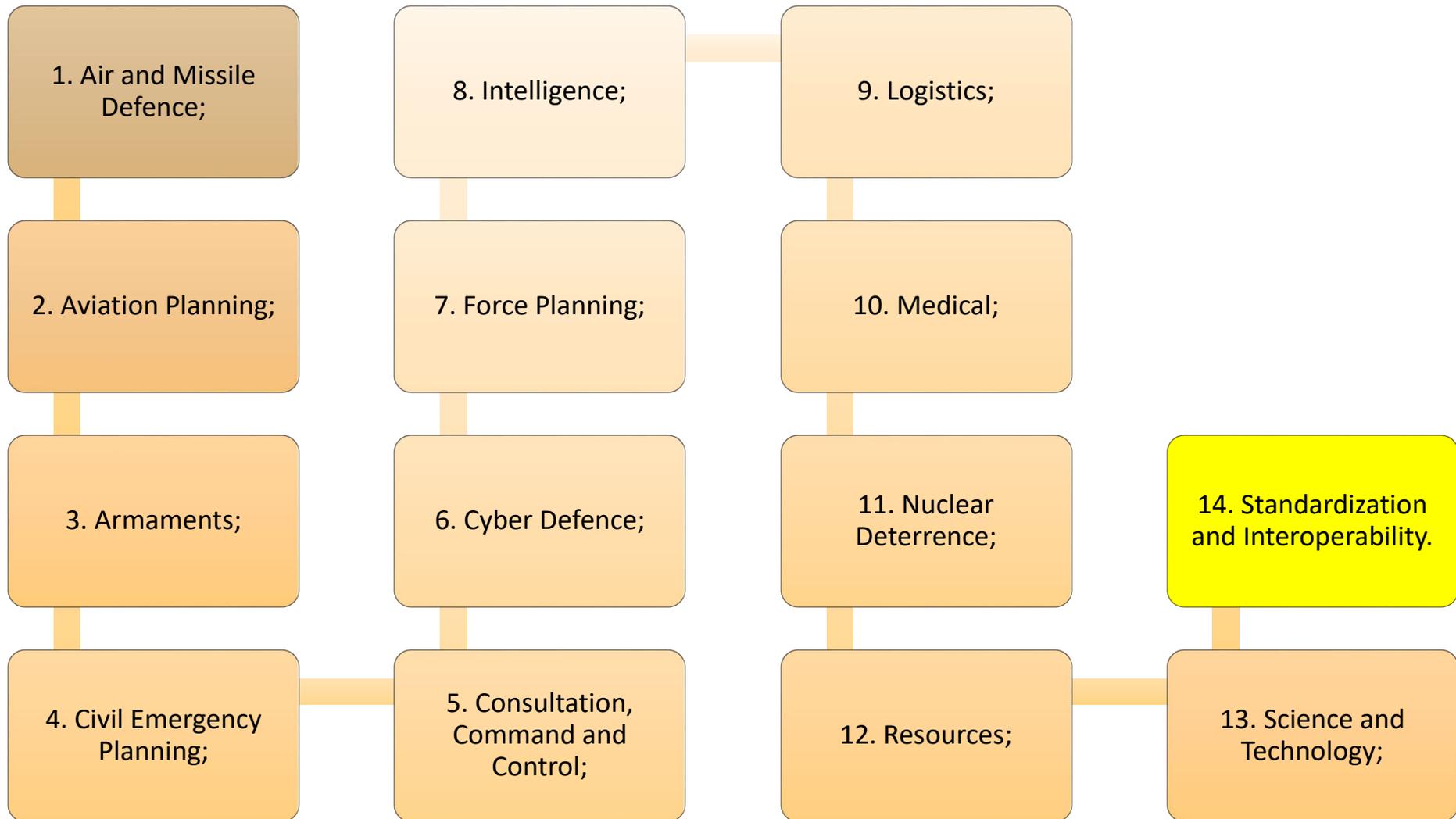
14. Standardization and Interoperability.

Aim: The policy steers Alliance standardization activities to support developing, maintaining and enhancing interoperable capabilities for missions and operations **in support of Alliance core tasks**

Agreed by the NAC in May 2016

(1) PO(2016)0315

ENSURING A MISSION READY ALLIANCE

Collective Defence

Crisis Management   **Cooperative Security**

RAP

Smart Defence
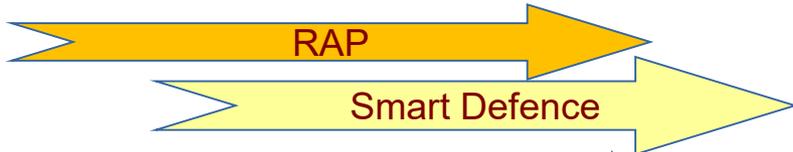
NATO Defence Planning Process   NATO Forces 2020   **NATO Military Transformation**   NATO Forces 2030
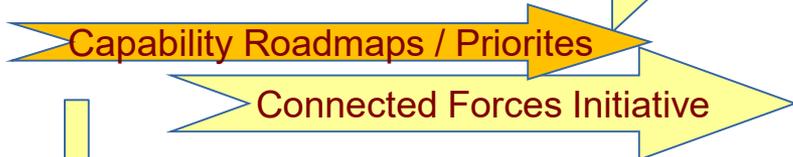
Capability Roadmaps / Priorites

Connected Forces Initiative

Assess the Future → Identify Future Requirements → Inform and Integrate
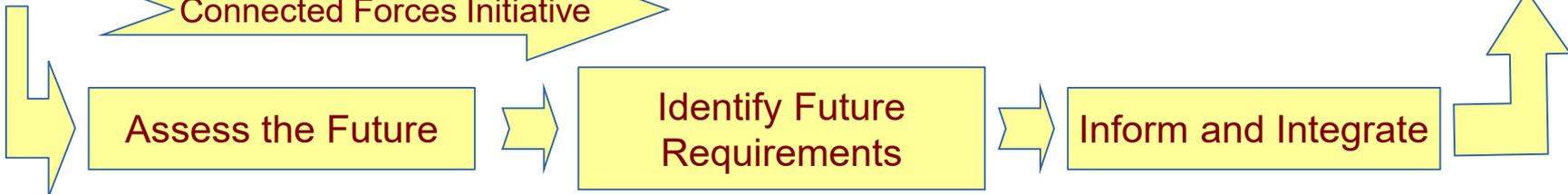
Keeping the Alliance ready through continuous trasformation and adaptation

POLICY GUIDING PRINCIPLES

OVERARCHING AND SYSTEMIC APPROACH

Top-Down Solutions to IRs (NDPP, OPP, other initiatives)

4 phases:

- **definition of requirements**,
- **development of solutions**,
- their **implementation** and
- **validation**

Bottom-Up Solutions to IRs (LL Exercise, Evaluation)

Feedback on fulfilling the IRs

Traceability between interoperability requirements and standardization documents

TIMELINESS OF STANDARDIZATION

Standardization solutions to interoperability requirements shall be implemented at the earliest practicable time

Allies and NATO Bodies should direct efforts to speed the accomplishment of standardization objectives that directly enhance the interoperability of identified capabilities

Developing and implementing standards before crises emerge is essential to rapid response and reinforcement of Allies

To meet urgent requirements, standardization documents shall be developed and implemented using an accelerated procedure

Implementation of standards is essential to adaptation and transformation of the Alliance

A complete picture and periodic qualitative and quantitative assessments of implementation, including by Partners, are required	Implementation of standards **is the indispensable national contribution to NATO standardization**	**Implementation of standards by individual Allies is a relevant and useful output metric offering a qualitative indication of the development of the interoperable capabilities needed to bolster Alliance readiness and responsiveness**	NATO shall promote transparent national implementation of standards **with the understanding that standardization is, in principle, voluntary for Nations and that implementation is a national decision** with importance for NATO's ability to fulfill its missions

Military Systems

Interoperability can cost as much as **40%** of the acquisition and maintenance budget

TRANSPARENCY

Standardization activity shall be transparent through reports and the widest participation of all stakeholders and subject matter experts both internal and external to NATO

NATO shall involve Partners and promote cooperation with civil standards developing organizations (SDO's) and other interested parties

Interoperability with Partners must be supported to the maximum extent possible, including through the release of appropriate documents and NATO standards

The security classification of classified NATO standardization documents shall be kept at the lowest level possible in order to allow for distribution to the widest possible audience

USE OF CIVIL STANDARDS

NATO shall adopt and refer to suitable non-NATO standards (civil standards and national defence standards) in lieu of developing NATO standardization documents to the maximum extent

- **NATO shall only develop a standard where no suitable non-NATO standard exists**
- **Using civil standards is preferred to using national defence standards**

Non-NATO standards shall be selected for NATO's use based on their utility for the NATO standardization requirement, broad acceptance, accessibility and technical excellence.

- **NATO will fully exploit mature national defence standards**

CONSISTENCY AND COHERENCE

Standardization is a shared responsibility among all stakeholders involved in NATO standardization processes

A consistent and coherent approach to standardization shall be applied between stakeholders using NATO processes and standardization management tools under the cognizance of NATO Standardization Office (NSO)

ROLES AND RESPONSIBILITIES

Make standardization proposals

Provide subject matter experts (SMEs) to develop NATO standardization documents

Allies

(NATO Nations)

Ratify STANAGs within the agreed timelines

Implement standards in accordance with their ratification responses and agreed capability targets, in the most expeditious manner in response to Alliance needs.

The training of national forces to NATO standards to meet the full range of Alliance missions remains a priority for, and responsibility of, individual Allies

ROLES AND RESPONSIBILITIES

Encouraged to send SMEs to those activities and may make standardization proposals

Invited and encouraged to adopt and implement standards when appropriate

NATO Partners

Fully transparent adoption of NATO standards, and training of national forces to those standards, is of particular importance for capabilities to be integrated in NATO training and exercise events, NATO partnership programmes and NATO led-operations

Allies and Partners are encouraged to incorporate this policy into relevant national policy and guidance to the maximum extent

What is required by Nations – The GRC Approach

Level of Ambition

- **Willingness to adopt changes** and harmonize policies and strategies
- **Defence, Security,** Development, **Industrial** and Commercial **Strategies "in place"**
- **Resources**
- **Commitment to NATO vision and objectives**
  - **Harmonization** of defence planning priorities
  - **Synchronization** between NATO and National capabilities development process
- **National Standardization Policy and Strategy**

Level of Ambition

- Adoption of the best practice model in standardization governance
- Communication and Awareness Plans
- National Education and Training Programmes
- National Standardization Management tools in place
- NATO Standards Implementation Tracking Mechanisms in place
- Conformity Assessment Mechanisms in place
- Mutually recognized certification of products within Defence and Security Sectors
- Collaboration with National SDO

**STANAG 4193
IFF MOD 5**

National Interoperability by "design" or "Born Interoperable" mechanism

CRR 2017:
IFF MOD 5 Major
Capability
Requirement

Introduction of Interoperability and Standardization Requirements as an integral part of the Defence Planning

**Capability Development Interoperability Requirements
Defence Procurement Standardization Solutions**

EUROPEAN STANDARD   **EN 16341**

NORME EUROPÉENNE
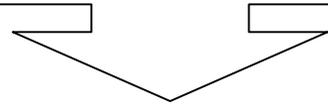
EUROPÄISCHE NORM   March 2012

ICS 95.020

If, for the specification of the capability of a defence product or a service, standards or standard-like documents of different domains or origin are available and deemed suitable by the Purchasing Authority, they shall be selected and used in the following order of preference:

a) Standards and other standard-like documents, which are referenced in laws, ordinances and statutory provisions;

b) International Military Alliances Standards (e.g. NATO Allied Publications and associated Standardization Agreements (STANAG));

   NOTE For NATO nations this applies if the standards are ratified (without reservations) with the intention of implementation for e.g. achieving the required interoperability between forces.

c) National civil standards, transposing European standards (e.g. BS EN, NF EN, DIN EN,…);

BEST PRACTICE STANDARDS

Assess standardization requirements throughout the capability life cycle

Military Equipment

Fuels, Modernization　　**Parts,**　　**Maintenance,**
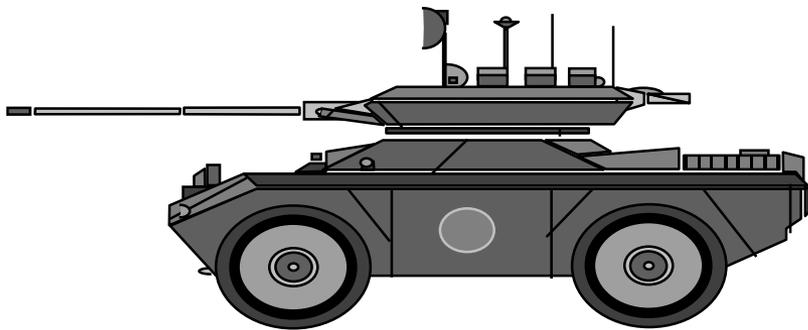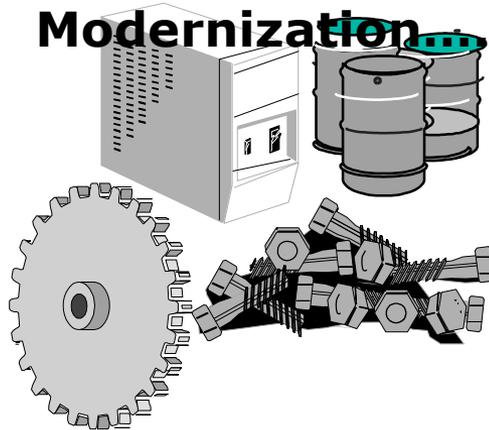
Procurement Cost
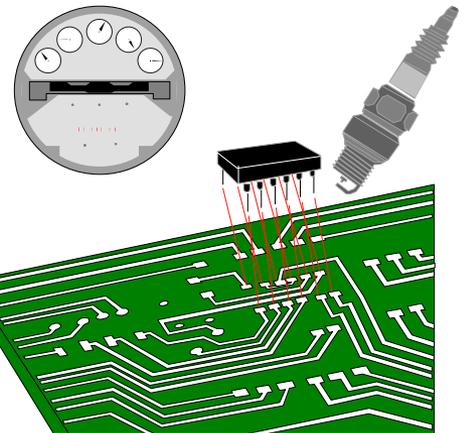
Follow on Suport (FOS)

1/3　　*2/3*

Life Cycle Cost

**DOTMLPF-I Or D(s)O(s)T(s)M(s)L(s)P(s)F(s)**
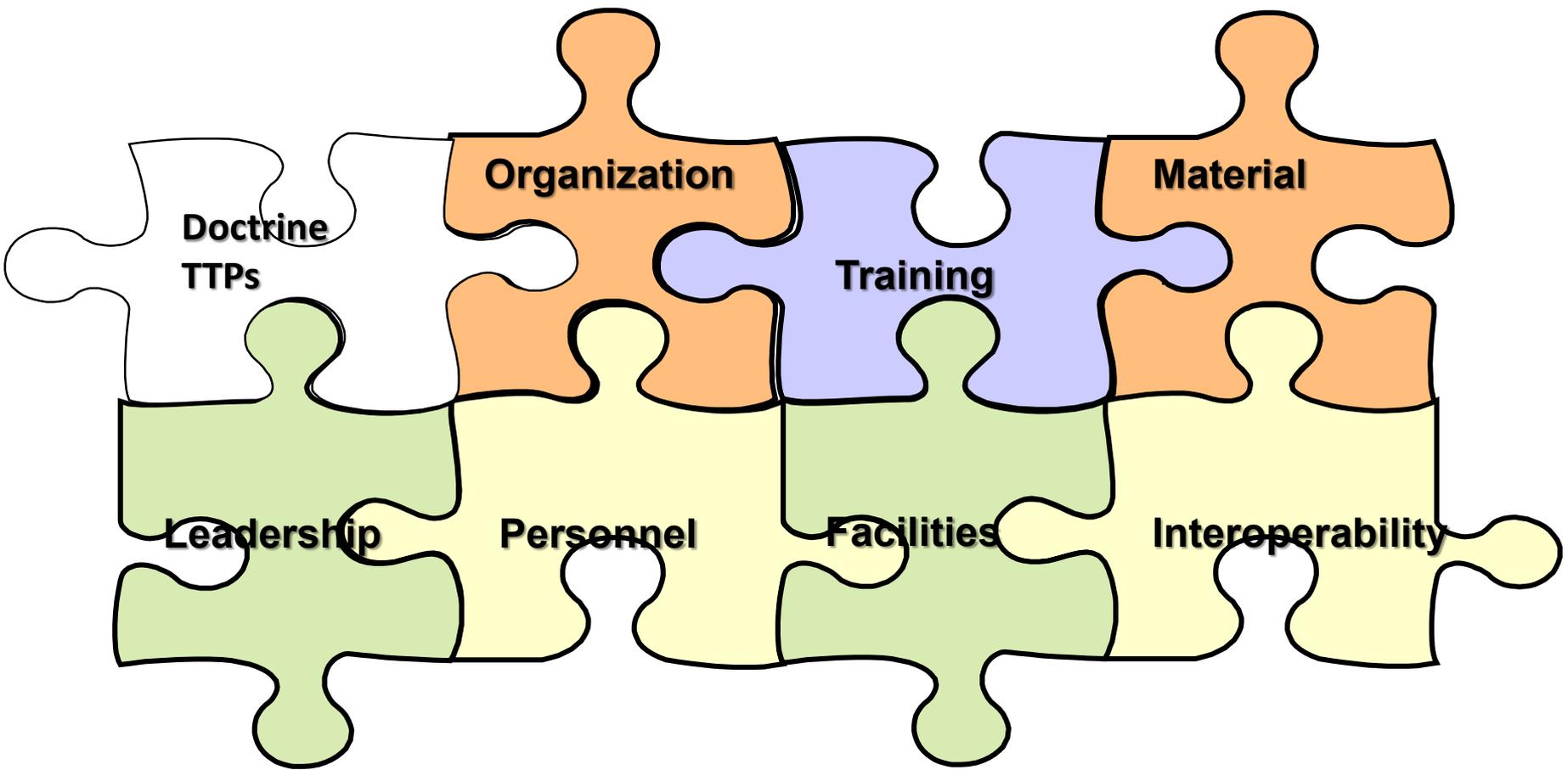
Assess Impact of Operational Standards to Materiel ones and vice versa

National ETEE – SAVE Mechanisms in place
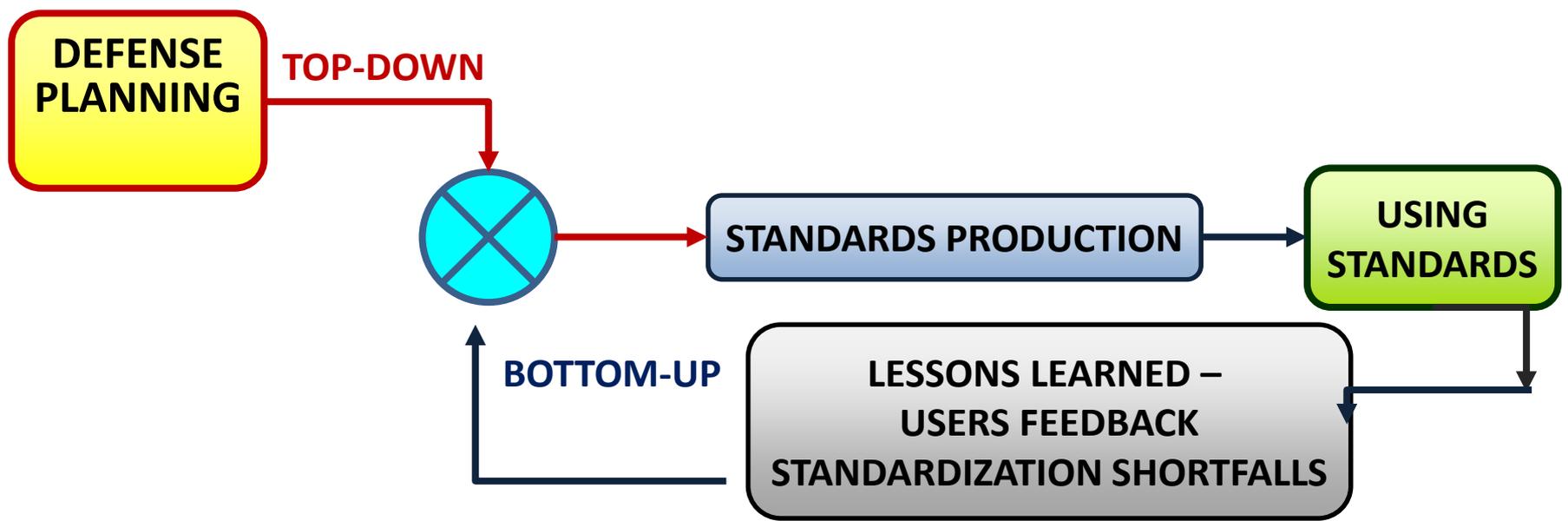
Common approach with Quality Pillars
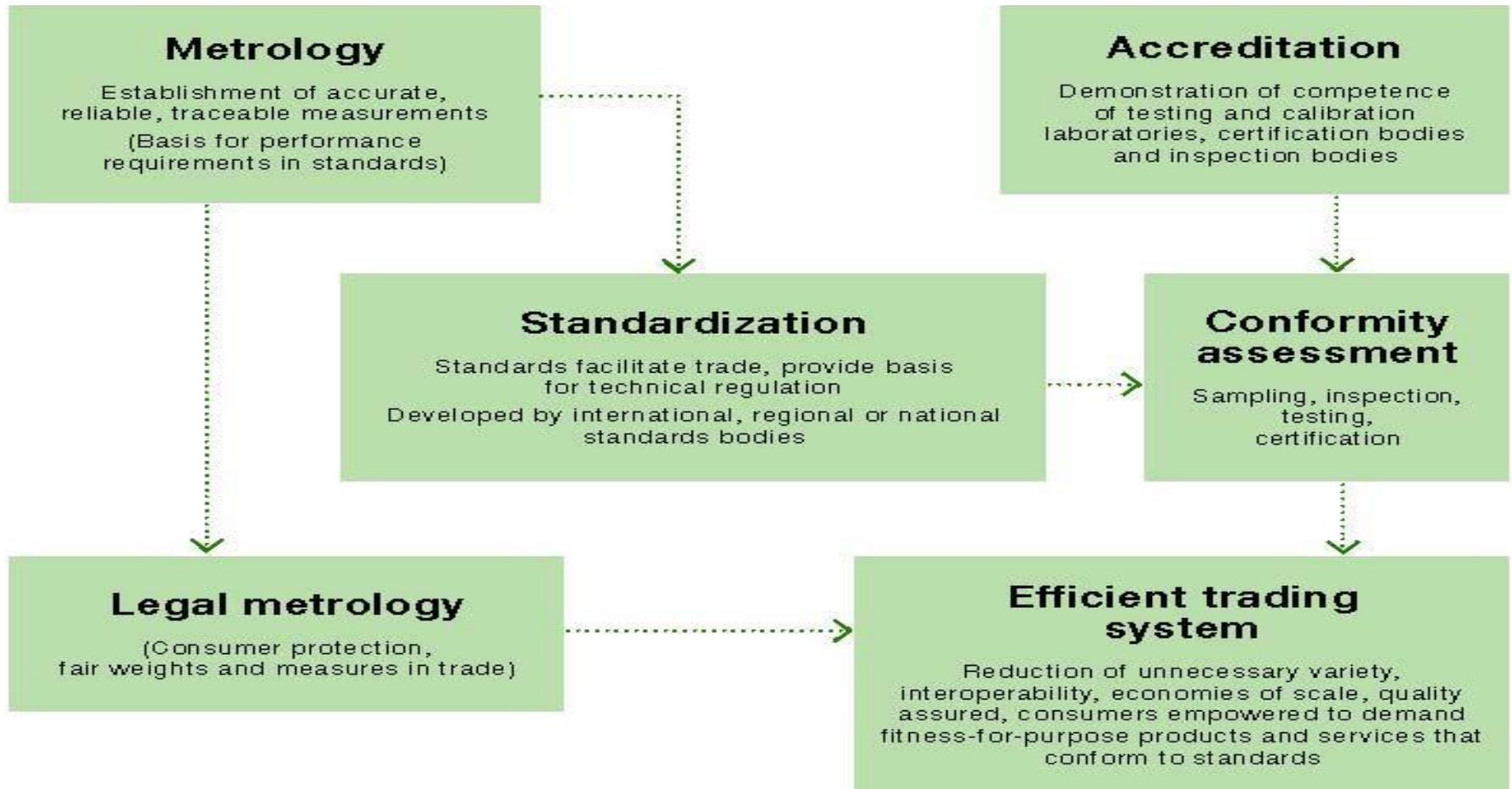
Promising National Triangle

Defence Standards
Civil Standards
Dual Use Standards

Civil Standards
Training

Academia

National SDO, Quality Organizations

National Industry, SMEs, Market
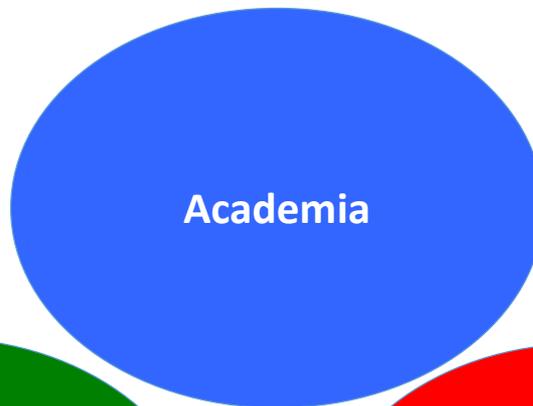
POLICY IMPLEMENTATION THE GRC APPROACH

Education-Training

Information Awareness

- Quality is not an act, it is a habit
- Build Culture / Mind - Set

"Extroversion" Culture

- Think out of the box, beyond "the walls"
- Communicate - promote

Determination

- We shall either find a way or make one

"Business" Philosophy

- Be competitive as in the business world
- Seek for quick wins and clusters

CONCLUSIONS

ARMED FORCES

NATIONAL INDUSTRY

EUROPEAN DOMAIN

MINISTRIES PUBLIC SECTOR – SERVICES

NATIONAL QUALITY ORGANIZATIONS

INTERNATIONAL INDUSTRY

SECURITY FORCES

QUIZ AWARD

Drafting, Production and Maintenance of NATO Standards Course - NMIOTC USB with Course Material

2019 Course Schedule: 4th Iteration June 24-28
5th Iteration Sep 30 - Oct 4

QUIZ

The NATO Standardization policy steers Alliance standardization activities to support developing, maintaining and enhancing interoperable capabilities for missions and operations in support of Alliance core tasks. **The NATO core tasks defined at the NATO Strategic Concept are:**

Option A: Collective Defence, Readiness, Resilience

Option B: Cooperative Security, Strategic Adaptation, Transformation

Option C: Collective Defence, Crisis Management, Cooperative Security

Option D: Collective Defence, Crisis Management, Strategic Adaptation

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The NATO Policy for Standardization focuses on 7 key principles. Select three that apply from the following list:

Option A: Commitment to Implementation

Option B: Use of Military Standards

Option C: Stovepipe Approach

Option D: Transparency

Option E: Timeliness of Standardization

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Option B: Use of Military Standards

Option C: Stovepipe Approach

Option D: Transparency

Option E: Timeliness of Standardization

The NATO Standardization Principle Overarching and Systemic Approach refers to:

Option A: Top – Down Standardization Approach (Defence Planning, Operational Planning, Other Initiatives)

Option B: Bottom - Up Standardization Approach (Standards Assessment and Validation in Exercises, Evaluations, Trials etc)

Option C: Both Top-Down and Bottom-Up Standardization Approaches

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Select the correct two policy statements regarding the principle Commitment to Implementation. Implementation of NATO Standards is:

Option A: Useful for achieving interoperability

Option B: Essential to adaptation and transformation of the Alliance

Option C: National Decision with importance for NATO's ability to fulfill its missions

Select the correct two policy statements regarding the principle Commitment to Implementation. **Implementation of NATO Standards is:**

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Option C: National Decision with importance for NATO's ability to fulfill its missions

According to the NATO Policy for Standardization, the order of preference for developing and using standards in NATO is:

Option A: First develop NATO Standards, then use/adopt National Defence Standards, last solution use/adopt suitable Civil Standards

Option B: First use/adopt National Defence Standards, then use/adopt suitable Civil Standards, last solution develop NATO Standards

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According to the NATO Policy for Standardization, the security classification of classified NATO standardization documents:

Option A: Shall be kept at the lowest level possible in order to allow for distribution to the widest possible audience

Option B: Shall be defined on a need to know basis

Option C: Both A and B

Option C: None of the above

QUIZ

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Born Interoperable means:

Option A: Integration of Interoperability requirements and standardization solutions at the Lessons Learned Process

Option B: Integration of Interoperability requirements and standardization solutions at the very early stages of the capability development process (OPP-DPP)

Option C: Both A and B

Option D: None of the above

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Option D: None of the above

We are celebrating the World Standards Day:

Option A: On 21 September

Option B: On 21 November

Option C: On 14 October

QUIZ – EXTRA TIME

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