

Greek Infoday on Security and Space
for "Horizon 2020"

Dual technologies in Security

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Outlines

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Main Source : ECORYS – Study on Civil Military synergies – Rotterdam 2012

Background

- The key security threats to Europe have changed dramatically over the last two decades
- Traditionally, security risks were divided into external risks, i.e. originating outside the territory of the state, and internal or domestic risks.
- The former were the domain of military, the latter of civil (non-military) security forces

Background

- European Security Strategy emphasizes that **“none of the new threats is purely military nor can any of such threats be tackled by purely military means alone”**
- Dividing lines between defence and security are becoming much less clear cut than before
- The new security threats often requires close cooperation between defence and security forces

Background

- 'Security' stands high on the political and societal agenda,
- Until recently the security sector has not received much attention from the competitiveness and industrial policy perspective.
- The EU security industrial base is quite weak and the internal security market is highly fragmented with widely different national regulatory frameworks

Background

- Enhance cooperation between the civil security and military industries
- Expected reductions in public expenditure in most EU countries.
- Pressure on defence budgets
- Advantages and disadvantages of the greater use of COTS

Sectors of EU security industry

- aviation security;
- maritime security;
- border security;
- critical infrastructure protection;
- counter-terror intelligence (including cyber security and communication);
- crisis management/civil protection;
- physical security protection; and
- protective clothing.

Civil security and defence markets

- The demand side is clearly defined: the end-users of military products and services are almost entirely made up by national Ministries of Defence (MoDs).
- The supply side as well. Lead systems integrators, platform producers and producers of weapon systems are mainly large companies, primarily **“national champions”**, specialized on defence production

Civil security and defence markets

- The clear and focused structure on both the demand and the supply side leads to the well regulated and close interaction between the two sides.
- Defence sector is characterized by a long term and integrated approach, often caught under the term **“capability based planning”**.
- **‘Civil’ technology has increased but** defence technological base is still quite clearly defined forming a barrier for new markets entrants

Definition

Dual-use can refer to any technology which can satisfy more than one goal (defense or security related) at any given time. (i.e. GPS)

Lessons learnt

- Lesson 1. Overlapping 'low end' military and 'high end' security missions open many opportunities for military-security synergies (spin-offs).
- Lesson 2: However, the defence and civil security markets differ significantly and the differences pose significant barriers for (potential) spin-offs
- Lesson 3: There have been rather few products deliberately designed for both markets from the outset (preconceived spin-offs)
- Lesson 4: Spin-off from military to civil security markets is more prevalent than the other way around
- Lesson 5: Government regulation is often one of the main barriers for realizing spin-off potential

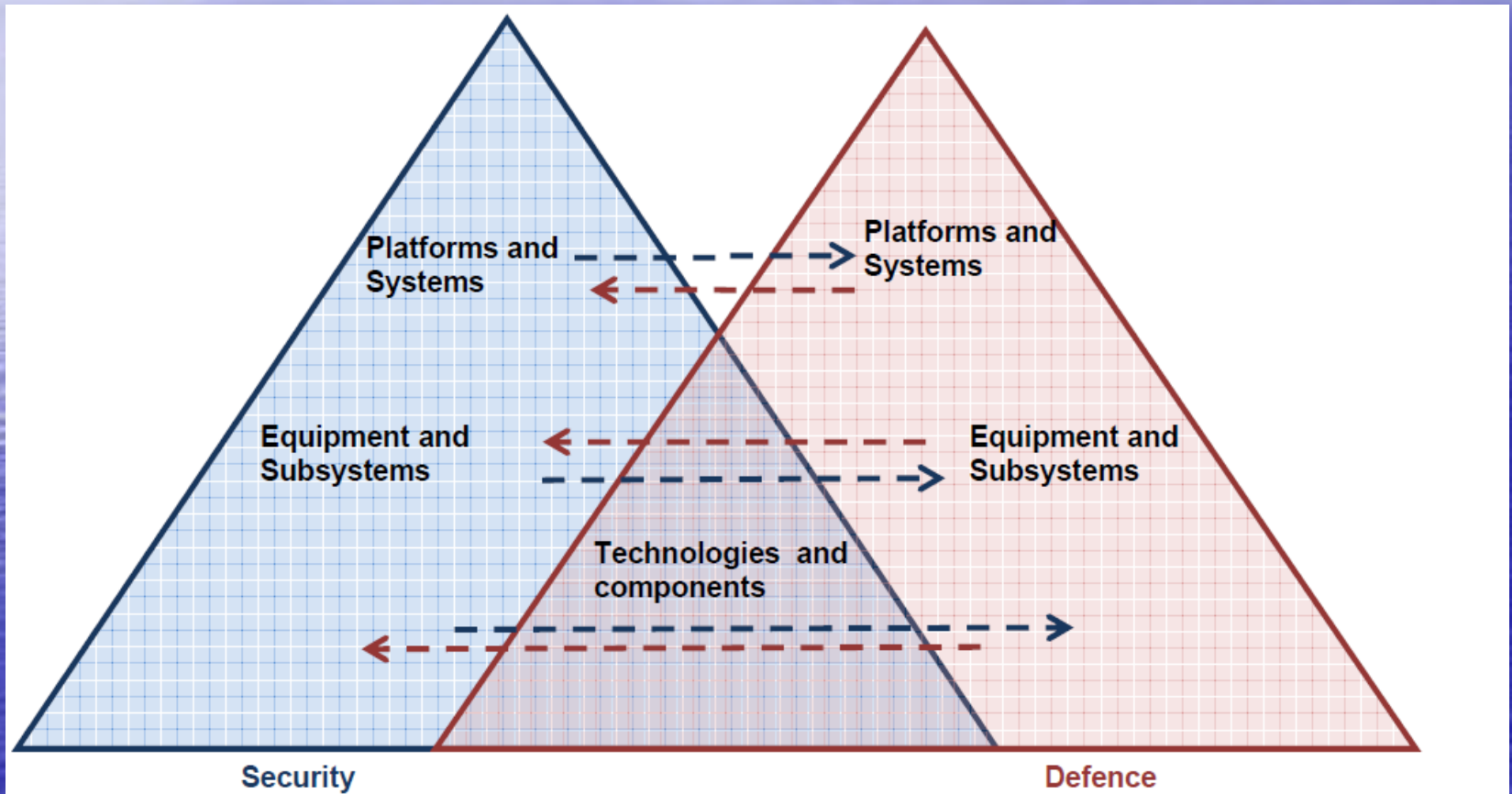
Government regulation

- Health, safety and privacy regulation
- Trade protectionist measures
- Export control regulation
- Sensitivity and secrecy of defence and security technologies

Technologies

- Integrated platforms and systems;
- Equipment and sub-systems;
- Technologies and components

Conceptual Framework Increasing the common space



Source : ECORYS – Study on Civil Military synergies – Rotterdam 2012

Case study (IRIS [physical protection/C3])

TV and infrared technology



Ports protection



Military use -Gatekeeper

Case study (UAVs)

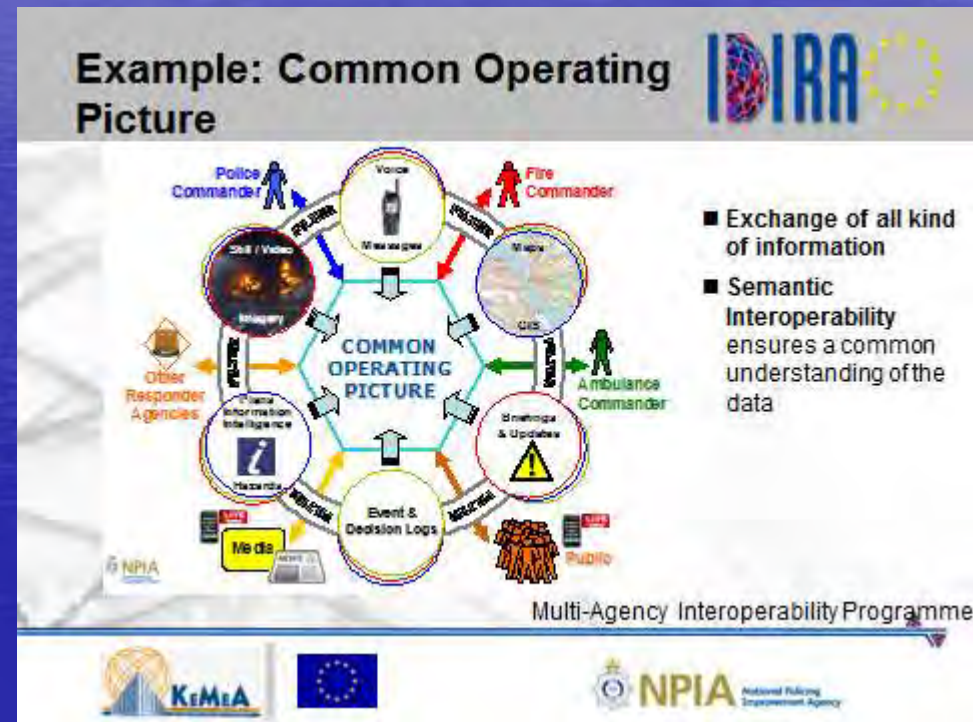
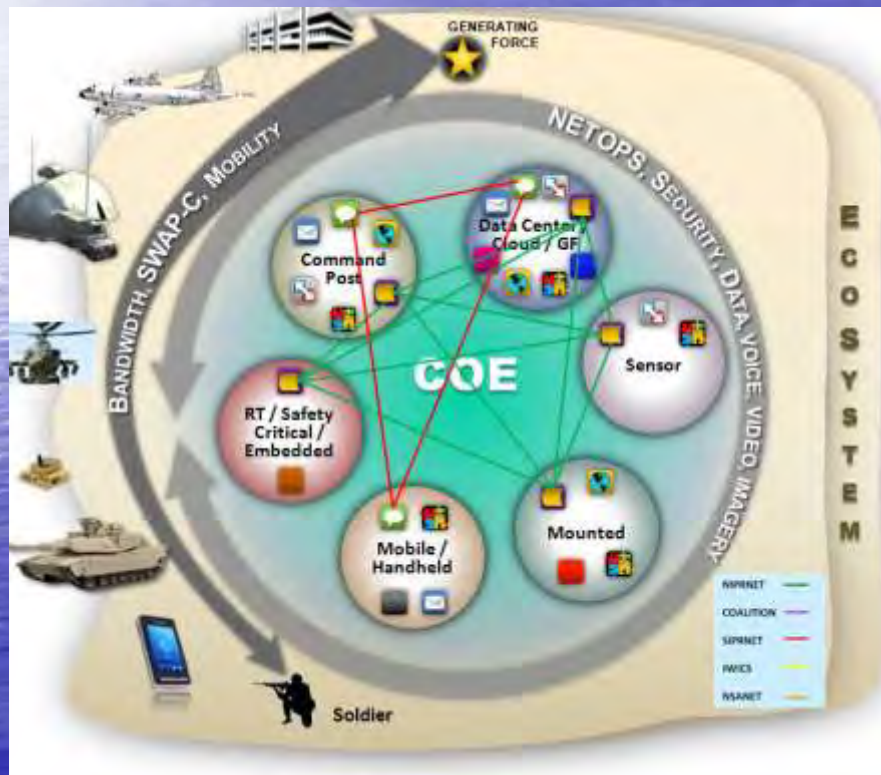


TANAN military UAV



DARIUS project

Case (Common Operating environment)



Criteria for most valuable information

- Similar operational needs/requirements in both civil security and defence sectors;
- Technology level (the highest potential is at the level of technologies and components, the lowest – at the level of platforms and systems);
- Market attractiveness (market size and growth rate);
- Existing joint R&D.

Most promising technologies

- “Cyber security and protection”, and
- “Sensor systems” (and in particular biometrics)

Communication on the Security Industrial Policy – COM(2012)417

Action Plan for an innovative and competitive
Security Industry

Objectives:

- 1) Overcoming the **fragmentation** of the EU security market
- 2) Reducing the gap **from research to market**
- 3) Better integration of the **societal dimension**

Policy issues

- Promote **best practices with respect to a 'capability based approach'** for civil security amongst the MSs, building upon various national initiatives already under way.
- Promote the establishment and implementation of shared defence-security technology and capability road maps.
- Promote best practices and technical / organisational interoperability standards as a solid basis for and element of the process of establishing shared defence-security technology and capability road maps.

Policy issues

- Use **'Article 185' established as** an instrument to bring together interested MSs for joint R&D efforts as part of shared defence-security technology and capability road maps.
- Consider establishing a high level stake holder group as a way to create more favorable conditions for and **stakeholder 'buying-in'** of implementing the other recommendations.
- Explore the possibility of shared defence-security technology and capability road maps for mission areas for which the EU has political and operational responsibilities, such as FRONTEX, EMSA.



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**Thank you
for your attention**