



AUTOMOTIVE



INFOCOM



**TRANSPORT &
ENVIRONMENT**



AERONAUTICS



SPACE



**DEFENSE &
SECURITY**

Increasing Security through Research Funding and Innovative Procurement

Presentation on Panel VI: European Security Research
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IABG is a leading European technology company with core competence in Simulation and Testing (Safety & Security)

Automotive



Mechatrical test systems

InfoCom



Safe and secure communication and information systems

Transport & Environment



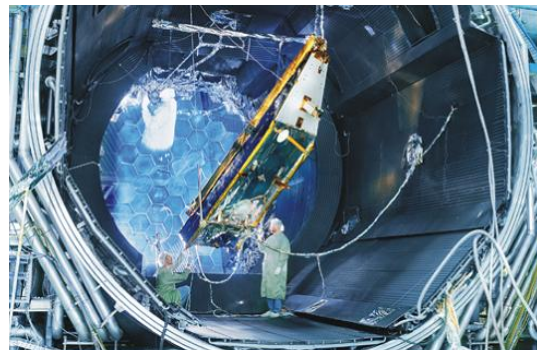
Operation of the MAGLEV test facility in Northern Germany (Emsland)

Aeronautics



Structural airframe testing (e.g. A380)

Space



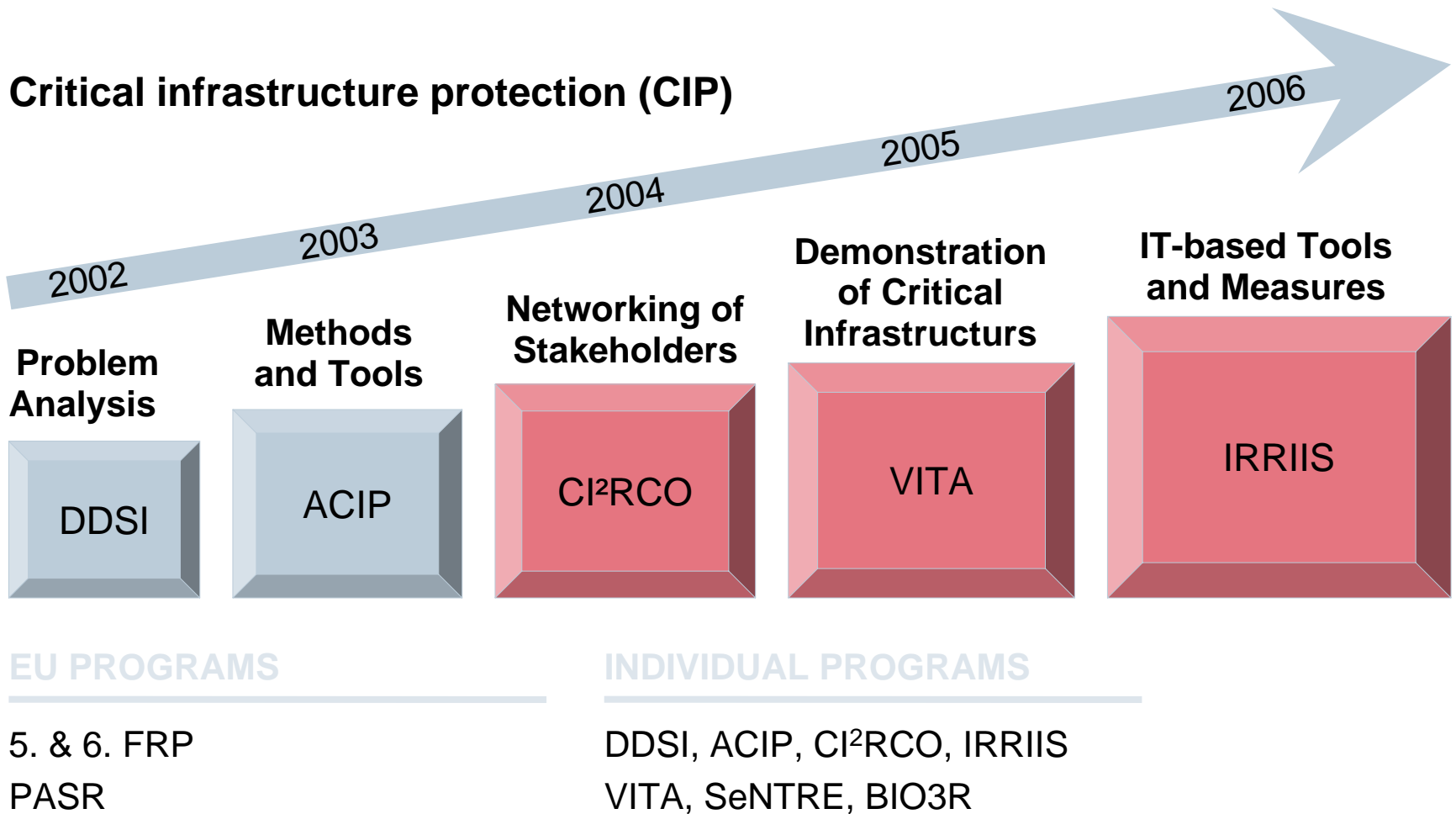
Operation of ESA-coordinated space test centers

Defence & Security



Development and operation of simulation and test systems

Selected EU-research-programs on further development of know-how and tools



EU research activities have to be complemented by public sector procurement of innovative security solutions

Main European CIP Activities

- **FP7 (€53 bn 2007 – 2013)**
 - Security & Space: € 1,4 bn
 - ICT: € 9,1 bn
 - 50-100% funding
 - IPR with Consortia
 - proposal success 1:10
- **EPCIP (DG JLS)**
 - EU-directive for CIP
 - 50% - 100%
 - IPR with Consortia or EU depending on funding rate



Key Issues for IABG

- **low participation of German organisations (FP7)**
 - target 20%, status 10%
 - **gap 10% !!!**
- **low participation of industry**
 - focus on research facilities and universities
 - low attractiveness for SME:
 - red tape, transparency, cost
 - high market risk leads to funding of existing FuE
- **lack of a German market for innovative civil security solutions and no sizeable lead customers**

The Paradigm Change in International and Homeland Security...

	Old Paradigm	New Paradigm	Consequences
International Security	Defence of territorial integrity	Peacekeeping and nation-building	Operations in Afghanistan, Lebanon, the Balkans
	Plattform-oriented services (Air, Land, Sea)	Capability- and mission-oriented joint forces	New capabilities needed
	Fire Power, equipment and logistics	Network-centric warfare with knowledge superiority	Networked joint forces (high bandwidth needs)
Homeland Security	Known domestic threats by criminals and mostly domestic terrorism	Asymmetric threats by international terrorists, unknown actors	Improved intelligence, prevention + preparation
	Subsidiarity within federal and regional structures	Common relevant operational picture, crisis reaction, interoperability	Fewer networked decision makers, federal involvement
	Governments as providers of security	Security as a task for governments, the private sector and all citizens	Critical infrastructure protection by state and industry
	Division of Labor	Interoperability	Transformation

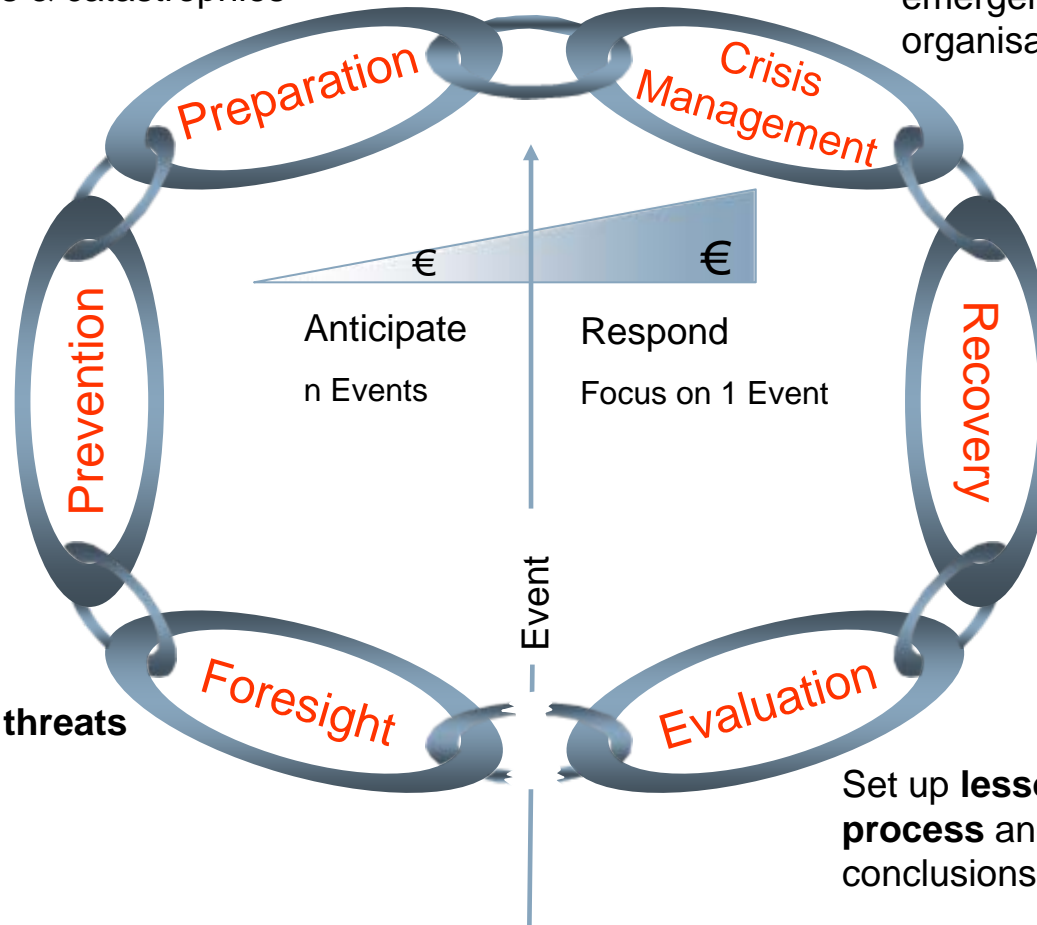
...requires us to rethink and innovate the Security Chain

Train crisis managers and **prepare** for attacks, disruptions & catastrophies

Identify attackers, causes and means and **combat** them.
Support and **supply** emergency & security organisations

Minimize risks and prevent damages

Analysis of potential threats and vulnerabilities

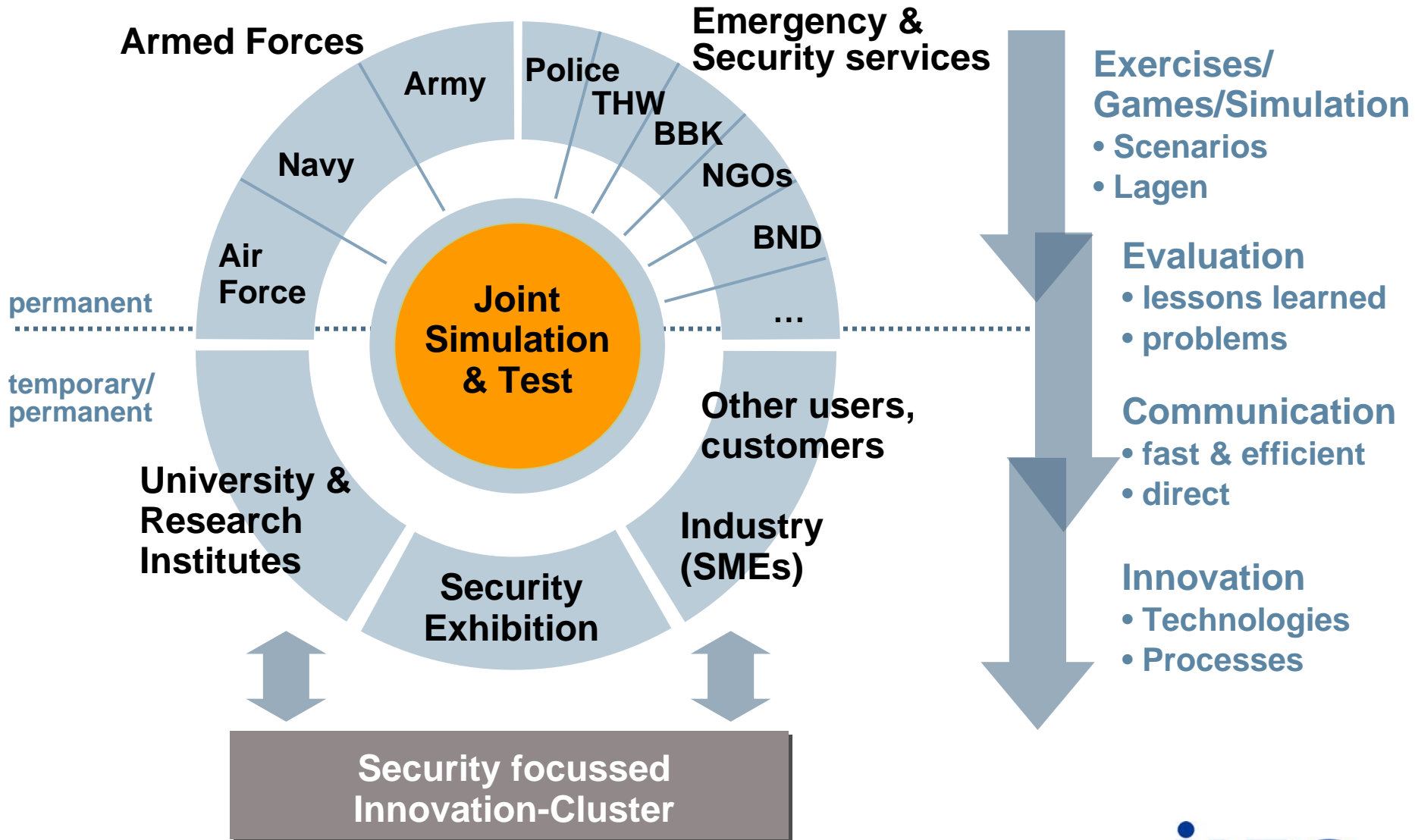


„Back to Normal“, Contain and clean up damages and contaminations, organize reconstruction

Set up **lessons-learned process** and implement conclusions

Source: IABG with TNO

Joint Simulation & Test is the key enabler for Transformation of the European Security Architecture



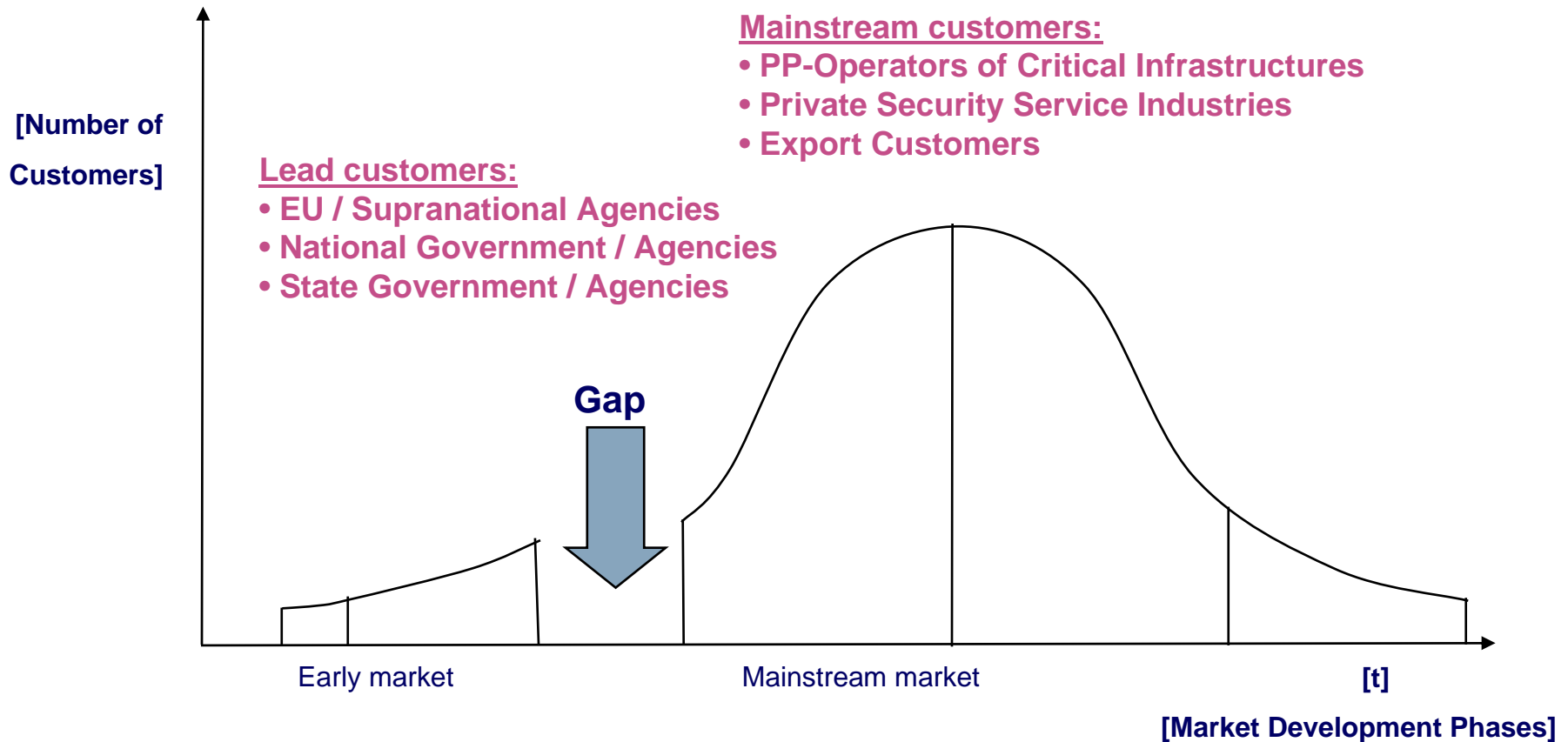
Threatened Critical Infrastructures require innovative security solutions across many sectors

Critical Infrastructures	Attacks		Damage Categories											
	Probability	Possibility	People	Finances	Infrastructur	Material	Production	Market/Products	Environment	Administration	Politics	Society	Knowledge	Ethical Values
1 Telecommunications	low	low					medium		medium					
2 Energy	low	low				medium			medium					
3 Water/Food	medium	medium			medium		medium							
4 Transport/Traffic	low	medium		medium			medium				medium			
5 Financial system	low	low					medium	medium		medium				medium
6 Sensitive industries	medium	medium		medium			medium	medium	medium	medium			medium	
7 Security/armed services	medium	medium			medium					medium				medium
8 Healthcare system	low	low								medium	medium			medium
9 Cultural institutions	medium	low												medium
10 Government	low	medium		medium	medium							medium	medium	medium
11 Media	low	medium									medium		medium	medium
12 Educational system	low	low										medium	medium	medium

high
 medium
 low

Source: IABG

Lead customers are required to bridge the gap between early market innovations and mainstream solutions



Quelle: Moore, G., A., Crossing the Chasm, New York, Harper Business, 1991

Innovative products & services will only be created if the public sector acts as lead customer

Security Research Funding

FP7 Security & Space (EU)
2007 – 2013
€ 1.400 Mio.

National Security Research (D)
2007 – 2010
€ 123 Mio.

supply side driven
innovations

Innovative Procurement / Procurement of Innovations

- public sector = lead customer for innovation & breakthrough achievements
- Harmonized demand on EU, National, State and Community level
- Innovation implemented - a key EU and German political goal

demand side driven
innovations



3 transformational changes must take place

1

In military and civil security **Governments are the main customers.** The rationale „**Innovations funded at home and implemented in export markets**“ fails to meet our society security needs. **We need innovative programmes in our domestic markets.**

2

Public sector procurement rules already allow to buy innovative products & services even if they do not meet the lowest price criteria **We need to buy innovations which are most economical in a sustainable way, e.g. over the product life cycle, or meet prioritized political goals.**

3

Public sector entities should commit to being **innovation driven organisations leading the implementation of innovative products and services. Scale and innovation is best achieved by setting standards and harmonizing today's fragmented demand.**

Your Point of Contact

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