

# Integrated Border Security Aspects: Bulgarian Academic Experience and Development Perspectives



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International Conference “The Eastern Partnership: Assessment of Past Achievements and Future Trends” through the project Eastern Partnership. Civilian Security Need-Assessment and Development Opportunities/Options (PN-II-ID-PCE-2011-3-1014)

**Bucharest, Romania**

# Outline

- ❑ A few words about us ...
- ❑ Generalized Border Security System Model
- ❑ Activities related to GBSS Model Gaps
- ❑ Discussion

**A few words about us ...**

# Joint Training Simulation & Analysis Center



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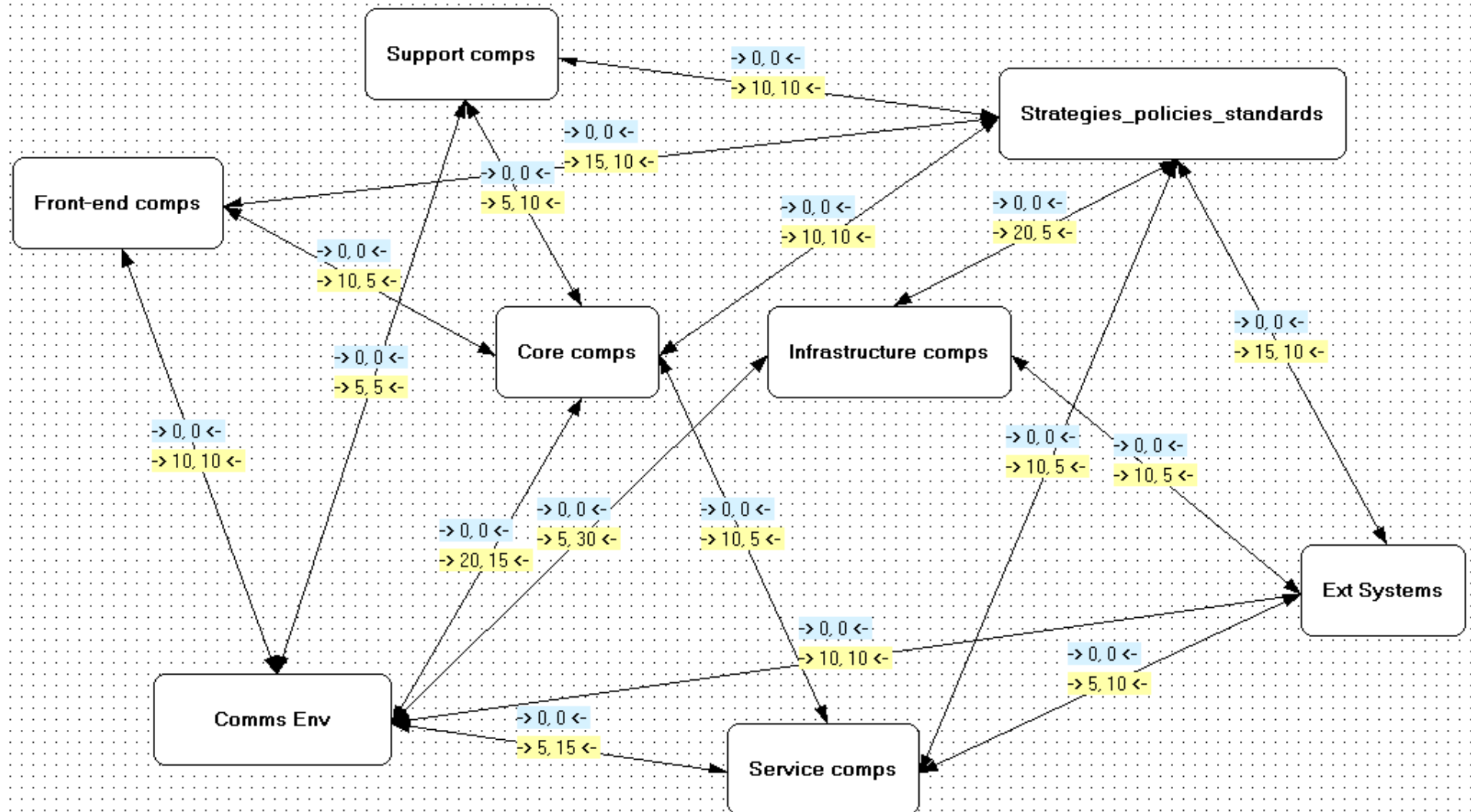
***Partners***



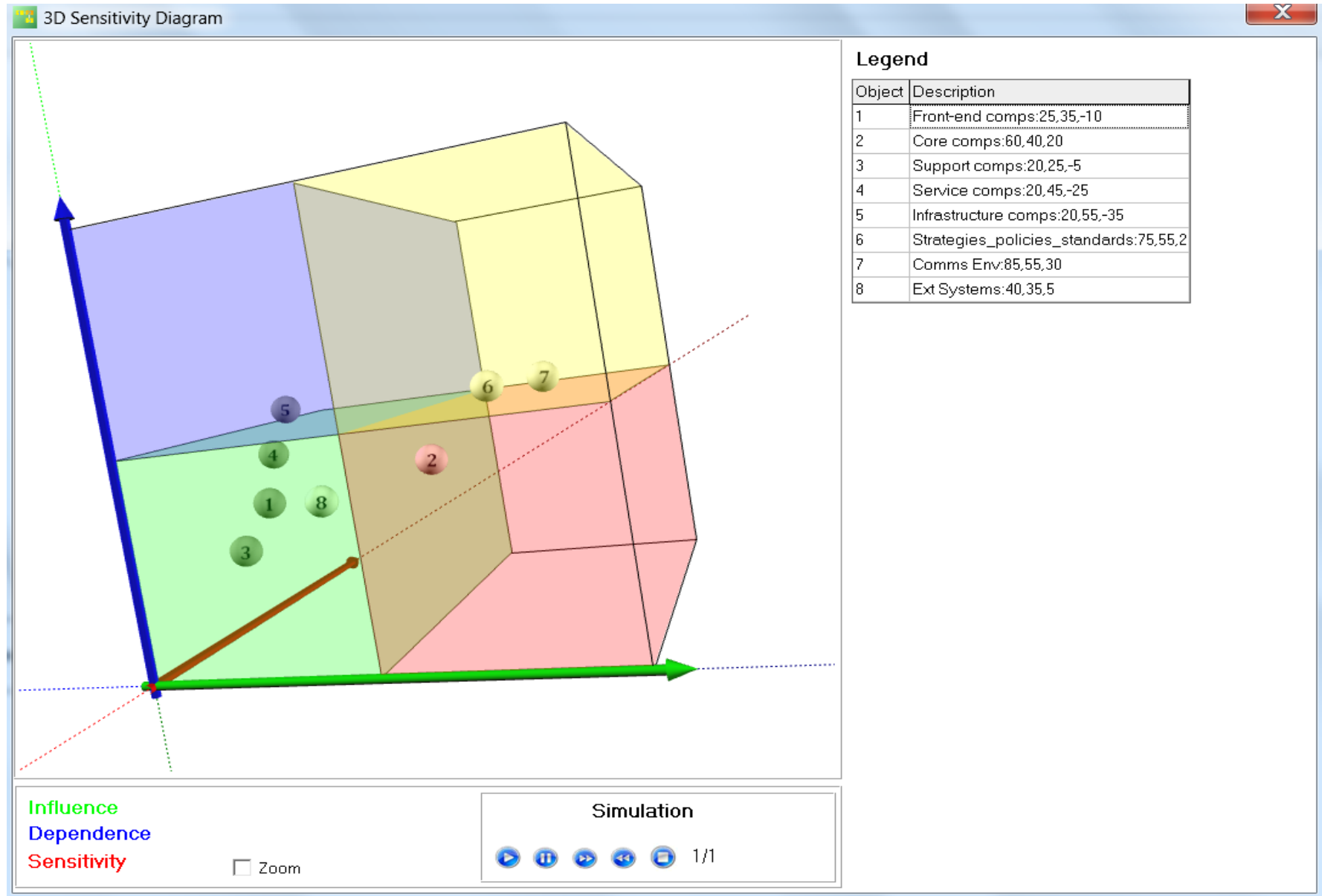
## Capabilities:

- ☐ Scenario Planning, Risk Assessment & Forecasting;
- ☐ M & S for Emergency/Crisis Management;
- ☐ Cyber Security;
- ☐ Human Factor Analysis;
- ☐ Embedded Sensor Systems R&D.

# Generalized Border Security System Model



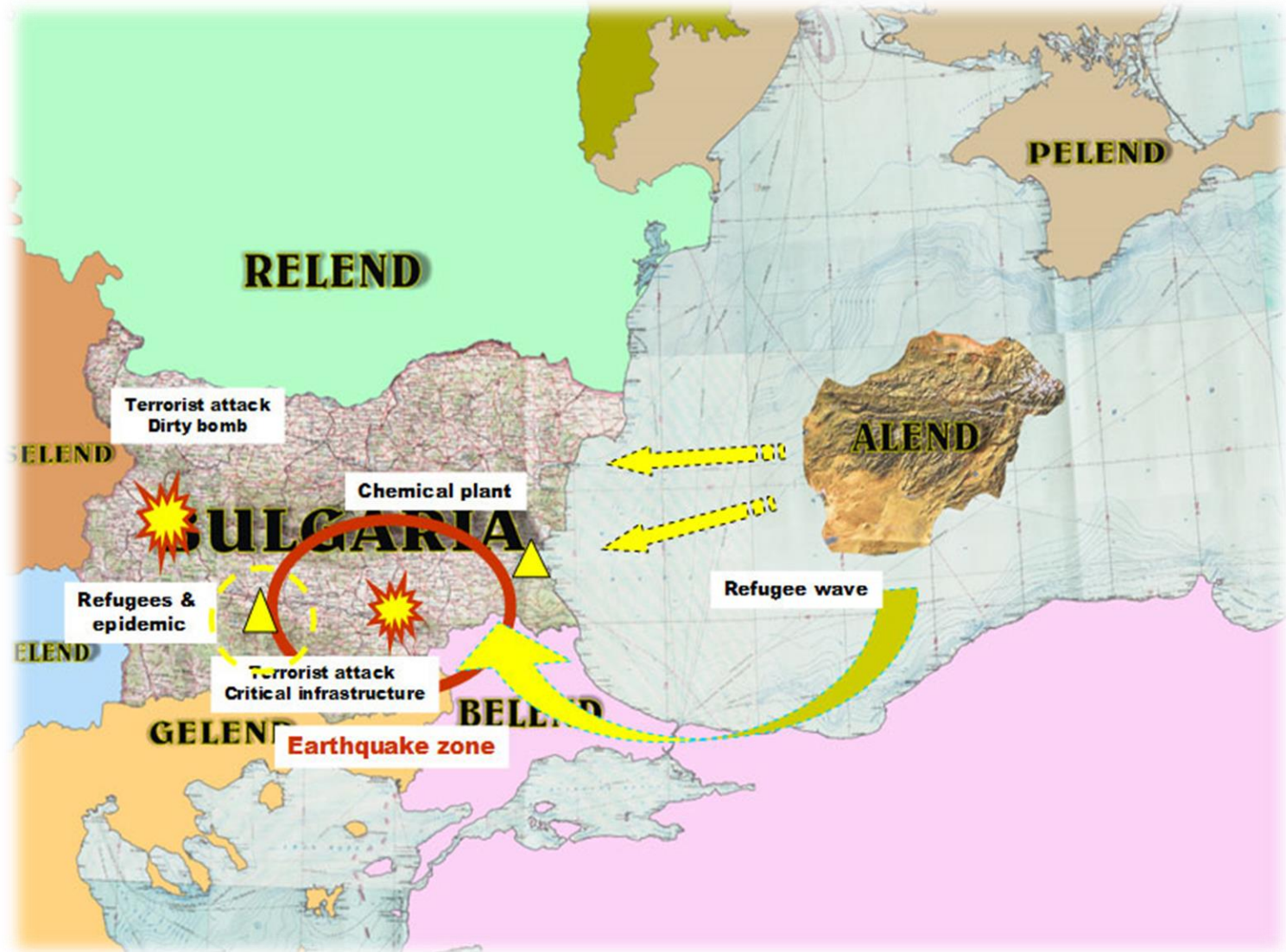
# Resulting Objects' Classification



**Activities related to some of  
GBSS model gaps**



# Phoenix 2010



Multiaspect CIMIC Interaction Test





# SKIPASS

<http://www.civilprotectionskipass.eu/>

Mountain Patrols Safe System for  
Integrated Disaster Management System

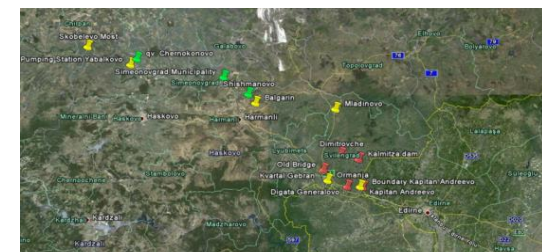
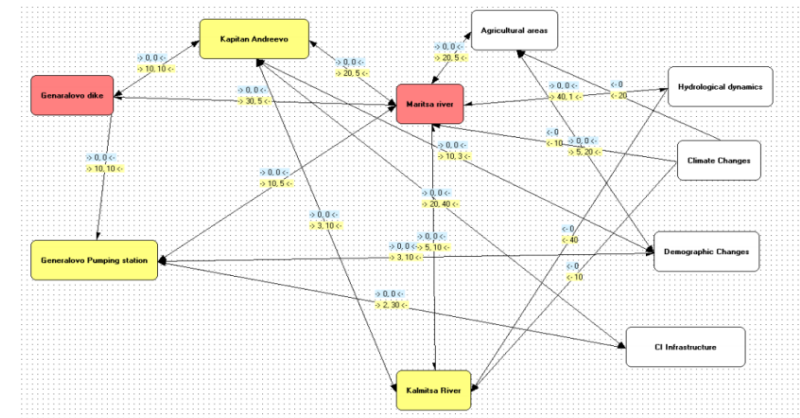
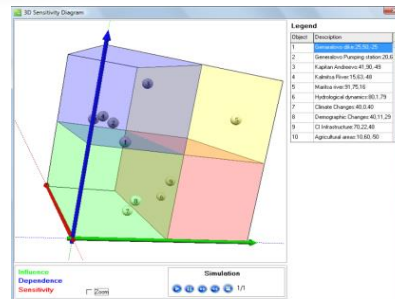
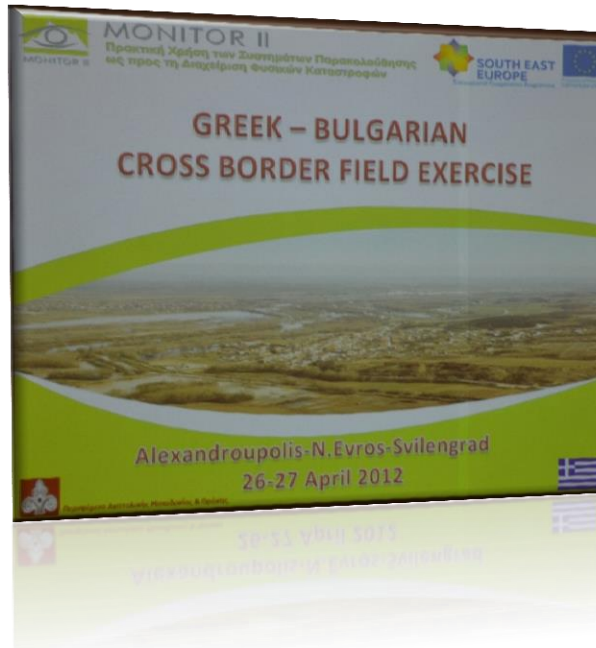


- ☐ Best practices IDMS SWOT Analysis;
- ☐ IDMS Handbook;
- ☐ IDMS real system implementation.



# MONITOR II

<http://www.monitor2.org>

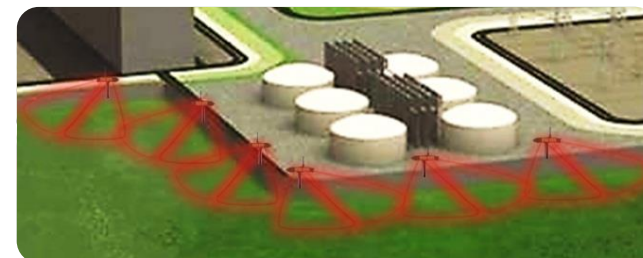
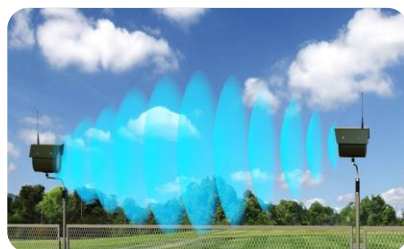
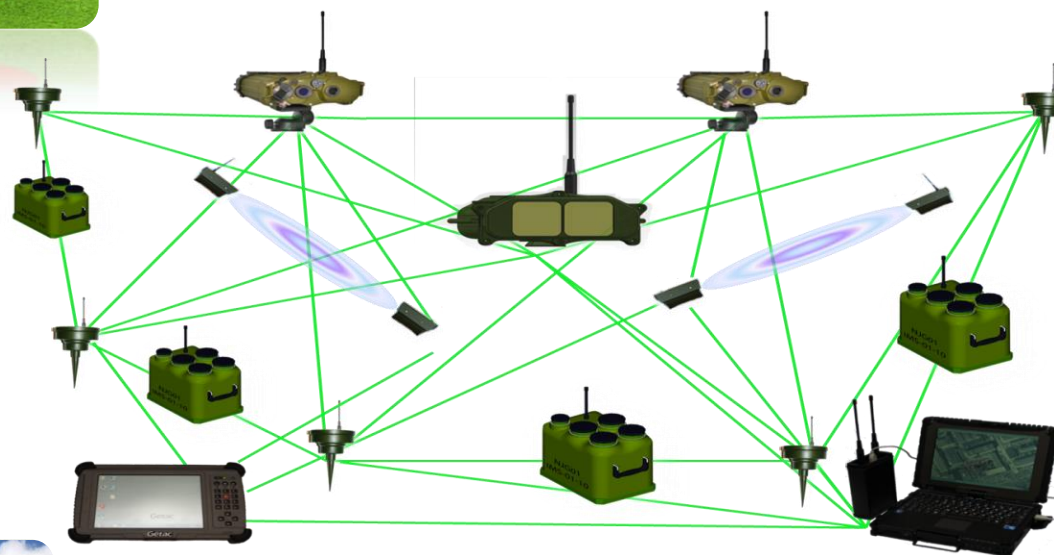
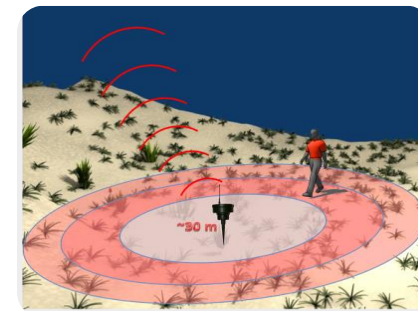
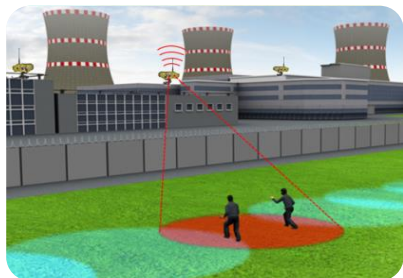


**Participating SEE countries:** Austria, Bulgaria, Greece, Italy, Romania, Slovenia, Serbia





# National Academic Center for Anti-terrorist Advanced Systems



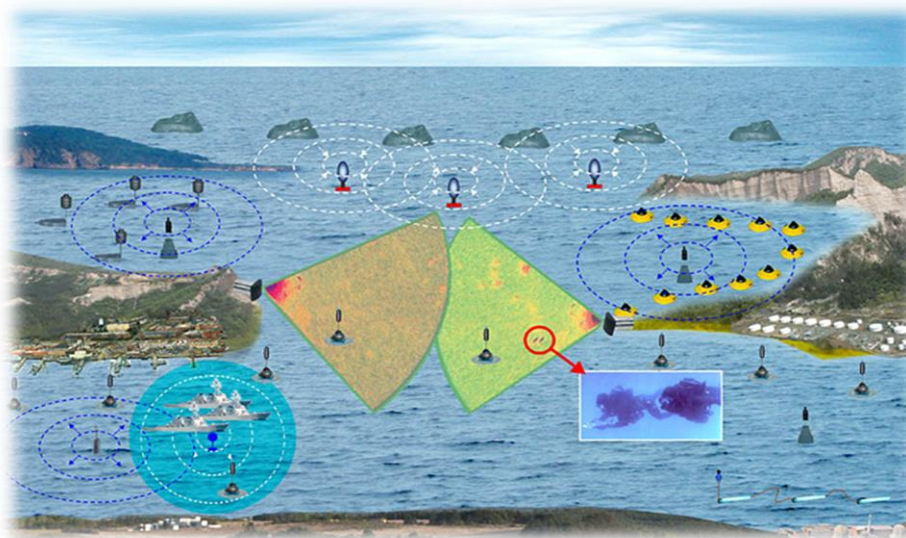
# Marine Border Patrolling & Port Protection



Naval Academy  
'N.Y. Vptsarov', Varna



NAVI SAILOR NT PRO 5000



# ICT Environment Problems

Some weak points:

**Human Factors;**

**Technology build-in producer gaps;**

**Software bugs.**

*How can we address these problems?*

# SysSec: A European Network of Excellence in Managing Threats and Vulnerabilities in the Future Internet: Europe for the World



**... Instead of reactively chasing after attackers, we should start working proactively and think about emerging threats and vulnerabilities...**



**<http://www.syssec-project.eu>**



# Cyberthreats 2012

Dimension Threat source	Threat weight	R & D Role	Time & users
Systems Security & Privacy aspects			
Targeted attacks			
Emerging technologies			
Mobile devices security			
Usable security			

# A Study on IT Threats and Users Behaviour Dynamics in Online Social Networks, DMU 03/22, Young Scientists Grant, NSF, Ministry of Education, Youth & Science, 2011-2013





# Discussion

Integrated Border Security is a complex problem with usually ad-hoc solutions that encompasses: technologies, strategies and human factors. All joint together for achieving a more secure living environment. The existence of ICT security gaps is possible to be covered with standards and strategies harmonization on bilateral country level benefiting from EaP, EU, NATO and neighbouring agreements/initiatives together with other human in the loop motivated improvement activities and control.

**Thank you for the attention!**