e-technologies & business

The case of a Polish company involved in R&T areas with dual-use applications

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Workshop on

Regional Smart Specialisation for the EU Defence Sector

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ITTI – company information

- Company mission:
  - **technical consulting** in the area of telecommunications and IT
  - **applied research** in **Information & Communication Technologies**
  - **development of innovative applications and software solutions**
- Main facts:
  - **SME** – ca. **50 employees** with professional certificates, e.g. **PRINCE2, ITIL, BS 7799/ISO 27001, TOGAF 8, Certificate in Software Testing (SJSI/ISTQB)**
  - prizes and rewards (selected):
    - „**Cristal Brussels Prize 2006 and 2010**" for the most active and successful Polish SME participating in FP6 and FP7
    - reward for the **high performance in R&D projects for European Defence Agency**
  - **membership in international bodies**:
    - Public Safety Communications Europe (PSCE)
    - Integrated Mission Group for Security (IMG-S)
  - **membership in national clusters**:
    - Wielkopolska ICT Cluster
    - Biomedical Co-operation Initiative

ITTI technical consulting projects (selected)

Polish Border Guard Headquarters

- Support during implementation of IT systems by Border Guards

Maritime Office in Gdynia

- Implementation of the functional program for the project „The National System for Maritime Security" (KSBM)

Institute of Meteorology and Water Management

- Support in implementation of the project: „IT system for protecting the state from extraordinary threats"

Head Office of Geodesy and Cartography

- Support for implementation of the project: Multifunctional system for precise satellite positioning ASG / EUPOS (administration and financial issues technical supervision)

Central Statistical Office, Statistical Computing Center

- Assistance in preparation and implementation of the project no 90. „*Information System for Public Statistics (SISP) in 2008-2013"* funded from Operational Programme Innovative Economy

Ministry of Finance

- Support in the process of implementation of the project e-Declaration

Ministry of Regional Development

- Feasibility study for the project „Broadband Network in Eastern Poland"

ITTI R&D projects (selected)

7th Framework Programmes

- DaVinci - Design And Versatile Implementation of Non-binary Wireless Communications Based on Innovative LDPC Codes
- N4C – Communications for Challenged Areas: Architecture, Test beds and Innovative Alliances
- **HIT-GATE - Heterogeneous Interoperable Transportable GATEway for First-Responders**
- **SECRICOM - Seamless Communication for Crisis Management**
- **TALOS - Transportable Autonomous patrol for Land Border Surveillance System**
- **INSPIRE - Increasing Security and Protection Through Infrastructure Resilience**
- **SICMA - Simulation of Crisis Management Activities**
- **TACTICS - Tactical Approach to Counter Terrorists in Cities**
- ASPIS - Autonomous Surveillance in Public Transport Infrastructure Systems
- VOS4ES - Open and cost-effective virtualization techniques and supporting separation kernel for the embedded systems industry

National projects

- Model of threats for an agglomeration
- Simulator for Crisis Situations
- SOPAS - Protection of IT and communications networks from non-authorised activities
- BSP - Management of UAVs in non-controlled airspace

ITTI military R&D projects (selected)

European Defence Agency – studies

- UAV Simulation Testbed
- UGELAS - Unattended Ground Sensor Networks for Large Area Surveillance

European Defence Agency – JIP programmes

- AUDIS - Acoustic Urban Threat Detector for Improved Surveillance Capabilities (JIP-FP)
- ATHENA - Asymmetric Threat Environment Analysis (JIP-FP)
- CARDINAL - CApability study to investigate the essential man-machine Relationship for improved Decision making IN urbAn miLitary operations (JIP-FP)
- SIMS - Smart Information for Mission Success (JIP-FP)
- MaSC - Modelling and Simulation for CBRN Defence Architectures (JIP-CBRN, under negotiations)

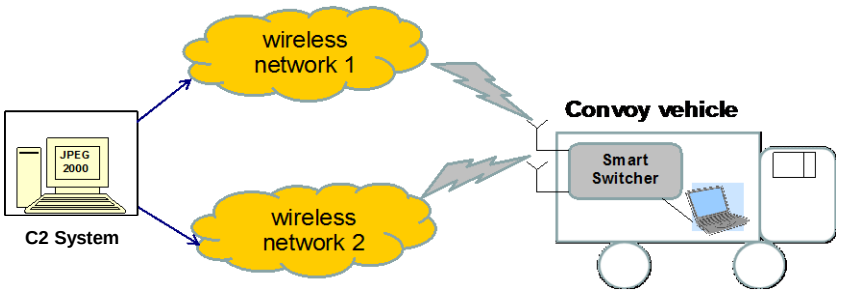
NATO Industrial Advisory Group

- SG98 - Prefeasibility study on M&S for Civil Emergency Planning in Context of Defence Against Terrorism
- SG115 - NEC Infrastructure for Dissemination of ISR data to Field Commanders
- SG121 - Technologies for Monitoring and Tracking for Situation awareness in Urban Areas
- SG137 - Industrial Contribution to Achieving Interoperability
- SG147 - New Technologies for Network Based Still Imagery Dissemination and Exchange Services
- SG164 - Industry Contribution to demonstration of ISR Information exchange as part of JISR Trial "Unifed Vision 2012„
- SG165 - Private Sector support to NATO Cyber Defense Action Plan

ITTI dual-use solutions (1/2)

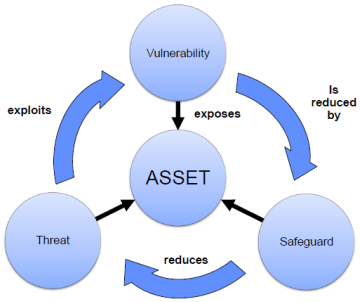
Smart Switcher

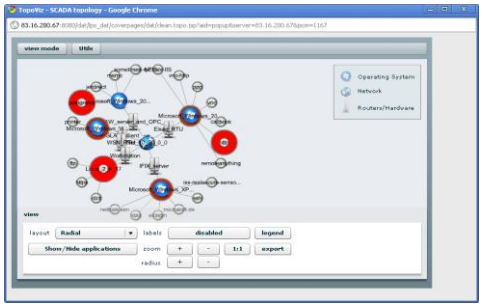
- Allows for selection of one of the attached radio interfaces that offers the best transmission parameters
- Switching in the function of QoS
- Designed for image and video streaming
- *Applied in civilian and military R&D projects*



Decision Aid Tool (CyberTool)

- Ranks threats to a network (e.g. SCADA, military)
- Proposes solutions (countermeasures)
- Visualizes topology (local/global view)
- Manages: knowledge (the ontological description of system), security, rules
- *Applied in civilian and military R&D projects*

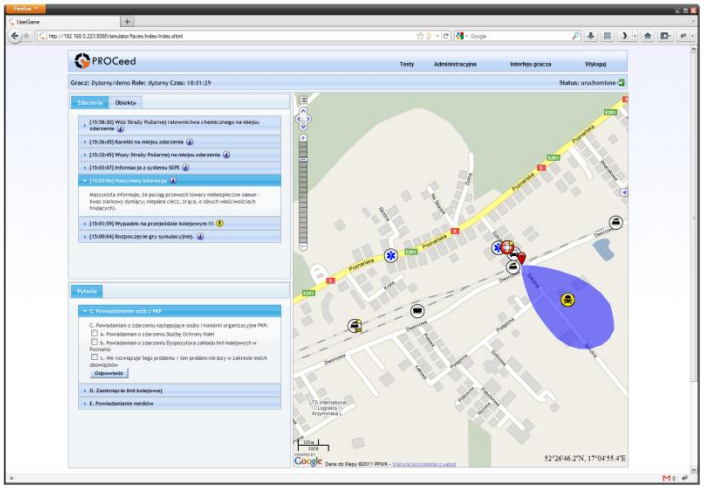




ITTI dual-use solutions (2/2)

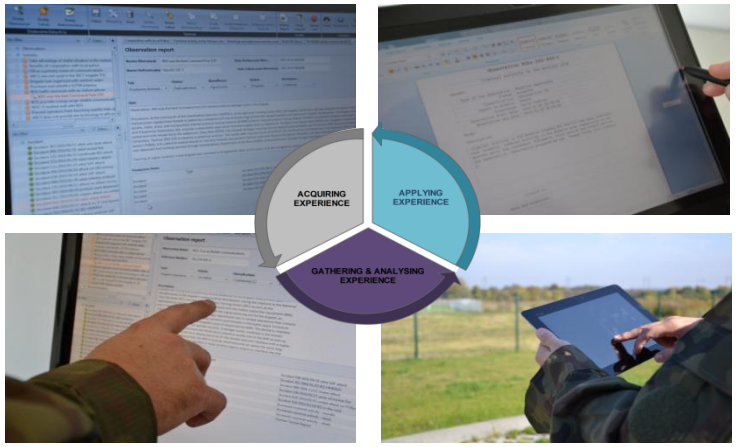
PROCEED

- Simulation environment for training on procedures in crisis situations
- Dynamic, interactive, multi-variant
- Collaboration and access from various locations
- *Applied in crisis management (military use – under consideration)*



LIMA²

- Lessons Learnt Tool
- Managing LL: from planning to gathering experience and to improved future planning and preparedness , based on methodology
- Multi-level usage of experience: within existing mission, for future incidents - training, in long term – update of procedures, rules and regulations
- *Applied in military projects (application in crisis management – under consideration)*



Main drivers for SMEs

ITTI perspective

- Knowledge on IT and telecommunications systems
- Skills and competences in development of innovative applications
- Experience in international R&D initiatives
- Ability for co-operation with end-users
- Experience in interdisciplinary projects

Main challenges for SMEs

ITTI perspective

- Clearance certificates
  - for company and staff
  - time and cost consuming
- Procedures in military organisations
  - specific needs
  - request for ”authorisation” – often required
- Long and uncertain process
  - time between proposal deadline and evaluation
- Investments needed
  - travel costs, proposal preparations etc.
- There is a significant „entry work” for civilian companies entering the military market

Best practices, polices etc.

- National and regional best practices:
  - Structural funds dedicated for SMEs (for product development, marketing activities, patenting procedures etc.)
  - R&D programmes – co-financing rules more friendly for SMEs
- Applications of EUSME:
  - EC FP programmes – recommendations to involve SMEs, special financial rules
  - EDA JIP programmes – as above

Summary

- ITTI is a civilian company which entered the defence sector
- ITTI benefited from the EC/EDA/national policies related to SMEs
- Difference between civilian and military market is quite significant and the transition from one to another requires big effort
- SMEs have to provide a real value while entering particular sector
- It is recommended for SMEs to look for a bigger partner (experienced in particular market) for whom they can be subcontractors
- Further support from EC, EDA and other agencies for SMEs participation in R&D programmes (e.g. in Horizon 2020, next EDA JIP programmes) can facilitat the transition between civilian and military sectors (incl. dual use applications)

Thank you for your attention

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