

Experiences on implementation of IT systems for the purpose of border security in Poland

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PSCE Conference

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Agenda

- Short info on ITTI and relevant experience
- Info on border traffic in Poland
- Polish Border Guard IT systems modernization and development
- Office For Foreigners IT systems modernization and development
- Impact of new regulations (VIS, SIS II, local border traffic)
- International activities (FP7 TALOS, FP7 FastPass)
- Challenges

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)
- Contributed to more than 25 **FP5, FP6, FP7** projects (Security, ICT, Transport), **EDA** projects (JIP-FP, JIP-CBRN, Studies), **NIAG** studies and **national R&D** projects
- 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: Integrated Mission Group for Security (**IMG-S**), Public Safety Communications Europe (**PSCE**)

RELEVANT PROJECTS

■ National:

- **Polish Border Guards** – Assistance during implementation of IT systems supporting processes related to border check– several projects since 2008
- **Office for Foreigners** – Support in modernization of IT systems (e.g. Pobyt) – several projects since 2011

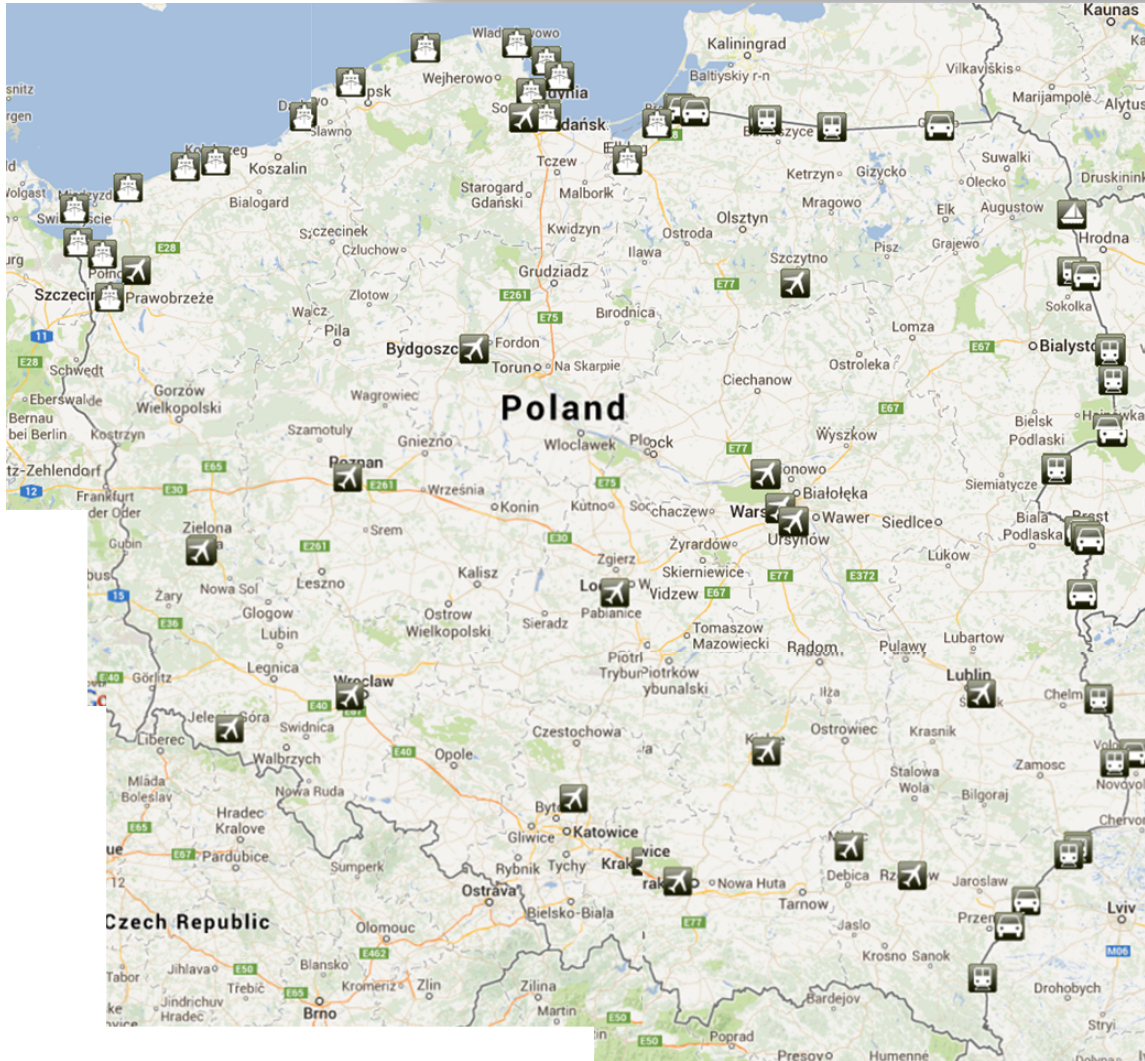
■ International:

- **FP7 TALOS** – Transportable Autonomous patrol for Land bOrder Surveillance system (*completed*)
- **FP7 FastPass** – A harmonized, modular reference system for all European automatic border crossing points (*on-going*)
- **FP7 MobilePass** – A secure, modular and distributed mobile border control solution for European land border crossing points (*under negotiations*)

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Info on border traffic in Poland



Border crossings - 69,
 Outposts - 101,
 Officers – 16,5 k,
 Civil employees – 4,5 k,

Info on border traffic in Poland



Individual traffic in year 2012

- external borders (total) - 37 540 297
- small border movement - 6 077 270
- airports - 9 342 121

Traffic of vehicles in year 2012

- external borders (total) - 10 152 297
- busses - 158 551
- lorries - 1 922 517

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Main assumptions - processes

- Main processes to maintain:
 - Border checks
 - Visa operation
 - Contracted legal act management (including arrest warrants)
 - Reports and statistics
 - Communication with SIRENE Office
 - Checking in external systems
 - Foreigner proceedings
 - Infringement registration and information

Main assumptions - operations

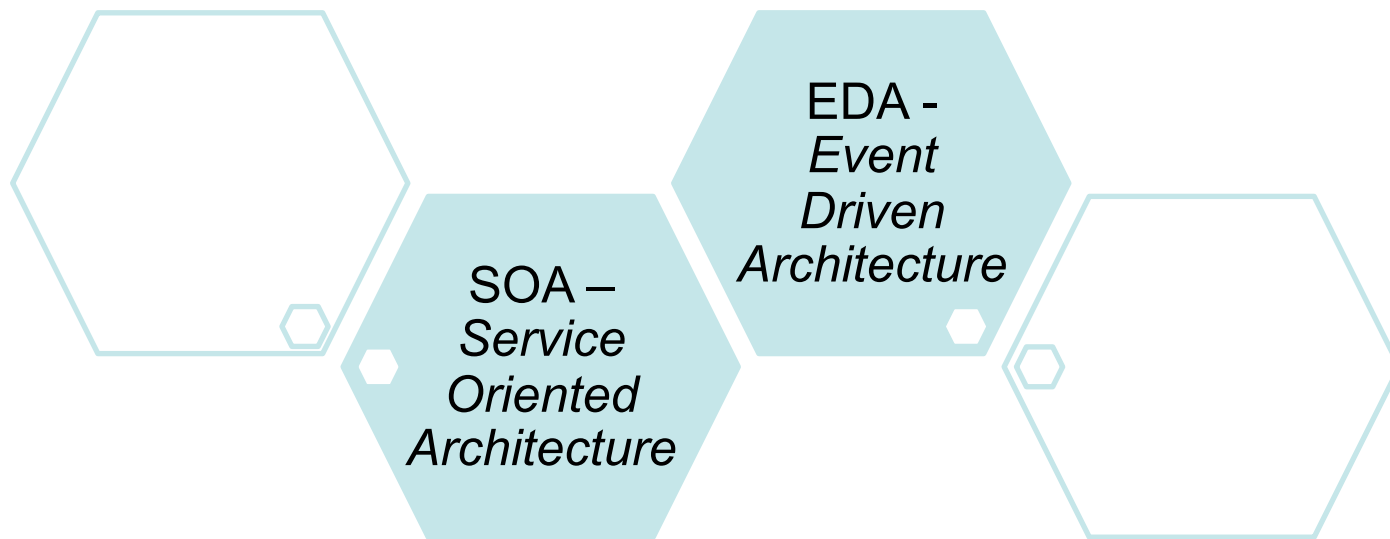
- **Types of operations:**
 - Routine activities (like border checks)
 - Complex processes, circulation of documents processes
 - Logging of different kinds of events

- **Several thousand of users:**
 - Officers on the border
 - Patrols with mobile equipment
 - HQ officers (analysis, management, statistics)

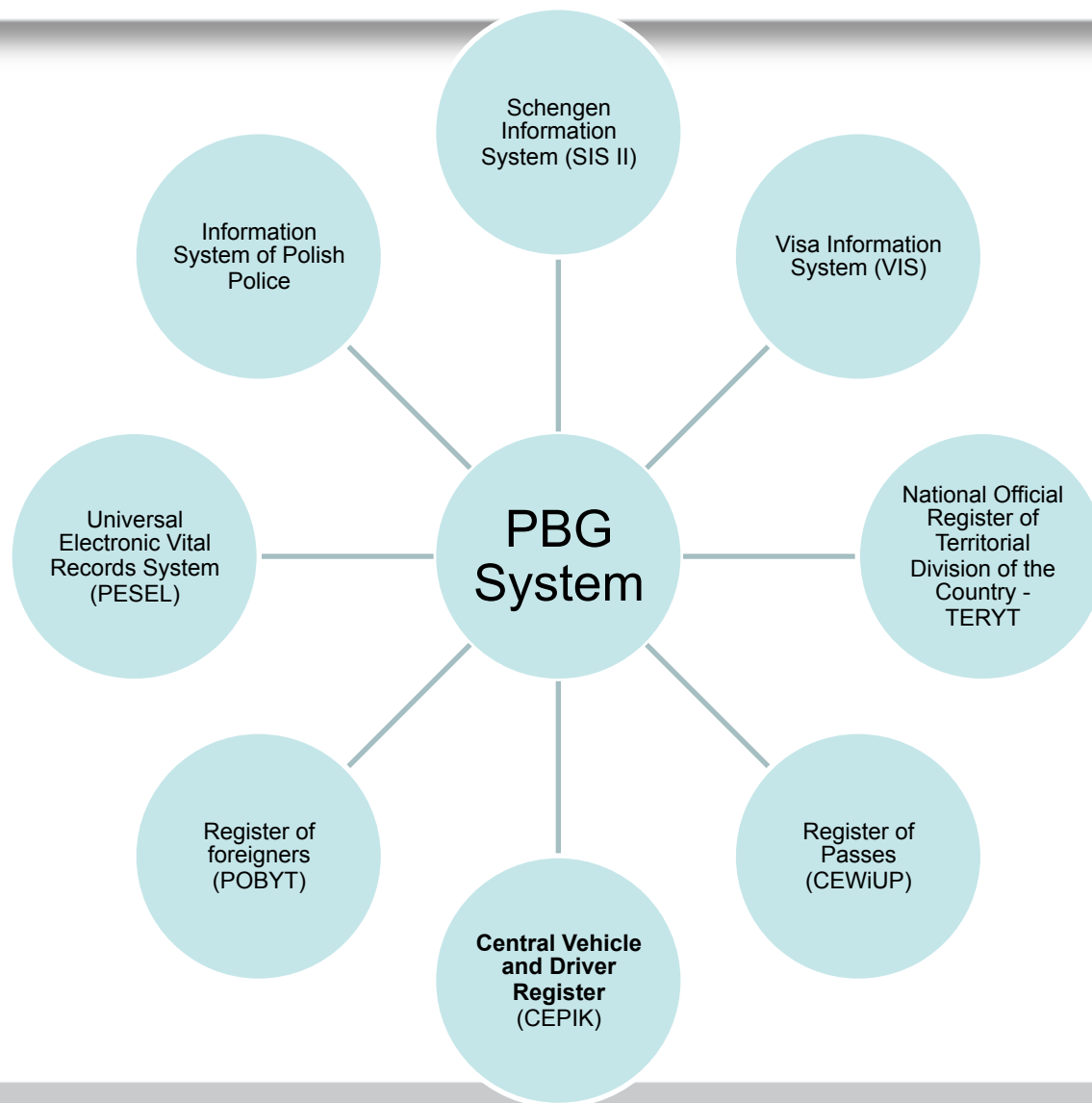
Main assumptions - Registers

- Border check registers
 - Register of checked persons
 - Register of checked vehicles
 - Register of border movement
 - Register of simplified border check
- Contracted acts registers (persons, vehicles, documents)
- Visa Register
- Other registers

Architecture



Architecture – external systems



Architecture - layers

User's terminals

Presentation layer

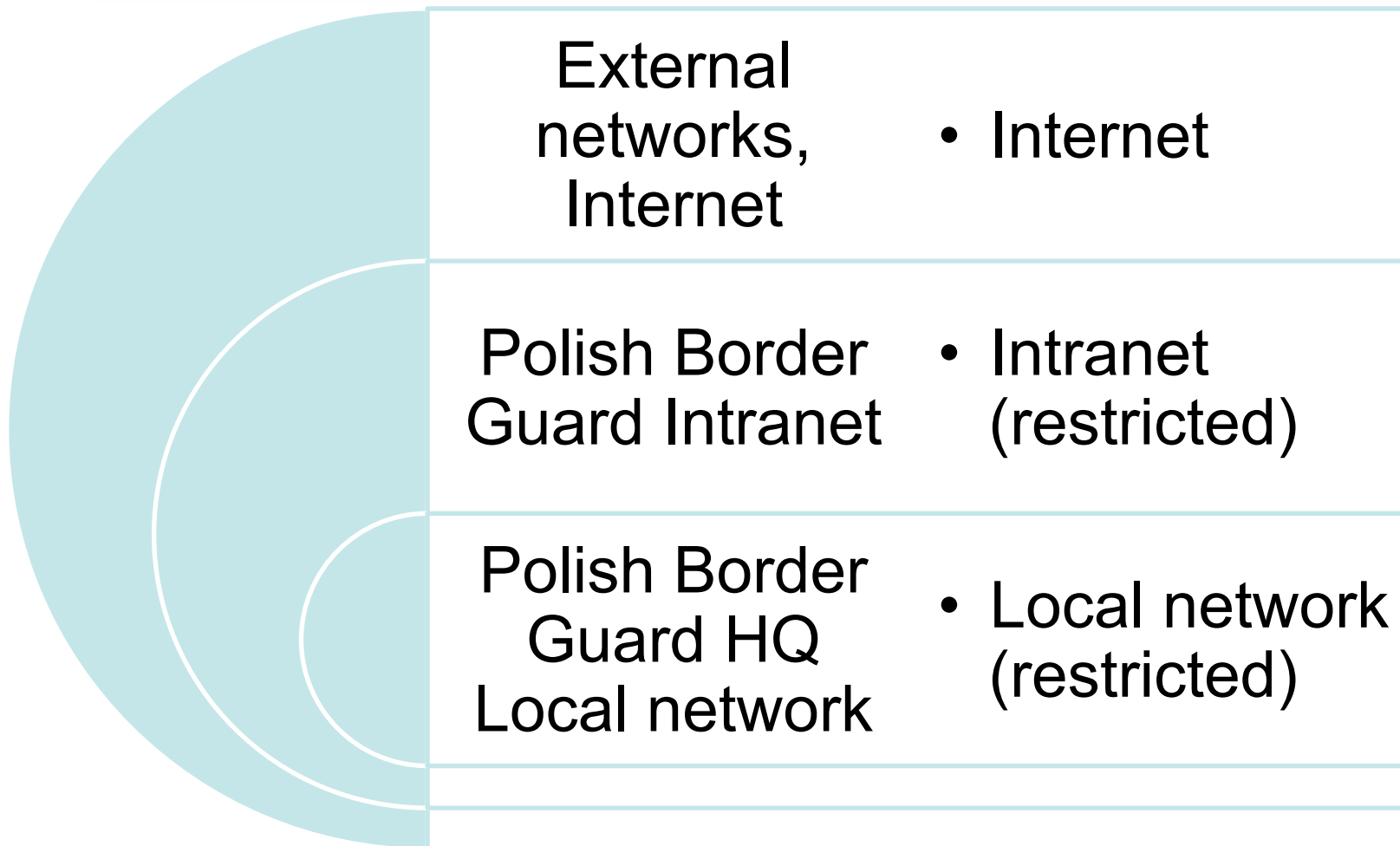
Events broker

Business services

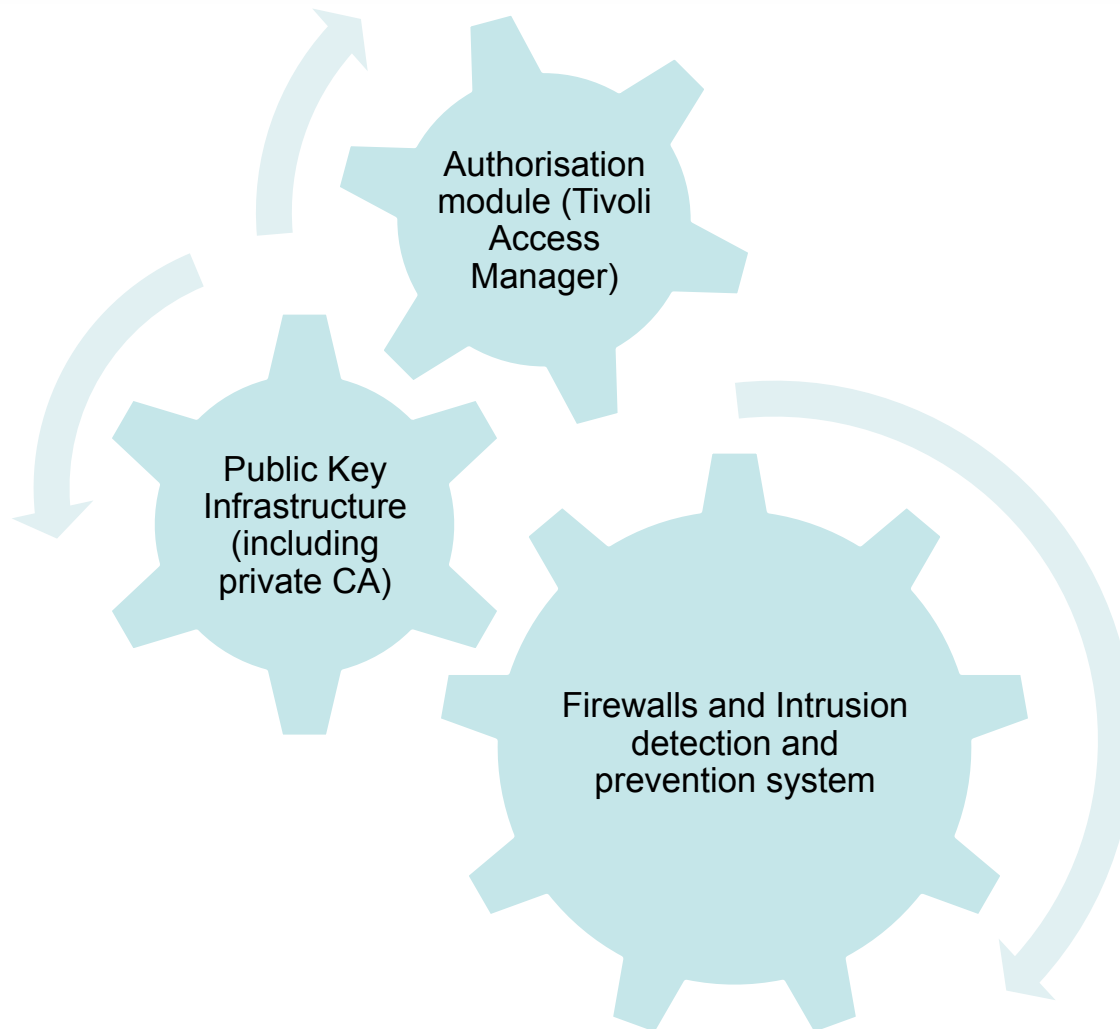
Common services (user profiles, logs)

Databases (central and local)

Security aspects



Security aspects



Security aspects

- **Security infrastructure (PB HQ):**
 - Certification Authority,
 - Certificate repository,
 - User registration points,
 - Time stamping server.

- **Security infrastructure (user):**
 - Card readers,
 - Intelligent card (containing user certificate).

Agenda

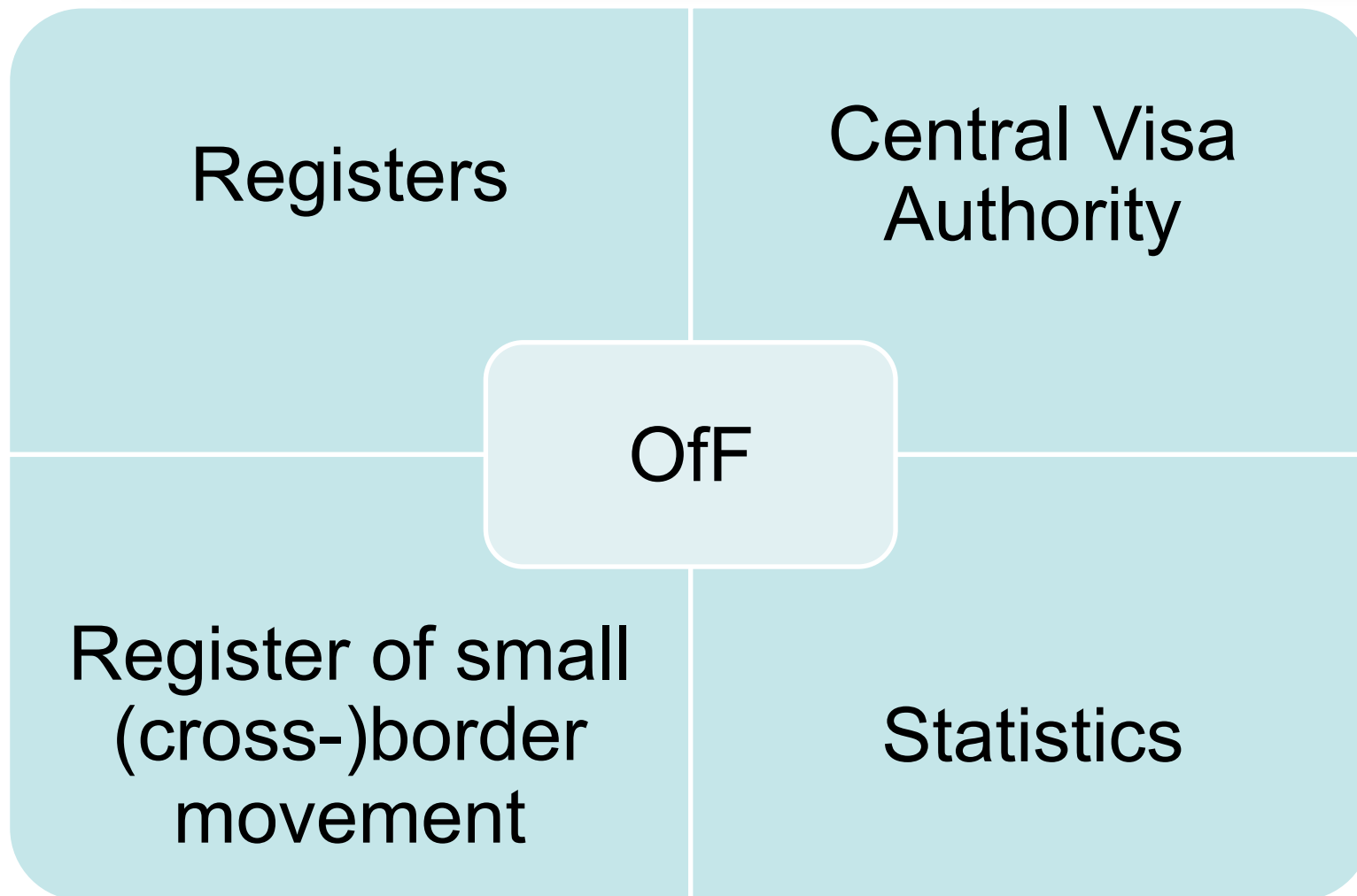
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Main assumptions - Registers

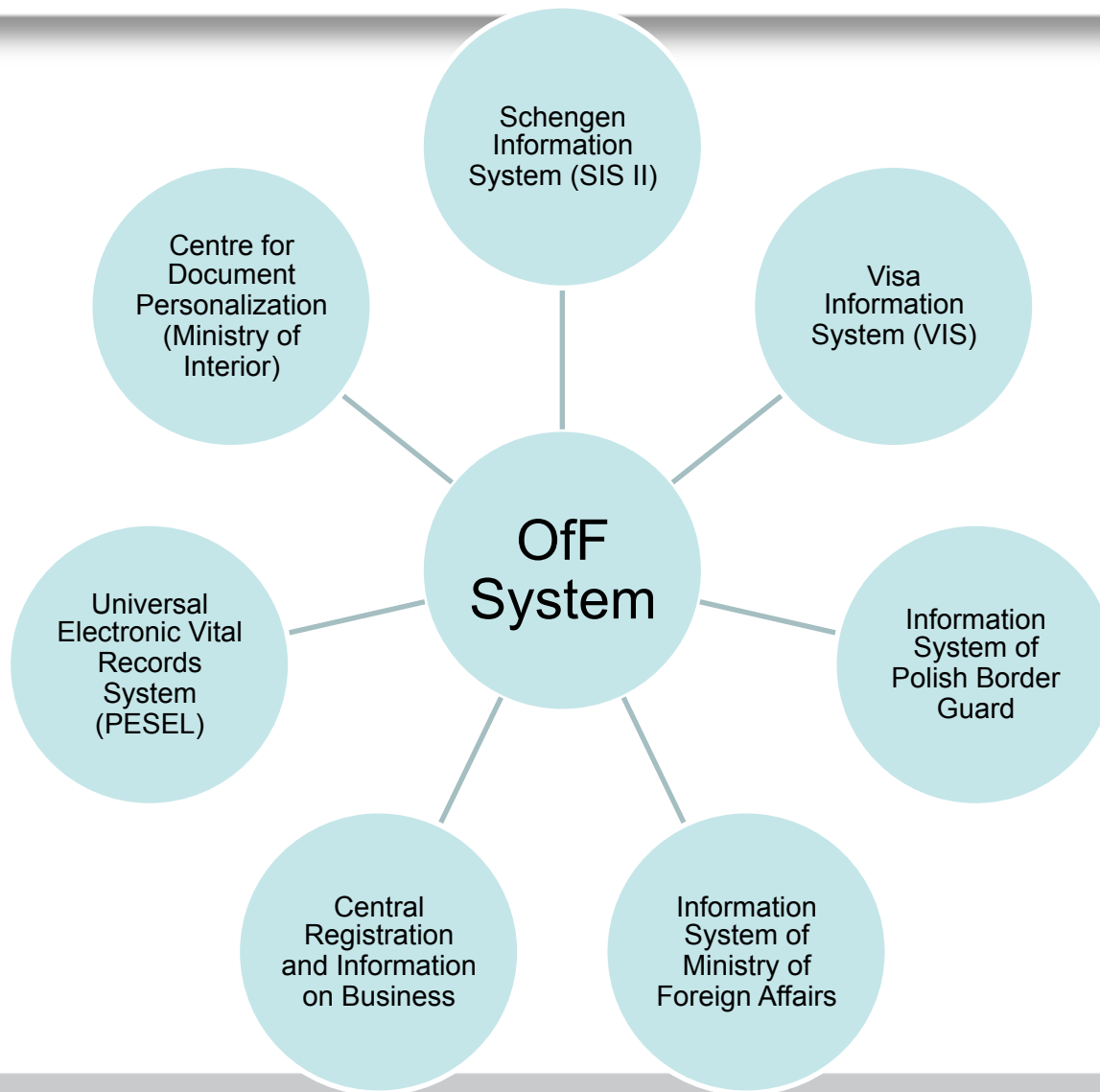
National set of registers:

- Register of Visa cases (issues)
- Register of affairs connected with residence permits
- Register of Foreigners
- Register of small (cross-)border movement
- Other Registers

Architecture – components



Architecture – external systems



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Introduction of new regulations

- **Main project changes:**
 - Modification in VIS specification – changes of interfaces
 - Delay in VIS implementation - both central and national system
 - Delay in SISI II implementation.
 - New EU regulations - small (cross-)border movement and new international agreements (Poland-Ukraine, Poland-Belarus)
 - Modification in national systems (Foreign Office System, Register of Passes)

Introduction of new regulations

- **Schengen Information System II**
 - Start planned on September 2007,
 - Numerous changes of planed delivery date
 - SIS II vs. SIS4All discussion
 - Modification of interface technical specification (ICD changes) ,
 - Delay in implementation of Polish component
 - Eventually started April 2013

- **Visa Information System**
 - Start planed on September 2007
 - Numerous changes of planed delivery date
 - Modification of interface technical specification (ICD changes) ,
 - Eventually started November 2011

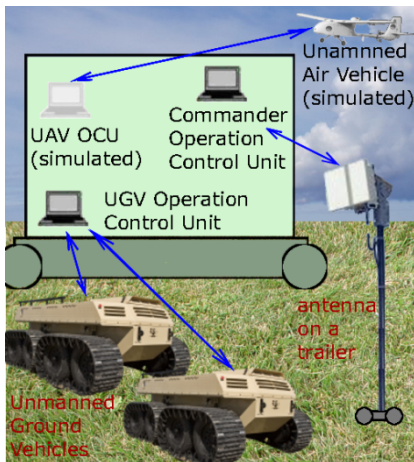
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FP7 TALOS



- Title: Transportable Autonomous patrol for Land bOrder Surveillance system
- Timeline: May 2008 – May 2012
- Main objective: Develop and field test the concept of a mobile, modular, scalable, autonomous and adaptive system for protecting European external land borders
- Co-ordinator: PIAP, Poland
- ITTI role – user requirements, scenarios, metrics, communication (e.g. QoS, reliability), test procedures, demonstration
- Demonstration done in Poland
- Polish Border Guards was involved as end-user



FP7 FastPass



- Title: A harmonized, modular reference system for all European automatic border crossing points
- Timeline: January 2013 – December 2016
- Main Objective: Develop and demonstrate a next generation automated border control gate solution for different (land-, sea- and air-) border control points across Europe, through a three-pillar approach: user-centric, innovative, context aware
- Co-ordinator: AIT, Austria
- ITTI role – requirements and border crossing processes definition, ABC gate workflows implementation, demonstration at land border
- Demonstration at land border originally was planned in Poland

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Challenges

- The border traffic will increase in the incoming years, particularly the local border traffic
- Impact on national systems due to changes in European systems and regulations (e.g. VIS, EES, RTP)
- Smart Border concept
- Increasing interoperability between IT systems (both European and national level) related to border security

PSCE CONFERENCE

Thank you for your attention

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