

SALUS

Bucharest, October 30, 2013

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SALUS

Security And Interoperability in Next Generation
PPDR CommUnication Infrastructures



SEVENTH FRAMEWORK
PROGRAMME

- **Introduction of SALUS**

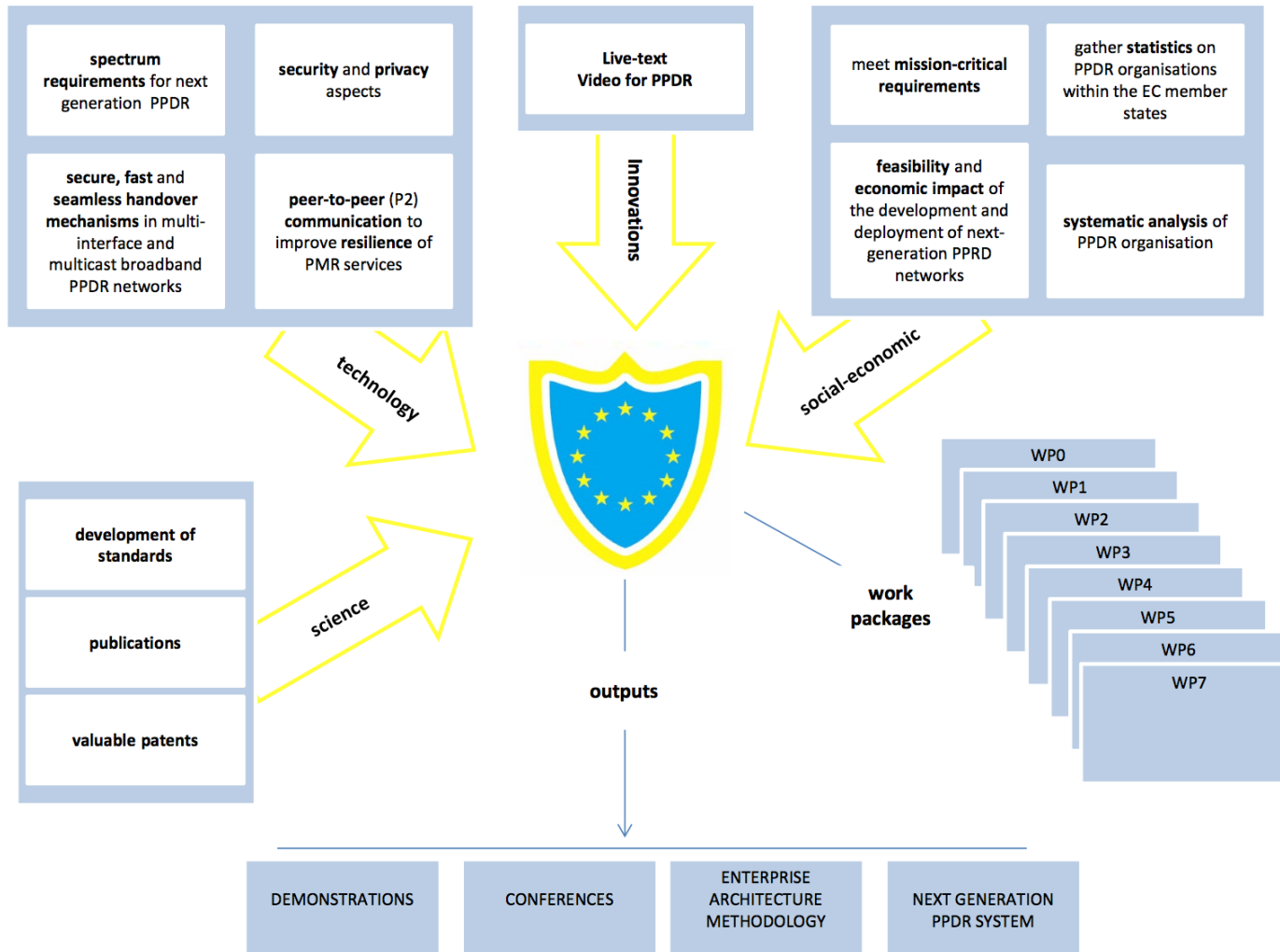
- Vision and Goals
- Consortium
- Objectives
- Scenarios
- Work packages
- PSCE role
- Cassidian role
- Consortium

- **Vision**

- Enable robust, reliable, and secure mobile broadband communication for a wide variety of PPDR applications, including the ability of inter-system, inter-agency and cross-border interoperability


- **Goals**

- Design, develop and validate the next generation PPDR network;
- Support (via porting functionality) TETRA and TETRAPOL functionalities;
- Provide guidelines towards the medium/long term evolution of the PPDR network;
- Set out economic implications and possible migration paths for the PPDR network and service evolution;
- Collect statistical data related to police forces and first responders across Europe;
- Foresee business cases associated with the evolution of the PPDR network;
- Contribute towards the standardization efforts on the next generation PPDR network (including architectural design and spectrum requirements).




- **Scenarios to investigate**
 - City Security
 - Temporary Protection
 - Disaster Recovery
- **Considerations for each scenario**
 - Use Case Definition
 - Requirements Capture
 - Enterprise Architecture Analysis and Specification
 - Economic & Business Case Analysis
 - Use Case Demonstration & Evaluation


- **City Security** deals with day-to-day safety and security of citizens
 - the control room is the heart of the operation

	Current PPDR systems	
Voice	▪ Good	▪ Good
Data transfer/ DB access	▪ Limited	▪ Large volumes ▪ QoS/QoE guarantees where available
Video streaming	▪ Via external 3G services ▪ No QoS/QoE guarantees	▪ Via external 3G/LTE services ▪ QoS/QoE guarantees where available
Interoperability PMR/Broadband	▪ No	▪ Supported for gradual migration
Real-time positioning	▪ Limited	▪ Improved
Extended services	▪ PMR limited	▪ Application enabled (advantage of using all IP architecture)

- **Disaster Recovery** focuses on PPDR agencies responsible for protecting people and property during large-scale natural or man-made disasters
 - Main problem are failures of public operator networks or even resilient private PPDR networks

Current PPDR systems backup plan	 SALUS backup plan
<ul style="list-style-type: none"> ▪ Fast-to-deploy PPDR networks ▪ TETRA/TETRAPOL only terminals ▪ Satellite phones ▪ Mostly analogue (slow) solutions ▪ Not integrated solutions 	<ul style="list-style-type: none"> ▪ Fast-to-deploy networks (PPDR and IP) ▪ Terminals broadband enabled ▪ Interoperability with Satellite IP ▪ Zero configuration / Fast start-up ▪ Video streaming enabled communications ▪ Support for large data transfer / DB access ▪ Integrated solution

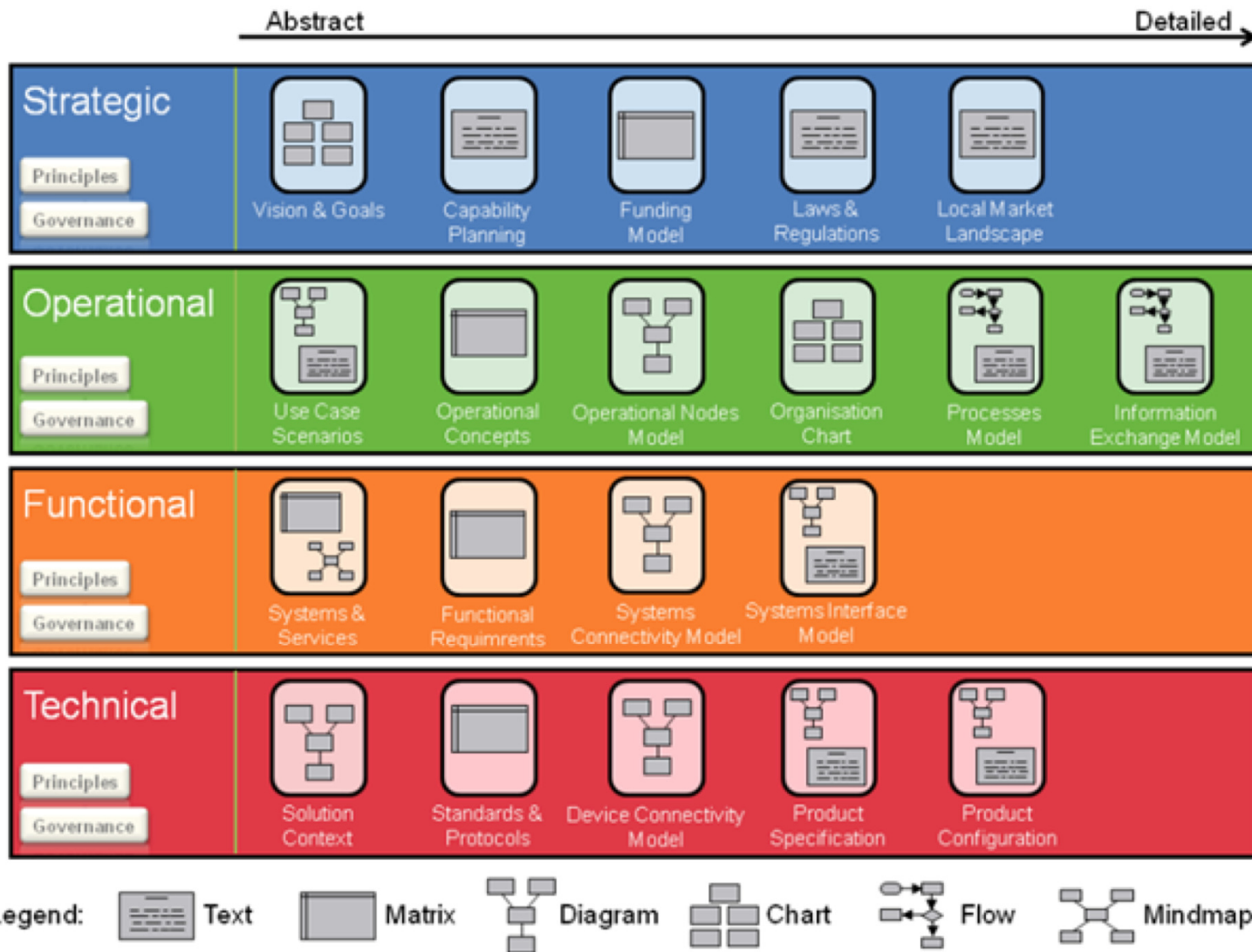
- **Temporary Protection** deals with safety and security of citizens visiting large planned events
 - Coordination and cooperation amongst PPDR agencies is crucial

Current PPDR solution	
<ul style="list-style-type: none"> ▪ TETRA/TETRAPOL network may be available ▪ CCTV may be available ▪ Limited assistance capabilities 	<ul style="list-style-type: none"> ▪ Fast-to-deploy integrated broadband/PMR capabilities network ▪ Fast-to-deploy local command and control room facilities ▪ Interoperability with PMR networks ▪ Extended video and photo coverage ▪ Improved PPDR assistance

Work Package	Description	Lead
WP1	Management and RTD Coordination	IT
WP2	Use Case Definition and PPDR Requirements	Airwave
WP3	Enterprise Architecture Analysis & Specification	Alcatel-Lucent
WP4	Economic and Business Case Analysis	Cassidian
WP5	PPDR Security and Privacy	IT
WP6	PMR Services on PPDR Broadband Networks	Rohill
WP7	System Integration, Use Case Demonstration, Evaluation	Onesource
WP8	Exploitation, Roadmap, Dissemination, Standardisation	Ubitel

- Website: <http://www.sec-salus.eu>

Backup slide – Enterprise Architecture



WP 2 and WP 7

- Definition of the use cases (scenario analysis and use case development (M1-M15))
- Use cases validation (M 16-36)
- Establishment of an End-Users Advisory Board to ensure compliance of the proposed solutions with the needs, the technologies available, the costs- Validation as a proof-of-concept

WP 8

- Organisation of two conferences in 2015 and 2016

Leader of WP4: Economic and Business Case Analysis

- Goal = to establish an economical and business analysis of next generation PPDR networks

=> main objectives:

- Collect and set-up a database of PPDR organisations across Europe
 - Establish a business analysis of PPDR networks, including new market segments
 - Study the spectrum requirements and make proposals for future frequencies allocation
 - Define TCO models, propose migration roadmaps and derive risk assessment from these roadmaps
- Start M1 – End M30
 - Partners: CAS, ALU-I, AW, IT, ROH, TI-WMC, UPAT

- End users, Operators



- Research



UNIVERSITY OF TWENTE.



- Industry

