SECRICOM

Seamless Communication for Crisis Management

Introduction

Presentation Bilbao, 11th August 2009

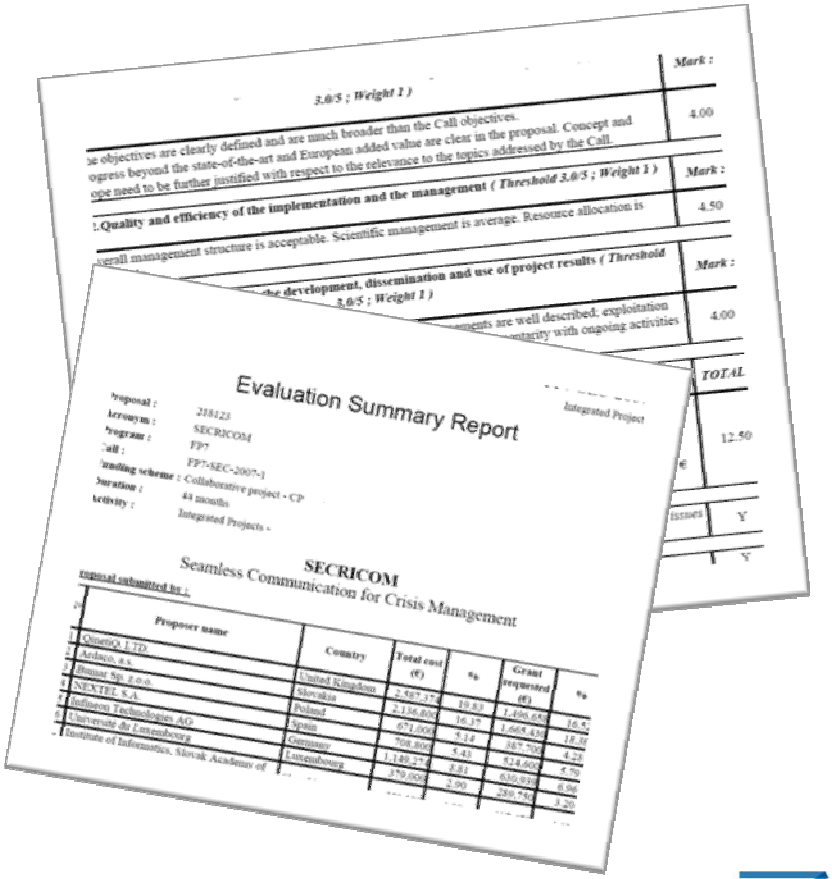
SEVENTH FRAMEWORK PROGRAMME

Presentation contents

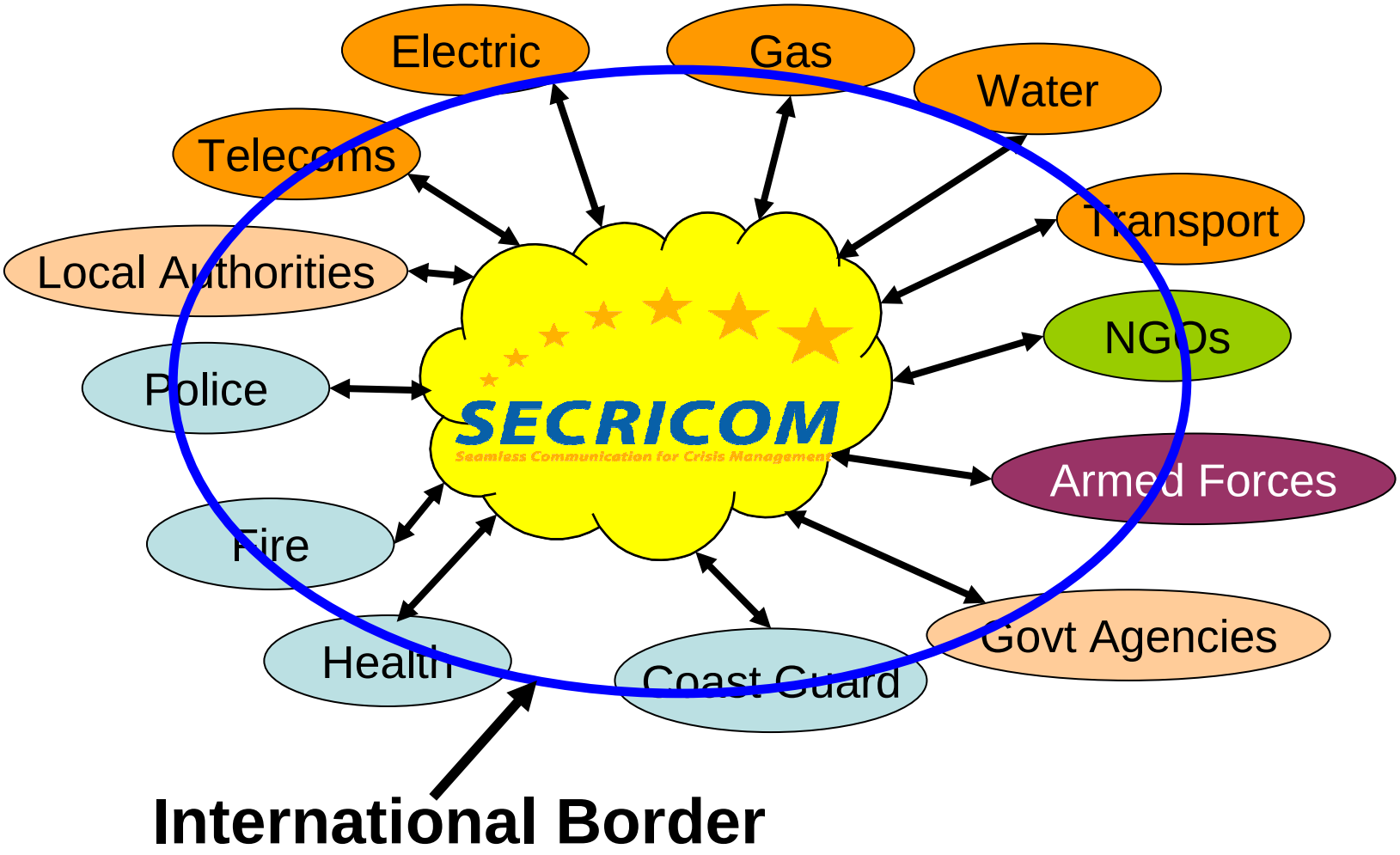
- Project history
- Business Stakeholders
- Crisis management principle
- Procurement and budget decisions
- Market opportunities
- Project vision
- Aims of SECRICOM
- The approach taken
- Partners involved
- Basic facts
- Work Packages and Schedule
- Upcoming actions

Project history

- Summer 2006 – initial meeting and discussions
- Winter 2006/07 creation of consortium
- Spring 2007 –submission of project
- December 2007 – started negotiations
- June 2008 – completed negotiations
- 1st September 2008 – project start date



Business Stakeholders



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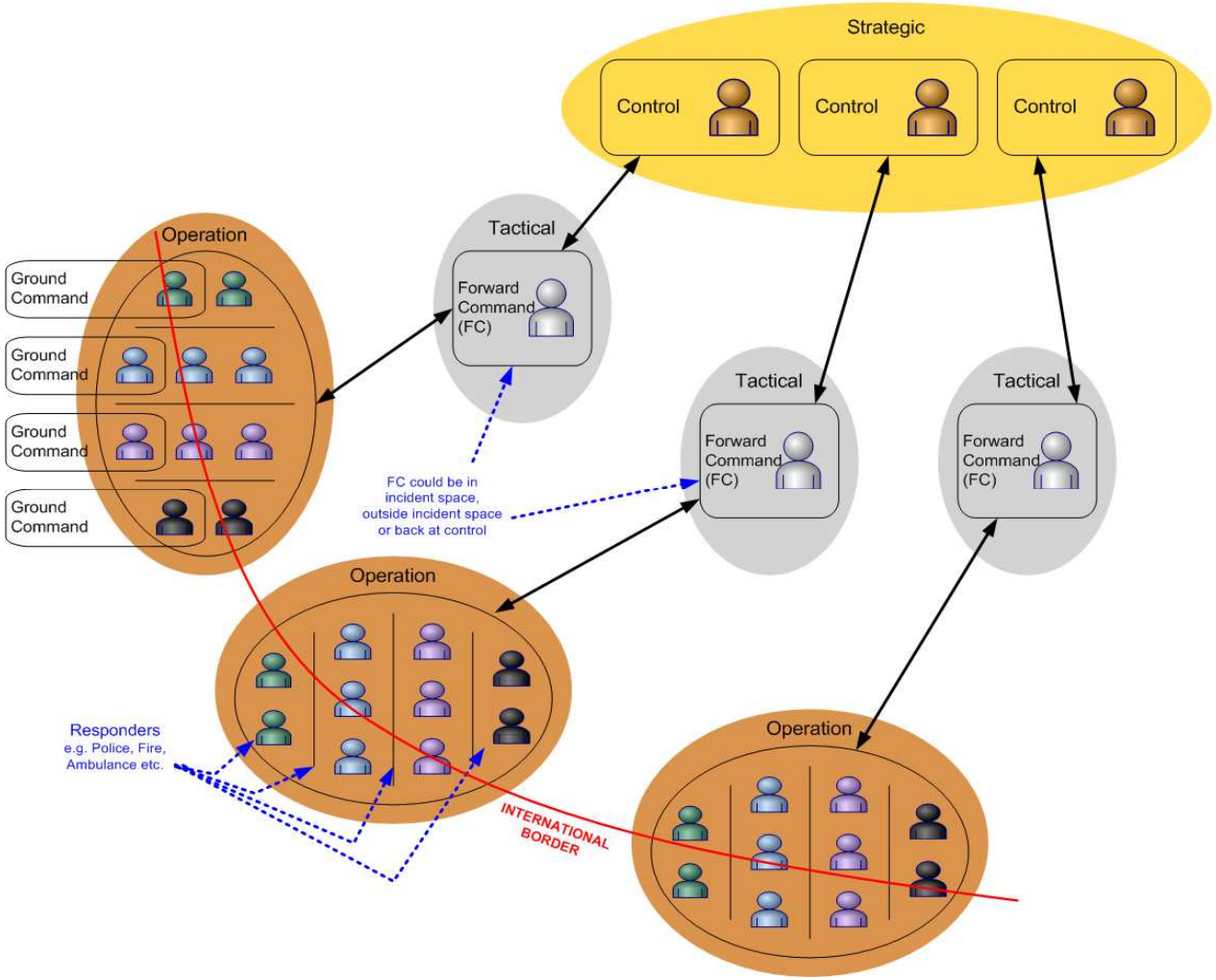
Typical schema for Crisis Management



Extends across international borders

Extends across different agencies

Customers, Users and Budget Decisions

- Crisis situations coordinated by public institution structures that start at national or even regional level;
- Decisions to implement any new systems will be made at these levels;
- Financial decisions are in hands of governmental institutions (regional or national);
- Other market potential.

Market Opportunities

- No global vision of resources and communications alternatives in current systems;
- Poor interoperability between specialized communications;
- SECRICOM solution relevant to multiple applications (not only crisis management but sport events, logistics, demonstrations, etc.)
- New service for communication operators, providers, and critical infrastructure protection engineers;
- Enhanced security against tapping and misuse on mobile networks;
- Stakeholder/Actor localization capabilities.

Vision

- Ability for responders to operate and cooperate
  - across different European emergency services/responder agencies
  - as one cohesive unit at the time of crisis-level emergency

- Secure infrastructure for communication during a crisis with technical interoperability built into the design

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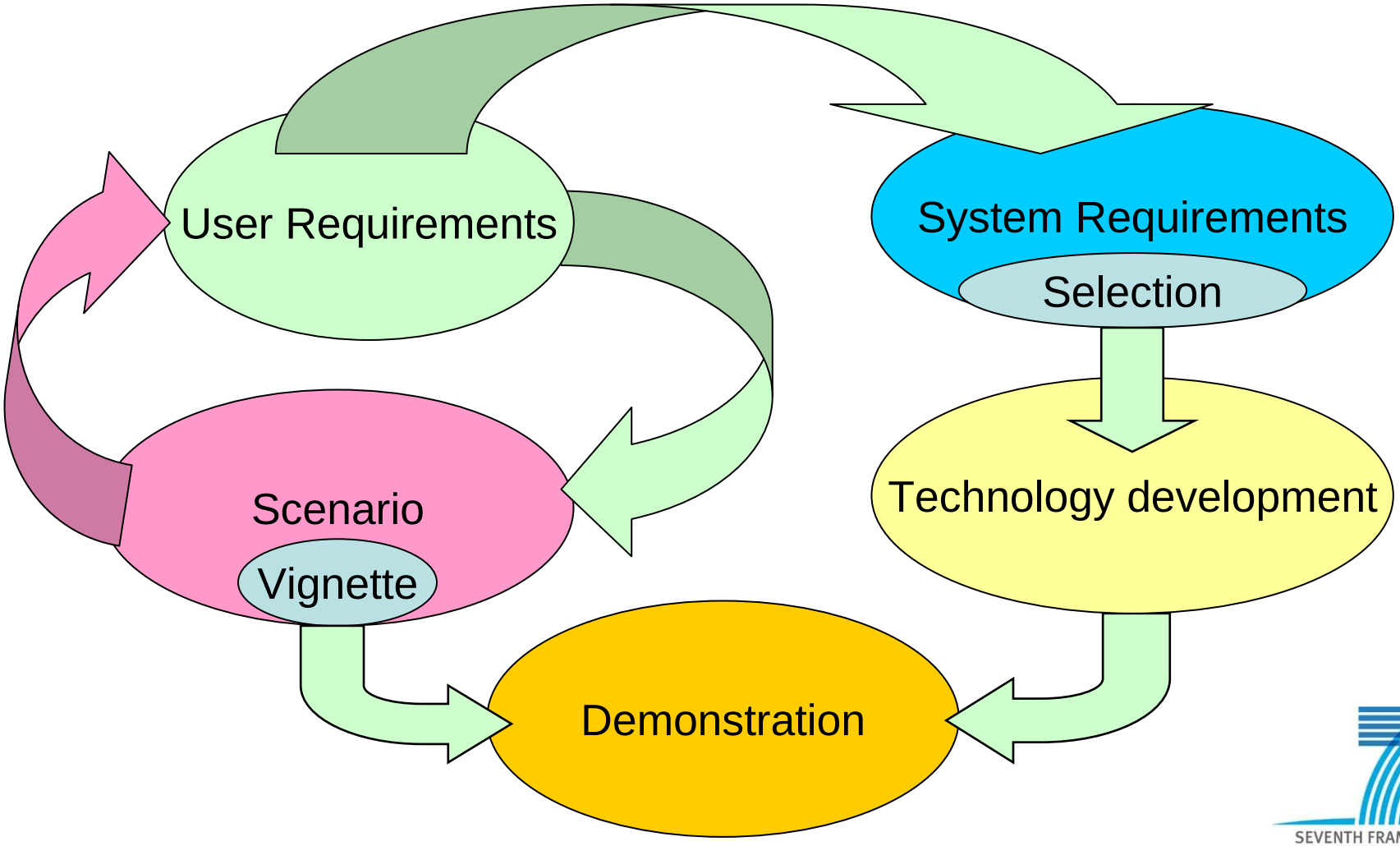
Aims

- Exploit the existing communication systems
- Enhance interoperability among heterogeneous secure communication systems
- Enhance interconnectivity between different networks and User Access Devices
- Interface towards emerging SDR systems
- Mitigate key capability gaps faced by users of existing systems
- Add new functionalities – procurement of resources

Approach

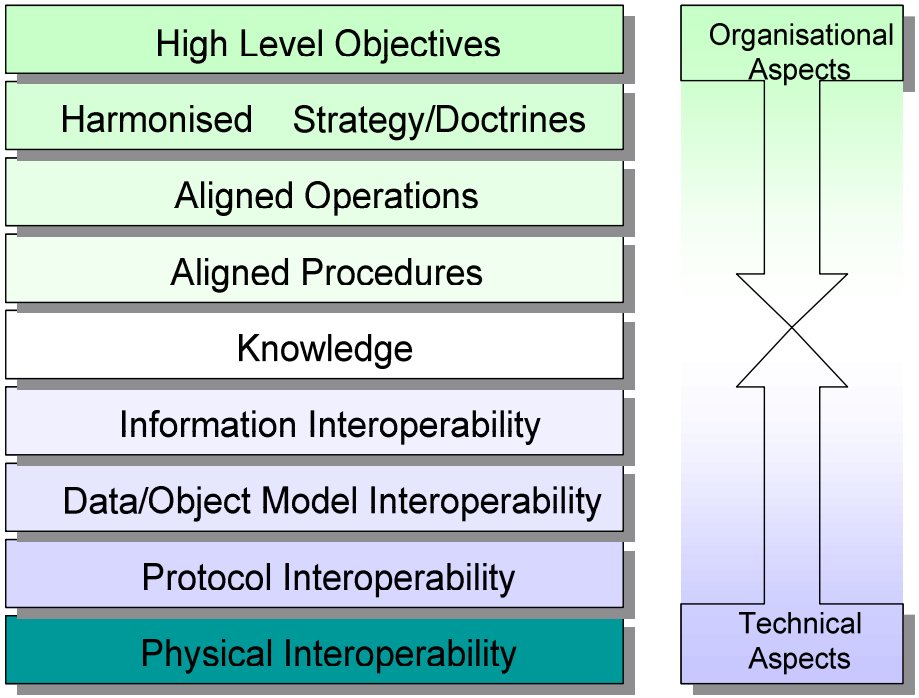

User Requirements
System Requirements
Selection
Scenario
Vignette
Technology development
Demonstration

Interoperability

Definition:
The capability of two or more organisations or discrete parts of the same organisation to exchange decision-critical information and to use the information that has been exchanged.

Clearly, interoperability ranges from organisational to technical aspects all of which must be 'harmonised' in order to achieve full interoperability.

Layers of Interoperability



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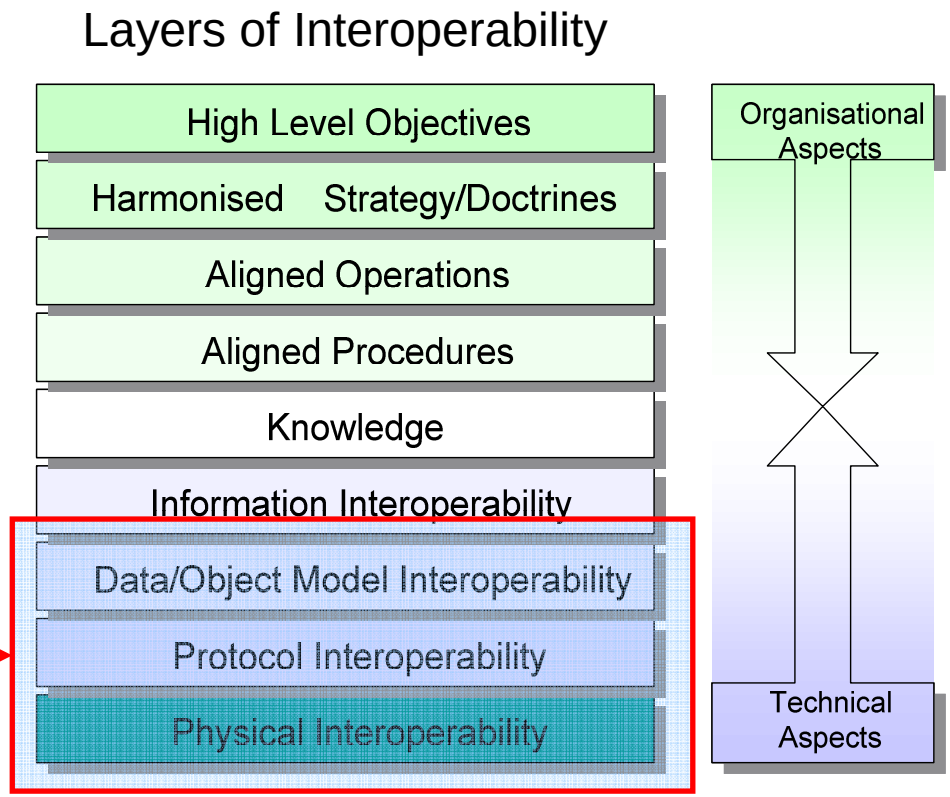
Interoperability focus

Seamless Communication for Crisis Management

Scope: The technical aspects of Interoperability



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Seamless Communication for Crisis Management

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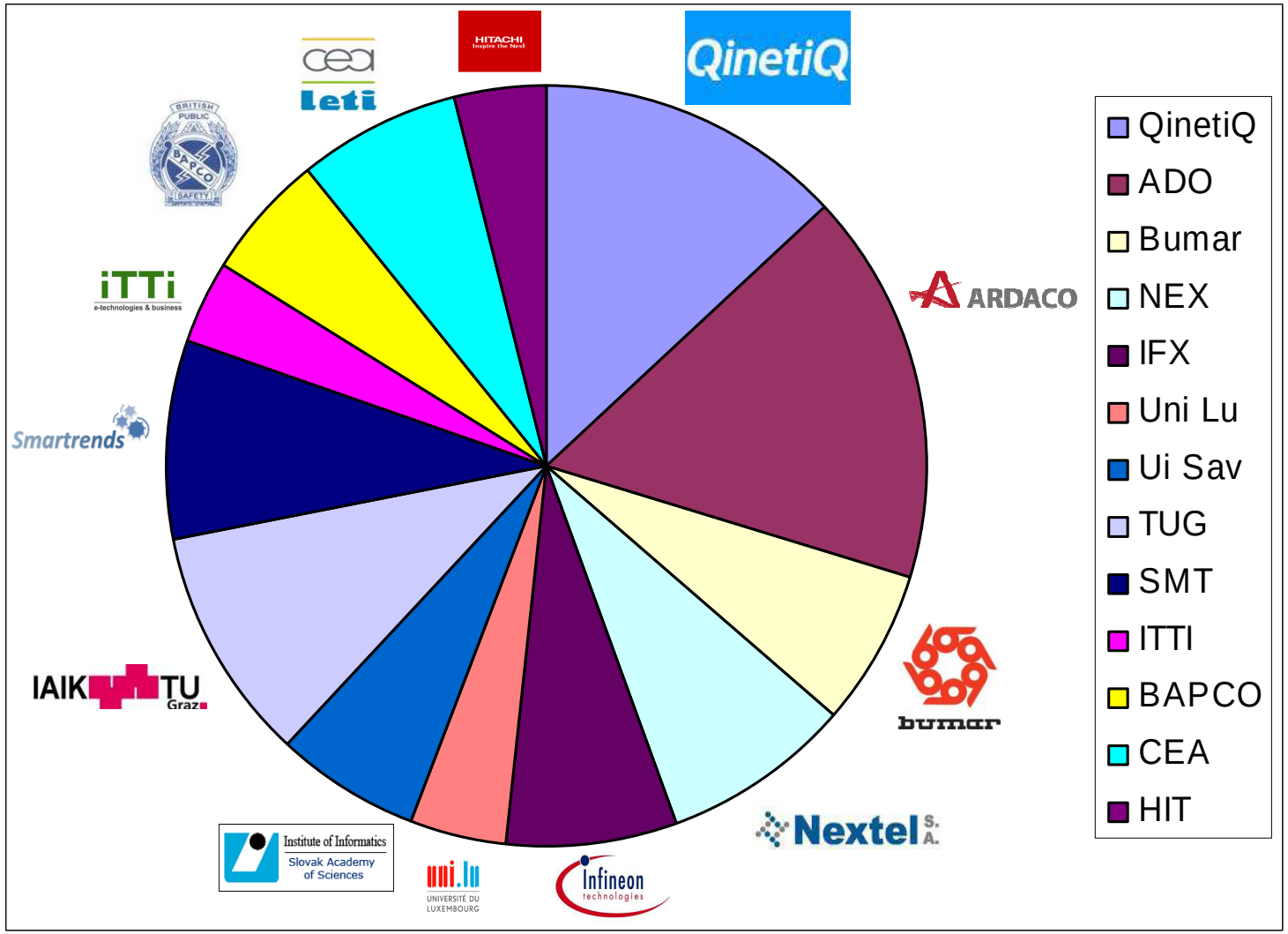
Consortium

SECRICOM
Seamless Communication for Crisis Management

Manufacturers **Research & SMEs** **Universities & NGO**

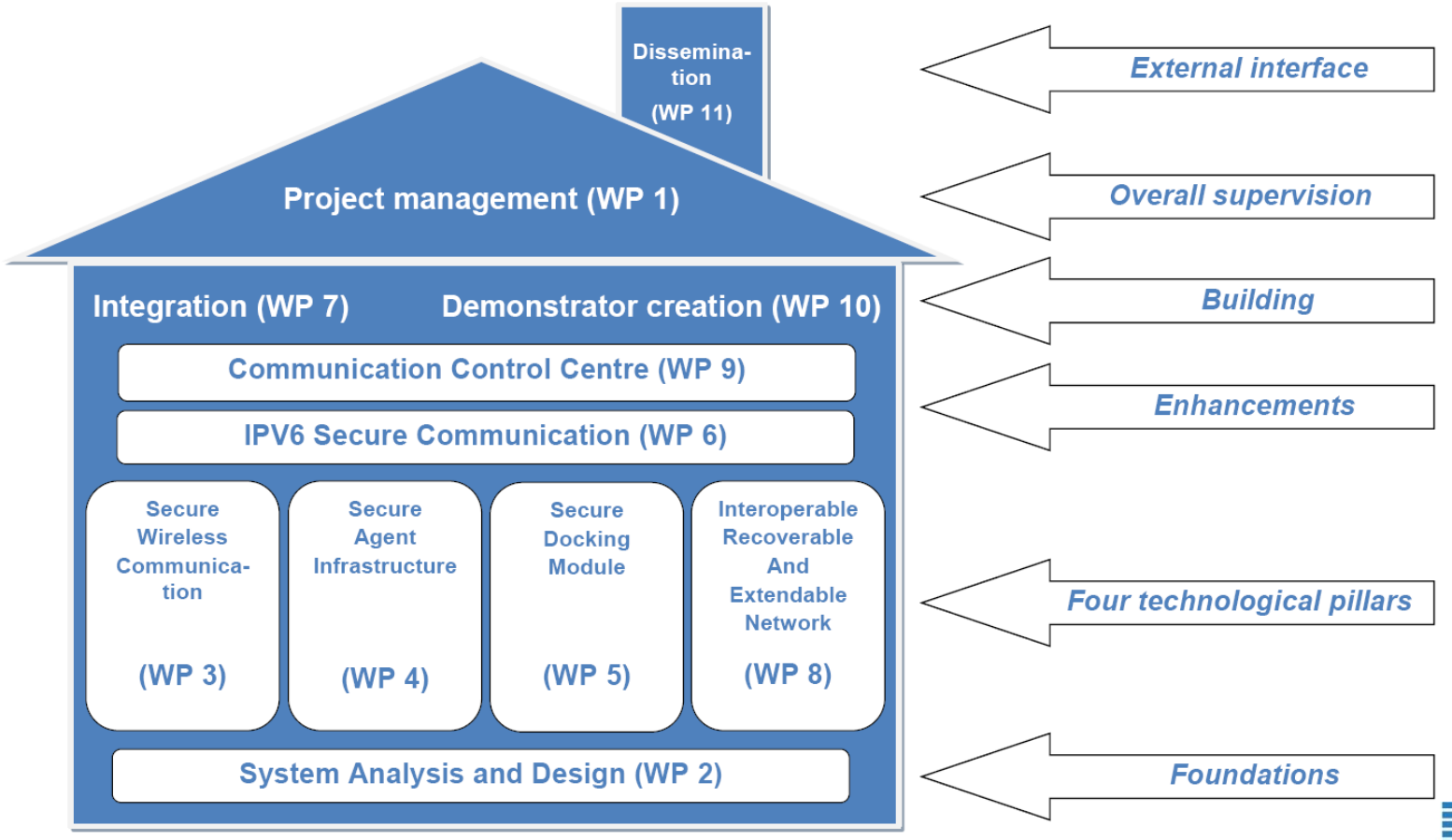
Effort allocation



Key facts

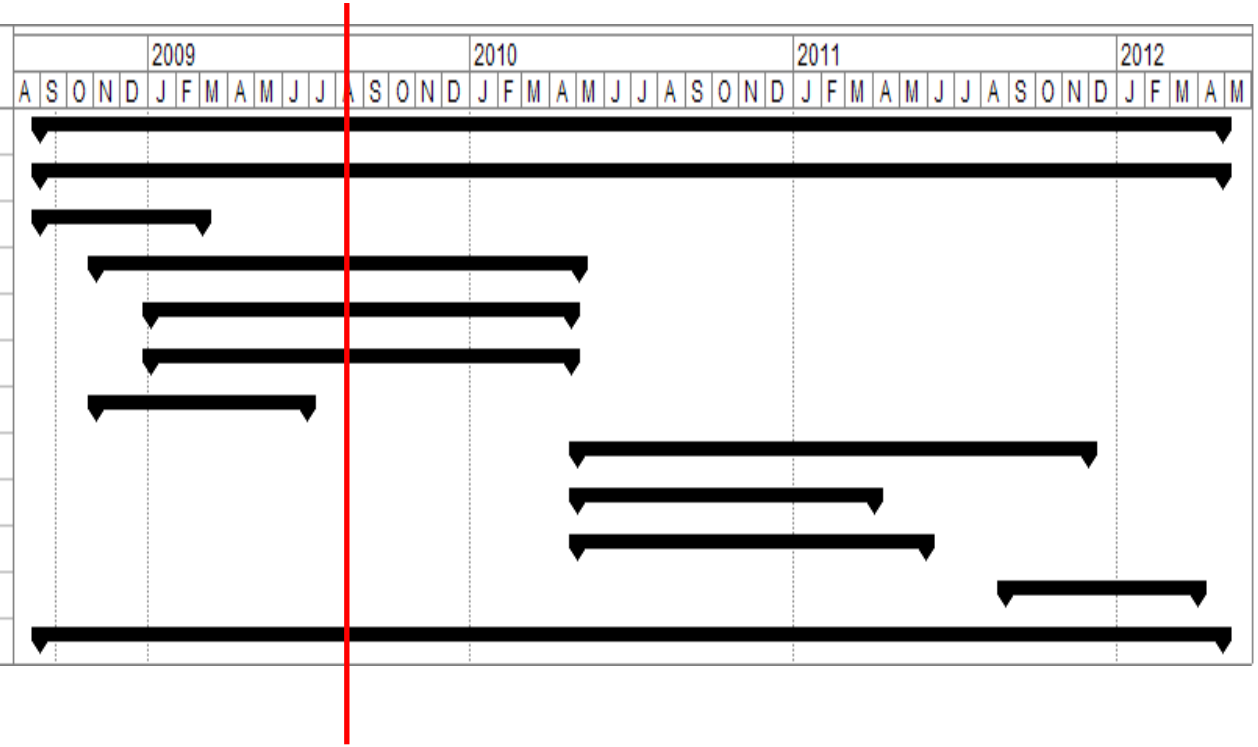
- Funded from the EU - Seventh Framework Programme
- Theme 10 - Security Call
- Wireless Communication for EU Crisis Management
- 13 Partners from 8 EU countries
- Starting date: 1st September 2008
- 44 months duration
- Total value ~ €12.5M

Project Overview



Schedule

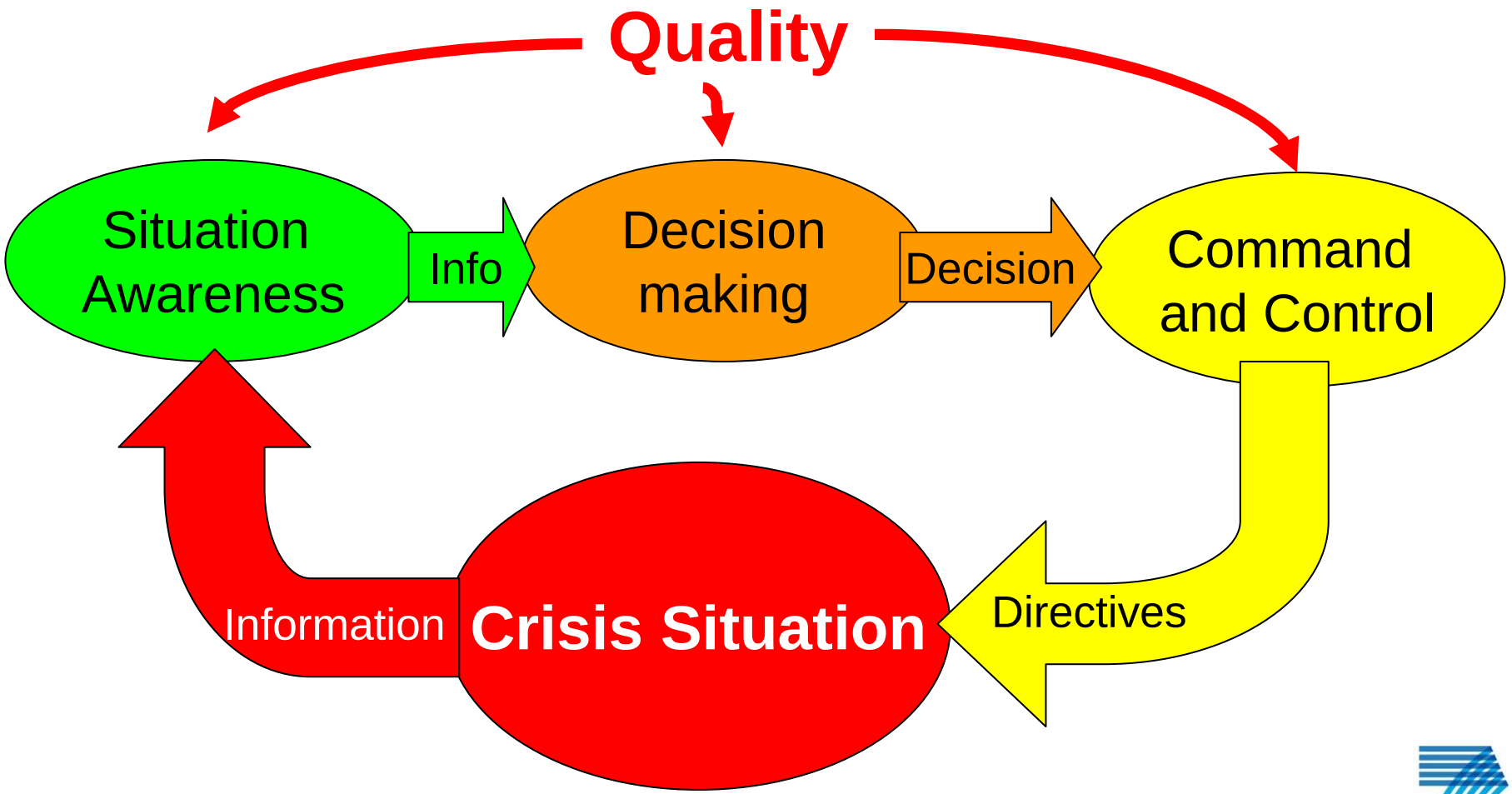
ID	Task Name
1	SECRICOM
2	WP1 - Management and coordination
5	WP2 - System Analysis and Design
9	WP3 -Secure wireless communications
14	WP4 - Secure agent infrastructure
18	WP5 - Secure docking module
23	WP6 – Secure IPv6 Network
28	WP7 – Integration of research results
33	WP8 - Building of integrated network
38	WP9 - Building of monitoring and control centre
42	WP10 - Demonstration
48	WP11 - Dissemination & Exploitation



User Requirements

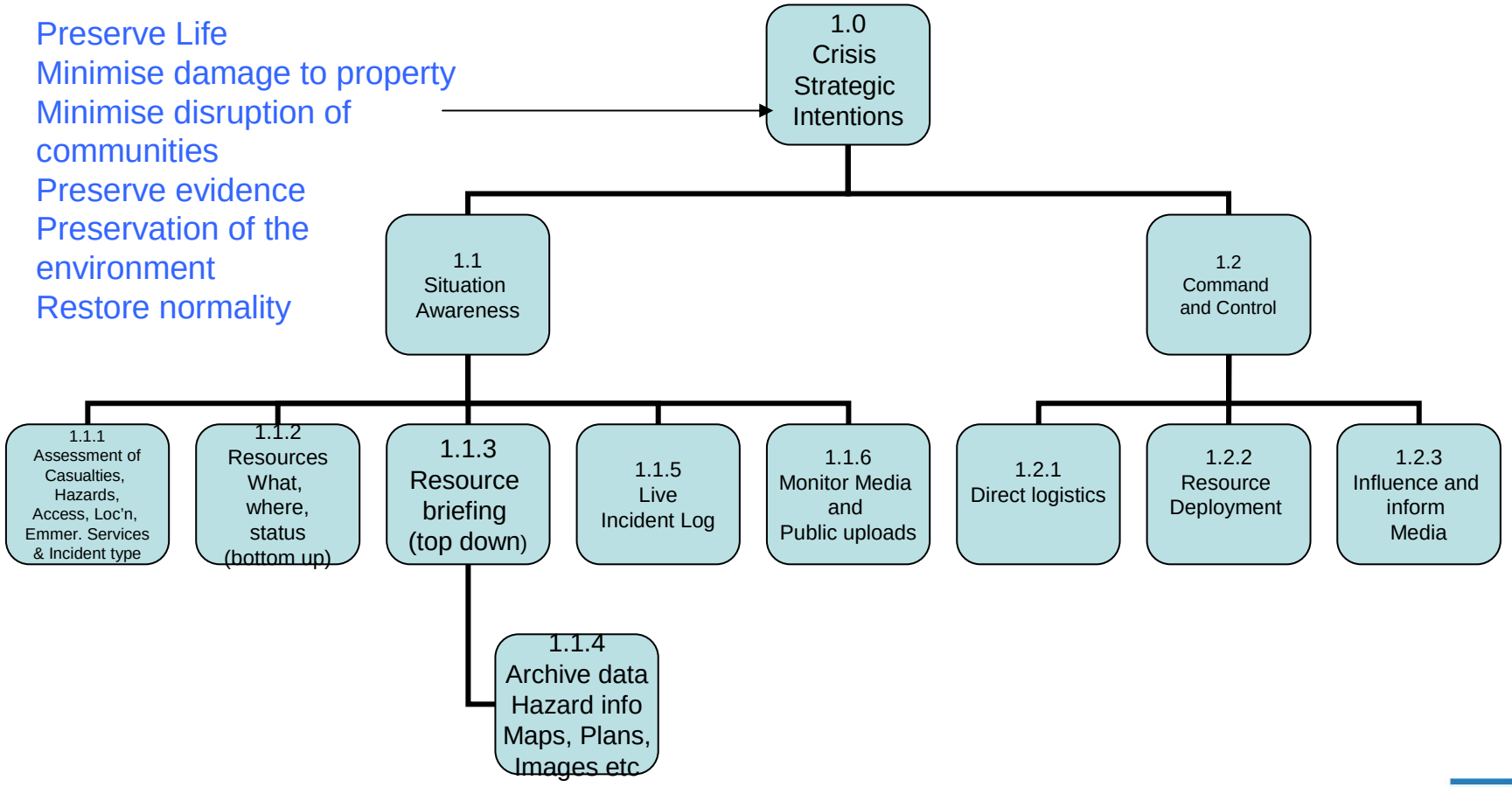
- Enable the user to clearly understand their objectives and/or command directives
- Expressed in terms of **what** the user wants to achieve
- Discourages users from being seduced by technology

Principle of Crisis Management

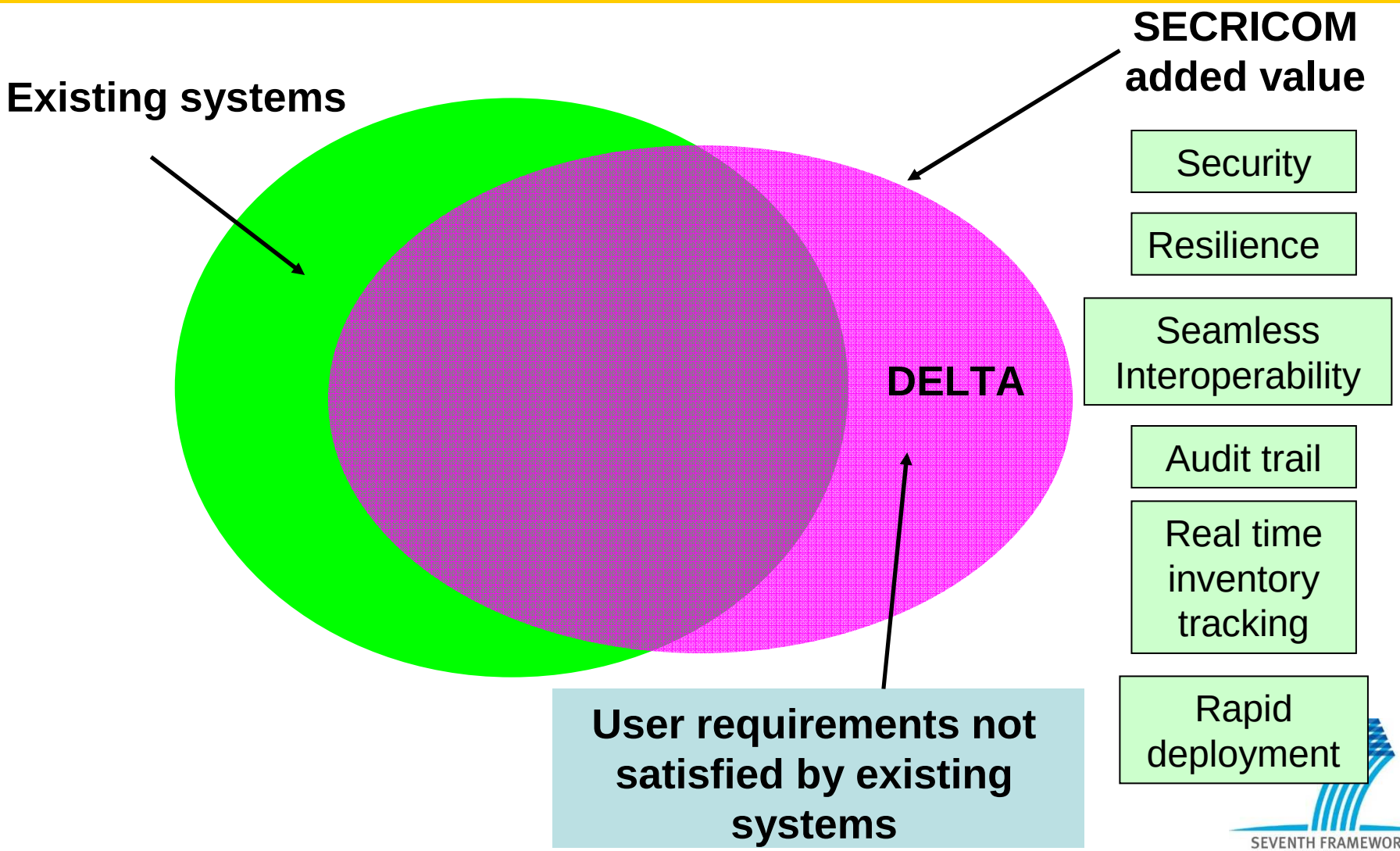


High Level User Requirements

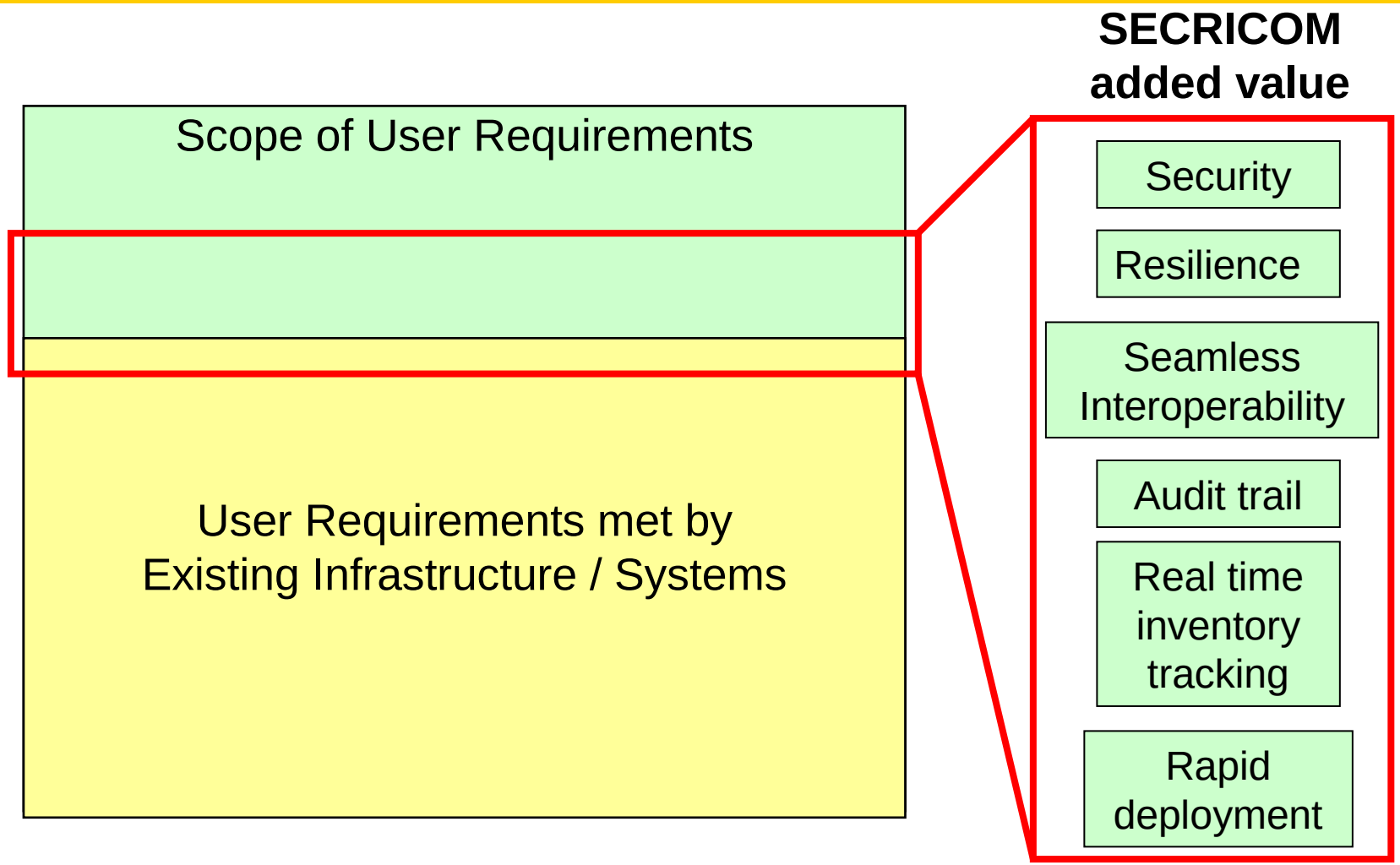
Preserve Life
Minimise damage to property
Minimise disruption of communities
Preserve evidence
Preservation of the environment
Restore normality



SECRICOM added value



Capability Gaps - illustrative

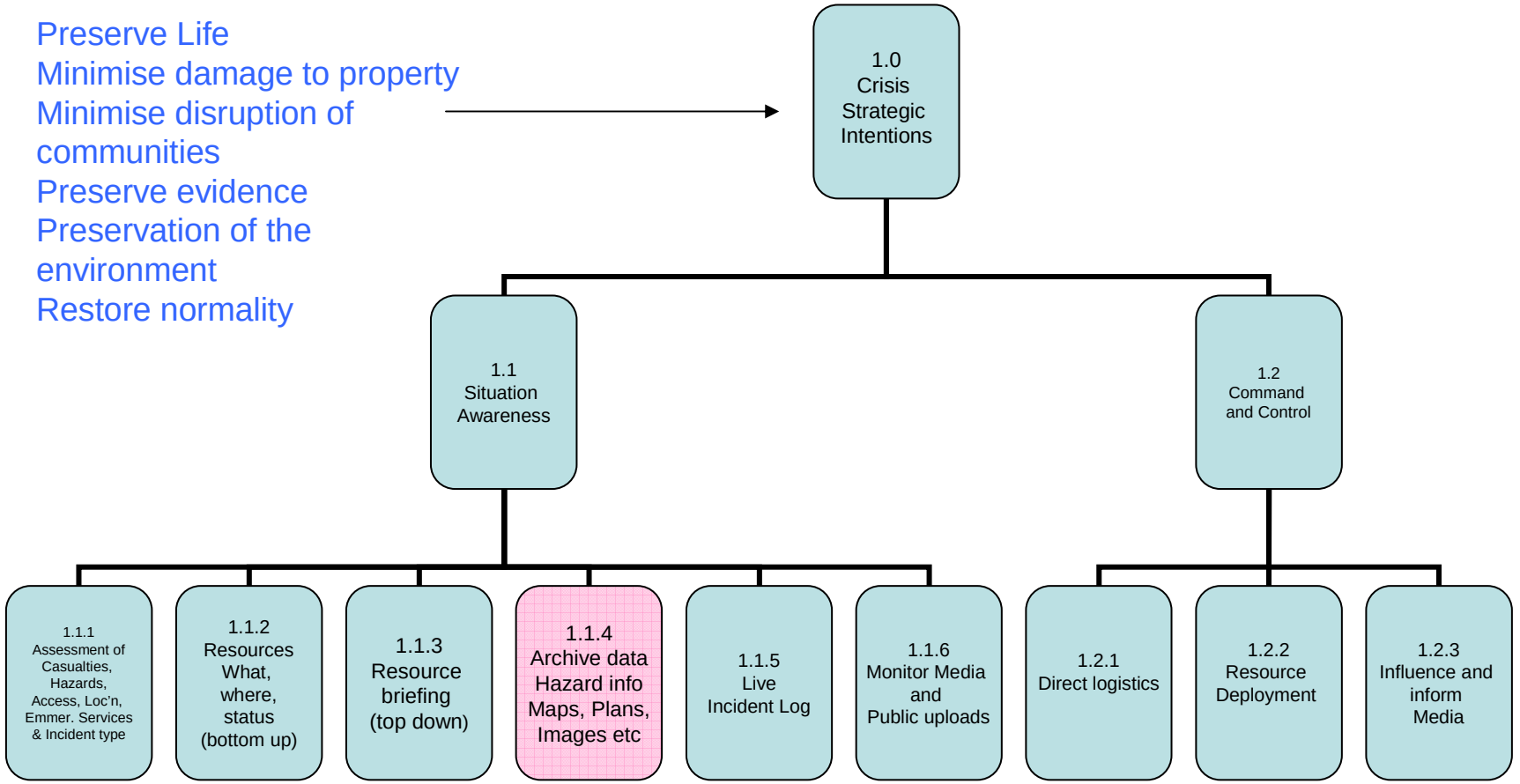


System Requirements

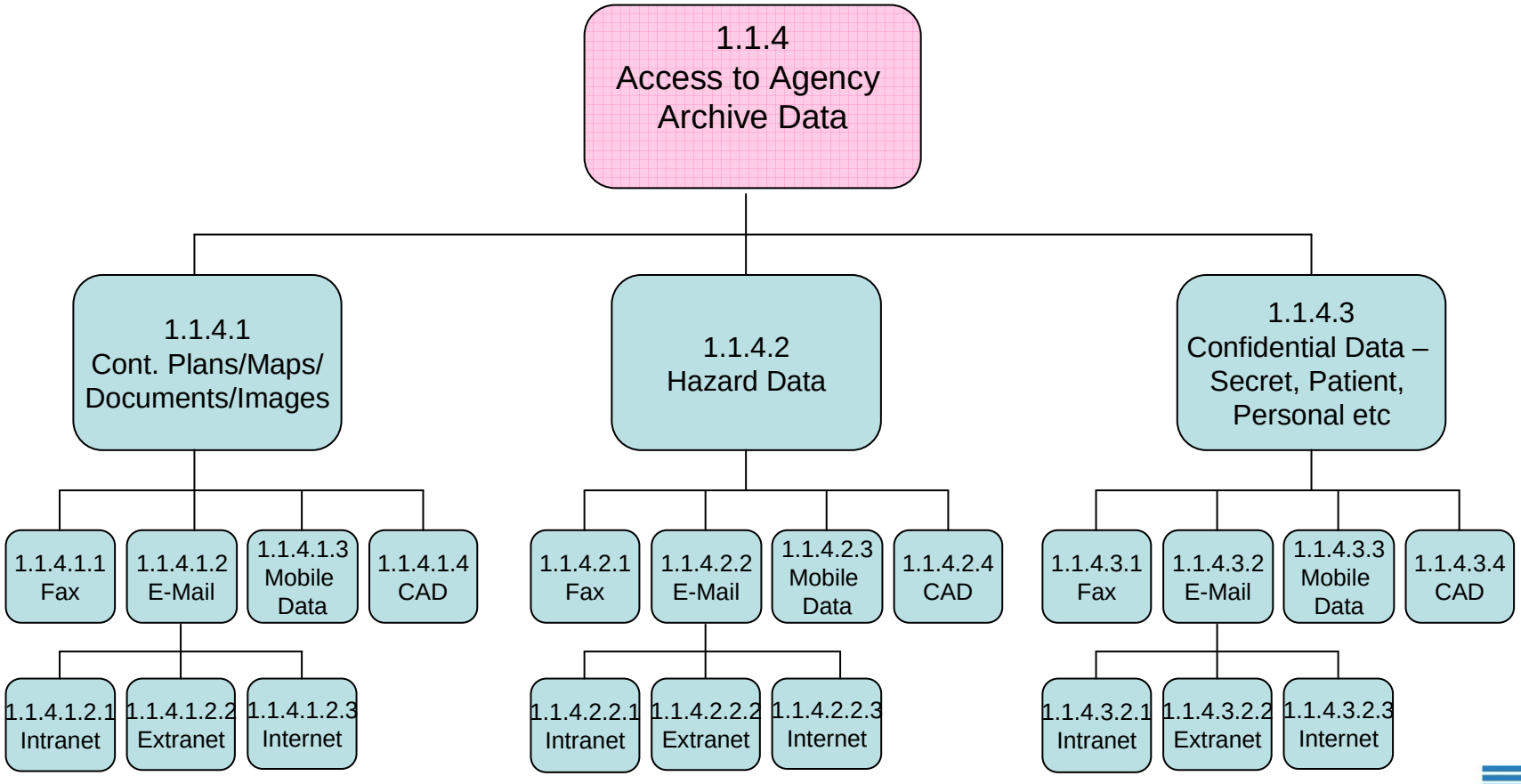
- Derived from the user requirements
- Concerned with the minimum required functionality necessary to meet the user requirement
- Expressed in an appropriate fashion, e.g. tree and/or architecture diagrams
- Must take existing systems into account

Example of Procedure

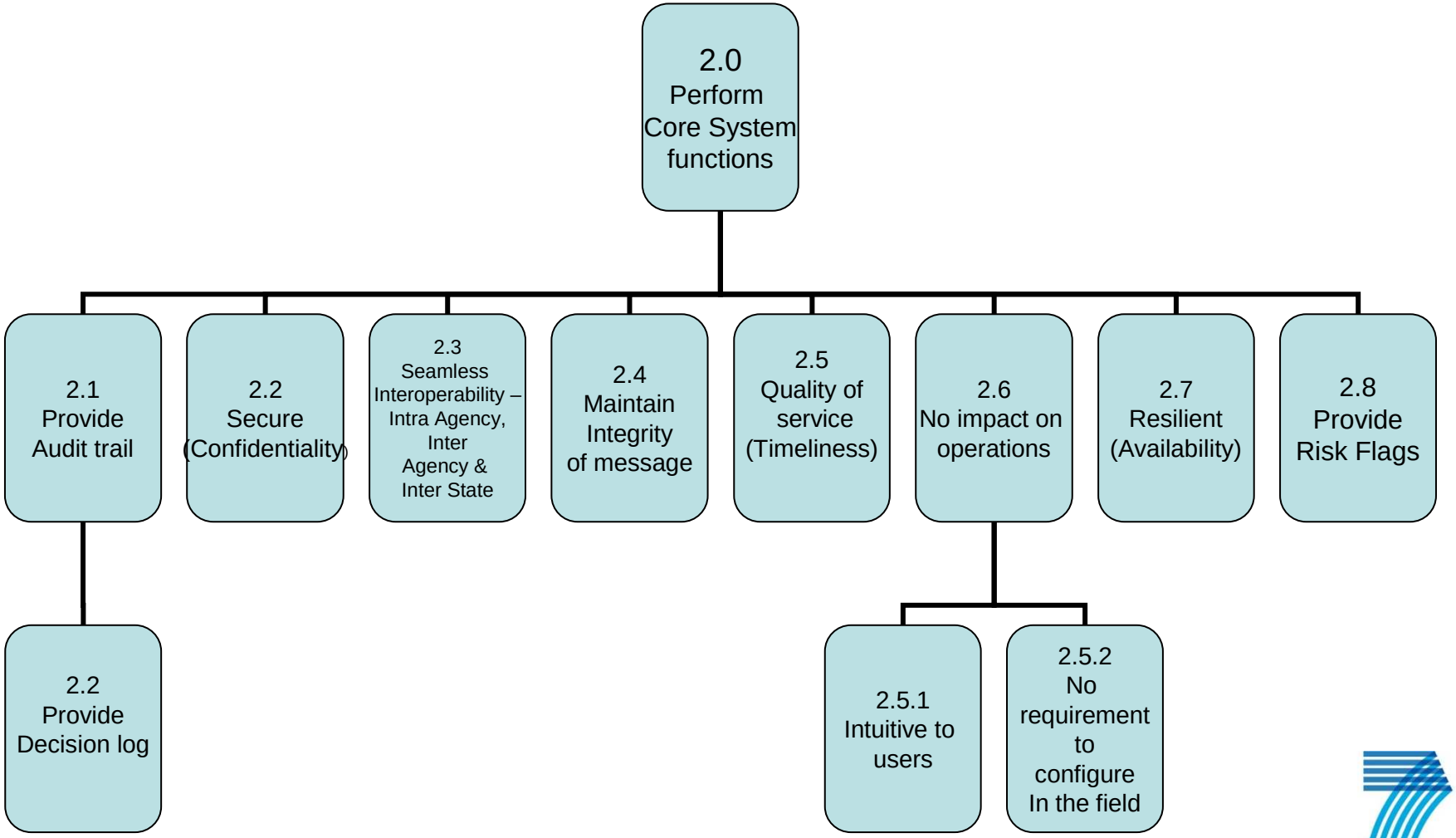
Preserve Life
Minimise damage to property
Minimise disruption of communities
Preserve evidence
Preservation of the environment
Restore normality



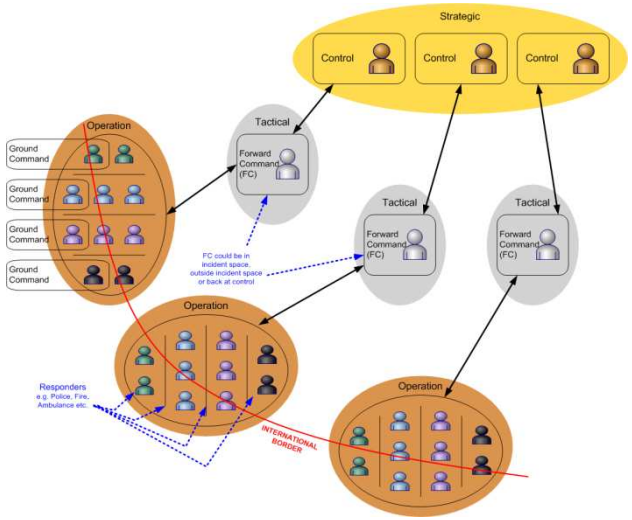
Derivation of System Requirements



Core System Functions



System Architecture and Solution Technologies

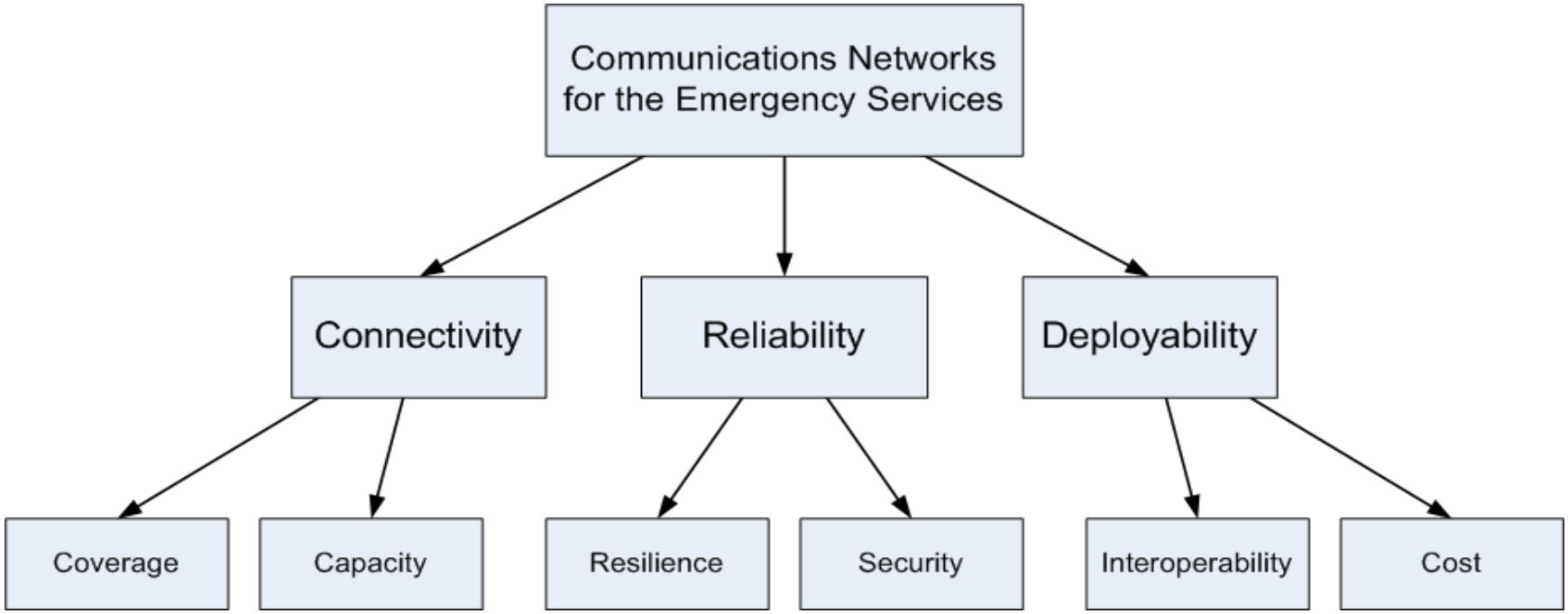


Clear Need for Communications that can be relied upon, that is both *Ubiquitous and Interoperable*

Communications System Architecture

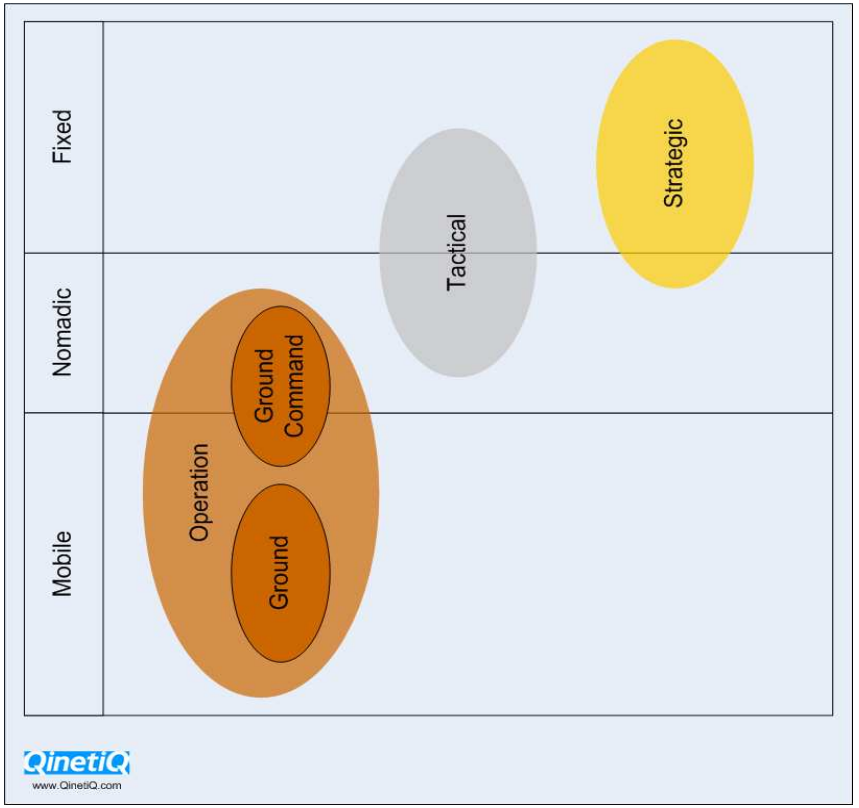
- Ubiquitous communications requires usage of as many communications, and avoidance of reliance on a single system
  - Make simultaneous use of 3G, GSM, WiFi, WiMax, Satellite, SDR, etc
  - Aim for seamless switch over with minimal impact to user/business
- Interoperable communications requires usage of open/non-proprietary standards for system, hardware and software
  - Network: IPv6 as the principle standard for networking: future-proof
  - Wireless: 3G, GSM, WiFi, WiMax, TETRA, Satellite, etc
  - Fixed: Ethernet

Communications System Features for SECRICOM

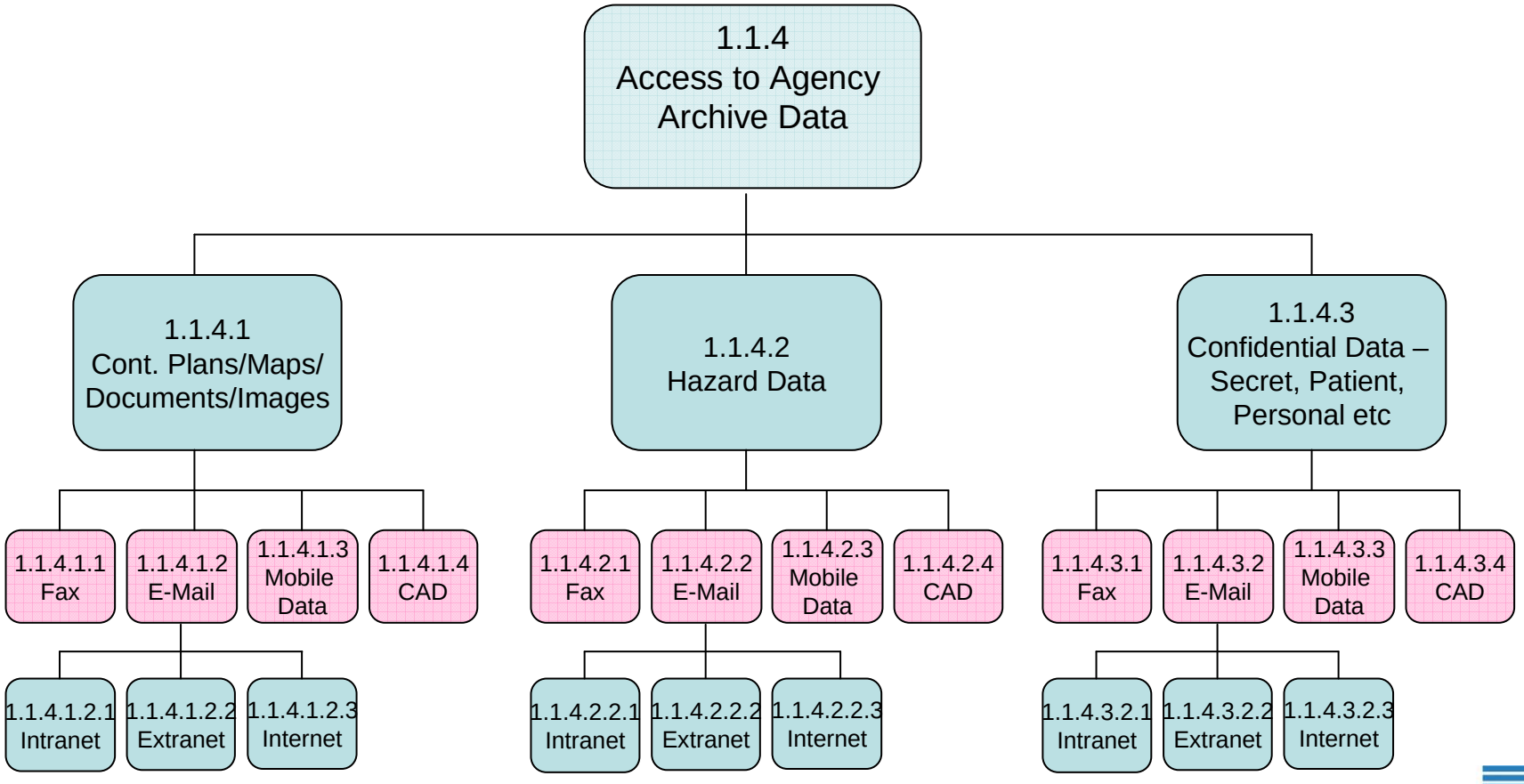


Type of Users

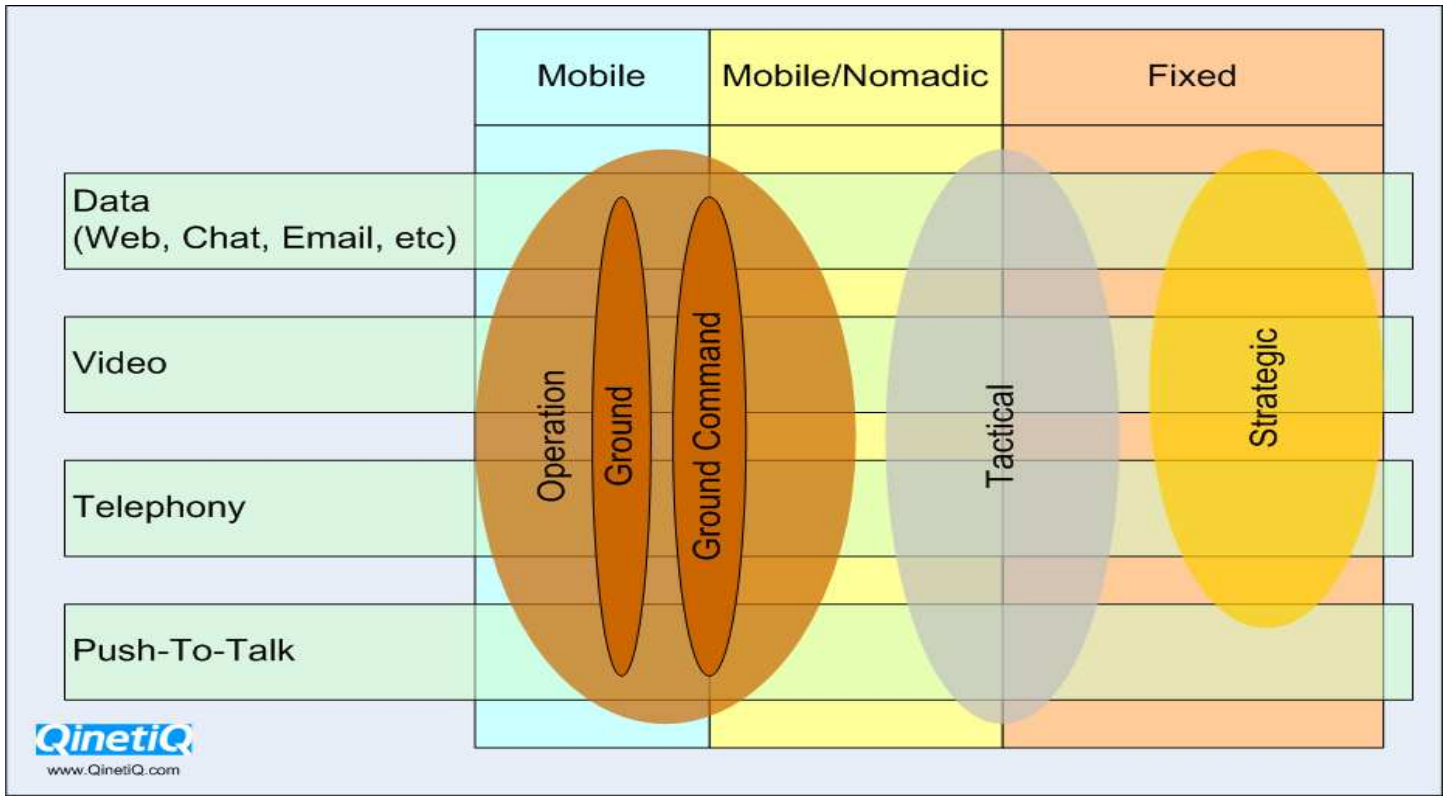
- Fixed, e.g. office
- Nomadic, e.g. deployable office
- Mobile, e.g. land/air/water transport or on-foot



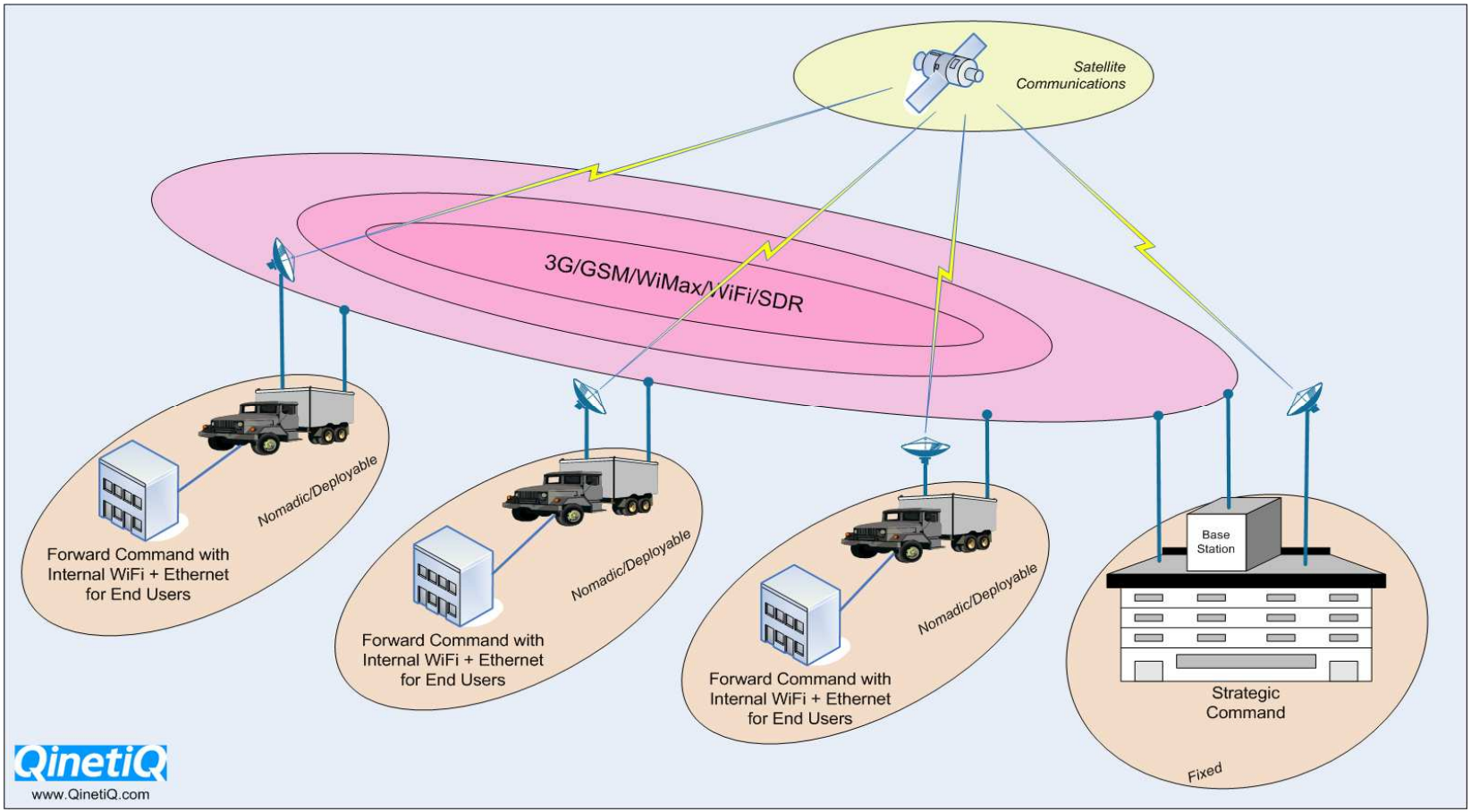
Type of Traffic



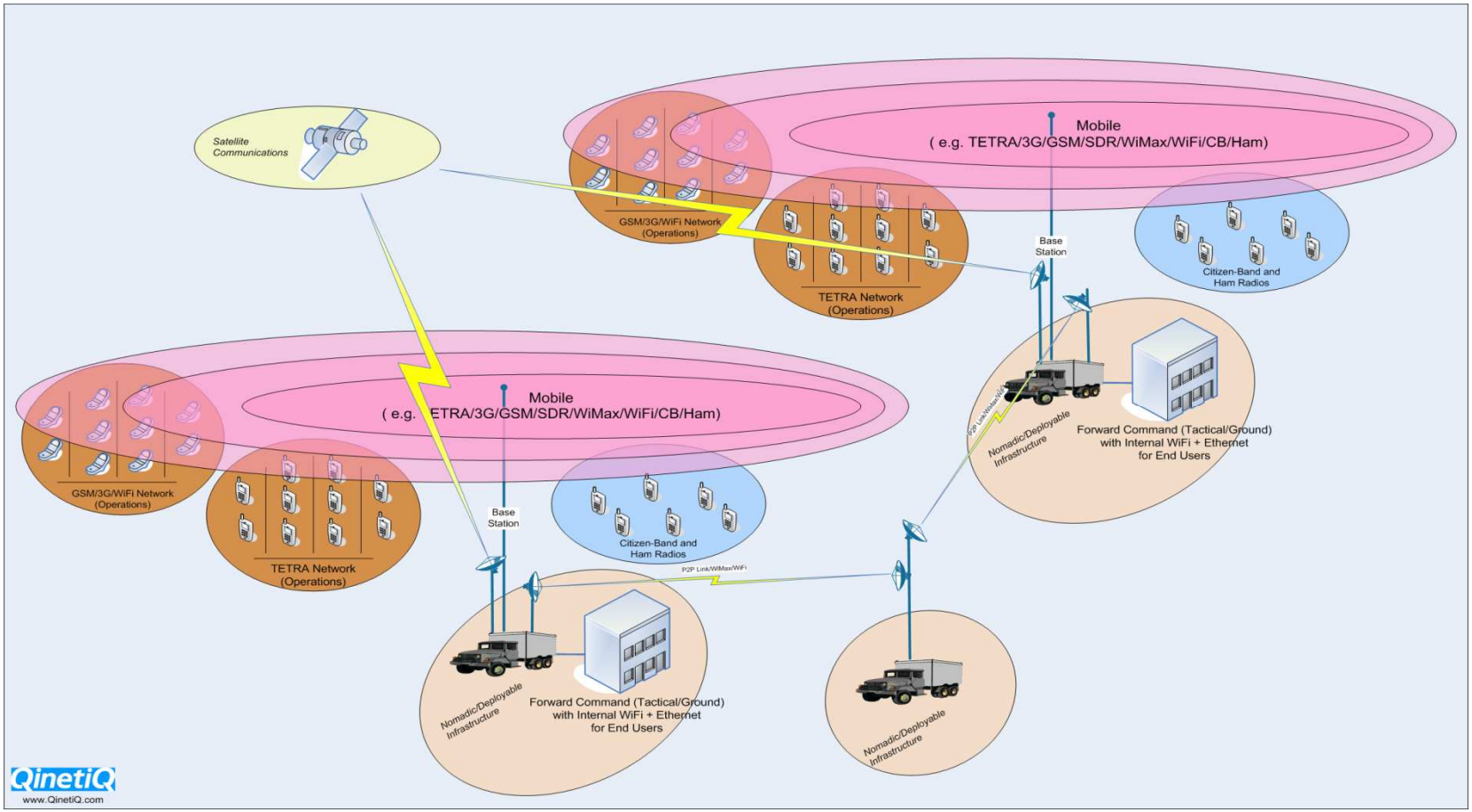
Type of Traffic for Users



Strategic/Forward Command Communications

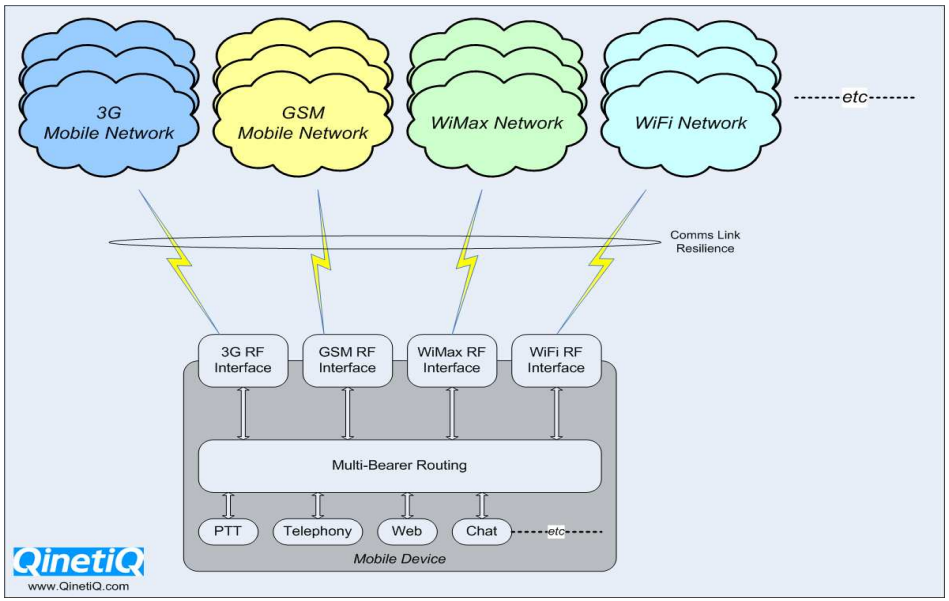


Forward-Command/Operations Communications



Delivering Resilience

Resilience can be best carried forward to the frontline and into the operations space by the use of mobile communication devices which are

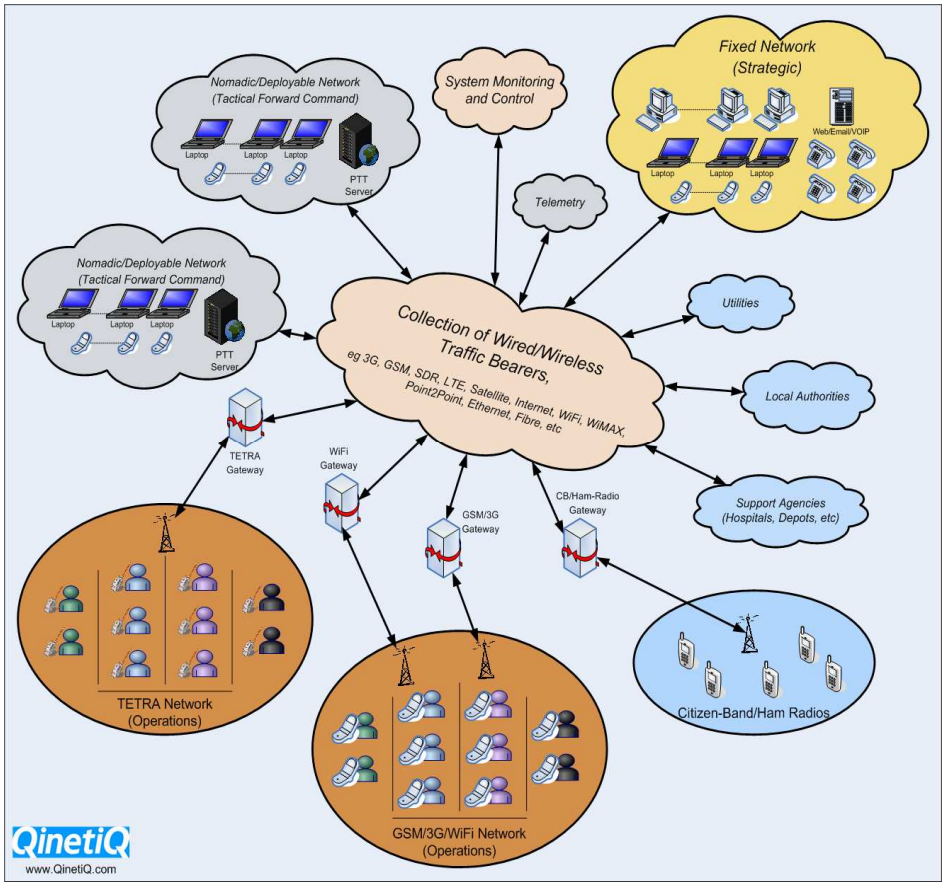


- Open
- Capable of communicating using multiple standards

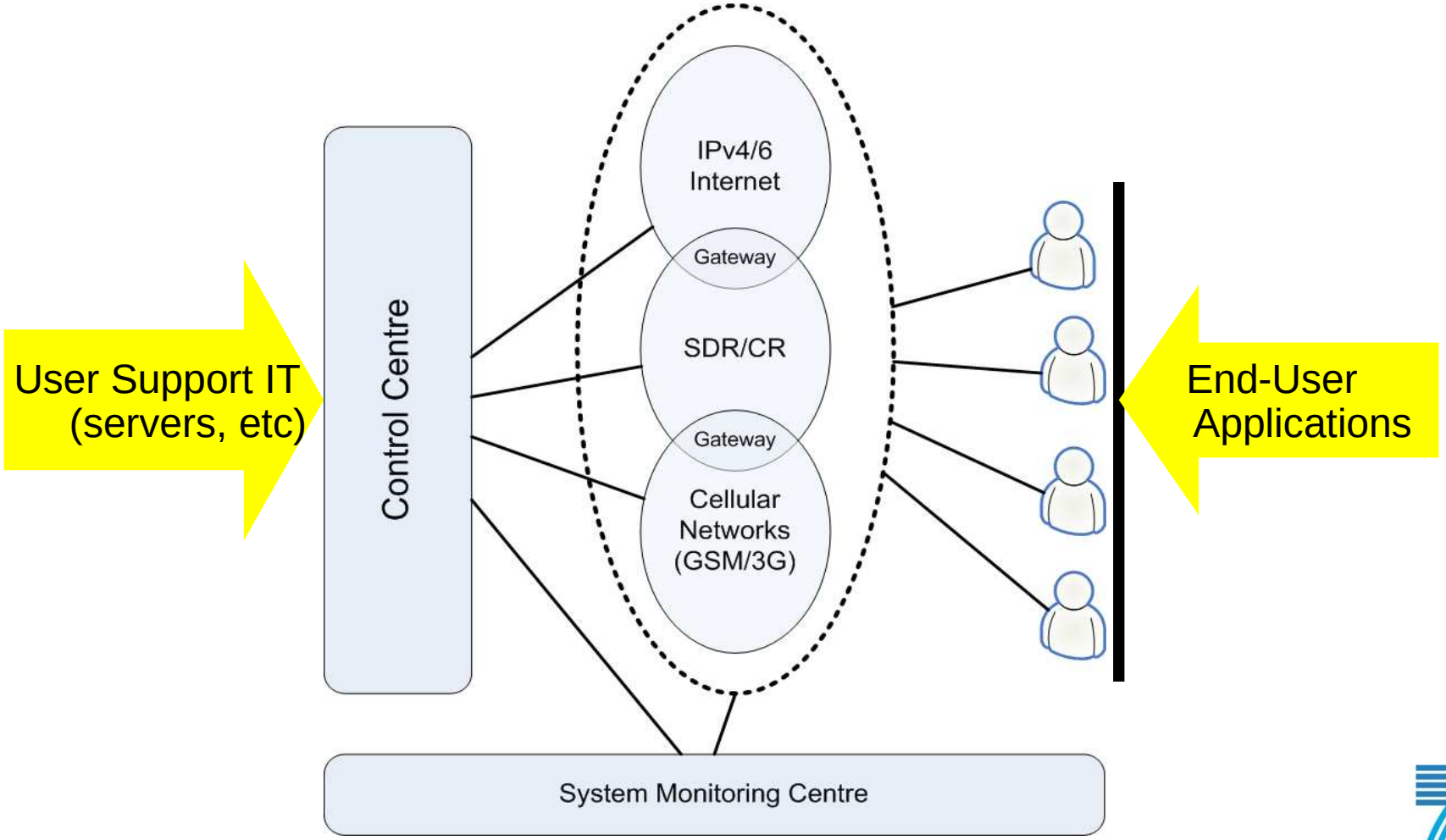
Holistic High Level View

The communications system architecture allows:

- Technical interoperability, thus able to extend communications across different agencies and across different countries
- Technical expandability, thus able to extend communications to places where communications not usually available achieving ubiquitous operations



Operator High Level View



Discussion

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