



Information Society



European Commission

Network Enabled Disaster management

*Demonstration of Advances in ICT standards for Public Warning
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General Goal:

To develop a EU Network Enabled Capability to support disaster risk management and humanitarian crisis

- Full Geo-Spatial data interoperability
- Real time, sensor based monitoring systems
- All hazards all media alert systems,
- Shared operational picture and situational awareness
- Full availability of broadband communications and positioning





Our Strategic approach

- **To focus on system architecture rather than specific applications (standards based architecture)**
- **To support large scale pilot test with end-users**
- **To foster pre-standardisation activities as an integral part of RTD**
- **To promote open source as a mean to improve the uptake of RTD results**
- **To contribute to the relevant EU policies and actions: INSPIRE, GMES, GEOSS, Civil Protection**
- **To cover the whole disaster management cycle**





Covering the whole cycle

- **Successful warning systems depends on the quality of the emergency management chain**
 - Reliable detection of the threat
 - Reliable processing of information
 - Protocol to determine when and how a warning should be issued
 - Effectiveness of the warning system
 - How many people will be reached?
- **But also on a number of non technical issues**
 - Is there an emergency plan?
 - Will they take the expected actions?





the disaster management cycle

Prevention and Mitigation

- Hazard prediction and modeling
- Vulnerability management
- Systemic multi-risk approach
- Building resilient communities..

Preparedness

- Scenarios development
- Emergency Planning maps
- Training

Alert

- Real time monitoring & forecasting
- Early warning
- Public warning
- Scenario identification

Post Disaster

- Lessons learnt
- Scenario update
- Socio-economic and environmental impact assessment
- Spatial re-planning

Response

- Emergency telecommunication
- Command control coordination
- Situational awareness, crisis maps
- Information communication
- Dispatching of resources....

Recovery

- Early damage assessment
- Re-establishing life-lines transport & communication infrastructure

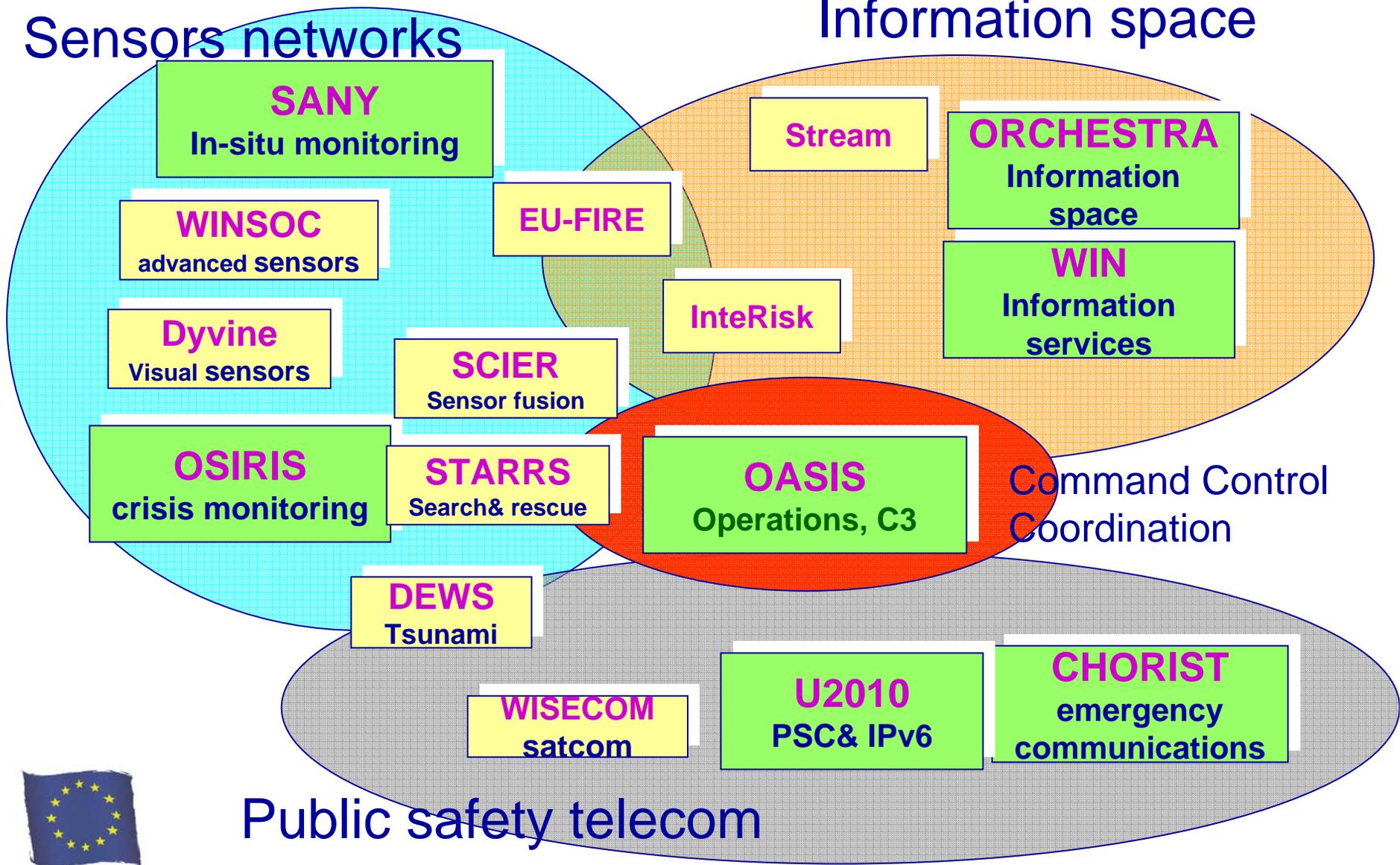




Disaster risk reduction projects

Sensors networks

Information space



Public safety telecom

- **Three main group of future activities**
 1. Collaborate and Plan
 2. Sense and Share
 3. Command and Communicate





1- Collaborate and plan

- **System of systems approach**
 - Dynamic sharing, collaboration and planning
 - Towards the « Single Information Space for the Environment in Europe »
 - Cross-sector integration of standards
- **Based on emerging technologies**
 - Semantic web
 - Grid, secured gateways, single sign-on, IPv6, QoS etc.
- **Prototype and take-up of 'state of the art'**





2- Sense and share

- **Network centric capability able to sense in real time, interpret and share knowledge**

- **Operationally immature technologies**

- Real-time sensing, simulation, interpretation & decision
 - Specific to each disaster type
 - The citizen as a intelligent moving sensor (112)
- System capability: Scalability, mobility, security
- Continue current work on SensorWeb, intelligent self-healing sensor networks,
- Research supported by ICT for the environment and the security programme





3- Command and Communicate

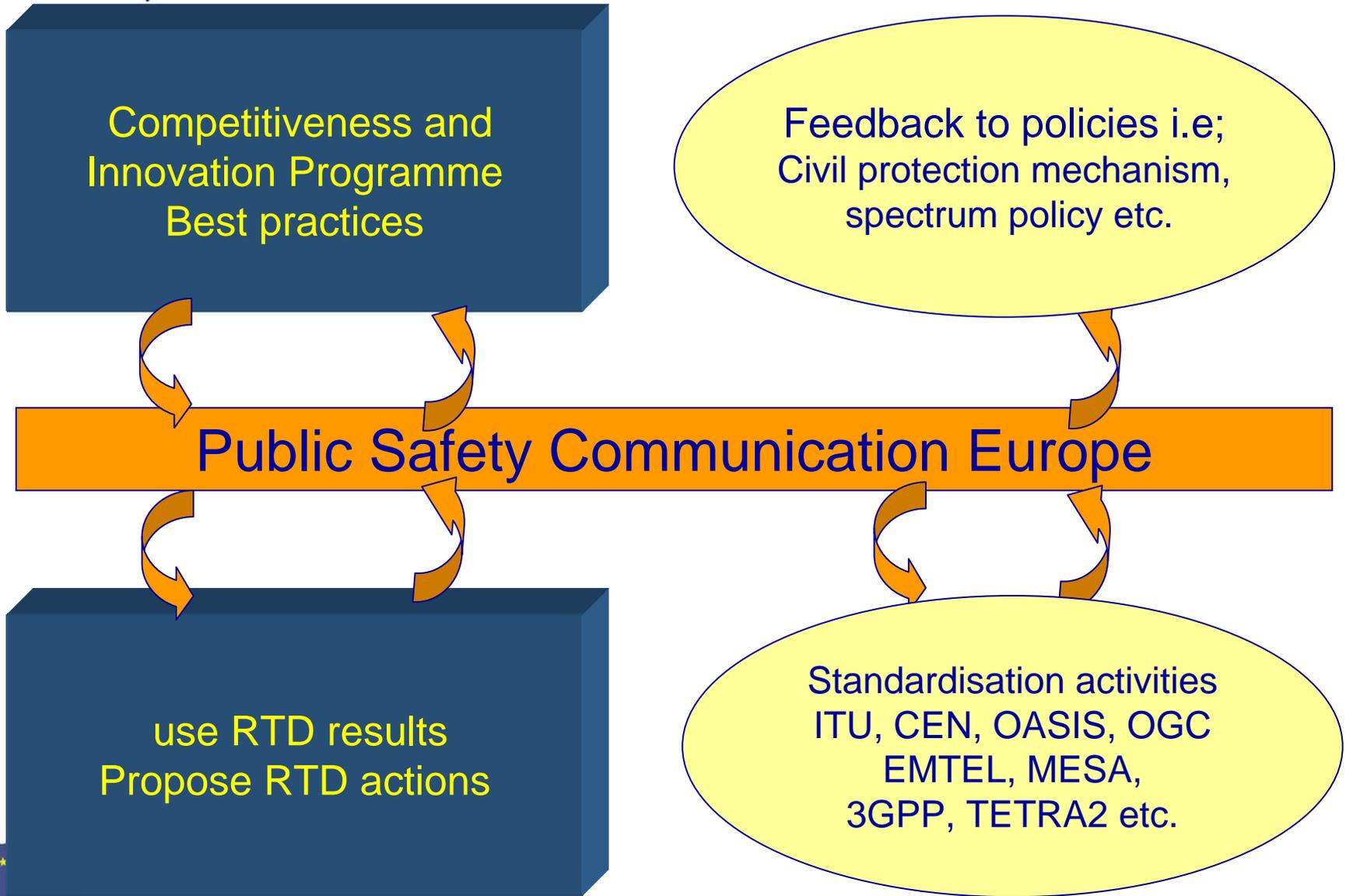
Example of work in progress

- **interface between emergency agencies for exchanging information during the operations** (Tactical Situation Object)
 - Based on NATO standards and on a rich and expandable dictionary
 - **Identification information:**
 - the identifier, the originator of the information and the date of creation of the TSO
 - **Description of the event:**
 - type of the event, its extent, the number of casualties, the consequences on the environment, its criticality
 - **Description of the resources:**
 - which resources are already used, which resources are available
 - **Description of the missions:**
 - the tasks which are on-going, their status, the teams and resources which are engaged for them, their planning
 - **CAP and TSO are slightly overlapping, both can be used for the event description, a mapping between TSO and CAP 1.0 is proposed**
 - TSO is based on a common data dictionary which enhance its capabilities to handle multi-lingual exchange. Cooperation with OASIS most welcome





From RTD to Innovation





PSCE Mission statement

The Public Safety Communication Europe forum aims at influencing, by consensus building, excellence in the development and use of public safety communications and information management systems to improve the provision of public safety services and the safety of the citizens of Europe and elsewhere in the world.





PSCE Objectives

- **To consolidate the published user requirements into a high level European User Functional Specification**
- **To improve public safety/civil protection service delivery to the public by the production and promotion of a Road Map for future technological development**
- **To advise and influence policy makers, regulators and standard making bodies, improve national and international inter-operability**
- **To maintain European leadership in specification and provision of public safety and civil protection communications and information management systems**





PSCE approach

- **Creating a Public Safety Communication Forum which will establish a European platform and roadmap for future public safety communication**
- **The PSC Forum will include Conferences and will carry out other activities between the Conferences, designed to further consult public safety users, system providers and operators**
- **Once established, it is anticipated that the Forum will continue after the end of the project.**





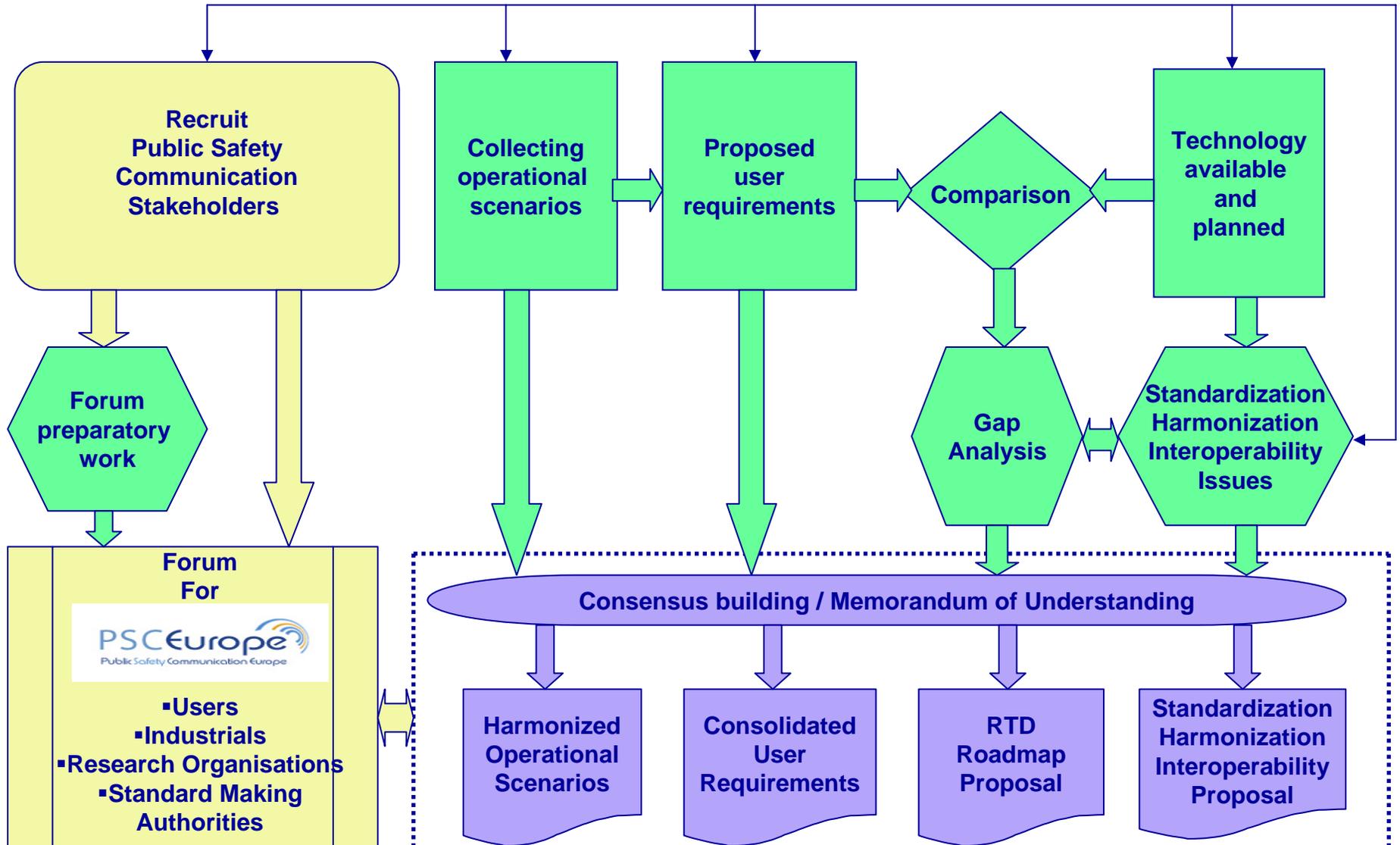
PSCE approach

- **The Forum will be structured as a process which will culminate in 5 conferences and in a number of discussions by electronic forums, workshops, discussion/working group etc.**
- **The work of the Forum will also contribute to the preparation of a communication from the Commission to the Council and the Parliament**
- **The Forum will also function as a consultation process, by which the public safety end user community will be mobilized and high level Public Safety Communication stakeholders and decision makers will be involved**





PSC Europe structure





PSCE Electronic forum

- **This @Forum will be an open electronic discussion forum addressing the different key issues of public safety communication and information management systems**
- **The topics will be placed on the @Forum Bulletin Board by the @Forum moderators, and invite for an open discussion**
- **Each moderator will lead the discussions and be responsible for proposing conclusions and recommendations**
- **This @Forum activity intends to stimulate a continuous communication between users (citizens/authorities), regulatory bodies and industry as well as the system developers and standardization bodies**





PSCE Events

- **First networking session will take place during**

IST 2006 in Helsinki, Finland, 22nd November, 2006

- **It is planned 5 Forum Annual Conferences within the initial 3 years of the Forum, with the first Annual Conference to take place in Brussels in May 2007**
- **<http://www.publicsafetycommunication.eu/>**

