



- SafeCity in FI PPP— Opportunities For Cities and SMEs

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ISDEFE



ISDEFE offers support to the Ministry of Defense and Public Administration

National Clients

Spanish Public Administration



Regional Administrations



Public Organs



International Clients

Public Organs



Multilateral Institutions





ISDEFE –knowledge areas applied to R&D

Systems Engineering in multiple areas

- 🏢 Command and Control
- 🏢 Intelligent Borders Surveillance
- 🏢 Critical Infrastructures Protection
- 🏢 Communication networks for aerial, terrestrial and maritime platforms
- 🏢 Airport Operations management
- 🏢 Etc.

Direct contact with safety and security related end-users

- ❖ National Civil Protection
- ❖ Regional Civil Protection as:
 - ❖ Madrid medical services (SAMUR)
 - ❖ Madrid Fire-fighters
- ❖ Security Forces
 - ❖ Madrid City Police
 - ❖ Emergency Military Unit (UME)
 - ❖ Spanish Civil Guard
- ❖ Critical Infrastructures
 - ❖ Madrid Integrated Center of Security and Emergencies (CISEM)
 - ❖ Madrid Underground
 - ❖ Command and Control Center of M30 tunnel
- ❖ Several Regional Municipalities
- ❖ Etc.



**Participation in R&D
European Projects in ICT
and Security**



Example of Defense and Security Dept. involvement





SafeCity overview

Future Internet Applied to Public Safety in Smart Cities

- ◆ **SafeCity** is one of the 8 Use Cases of FI-PPP Phase 1
- ◆ Started on April 2011; Ends in April 2013
- ◆ Aproximated Costs: 5m€
- ◆ EU Spread and robust Consortium: partners from Spain, Portugal, Italy, France, Sweden, France, Greece, Rumania, Finland, Israel.

Consortium





SafeCity Relevance

- Social

- Civil Protection, critical point in our lifestyle:
 - ✓ due to dramatic increase of urban population
 - ✓ due to recent terrorists or non-terrorist attacks (Madrid 2004, London 2005, Norway 2011)

In news: Surveillance cameras provided a vital breakthrough in the hunt for those *responsible* for the four bomb blasts that killed at least 52 people in London, UK, on 7 July.



The London-bound bombers are caught on CCTV early in the morning of July 7. Hussain at Luton with his bag-pack full of explosives.

- Political

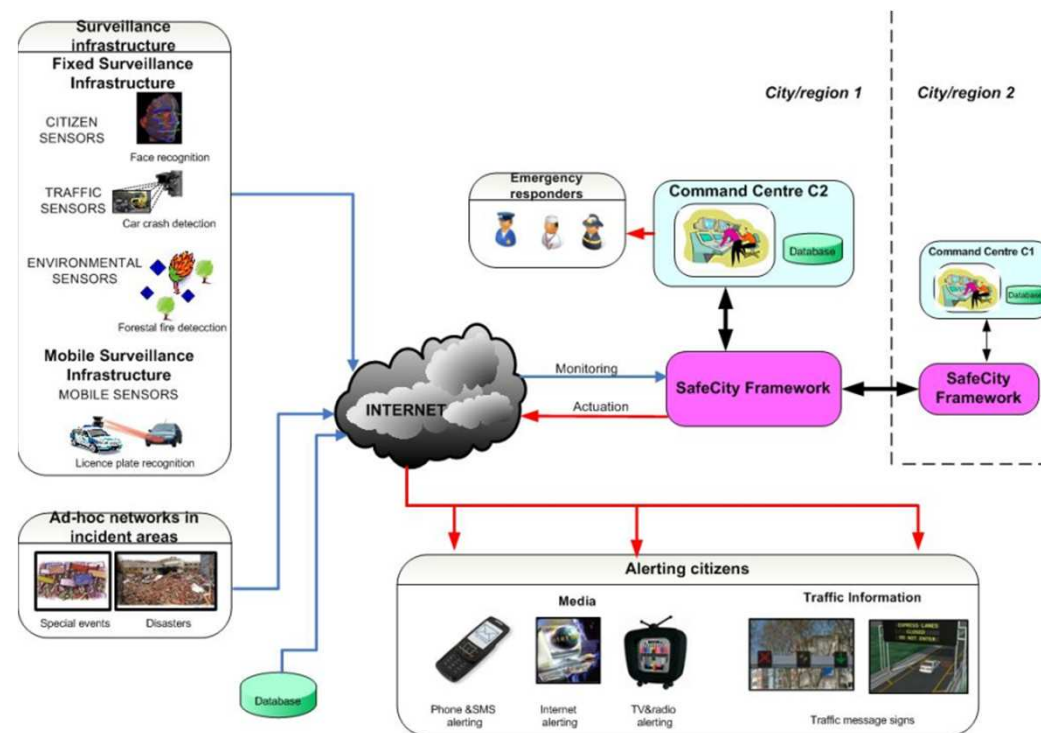
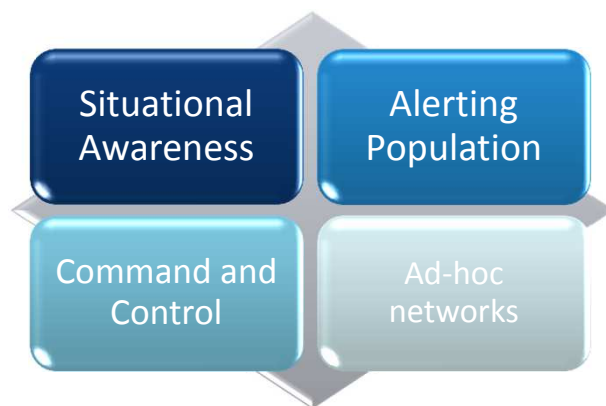
- *Article 196 of Lisbon Treaty*
 - ✓ *Claimed for more cooperation of Member States in protection and prevention against natural or man-made disasters.*

- Technical

- Growing interest in applying innovative technologies in Public Safety

SafeCity areas

SafeCity aims at making **Public Safety capabilities smarter** through advanced Internet networking and computing technologies in 4 different functionality areas.





App E.g. 1: Efficient Video Surveillance

- Limitations:

- Inefficient CCTV security systems
 - ✓ Require 24/7 monitoring with no triggered alerts
 - ✓ Thousands of cameras VS. Tens of operators

- Trigger human action when potential risk detected. E.g.:

- In traffic: congestion, car going in opposite direction, hazards in the road
- In street: illegal intrusions, face recognition of missing/wanted people.

- Key Challenges

- Technical
 - ✓ Video Analytics: Info. extraction from Video images
 - ✓ Reasoning engines, definition of knowledge databases
 - ✓ Real-time processing and learning
- Ethical issues regarding security
 - ✓ Constraints wrt handling Sensitive data

- PoC in Madrid



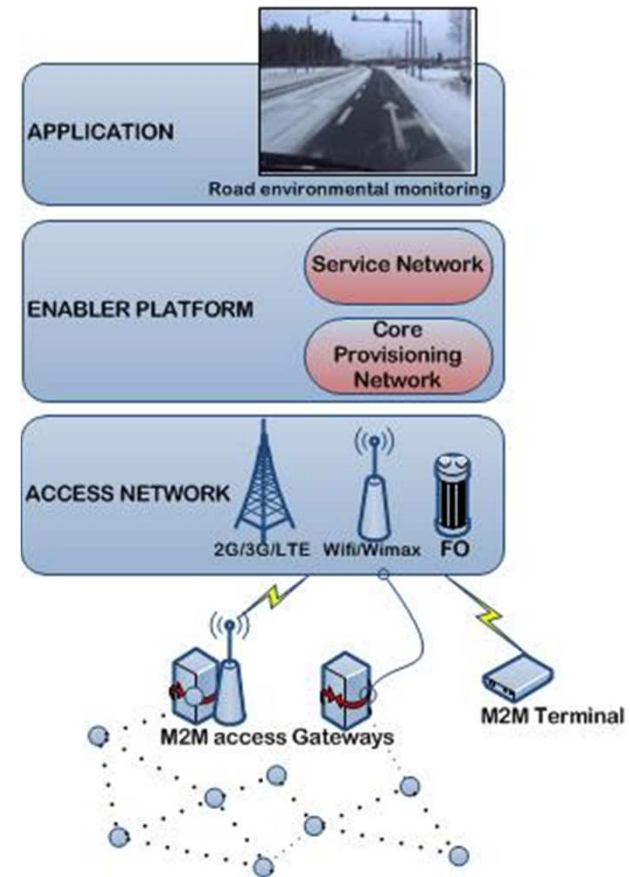
Part of PoC in Madrid (January 2013)





App E.g. 2: Data collection for Situational Awareness

- Limitations
 - 🏠 Lack of anticipation and prevention
 - 🏠 Lack of pre-processing capabilities at sensor side
 - 🏠 Lack of proper access communication networks
- Gateways and pre-processing capabilities
- Key Challenges
 - 🏠 Multimodal input data
 - 🏠 Heterogeneous devices
 - 🏠 Data fusion capabilities
 - 🏠 Self-organization for initial start-up and flexible security mechanisms
- PoC in Stockholm for Road Safety purposes

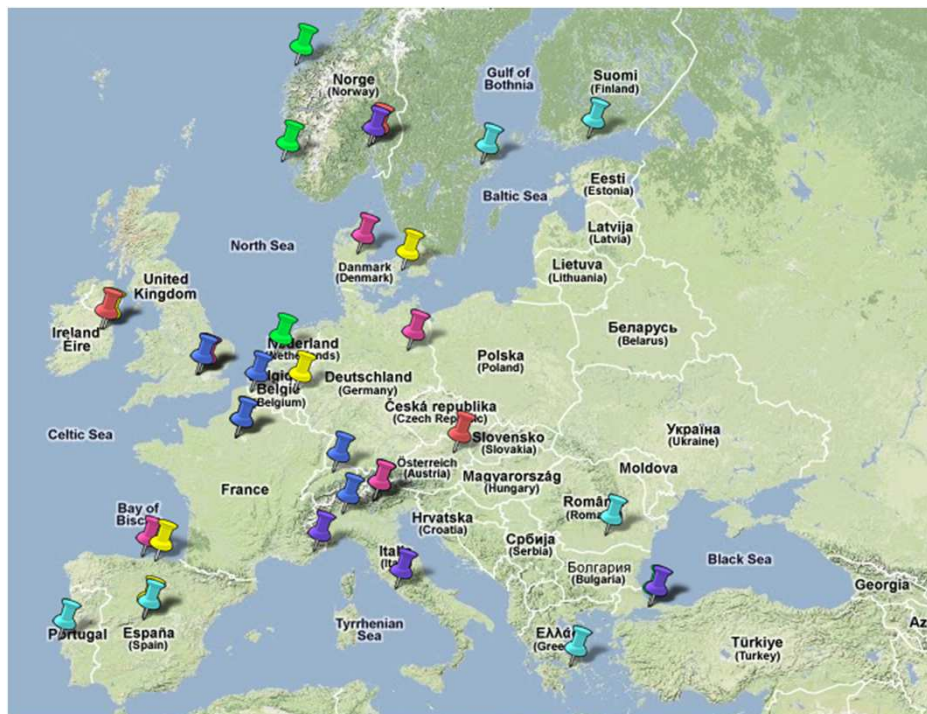




Direct Support of 6 EU Cities

Belonging to SafeCity Consortium or End-User Advisory Board

(you are free to join SafeCity End-User Advisory Board if interested!)



Map of use cases FI-PPP



MADRID:

◆Madrid City Council.



STOCKHOLM:

◆Attunda Fire Brigade from North of Stockholm Council



BUCHAREST:

◆Bucharest City Council.



ATHENS:

◆Kemea (Athens Police)
◆Grevena Civil Protection



HELSINKI:

◆Helsinki City Council (Police)



ÓBIDOS:

◆Óbidos City Council



SafeCity status and future Roadmap

- SafeCity Phase 1

- 🏠 Public Safety needs Identification
- 🏠 Specification of Generic Enablers of the Core Platform and Specific of this UC
- 🏠 Implementation of Specific Enablers
- 🏠 Early trials in Madrid and Stockholm

- Envisaged SafeCity idea for Phase 2

- 🏠 On-going discussions looking for commonalities with other Use Cases
- 🏠 **Inclusion of citizens as sensors** (sending video, images, audio, location from their smartphones at voluntary bases)
- 🏠 Enabling safety and security **information services to subscribed citizens**
- 🏠 Enhance the preliminary Proof of Concepts with more applications and sensing information.
- 🏠 Involve **open city infrastructures** and certain **Living Labs** for testing purposes.



Thanks to all!
www.safecity-project.eu

On behalf of SafeCity Consortium



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