



ETSI EMTEL

(Special Committee on Emergency Communications)

Producing and maintaining Standards for
Emergency Communications

Presented by Ray Forbes
EMTEL Chairman

What are Emergency Telecommunications

- ❑ Emergency telecommunications covers all communication services, including voice and non-voice, data, location ect...
- ❑ The need for emergency telecommunications includes many scenarios ranging from:
 - a minor road traffic accident, for example
 - to a major incident like a passenger train crash, a terrorist incident, a natural disaster (e.g. an Earthquake, Tsunami).
- ❑ Provision for emergency telecommunications is also a major requirement in disaster situations

History of SC EMTEL

- EMTEL was previously OCG EMTEL:
ETSI Board created an ad hoc group for coordination of Emergency Telecommunication activities

- Then the group became Special Committee (SC) EMTEL:
 - It has been created and approved by Board#50 in February 2005
 - SC EMTEL shall report directly to the ETSI Board

Main responsibilities of EMTEL

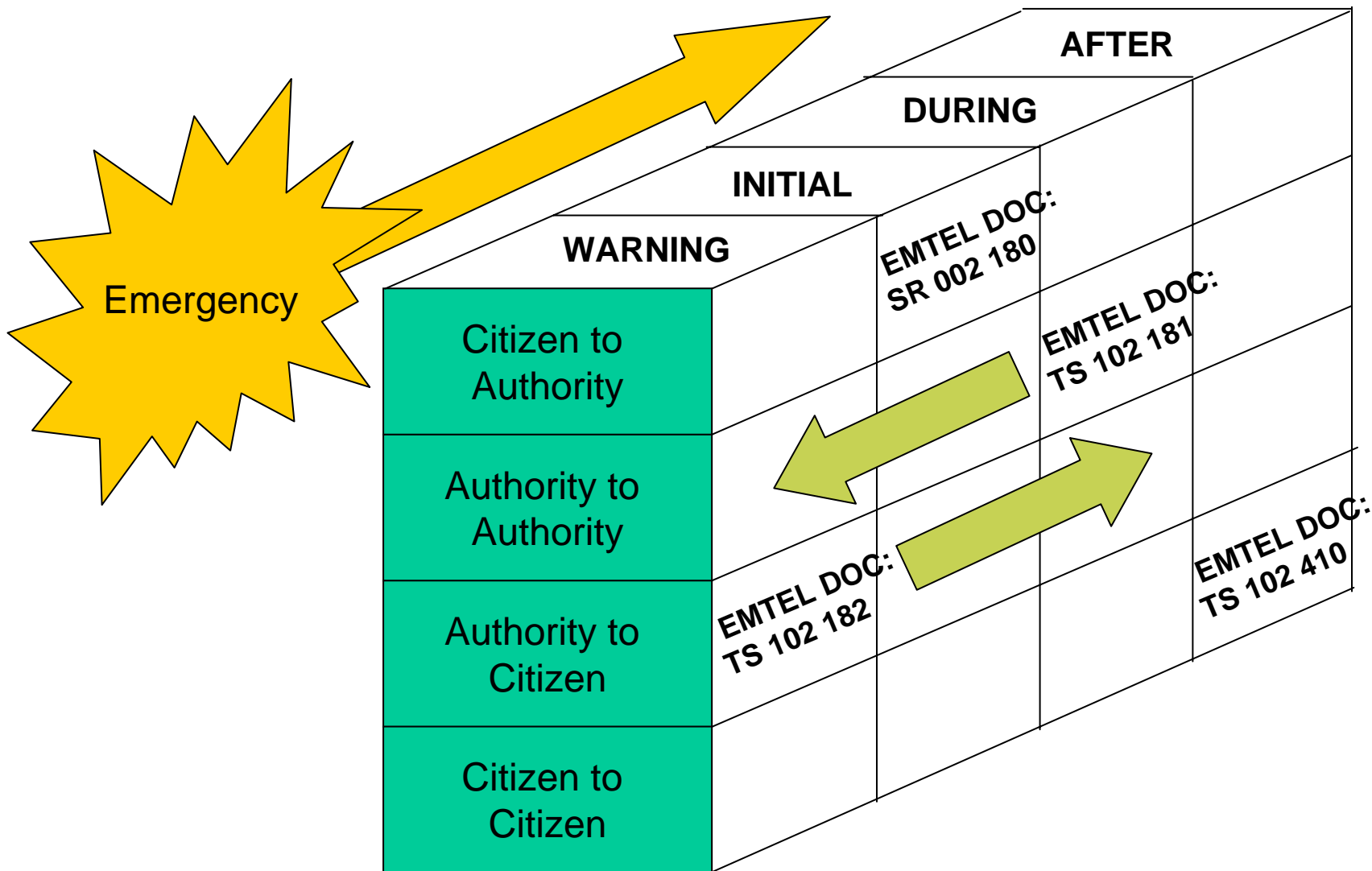
- ❑ Act as a key coordinator in getting requirements on Emergency Communications, outside ETSI (i.e. from different stakeholders) and inside ETSI (i.e. ETSI Bodies).
- ❑ Provide requirements on issues of network security, network integrity, network behavior in emergency situations, and emergency telecommunications needs in networks
- ❑ Co-ordinate the ETSI positions on EMTEL related issues
- ❑ Be the Interface for emergency communications issues
 - between ETSI
 - and CEC/EFTA, NATO, ITU groups, the CEPT ERO and relevant CEN and CENELEC committees

User requirements and scenarios

- The requirements are collected to ensure:
 - Communication of citizens with authorities
 - Communication from authorities to citizens
 - Communication between authorities
 - Communication amongst citizens

- Generally agreed categories to be considered in the provision of emergency communications for practically all types of scenario
 - Including communications resilience and network preparedness

Document Structure of EMTEL



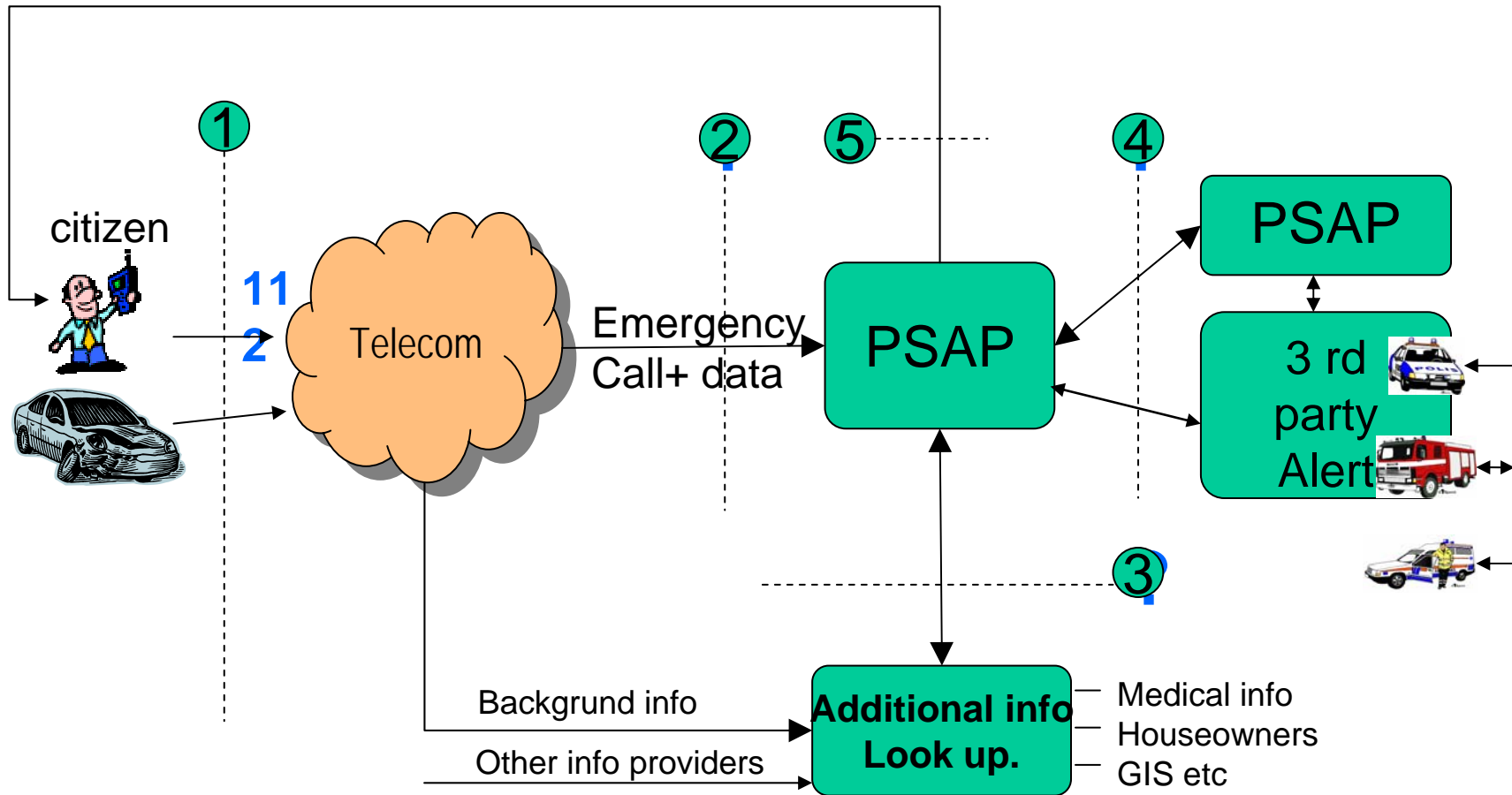
Fixed or Mobile technology?

- ❑ **Communication for: Citizen to Authority', 'Authority to Citizen' and 'Citizen to Citizen' for Voice and data service from both wireless and wireline access (including nomadicty on fixed line users)**
- ❑ **Public broadcast services (often used also): in support of 'Authority to Citizen' communications**
- ❑ **Both fixed and mobile technologies: for 'Authority to Authority' communications utilized by public safety organizations in Europe already (same technologies as those used for routine public safety telecommunications)**

Private or Public networks?

- ❑ Telecommunication technologies used for emergency telecommunications are often no different than those used for routine public safety telecommunications
- ❑ Sharing of networks with non-public safety users is commonplace
- ❑ Wireless technologies are likely to be combination of narrowband, wideband and broadband, and nature of application use public or private networks
 - Public: GPRS and 2/3G
 - Private: Wideband TEDS and Broadband PPDR
- ❑ Migration toward IP technologies the private access mobility & nomadicity between public and private access will be common
- ❑ A combination of both proprietary and ETSI telecommunication technologies are often used

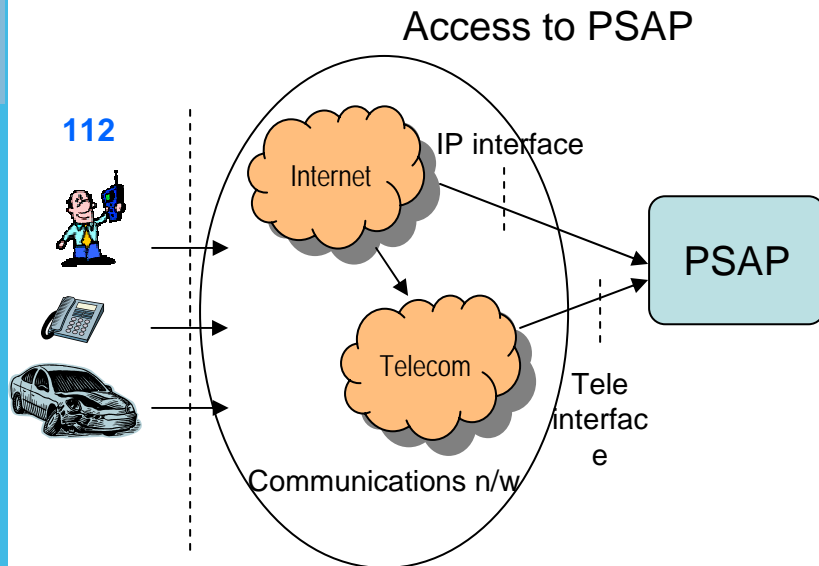
Interfaces needed to access emergency services



- 1. Citizens emergency call to authority/ PSAP
- 2. PSAP Required Information related to 112 call
- 3. Other data information
- 4. Authority to Authority
- 5. Authority to citizen

Requirements and standardisation

The roles of different groups



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COCOM subgroup

- High level **operational** requirements
- Defines mandatory and optional requirements

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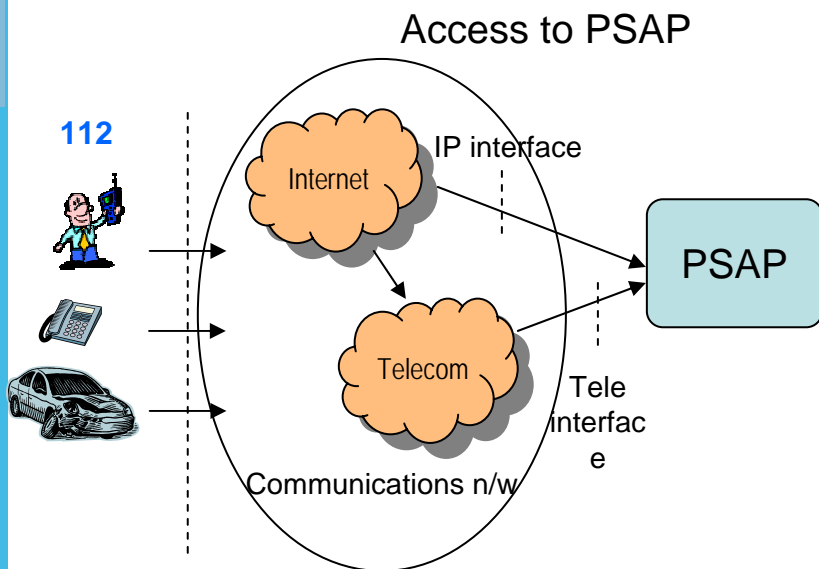
- Functional** requirements (**models**)
- Elaborates the specification of functions

Technical bodies (ETSI other groups, 3GPP, IETF etc.)

- Technical standards** (**implementation**)
- Works out possible solutions

Requirements and standardisation

Examples today



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- ❑ High level requirements: **Identification of caller**
- ❑ Defines mandatory and optional requirements

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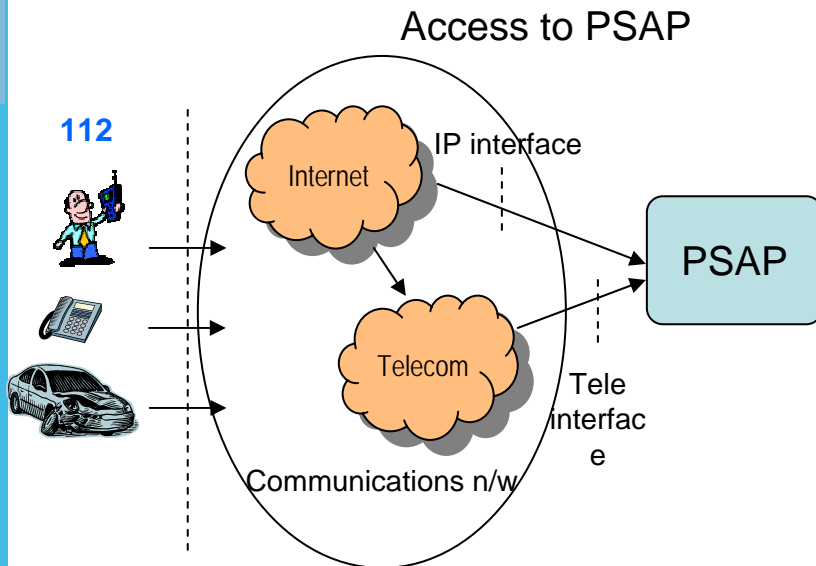
- ❑ Functional requirements: **Can be A-number and/or..**
- ❑ Elaborates the specification of functions

Technical bodies (ETSI other groups, 3GPP, IETF etc.)

- ❑ Technical standards: **Transferred in ISUP, PABX-signalling, exact format etc.**
- ❑ Works out possible solutions

Requirements and standardisation

How should TR 102 476, EC and VoIP be read



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- ❑ High level requirements: What call cases should be supported concerning routing, identification and location of VoIP

EMTEL TR 102 476

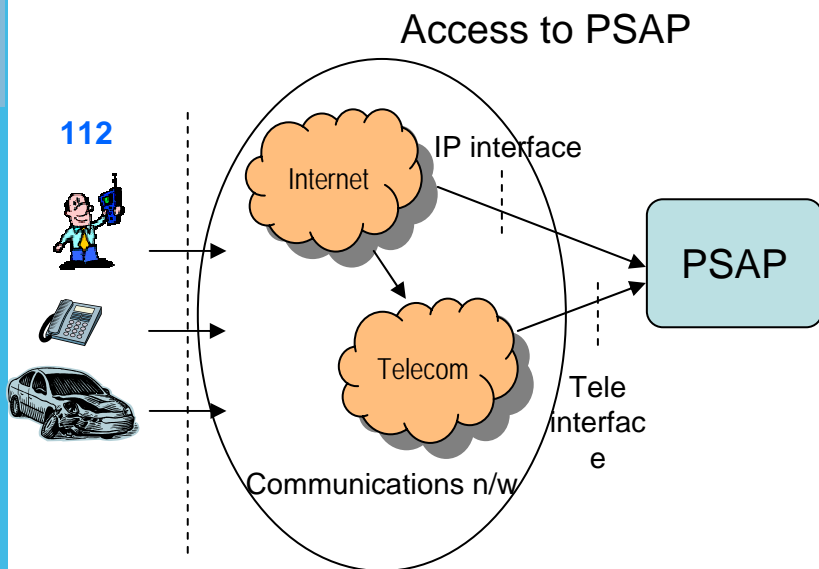
- ❑ Description of different possible methods to functionally implement this.
- ❑ Identification of need for standardisation

Technical bodies (ETSI other groups, 3GPP, IETF etc.)

- ❑ The technical solutions that are possible

Requirements and standardisation

Examples concerning VoIP



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- ❑ High level requirements: Routing to "right" PSAP

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- ❑ Functional requirements: What is "right" PSAP

Technical bodies (ETSI other groups, 3GPP, IETF etc.)

- ❑ Technical standards: Solutions to find "right" PSAP e.g. DNI-request

EMTEL ETSI published deliverables

- ❑ **SR 002 299**: Collection of European Regulatory principles (may be revised to add PATS Regulation for ECNs)
Published in April 2004
- ❑ **TS 102 181**: Requirements for communication between authorities/organizations during emergencies
Published in December 2005
- ❑ **TR 102 444**: Suitability of SMS and CBS (Cell Broadcast Service) for Emergency Messaging
Published in March 2006

EMTEL published deliverables in revision

- ❑ **TS 102 182**: Requirements for communication from authorities to citizens during emergencies
 Re-approved as TS 102 182 in September 2006
 Revised and up issued to a Technical Specification to include parameterisation of the alerting requirements
- ❑ **TR 002 180**: Requirements for communication of citizens with authorities in case of distress (emergency call handling)
 Reopened in April 2006
 Revised to include requirements for VoIP and Sip based Emergency and location services, capturing these requirements in a technology neutral way will also be considered
- ❑ **TS 102 181**: Requirements for communication between authorities/organizations during emergencies
 Reopened in September 2006
 Reopened for consideration of inputs from ETSI TETRA



EMTEL ongoing deliverables

- **TR 102 445: Requirements for Emergency Communications Network Resiliency and Preparedness**
Approved September 2006
- **TR 102 410: Requirements for communication between citizens during emergencies**
Stable in September 2006
- **TR 102 476: Technical Report was created: Study of Emergency calls and VoIP**
Stable in September 2006

EMTEL matters in other ETSI Bodies

- Although SC EMTEL was formed to specifically address public safety user requirements for Emergency Telecommunications, other Technical Bodies (TBs) within ETSI have been active for some time:
 - Activity co-operating between 3GPP and ETSI TISPAN on the specification of a Mobile Location Positioning protocol for the delivery to the Emergency Authority the position of a caller to the Emergency Services
 - ETSI TISPAN has approved the Emergency requirements for NGN Systems
 - The definition of a SIP interface from the NGN system toward a PSAP may be under consideration, clarification of the need for this so called peer-to-peer sip interface is sought from the EU commission and PSAP Operators.

- Many standards related to EMTEL topics (more than 700) are developed by other ETSI Bodies i.e. 3GPP, TC TISPAN, EP MESA, TC TETRA and TC ERM

EMTEL matters in other ETSI Bodies

- You can find the main standards on the EMTEL Status Report page (ETSI Portal):
<http://portal.etsi.org/emtel/status.asp>
- And for more details have a look at the ETSI Work Programme, advanced search, by selecting the project code EMTEL:
<http://webapp.etsi.org/WorkProgram/Expert/QueryForm.asp>
- Liaisons are regularly exchanged with other ETSI Bodies

Co-operation with external Bodies

- ❑ A Memorandum of Understanding has been signed between ETSI and NENA (National Emergency Number Association) end of 2005, involving mainly EMTEL and TISPAN
- ❑ Regular liaisons are exchanged with TIA, ITU-T, NATO
- ❑ ETSI and NATO are co-sponsoring a Civil Military Co-operation (CIMIC) workshop in September 2006 to look at how best provide communications at major incident/disaster scenarios

Cooperation with EU Projects

□ EMTEL is involved in EU Projects

- eCall project (in-vehicle automatic emergency call), project required by the Commission to ETSI
- In co-ordination with TC MSG (Mobile Standards Group), TC ERM TG37 (Intelligent Transport Systems) and TC TISPAN (Telecoms & Internet converged Services & Protocols for Advanced Networks)
- TC MSG eCall agrees that the documentation of the eCall requirements will be discussed in 3GPP. eCall MoU Driving group has now held their final meeting.

Thank you for your attention!

- ❑ **Next EMTEL Meeting:** 22nd –25 January 2007 in Sophia Antipolis (near Nice), France; hosted at the ETSI Headquarters.
- ❑ For more details you can:
 - Visit our ETSI EMTEL Portal: http://portal.etsi.org/portal_common/home.asp?tbkey1=EMTEL
 - Browse the ETSI EMTEL Web site: www.emtel.etsi.org
- ❑ Don't hesitate to contact me at: raymond.forbes@ericsson.com
- ❑ Or emtelsupport@etsi.org