

**Welcome  
to the World  
of Standards**



**ETSI Technical Body SES/SatEC  
Satellite Earth Stations & Systems  
Satellite Emergency Communications**

Specialist Task Force 472: **Scenarios for Emergency satellite-assisted TLC Services**

Specialist Task Force 473: **Alert Message Encapsulation**

Activities are currently focused on 3 topics:

- 🌐 **Definition of reference concepts for the use of satellite in disaster situations**

→ STF472 (WI no. DTS/SES-00341-1 and DTS/SES-00341-2)

- 🌐 **Use of satellite communications for public warning systems**

→ STF473 (WI no. DTS/SES-00310 and DTR/SES-00342)

- 🌐 **Use of satellite communications for restoring/establishing communication capabilities in a disaster area**

→ “Emergency Communication Cells over Satellite” (WI no. DTS/SES-00345)

# STF 472 Overall Objectives



## Reference scenarios for Emergency satellite-assisted TLC Services

### 1. Define scenarios for:

- Major earthquake in an urban environment
- Mass public transportation accident in countryside

### 2. Describe set of emergency responses to scenarios

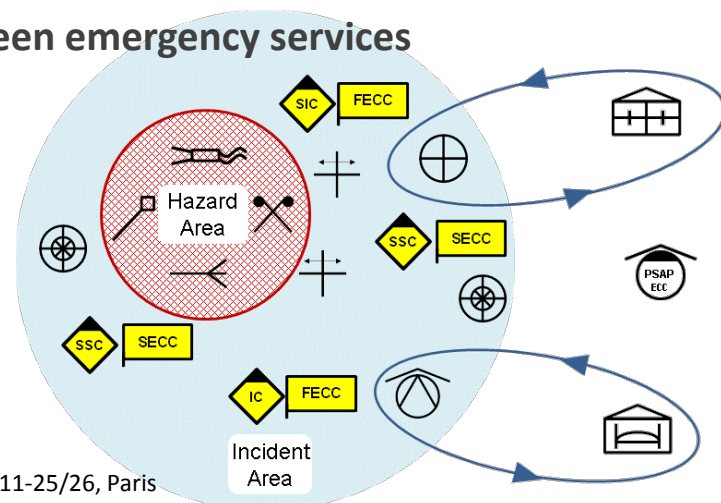
- Involved services
- Actors

### 3. Identify information exchanges between emergency services

- Source(s), sink(s)
- Content

### 4. Model topology and mobility

- (Quasi-)stationary actors
- Moving actors

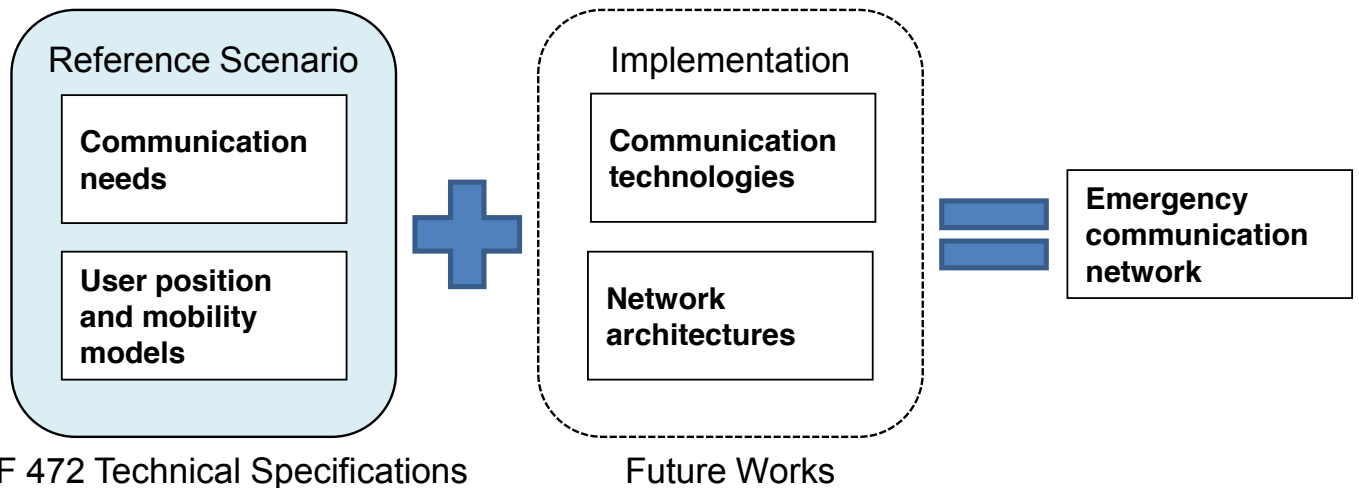


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## Fact-finding

- 18 semi-structured interviews in 6 countries (civil protection authorities, emergency services, military, NGOs)
- Discussions and conferences, literature, personal experience and contacts

## Translation of findings into reference scenario



### MAMES = Multiple Alert Message Encapsulation over Satellite

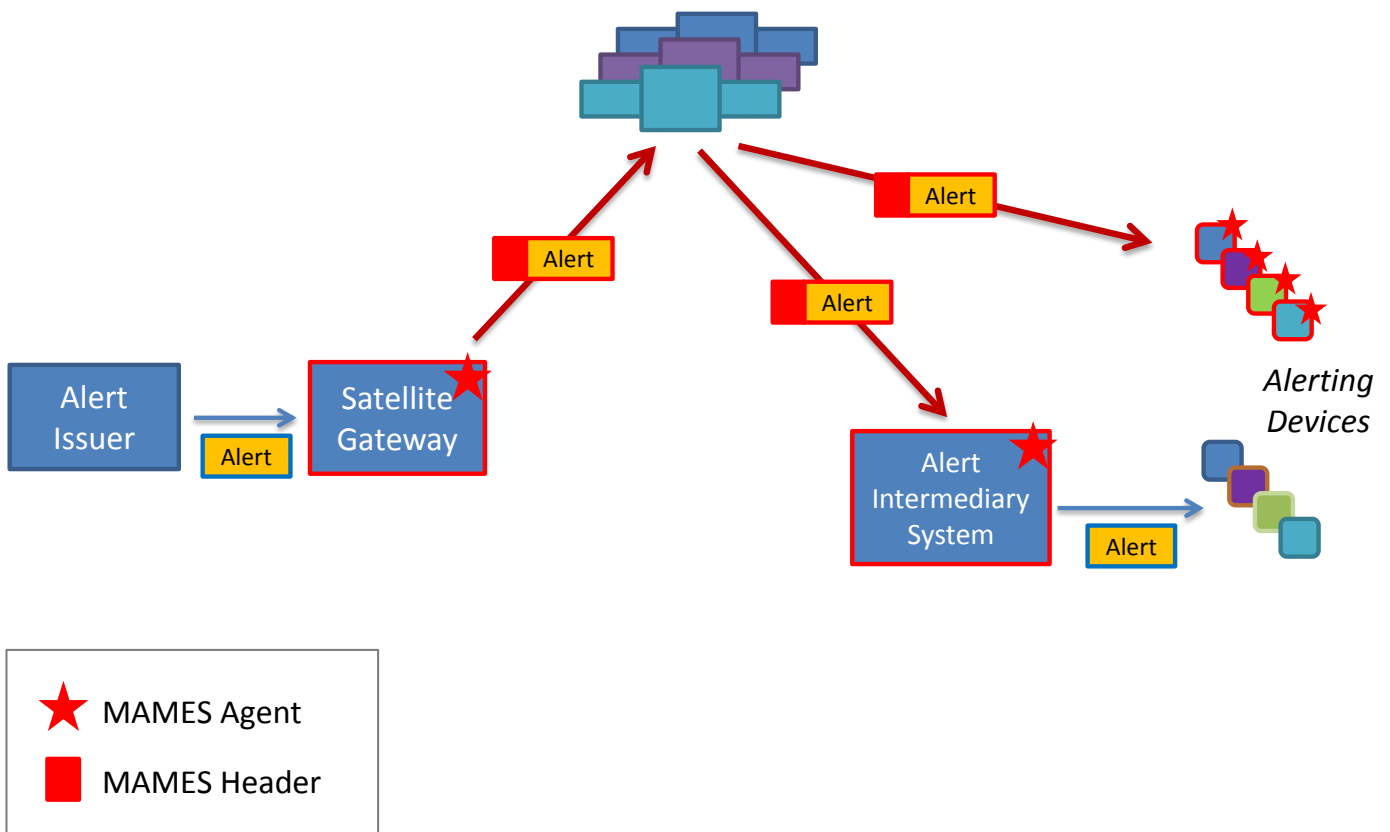
#### • Define a powerful encapsulation scheme with these main purposes:

- Encapsulate arbitrary alert messages for transmission over satellite (incl. existing alerting formats like e.g. CAP, paging prot.);
- Support efficient targeting and rendering capabilities to better fit the needs of emergency authorities and the general population.

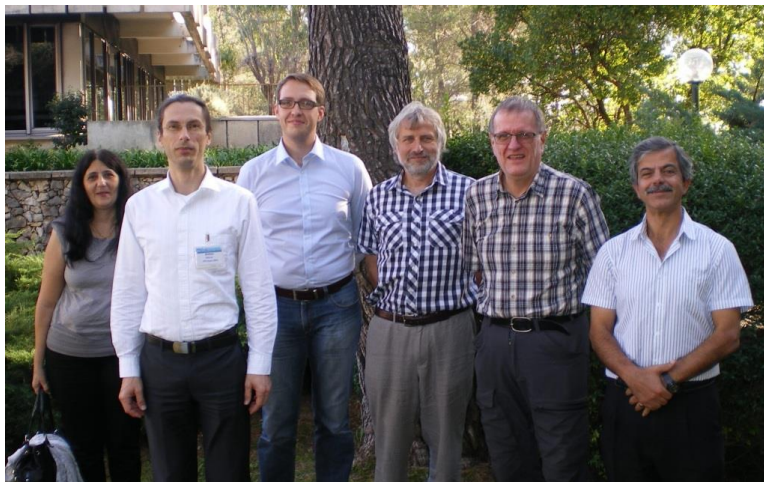
#### • Fit in the main SatCom and SatNav systems

#### • Provide enhanced capabilities such as:

- Selective activation (based on space-time coordinates);
- Distribution to end-user devices and intermediary systems;
- Operation over unidirectional and bi-directional links (ACK support);
- Integrity verification and sender authentication;
- Support message concatenation.
- ...



[http://portal.etsi.org/stfs/STF\\_HomePages/STF472/STF472.asp](http://portal.etsi.org/stfs/STF_HomePages/STF472/STF472.asp)



**Michelle Wetterwald**

**Andreas Lehmann**

**Egil Bovim**

**Anton Donner**

**Robert Mort (STF lead.)**

**Haitham Cruickshank**

**[mort.robert@googlemail.com](mailto:mort.robert@googlemail.com)**

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**Matteo Beriola (STF leader), [matteo.beriola@gmail.com](mailto:matteo.beriola@gmail.com)**

**Sara Jayousi**

**Josef Rammer**