



# CHORIST PROJECT

## EC CONTRACT 033685

### PUBLISHABLE EXECUTIVE SUMMARY YEAR 3

#### □ Overview

The CHORIST project is a three-year Integrated Project (IP) spanning from June 2006 till July 2009. It is co-funded by the European Commission and it is part of the Framework Programme 6 (FP6) in the domain of telecommunications for emergency risk management.

#### □ Consortium

The 16 contractors of the CHORIST project are listed herebelow:

Participant name	Country
<b>Industrial companies</b>	
Avanti Communications Ltd	United Kingdom
Elsag Datamat S.p.A	Italy
EADS Defence and Security Systems	France
EADS Secure Networks Oy	Finland
Komcentra s.r.o.	Czech Republic
one2many B.V.	The Netherlands
Thales Communications SA	France
Tradia Telecom SA	Spain
Vodafone España SA	Spain
<b>Research organisations</b>	
Institut Eurecom	France
European Commission Directorate General Joint Research Centre (JRC)	Italy
Stichting Platform Mobile Messages (SPMM)	The Netherlands
Technische Universiteit Delft	The Netherlands
Teknillinen Korkeakoulu	Finland
<b>User associations</b>	
British Association of Public-Safety Communications Officers Limited (BAPCO)	United Kingdom
European Emergency Number Association (EENA)	Belgium

The coordinator of this consortium, EADS Defence and Security Systems, is represented by:

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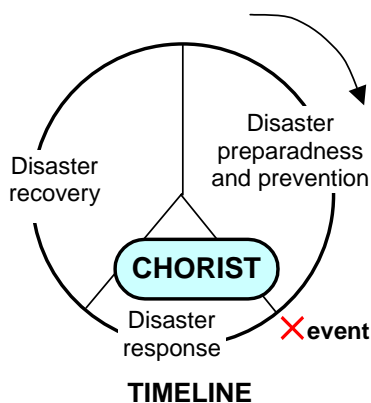


#### □ **Project objectives and means**

CHORIST proposes technical solutions in the frame of emergency risk management, these risks being both natural hazards (e.g. flash floods) and industrial accidents (e.g. chemical plant explosion).

CHORIST focuses on the disaster response phase of the emergency risk management, i.e. the one starting just before an event occurs and ending typically a few hours after. The prior disaster preparedness and prevention phase and the following recovery phase, even if taken into account in the study, are not directly addressed.

In a nutshell, the main goals of CHORIST are the early warning to authorities and citizens and the early intervention of emergency rescue teams to rescue the citizens in danger. A CHORIST system is mainly aimed at helping authorities to improve their work of providing security to the populations whom they are responsible for.

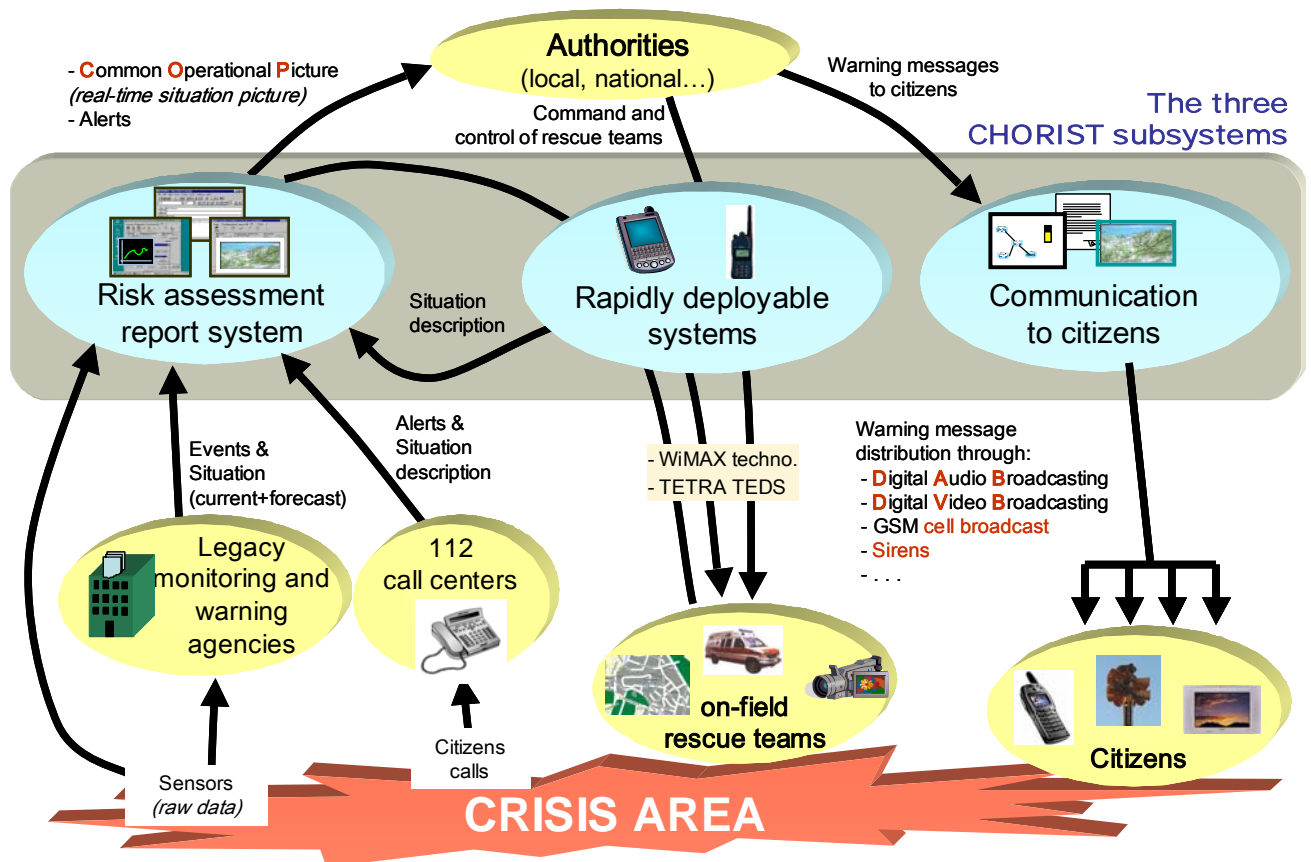


More specifically, the CHORIST project has derived a subset of societal objectives which are:

1. To improve emergency risk management through the integration of innovative and complementary communication technologies (*radio, TV, GSM, sirens networks, PMR networks, ad-hoc networks...*);
2. To enhance the safety of the citizens in crisis areas by improved information (*improved = taking into account human behaviour and cultural issues*) disseminated to the citizens;
3. To increase the rapidity and the effectiveness of interventions in crisis areas (*by means of a rapidly deployable TETRA TEDS base station, or a WiMAX ad-hoc network, both interoperable with existing PMR (for voice) and data networks*);
4. To enhance the safety of the rescue actors.

To reach these objectives, the CHORIST project develops and integrates several information technologies and telecommunications solutions that enhance how information is being prepared, accessed and communicated in the early warning and early intervention phases. They are based on emerging technologies, but they are always considering the interoperability with the legacy systems in this area. More specifically, CHORIST aims at developing and integrating three subsystems:

1. A fully integrated, reliable and performing alert chain delivering alerts to authorities with inputs from heterogeneous sensors, disparate agencies and citizens;
2. Heterogeneous communication means (radio, TV, sirens, GSM) to dispatch messages from authorities to as many citizens as possible within the crisis area and with limited delay;
3. Secured, rapidly deployable and interoperable voice and high data-rate telecommunication systems (TEDS base station and WiMAX ad-hoc networks) for in the field risk response teams.



□ **End of project status (i.e. Summer 2009)**

The CHORIST project has succeeded into deriving system requirements from the huge amount of user requirements collected from standards, other projects and studies. The overall system architecture has been defined and the main interfaces between the three subsystems have also been agreed within the Consortium.

The main technical options of each subsystem are selected and their architecture have also been defined. The detailed design have been completed. This has led to coding activities, modular testings and then to the delivery of 4 integrated prototypes: (1) the risk assessment report system prototype, (2) the communication to citizens prototype, (3) the ad-hoc mesh network and its applications and (4) the TEDS base station and terminal.

Laboratory tests have been conducted on the second part of 2008. Early 2009, field tests have been conducted with Civil Protection and Fire Brigade services of Barcelona, Spain. A demonstration took place on 27 and 28 Mar. 2009, involving circa 60 people. Finally, a seminar paving the way for the future was set up in Istanbul, on 23 and 24 Jun. 2009.



#### □ Dissemination

Dissemination activities have been led in parallel to the prototypes development activities: they have provided the following results:

- a web site presenting the project, its objectives, its main technological options, the Consortium, the events and documents related to emergency telecommunications: <http://www.chorist.eu/>
- a fact sheet ([http://www.chorist.eu/doc/CHORIST\\_fact\\_sheet.pdf](http://www.chorist.eu/doc/CHORIST_fact_sheet.pdf)), which is also published on the EC web site.
- public deliverables: 32 deliverables have been published up to now.
- technical publications: 6 technical publications been published in the domain of telecommunications.
- a logo:



- overview articles published (112 newsletter, on EENA web site: <http://www.eena.org/>, TIEMS newsletter, BAPCO conference proceedings, SeCEUR review, ICT results on CORDIS)
- a 24-page compendium on all project findings
- 4 dissemination videos promoting the project and the 3 modules
- contacts with other projects, standardisation bodies and users in the domain emergency risk management (EMTEL, TETRA MoU, TIEMS, PSCE, UN-SPIDER, PIMRC, European Collaboration on Cell Broadcast for Public Warning...)
- promotion of CHORIST activities through various event (BAPCO 2007, ISCRAM 2007, PSCE workshops, PIMRC'07 in Athens, TETRA World Congress 2007 in Madrid, First European Security and Safety Summit in Brussels, Second Civil Protection Forum, ICT 2008, CHORIST demonstration in Barcelona, BAPCO 2009, CHORIST end of project Istanbul seminar...). The brochures promoting the prototypes and concepts were used several times to provide information on the project.