



**Enhancing the efficiency of alerting systems through personalized,  
culturally sensitive multi-channel communication**

**Project No. 261699**

**Deliverable D9.7..**

**“Presentation at Trade Fair”**

**Contributing Partner(s):**

**E\*Message Wireless Services Deutschland GmbH (EMESS)**

**Fraunhofer Gesellschaft zur Förderung der angewandten Forschung e.V. (FHSS)**

## Overview

The Opti-Alert Project was presented during the following events:

February 24<sup>th</sup>-25<sup>th</sup>, 2014: Presentation of the project with a poster “Multi Channel Alerting” and a stand at the “German National Paging Congress” by project partner e\*Message. The poster was shown to approximate 200 visitors.

March 1<sup>st</sup>-5<sup>th</sup>, 2011: Presentation of the project with a flyer at the CeBit trade fair in Hannover, Germany. The flyer was handed out to approx. 50 people. Additionally, the project was briefly presented with a slide (within a larger presentation). This presentation was run at the Fraunhofer booth.

**On the following sides, you will find the material used attached.**



10. Nationaler Paging-Kongress  
Berlin, 24. - 25. Februar 2014



# Multi-Channel Alerting



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 261699

- » Integration of alerting systems for multi-channel and cross-border crisis communication
- » Simulation of alert propagation in critical infrastructure (e.g. metro stations) and among the population in general
- » Personalization of alert messages for different socio-cultural target groups



# OPTI-ALERT – DEVELOPING A CULTURALLY SENSITIVE MULTI CHANNEL ALERTING SYSTEM

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## THE NEW GENERATION OF ALERTING SYSTEMS

We live in a globalized world where societies, cultures, economies and industries are becoming increasingly interlinked, thus increasing the likelihood that effects of disasters do not remain local but spread across regions and borders. This fact needs to be taken into consideration in risk and crisis communication. Existing alerting systems for the general public, however, usually follow a “one-message fits all” paradigm and do not take into account any cultural (and social) factors. Since different social milieus show heterogeneous media usage patterns, tailor-made communications strategies are highly desirable to achieve optimal impact of alerts in times of crisis. In addition to that, most systems are managed nationally and do not allow for an efficient coordination of trans-border alerting strategies. As a result, the impact of alert messages is often sub-optimal. Improved regionalization and personaliza-

tion of warning messages, as well as a closer cooperation and integration of industry-funded alerting systems with state-funded alerting tools could be one way to mitigate this problem.

## THE OPTI-ALERT PROJECT

The OPTI-ALERT project strives to enhance the efficiency of alerting systems through personalized culturally sensitive multi-channel communication. Funded by the European Commission, OPTI-ALERT involves research institutes, universities, enterprises, and end-users from six European countries (Austria, France, Germany, Italy, the Netherlands, and Sweden). The interdisciplinary project includes the expertise of sociologists, media scientists, IT professionals, meteorologists and disaster management experts. The focus of the project will be to create an adaptive alerting system that allows for an intuitive and ad-hoc adaptation of alerting strategies given a specific alerting context. In this context, OPTI-ALERT will propose:



- Integration of three alerting systems with – in total- more than 2.4 million users in 8 European countries
- Provision of a highly scalable, high-throughput and yet personalized alerting environment
- Integration of legacy systems via standardized interfaces (based upon the common alerting protocol, but with enhanced capabilities)
- Improved suitability for international use due to the social and cultural sensitivity of the alerting component

## OBJECTIVES

Key objectives of OPTI-ALERT are:

- (1) an in-depth analysis of the impact that social and cultural and regional factors have on risk perception and risk communication
- (2) an analysis of the influence which the observed socio-cultural differences have on regional alerting strategies
- (3) an analysis of the impact of individualized alerting (via SMS, E-Mail etc.) and alerting via the mass media
- (4) the identification of best-practices in alerting via mass media, including web-based media
- (5) the definition of appropriate algorithms for the simulation of the alert propagation within a population (in general, but also inside critical infrastructures such as metro stations), depending on the selected mix of communication channels and communication patterns between humans “in the field”. This results in the following key research questions of the project: How can we reach the existing different socio-

cultural groups, make sure that they receive and understand the alert and follow given advices in case of disasters? Which channels should authorities use when they want to reach different parts of the population? What is the impact of messages issued via E-mail or SMS compared with alerting messages issued via the mass media? Which alerting methods are more adequate or efficient nowadays?

## INNOVATION

Although some research has already been conducted on the effect that social and cultural factors have on risk communication, little is still known about the role that these factors play in alerting situations. OPTI-ALERT intends to change this state by designing socially and culturally sensitive rules for alert strategy design, alert message composition and alert message distribution. By taking social cultural and regional patterns into account, the relevance and impact of alert messages will be increased, and the likelihood that recipients follow the advice within the alert message will rise. In other words, OPTI-ALERT will improve the efficiency of future high-throughput, multi-channel alerting systems. In this regard the innovative feature of OPTI-ALERT is its adaptivity: Based upon the situational and socio-cultural context of an alert situation, the authorities can swiftly simulate and implement different alerting strategies (in terms of personalization, communication channels and media mix). This will enable authorities to re-assess alert procedures and processes and to improve impact and coverage of alerts for different

disaster types. The idea is to improve the compliance of alert recipients with the proposed protective actions by creating trust and, if necessary, a sense of urgency among those who have been warned. Furthermore, well-defined interfaces will allow for a cost-efficient integration of different (and emerging) communication channels. The demonstrator will also provide a framework for the internationalization of alerting strategies in case of cross-border emergency situations.

## OUR OFFER

- Development of flexible software solutions for multi-channel and multi-hazard alerting
- Consulting and support during conceptual design, implementation and operational management of alerting systems

## PROJECT PARTNERS

- Fraunhofer Gesellschaft zur Förderung der angewandten Forschung e.V
- e\* Message Wireless Information Services Deutschland GmbH
- UBIMET GmbH
- PROTEO S.P.A.
- UNIQA Versicherungen AG
- Göteborgs Universitet
- Süddeutsches Institut für empirische Sozialforschung e.V.
- Regione Sicilia
- Nederlands Instituut Fysieke Veiligheid
- Università degli Studi di Perugia
- Thales Services SAS

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# OptiAlert

## Effizientere Alarmierungsstrategien

gefördert im Rahmen des FP 7 der EU, Themenfeld Sicherheitsforschung

### Zielstellungen

- Entwicklung einer Methodologie zur länderübergreifenden Alarmierung der Bevölkerung

### Aspekte

- Berücksichtigung sozio-kultureller und regionaler Faktoren bei der Entwicklung von Alarmierungsstrategien
- Ermöglichung von Simulation der Wirkung verschiedener Arten von Alarmierung
- Unterstützung der Implementierung der bestmöglichen Alarmierungsstrategie unter Einbeziehung verschiedener Kommunikationskanäle

