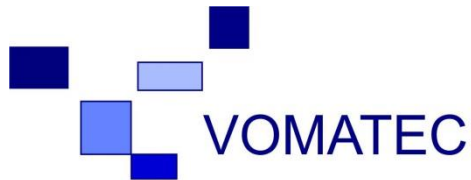


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# Preparation Large Scale Events

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PSC Europe  
28th May 2015



# MOTIVATION

**At the Incident Place and Time  
But Shocked, with Fear and  
Uncertain**



**Eyewitnesses**

**At a Remote Place  
Informed by Witnesses and First  
Responders**



**Command Centre**

**At a Remote Place  
Coordinated by Command Centre  
Informed by First Responders**



**Operational Forces**

**At the Incident Place  
after the Incident Time with Little  
Time for Reports**



**First Responders**

**Close to the Place of the Incident  
Unaware of the Incident OR  
Informed by Friends or Relatives**



**Affected Community**

**At a Remote Place  
Informed by Public Communication  
Means**



**General Public**

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# Reliable and Smart Crowdsourcing Solution for Emergency and Crisis Management

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# CONCEPT

## Goal and Main Application Scenarios

Development of an **interoperable solution** to support **emergency and crisis management** command centres in quickly handling emergencies and managing crises based on **reliable and intelligent analysis of crowdsourcing information** mashed up with open data

### Large-scale Events

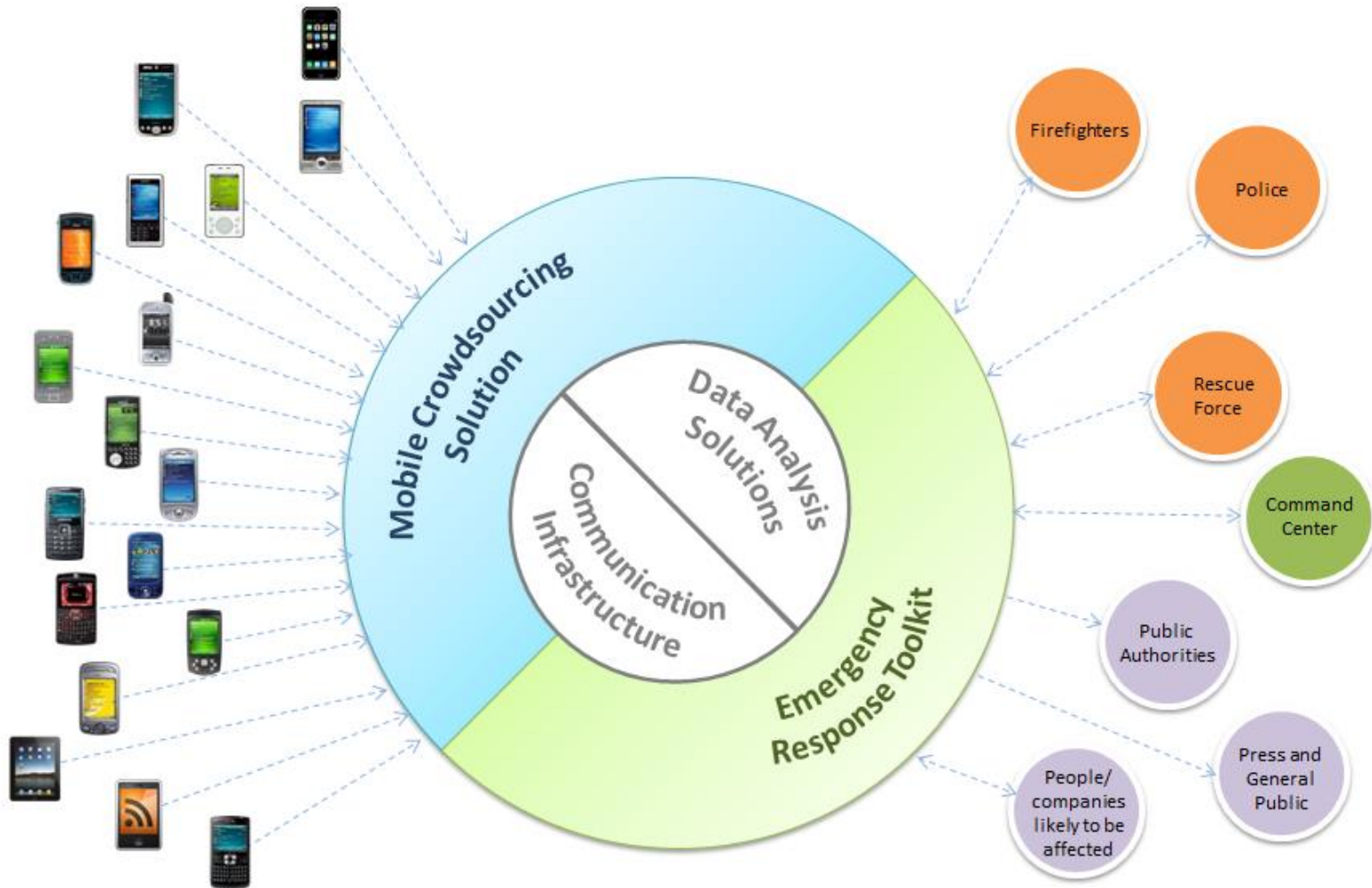


### Industrial Areas



# CONCEPT

## Main Components



# TRAVEL ITINERARY



Smart Cities



Ad-hoc Communication



Emergency Response Toolkit



Emergency & Crisis Management Systems



Smart Emergency & Crisis Management Systems



Multimedia Data Analysis



Mobile Crowdsourcing Solution

# SCIENTIFIC OBJECTIVES

- ▶ Targeted interaction with the crowd at the place of the incident but appropriate in terms of risk exposure
- ▶ (Semi-)Automatic fusion, aggregation and analysis of multimedia data
- ▶ Optimised aggregation of intuitive metaphors for visualisation and manipulation of information



# SCIENTIFIC OBJECTIVES

- ▶ Customised communication of the incident and its consequences targeted to the audience
- ▶ Ad-hoc communication between people in the crowd





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# EXPECTED IMPACTS ON ECONOMY AND SOCIETY

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- ▶ Significant reduction of adverse consequences in case of incidents in industrial areas or in large-scale events
  - Life x Economy x Environment

An **effective** and **efficient** emergency and crisis management based on **modern technologies** sells a **positive image** of the involved organisations even if an **incident** occurs

- ▶ Opportunities for further projects
  - Research x Technology transfer x Development
  - Within the consortia x Outside the consortia
  - In the light of, but also independently from, the upcoming large sport events in Brazil

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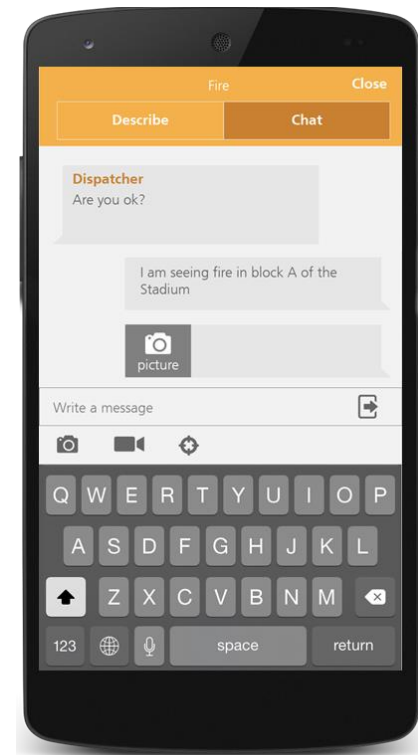
# EXPECTED IMPACTS ON TECHNOLOGY

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- ▶ New trend in market of emergency and crisis management
- ▶ Tailored user interaction mechanisms
- ▶ Novel multimedia data analysis methods and visualisation
- ▶ Potential contribution to standards (peer-to-peer, reference architecture, portability/variation strategy, quality specifications, conceptual model (ontology))

# PROJECT RESULTS

- ▶ People visiting a Large Scale Event can report an incident, send pictures and videos



# PROJECT RESULTS

## ► Emergency Response Toolkit

- Information Visualisation
- Public Communication
- Crowd Steering
- Follow an incident

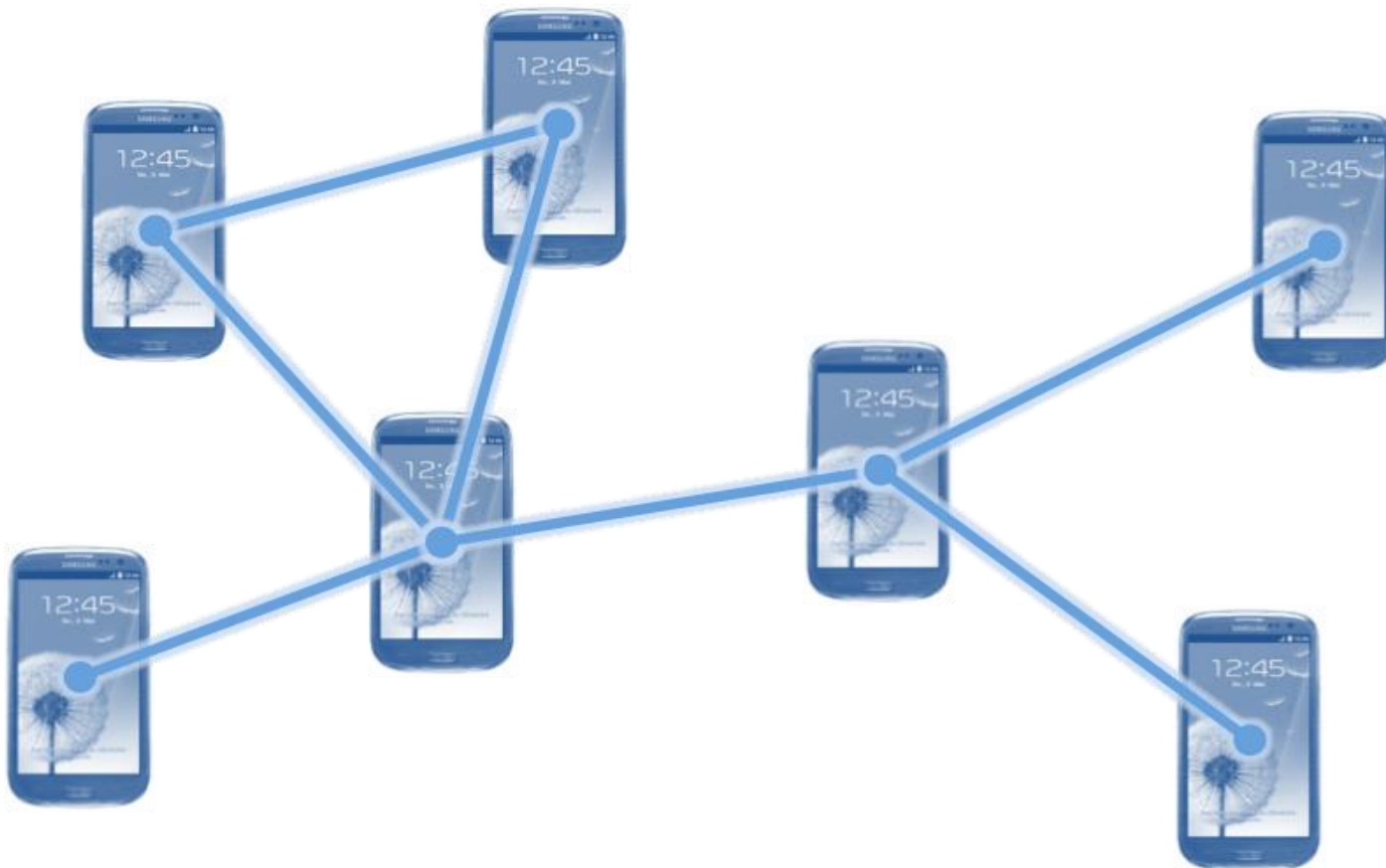
The screenshot displays the RESCUER emergency response toolkit interface. The main map shows a street grid with a heatmap overlay and several incident markers. A sidebar on the right lists 'Base Layers' (Satellite, Hybrid, Map) and checked options for 'Incidents', 'Crowd Data', 'Workforces', and 'Drawing'. Below the map, there are three panels: 'Basic Info - Report R1' with fields for Timestamp, Keyword, and Reporter; 'Fom' (Form) with a video player showing a house on fire; and 'Photos' with a photo of a firefighter spraying water. A chat window on the right shows a conversation about the weather and a request to take a picture of the area.

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# PROJECT RESULTS

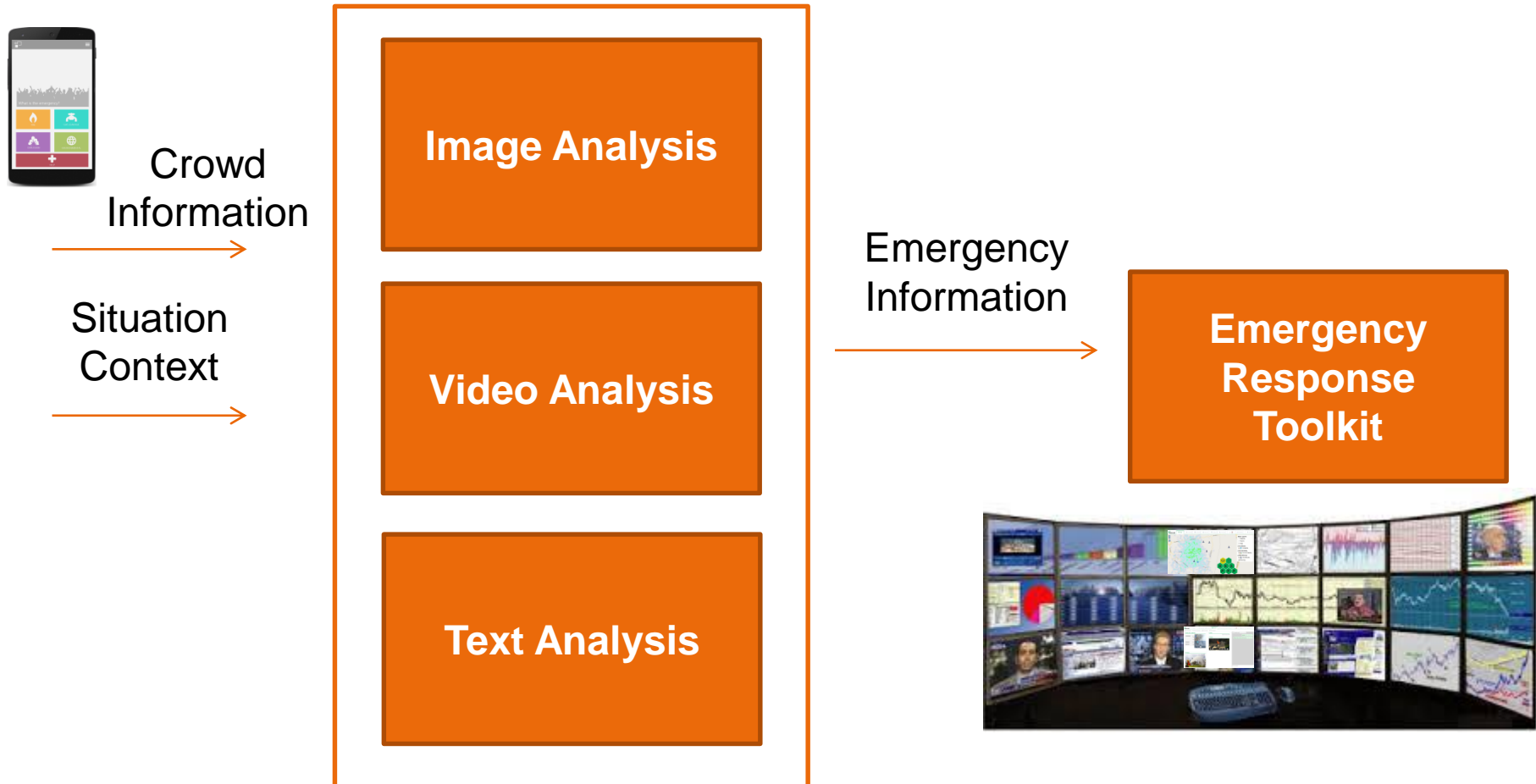
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- ▶ Ad hoc Communication when Mobile Network fails



# PROJECT RESULTS

- Crowdsourcing information is analysed



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# Preparation Large Scale Events

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Thank you for your attention !