Field Reporting Tool

A collaboration system for the coordination of deployed teams

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The initial FRT project

- In 2008, within the framework of cooperation on crisis management technolgies, UNDPKO requested a system to report field conditions to the decision makers
- JRC proposed to exploit its Content Management System technology to coordinate the content provided by

Challenges

The project required integrating different platforms and, for each of them, different features including:

- **Geographical information**
- **Web publishing**
- **Multimedia and commonly used document formats**
- **GPS**
- **Limited or unavailable network connection**

The approach

.Net based developments to achieve high interoperability

Independent developments sharing data at file level using well-known formats, mainly GeoRSS

Simple in-house building blocks to implement single features

Effective use oriented application instead of a customized general purpose utility

Use of a wide spread consolidated platform to exploit different devices (smartphones, rugged mobiles, etc.)

Serendipity

A set of reusable components, which led to other effective developments

A platform able to host different kind of activities and open to a wide set of technologies

Cheap technologies proved to be more cost effective and easily integratable

The Timeline of the FRT project

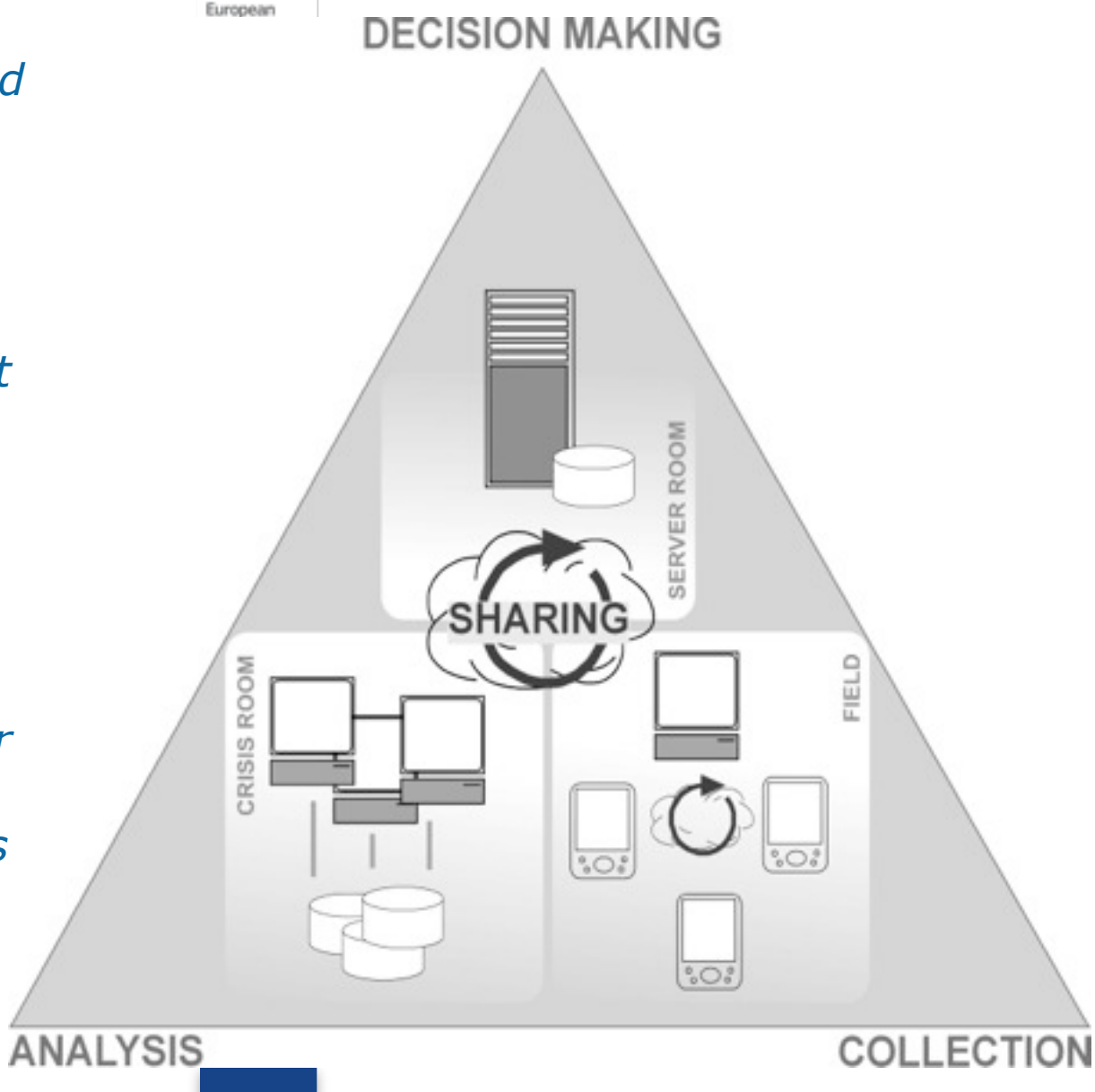
2008 Initial developments and first tests in Haiti following the hurricane season

2009 Development refinement, bug fixing and stability revision: selection of more reliable devices

2010 Complete mission of trained operators (not involved in the development process) in Haiti

- *The FRT promotes quick assessment of the ground scenario and the situational awareness.*

- *The FRT supports the information management and sharing during all phases of the crisis and emergency decision process; it endorses the collaborative field data collection and provides a common environment for the publication of all results of spatial analysis and the cartographic rendering.*



MISSION PREPARATION:

In collaboration with WMS and GIS tools

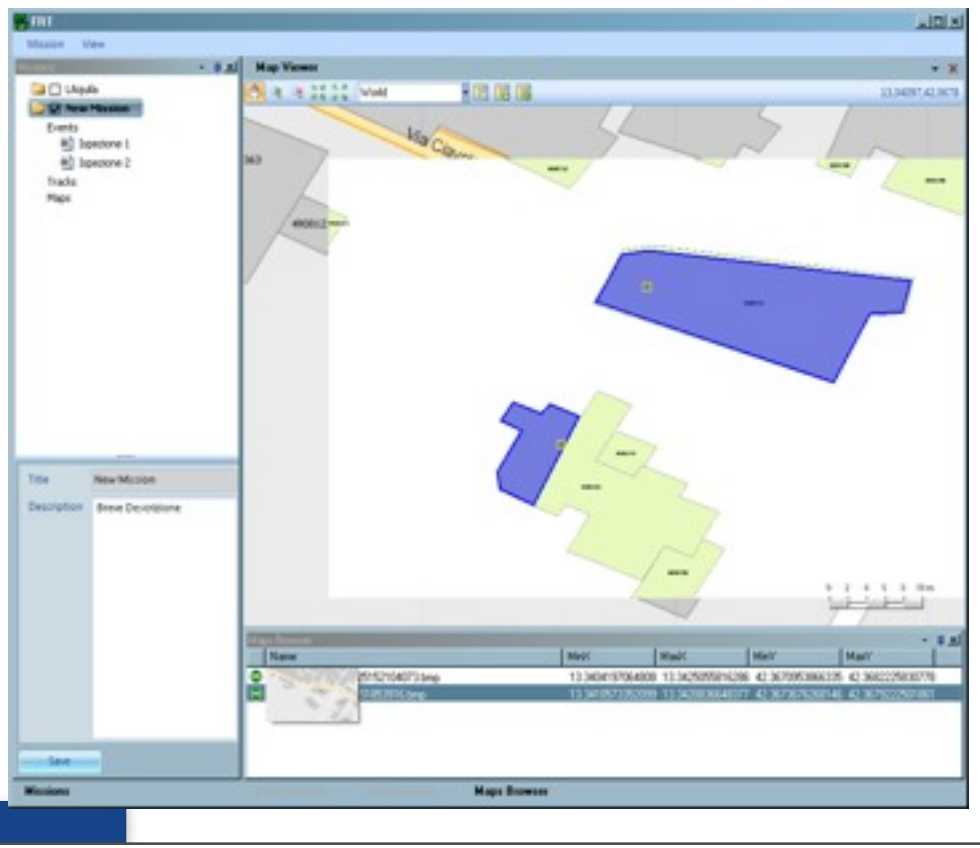
the FRT desktop module is used for:

- Map and tile-sets creation
- Configuration
- Way-points definition
- Paths and areas definition

Intuitive by using standard

Interfaces, all-in-one

solution



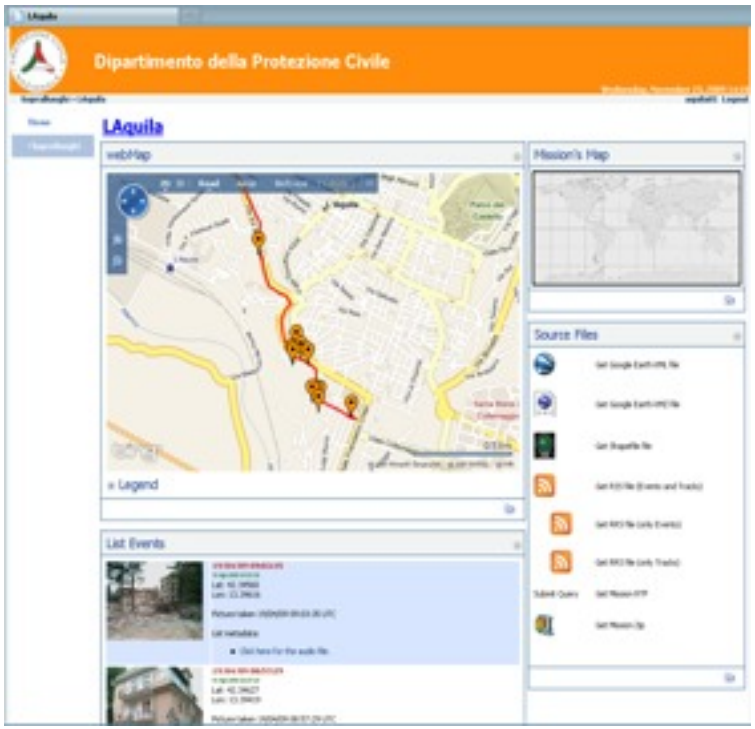
IN-THE-FIELD MISSION:

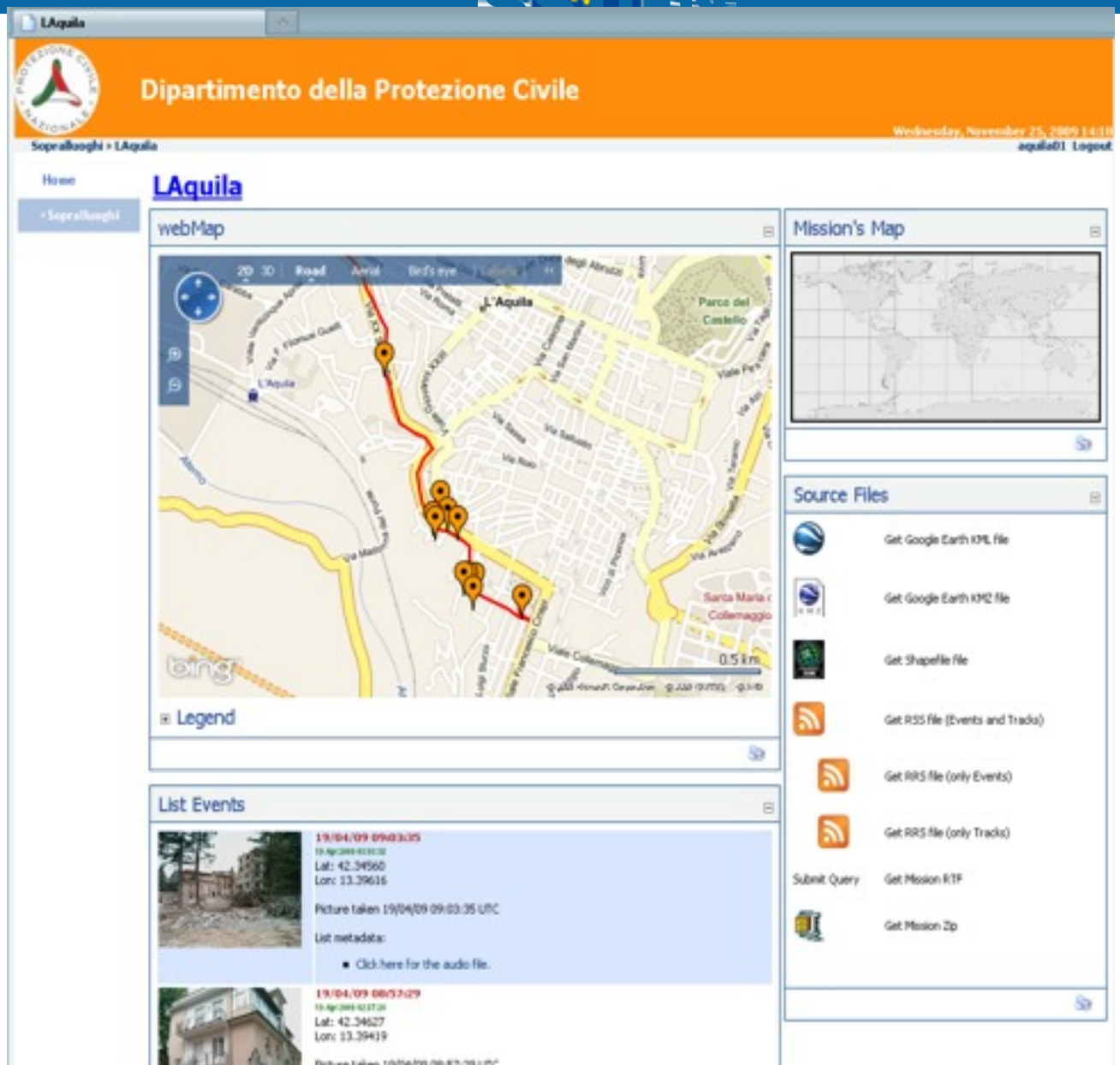
The FRT mobile module is used for:

- Taking position of near and remote objects interfacing with GPS and/or external devices
- Navigating on maps (rasters, tile sets, cached and on-line WMS)
- Describing objects with:
  - Structured attributes (ontologies)
  - Unstructured attributes (metadata)
  - Multimedia attachments (pictures, sounds, shapes)
- Fine grained tracking
- Instant web publishing
- Messaging

The FRT web module is used for:

- Collecting reports from the field for instant publishing and distributing
- Production of situation maps and reports, including present personnel location
- Exports to various formats:
  - KML, KMZ
  - RSS
  - Shape files
  - RTF
- Serving the messaging system

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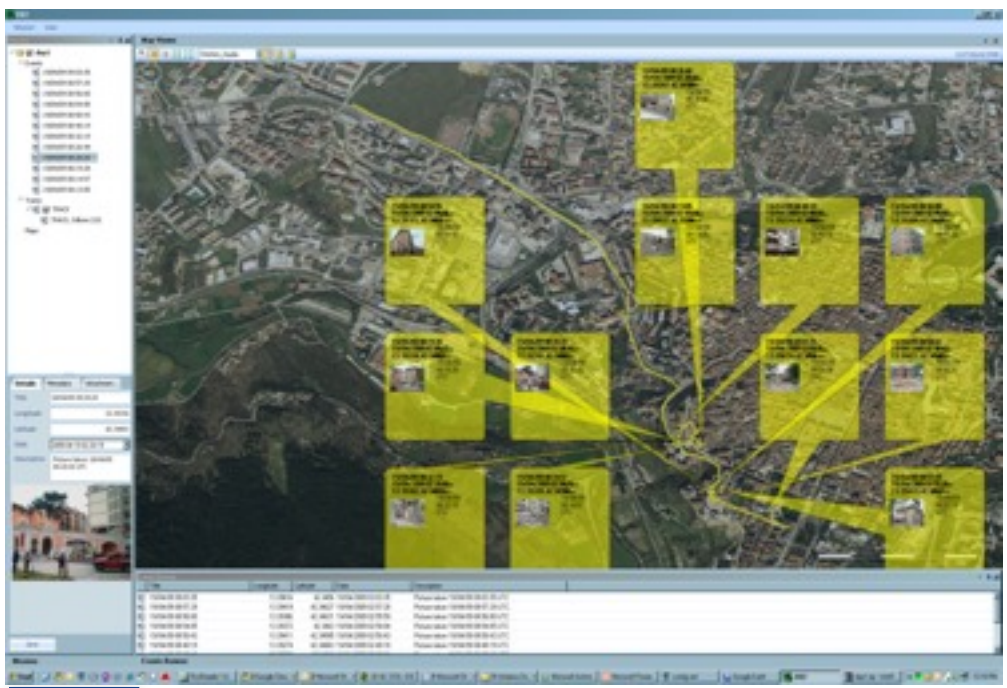
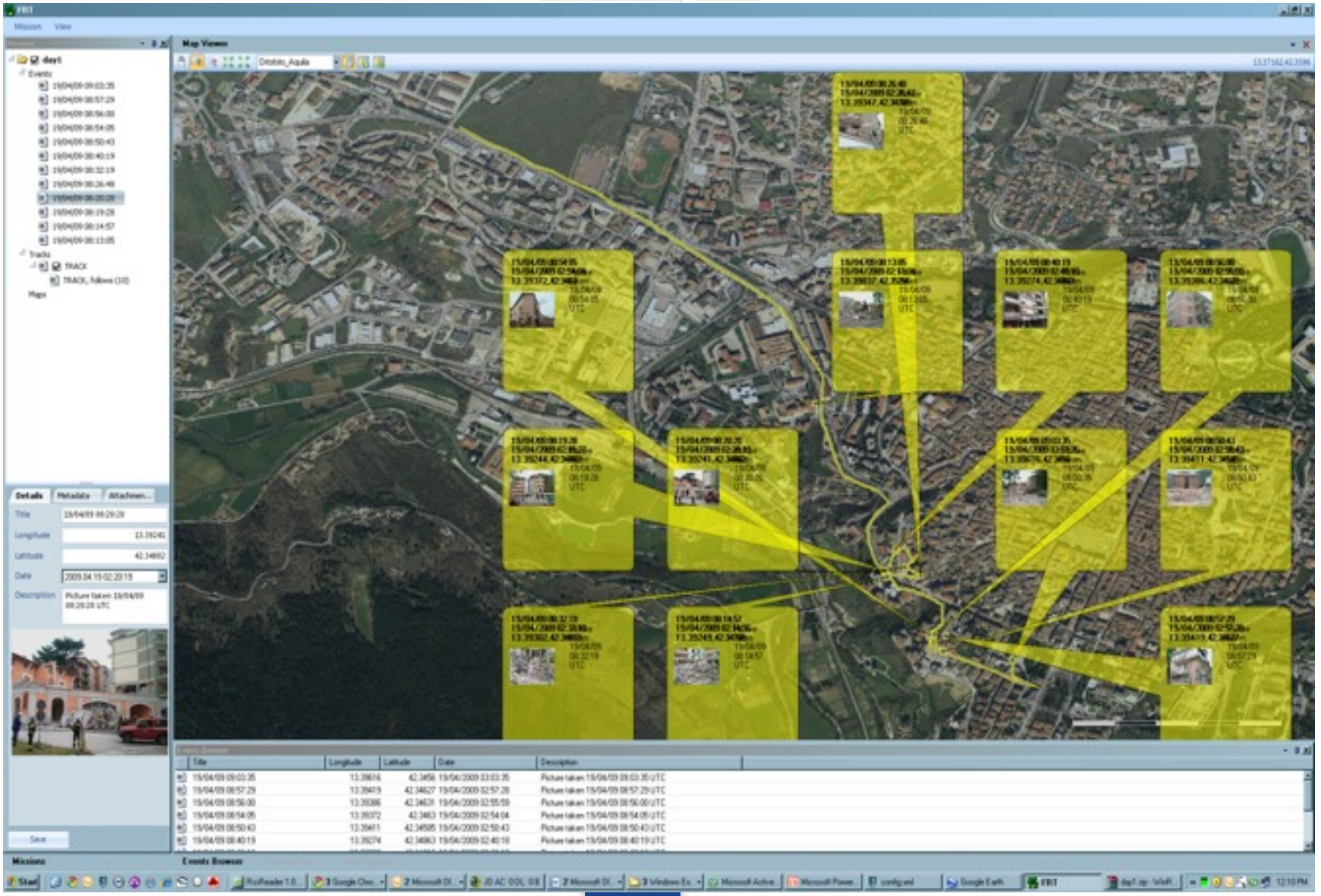
MISSION EDITING AND MODERATION:

The FRT desktop module is used for:

- Collecting reports from the web and the mobile components for editing, refinement and aggregation
- Production of situation maps and reports
- Publishing to the Web module
- Exporting to various formats:
  - KML
  - RSS
  - Shape files
  - RTF





Further developments

- New devices and platforms to address different targets (iGDACS, Android, Windows Phone)
- The best of both worlds: new version running on tablets will provide the rich UI of a PC with the benefits of a mobile solution

Final Remarks

- Interoperability and integration are the key points in using IT for Crisis Management
- Old and consolidated technologies need still to be exploited
- Common formats need to be simple and immediate:
- CAP and GeoRSS proved to be effective, but still need larger dissemination and strong

Thank you for your attention