

The European Commission's science and knowledge service

Joint Research Centre

JRC+IFB Field Reporting Tool applied to Middle Italy earthquake event

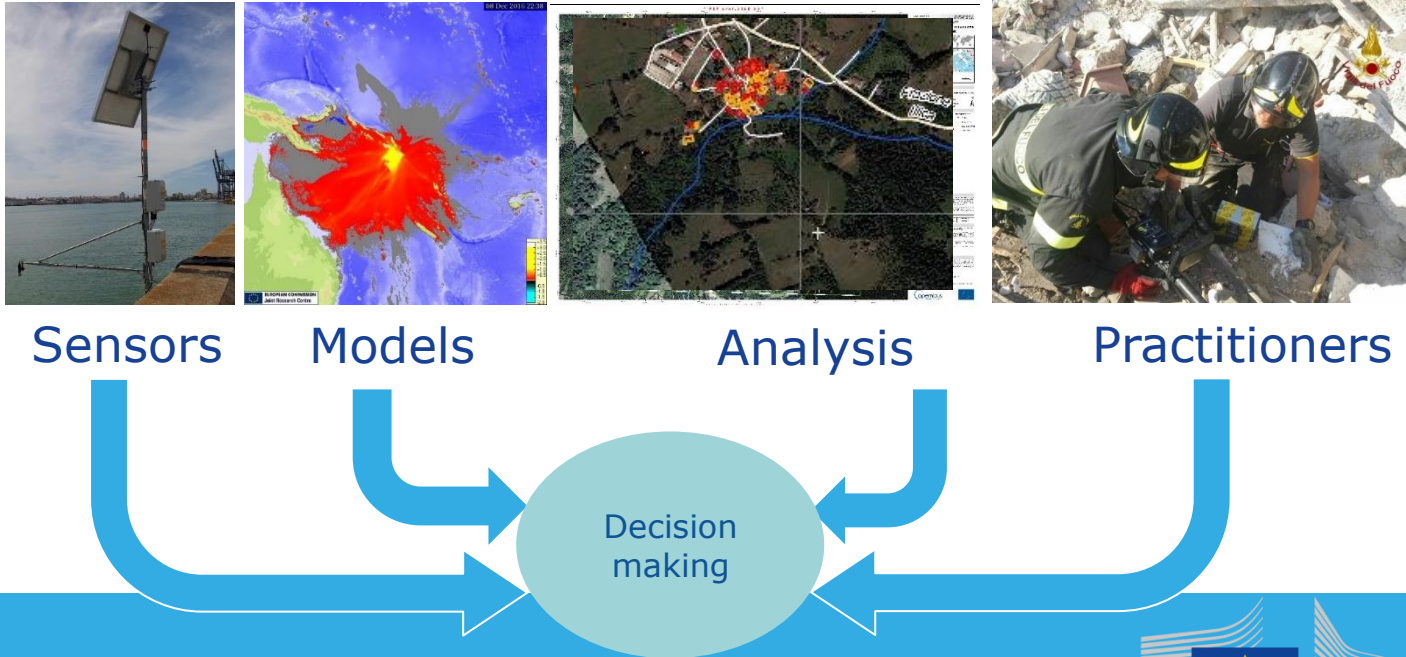
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European
Commission

DRM Unit

The whole information flow related to the Crisis Management is studied



IFB - National Fire Academy

The National Fire Academy (Istituto Superiore Antincendi - ISA), is the school for officers and managers of the National Fire Service (CNVVF).

The institutional scope of the ISA is to provide training and lifelong learning for the officers and the managers of the Department of Firefighters, Public Rescue and Civile Defense.

The Institute provides also any other activity aimed at spreading the culture in the specific fields of fire safety, technical rescue and civil protection.

The Institute hosted the first training course the end of 1994.

Collaboration Agreement - Objectives

- To obtain the **scientific data** needed to understand better the process involving the management of the crisis information from the first notification to the first-hand observation and then to the resolution.
- To improve the **co-ordination and effectiveness** of co-operation efforts between operational bodies in the field of the **Civil Protection** and the JRC in the field of Crisis Management.
- To promote mutual interest and **co-operation** in understanding and resolving issues about the user experience and the effectiveness of User-Machine Interfaces.

Collaboration Agreement - Actions

- Joint **development of innovative and cost-effective approaches** to improve the activity dispatching and management of a Control Room. The Italian Fire Brigade will make this development **available to** the JRC to promote its adoption by the **Member States**.
- **Exchange appropriate scientific and technological information**, throughout the on-the-field testing of developed software solutions, at least three exercise to evaluate the software provided by JRC. This activity includes the study of the Mobile Crisis Room paradigm (present and future implementations)
- **Harmonise information representation and exchange** and promote related methods to end-users internationally.

Several geographic reference

Offline and online data

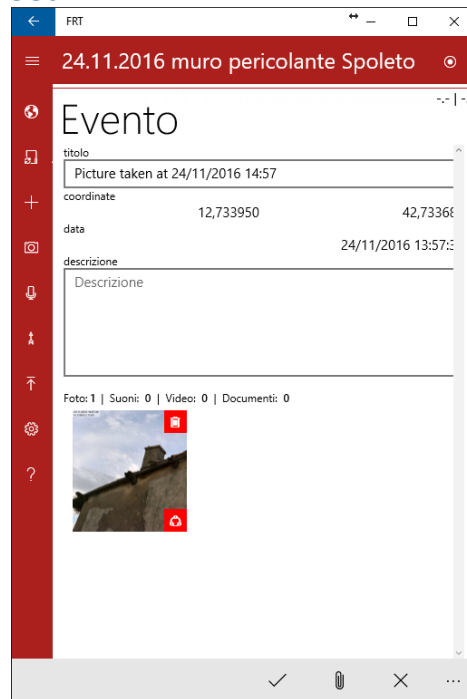
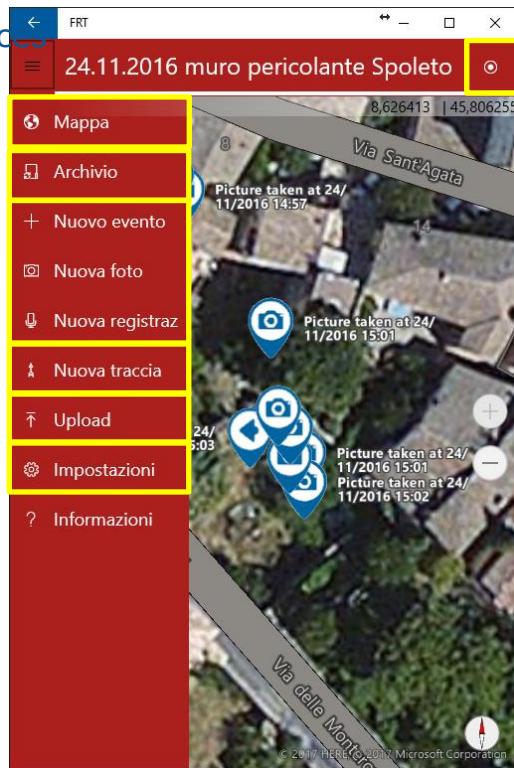
Rapid multimedia
Data creation

Tracking utility

Rapid sharing

Customizable

GPS based





FRT > Details

FRT

Missions

FRT App

Hello vfff!

Log off

< 2016-08-25_Volo 5_Volo Amatrice

Events Tracks Details Map

Mission Events

Events number : 255
Attached images : 255
Attached audio : 0
Attached videos : 0
Attached documents : 0

Title : IMG_3353

Date : 14/03/2017 21:50

Description : IMG_3353

Lat/Lon : 42.62240 / 13.29667



Title : IMG_3354

Date : 14/03/2017 21:50

Description : IMG_3354

Lat/Lon : 42.62254 / 13.29619



Title : IMG_3355

Date : 14/03/2017 21:50

Description : IMG_3355

Lat/Lon : 42.62276 / 13.29569



Title : IMG_3356

Date : 14/03/2017 21:50

Description : IMG_3356

Lat/Lon : 42.62297 / 13.29519



Title : IMG_3357

Date : 14/03/2017 21:50

Description : IMG_3357

Lat/Lon : 42.62316 / 13.29467



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http://criticportal1.jrc.it/FRT/Missions/Details?id=2016-08-25_Volo 5_Volo Amatrice#missionEvents

Reset 100 %

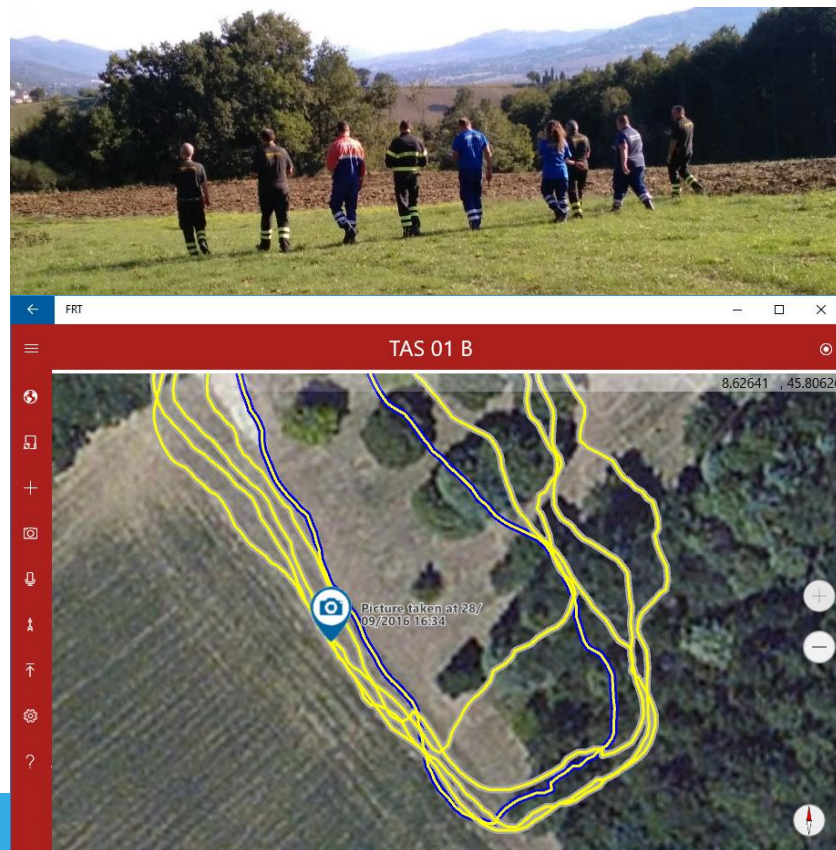
First joint experience

28th-30th September

- With Civil Protection and Italian Fire Brigade, search and rescue simulation in Fossato di Vico
- With the first responders of the Italian Fire Brigade, survey of the places hit by the 24th August earthquake

Search and rescue simulation

- Comparison with the presently used technology
- Test of the technology (deployment, chosen hardware, ...)
- Feedback of untrained users (quite no formation required)



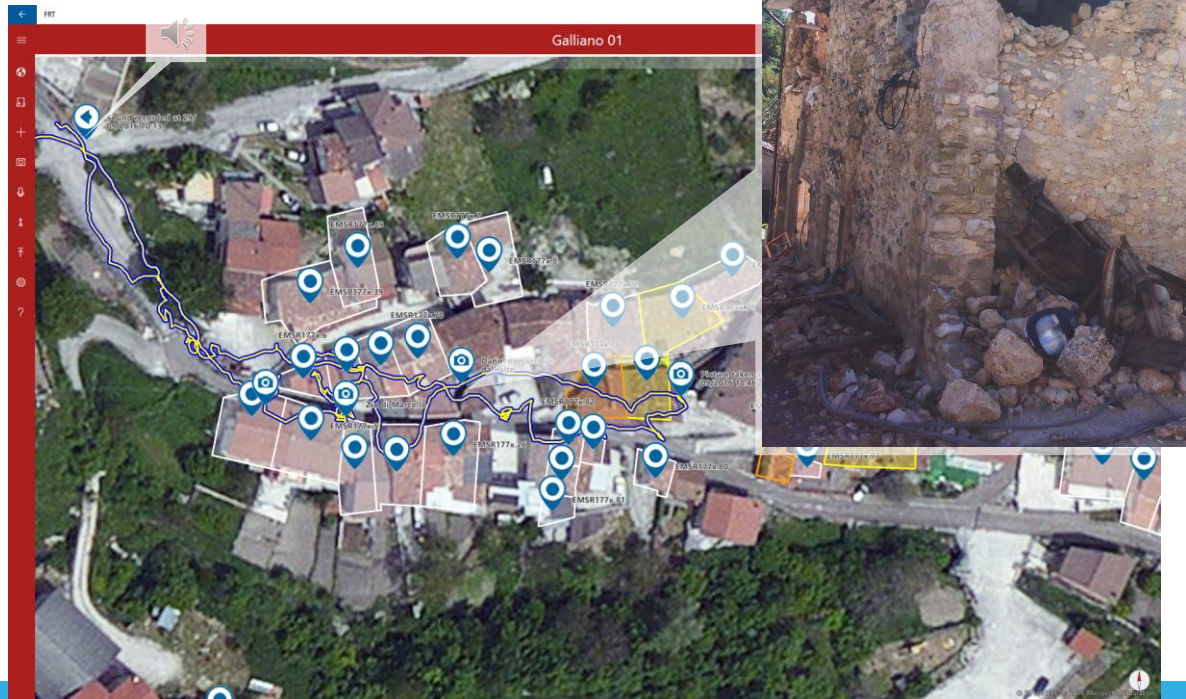
Earthquake area survey

On September, 29th JRC and IFB visited:

- Capodacqua
IFB operators replayed the initial surveys using FRT-Universal
- Arquata del Tronto
Meeting with the JRC mission validating the Copernicus data
- Amatrice
Extensive use of FRT-Universal to assess all the features
- Castelluccio di Norcia
IFB operators showed the issues about present version

Capodacqua

- Combined visualization of new information and a reference (Copernicus data)
- Real-like survey stepping into destroyed houses
- Comparison of remotely performed assessment with the real situation



Arquata del Tronto

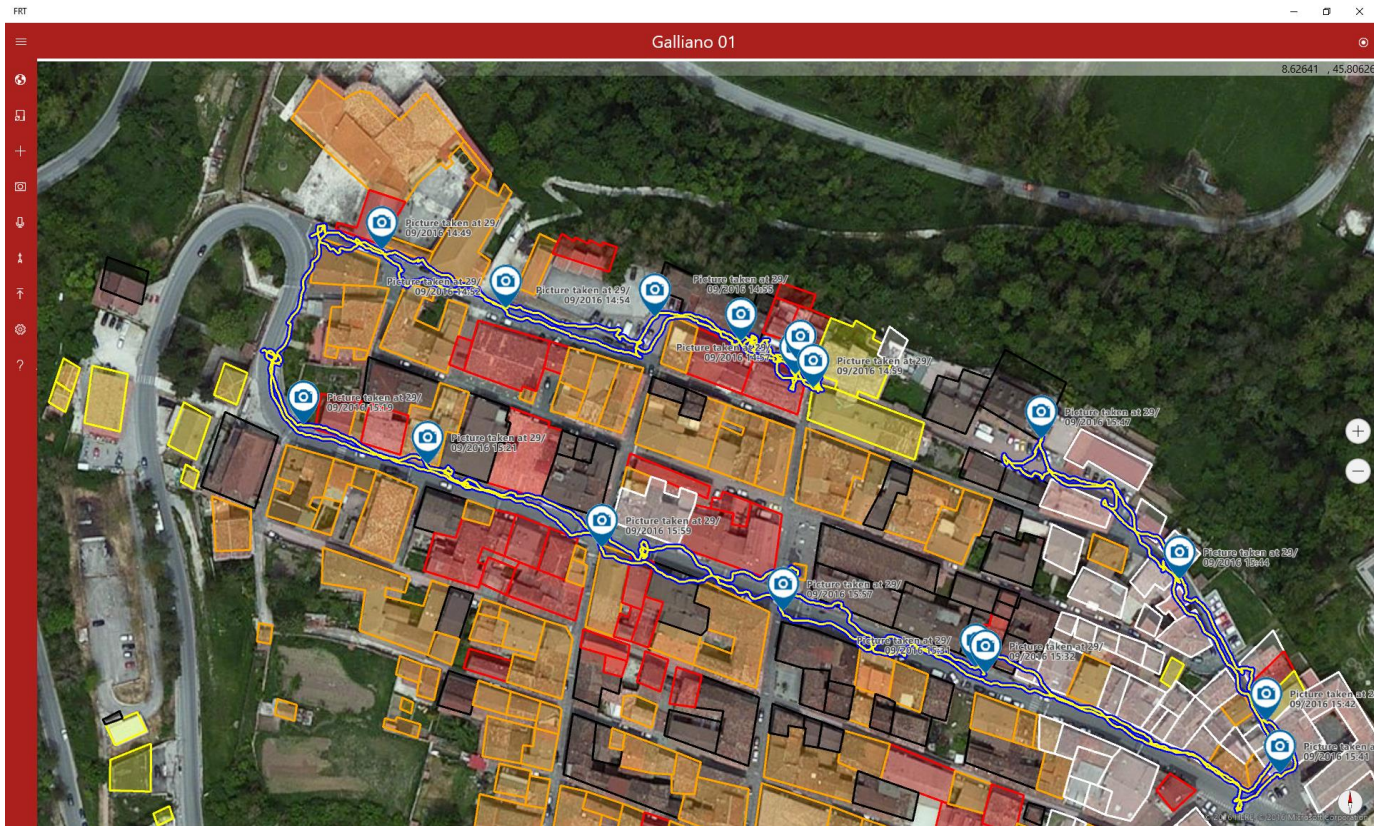
- The tool was also demonstrated to Italian Civil Protection
- Joint comparison of remotely performed assessment with the real situation

The screenshot displays the FRT web interface, which is part of the 'CORPO NAZIONALE DEI VIGILI DEL FUOCO' (National Fire Corps). The interface is divided into several sections:

- Header:** Includes the logo of the Italian Civil Protection and the text 'Dipartimento dei Vigili del Fuoco, del Soccorso Pubblico e della Difesa Civile'.
- Navigation:** Tabs for 'FRT', 'Missioni', and 'FRT App' are visible. The 'Missioni' tab is selected, showing a list of missions.
- Mission Details:** The mission 'Daniele 01' is selected. It shows a list of events with columns for 'Descrizione', 'Data', and 'Lat/Lon'. The events are sorted by date, showing pictures taken on 29/09/2016 at various times (12:13, 12:16, 12:17, 12:19, 12:20, 12:25).
- Map:** A satellite map of the Arquata del Tronto area is shown on the right. It includes labels for 'Via Gallo', 'Via Bartolomeo Saladini', 'Via Roma', 'Via Salvo', and 'Strada statale 1'. A blue line indicates a path or route. A 'Clicked Here' popup shows details for a specific event, including a picture and coordinates.
- Footer:** A small text at the bottom reads '© 2016 Sviluppato in collaborazione con European Commission Joint Research Centre, Space, Security and Migration Directorate'.

Amatrice

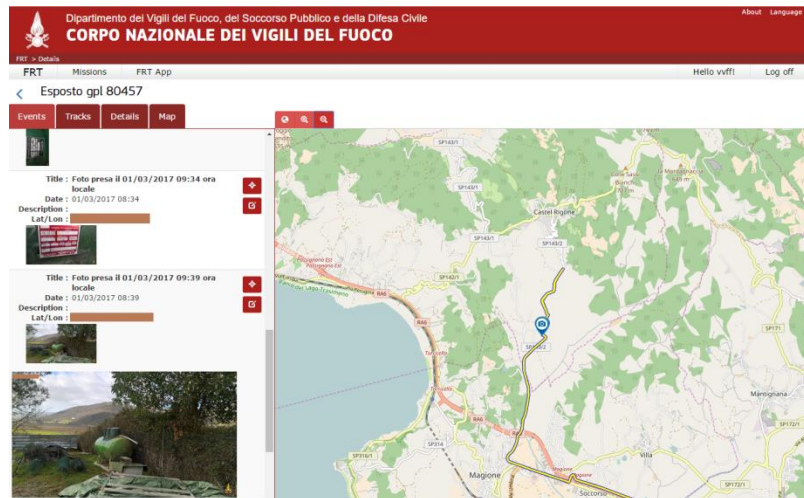
- Lengthy survey campaign to test reliability
- Use of all the features
- Roleplaying by IFB to widen the use to other activities



Follow-up activities

- Two province commands are presently testing the tool in daily activities (Perugia and Cuneo)
- Technical improvements: the tool was refined and translated in Italian, French, Spanish, Polish, Romanian, Greek, German, Portuguese.
- The web site was deployed in the IFB ICT infrastructure and presently the integration is being performed
- The adoption of the tool is foreseen in 2017

Daily activities



i.e. Identification of Fire Fighters related issues and related prove images

Expression of interests

- On February, 14th the tool was demonstrated to SDIS04 and enthusiastically requested to be used asap (a cross-border exercise will be held on June, 22nd)
- The Main School of Fire Service, a Polish equivalent of ISA, provided the Polish translation and would also test the tool
- German THW is also interested in observing the joint exercise
- Portuguese Civil Protection stated that it is exactly the tool that is missing
- The NYFD is comparing the tool with the one they use

Technical details

- Windows 10 Universal application (runs on all W10 devices)
- No additional libraries (JRC developed libraries only both on application and website) apart from .Net framework
- 12 weeks from scratch to trial on the field (not full time developer)
- Entry level smartphone (Microsoft Lumia 550) up to the needs
- 10' from unpacking to readiness