

A satellite is shown in orbit above the Earth, with the planet's blue oceans and white clouds visible. The satellite has a gold-colored thermal blanket and various instruments. The background is the blackness of space.

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Copernicus EMS Rapid Mapping Service for COVID-19

SPACE4HEALTH WEBINAR

Copernicus EMS Rapid Mapping for COVID-19

EMSR433: COVID-19 outbreak and spread in Italy

PLANNING ACTIVITIES SUPPORT – TURIN 07/04/2020

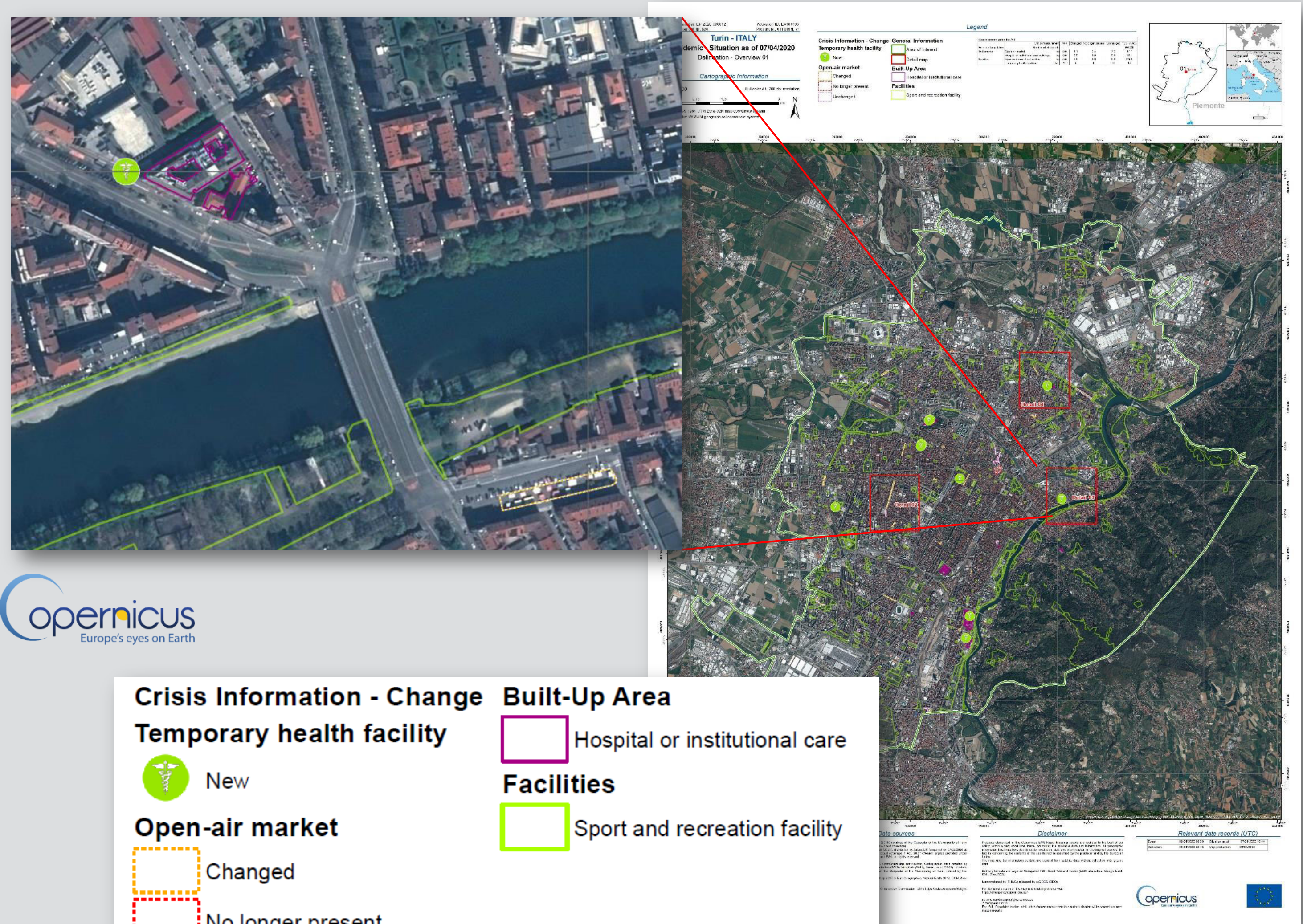
Phase 1 vs Phase 2:






Mobile/Temporary Hospital Infrastructure

- Dynamic Satellite maps
- Continuous census of installed infrastructure
- Merge with population data to check actual level of usage vs expected and design for phase 2

Opening of Street Markets and Green Areas/Parks

- Satellite maps with access point, land use, usable areas
- Merge with population data
- Maximum people density accepted vs limits defined by law
- Regulation of access points
- Decision-support tool for policy definition



Crisis Information - Change	Built-Up Area
Temporary health facility	 Hospital or institutional care
 New	Facilities
Open-air market	 Sport and recreation facility
 Changed	
 No longer present	

Copernicus EMS Rapid Mapping for COVID-19

Use Case: March 2020 - Border Cross Monitoring after lockdown directives by European countries

Satellite data:

Optical VHR Data

Geospatial Report

The lockdown in force within several European countries has generated important traffic queues at the border areas

- traffic jams identification
- No. of trucks vs no. of vehicles in the jam



Example of Border area Optical data



Example of Border area Radar Data

Traffic jam identification in red using COSMO-SkyMed - Interferometric acquisitions

Trucks and car parking monitoring in red and in green using COSMO-SkyMed - interferometric acquisitions

(Granularity; 1 day)

Copernicus EMS Rapid Mapping for Ebola

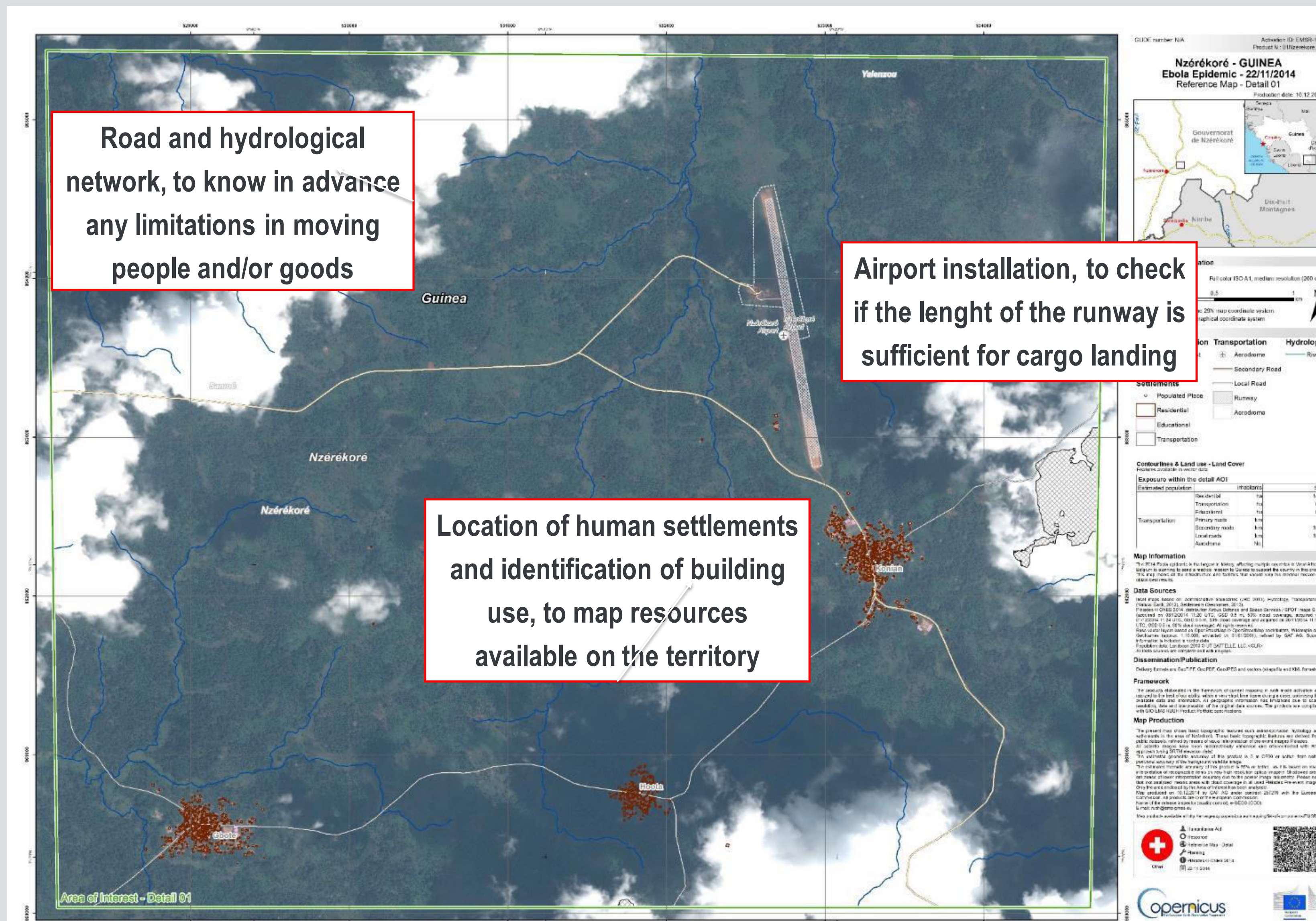
EMSR110: Ebola Crisis In West Africa

November 2014

The 2014 Ebola epidemic is the largest in history, affecting multiple countries in West Africa.

Belgium was planning to send a medical mission to Guinea to support the country in this crisis.

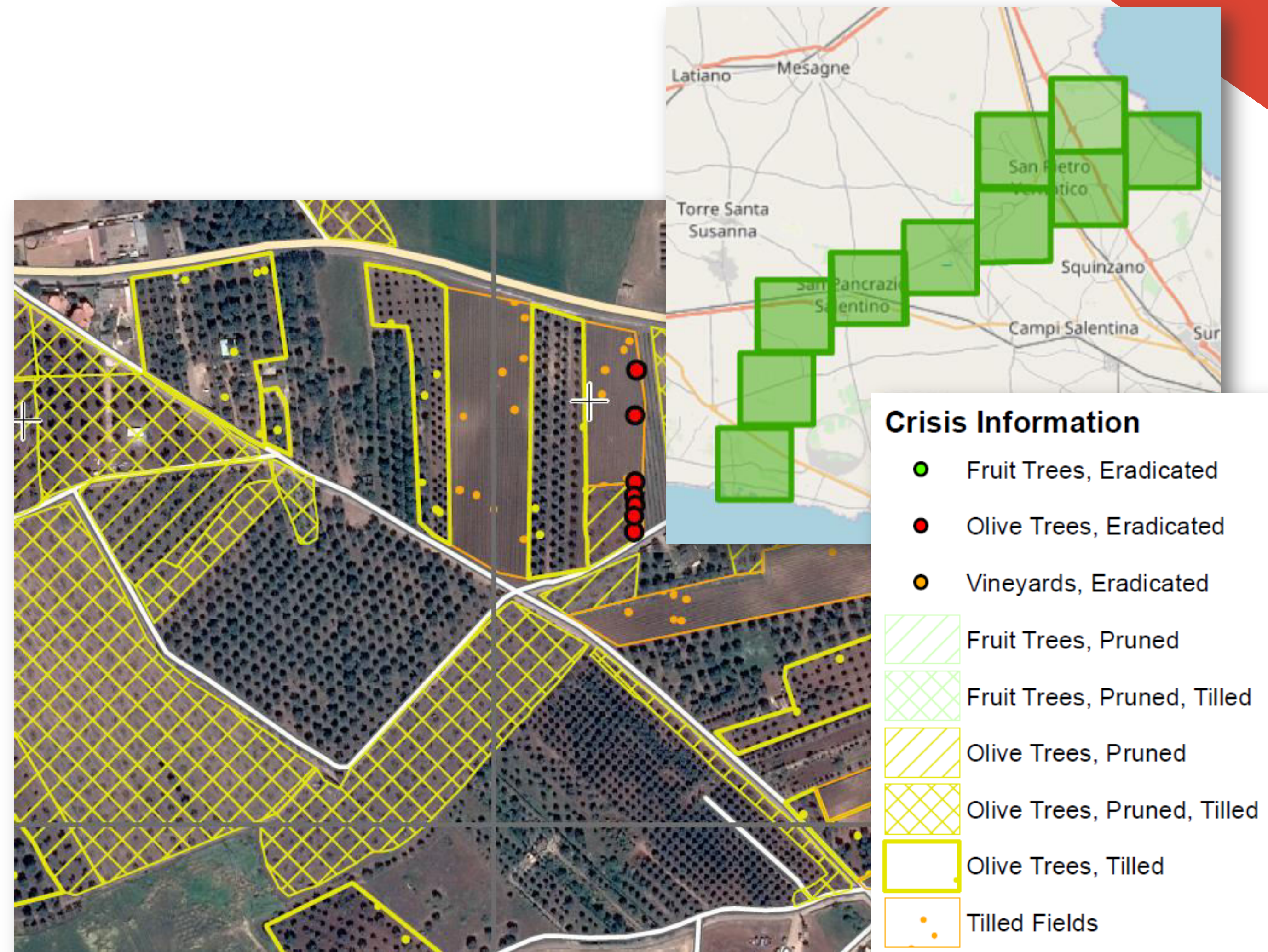
The aim of the RM products was to map all the infrastructures and facilities inside the area of interest identified for the medical mission.



Copernicus EMS Rapid Mapping for Phytosanitary emergency in Italy

April 2015

The Southern Italy was affecting by a phytosanitary emergency, the *Xylella fastidiosa*. Due to the progressive spread of the bacterium and the potentially threatening other crops and regions, this emergency assumed severe proportions, with heavy economic, environmental and social consequences. In order to manage the emergency, a special task force has been defined. The emergency plan foreseen the eradication of all the plants potentially affected by the infection, in order to create a phytosanitary barrier to stop its expansion.



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e-GEOS S.p.A – L.O. Contrada Terlecchie snc – Matera / HQ Via Tiburtina, 965 – Roma

 info@e-GEOS.it

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