

WP8 – Crisis Mapping Services



Overview

- Background - years of experience in disaster risk mapping
- We see several data gaps that could be filled by access to and analysis of open data
- Intended users confirm (RMS/JRC) that data gaps exist and express their willingness to work with us to fill some of those gaps.

Overview

Direct Users - insurance industry (RMS) and public administration/civil protection (JRC/IT Civil Protection Dept.)

Service/Application

Historical Flood Extent/Footprints

- Map event footprints and link related event information, i.e. loss information, etc.

- Use to build, improve and validate hazard models

- Maybe expand to other hazard extents such as fire and wind

Service/Application

- Global Hotspot Analysis and Mapping

 - Creation of basic reference data for selected hot spots

 - Produce regional maps based on satellite imagery, open vector data and freely available statistics.

Wider Benefit

- Support for damage assessment
- Raising awareness and risk reduction
- Model enhancement
- Improve customer products

Data Inputs

- Satellite imagery (Landsat 8 and Sentinel-1 and 2)
 - raster, Gb -> Tb (especially when going into historical data sets)
- Open government data (Statistics and spatial data) - text files, vector and raster data

Data inputs

- We use only Open Data
- In all cases we see that data will need to be processed and ingested into a common system.
- Other services that we consider will provide information to our service include: Urban ecosystem accounting service, land management service, and desertification.

Data outputs

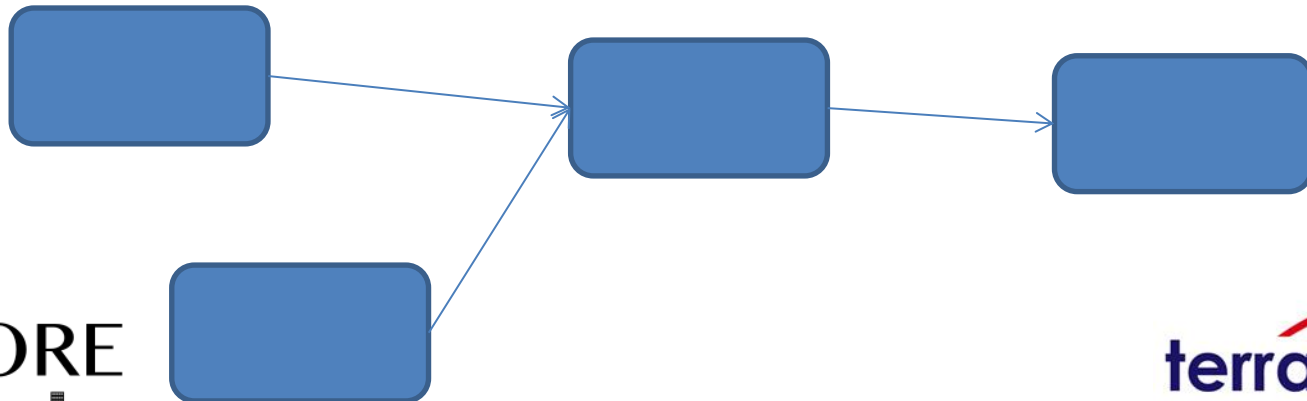
- For each data output:
 - Raster and Vector
 - Open and Commercial

Visualization requirements

- Depends on the use/user – simple to specialised
- Maps (raster/vector) and/or timeseries
- Test what WP2 could do for us

Computing requirements

- Offline processing
- Image processing based on a set methodology
- Visualisation will depend on final service specs



Rough timeline for development

D8.1	Detailed description of service and technical/data requirements including service data gaps	8	R	PU	M3
D8.2	Evaluation report of first cycle of development	8	R	PU	M13
D8.3	Initial public version of the European Historical Flood geospatial database	8	O	PU	M18
D8.4	Evaluation report of second cycle of development	8	R	PU	M25
D8.5	Global disaster hotspot database becomes available online	8	O	PU	M26
D8.6	Public version of online custom map subscription service	8	O	PU	M32
D8.7	Evaluation report of third cycle of development	8	R	PU	M34

Main issues

- Access to Data
- Quality of Data
- Can we achieve the accuracy/expected quality based on Open Data