

A High-volume Fusion and Analysis Platform for Geospatial Point Clouds, Coverages and Volumetric Data Sets

IQmulus at a glance: *IQmulus will leverage the information hidden in large heterogeneous geospatial data sets and make them a practical choice to support reliable decision making*

Motivation and Goals

Current situation

- Valuable information exists in huge geospatial datasets but is hidden and not integrated in the decision process
- Often it is only accessed for damage assessment in a „what went wrong?“ analysis (e.g., for the 2010 toxic mud spill in Ajka, Hungary, and the 2011 flooding in Genoa, Italy)

Objectives

- Make information from large geospatial datasets available on time, with interactive visual decision support, and at the relevant level of decision making

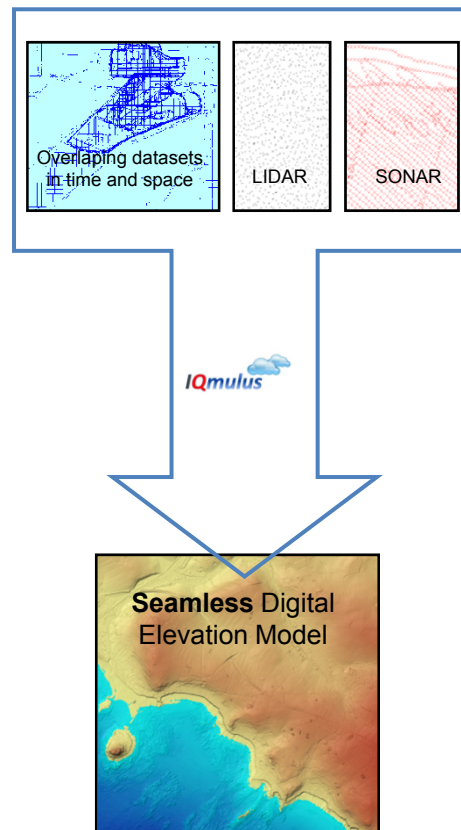
Two test cases of economic and social importance to Europe

- Marine Spatial Planning (e.g., for wind farms)
- Land Applications for Rapid Response and Territorial Management (e.g., for flooding)

Quick Facts

IQmulus (FP7-ICT-2011-318787) is a 4-year Integrating Project (IP) in the area of *Intelligent Information Management* within ICT 2011.4.4 Challenge 4: *Technologies for Digital Content and Languages*. IQmulus started on November 1, 2012, and will finish October 31, 2016. Its total budget is 10 147 459€, with an EU contribution of 8 100 000€. See:

<http://www.iqmulus.eu>



Core Innovations

The IQmulus Infrastructure will offer

A **new methodology** for fusion and analysis of geospatial data:

- Independent of data modelling paradigm
- Not bound to predefined data partitioning
- Allowing the expression of basic correlation patterns, advanced analysis and knowledge discovery algorithms
- Managing uncertainty

A **new technical approach** to the definition, configuration and deployment of functional spatial processing services with:

- Independence of data size and execution architecture
- Distributed processing of heterogeneous geospatial data
- Powerful visualization capabilities by leveraging modern GPU features on graphics machines and web-clients

The Consortium



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