

2. Publishable summary

PlanetData looks back to a successful start in October 2010: the consortium has laid out a solid foundation for the remaining duration of the project in terms of the scientific and technical work.

Dissemination, training and community building have yield first promising results: besides setting up a comprehensive training infrastructure and contributing to several summer schools and tutorials, we have published initial project results and overviews at workshops and conferences in all relevant scientific communities, engaged in standardization and other community-driven initiatives, and maintained a lively Web site and social media communication ecosystem.

From a research point of view the results of the first year can be classified into two categories, corresponding to the main motivations for the research agenda of the project. To improve the usefulness of existing Linked Data sets we have devised a quality assessment framework supporting both static and stream data, and including methods for quality repair for Semantic Web ontologies; furthermore we have designed abstract models for provenance and access control adapting state-of-the-art concepts in relational databases and Semantic Web standard languages. In the context of Linked Stream Data we have consolidated our work on using RDF and SPARQL to enhance the functionality and facilitate integration between existing sensor network platforms such as Pachube and GSN, and consolidated our work on the Semantic Sensor Ontology.

Our data provisioning and management activities concentrated on improving access to existing data sets and tools through cataloging, in particular by developing a new analysis tools called vocab.cc which offers information about the usage of vocabularies within a representative sample of the Linked Open Data Cloud. Along the same lines of making existing data more comfortable to use in new applications and services we devised the NeoGeo geospatial vocabulary which is promoted across various audiences related to Linked Data, open data and geoinformation systems.

Impact creation efforts materilized in a comprehensive list of publications (over 20) at semantic technologies, databases, machine learning and sensor networks venues, complemented by tutorials and summer schools such as the ESWC one co-located with the conference with the same name. Among the most prominent community building activities we have organized roadmapping and strategy development workshops with experts from the relevant communities including the STI Strategic Summit in July 2011.

In 2011 we ran the first round of the PlanetData Programs. From 37 submissions requesting a total contribution of over 3 million € the consortium is happy to welcome four new partners from Italy, the UK and Norway, which will prove the usability of Linked Data in applications in the areas of urban computing, traffic management and environment and policy making.