



Using of mashup technology for Hydro-Meteorological Research.

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The proposed activity will be an important and innovative step to promote the cooperation between scientists active in Hydro-Meteorological Research (HMR) and Information and Communication Technologies (ICT). A better exploitation of data archives according to a multidisciplinary perspective is a critical issues in HMR. The main challenges stem from the large quantity, complexity and heterogeneity of the tools and datasets originated by various sources: remote sensory observations, satellites, ground-based radars and ensemble forecasting methods. The need to combine different datasets and models in a flexible manner are crucial in HMR.

It is therefore essential to develop IT initiatives and tools enabling rapid data discovery from different sources (satellites, meteo-stations), their collection and the development of functionality to homogenize, compare and interpolate these datasets.

The use of Web technologies to explore geo-scientific data is now well-established. There are a number of applications to explore, visualize, analyze and process vast amounts of Earth science data from remote sensing observations and models.

The concept of “mash up” has recently become very popular in many fields. Mashup stands for a methodology that permits to combine data from two or more external online sources into an integrated experience. In other words a mashup application grabs data from one place on the Web, mix it up with relevant information from another place on the Web and presents it an a single application.

A relevant part of the project is the design of a search engine for static geographycal data such us soil types, land use, communications, roads, rivers, lakes etc. This sort of information has high importance and usefulness in decision support systems and Civil Protection applications.

The project main features will be:

- collection and sharing of HM data from observations and models;
- the use of interpolation algorithm for searching of the HM data of the area of interest.