

DRIHMS



Summary: In the Lisbon strategy, the 2005 European Council identified knowledge and innovation as the engines of sustainable growth and stated that it is essential to build a fully inclusive information society. In parallel, the World Conference on Disaster Reduction (Hyogo, 2005), defined among its thematic priorities the improvement of international cooperation in hydrometeorology research activities. This was confirmed at the Joint Press Conference of the



Center for Research on Epidemiology of Disasters (CRED) with the United Nations International Strategy for Disaster Reduction (UNISDR) Secretariat (2009), where it was noted that that flood and storm events are among the natural disasters that most impact human life.

Hydrometeorological science has made strong progress over the last decade at the European and worldwide level: new modelling tools, post processing methodologies and observational data are available.

Recent European efforts in developing a platform for e-science provide an ideal basis for the sharing of complex hydrometeorological data sets and tools. Despite these early initiatives, however, the awareness of the potential of the Grid technology as a catalyst for future hydrometeorological research (HMR) is still low and both the adoption and the exploitation have astonishingly been slow, not only within individual EC member states, but also on a European scale.

Objectives: The main goals of DRIHMS are:

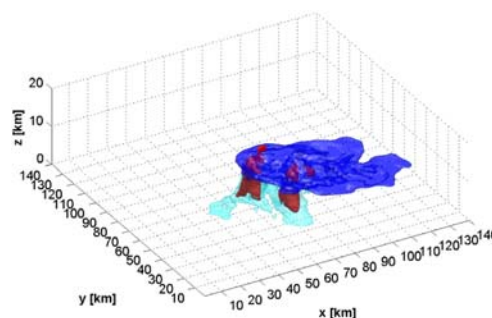
- Cross fertilization to match HMR and ICT communities;
- To boost European research excellence and competitiveness in hydrometeorological research and Grid research by bridging the gaps between these two communities.

The DRIHMS objectives are “SMART”: Specific, Measurable, Attainable, Realistic and Timely.

Action plan: The key element of the DRIHMS project will be the organization of a set of networking activities (including web based questionnaires, restricted consultation meetings and open conferences), involving both hydrometeorology scientists and Grid scientists, and designed to overcome current limitations in the sharing of tools and knowledge in the European HMR community, in the creating of common knowledge of what is available and, possible, also in the production of new knowledge from last generation hydrometeorological processes observing/modeling systems.

DRIHMS will identify the hydrometeorological hot research areas that require a network-based and distributed approach, in terms of hydrometeorological data and software sharing.

Consequently, DRIHMS will discuss, define and communicate the requirements for porting and deployment of state-of-the-art hydrometeorological research applications and tools over heterogeneous Grid middleware.



Project acronym:
DRIHMS

Contract n°: RI-246703

Project type: CSA-SA

Start date: 01/11/2009

Duration: 18 months

Total budget:
250 000 €

Funding from the EC:
250 000 €

Total funded effort in person-month:
30

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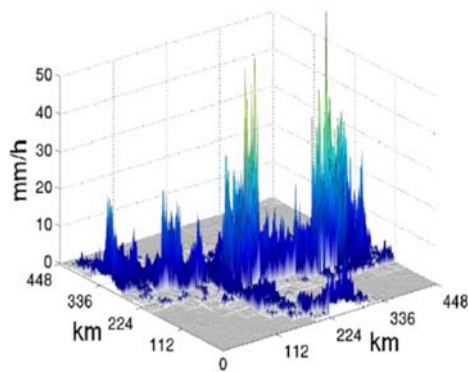
Keywords:
Hydrometeorology, ICT, survey, cross-fertilization

Collaboration with other EC funded projects:
BELIEF II

Coordination and/or support activities: The DRIHMS networking activities will find their synthesis in the formulation of a white paper and several scientific research contributions regarding the use of Grid technologies for basic and applied research in the hydrometeorology science area. The document will identify existing gaps (issues such as lack of funding, missing technologies, and limiting factors such as missing communication among different scientific communities) and possible strategies to fill them, thus providing to the EC an effective support for a policy development aimed at strengthening the international cooperation based on e-infrastructure suited for hydrometeorological research and at boosting European HMR potential and its exploitation.



User communities: The DRIHMS project is proposed by a consortium of hydrometeorology and ICT (LMU and IMATI) research centers that integrate multidisciplinary and complementary know-how enabling to uptake the use of Grid-related technologies in the hydrometeorological science area.



The consortium understands itself as catalyst for other European research centers. The DRIHMS audience will be represented by HMR and ICT Institutions contributing to projects and initiatives, at the regional, national and international level, that are strongly related with this project (e.g. HyMex, MEDEX, DEISA, EGEE).

International aspects: The DRIHMS project will address International cooperation through a system of different activities.

DRIHMS will enable an effective collaboration and cross-fertilization between the HMR and the Grid sciences through the involvement of key experts belonging to these two communities in the consultation and networking processes. Furthermore, DRIHMS results will be presented at major international conferences and published in relevant peer-reviewed journals.

