Research Results for Small Areas: a Universe of Geo-information in a thematic SDI

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Universities and Research Centres are often in charge of research projects regarding geographic areas of limited extent. Because of their restricted spatial scope, these projects investigate their study area thoroughly, examining many different aspects, thus obtaining precious results having a high economic and technical value. Their results are mainly in digital form: geo-referenced documents (such as maps and images), or textual, graphic and multimedia documents with a well identified geographic reference (i.e., reports, thesis, books, presentations, etc.). Unfortunately, these investigations and their products are seldom known outside a small academic community, in spite of their importance for a wide users' arena.

Promoting discovery and access to the significant amount of geo-referenced information generated by University Departments and Research Centres is a fundamental step towards collaboration with other researchers and with external users, such as public administrations or the private sector.

IDE-Univers (Infrastructure de données spatiales entre Universités et Centres de recherce dans la Méditerranée Occidentale) is a project funded within the Measure 3.4 (Communication and information technologies for land development) of the Interreg IIIB MEDOCC Programme [3], started last September, 2006. Its mission is to create a Mediterranean geo-information space on the Internet, aiming at integrating knowledge about small territories, produced by academic institutions in Mediterranean [1]. It capitalises on today's technological advances in the field of Spatial Data Infrastructures (SDIs) (i.e., geographic data standards, metadata, catalogue and geographic services), in order to allow discovery and exchange of spatial information derived from research activities.

More specifically, the objectives of the project are:

- To enrol geographic information produced by academic institutions of the Mediterranean basin.
- To generate metadata for the geographic information and publish them on the Internet using catalogue services.
- To build a network of interoperable platforms, enabling the search and access of published geographic information that has a high interest for research institutions, public administrations and the private sector as well.
- To promote participation of different institutions to the project itself, reinforcing collaboration and culture sharing between academic institutions at a European level.

The geographic information may be related to different fields, while the focus is on three main domains: environment, land management and socio-economics. End-users will be able to search, access, visualise and exchange provided data through a geo-portal, using only their familiar web-browser.

The Project is co-ordinated by Secretaria de Telecomunicaions i Societat de la Informació, Generalitat de Catalunya (Spain), with the support of IDEC (SDI of Catalunya). Technical Partners (TP) of the project are: IREA (Istituto per il Rilevamento Elettromagnetico dell' Ambiente) of the National Research Council (CNR) in Italy, the Department of Geography of the University of the Aegean in Greece, and the Instituto de Cartografía de Andalucía (ICA), Junta de Andalucia (Spain). Each TP coordinates a number of User Entities (UE), i.e., University Departments and Research Centres which have agreed to share a part of their geo-information to create the *IDE-Univers* SDI. Region Emilia-Romagna, in Italy, represents the public administrations interest in the project's results, in order to improve urban and environmental management.

By its ending date (March 2008), 5.000 metadata records (following ISO19115 standard) and 30 newly developed Web Map Servers (WMSs) located at University Departments and Research Centres, distributing geographical data from Spain, Italy and Greece, will be available to 300 end-users. The project will also contribute in spreading SDI philosophy and know-how in the scientific practice of the partners involved, their collaborators and within the academic community in general.

The project is keeping up with the INSPIRE Directive [2], furnishing not only new and detailed environmental geo-information, but also testing flexibility, robustness and efficiency of standards and solutions in the SDI framework (since geographic data are extremely heterogeneous in many different dimensions, including formats, quality, reference systems, resolution, semantics, etc.).

The proposed presentation for the workshop will include the goals of the project, the technologies employed, the architecture of the network, the procedures followed by the collaborating entities, while conclude with lessons learned and opportunities foreseen so far.

References

1. IDE-UNIVERS fiche project.
2. INSPIRE Directive, http://www.ec-gis.org/inspire/home.html
3. Interreg IIIB MEDOCC Programme, http://www.interreg-medocc.org