

# Academia and Geospatial Interoperability

Interoperability between Geospatial Information Systems is an area of increasing interest within academic institutions, not only in Geography and other geo-related areas but also in Computer Science departments. From the software-engineering point of view, a revolution may be said to have occurred in the way we design such systems, a revolution inspired by the appearance of OGC standards, guidelines and working documents.

## **IAAA Lab**

The Advanced Information Systems Laboratory (IAAA Lab) is a multidisciplinary research and development unit in the Computer Science and Systems Engineering Department of the University of Zaragoza. Here OGC specifications are referred to, explained, and used in undergraduate, graduate and PhD courses, and used in most masters' and PhD theses. The IAAA Lab is also involved in OGC Interoperability Experiments and has developed technology for OGC standard services operating within several infrastructures. In addition to contractual collaboration with OGC Europe, the Lab has been deeply involved in the implementation of OGC standards in Spain. OGC technical documents opened up new directions for dealing with many topics that had arisen in previous work, and the small team that began working on geospatial information in 1996 has evolved into a group of more than forty staff and collaborators. Although the choice of an OGC-based scientific/technical strategy seemed a bit risky at the start, this has since proved a good decision.

## **Spanish SDI**

In 1998 the Lab became an OGC member and was awarded its first research OGC-related project. A great step forward was taken in 2000, with an important research project funded by the Spanish Ministry of Science and Technology entitled "Development of distributed geographic information catalogue services, oriented toward the web and based on open standards: Effective steps toward a National Geographic Information Infrastructure". The project was awarded to the TelDE University Consortium (University of Zaragoza, University Jaume I and Technical University of Madrid), later complemented by the National Geographic Institute of Spain, and laid the foundations for the Spanish national SDI (Spatial Data Infrastructure), which bases its recommendations on OGC standards.

## **Spin-off Company**

The INSPIRE proposal for a European Directive now enacted by the European Commission represented another milestone for Lab involvement in OGC standards. One example was the SDIGER project, an INSPIRE pilot project developed by the Lab together with the Spanish National Geographic Information Centre and the French National Geographic Institute to test OGC standards and related technology for solving specific INSPIRE problems.

The University of Zaragoza (with the support of IAAA Lab) has recently set up a spin-off company called GeoSpatiumLab to promote transfer of technology in this field.