

Urban Information System (<http://siu.vivienda.es>)

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SUMMARY

Urban information system is defined in the first additional provision of the Revised Text of the Land Act approved by Legislative Royal Decree 2/2008 of 20th June. Therefore, in order to promote transparency, the Central Government Authorities, in co-operation with the Autonomous Regions, shall define and promote the implementation of the criteria and basic principles which may foster, by co-ordinating and complementing with the competent authorities, the training and continued updating of a general and integrated public system of information on land and urban planning, securing, furthermore, the compatibility and co-ordination with other information systems, namely, of the land survey.

SUMARIO

El Sistema de Información Urbana se define en la disposición adicional primera del Texto Refundido de la Ley de Suelo aprobada por el Real Decreto 2/2008 de 20 de Junio. En concreto se indica que *“Con el fin de promover la transparencia, la Administración General del Estado, en colaboración con las Comunidades Autónomas, definirá y promoverá la aplicación de aquellos criterios y principios básicos que posibiliten, desde la coordinación y complementación con las administraciones competentes en la materia, la formación y actualización permanente de un sistema público general e integrado de información sobre suelo y urbanismo, procurando, asimismo, la compatibilidad y coordinación con el resto de sistemas de información y, en particular, con el Catastro Inmobiliario”*.

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1. INTRODUCTION

According to the data published in the 'Atlas Estadístico de las Áreas Urbanas 2006' (Statistical Atlas of Urban Areas 2006) by the Ministry of Housing, Spain has grown demographically 13%, and its population has gone from 39.4 to 44.7 million inhabitants from 1991 to 2006. However, this growth has not been uniform all over the territory, with the population concentrating, on one hand, in the interior around a few large metropolitan areas, mainly Madrid, Zaragoza and Seville, and on the other, along the coasts of the Mediterranean and the islands.

At the same time, there has been much more growth of the urbanized land. Comparing the data from the CORINE Land Cover for 1990 and 2000, artificial surfaces grew 29.1%. During that same period, the number of homes in Spain grew 21.7% from 17.2 to 20.0 million.

Therefore, it is needed to have a better understood about the intensity and characteristics of urban evolution in our country. This is the main objective of the Urban Information System.

2. OBJETIVES

The main objectives of the Urban Information System are:

- More transparency in urban planning issues, by developing management tools aimed at public and public sector and citizens.
- Knowledge about current urban planning.
- Knowledge about available land and evolution of the land use.
- Information about supply and demand of housing and other uses.
- Compatibility with other national, regional and European information systems.

3. SOURCES

The datasets used in the Urban Information Systems are follows:

- CORINE Land Cover: is a European programme initiated in 1985 by the European Commission, aimed at gathering information relating to the environment on certain priority topics for the European Union (air, water, soil, land cover, coastal erosion, biotopes, etc.). Since 1994, the European Environment Agency (EEA) integrated CORINE in its work programme. EEA is responsible for providing objective, timely and targeted information on Europe's environment.
- SIOSE: new Land Cover and Use Information System of Spain, able to integrate different data of regional and national administrations, is a very ambitious project destined for being a Spanish and European reference as regards geographic information. SIOSE is part of the National Land Monitoring Plan, managed and

coordinated by the IGN, which hopes to achieve a multidisciplinary spatial data infrastructure, periodically updated, for the Spanish national and regional administrations.

- National and regional legislation about urban planning, building and housing.
- Statistics of the Spanish National Institute and Cadastral Department.
- Maps and imaginary of the National Geographic Institute.
- etc.

4. SIU Working Group

On October, it was created the SIU Working Group (GTSIU). The objective of this group is to improve the communication and transmission of the information and knowledge. There are members representing all public agent involved.

In addition, it was created two subgroups: one of them for thematic aspects and the other one for technical aspects.

The aim of the thematic subgroup is to homogenize the information of the regional departments and elaborate a common integrated model. Nowadays, it defines two layers: land classification and developing areas.



Figure 1. Classification and Developing Area Layer

5. Urban Spatial Data Infrastructure

This system has to integrate data and services from a lot of sources and several organizations. So it is needed to collaborate in order to share the information with other systems.

In fact, this project is more a SDI project than a GIS project. Each organization should offer their data using standards services through Internet. And each organization may use these services to interoperate and elaborate new aggregated information.

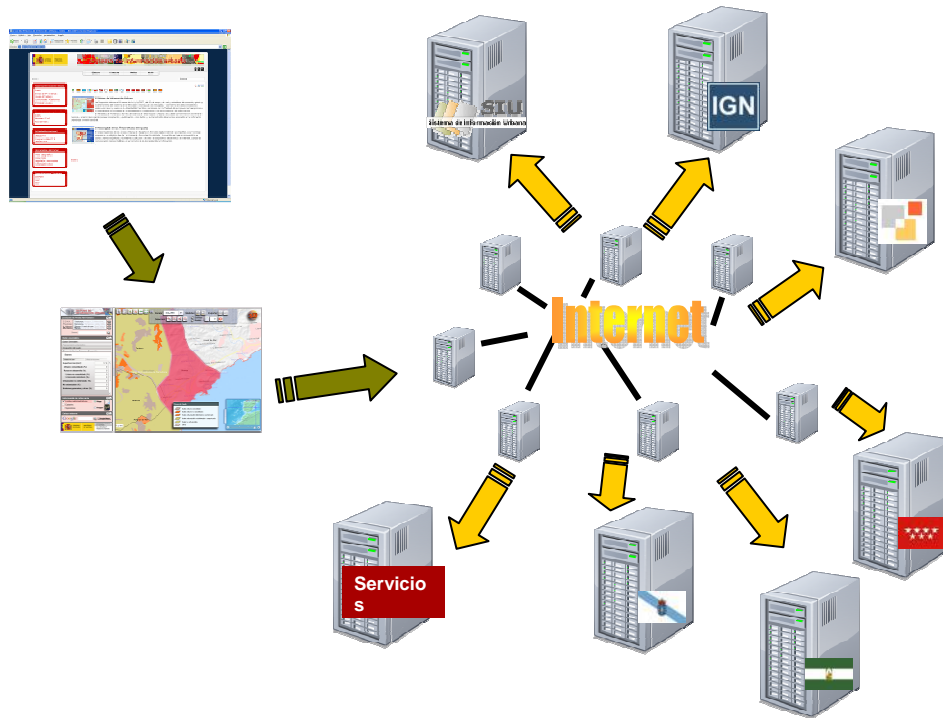


Figure 2. Urban Spatial Data Infrastructure

Each service offered in the SDI shall conform to the specifications of the Open Geospatial Consortium and ISO TC 211. And, of course, following INSPIRE Directive.

6. Website (<http://siu.vivienda.es>)

The website has five sections:

- Urban Information System: General information, sources, regional and local systems.
- Tools: SIU Viewer, Legislation Browser, Data Catalog and Atlas
- Normative and specifications: OGC, INSPIRE, ISO TC 211
- Knowledge and best practices
- International issues of the Ministry of Housing

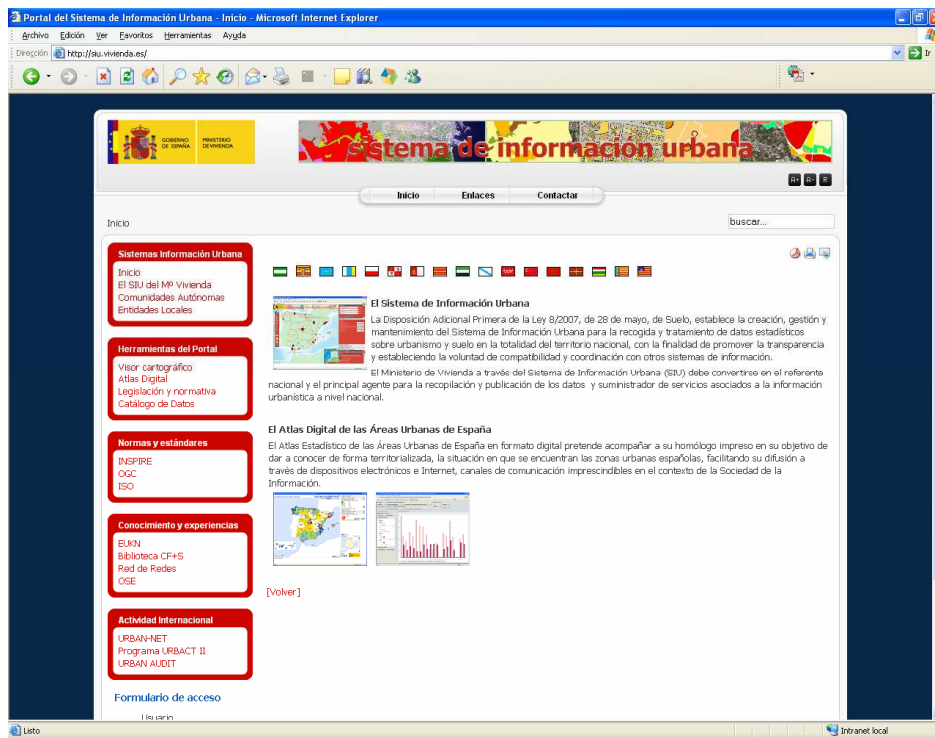


Figure 3. SIU Viewer

7. SIU Prototype

The Directorate General of Land and Urban Policy has conducted a series of actions aimed at the development and creation of the Urban Information System:

- Obtaining information on the planning of 280 municipalities in 25 major urban areas. The products obtained are:
 - Uniform data model for the representation of the land class and indicators related to urban development.
 - Layers of information or classes of land and development areas and indicators of the 280 municipalities according to the data model created.
- Creating a map viewer that access to the graphic and alphanumeric information that is stored in the data base of urban information system. This viewer accesses a Web mapping service conformance with the specifications of the Open Geospatial Consortium, ISO 19100 and the principles of the INSPIRE initiative.

At this time there is available a version of the map viewer, which not only accesses the most relevant information from the database of the SIU (general information, legislation, planning figures, CORINE, ...), but access to information available on planning, that is, the layers of land class, areas in development and the determinations of the municipalities studied.

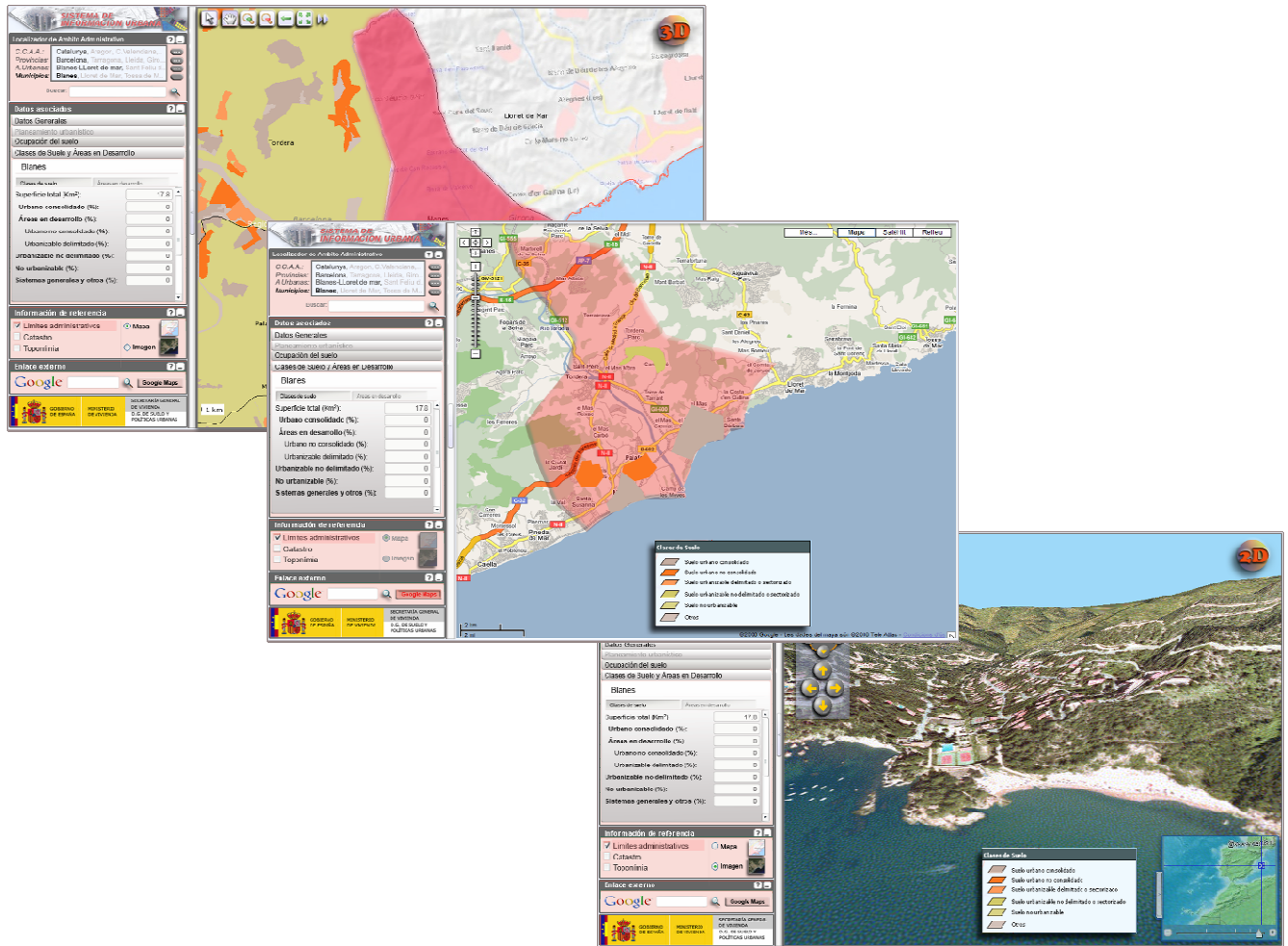


Figure 4. SIU Viewer

8. CONCLUSIONS

At present, all regional agencies responsible of urban planning are developing information systems to facilitate public access to information of urban planning.

The reality is diverse, there are organizations with sophisticated information system with broad functionality and updated information and others are in the early stages of analysis.

The Housing Ministry has developed a prototype that should be the germ of the future Urban Information System (SIU). This system will access to information from regional and national organizations in a standard and consensual way.

9. REFERENCE

Emilio López Romero
 Urban Information System
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 FIG Commission 3 Workshop 2009
 Mainz, Germany, 2 – 4 February 2009

- **Urban Information System** (<http://siu.vivienda.es>)
- **INSPIRE** (<http://inspire.jrc.ec.europa.eu/>)
- **Open Geospatial Consortium** ([http:// www.opengeospatial.org](http://www.opengeospatial.org))

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