

# **The Cadastral System as a Support to Land Management: the Italian Challenge**

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## **SUMMARY**

Since December 1 2012, the Italian Revenue Agency has taken over the Cadastral Agency and the services it has provided, such as geo-cartographic, taxation and appraisal services, land registry and real estate market observatory. This unification and standardization has created a sole Entity that is now able to supervise completely the national real estate asset in all its parts.

Cadaster is now representing a part of a wider land management system and it is subdivided into land cadaster and building cadaster. Both Cadasters still maintain their descriptive and revenue purposes.

The aim of land and building cadaster is to assess the taxable base on which taxes will be levied and provide an accurate geometric representation of every single unit.

While in the Land Cadaster, the land parcel is the minimum unit treated and inventoried, in the Building Cadaster the minimum unit is called urban property unit or UI.

Private surveyors nominated and paid by the buildings' owner make every variation in the cadastral database. The whole procedure is done through a freeware distributed by the Land Agency to each land surveyor of the area.

At the end of the elaboration, the software generates a file that is transmitted through the internet to the Agency that checks, controls and proceeds to the registration in the national database. An electronic receipt is sent thereafter to the

□ The evolution of the current cadastral and cartographic system is the new SIT cadastral system, a modern WebGIS, that will be used for the management of real estate information

This web service is currently in its testing phase and at the moment only the web surf and consultation procedures have been realized, while updating functions are going to be implemented soon.

The SIT makes it possible to surf and search on a geographic basis all the land information managed by the Agency (cartographic, cadastral, graphic and alphanumeric). It also makes it possible to analyze information throughout the territory using the spatial relations and overlapping information layers (cadastral cartography, census data, plans, data collected by the real estate market observatory, ortophotos and street graphs). In the future, the spatial integration with territorial objects coming from external data sources (town plan zones, topographic DB streets, earthquake maps or any other thematic information representation) will also be possible.

The new system will support the Agency central and satellite offices in their usual and special activities, and specifically:

- control of the territory by periodic identification of the elements that are not present in the current cadastral database;
- technical verification activities: collection of information on real estates, through positioning them over cartography and comparing the results with their real condition; optimum planning of surveys and all the activities on the field;
- assessment of cadastral incomes: comparison - through DOCFA procedure - between the proposed incomes and the medium value of the real estate units existing in the geographic surroundings;
- data quality improvement: possibility to restore territorial information, through a comparison with other cadastral and cartographic elements or other information layers, using the spatial relations (addresses, connections between land and buildings, etc.);

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