## The Italian Cadastral Cartography System.automatic Real-Time Update and Dynamic Online Services

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## SUMMARY

Starting from the term "Catasto" we can meanwhile state that there are various opinions on its origins, but we believe the most accredited one derives from the Latin Capitastrum, which means "Census of all existing assets in a territory". Currently, however, the term Land Registry refers to the database of all real estate, land and buildings, existing in a state. Since ancient times, real estate has been considered the most important assets for the purposes of applying taxes, mainly because they are easily ascertainable. The Italian cadastre, an inventory of real estate present in the national territory, was created through the establishment of two successive distinct sub-systems: the first - called Land Cadastre - including the list of all natural land agricultural or in any case unbuilt, the second - called Urban Building Cadastre - consists of civil, industrial and commercial buildings. The Land Cadastre is of a geometric-particle type, as it contains information both on the geometric nature (topography - shape and consistency) and on the technical-economic characteristics (technical-physical characteristics and incomes) of the minimum element inventoried and represented on the map, consisting of "land registry parcel". The "formation" of the Urban Building Cadastre, subsequent to that of the Land Cadastre. The Building Registry deals with all constructions, both urban and rural. The Building Cadastre does not currently replace the Urban Building Cadastre, but integrates it and extends its competence. Registering real estate properties, keeping changes evident and creating the conditions for fair taxation represent the founding purposes of the land register. Dynamic cadastral cartography consultation services have been activated for all types of users which allow you to navigate many contents of the vector cadastral maps. The information that can be consulted covers the entire national territory and is aligned with the cadastral cartographic database, updated daily in automatic mode through the technical documents prepared by qualified professionals. Two cartographic consultation services are available: o WMS cadastral cartography consultation: based on the international standard Web Map Service 1.3.0, usable with GIS (Geographic Information System) software or with specific

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FIG Working Week 2024 Your World, Our World: Resilient Environment and Sustainable Resource Management for all Accra, Ghana, 19–24 May 2024 applications available to the user; the service makes it possible to consult the cartographic contents also in an integrated manner with other geographical data (e.g. orthophotos, regulatory plans, hazard analyses, infrastructures), supporting public bodies and private users who use the cartographic information of the land registry in various areas of activity (urban planning, local taxation, civil protection and rescue, management of the environment and cultural heritage);

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