

Standardization perspective towards interoperable and sharing of real estate actual price registration data: An Example of Taiwan

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SUMMARY

Real estate functions as a vital indicator of a nation's economic progress and fluctuations, with changes in property values reflecting governmental regional planning and societal perceptions of living standards. The management of land has historically been a primary responsibility of cadastral agencies. Recent advancements in digital cadastre have significantly transformed the management of real estate data, particularly through the emergence of geographic information system (GIS) technology. This transformation not only addresses the operational requirements of cadastral agencies but also enhances data sharing with the private sector via open services, thereby fostering policy transparency and digital transformation. In 2012, Taiwan initiated a national registration program designed to capture actual real estate transaction prices on a governmental platform. This initiative enables effective tracking of real estate trends and variations across different geographic regions. The data collected serves as a reference for economic development and offers valuable insights for private real estate markets. Following the anonymization of personally identifiable information, the registered transaction price data is made publicly accessible through the government's open data platform. The real estate data encompasses a diverse array of asset types, including land, buildings, and parking spaces, which may be involved in various transactions such as buying, selling, leasing, and pre-sales. Consequently, this data necessitates comprehensive factor consideration related to real estate transactions, including subjects, types, spatial and temporal dimensions, and pricing. This article delineates the development of an application schema and distribution strategies for real estate transaction price registration data, enabling the data to be encoded in an open format based on a standardized structure to ensure interoperability. This framework adheres to the ISO 19100 series of standards, facilitating compatibility with existing land and building data standards. It encompasses various aspects of real estate data and has the potential to support innovative applications, such as identifying transaction hotspots and conducting trend analyses. In the context of advancing national spatial data infrastructure, real estate

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transaction price registration data can significantly enhance the understanding of regional development conditions, thereby benefiting both governmental policies and private economic activities.

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