



indra

**Press
Release**

INDRA AND INSTITUTO DE VALORACIONES DEVELOP A SYSTEM THAT AUTOMATICALLY VALUES LARGE REAL ESTATE PORTFOLIOS

- **The AVM solution (Automated Valuation Model) developed by the two companies is aimed at banks and other firms with large real estate investments**
- **It allows users to value, with a strong level of consistency, mortgage loan collateral, as well as any other non-unique properties held on the balance sheet**
- **AVM systems, which are more widely used in other countries, are considered the most economically viable means of recurrently valuing the millions of collateral pledges and real estate assets found in financial systems**

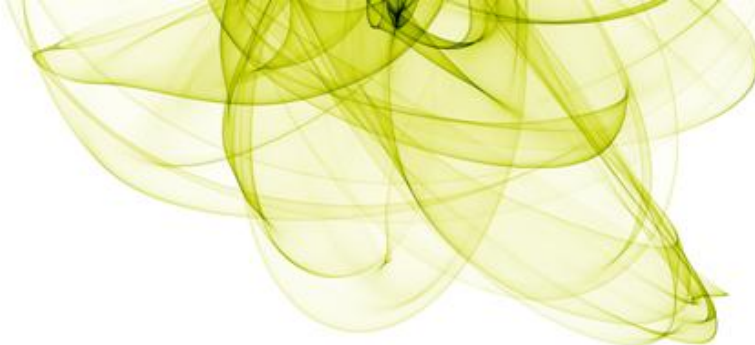
The automatic valuation system (AVM) has been developed in a partnership between the Instituto de Valoraciones (IV), an appraisal firm certified by the Bank of Spain, and Indra. It seeks to address emerging requirements in the financial industry, where large portfolios of mortgage loans and repossessed assets have to be revalued with increasing regularity. Such systems, which are more widely used in countries such as Denmark, Germany and the United Kingdom, allow for automatic portfolio valuations at a very low cost. As a result, they are considered to be the most economically viable means recurrently valuing portfolios en masse and with a high degree of reliability.

These systems are fed by large databases of properties similar to those being valued, with mathematical algorithms to apply varying weightings to aspects that are closely correlated with value per square meter (location, surface area, construction type, age and many more). These models have become increasingly popular, gaining on statistical samples and indexes, which are based on extrapolation from samples or updating valuation histories based on average price indexes.

In terms of risk exposure for firms, the solution provided by Indra and IV allows their degree of exposure to real estate to be assessed on a more regular basis, while it can also be used as a comparison tool. The system helps real estate divisions to develop business strategies and supports the geolocation and segmentation of portfolios, compared with the property portfolios of the competition, as well as the classification of regions with more or less potential for property development.

A reliable and precise valuation model

Indra's large databases and capacity for statistical analysis, together with the specialized expertise of IV, have seen the two firms incorporate a nationwide spatial cluster model,



giving the system the ability to discriminate data points that, while physically very close, belong to a distinct zone from the property value point of view (e.g. prices per square meter differ between an apartment in Alcobendas and a chalet in La Moraleja, although the distance between the two properties may be no more than 500 meters). This allows the system to identify data points that are truly comparable and discriminate against those that are not.

The system's features and capabilities have been highly praised by the industry, with several financial institutions running early pilot tests.

Indra

Indra works with financial institutions in more than 20 countries and oversees more than 90 business processes in this field, offering services that cover the entire banking value chain, from business consultancy and technology to complete outsourcing of IT processes and management.

Indra is Spain's number 1 consulting and technology multinational and one of the main multinationals in Europe and Latin America. Innovation and sustainability are the cornerstone of its business, having assigned over €570 million to R&D&I in the last three years, a figure that places it among the top European companies in its sector in terms of investment. With approximate sales of €3,000 M, 61% of its sales revenue is from the international market. It has 42,000 employees and customers in over 138 countries.

Instituto de Valoraciones (IV)

IV is a consolidated group of services companies operating in real estate management, which includes Instituto de Valoraciones, an appraisals firm certified by the Bank of Spain. The company is fully privately owned, with no financial institutions holding any stakes in the same. Since its foundation, the firm has been committed the use of technology in its industry.

Instituto de valoraciones has nationwide and international coverage, and works for leading financial institutions as well as the country's biggest stock market listed property developers.