Spanish Cadastre, a valuable registry

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Cadastre: Public Registry of real estate

An **official register** from the Ministry of Finances with **authoritative data**

**Complete and updated:**
Covers all territory: Urban, rustic and special real estate

**Obligatory** inscription of all property: by **citizens** and **public administrations**

**Multiple uses** and **available to everybody** through multiple channels, **free** of charge

Public function

- Financing: basis of the property tax
- Census and social aids
- Protection of Rights
- Planning and Management of public policies: Urban planning, land use, Networks of services and supplies, Agrarian, Environmental, Energy performance, Risk maps, civil protection, emergencies, Linking or support of statistical data, others

Very much used by private companies and citizens
Main task of the Spanish Cadastre is to **describe** each real estate object and to assign a **value** to it.

Descriptive data of each real estate object on continuous cartography

Manages information of 78 millions properties

- **Real Estate Identification data:**
  » cadastral reference, province, municipality, addresses or location.

- **Juridical data of real estate:**
  » Titleholders’ name and national identity number, addresses of titleholders and the notification address, date of acquisition and rights data....

- **Physical data of real estate:**
  » land area, representation of the Buildings (even with the description of every floor) buildings area, class of crops, conservation status of the constructions, use (legal and actual one), construction typology, year of construction.....

**Economic data of the real estates:**
value of land, value of construction and cadastral value, criteria and valuating module, real estate taxable value, exemptions and benefits.
The **cadastral value** of each property is determined objectively from the data in the Real Estate Cadastre. (Quality, completeness and good updating are of importance)

From all the characteristics that we include in the cadastral dataset, the values are the most valuable; economically and socially....
The cadastral value is an administrative value, and it is the basis for or it is taken as a reference in relation to certain actions of the Public Administrations:

From a tax view:

- Recurrent Property Tax,
- Income Tax,
- Wealth Tax
- Tax on the Increase in Value of Urban Land,
- others.

From a non-tax view:

- expropriation,
- urban assessments,
- certain types of aids,
- scholarships and grants, etc.

RECURRENT real estate tax is the main income of the Spanish municipalities,

14.800,000,000 € aprox. 2018

14,750,899,759 €
Indispensable for the financing of the Local Administration

Cadastre- recurrent property tax allows local financial sufficiency (also in times of crisis)

1 euro that the government invests in Cadastre

Generates

7 euros of income for the municipalities

In 2018: 14,800,000,000 €.
And also indispensable for many public policies and private uses

electronic office
https://www.sedecatastro.gob.es/

Serving **daily 1.1 million consultations and almost 21.000 certificates**

Enabling **maps downloads** at a rate of over **180 Milions per year**

**TOTALLY FREE OF CHARGE**
And also indispensable for many public policies and private uses

**Download service** of massive graphic and literal information (several standards, INSPIRE etc..)

**Many other services** adapted to users

**Viewer** that allows users to navigate from an overview of the complete territory to approach each one of the parcels, buildings and units and also through the map access to the most relevant alphanumeric characteristics of them.

**Private users savings**

<table>
<thead>
<tr>
<th>Year</th>
<th>Saving in number of hours</th>
<th>Monetaring savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>2.800.674</td>
<td>72.064.926</td>
</tr>
<tr>
<td>2013</td>
<td>3.246.573</td>
<td>49.270.251</td>
</tr>
<tr>
<td>2014</td>
<td>6.174.663</td>
<td>135.403.871</td>
</tr>
<tr>
<td>2015</td>
<td>7.694.667</td>
<td>105.293.298</td>
</tr>
<tr>
<td>2016</td>
<td>8.253.567</td>
<td>112.678.498</td>
</tr>
<tr>
<td>2017</td>
<td>8.867.987</td>
<td>115.723.615</td>
</tr>
<tr>
<td>2018</td>
<td>9.120.201</td>
<td>120.265.784</td>
</tr>
</tbody>
</table>
Important uses “not easily transform in economic value

Rights Protection:
✓ Property rights extended to all real estate.
  Private and Public (patrimonial and public domain)
✓ Other rights (agricultural subsidies), restrictions (urbanism) and responsibility
  --- but also compensations: e.g. floods, earthquakes, etc.

Environmental Protection:
✓ Delimitation of restricted areas
✓ Attribution of energy efficiency in real estate
✓ Other uses---------as agricultural planning and Fire Fighting Improvement

Personal Protection:
✓ Use for Civil protection (e.g.: police and firefighters use height and structure of
  building for Catastrophe Management------- Risks, access, evacuation)

transparency
availability
interoperability
quality: (complete, accurate, homogeneous and updated)
Cadastral data offers many possibilities in the digital society:

2 examples: Tax Agency and Statistics Office

The General Directorate for Cadastre publishes official statistics on cadastral data and the recurrent property tax

- N° urban real estate (disaggregated by uses),
- cadastral value of urban real estate (also by uses),
- soil and construction value,
- n° urban parcels (built and unbuilt),
- urban parcels according to area,
- number of rural parcels, sub-parcels etc...,
- cadastral value of rural areas (disaggregate by crop type etc..).
- Units by buildings
- Category, antiquity and other characteristics of these units
- cadastral value by units, by titleholder etc...
- Vacant land,...

by municipality, province, regional and nation.

Official value

- Average market value of real estate
The cadastral database also has many other data of Real estate of interest for both national policies and the European Union;

All these data are georeferenced and susceptible of mapping at different levels for their better understanding for the users.
Cadastral data offers many possibilities in the digital society:

2 examples: Tax Agency and Statistics Office

Statistic office uses cadastral data for merging statistics and geo-spatial information:

Mainly National Statistic Institute uses cadastral data to geolocated information in all their field works, but also uses other cadastral information in their surveys.

NSI access via web in any moment to continuously updated cadastral information. And they can download also the variations in a period automatically.

For example

In order to elaborate the last Census of Population and housing 2011, the NSI changed its methodology and worked on cadastral information.

NSI not only used the cadastral cartography as base, but they used the associated cadastral information as for example the units within a building or the uses of each unit of the real estate.

The NSI also used the graphical and alphanumeric cadastral data in the elaboration of the Agrarian Census.
Cadastral data offers many possibilities in the digital society:

2 examples: Tax Agency and Statistics Office

The **Tax Agency** uses 'big data' tools to cross cadastral data with data from various sources to **prosecute tax fraud**.

Combining cadastral data with other data using big data and artificial intelligence techniques facilitates

- the determination of patrimonial changes and taxable events to be regularized,
- as well as the analysis of a permanently updated situation of assets and rights, for the purposes of declaratory control.

News in newspaper:
TOP TEN TAX EVADERS

Comparing a World Bank report to a Heritage Foundation report, British accountant Richard Murphy estimates global tax evasion at five percent of the global economy and found these ten countries had the largest absolute levels of evasion.

<table>
<thead>
<tr>
<th>Country</th>
<th>Tax Loss $ billions</th>
<th>Shadow Economy % of GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>337.3</td>
<td>8.6%</td>
</tr>
<tr>
<td>Brazil</td>
<td>280.1</td>
<td>39.0%</td>
</tr>
<tr>
<td>Italy</td>
<td>238.7</td>
<td>27.0%</td>
</tr>
<tr>
<td>Russia</td>
<td>221.0</td>
<td>43.8%</td>
</tr>
<tr>
<td>Germany</td>
<td>215.0</td>
<td>16.0%</td>
</tr>
<tr>
<td>France</td>
<td>171.3</td>
<td>15.0%</td>
</tr>
<tr>
<td>Japan</td>
<td>171.1</td>
<td>11.0%</td>
</tr>
<tr>
<td>China</td>
<td>134.4</td>
<td>12.7%</td>
</tr>
<tr>
<td>Britain</td>
<td>109.2</td>
<td>12.5%</td>
</tr>
<tr>
<td>Spain</td>
<td>107.4</td>
<td>22.5%</td>
</tr>
</tbody>
</table>

Source: Richard Murphy, Tax Justice Network
The 'Big Data' analysis is the process of examining large amounts of data from a variety of types to discover hidden patterns, unknown correlations and other useful information.

Big Data can deal with huge amount data, but also can combine data of different types: structured and unstructured
These new techniques allow the tax agency to combine many data available for them with **cadastral data (values, cadastral references, addresses, title holders etc.. )** to identify Screen companies, hidden assets, true ownership, related operations, professional activities, or property alterations and transfer of rents.
Some examples:

The expenses on real estates that are paid directly or indirectly are compared with statements to search for inconsistencies:
- Undeclared patrimonial gains.
- Patrimonial gains unjustified.
- Real estate sales to the family environment for a much lower price than the market.
- etc.

Rental statements far below the market.
Rents in areas of value that do not correspond to the salary.

Undeclared vacation rentals.

In rural areas: calculation of the patrimonial value and of the agrarian income according to the crop and use extracted of the cadastral database.

Many other
Using cadastral data combined with other data with advanced data analysis systems permits

- the selection of taxpayers and activities for sampling,
- the creation of tax risk profiles,
- and the establishment of checks with greater speed and accuracy.

It will lead to **predictive analytics** to take **automatic decisions** in tax procedures.

Also the preparation of PREDECLARATIONS:
To present to the taxpayer the assets that the administration knows: **real estate**, financial and corporate ..... to help him declare

Through the use of cadastral data with data analytics in the core of its business the Spanish Tax Agency is improving its results year by year, and accomplishing its mission in a more effective and efficient way.
Conclusions

Spanish Cadastre:

- Provides information to the totality of the Public Administrations
- Is fundamental for local funding
- Public and private users continuously are finding new purposes and developing existing purposes.

It has strong presence and big potential in the Digital society

As for example

- combining statistics and geospatial data
- using cadastral data with big data technologies for stop taxation fraud

Serving **daily 1.1 million consultations and almost 21,000 certificates**

Enabling **maps downloads** at a rate of over **180 M per year**
For all this Cadastre is much more than a real estate data record

Fundamental for
- Social Cohesion,
- Territorial structuring,
- Socio-economic development

Big interoperable platform for territorial information Services
One of the great transversal public services of the country

Thank you for your attention