The Spanish cadastre,
one of the country's great transverse public services.
The example of use for the detection of tax fraud

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Main characteristics of the Spanish cadastre

- It is DG in the Ministry of Finances:
  - An administrative **official register** from the Ministry of Finances with **authoritative data**

- Contains all the real estate (**complete**):
  - Urban, rural, special characteristics.
  - Public and Private land and buildings

- It si not only cartography (500-5000) but a Geographical information System with many useful atributes.

- **Continously updated**:
  - **Obligatory** inscription of all property: by **citizens** and **public administrations**
    - creation, maintenance and diffusion of cadastral data is done in collaboration with local authorities, notaries, land registrars and other public entities that work in the territory.
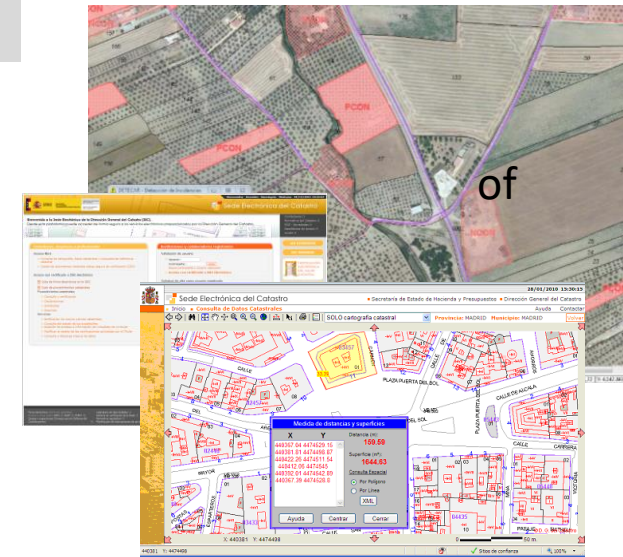
Fiscal Cadastre that has become multipurpose organization,

Financing: basis of the property tax and reference for other taxes and subsides.

Protection of rights
Ensure the legal and operational real estate market

Planning and Management of public policies:

- Urban planning, land use and land consolidation
- Networks of services and supplies of electricity, telecommunications, gas, water, etc.
- Agrarian
- Environmental,
- Energy performance
- Risk maps, civil protection, emergencies
- others

Census (population and houses and agrarian) and social aids
Linking or support of statistical data
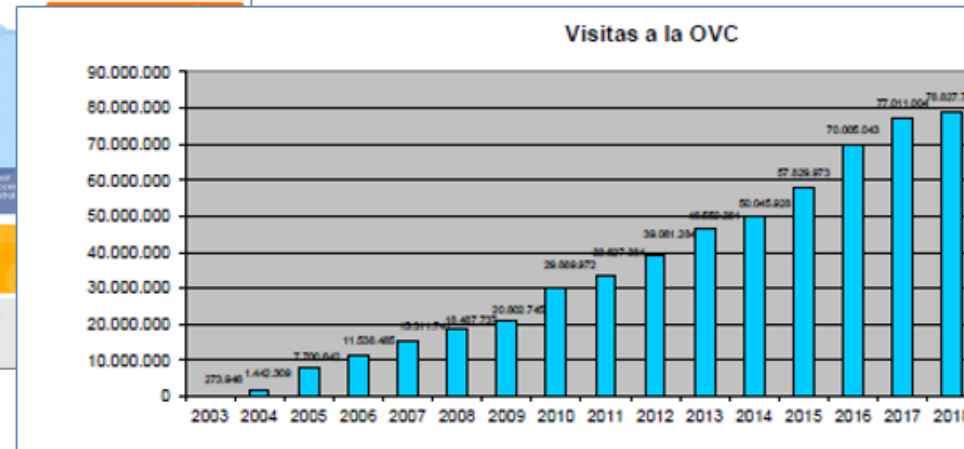
Promoting general economic activity

Public and private users continuously are finding new purposes and developing existing purposes.

available to **everybody** through multiple channels,
Free of charge

electronic office
https://www.sedecatastro.gob.es/
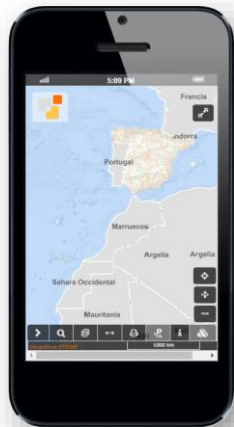
Serving **daily 1.1 million consultations and almost 21.000 certificates**
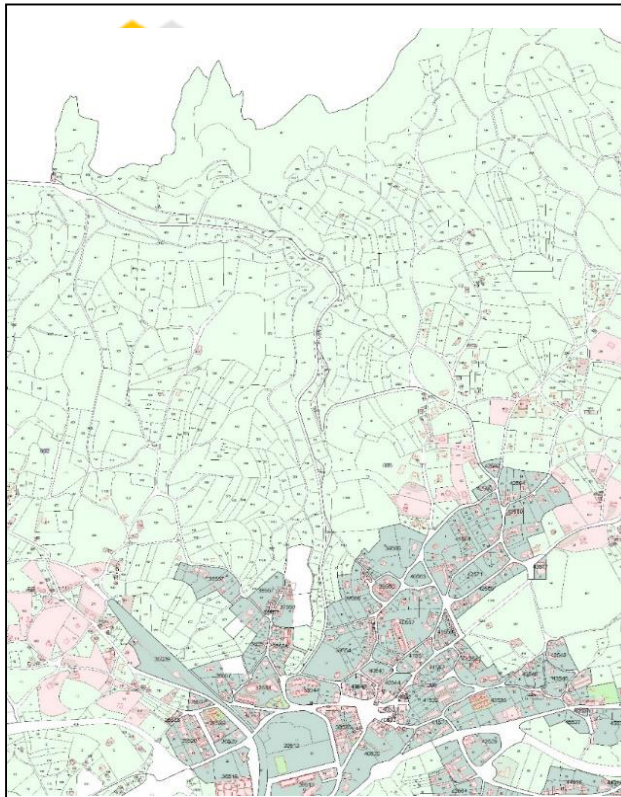
Enabling **maps downloads** at a rate of over **180 Milions per year**

Standard model
Complete and homogeneous
territorial continuum,
that permits to access a huge amount of official GEOREFERENCED data

Main task of the Spanish Cadastre is

to **describe** each real estate object
and to assign a **value** to it.

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)
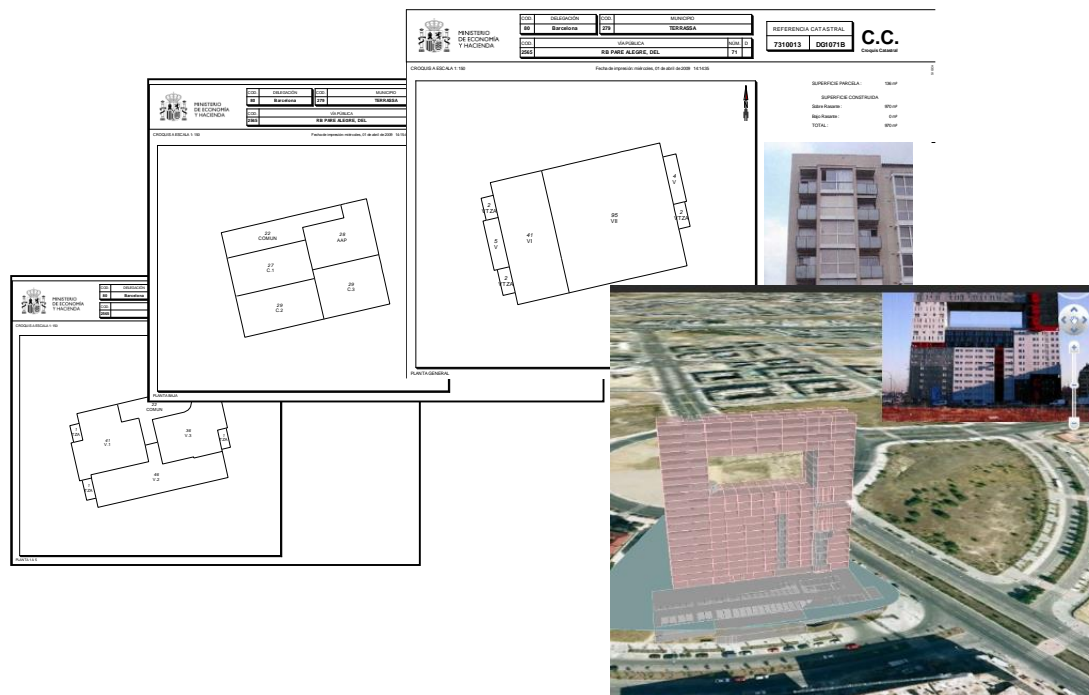
land surface,
 buildings surface,
conservation status of the constructions,
use (legal and actual one),
 typology,
 year of construct
Urbanism classification
Other characteristics...

All these information available by free to everybody

Our Viewer 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 alphanumeric characteristics of them.
And **download** cartogrpahic files and certificates of each element, a zone or a complete data set

SECRETARÍA DE ESTADO DE HACIENDA

DIRECCIÓN GENERAL DEL CATASTRO

GOBIERNO DE ESPAÑA · MINISTERIO DE HACIENDA

https://www1.sedecatastro.gob.es/Cartografia/mapa.aspx?pest=rc&from=OVCBusqueda&final=&ZV=NO

https://www1.sedecatastro.gob.es/Cartografia/mapa.aspx?buscar=S

www.sedecatastro.gob.es/

Sede Electrónica del Catastro

As PSI says : available for free, machine-readable, provided via APIs and, where relevant, as a bulk download.

HIGHLIGHTS
Cadastral parcel editor. How does it work?
Report Graphic Validation through the viewer
Assistant for cadastral declarations

MY CADASTRE
Real estates Administrative files Notifications

PROCEDURES AT THE CADASTRE
Declarations, appeals, requests... Collating and downloading documents

Real estate searcher and cartographic browser. They allow to access to all cadastral information and to map edition.

DISSEMINATION OF CADASTRAL DATA
Download of cartographic and alphanumeric information, web services, INSPIRE formats, statistical data

GRAPHIC VALIDATIONS
Cadastral map graphic validation report and constructions location report

AGREEMENTS, ANNOUNCEMENTS AND EDICTS IN THE SEC
Concerning cadastral procedures for collective appraisals

Regulatory norms
Electronic signature (firmas admitidas)
Verification system of the site
Privacy policy
Accessibility

Registration in the SEC
Accesses to real estate information of a titleholder
Scheduling service interrupts
Calendar, date and official time
Web map

Service Guide of the Cadastral Electronic site
Statistics of accesses
Links of interest ▾

| ENSEÑANZA | 0 | 1.046 | R Rehabilitación integral | 2.017 |
| ENSEÑANZA | 0 | 1.616 | R Rehabilitación integral | 2.017 |

From all the characteristics that we include in the cadastral data-set, the values are the most valuable; economically and socially

Cadastral Values: Reference for Spanish Public Administration.

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.

ACCEPTED

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

14.750.899.759 €

1 euro that the government invests in Cadastre
Generates
7 euros of income for the municipalities

64% of local fiscal income

4,68% 2,34% 2,46% 8,25% 61,69%

VTM IIVTNU IAE ICIO Otros impuestos indirectos (*) Resto de impuestos (**)
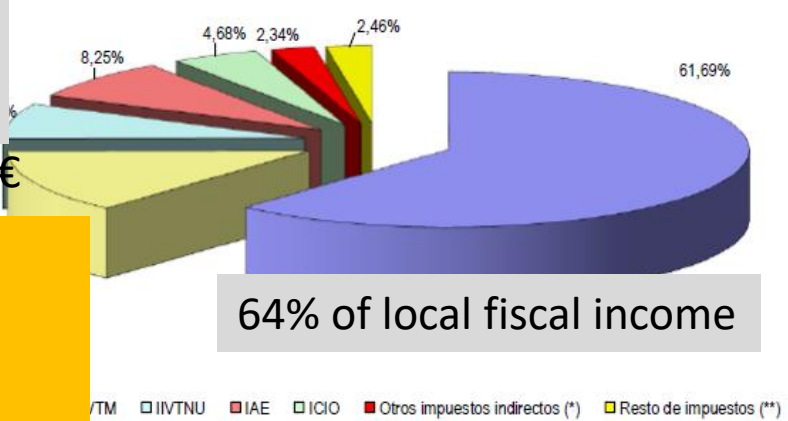
Cadastral data offers many possibilities in the digital society:

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

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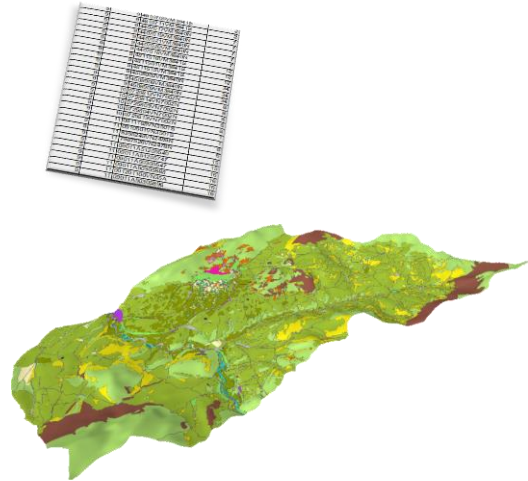- soil and construction value,
- n º urban parcels (built and unbuilt),
- urban parcels according to area,
- number of rural parcels, sub-parcels etc…,
- cadastral value of rural areas (disaggregate by crop type etc..).
- Units by buildings
- Category, antiquity and other characteristics of these units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

by municipality, province, regional and nation.

- Average market value of real estate

Official value

All cadastral 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:

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

News in newspaper:

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,
- permanently updated situation of assets and rights, for the purposes of declaratory control

.

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

TAX LOSS *$ billions*

Country	Value
U.S.	337.3
Brazil	280.1
Italy	238.7
Russia	221.0
Germany	215.0
France	171.3
Japan	171.1
China	134.4
Britain	109.2
Spain	107.4

SHADOW ECONOMY *% of GDP*

Country	Value
U.S.	8.6%
Brazil	39.0%
Italy	27.0%
Russia	43.8%
Germany	16.0%
France	15.0%
Japan	11.0%
China	12.7%
Britain	12.5%
Spain	22.5%

Source: Richard Murphy, Tax Justice Network

REUTERS
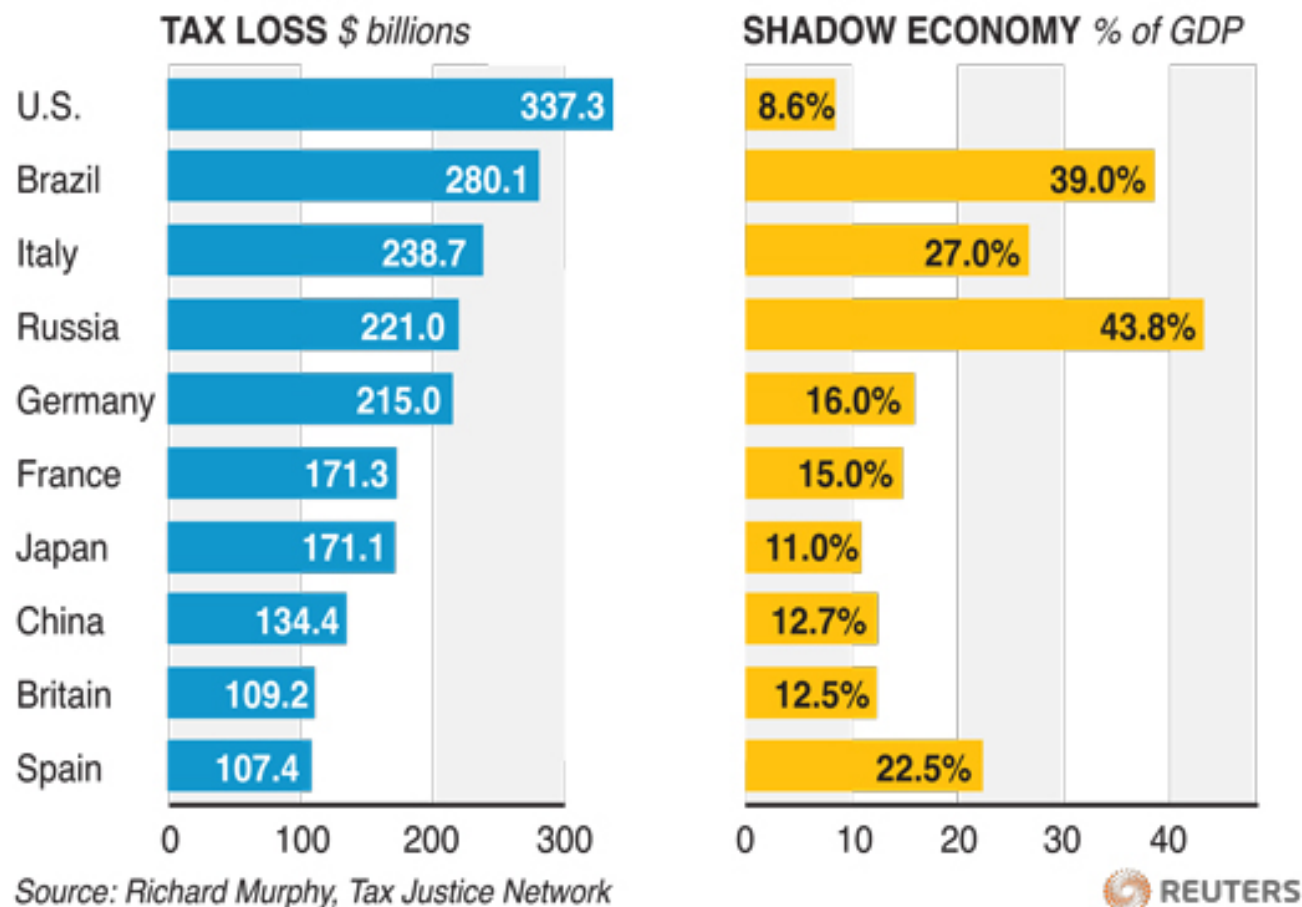
Tax Agency has improved its methodology

The ' Big Data ' analysis that tax agency does is the process of examining **large amounts of data** from **a variety of types** to discover fraud

.
Big Data can deal with huge amount data, but also can **combine data of different types: structured and unstructured**

For this new methodology**, georreferenced** cadastral data is very important

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These new techniques allow the tax agency to combine many data available for them with **cadastral data (georeferenced cadastral data)** to identify

Screen companies ,
 hidden assets,
true ownership,
related operations,
professional activities,
unexplained wealth increases,
wealth or property alterations
and transfer of rents.

Combining:

cadastral ref. + geographical location + real estate value + characteristics of real estate + owner (National identity number)

+ other data of tax agency (income declartions, financial assets, time evolution, family aggregation , etc…)

Some examples:

The expenses on real estates that are paid directly or indirectly are compared with tax payer´s 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

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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 and protection of rights
- Big interoperable platform for geographic information services for public and private users
- It has strong presence and great potential in the Digital society

It is much more than a real estate geographical information system

It is fundamental for
> **Social Cohesion,**
> **Territorial structuring,**
> **Socio-economic development**

One of the great transversal public services of the country