

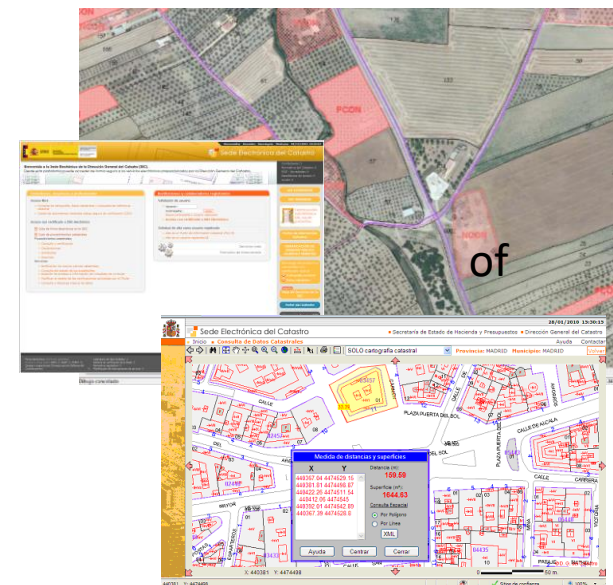
The role of Spanish Cadastre in the real estate conveyancing





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





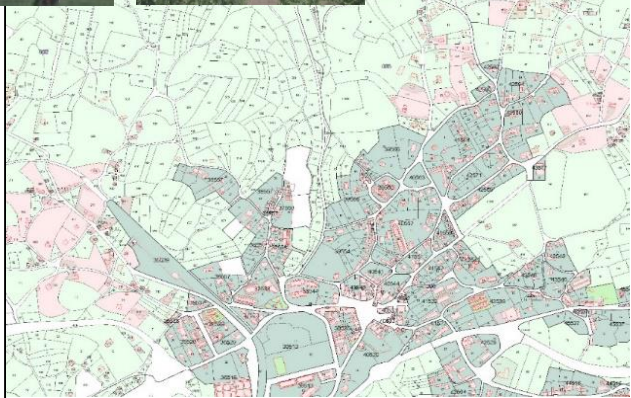
Main task of the Spanish Cadastre is

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

URBAN

RURAL

SPECIAL



– 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.

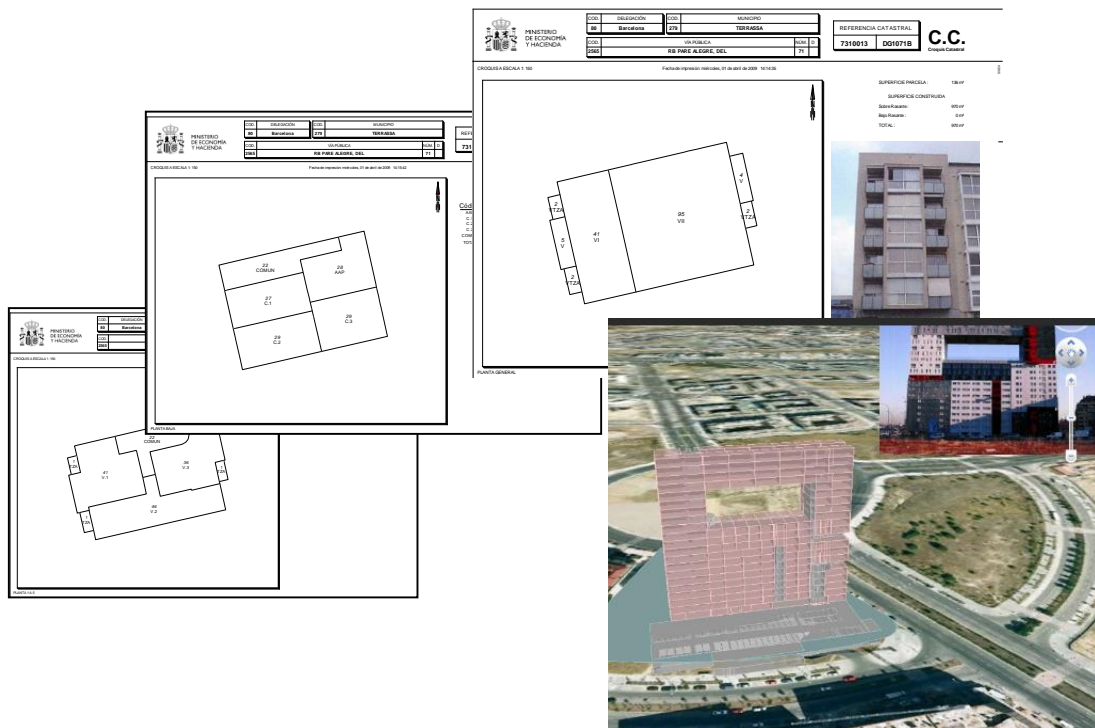


The cadastral value is the basis for real estate taxation.

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 to have **fair taxation**.

we need not only the boundaries but also inside the building (structure of the property, common areas) and all the characteristics



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

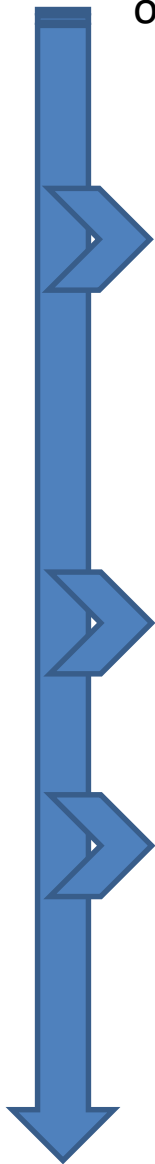
All these information available by free to everybody

origin of our digital cartography

Historical topographic maps



1986-2006 Creation of a GIS for a fiscal cadastre





Renovation and digitalitation process 1986-2006. Creation of a GIS

Not feasible to land mark all the territory -

In rural areas:

-Over ortophoto 1.5000:

-Calling to owners:

- Interpretation of the land registry titles



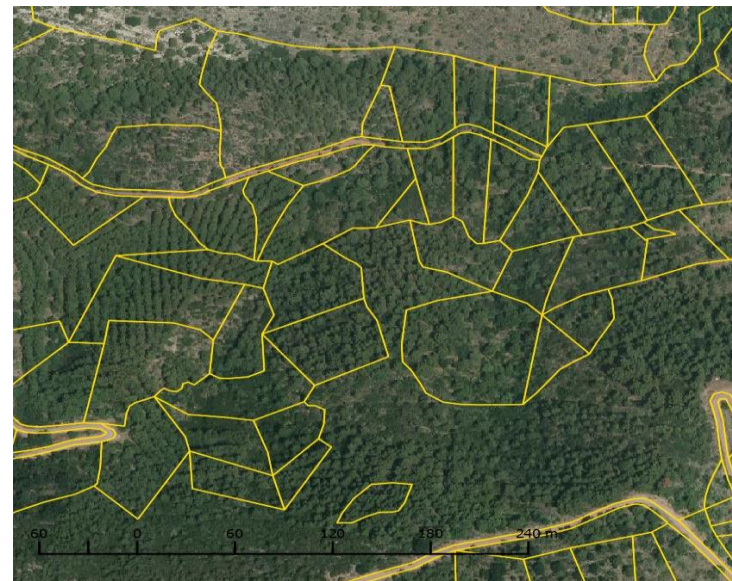
In Urban Areas

Over Topogrfic maps 1:1000- 1:500- 1:200

Collaboration of municipalities



This methodology allowed us to cover the entire territory and create a homogeneous and continuous digital cadastre.



The creation of this GIS allowed to offer

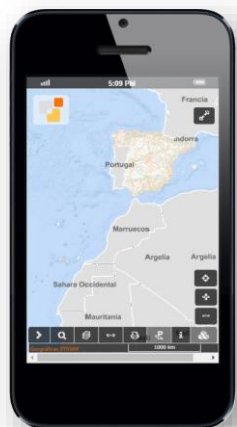
- Transparency, because we offer it **open, free of charge** since 2003-
- **Authoritative data** for private and public users

and also develop the digital tools to improve the data

with the help of collaborators (municipalities, Notaries, land registrars.... and the legal obligation of owners and public administration to declare)

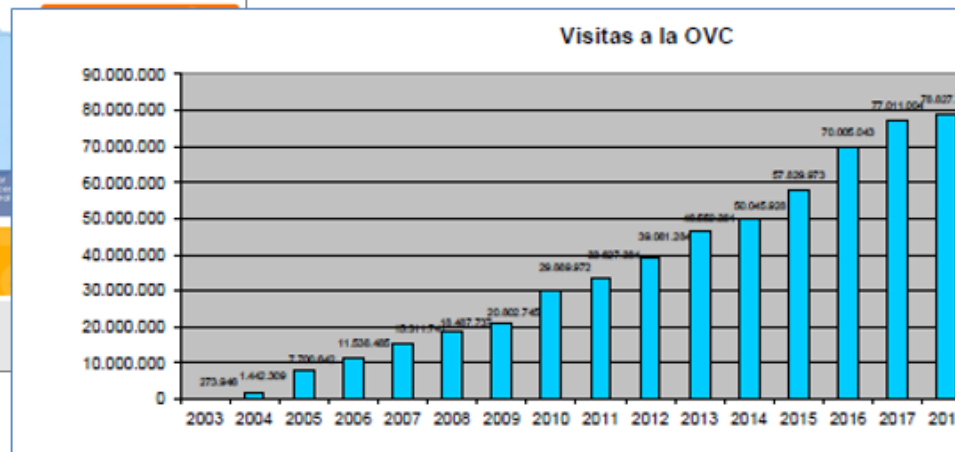


available to everybody through multiple channels, Free of charge



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

Public and private users continuously are finding new purposes

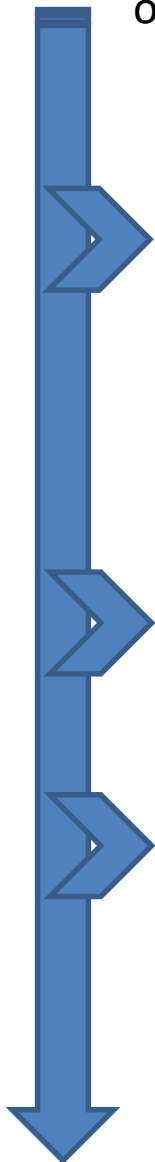


origin of our digital cartography

Historical topographic maps

1986-2006 Creation of a GIS for a fiscal cadastre

Improving very much quality of cadastre:
colaboration,
technology,
transparence and usability





Some particularities of the Spanish Civil Code

- In Spain there are not licensed surveyors and it is not obligatory to mark the division in the land. The agreement to divide and the boundaries are decided by seller and buyer.
- It is also **not** mandatory to register in the land registry
- Land registry is separate organization than cadastre
- Private contracts are objectionable to third parties

How it can work??????

Because Cadastre It is a continuous cartography open to all that is taken as base in all transactions

**An owner can increase the quality in any moment
ALWAYS WITH THE AGREEMENT OF THE COLINDANTS**





origin of our digital cartography

Historical topographic maps

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Improving very much quality of cadastre:
colaboration,
technology,
transparence and usability

from 1996 The cadastral reference must be contained in all documents subject to registration in the Property Rights Registry affecting acts or businesses related to ownership and other rights to real estate.

- Notaries and Land Registrars are obliged to submit to the Cadastre all the information concerning the documents they have authorized or registered.



Cadastral basic data / Daily updating

Urban Cadastre

- 1.062.636 ha maps 1/1.000 o 1/500
- 12 M de buildings
- 14 M cadastral parcels,
- 39 M urban units
- **6.500 real estate updated daily, 480 new constructions**

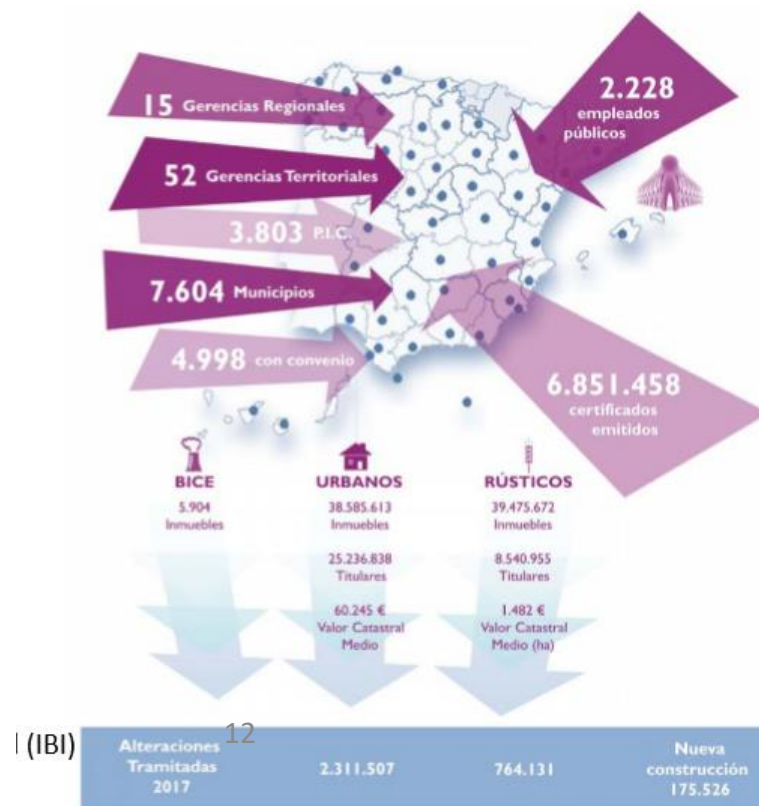


Rural Cadastre:

- 47.387.942 ha maps a 1:5.000
- 39,2 M parcels
- **2.500 real estate updated daily**



Only 2.300 employees





COLABORATORS

IN THE CREATION OF THE CADASTRE
IN THE PROCESSING OF CADASTRAL UPDATINGS
IN THE NOTIFICATION OF CATASTRAL AGREEMENTS
IN THE DISSEMINATION OF THE DATA

61,030 PERSONS COLLABORATING

Obliged by law
But also win-win situation

Agreements with Municipalities and other Public Entities

- ✓ The strategy consists of gathering other Public Administrations, as well as other organizations, sharing useful information for all of them
- ✓ They are all considered as providers and beneficiaries: they help us to maintain our data base updated, they acquire all necessary data for their goals



- ✓ Data is electronically provided by collaborators: they can even process the information working directly in our system or sending data through the E-Office

creation, update and maintenance of the cadaster in collaboration:

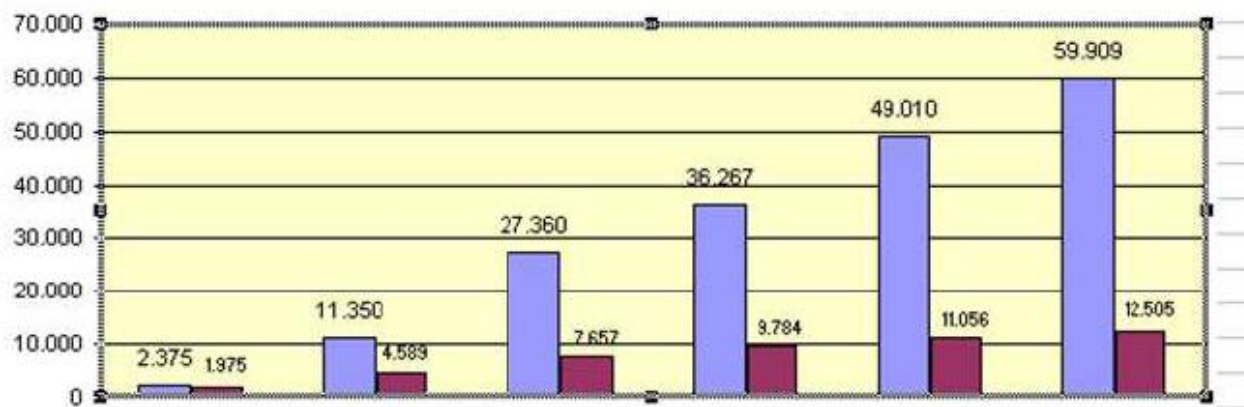
- Compulsory Declarations of titleholders
- Institutional collaborators
 - AGRICULTURAL MINISTRY
 - NOTARIES
 - PROPERTY RIGHTS REGISTRARS
 - SPANISH TAX AGENCY
- Collaboration agreements with municipalities and local and regional authorities
- Other public administrations; Public Domain managers, expropriations, land consolidation, highways, railways, etc.





- 2300 employees from cadastre (internal users)
- External users:

Organizations with users	13.525
Registered users	68.768
Users with direct access to applications of cadastre	3.069



Evolution



Data are kept continuously updated through field work and other technologies.

All citizens, notaries and registrars and the public administrations which work in the territory are obliged by law to submit information on the changes in the real estate in the Cadastre

with the technical conditions defined by the cadastre

that verifies that the graphical information is correct.





origin of our digital cartography

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Improving very much quality of cadastre

from 1996 The cadastral reference must be contained in all documents subject to registration in the Property Rights Registry affecting acts or businesses related to ownership and other rights to real estate.

2015 Legal cadastre (law of coordination between cadastre and land registry)

- Reforms introduced legally in 2015 established that the description of properties in the Property Rights Registry is to be done by a geo-referenced graphical representation based on cadastre.

Once the cadastral data have been incorporated in the Property Rights Registry, the **delimitation, location and area of cadastral data are considered to be true for all legal purposes.**



Coordination Cadastre Register

- The Cadastre provides to the Property Rights Registry by internet before the title inscription, all the information about the real estate properties.
- Not only cadastral reference but description and cartography of cadastral parcels must be incorporated into the Property Rights Registry, if there is geographical correspondence between them.
- The cadastral cartography is used as the basis for Property Rights graphical information.
- Notaries and Land Registrars are obliged to submit to the Cadastre all the information concerning the documents they have authorized or registered.



law 13/2015. Coordination cadastre and land registry

It gives real estate traffic greater legal certainty by incorporating not only the cadastral reference but also the georeferenced graphic information of the parcels in the Property Rights Registry

Based in Cadastral cartography

We defined a mechanism for exchange INSPIRE CP GML



The system has permitted

the coordination of the information of both institutions for a better identification and description of real estates

and an adequate provision of services to citizens and administrations that can improve the description of the real estates and inform of any change of the description of real estates



For 99% of the residential properties and 90% of other properties the owners only need the cadastral certificate to do the conveyance, get the mortgage and register in the land register.

The bank, the notary and the registrar get it digitally from our system



The "Descriptive cadastral and graphic certification" has been the instrument chosen to achieve the correct graphic description of the registered properties,

Since it guarantees the coherence of the graphic information that is registered, the non-invasion of the adjoining properties or the public domain.



The graphic information of the cadastral parcel presented in a certification is expressed in the INSPIRE GML cadastral parcel format



We have established a fluid and safe exchange of information between all the agents involved in the real estate traffic.

Web Services

Unattended machine to machine communication

3 documents

Cadastral certification (with GML)

Alternative geo-referenced representation (in GML)

Graphical validation report

Secure Verification Code

CSV

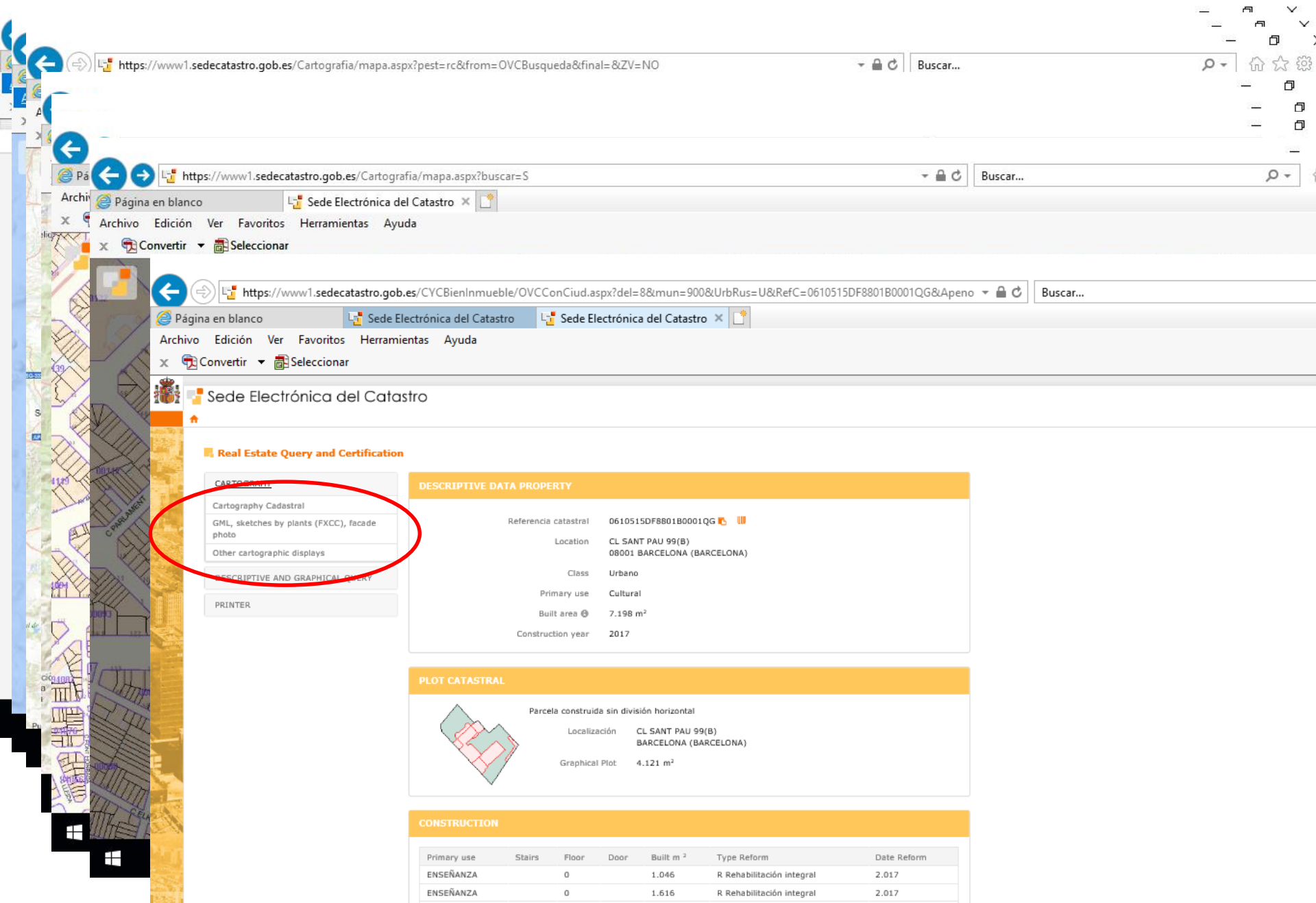




Our Viewer allows users to navigate from an overview of the complete territory to approach each one of the parcels, buildings and units and also through the map access to the alphanumeric characteristics of them.



And **download** cartographic files and certificates of each element, a zone or a complete data set



- CARTOGRAPHY
- Cartography Cadastral
- GML, sketches by plants (FXCC), facade photo
- Other cartographic displays
- DESCRIPTIVE AND GRAPHICAL QUERY
- PRINTER

DESCRIPTIVE DATA PROPERTY

Referencia catastral	0610515DF8801B0001QG
Location	CL SANT PAU 99(B) 08001 BARCELONA (BARCELONA)
Class	Urbano
Primary use	Cultural
Built area	7.198 m ²
Construction year	2017

PLOT CATASTRAL

Parcela construida sin división horizontal

Localización	CL SANT PAU 99(B) BARCELONA (BARCELONA)
Graphical Plot	4.121 m ²

CONSTRUCTION

Primary use	Stairs	Floor	Door	Built m ²	Type Reform	Date Reform
ENSEÑANZA		0		1.046	R Rehabilitación integral	2.017
ENSEÑANZA		0		1.616	R Rehabilitación integral	2.017

The cadastral certification, obtained by the title holders and public partners agents is the base for any transaction

CERTIFICACIÓN CATASTRAL DESCRIPTIVA Y GRÁFICA
Referencia catastral: 8984704TF3988S0001YA

DATOS DESCRIPTIVOS DEL INMUEBLE

Localización: CL CLARA CAMPOAMOR 35 Suelo 41730 LAS CABEZAS DE SAN JUAN (SEVILLA)
Clase: Urbano
Uso principal: Residencial
Superficie construida: 414 m² Año construcción: 2005

Valor catastral [2016] : 1.100.000,00 €
Valor catastral suelo: 1.100.000,00 €
Valor catastral construcción: 0,00 €

Titularidad

Apellidos Nombre / Razón social	NIF/NIE	Derecho	Domicilio fiscal
		100% de propiedad	

Construcción

Esc./Pta./Prta.	Destino	Superficie m ²	Esc./Pta./Prta.	Destino	Superficie m ²
E1-1A	APARCAMIENTO	130	E-00-0	VIVIENDA	83
E-00-0	OTROS USOS	10	E-00-0	OTROS USOS	28
E-00-0	DEPORTIVO	69	E-01-F	VIVIENDA	84

PARCELA CATASTRAL

Superficie gráfica: 500 m² Parcela construida sin división horizontal

Documento firmado con CSV y reado de la DIRECCIÓN GENERAL DEL CATASTRO.
CSV: 2006G235FVCE415X | Persona de línea: 171002016

The cadastral certification is an electronic document (PDF format).

It includes embedded the GML INSPIRE of cadastral parcel.

The certificate and its attached file are signed electronically using a Secure Verification Code (CSV)

Composed by 16 digits



These 16 digits are the only information that is exchanged

With this code CSV on the document it is possible to access in any moment by internet to the digital file in the Electronic Office of Cadastre.

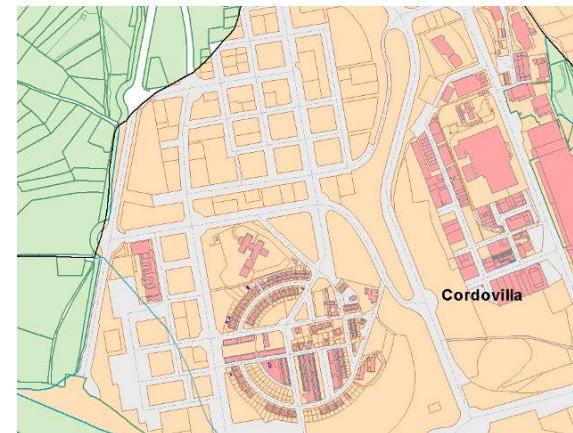


- Citizens can be sure that the image on the document reflects the true coordinates.
- Applications of notaries and registrars use a web service to access the content of the GML attached file using only the code CSV.

What happens when it is necessary to change the representation of the parcel?

- declarations of citizens: segregations, divisions, joints ..
 - land consolidations,
 - re-parcelling,
 - administrative demarcation,
 - expropriation
 - acts of urban planning and urban managing
-
- first registration in the PRR
 - Cadastral errors
 - Property Right Register errors

Citizens and administrations can provide an **alternative geo-referenced representation**

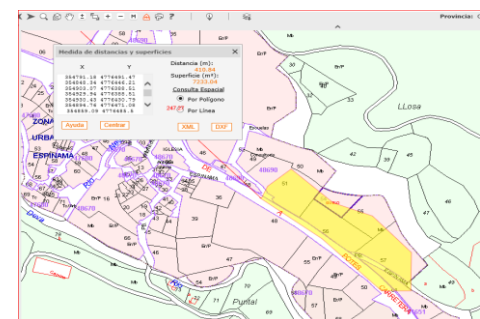


This is used to update the cadastre if it passes the appropriate validations

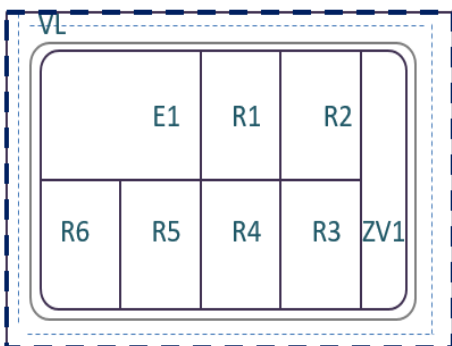


Alternative geo-referenced representation

The technicians are required to represent the reality as an overlay on the cadastral cartography,



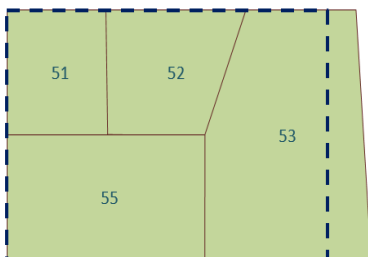
New parcelation



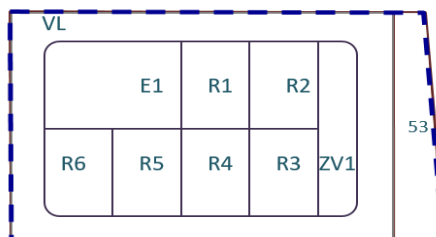
1. Download GML or other formats: DXF, etc
2. Modify
3. Include the alternative geo-referenced representation

That must be expressed in GML or CP

Cadastral original data



Alternative georeferenced representation





Validación de una representación gráfica alternativa

Carque los ficheros GML con el parcelación. Deben ser ficheros correctamente formados y sin solapamientos entre ellos.
 ¿Cómo funciona este servicio?

Resultados de trabajo

(087412, 4473554) (087513, 4473554)

(087412, 4473474) (087513, 4473474)

0 25 m

Opciones de trabajo

Cartografía catastral: GML: Otras cartografías:

Subida de ficheros GML

Selección archivos

Agregue archivos a la lista y pulse el botón de Iniciar carga

Nombre de archivo	Tamaño

Ficheros subidos actualmente

Fichero	Eliminar
Segrega_1.gml	X
Segrega_2.gml	X
Segrega_3.gml	X

Possibility to overlap with other information



INFORME DE VALIDACIÓN GRÁFICA

Parcelas catastrales afectadas

La representación gráfica alternativa objeto del presente informe afecta a las parcelas catastrales que se relacionan a continuación. La incorporación de esta representación gráfica en la cartografía catastral podrá producir una alteración de la delimitación y superficie de estas parcelas, por lo que se requiere la notificación previa a los titulares catastrales de las mismas en el procedimiento correspondiente.



Referencia Catastral: 37136A50405231
 Dirección
 FUENTEGUINALDO (SALAMANCA)

AFFECTADA TOTALMENTE



Referencia Catastral: 37136A50405230
 Dirección
 FUENTEGUINALDO (SALAMANCA)

AFFECTADA TOTALMENTE

Documento firmado con CSU y sello de la DIRECCIÓN GENERAL DEL CATASTRO
 CSU: [sello] Fecha de firma: 03/05/2018

INFORME DE VALIDACIÓN GRÁFICA

Parcelas resultantes



PARCELA UOK_30-31
 superficie 1370 m²

LINDEROS EXTERNOS:
 37136A50405228
 37136A50405232
 37136A50409021
 37136A50409032

COORDENADA UTM

	X	Y	X	Y	
1.-	697475.37	4473518.82	11.-	697451.47	4473499.16
2.-	697479.14	4473510.93	12.-	697446.36	4473506.46
3.-	697482.67	4473493.55	13.-	697442.84	4473511.29
4.-	697482.69	4473491.04	14.-	697441.10	4473512.00
5.-	697484.86	4473484.96	15.-	697460.22	4473542.26
6.-	697477.97	4473485.65	16.-	697463.45	4473538.43
7.-	697472.85	4473485.61	17.-	697467.80	4473533.45
8.-	697463.99	4473487.78	18.-	697469.16	4473532.08
9.-	697459.70	4473490.06	19.-	697475.37	4473518.82
10.-	697455.36	4473493.61			

Documento firmado con CSU y sello de la DIRECCIÓN GENERAL DEL CATASTRO
 CSU: [sello] Fecha de firma: 03/05/2018

Comunication with the Notary

- The report avoids physical exchange of files, only de 16 digits are exchange between cadastre and notary



- All the exchange of information is made through web services
- Notaries don't need to use GIS. And they can check the content using its CSV code in a service available in the Electronic Office of the Cadastre.
- If the validation report is correct, in between 5 days the cadastre send the new cadastral certificate to the Notary



Articles of the law followed by Land Registrars:

In any case, the alternative graphic representation must respect the delimitation of the parent parcel or the perimeter of all the parcels of the cadastral cartography.

If the alternative graphic representation affects part of cadastral parcels, it must specify the delimitation of the affected and unaffected parts, and all of them must respect the delimitation contained in the cadastral mapping.

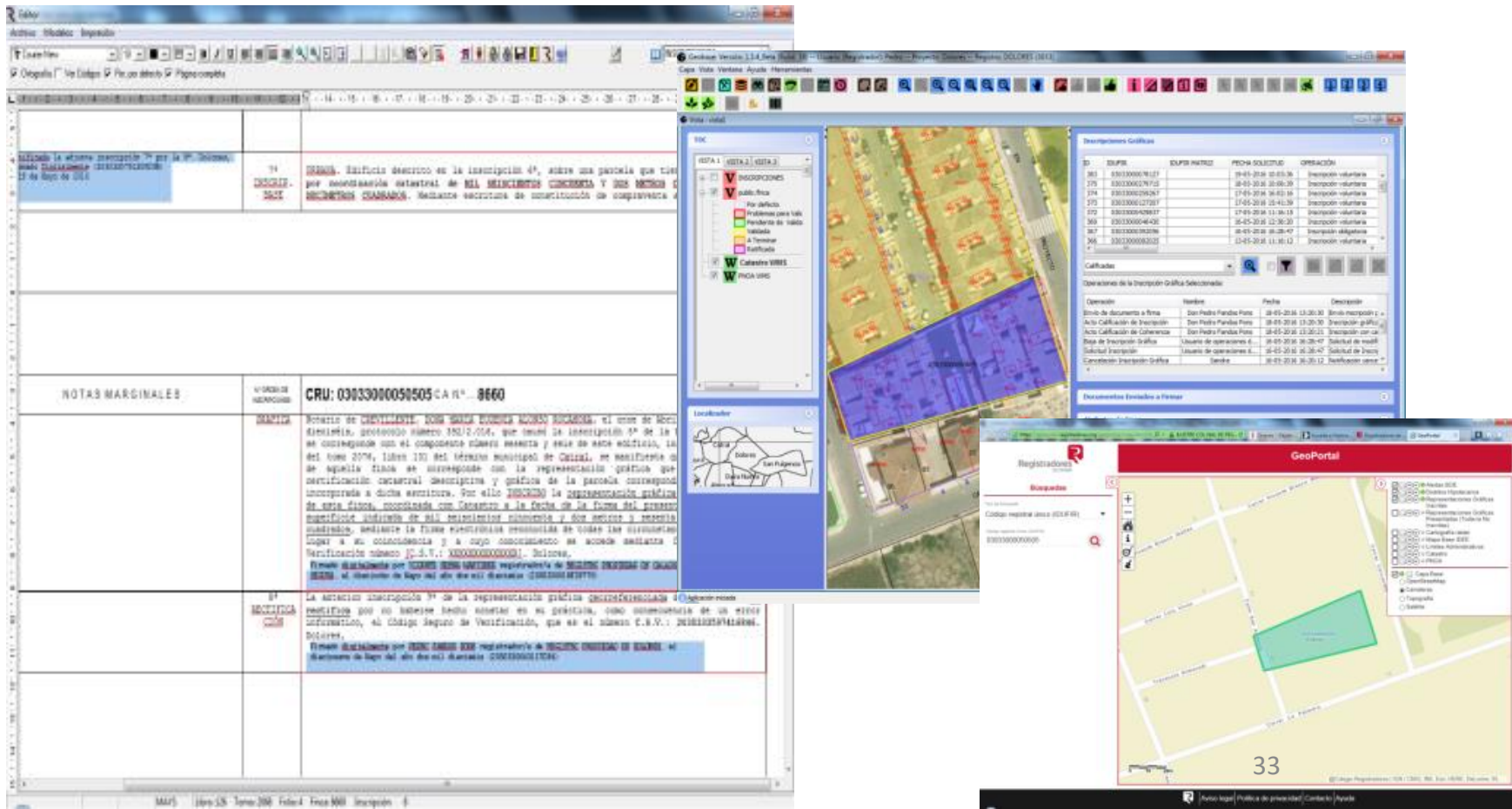
Such graphic representation must comply with the technical requirements that allow its incorporation into the Cadastre after the registration operation has been carried out.

Metric tolerances are important
Well defined for different situations

PROPETARIO:
RIGHT TO IMPROVE METRIC PRECISION

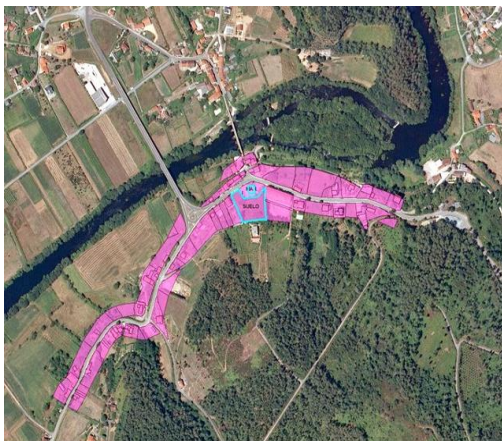


- The technical solution developed by the Directorate General of Cadastre allows registrars to link, without the need for specialized GIS tools, the list of coordinates present in the format and its graphic representation.
- The coordinates are incorporated to the registration in a paper sheet.



The image shows a complex software interface for cadastral registration. On the left, a table displays marginal notes (NOTAS MARGINALES) for a specific plot (CRU: 03033000050505 CA R^o - 8660). The central part of the interface features a map of the plot with various overlays and a legend. On the right, a table lists operations (Operaciones Gráficas) performed on the plot, including registration of documents, signatures, and corrections. The bottom right corner shows a GeoPortal interface with a map and various layers.

Operación	Nombre	Fecha	Descripción
Emisión de documento a firma	Don Pedro Paredes Pardo	18-05-2016 13:30:30	Emisión inscripción y...
Acto de Calificación de Inscripción	Don Pedro Paredes Pardo	18-05-2016 13:30:30	Inscripción gráfica...
Acto de Calificación de Coherencia	Don Pedro Paredes Pardo	18-05-2016 13:35:15	Inscripción con la...
Base de Inscripción Gráfica	Usuario de operaciones 4	18-05-2016 13:38:47	Actualización de coord...
Actualización Inscripción	Usuario de operaciones 4	18-05-2016 13:38:47	Actualización de insc...
Cancelación Inscripción Gráfica	Usuario de operaciones 4	18-05-2016 16:30:12	Cancelación de insc...



Not only citizens but the public authorities that work in the territory have the duty to communicate to the Cadastre: land consolidations, reparcelling, administrative demarcation, expropriation and acts of urban planning and urban managing

These administrations provide also an alternative geo-referenced representation

- In GML format,
- Represented on the cadastral cartography,
- With technical the validation report by the cadastre

Validator of alternative representation

Sede Electrónica del Catastro

Registered user

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

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

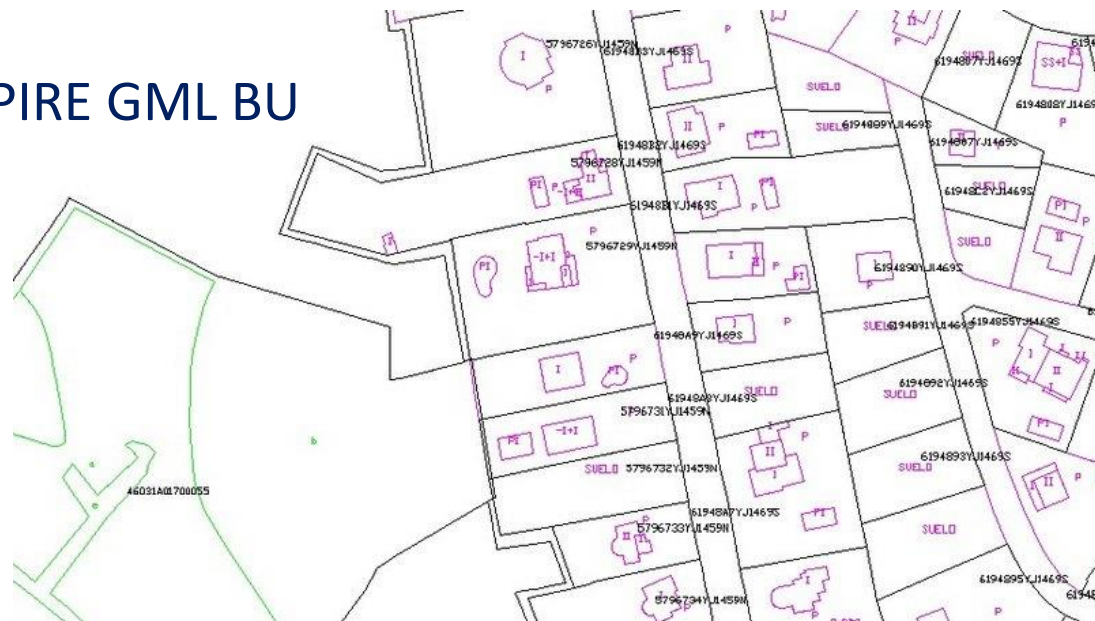
GRAPHIC VALIDATIONS
 Cadastral map graphic validation report and constructions location report

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

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

In order to register a building the georeference of its position is also needed

We use then INSPIRE GML BU



The alternative geo-referenced representation is **voluntary** in several other cases as for example the Georeference of

- Crops
- Instalations and improvements
- Or buildings already registered

Assistan for cadastral declarations



GOBIERNO DE ESPAÑA
 MINISTERIO DE HACIENDA
 SECRETARÍA DE ESTADO DE HACIENDA
 DIRECCIÓN GENERAL DEL CATASTRO

Sede Electrónica del Catastro
 Registered user

HIGHLIGHTS
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MY CADASTRE
 Real estates: Administrative files Notifications

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

Preferential declaration through the web

Possibility to everybody with electronic signature

Obligatory for

- Public administrations
- Legal persons.
- Communities of property
- Those who carry out a professional activity for which compulsory collegiality is required, in the exercise of that activity.
- Notaries and registrars of the property

http://www.catastro.minhap.es/ayuda/asistente_declaraciones_catastrales_ciudadanos.pdf

The presentation is divided into two stages

1st Generation of declaration (free)

2a Presentation of the declaration (authentication + legitimation)

Tools for generating declaration

- Possibility to attach documentation
- Generating a code
- Possibility to generate and print a predeclaration

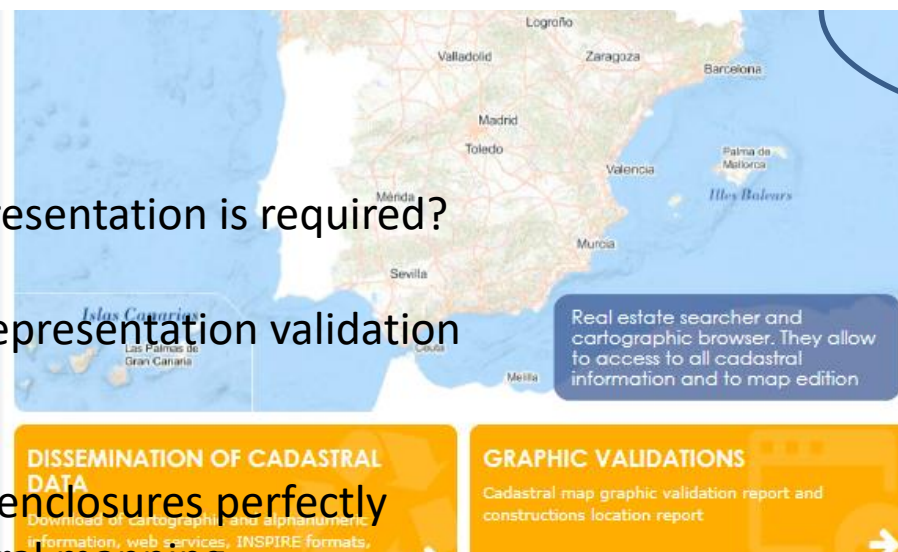
When a graphical representation is required?

Included alternative representation validation

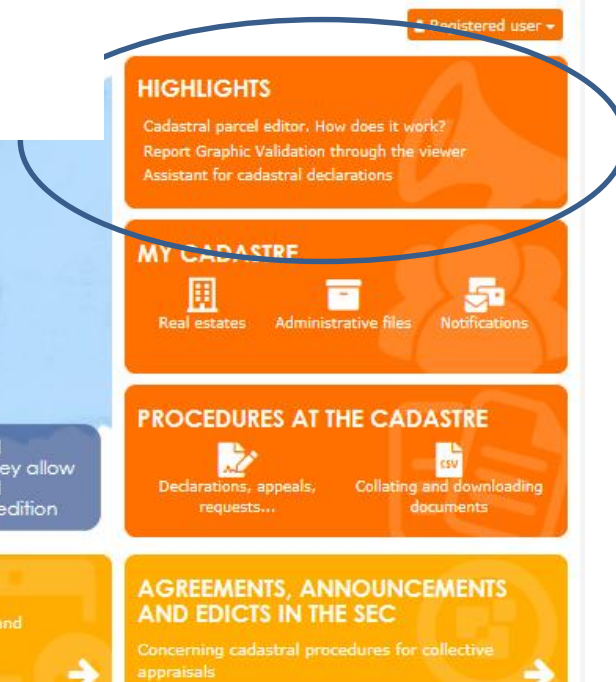
or

The graphic assistant

Easy to generate new enclosures perfectly integrated into cadastral mapping



electrónica del Catastro



<http://www.catastro.minhap.es/ayuda/videodemo/C3/CASO3.htm>

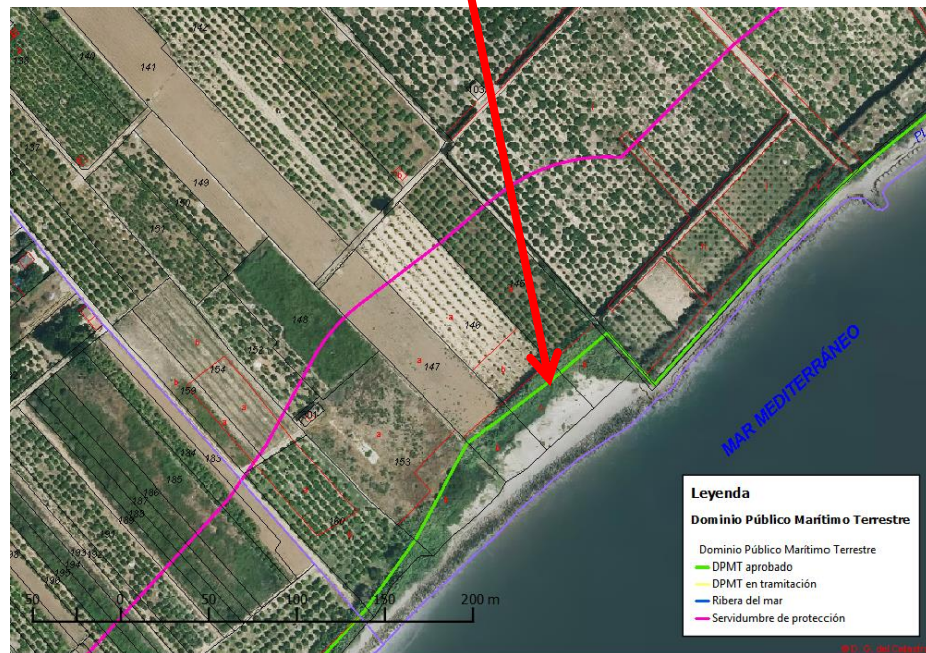
When the statements submitted affects the graphic representation of adjoining parcels

Not only the documentation supporting the proposed graphic representation (public deed, administrative document or other equivalent) is needed.

But also written document containing conformity or non-opposition with the graphic representation proposed by cadastral owners of all affected neighbouring parcels.

If this information is not provided, the Directorate-General of the Catastro may obtain it on its own.

PARCELAS AFECTADAS PARCIALMENTE POR EL DOMINIO PÚBLICO MARITIMO TERRESTRE



Also, after in the Land Registry OWNERS IN LR AND COLINDANTS ARE NOTIFIED THAT MAY ALEGATE IF ANY ARE NOT LOCATED: BOE AND GEOPORTAL

Thanks for your attention

<http://www.catastro.minhap.es/ayuda/videodemo/C3/CASO3.htm>