

The Spanish Cadastre and Property Rights Registry: a smart model of coordinated interaction

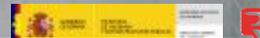
Common Vision Conference 2016
Amsterdam, 5, 6, 7 June 2016

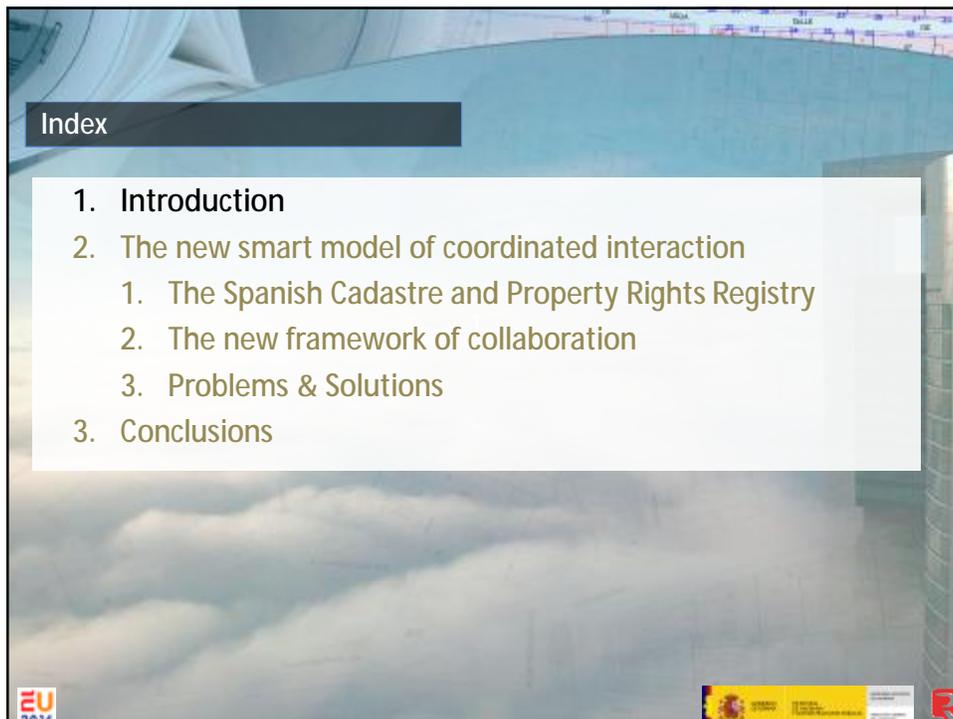
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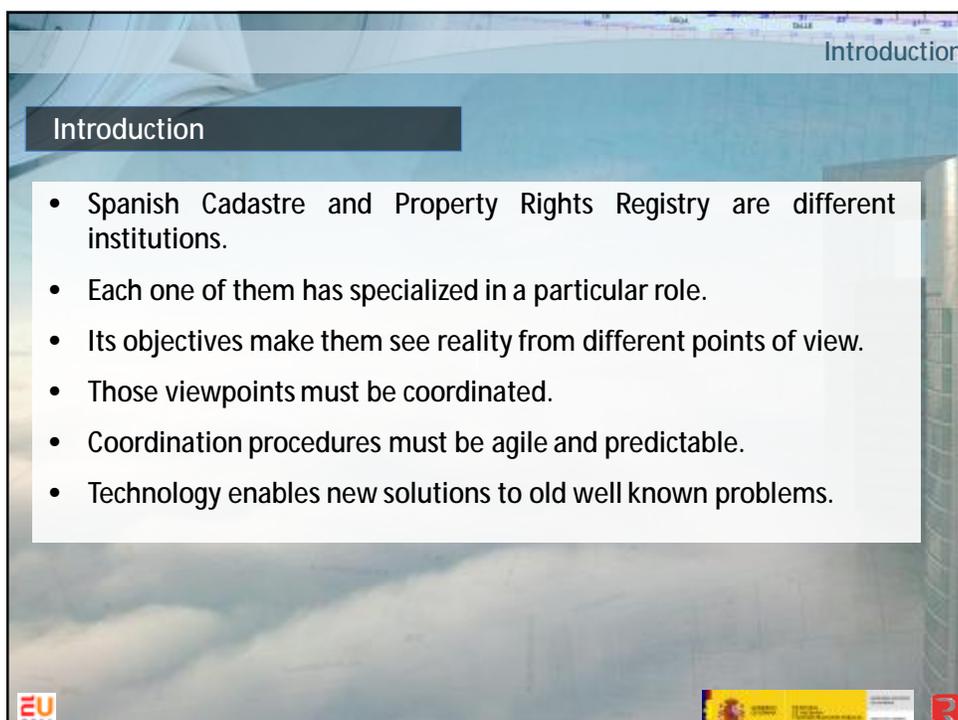
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Introduction

Introduction

- Spanish Cadastre and Property Rights Registry are different institutions.
- Each one of them has specialized in a particular role.
- Its objectives make them see reality from different points of view.
- Those viewpoints must be coordinated.
- Coordination procedures must be agile and predictable.
- Technology enables new solutions to old well known problems.

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REPUBLICA ESPAÑOLA

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REPUBLICA ESPAÑOLA

The Spanish Cadastre and Property Rights Registry

CADASTRE	PROPERTY RIGHTS REGISTRY
<ul style="list-style-type: none"> • It is an administrative register that impacts on the government-citizen relationship. • Registration in the Cadastre is mandatory. Notaries and Registrars are obliged to submit information to the Cadastre. • It's used for the valuation of property for tax purposes. • It offers a continuous homogeneous GIS for the complete territory. • It offers open access and free of charge, although it guarantees the protection of private data. 	<ul style="list-style-type: none"> • It is a juridical register with substantive legal effects on private relationships. • Registration isn't necessary to have a contractual entitlement, but is needed to have them protected against everybody. • It serves to ensure legal safety of property rights and ease of, property transactions, decreasing costs of them • It is financed by the registration fees by owners protected and by sure Registry Publicity • Cadastral Cartography is basic




Smart model of coordinated interaction

What is Real State Cadastre?

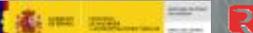
The real estate cadastre is an administrative register in which the real property is described: its legal characteristics (e.g. cadastral title holder), physical aspects (e.g. areas, crops, buildings) and economic data (e.g. cadastral value)

- 52 M of cadastral parcels (INSPIRE compliant)
- 12 M of buildings (INSPIRE 2D extended building compliant)
- 80 M of urban, rural and special real estate



In the year 2015:

- Electronic Office of Cadastre has more than 53 M of visits
- Electronic Office of Cadastre issues more than 6.5 M of certificates

The Spanish Cadastre and Property Rights Registry

What is Property Rights Registry?

- Registrational publicity insures against everybody the ownership and charges of the registered estates, although administrative data are different.
- Innocent thirds acquire by money, relying on the contents of registry are protected by Law and Courts.
- Nobody buys an estate without Registrational Publicity to ensure transaction.
- Registration describes the object and content of real rights and contains also the burdens and mortgages of registered estate.
- Property Rights Registry is governed by private law principles, not administrative principles.
- Some data: 50 M of estates registered. 7 M of registrational publicity petitions by electronic services.



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Smart model of coordinated interaction

The new framework of collaboration

- 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.
- 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.
- The goal is to offer a better service to citizens, increasing legal certainty and reducing the administrative burden.
- To achieve this goal, it has been necessary to establish a smart model of coordinated interaction.
- Technology enables solutions that previously were impossible to consider.

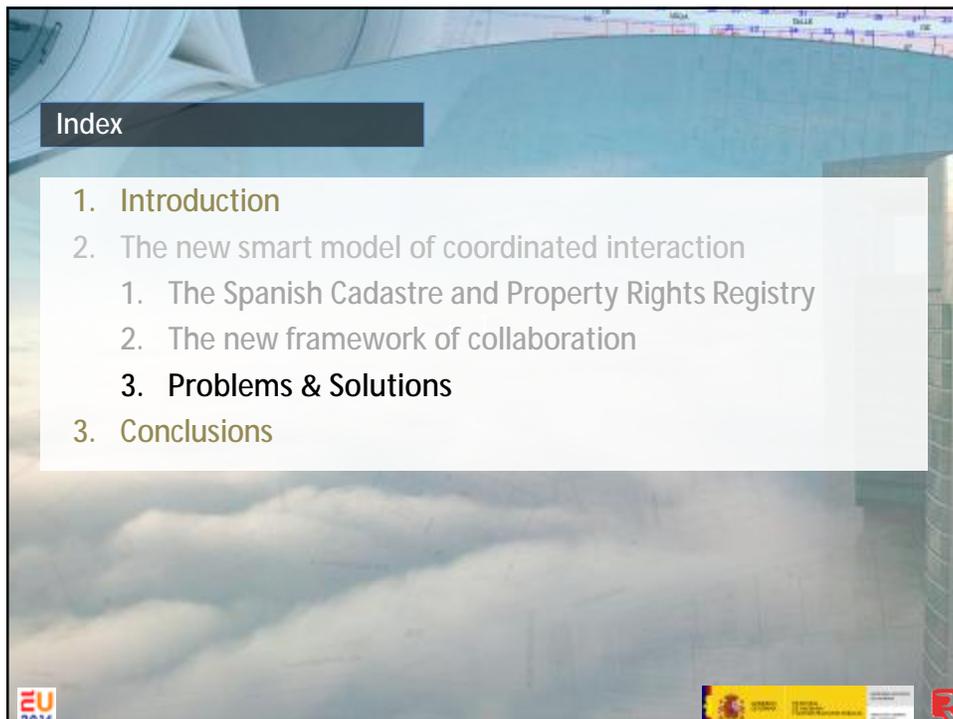
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Smart model of coordinated interaction

The new framework of collaboration

- The graphic geo-referenced description of the Property Rights Registry is based on the cadastral cartography.
- Once the cadastral data have been incorporated in the real estate information in the Property Rights Registry, the delimitation, location and area data are considered to be true for all legal purposes. The Property Rights Registry's record will also indicate if the real estate is coordinated with the Cadastre and the date of coordination.
- In case of disagreement, citizens can provide an "alternative geo-referenced representation" that is then used to update the Cadastre after to pass the appropriate graphical and technical validations.

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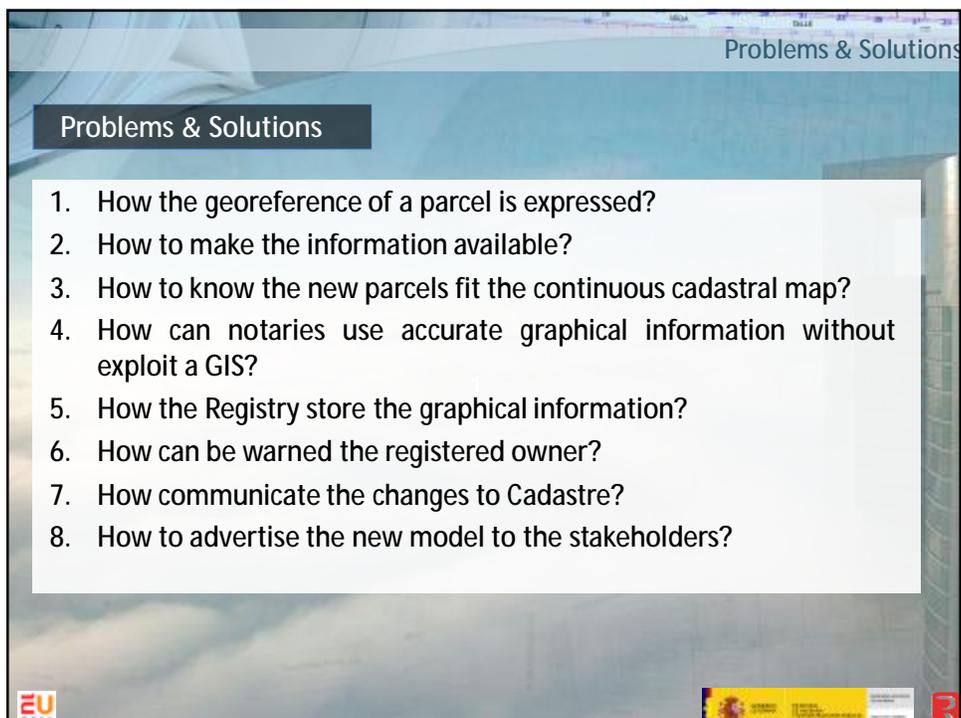


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RESEARCH



Problems & Solutions

Problems & Solutions

1. How the georeference of a parcel is expressed?
2. How to make the information available?
3. How to know the new parcels fit the continuous cadastral map?
4. How can notaries use accurate graphical information without exploit a GIS?
5. How the Registry store the graphical information?
6. How can be warned the registered owner?
7. How communicate the changes to Cadastre?
8. How to advertise the new model to the stakeholders?

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RESEARCH

Problems & Solutions

How the georeference of a parcel is expressed?

Georeferencing of a parcel is expressed by including the reference system (ETRS89, REGCAN95), the projection system (UTM) and its coordinates (x,y).

The georeferencing information is expressed using the INSPIRE cadastral parcel format (GML format, XML with geographic content).

All the agents that work with real state information in Spain are using the INSPIRE cadastral parcel.



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Problems & Solutions

How to make the information available?

The GML INSPIRE cadastral parcel can be publically obtained at the Electronic Office of Cadastre . It's obtained:

- As a service using the WFS INSPIRE cadastral Parcel (the same used in ELF).
- Through free access from the screen query results.



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Problems & Solutions

How to make the information available?

- The cadastral certification, obtained by the title holders and public partners agents, include attached a GML INSPIRE cadastral parcel. The certificate is used by citizens to describe the parcel in notaries and registry.



Problems & Solutions

How to make the information available?

- The cadastral certification is an electronic document (PDF format).
- The certificate and its attached file are signed electronically using a Secure Verification Code (CSV). With this code on the document it is possible to access 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 the code CSV.



Problems & Solutions

How to know the new parcels fit the continuous cadastral map?

- If there is a disagreement, citizens can provide an alternative geo-referenced representation. It's expressed in the GML cadastral parcel.
- This geo-referenced representation is used to update the cadastre if it passes the appropriate graphical and technical validations.
- The cadastral cartography is the basis. The technicians are required to represent the reality as an overlay on the cadastral cartography, expressing additionally the twists and displacements that they could appreciate.
- The technicians, the notaries, the registrars need to ensure that the new parcels fit in the continuous cadastral index map. It's necessary to validate that the perimeters of the new parcels correspond with those of the old parcels to keep the continuity of the map. HOW??




Problems & Solutions

How to know the new parcels fit the continuous cadastral map?

- You assure the graphical fit using an interactive service and web service call "Graphical validation report" available in the Electronic Office of Cadastre.
- The report is an electronic document signed with the secure verification code. It has an XML file containing all the information.
- The report avoids the physical exchange of files, shows the new representation and enables the automated capture of its contents preventing transcription errors.
- Notaries don't need to use GIS. Registrars access the graphical content in the XML file automatically.
- The report in any case validates the legal transactions giving rise to a new configuration of the parcels, and that the parcels comply with the necessary authorizations from the legally mandatory administration or public authority.




Problems & Solutions

How to know the new parcels fit the continuous cadastral map?

- The report shows the result of the graphic validation (green mark !!)
- The technician's identification and the technical data of his/her work
- The XML file is attached to the PDF

Problems & Solutions

How to know the new parcels fit the continuous cadastral map?

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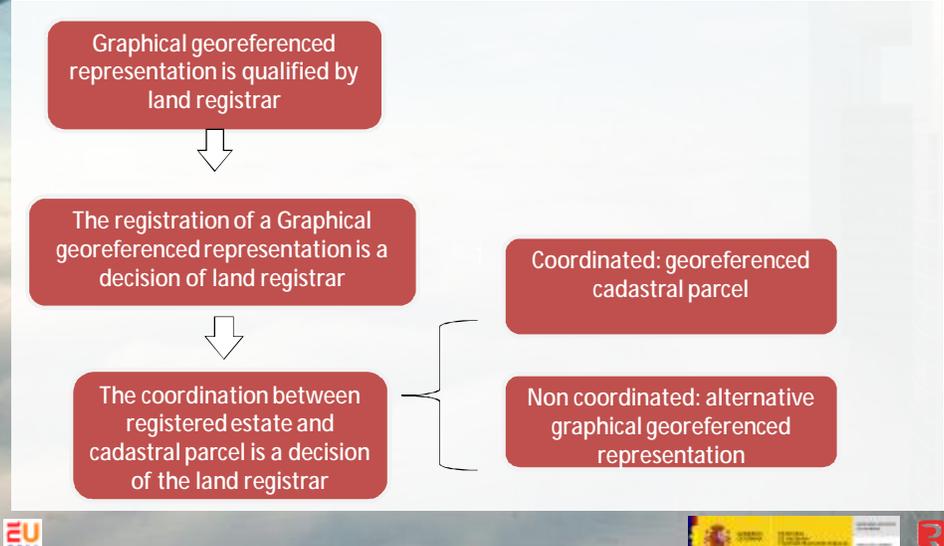
How the Registry store the graphical information?

- 13/2015 act lets the registration of graphical georeferenced representation of registered estates. It can be cadastral or alternative provided by the owner.
- Graphical georeferenced representation gets into Property Rights Registry by a GML INSPIRE file.
- Land Register takes the UTM coordinates, unic registered estates number and file number to make a GML INSPIRE file signed electronically. The secure verification code (CSV) assigned is incorporated to the registration in a sheet paper.
- Graphical georeferenced representation registered produces the strong effects of registration.




Smart model of coordinated interaction

How the Registry store the graphical information?



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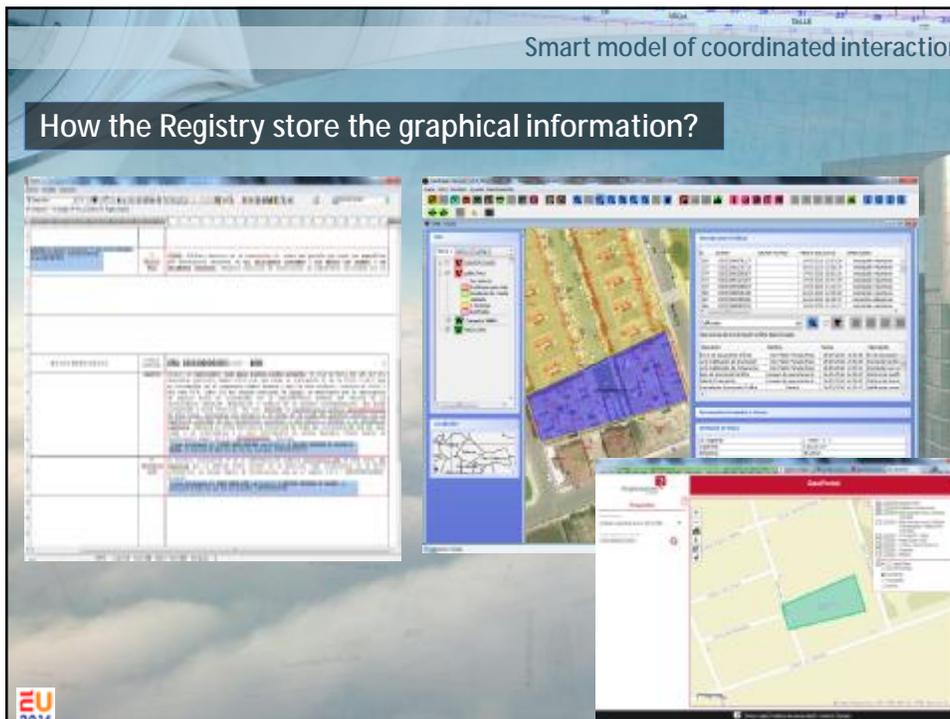
graph TD
    A[Graphical georeferenced representation is qualified by land registrar] --> B[The registration of a Graphical georeferenced representation is a decision of land registrar]
    B --> C[The coordination between registered estate and cadastral parcel is a decision of the land registrar]
    C --- D[Coordinated: georeferenced cadastral parcel]
    C --- E[Non coordinated: alternative graphical georeferenced representation]
  
```

The diagram illustrates the process of registration and coordination of graphical georeferenced representation. It starts with the qualification of the representation by the land registrar, followed by the registration decision. The final step is the coordination decision, which results in either a coordinated georeferenced cadastral parcel or a non-coordinated alternative graphical georeferenced representation.




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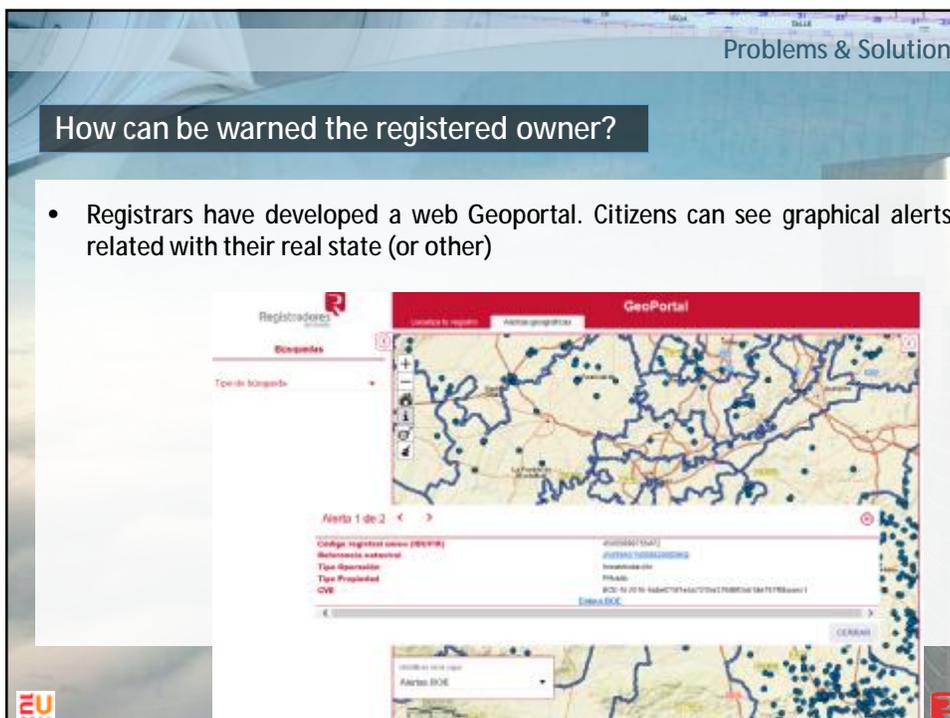
How the Registry store the graphical information?



Problems & Solutions

How can be warned the registered owner?

- Registrars have developed a web Geoportal. Citizens can see graphical alerts related with their real state (or other)



Problems & Solutions

How to communicate the changes to Cadastre?

- All the exchange of information is made through web services between the College of Registrars and the Electronic Office of Cadastre.
- The use of paper is expressly eliminated !!
- Automatically, without human supervision in most cases, the information in Cadastre is modified and the documents for the citizens are generated.
- Notary and registrars have a feedback. They can communicate the results to the citizens.



Problems & Solutions

Problems & Solutions

How to announce the new model to the stakeholders?

- There is a lot of information in <http://www.catastro.minhap.es>
It's available in English
 - Complete FAQ with different topics (45 Q&A)
 - "Guide for the management of cadastral graphical information in real estate market"
 - Technical documentation (about services, products and formats)
 - Links to the "knowledge communities" that are in the web



Frequently Asked Questions about the Cadastre and Registry Coordination



Guide for the management of cadastral graphical information in real estate market

Problems & Solutions

Problems & Solutions

How to announce the new model to the stakeholders?

- Internal and external training courses.
- Training in Latin America during the next months
- Meetings with all the agents involved
- Technical papers

GeoGraphics Annual Review 2015

INCREASING LEGAL CERTAINTY AND TRANSPARENCY IN SPAIN

Spain is taking significant steps to increase legal certainty and transparency through the introduction of reforms to the mortgage law and revisions to the law on real estate cadastre (Law 13/2015).

The Spanish Cadastre and the Land Registry are two independent but closely related organisations. The Directorate General for Cadastre, dependent on the Finance Ministry, holds physical and economic data of the real estate together with the identification of the cadastral site holder. It also features graphical databases allowing the location and identification of real estate as well as the assignment of a cadastral reference. The Land Registry depends on the Ministry of Justice and constitutes a legal registry of rights that ensures a high degree of legal security in real estate transactions. The Registry stores titles and deeds and is a freely accessible public information service. The Spanish Cadastre is compulsory by law, the Land Registry is not.



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Conclusions

Technical Conclusions

- Technology enables solutions that previously they were impossible to think about (we have been trying to coordinate both institutions since 1906 !!)
- The smart model of coordinated interaction is now working. All the applications, products and services have been developed and work together.
- All the agents in the real state market are learning the model. Graphical information is increasingly linked. All stakeholders are actively involved.
- We have faced technical problems whit a multidisiplinary approach (computer engineers, legal advisors, topographers).
- The use of standards facilitates the adoption curve of the solution.

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Conclusions

Business Conclusions

- Technology is not enough. It's necessary a political boost (Commission on the Reform of Public Administration in Spain)
- Cadastre and Registry preserve their autonomy, but work together, offering a good service to citizens.
- The use of the model increase legal certainty and transparency.
- Developing this coordination system, we are reinforcing the graphical geo-referenced information as a key part of the e-government.
- Cadastre and Registry are evolved towards digital organizations together.

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The Spanish Cadastre and Property Rights Registry: a smart model of coordinated interaction

Thank you for your attention !!

