

# Spanish Cadastre: COLLABORATIVE MANAGEMENT

UE23
PRESIDENCIA ESPAÑOLA

CONSEJO DE LA UNIÓN EUROPEA







#### **COLLABORATIVE MANAGEMENT**





- 1. OVERALL COLLABORATION SCENARIO
- 2. REACTIVE COLLABORATION (1ST GEN.)
- 3. PROACTIVE COLLABORATION (2ND GEN.)
- 4. AUTOMATED PROACTIVE COLLABORATION (3RD GEN.)







# COLLABORATIVE MANAGEMENT – OVERALL SCENARIO

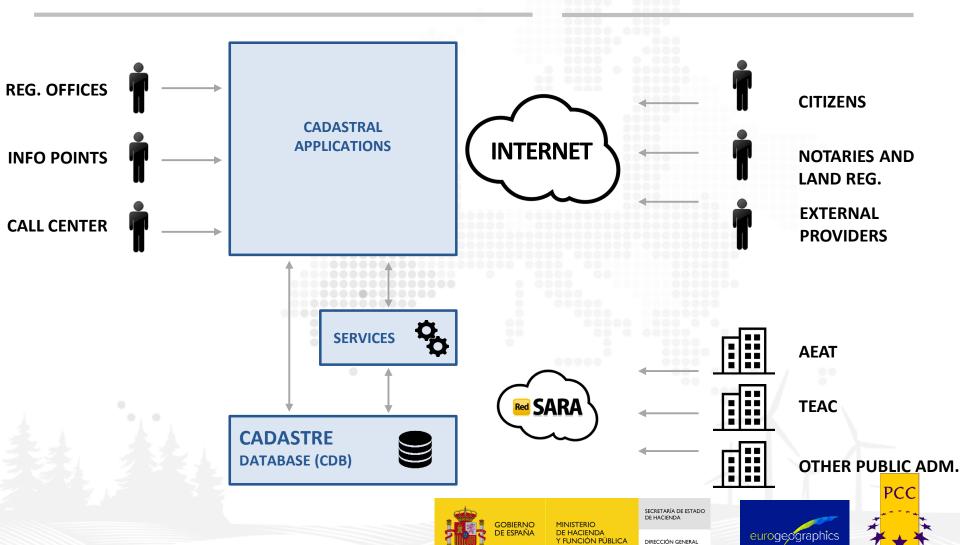




INTERNAL E-GOV.

**EXTERNAL E-GOV.** 

DEL CATASTRO



# COLLABORATIVE MANAGEMENT – OVERALL SCENARIO





#### "Reactive" changes – 1st Generation

- Still in use
- Collaborators connect directly through the cadastral applications to operate and make changes when (and after) the need arises

#### "Proactive" changes – 2nd Generation

- Collaborators <u>anticipate changes that may (or may not) lead</u> to cadastral alterations
- Since 2018. Added to the previous one, via human interaction with new application (SINTRA-Management Map). Continually evolving.

## "Automated proactive" changes— 3rd Generation

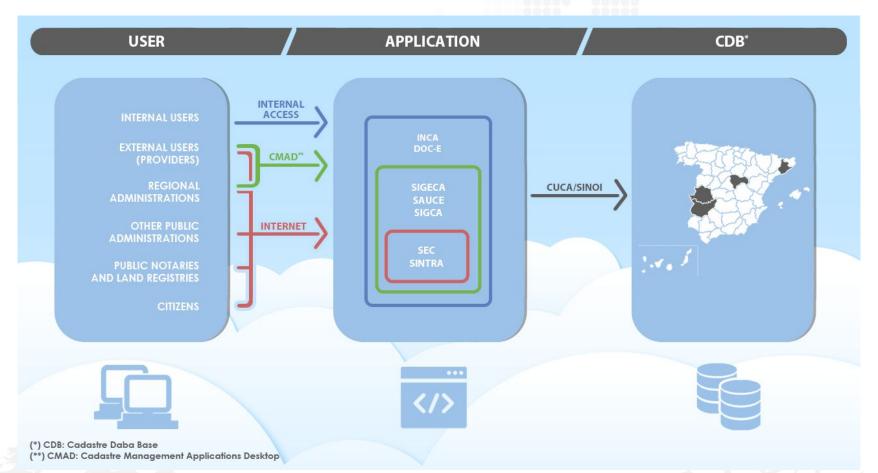
 Changes are anticipated by <u>automatically querying key databases</u> which are the source of potential alterations.

 In preliminary phases, will complement the 2nd generation and <u>all three will</u> operate in a coordinated manner.





















MAIN (ONLY) CADASTRAL APPLICATIONS



DIRECCIÓN V SECRETARÍA GENERAL V VALORACIÓN V PROCEDIMIENTOS V INFORMÁTICA V INTRANET LOCAL

#### Aplicaciones SIC 😷

- · Sistema de información catastral
- · Resumen de actualizaciones mensuales









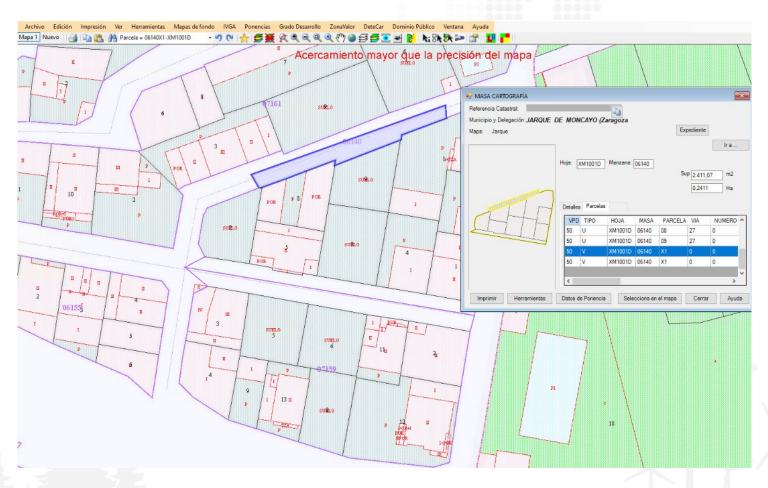








MAIN (ONLY) CADASTRAL APPLICATIONS



**GOBIERNO** 

MINISTERIO DE HACIENDA

Y FUNCIÓN PÚBLICA



SECRETARÍA DE ESTADO DE HACIENDA

DIRECCIÓN GENERAL DEL CATASTRO







MAIN (ONLY) CADASTRAL APPLICATIONS

04/07/2022 17:35:13

Castellano ▼ M CONTÁCTENOS















#### **DATA EXCHANGE FORMATS. FAMILIES**

**CADASTRAL MANAGEMENT** 

[i] FIN / VARPAD [o] FIN + FXCC

**DATA SHARING** 

[o] CAT

[o] PADRON (CENSUS)

#### Snapshot:

- **PADRON**
- **FINCA**
- **PADRON AEAT**

#### Date range

- DOC
- DOC-AP





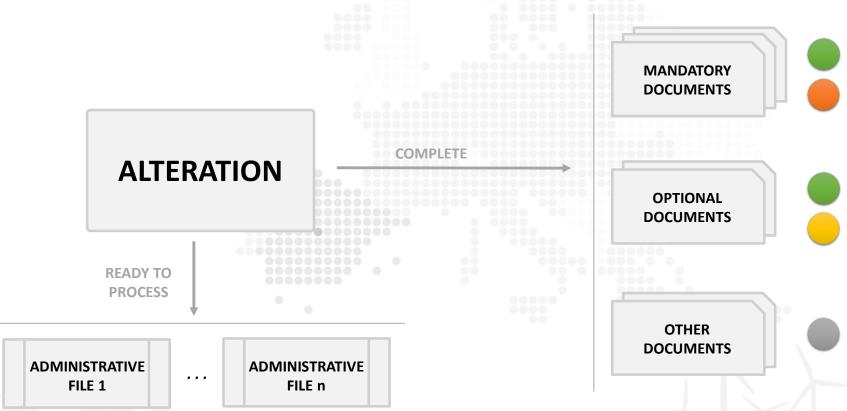
DIRECCIÓN GENERAL







THE ALTERATION PARADIGM







DEL CATASTRO

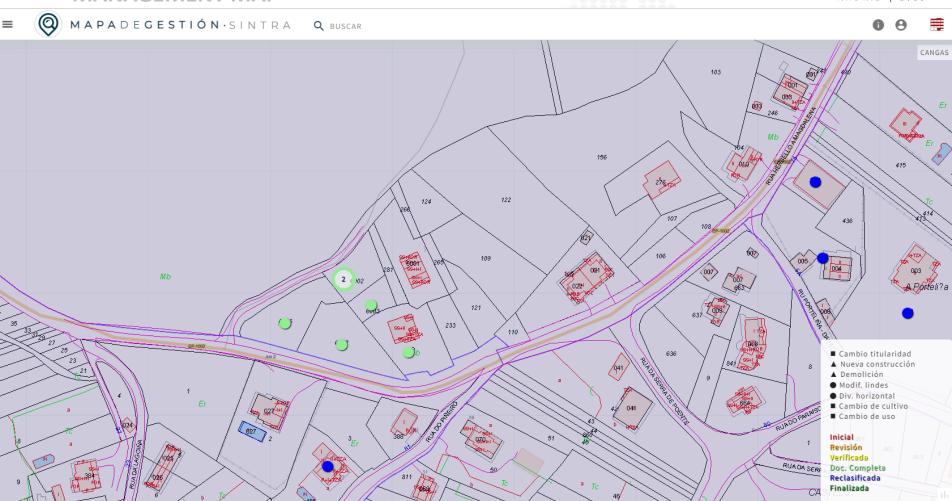








#### **MANAGEMENT MAP**







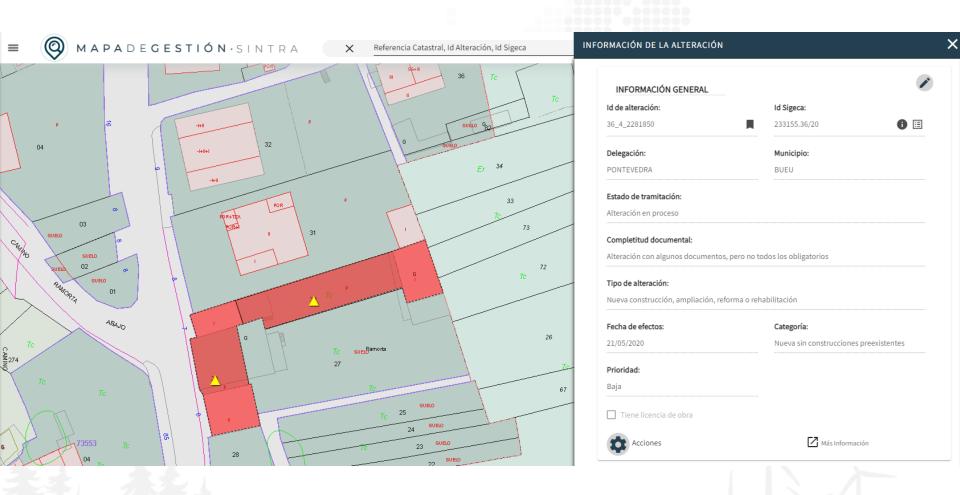








**MANAGEMENT MAP** 















#### **AUTOMATION PROJECTS**

- Exploring two lines of work.
  - Automating communications <u>from professional associations</u> (technical architects). 15 regional associations, a single coordinating body: CGATE, Consejo General de Arquitectura Técnica.
  - Automating communications of <u>urban planning licenses</u> from municipalities (> 7.000), working mainly with two companies.











**AUTOMATION PROJECT: PROF. ASSOCIATIONS** 

- The aim is to automate communications of cadastral alterations.
  - At the source: technical architects when signing the <u>final</u> completion certificate.
  - Extracting them automatically from the database of the associations.
  - Incorporating them into the Management Map without the need for a manual "click" from the municipalities.
  - In a final scenario the alterations would be obtained with <u>maximum anticipation and almost exhaustively</u> throughout the territory.











#### **AUTOMATION PROJECT: PROF. ASSOCIATIONS**

- In very initial phases: first, pilot. With the central node:
  - Study of how up-to-date the data are, as well as their completeness, and quality.
  - Afterwards, successive deployment.
- Also pilot with Castilla y León regional node.
- Required throughout all phases (pilot included):
  - Institutional impulse (previous): within the framework of agreements and institutional relations.
  - It is necessary to convince them to install a "probe", allow a connection to their DB, opening ports.
  - Therefore, a certain negotiation—normative change, is required
  - Scalable technology solution











#### **AUTOMATION PROJECT: PROF. ASSOCIATIONS**

- Two software alternatives under study, both:
  - Working at low-level on DBs so as not to depend on the association's DB software (as long as there is one)
  - Scalable = deployable in N nodes with only parametrization, if needed.
  - Filtering transactions based on a pattern, prior to sending them to the CDB
- Alternative 1: real-time probe using the "redo logs" or "trail files" of transactions, so the source DB automatically triggers an insertion in the CDB upon its own insertion.
- Alternative 2: polling mechanism from the CDB to the source DB (frequency to be chosen eg. daily).











#### **AUTOMATION PROJECT: URBAN PLANNING LICENSES**

- Downstream from the final completion certificates (<u>available</u> <u>later</u>)
- However, they provide richer information, they are not only completion certificates, but information on urban planning actions of all kinds, indicative information etc.
- Few companies operate, but it depends on the institutional and political will of many entities.











#### **AUTOMATION PROJECT: URBAN PLANNING LICENSES**

- Currently in the first phase: "low cost" solution
  - CSV exchange file consumed by the Management Map (may also be provided manually)
  - One file entry/record per alteration per license
  - Automatically transmitted by SFTP protocol from the municipal urban management application.
  - In pilot with two municipalities in Madrid region
- If the pilot is successful, more advanced solutions (e.g. web service) will be evaluated for large-scale deployment.







## **COLLABORATIVE MANAGEMENT**









