

Increasing the efficiency and sustainability by institutional cooperation: The example of the Addresses Database of Catalonia

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Diputació de Lleida

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Content



Content

1. Introduction
2. Background
3. Reasons for the change
4. Working together
5. Immediate future
6. Conclusions

Introduction



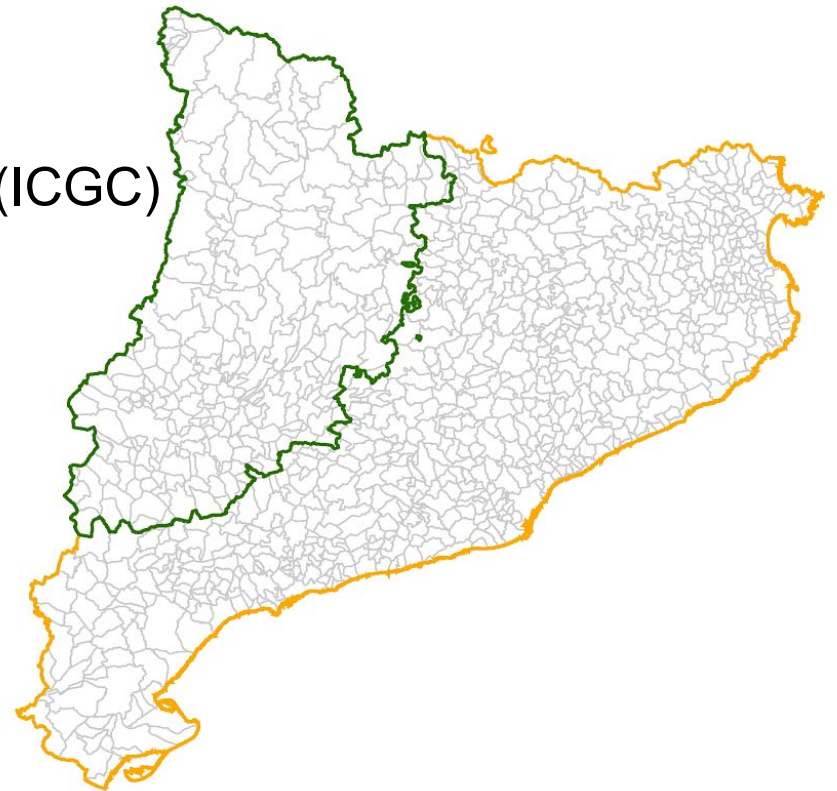
Introduction



Institut Cartogràfic de Catalunya (ICGC)



Diputació de Lleida



Background

Initial works
at the ICGC



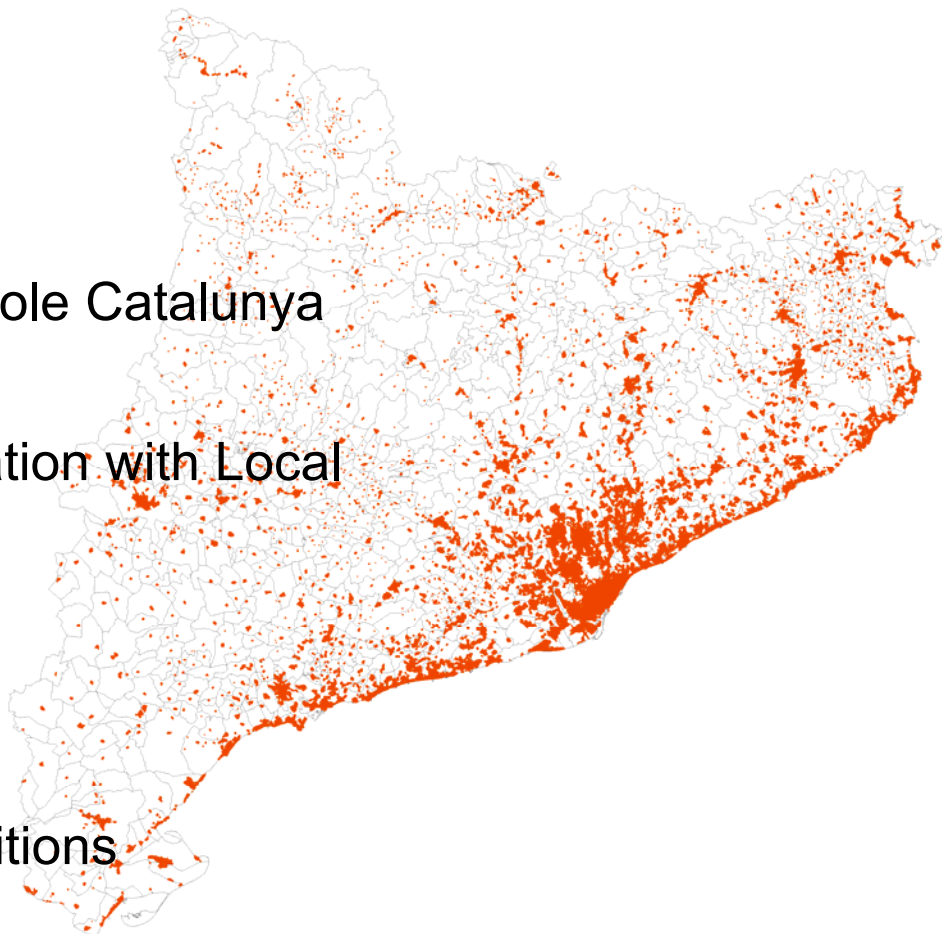
Goals

- 1999: Catalanian Police needs to locate incidents and standardize addresses
- At that moment there was no spatial database that could respond to these demands
- 2000: ICGC started the compilation of a geospatial street DB: street axis with its number ranges for all the Catalanian towns



Working method

- 2000-2007 First compilation of whole Catalunya mainly compiled by field work
- At the end of this phase, collaboration with Local Administration begins
- 2008: Continuous updating
- 2010: Compilation of address positions



strengths and weaknesses

- Systematic and standardized update
- Skilled personnel carries out the work
- A single database queried by geoservices
- High cost to get current, valid and complete information
- Some problems with data sources:
 - Field work
 - Available data
 - Collaboration with agencies

Background

Initial works at
Diputació de Lleida

Goals

- 2009: Compilation of street information was started, in order to meet the needs arising from the local responsibilities
- Provide to SITMUN viewer a validated database for management applications
- Local government responsibilities (Municipality)

Working method

- There is no online tool available. Diputació de Lleida provides the municipality the available information on paper
- Field work is performed by the municipality
- Information is digitized and stored in databases to be monitored from SITMUN viewer
- Information is attempted to be crossed with available alphanumeric databases

Strengths and weaknesses

- It's easy to capture Information
- Complete final information
- Diputació de Lleida tracks the performed works
- High initial digitalization costs and future update
- Information only used by municipalities
- Information is only “official” for the city council

Reasons for the change



Reasons for the change

- Both agencies compile similar information at the same territory
- The procedures of both agencies had weaknesses that could be improved, so the benefits of working together were analyzed

Advantages of working with ICGC

- Decrease of digitization economic costs
- Standardized and uniform digitizing criteria
- Systematic Quality Control
- Speed up sign in into Catalunya's Cartographic Register
- Distribution of information to organizations and citizens

Advantages of working with Diputació

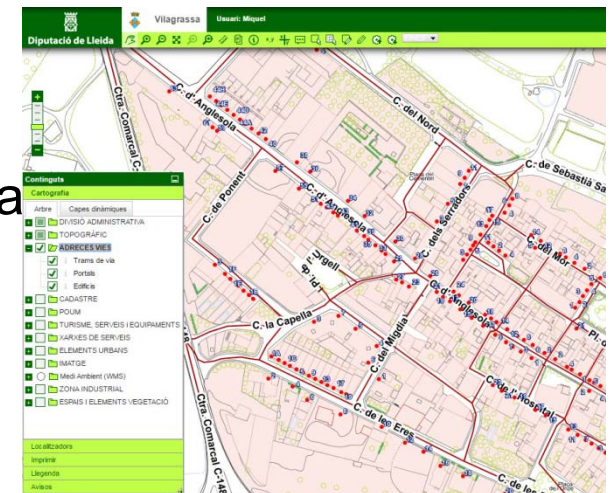
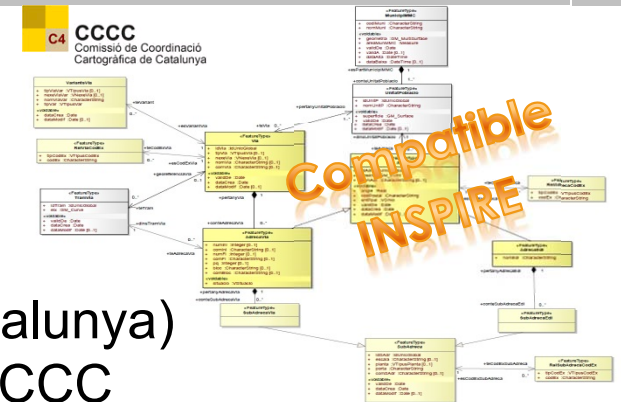
- Close knowledge of the territory and municipality needs
- Access to municipalities by a single interlocutor that also standardizes procedures
- Decrease costs
- Municipalities training in methods, uses and applications
- Provide municipalities with a maintenance tool

Advantages of working with Municipalities

- Access to the information closest to the territory
- Full and updated information (even in scattered places)
- Final validation of compiled information

Other factors

- The BDMAC (Base Municipal d'Adreces de Catalunya) model is a common data model, defined by a CCCC working group with representants of municipalities, county councils and Government
- SITMUN2, the new version of Diputació de Lleida corporate viewer, allows to keep easily the information updated



**Working
together**



Goals

Goals for Diputació de Lleida and municipalities

- Supply digitized information with both graphics and content quality, without economic cost
- Use the ICGC distribution channels for disseminating information

Goals for ICGC

- Have a workflow for the database continuous update, maximizing efficiency and minimizing costs

General Goals

- Supply a single dataset that allows the unification and standardization of addresses, that will be spread to other agencies BD

Work division

- Each agency is responsible for certain **phases** of the production process
- Each task is carried out by the more **suitable** agency

Work division

Diputació de Lleida:

- Supply base information
- Coordinate the validation works
- Communication between ICGC and municipalities

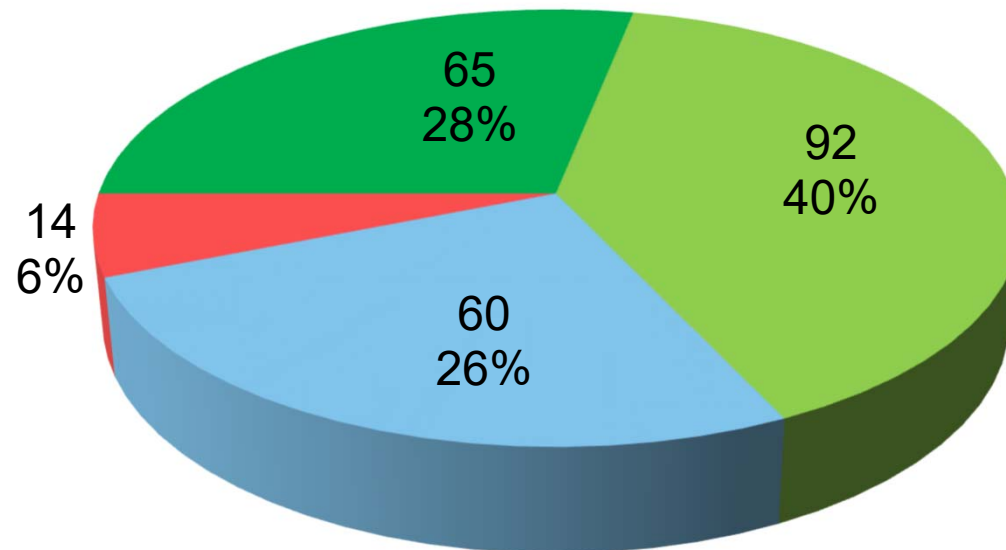
Municipalities:

- Provide the whole information to compile
- Solve doubts and conflicts
- Final approval

ICGC:

- Digitize and compile the information
- Lack and inconsistencies detection
- Quality Control process
- Review names and standardization proposal

Results so far



Municipalities

- Update Finished + Register in process
- Update Finished
- Update in process
- Planned

Collaborative work Strengths

- Current, valid and complete información
- The final product, that it's shared, has a lower cost
 - Globaly: without duplicities
 - Individually: each agency performs only certain phases
- Each phase is carried out by the more specialized agency
- Higher quality requirements
- Convergence of the databases of the different agencies

Collaborative work Weaknesses

- The collaboration involves additional tasks: inter-agency coordination, but in our case coordination has been fluent
 - ✓ complicity
 - ✓ confidence
 - ✓ flexibility



Immediate future



Nomenclature standardization

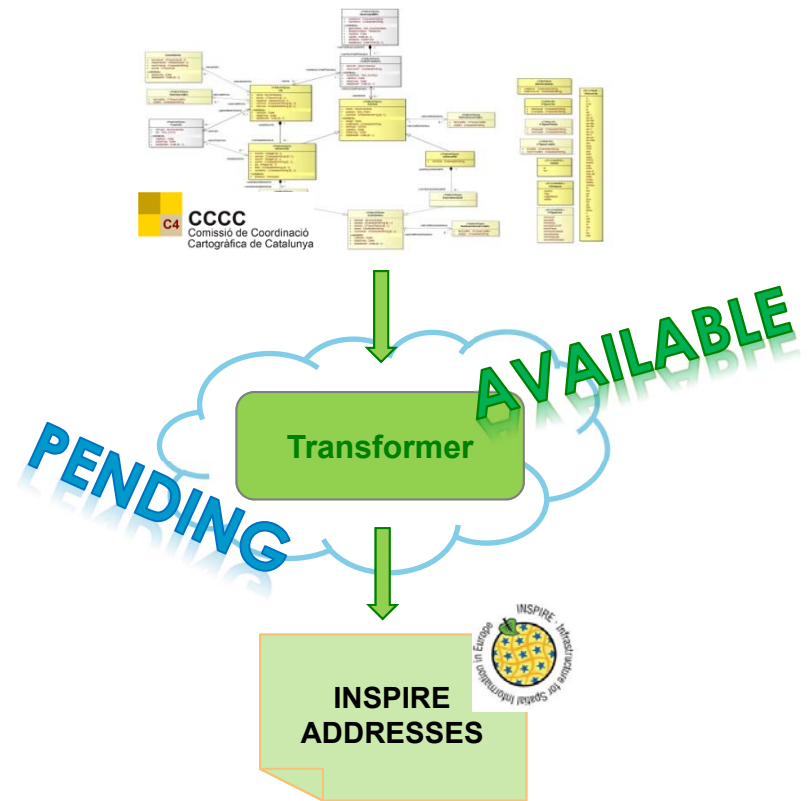
- A new phase is being incorporated into the workflow:
 - ICGC will carry out a proposal for standardization of street names
 - Municipalities will validate and approve it

Continuous synchronization

- It has started continuous update, and it is intended to perform continuous data exchange in both directions
- Meetings, analysis and definition of procedures and workflows
- Software development (during 2017)

Geoservicios INSPIRE

- BDMAC is INSPIRE compatible
- ICGC has developed a transformer from BDMAC data to INSPIRE Addresses
- The transformer will be published



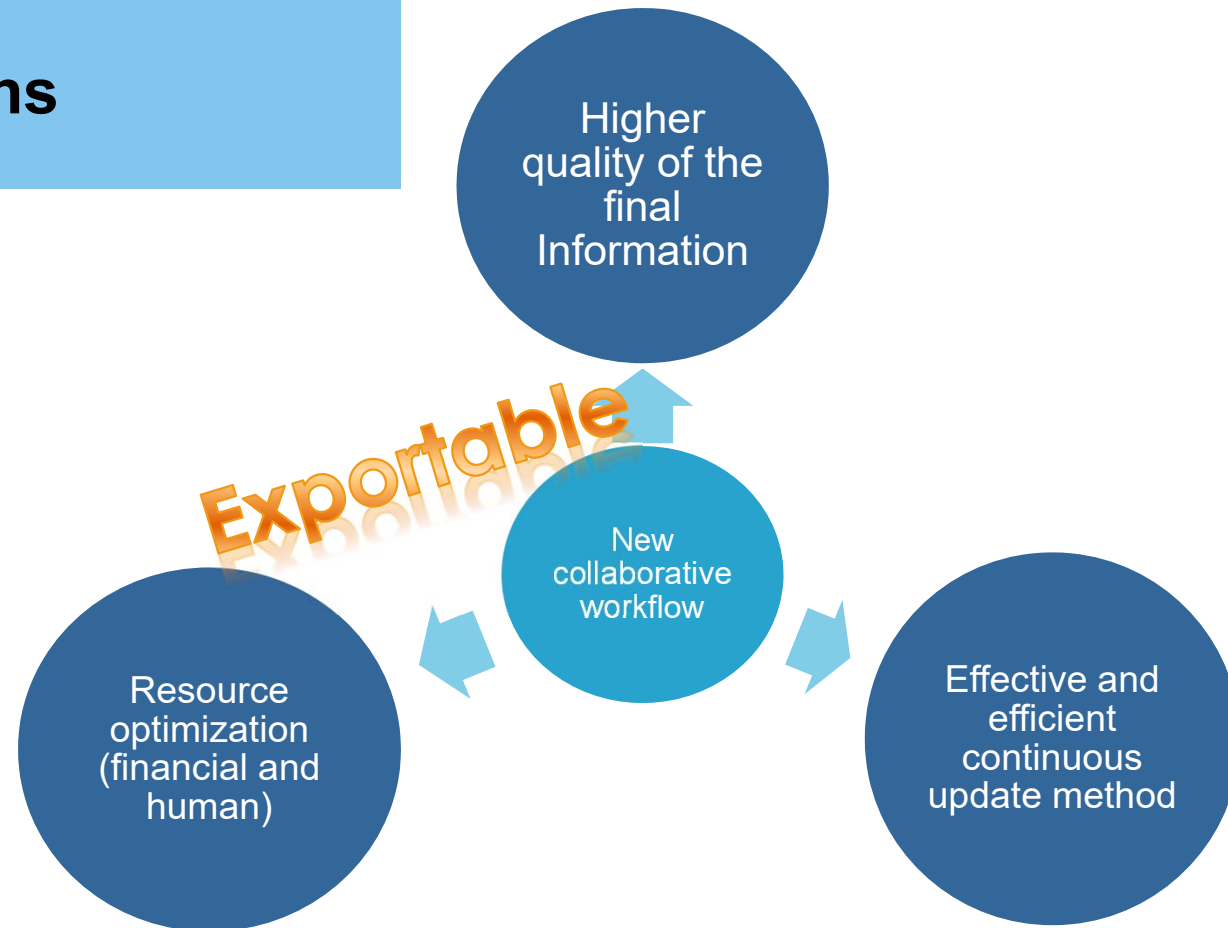
Conclusions



Conclusions

- Achievements
 - ✓ Having a set of common data
 - ✓ Location of all houses / properties in urban areas and scattered places
 - ✓ Having an official register of addresses approved by municipalities
 - ✓ Having a solid base information for other applications for municipal management, other authorities and citizens
 - ✓ Provide public Geoservices for using this information

Conclusions



Thank you

Diputació de Lleida

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