

## Task 3.1

# « Report on study and definition of test cases »

890598.





Task 3.1	Work Package No.	WP3	Task/s No.	Task 3.1
Work Package Title	Service implementation in Toulouse Métropole			
Linked Task/s Title	Study of renovation test cases and pilot definition			
Status	Final			
Dissemination level	Pu-Public			
Due date deliverable	31/08/2021	Submission date	05/09/2022	
Deliverable version	« Report on study and definition of test cases »			

## Contributors

Responsible	Nans MAROT		
Contributor	Organisation	Proofreading	Organisation
Nans MAROT	TM	All	All



<b>Contributors</b>	<b>2</b>
<b>1. Introduction</b>	<b>5</b>
1.1. New methodological approach	5
<b>2. Targeting and renovating condominiums</b>	<b>5</b>
2.1. RECIF + program	5
2.2. Methodology for targeting condominiums	6
2.3. Process of the approach in condominiums	11
<b>3. Targeting and renovating individual houses</b>	<b>12</b>
3.1. Group renovation of neighbourhoods	12
3.2. Methodology for targeting individual houses	12
3.3. Process of the approach in individual houses	15



## Glossary

ABBREVIATION	DESCRIPTION
PU	Public
WP	Work Package
Fig.	Figure
EWC	Energy Savings Certificates
RECIF	Renovation of Co-ownership Buildings in France
APC	Agence Parisienne du Climat
AROC	Architectes de la Rénovation en Occitanie

# 1. Introduction

## 1.1. New methodological approach

Thanks to the work of analysing data from Opendata, the digital platform CoachCopro and specific local data, a mapping of the potential for energy renovation was carried out by the APC.

Together with a synthesis work related to the market study (deliverable 2.13 “Market study”), an energy renovation strategy for the renovation of private housing has been developed as well as a pre-targeting of housing to be renovated as a priority. Coupled with a proactive approach to the target audience, this work should focus on the most energy-intensive housing in the territory and pay particular attention to the most easily accessible renovations.

Associated with the RECIF+ program for the co-ownership part, this approach aims to optimise the cost of consulting and renovation works with the definition of offers adapted to the targeted typologies taking into account known characteristics and pathologies.

This experimental approach must make it possible to stabilise the method and then allow its replication in other territories.

# 2. Targeting and renovating condominiums

## 2.1. RECIF + program

In 2019, Ile-de-France Energies was awarded the EWC call for programme of the Ministry of Ecological and Solidarity Transition with its RECIF program for a total budget of EUR 2 845 000 over two years.

The RECIF program proposes a massive stimulation of the demand for renovation in co-ownership at an interregional level. This initiative aims to organise the identification of co-ownerships in need of renovation, to mobilise local authorities in the territories concerned and to raise awareness and train the motor trustees and co-owners on the subject.

In order to perpetuate the tools developed through this initiative and to share the best practices necessary for the massification of renovations of buildings in co-ownership, Ile-de-France Energies announced the extension of the RECIF program by launching a call for funding for the EWC RECIF+ program, to which Toulouse Métropole applied in January 2022 through the I-HEROS project.

The EWC RECIF+ program started in July 2021 and will end in December 2023. It aims to massively renovate the energy of condominiums in France. It targets the condominiums of more than 10 lots in the capacity to carry out an energy renovation (more than 25 years and without major problems of unpaid). It proposes actions for local and regional authorities, co-owners, trustees and construction and renovation professionals.

It is divided into 4 axes as follows:

- Axis 1: Mobilisation of local and regional authorities;
- Axis 2: Mobilisation of co-owners;
- Axis 3: Mobilisation of co-ownership managers;
- Axis 4: Animation of the renovation sector of condominiums.

In February 2022, Toulouse Métropole was named winner of the RECIF+ program, now renamed “Renovons Collectif”, and which brings together 60 communities in France.

## 2.2. Methodology for targeting condominiums

In order to focus on the most energy-intensive housing in the territory and to pay particular attention to the most easily accessible renovations, a targeting has been carried out as described below.

Based on available data, a mapping of condominium dwellings has been established (Fig. 1) and has a total of 5367 condominiums for 244,109 dwellings.

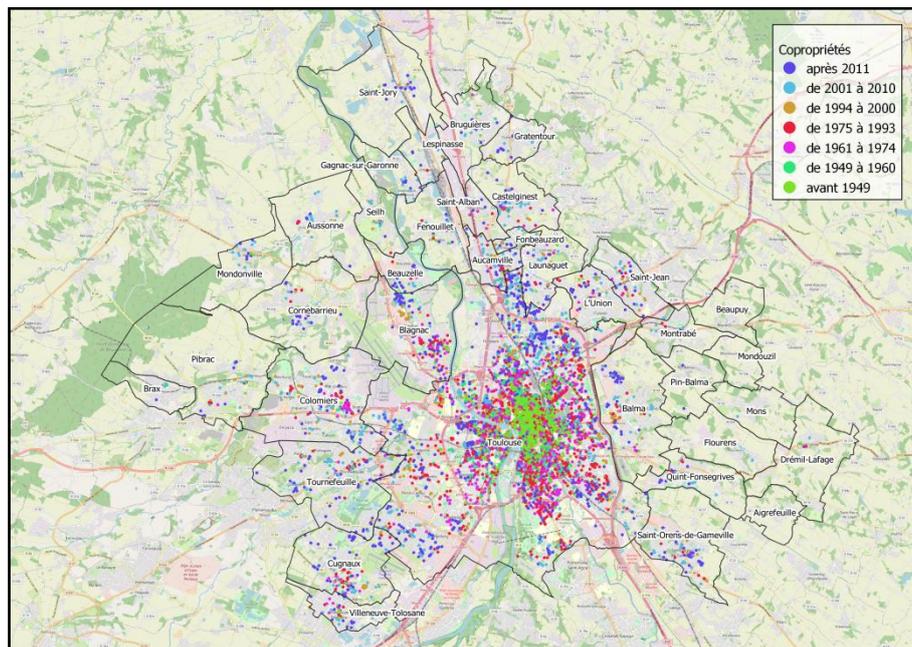


Fig. 1 — Co-ownerships by construction period

Then, a selection of condominiums of more than 10 lots and over 25 years was made (Fig. 2) bringing a total of 2403 condominiums for 103,095 dwellings. In the registration register of co-ownerships the construction periods are indicated by tranche: 1993 is a hinge between two slices (1975-1993 and 1994-2000) but does not refer to any specific thermal regulation.

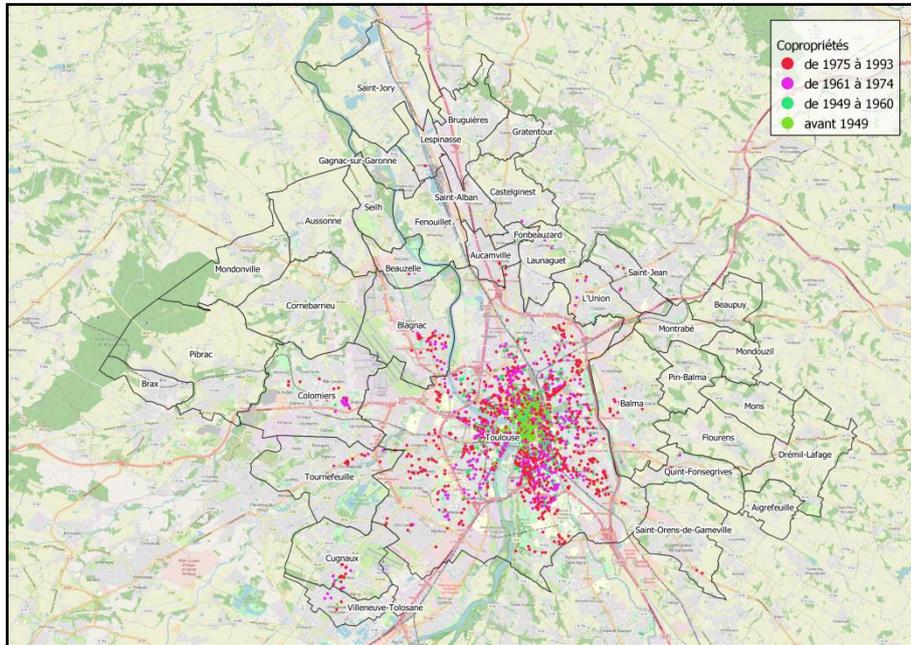


Fig. 2 — Co-ownerships of more than 10 lots and over 25 years old

In order to optimise the process, an analysis of the potential of condominiums per municipality has been carried out (Fig. 3) and leads to focus on the municipalities of Toulouse, Blagnac and Colomiers (Fig. 4).

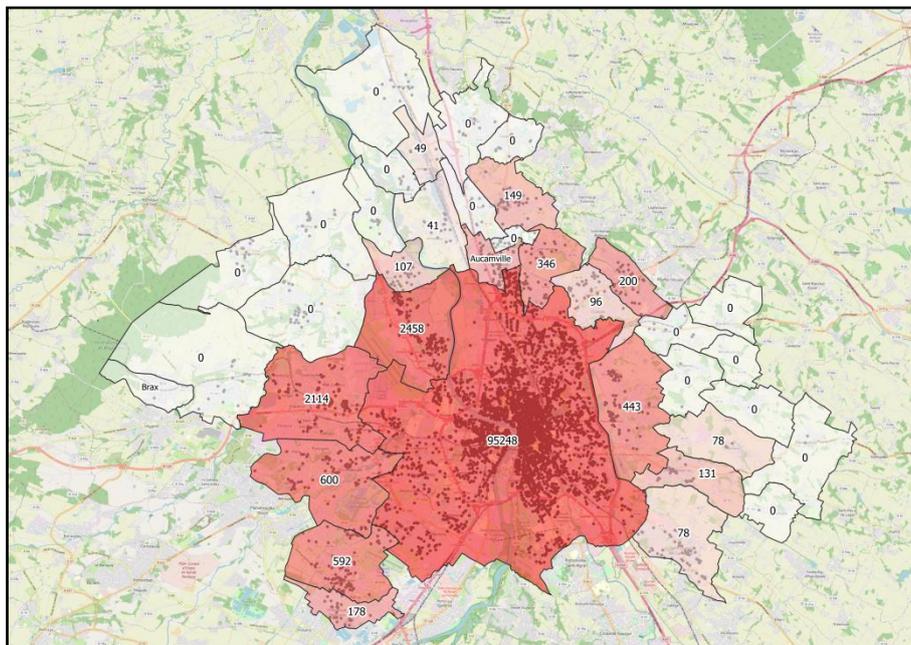


Fig. 3 — Visualisation of potential by Communes

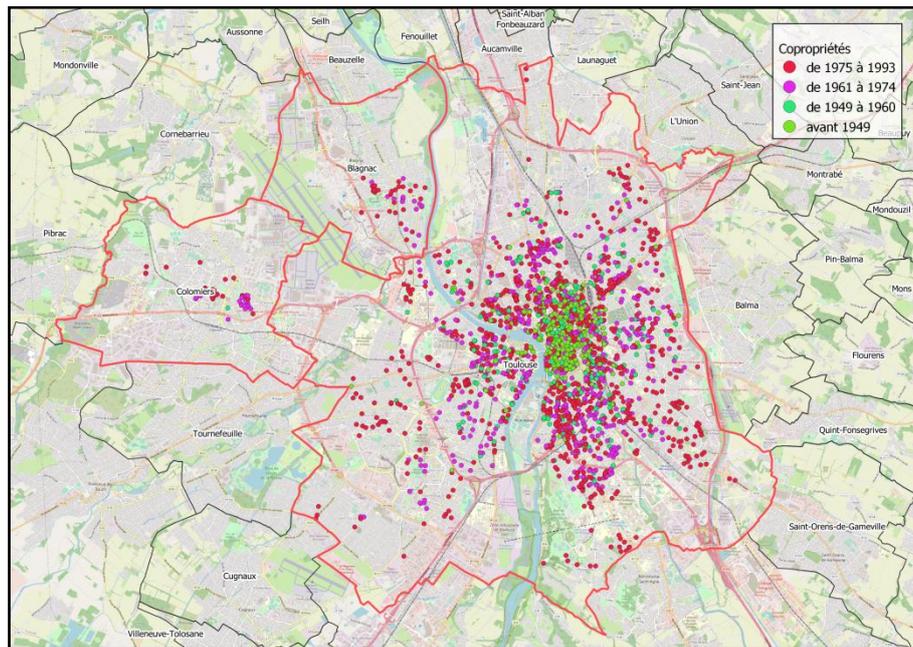


Fig. 4 — Zoom on the potential of targeted municipalities

Listed on the Remarkable Heritage Site, the historic heart of Toulouse is a defined area that is of public interest from an architectural, archaeological, artistic or landscape point of view. With an area of 230 hectares, it is one of the largest in France.

The latter is associated with a Plan of Safeguarding and Valuing the Remarkable Heritage Site which aims to preserve the architectural heritage in order to preserve the identity of the city. It sets out, building by building, requirements on exteriors (roofs, facades, courtyards, etc.) and interiors (apartments, stairwells, woodwork, etc.), both in common and in private areas.



Thus, using very specific devices, the choice was made to exclude this area from the target perimeter (Fig. 5) thus bringing back to a total of 1927 condominiums for 90,627 dwellings.

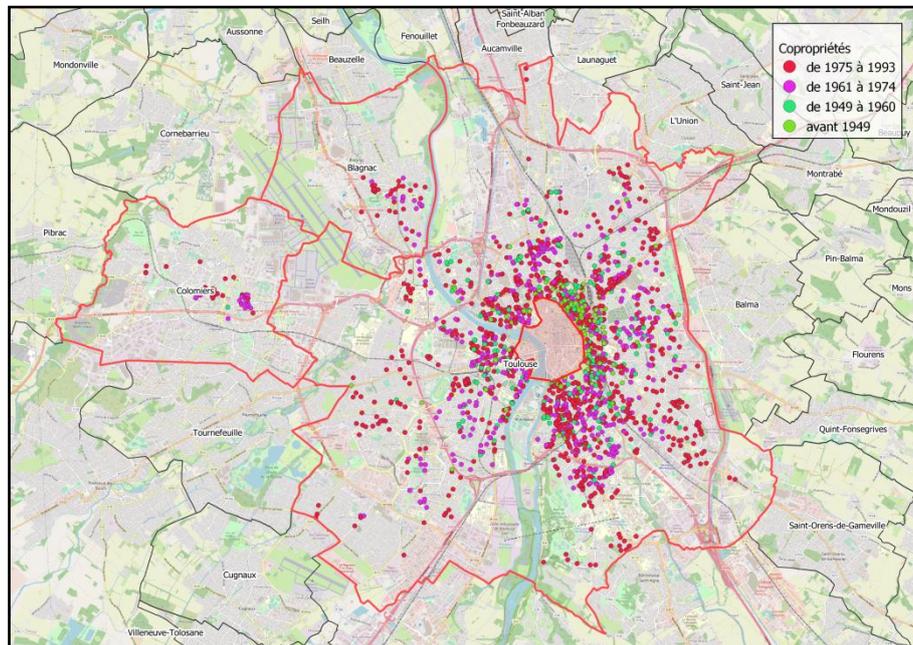


Fig. 5 — Visualisation of potential by municipalities

Since 2009, the territorial division of Toulouse has been organised around 6 sectors and 22 districts, each represented by one or one elected representative. In order to limit the number of neighbourhood mayors mobilised, the choice was made to focus on the neighbourhoods with the largest number of condominium dwellings. Thus, in addition to Colomiers and Blagnac (92 condominiums for 4572 housing units), the following districts were targeted at the commune of Toulouse:

- Quartier Toulouse 3.1 (Minimes, Barrière-de-Paris, Ponts-Jumeaux) with 144 condominiums for 8044 targeted housing units (Fig. 6.1)

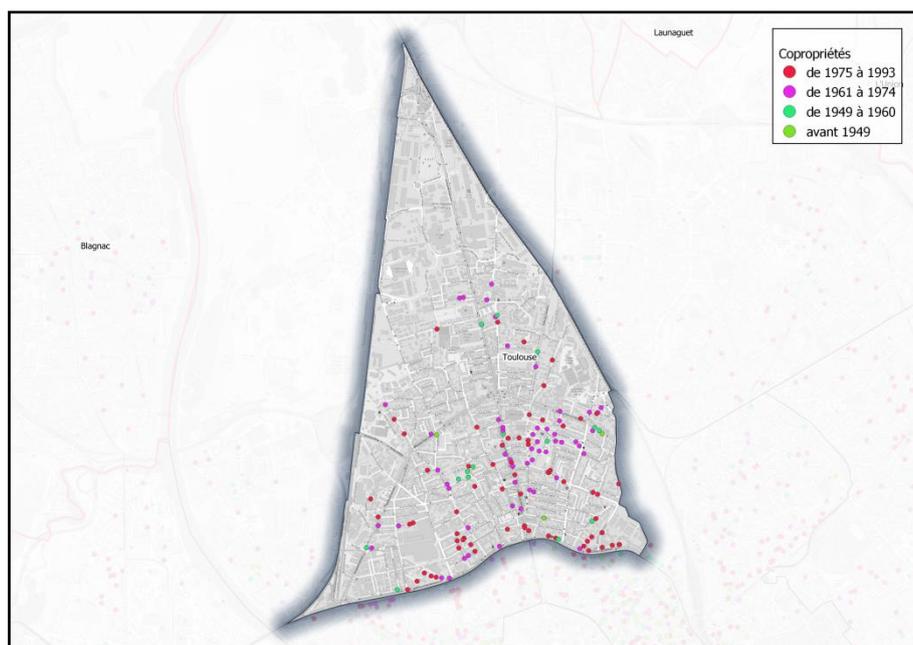


Fig. 6.1 — Zoom on Toulouse district 3.1

- Quartier Toulouse 4.3 (Bonhore — Guilheméry — Château de l'Hers — Limayrac — Côte Pavée) with 170 condominiums for 6761 targeted dwellings (Fig. 6.2)

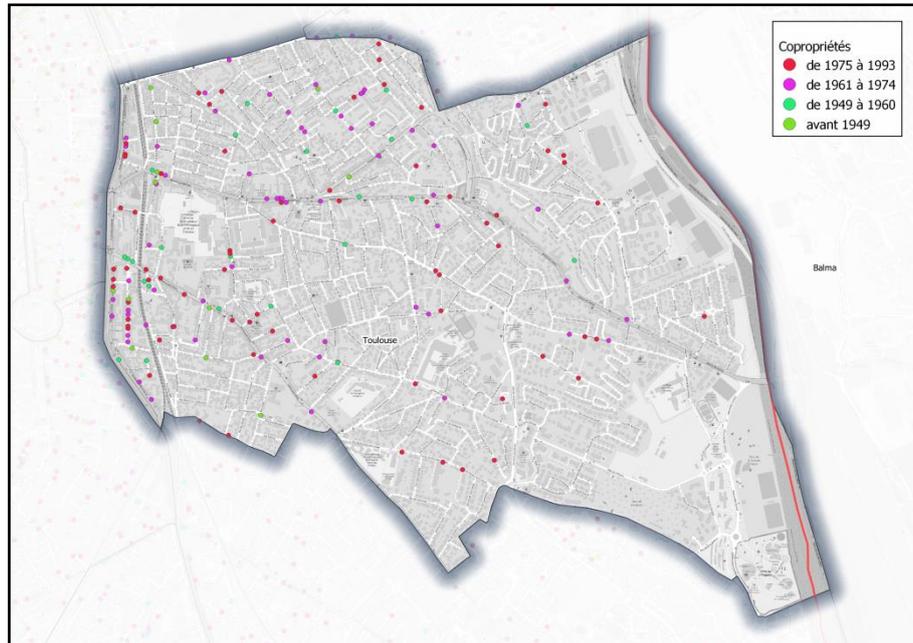


Fig. 6.2 — Zoom on the Toulouse district 4.3

- Quartier Toulouse 5.1 (Pont-des-Demoiselles, Ormeau, Montaudran, La Terrasse, Malepère) with 115 condominiums for 6467 targeted housing units (Fig. 6.3)

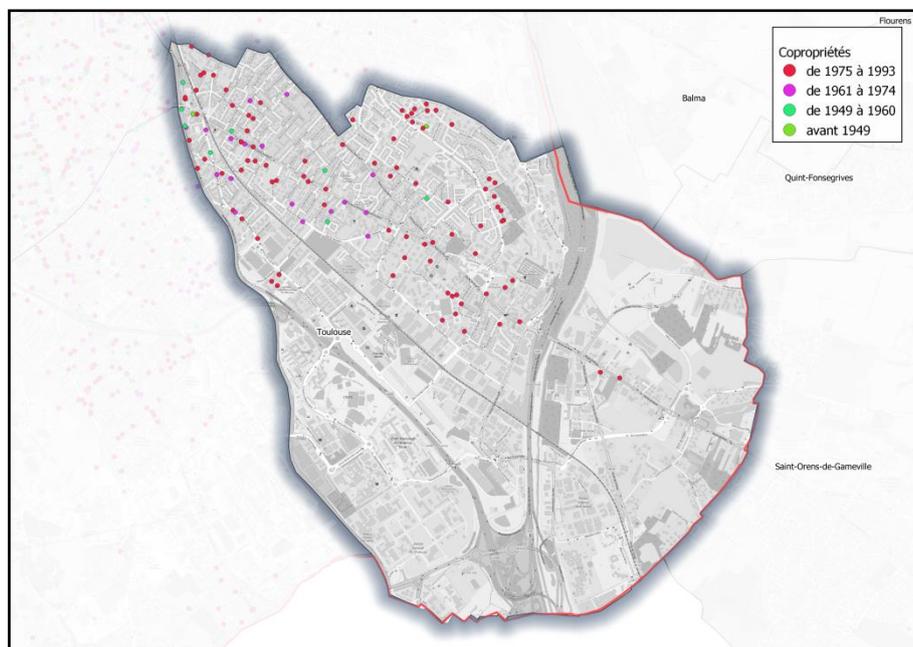


Fig. 6.3 — Zoom on the Toulouse district 5.1

- Quartier Toulouse 5.2 (Ranguel, Sauzelong, Pech-David, Pouvourville) with 177 condominiums for 8771 targeted housing units (Fig. 6.4)

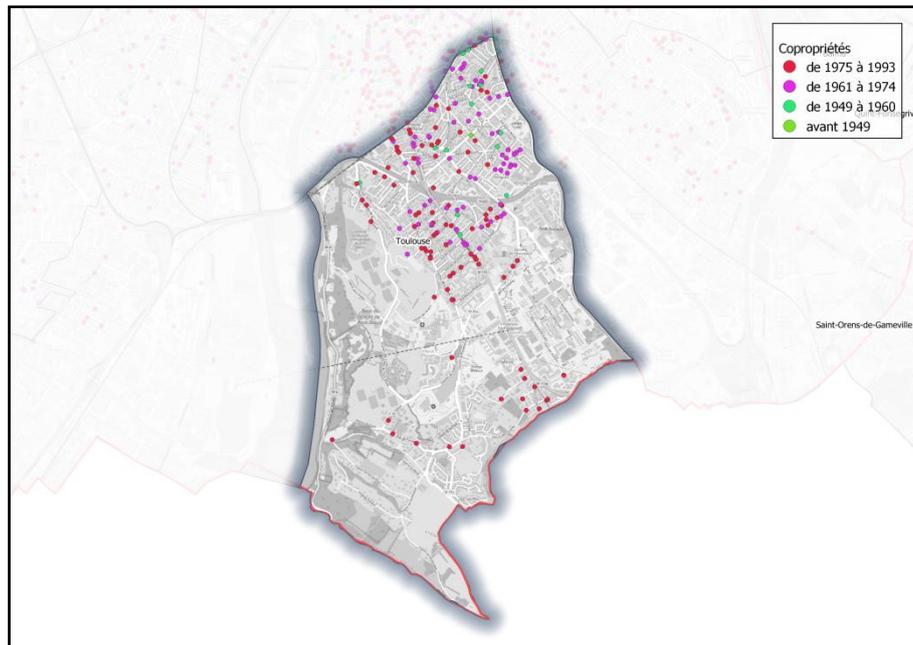


Fig. 6.4 — Zoom on the Toulouse district 5.2

This represents, with Balgnac and Colomiers, a total of 698 condominiums for 34,615 dwellings.

### 2.3. Process of the approach in condominiums

It is hoped to draw the attention of co-owners to the subject of the renovation of their building by a massive mailbox with pre-targeted condominiums through I-HEROS. A total of 30,000 letters are expected to be sent before the end of 2022. They will be accompanied by information events set up to meet the co-owners.

In addition, the presentation of the OSS means of action will be shared through workshops against elected officials in order to raise awareness of the challenges of the renovation of condominiums and allow them to increase their competence on this subject.

The proposed course of action is as follows:

- from July to September 2022: presentation of the process organised with elected representatives (district mayors, mayors of municipalities) followed by a meeting with the trustees of the co-ownerships identified;
- in December 2022: boxing of 30,000 information letters that will present the renovation counter and the actions of the Metropolis on this topic to the identified co-owners;
- from January to March 2023: organisation of public meetings to present the Metropolis's devices accompanied by information events on energy renovation (webinars, workshops on different thematic topics, etc.).

## 3. Targeting and renovating individual houses

### 3.1. Group renovation of neighbourhoods

In a logic of massification of energy renovations, the cluster approach is a lever to board several building owners with similar buildings, while streamlining possible public accompaniments.

Thus, through the I-HEROS project it is hoped to create a collective dynamic around the energy renovation of housing on the scale of neighbourhoods to increase the number of renovations but also to mutualise the performance of audits, support or purchases grouped between neighbors in order to benefit from a reduction of scale and therefore to remain at the expense of individuals.

### 3.2. Methodology for targeting individual houses

On the basis of the available data, a mapping of individual houses has been drawn up. A first selection of dwellings built between 1960 and 1993 was made (Fig. 1), in order to identify subdivisions with supposedly identical constructive typologies, with a total of 53,187 dwellings.

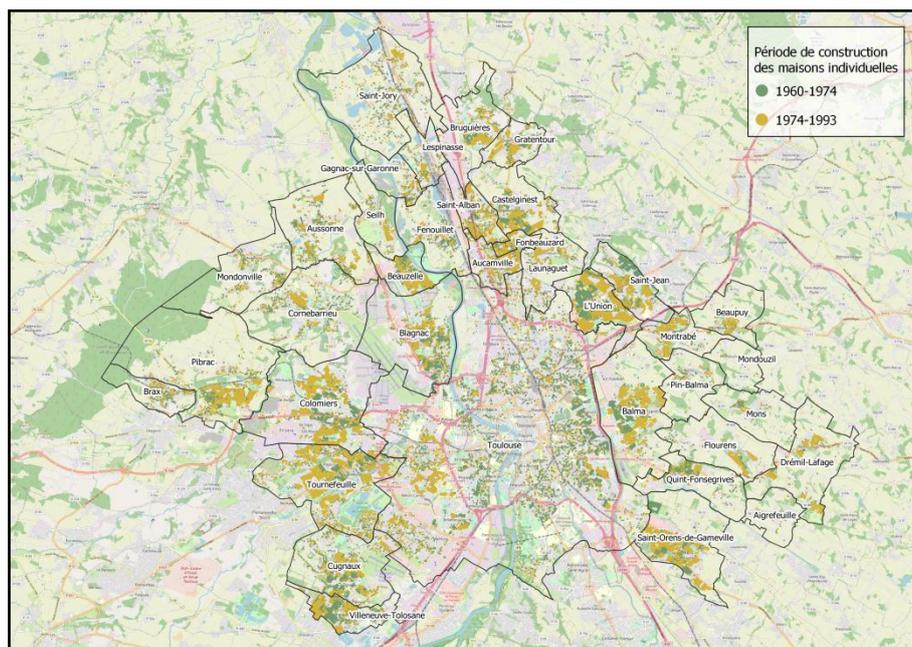


Fig. 1 — Individual houses built between 1960 and 1993

Then, an algorithmic processing was carried out to allow a targeting of the neighborhoods with at least 40 detached houses built in the same year by cadastral section (Fig. 2 and Fig. 3). Through this, 140 neighbourhoods were targeted for a total of 8801 housing units, mainly in the neighbouring municipalities of Toulouse.

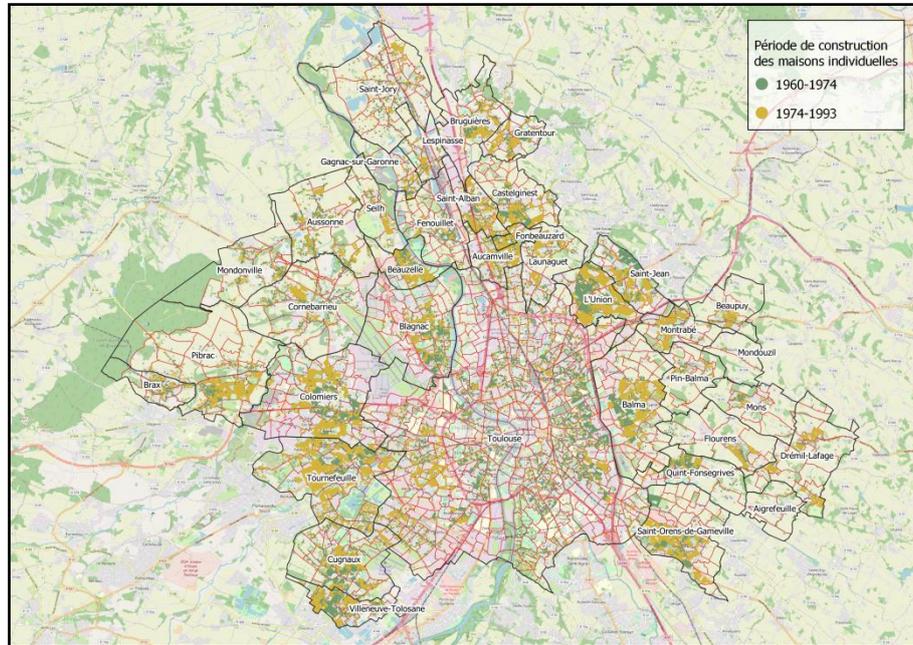


Fig. 2 — Visualisation of cadastral sections

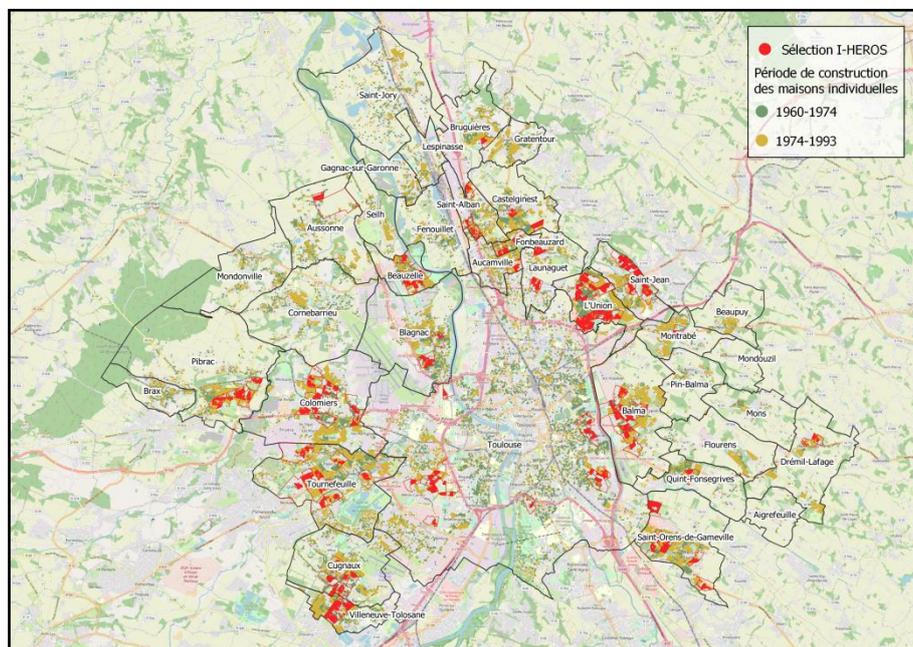


Fig. 3 — Selection from algorithmic processing

In order to limit the number of Mayors mobilised, the choice was made to focus on the municipalities with the largest number of homogeneous subdivisions and neighbourhoods, taking into account the size of each of these subdivisions.

For example, three municipalities were targeted, namely:

- Saint John with 10 neighbourhoods for 819 individual houses identified;
- Saint-Orens-de-Gameville with 10 neighborhoods for 823 individual houses identified;
- Balma with 10 neighborhoods for 694 individual houses identified.

A total of 30 districts for 2336 detached houses (examples in Fig. 4 and Fig. 5).



*Fig. 4 — Zoom on a Saint-Jean neighbourhood (440 targeted housing units)*



*Fig. 5 — Zoom on a neighborhood of Saint-Orens-de-Gameville (417 targeted housing units)*



### 3.3. Process of the approach in individual houses

It is hoped to draw the attention of the owners of detached houses to neighborhoods where a replication of the accompaniment and work can be envisaged. Building on past experiments, a neighbourhood-by-quarter approach will be deployed with a drink followed by public meetings.

The proposed course of action is as follows:

- August to October 2022: presentation of the process organised with elected representatives (Mayors of the municipalities) followed by exchanges with the partners of the various courses carried out by Toulouse Métropole Renov' (Renov'Occitanie, AROC, Urbanis);
- from December 2022 to May 2023: information mailboxes, neighbourhoods by neighbourhood, which will present the renovation counter and the actions of the Metropolis on this theme to the identified owners;
- from January to June 2023: organisation of public meetings in the targeted districts in order to present the devices of the Metropolis, carry out diagnostics, pool the results and observe possible common trends that could generate groupings of orders and thus optimise the cost of renovations.