

## Task 3.2

# D3.2 Report on pilot results

Grant Agreement N° 890598





Task 3.2	Work Package No.	WP3	Task/s No.	Task 3.2
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## Glossary

ABBREVIATION	DESCRIPTION
CO	Confidential
EC	European Commission
EU	European Union
GDPR	General Data Protection Regulation
HW	Hardware
M	Month
PC	Project Coordinator
POPD	Processing of personal data
PU	Public
WP	Work Package

# 1. Definition of the Monitoring batch

The purpose of the Monitoring batch is to summarise the results of the Toulouse Métropole renovation integrated service in order to assess how well the project is advancing.

Several indicators have been implemented to monitor how well the project is running:

- File monitoring indicators in terms of number, progress stages and processing times in order to assess the dynamics of the support system
- Performance indicators for assessing the gains before and after the supported renovations

The information required in order to correctly compile the indicators can be found in the CoachCopro and ERPRO tools used by the One-Stop-Shop advisors.

## Features of the home before and after renovation

- Address
- Year built/Habitable floor space
- Type of home: apartment/house
- Theoretical energy use based on the diagnostics before and after the renovations (kWh primary energy per m<sup>2</sup> per year)
- Theoretical CO<sub>2</sub> emissions based on the diagnostics before and after the renovations (kgCO<sub>2</sub> per m<sup>2</sup> per year)
- Theoretical yearly saving: in €
- Actual energy use before and after the renovations (kWh primary energy per m<sup>2</sup> per year)
- Actual CO<sub>2</sub> emissions before and after the renovations (kgCO<sub>2</sub> per m<sup>2</sup> per year)

## Renovations carried out

- Renovation period
- Details of the renovations
- Insulation, type of renovations
- Joinery, type of renovations
- Energy system, type of renovations
- Ventilation, type of renovations
- Cost of the renovations: € (taxes included)

## Energy label development



User satisfaction will be assessed as part of the investigation carried out by the French Agency for Ecological Transition (ADEME) and has therefore not been included on the steering chart.

Information on energy poverty is not included on the project management dashboard as collecting and processing such data presents confidentiality issues (GDPR).

## 2. Energy use tracking

### 2.1. For single-family houses

Environmental benefit tracking further to renovations is assessed in two ways:

- Based theoretically on the initial energy audit
- Based on actual use (subject to the consent of the relevant household)

With regard to tracking actual use, at the beginning of the support procedure the supported household is asked for its consent so that the household's usage can be tracked over a period of 3 years from the completion of the renovations.

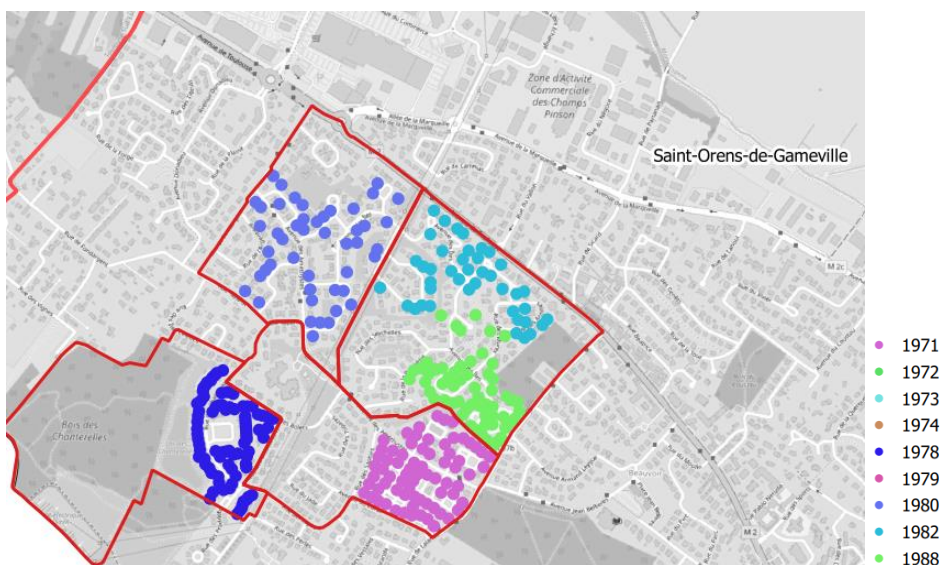
This usage data is gathered from the electricity network supplier ENEDIS and from the gas network supplier GRDF.

These operators install devices which allow the data to be retrieved from Linky and GazPar smart meters.

The meeting on 7/11/22 with the network operators confirmed that it is possible to retrieve such data based on a request listing the electricity reading stations (PRM) and gas reading stations (PCE) for the relevant households specifying the selected observation periods (consent compulsory).

As part of the project, several neighbourhoods in Toulouse Métropole have been targeted. Each neighbourhood includes several hundred houses and it will be possible to assess usage before and after the renovations for a sample group of houses (no consent needed for over 10 reading stations). This methodology will provide specific information on the environmental benefits linked to the renovations in the targeted neighbourhoods. The amount of supported projects at the end of February 2024 does not currently allow these statistics to be produced for the targeted neighbourhoods as not many renovations among the targeted homes have been completed as of this date (targeting campaign carried out mid 2023).

Targeting example in the municipality of Saint-Orens-de-Gameville in accordance with the year of construction



The meeting with the network operators also confirmed that it is possible to retrieve usage data automatically from households which have given consent (API IT flow). However, this solution will not be initially used as it requires significant investment in dedicated software that can retrieve such IT flows. Ongoing consideration is being given to developing a tool within Rénov'Occitanie, so that this software could receive this type of IT flow.

## 2.2. For condominiums

An online Simplified Energy Performance Rating (BES: *Bilan Energétique Simplifié*) has been developed in the CoachCopro tool. This tool allows co-owners to fill in annual energy usages for each type of use in line with the collective energy bills for the condominium.



### Consommations liées au chauffage

Année *	Source d'énergie *	Facture d'énergie *	Consommation d'énergie *	
<input type="text" value="Sélectionne..."/>	<input type="text" value="Sélectionnez la source"/>	<input type="text"/>	<input type="text"/>	
	Gaz	30 000 €	300 000 kWh	<input type="button" value="MODIFIER"/> <input type="button" value="EFFACER"/>
	Gaz	40 000 €	400 000 kWh	<input type="button" value="MODIFIER"/> <input type="button" value="EFFACER"/>
	Gaz	45 000 €	450 000 kWh	<input type="button" value="MODIFIER"/> <input type="button" value="EFFACER"/>

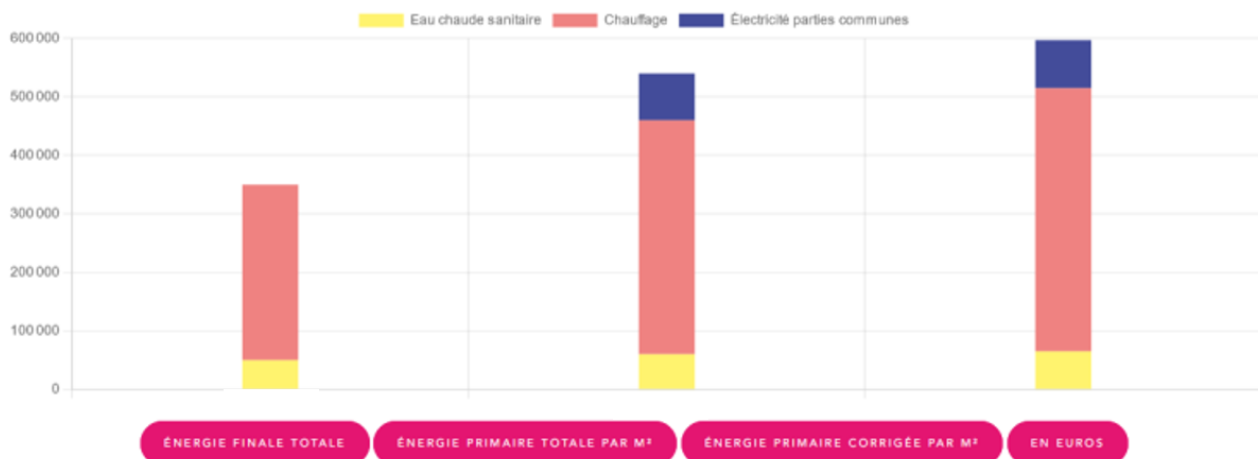
### Consommations liées à l'eau chaude sanitaire

Année *	Source d'énergie *	Facture d'énergie *	Consommation d'énergie *	
<input type="text" value="Sélectionne..."/>	<input type="text" value="Sélectionnez la source"/>	<input type="text"/>	<input type="text"/>	
	Électricité	5 000 €	50 000 kWh	<input type="button" value="MODIFIER"/> <input type="button" value="EFFACER"/>
	Électricité	6 000 €	60 000 kWh	<input type="button" value="MODIFIER"/> <input type="button" value="EFFACER"/>
	Électricité	6 500 €	65 000 kWh	<input type="button" value="MODIFIER"/> <input type="button" value="EFFACER"/>

### Consommations liées à l'électricité des parties communes

Année *	Facture d'énergie *	Consommation d'énergie *	
<input type="text" value="Sélectionne..."/>	<input type="text"/>	<input type="text"/>	

CoachCopro then produces the associated statistics using a bar chart which can display the results for total final energy, primary energy per m2, adjusted primary energy per m2 or in euros.





### 3. Toulouse Métropole Rénov' project management dashboard

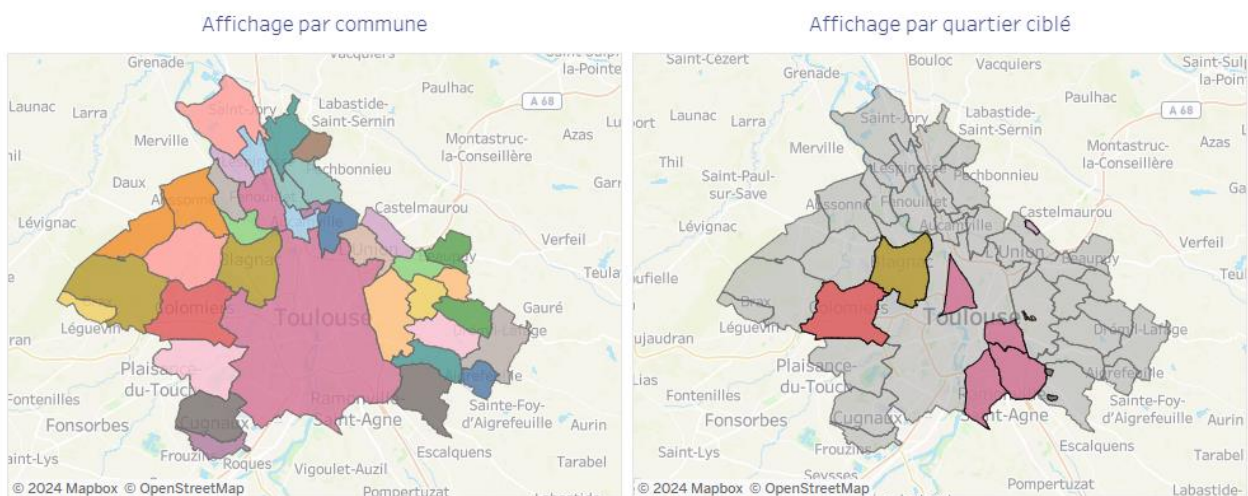
A data visualisation, developed alongside the *Agence Parisienne du Climat* (Paris climate agency), is now available and the results can be collated on 3 levels:

- Overall summary
- Summary for condominiums
- Summary for single-family houses

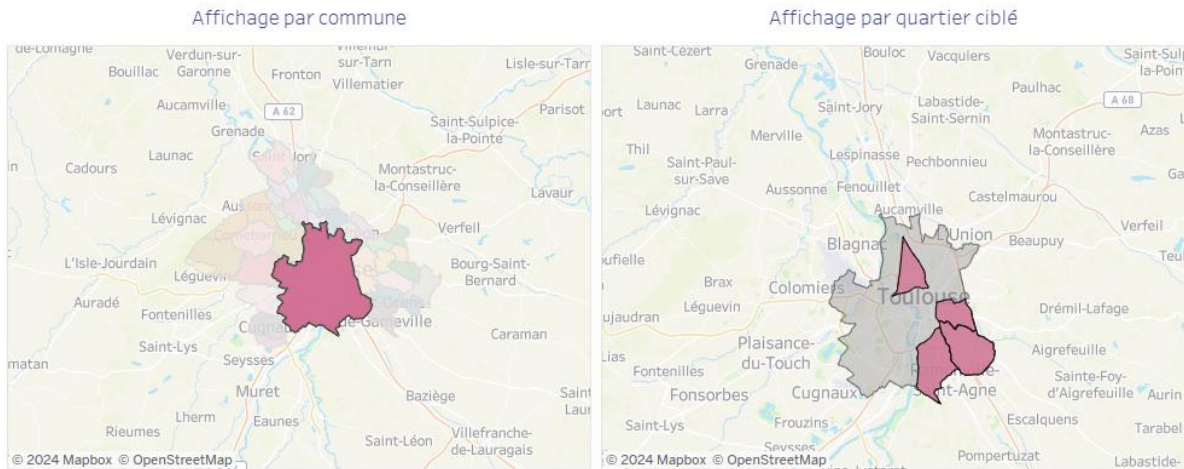
These 3 summaries are also available on a municipality scale by clicking on the relevant municipality, as well as on the scale of the neighbourhoods targeted by Toulouse Métropole's support measures.

#### View of Toulouse Métropole:

Tableau de bord Toulouse Métropole Rénov'



### Municipality-scale selection with targeted neighbourhoods displayed:



### Display of municipality-scale results (example: the municipality of Toulouse):

This selection displays the results specific to the municipality of Toulouse. The indicators focus on the three levels of analysis.

#### TOTAL DOSSIERS ACCOMPAGNES

##### Suivi des dossiers

533 dossiers accompagnés  
Soit 17 985 logements

##### Travaux réalisés

132 adresses ont réalisé des travaux  
Soit 719 logements

Montant moyen des bouquets de travaux (TTC) : 35 578 € par logement  
Nombre moyen de postes de travaux : 1,8

Délai moyen entre la création du dossier et son solde : 218 jours.

#### Indicateurs de performance

En moyenne, les projets de rénovation permettent un gain énergétique théorique de 64,1%.  
Ils permettent de gagner 2,4 classes DPE en moyenne (kWh/an EP).  
Le gain énergétique réel moyen est de ... %.

En moyenne, les projets de rénovation permettent une réduction d'émission de GES théorique de 78,4%.  
Ils permettent de gagner 2,6 classes GES en moyenne (kgCO<sub>2</sub>eq/m<sup>2</sup>.an).  
Le gain GES réel moyen est de ... %

### COPROPRIETES (collectif)

406 dossiers accompagnés  
Soit 17627 logements

#### Travaux votés

9 copropriétés ont voté des travaux  
Soit 423 logements en copropriété

Montant moyen des bouquets de travaux (TTC) : 6707 € par logement  
Nombre moyen de postes de travaux : 1,4

Délai moyen entre la création du dossier et son solde : jours.

#### Travaux réalisés

5 copropriétés ont réalisé des travaux  
Soit 361 logements en copropriété

Montant moyen des bouquets de travaux (TTC) : 5258 € par logement  
Nombre moyen de postes de travaux : 1,8

Délai moyen entre la création du dossier et son solde : jours.

### Indicateurs de performance

En moyenne, les projets de rénovation en copropriété permettent un gain énergétique théorique de 66,7 %.  
Ils permettent de gagner 1,0 classes DPE en moyenne (kWh/an EP).  
Le gain énergétique réel moyen est de ... %.

en moyenne, les projets de rénovation en copropriété permettent une réduction d'émission de GES théorique de %.  
Ils permettent de gagner classes GES en moyenne (kgCO<sub>2</sub>eq/m<sup>2</sup>.an).  
Le gain GES réel moyen est de ... %

### INDIVIDUEL

#### Travaux réalisés

127 dossiers/logements accompagnés

127 maisons individuelles/appartements ont réalisé des travaux

Montant moyen des bouquets de travaux (TTC) : 41353 € par logement  
Nombre moyen de postes de travaux :

Délai moyen entre la création du dossier et son solde : 218 jours.

### Indicateurs de performance

En moyenne, les projets de rénovation individuels permettent un gain énergétique théorique de 64,0 %.  
Ils permettent de gagner 2,4 classes DPE en moyenne (kWh/an EP).  
Le gain énergétique réel moyen est de ... %.

en moyenne, les projets de rénovation individuels permettent une réduction d'émission de GES théorique de 78,4 %.  
Ils permettent de gagner 2,6 classes GES en moyenne (kgCO<sub>2</sub>eq/m<sup>2</sup>.an).  
Le gain GES réel moyen est de ... %



As the supported projects currently stand, it has not been possible to procure data on actual energy gains as the renovations are either too recent or consent from the relevant households has not been obtained. Nevertheless, the field is available and a value can be calculated depending on the support given to future projects.

For condominiums, it has been identified that the advisors need to standardise how information is entered, in order to collect the information regarding not only the completion of the renovations, but also by how much GHG emissions have reduced. This work is ongoing and will continue in 2024 so that the information being entered into the monitoring tool is more comprehensive.

In 2024, the OPENDATA usage data will be retrieved for condominiums with over 10 supply points or a boiler-room usage of over 200 MWh/year (with historical records going back at least 3 years). This information can be integrated into the coachcopro tool, and then in turn feed into the project management dashboard.

User satisfaction will be assessed as part of the investigation carried out by the French Agency for Ecological Transition (ADEME) and has therefore not been included on the steering chart.

Information on energy poverty is not included on the project management dashboard as collecting and processing such data presents confidentiality issues (GDPR).

## 4. Information included on the steering chart

### Suivi des dossiers

Nombre de dossiers accompagnés	x	x	x
Nombre de logements accompagnés	x	x	x
Nombre de projets terminés	x	x	x

Montant moyen des bouquets travaux par logement (€ TTC)	x	x	x
Nombre de postes de travaux de rénovation en moyenne	x	x	x

### Travaux votés/décidés

nombre de copropriétés	x		x
nombre de logements copro	x		x

### Travaux terminés

nombre de copropriétés	x		x
nombre de logements copro	x		x
nombre de maisons		x	x

### Indicateur délais de traitement

Délais moyen entre création du dossier d'accompagnement et solde du dossier	X jours	X jours	X jours
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### Indicateurs Performance

Gain théorique moyen des actions menées (kWhEP)	X %	X %	X %
Nombre de classe DPE gagnées en moyenne (kWh/an EP)	x	x	x
Gain théorique GES après travaux (kgCO <sub>2</sub> eq/m <sup>2</sup> .an)	X %	X %	X %
Nombre de classe GES gagnées en moyenne	x	x	x
Gain réel moyen des actions menées (kWh)	X %	X %	X %
Gain réel GES après travaux (kgCO <sub>2</sub> eq/m <sup>2</sup> .an)	X %	X %	X %

## 5. Conclusion

The implementation of the steering chart means that the information reported from the tools used by the advisors can be summarised and the project progression and environmental benefits can be consulted on various scales.

In order to implement this tool, work was carried out on standardising the input data and making it reliable. This work highlighted the need to improve data entry quality at advisor level and also to structure a single database so that the information entered into the project management dashboard is more reliable and streamlined. These areas for improvement are currently being actioned alongside the *Agence Parisienne du Climat* (Paris climate agency) which has developed the "*Tableau de bord Toulouse Métropole Rénov*" (Toulouse Métropole Rénov' project management dashboard) tool.