



SMARTER TOGETHER

Smart and Inclusive
Solutions for a Better
Life in Urban Districts

EIP-SCC Action Cluster

Sustainable District & Built Environment Workshop

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.fr



SMARTER TOGETHER



European Commission

Horizon 2020
European Union funding
for Research & Innovation

Partners

2016 to 2020

- Lighthouse city
- Follower city
- ★ Lighthouse city 2014

Observer cities :
Kyiv (Ukraine)
Yokohama (Japan)



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GRAND LYON
la métropole



TOSHIBA

enedis
L'ELECTRICITE EN RESEAU



Landeshauptstadt
München



bettervest
nachhaltig • effizient • verstanden

Partners

SIEMENS



Stadt Wien
Wien ist anders.

bwsg
besser wohnen seit Generationen



kelag
Wärme



Post
ÖSTERREICHISCHE POST AG

Fraunhofer

AIT
AUSTRIAN INSTITUTE
OF TECHNOLOGY

energycities

GOPA.com.

University of St.Gallen





SMARTER TOGETHER



**Citizen
engagement**



**District
heating and
renewable
energy**



**Holistic
refurbishment**



Smart data



E-mobility



**SMARTER
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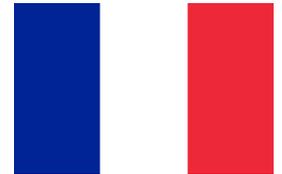
**150,000 m² to be
ecorefurbished**



Vienna
(Simmering
North-West)



Munich (Neuaubing-
Westkreuz district)



Lyon (Confluence area)



**SMARTER
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**150,000 m² to
be eco-refurbished**

Vienna: 75,000 m²

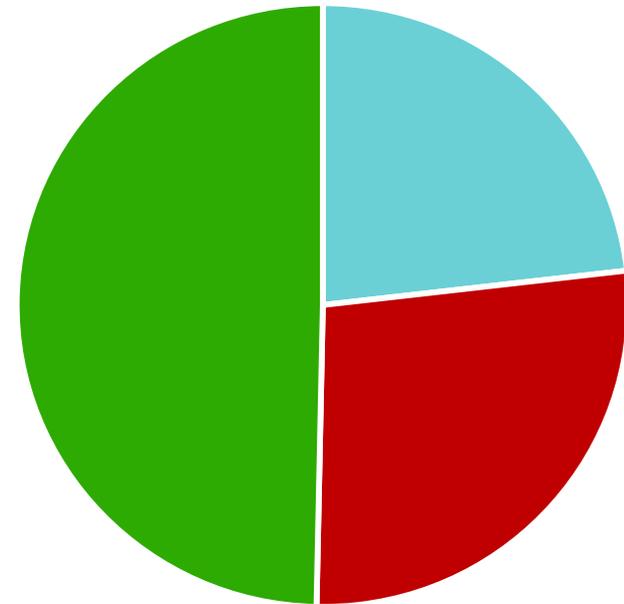
public/social housings
public equipments (school, gymnasium)

Lyon: 35,000 m²

social housings operators
private groups of owners
public equipment (office spaces)

Munich: 41,000 m²

private groups of owners





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Vienna: 75,000 m² to be ecorefurbished



**53,500 m² (500 flats)
+ 7,200 m² of new built area**



8,800 m² (100 flats)



8,800 m² (school)



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Munich: 41,000 m² to be ecorefurbished



1,700 m² (21 flats)



620 m² (8 flats)



750 m² (12 flats)



23,000 m² (300 flats)



**12,700 m²
(150 flats & 40 retail units)**



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Lyon: 35,000 m² to be ecorefurbished



1,400 m² (14 flats)



4,700 m²
(office spaces)



1,500 m²
(23 flats)



14,000 m² (250 flats)



2,000 m² (32 flats)



3,000 m² (35 flats)



9,000 m² (160 flats)



2,300 m² (28 flats)



1,400 m²
(25 flats)



2,500 m² (34 flats)



**SMARTER
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Lyon

Ecorefurbishment + data collection & analysis



**Citizen
engagement**



**District
heating and
renewable
energy**



**Holistic
refurbishment**



Smart data



E-mobility



Data visualisation on the CMS
(Community Management
System) inter-operable
& non vendor-locked tool



Data collection and storage
on the Lyon Metropolis Data platform

open API (Application Programming Interfaces)

Data sources from eco-refurbishment



Refurbished buildings
(with instrumentation)



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District
heating
system



épices



Photovoltaic
production



ENEDIS
L'ELECTRICITE EN RESEAU

Electric
smart
meters



Performance of ecorefurnished buildings (aggregated data)

For common areas: time step 10 minutes

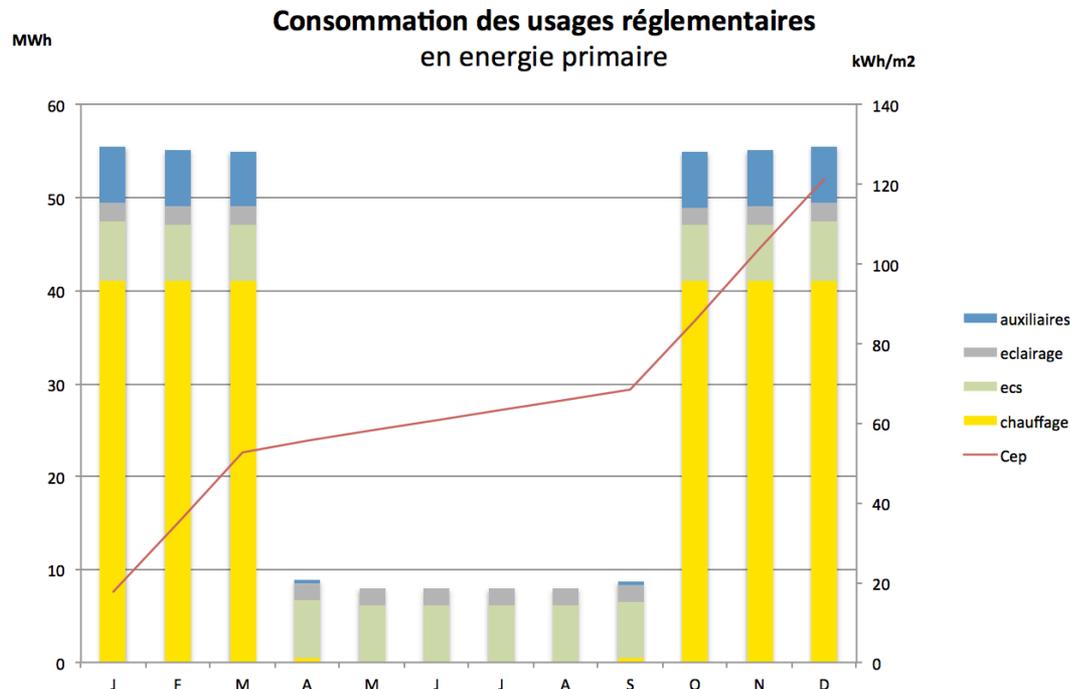
- heating consumption
- hot water consumption
- electric consumption

For one quarter of the housings: time step 10 minutes

- internal temperature of the housing

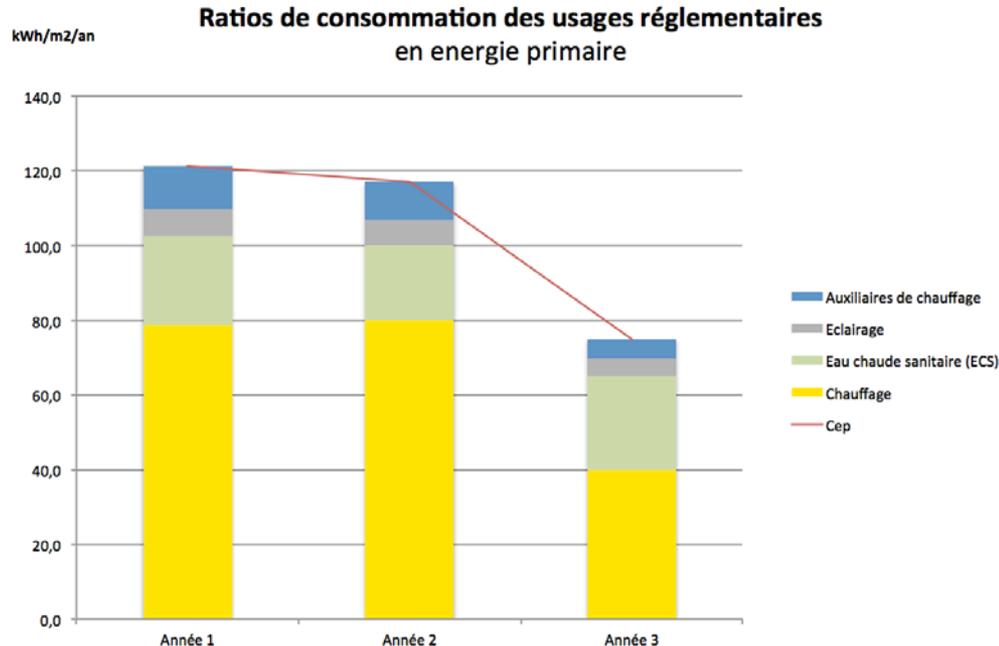
Performance of eco-refurbished buildings (aggregated data)

- Time period displayed: yearly
- Displayed values: monthly



Performance of ecorefurnished buildings (aggregated data)

- Time period displayed: several years
- Displayed values: yearly





Energy consumption of an ecorefurnished housing

For common areas (time step 10 minutes)

- heating consumption
- hot water consumption
- electric consumption

For each housing (time step 10 minutes)

- hot water consumption
- electric consumption
- internal temperature of the housing

Performance
of
eco-refurbished
buildings

Eco-refurbished
buildings
(individual
consumptions)

Energy consumption
& production for the
Lyon-Confluence
area (Zero carbon
Action Plan)

GRANDLYON
la métropole
TOSHIBA



Community Management System
(application/service "viewer")



Lyon Metropolis Data Platform
(data collection and storage)

Data sources from eco-refurbishment



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Thanks for your attention!



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