

# Digital platform for territorial energy and climate planning

GRIDS energyCity

UNECE, Workshop on the role of utilities, big data and geo-spatial data in energy transition  
Kyiv, 14 November 2018



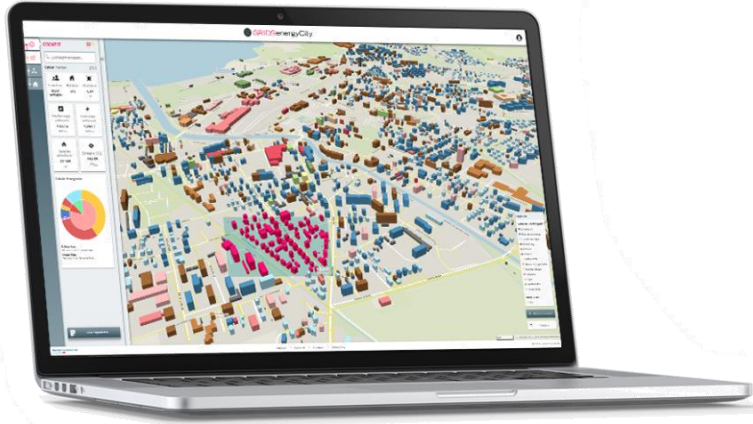


- How do we shape our urban energy transition?
- Where do we stand with our CO<sub>2</sub>-emissions and what targets do we have to pursue?
- What are the right measures we have to implement?
- How do we inform and involve our citizens in the energy transition?

**enersis supports you in the execution of your own energy transition**

**Our software solution **GRIDS** energyCity is the digital form of the urban energy concept**

# With **GRIDS** energyCity the digital energy transition is already feasible today



Status quo, actions, progress and targets understandable at a glance and at all times

The decisive step towards a Smart City with the digital energy concept



Shaping the digital energy transition in an optimal way



Automated integration of energy and environmental data



Easy to understand communication of complex contexts



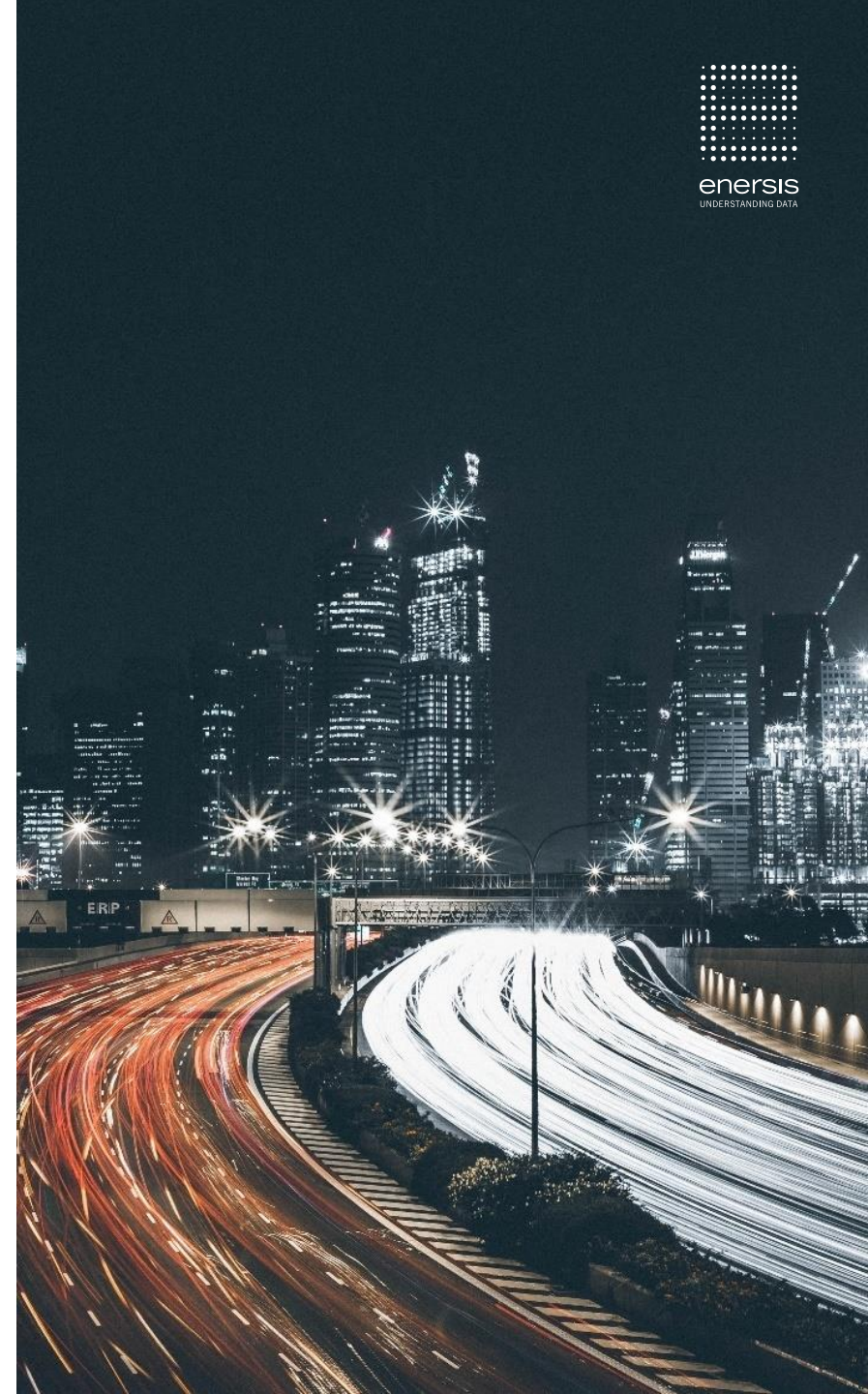
Fulfilling reporting obligations in an efficient and digital way



Implementing and monitoring the right actions and measures thanks to consistent data



Comply with national and international standards



# Visual Energy Analytics – enersis combines know-how in the fields of energy, digitalization and artificial intelligence

**Internal data:** structural data, construction zones, grid, municipal buildings, ...



**Data integration and quality assurance**



**External data:** territory, 3D-buildings, socio-economic data, ...

**efforts**

Validated  
Big Data base

Optimization  
algorithms

Visualization

Analytics, AI,  
Simulation

**intelligence**

Insights and  
new knowledge



**Creating  
transparency**



**Reduction of  
complexity**



**Supporting  
decisions**



**Monitoring  
progress**

**value**



## Digital platform for the urban energy transition

- Makes the complex interrelations and processes in the sustainable city transparent and tangible
- Creates synergies by connecting the different sectors and perspectives
- Leads to good decisions despite of uncertain environment thanks to the simulation of scenarios and measures
- Supports the implementation of valid strategies and targets, and allows a continuous monitoring of progress
- Simplifies data management and reduces the cost of data collection
- Optimizes and verifies the costs for measures, actions and projects
- Professionalizes the communication with citizens and thus facilitates the implementation of the energy transition





## COCKPIT

Enter a search term...

2016



Inhabitants  
29,830



Buildings  
5,432



Area  
13.6  
km<sup>2</sup>



Primary energy  
consumption  
427.85  
GWh/a



Final energy  
consumption  
368.24  
GWh/a

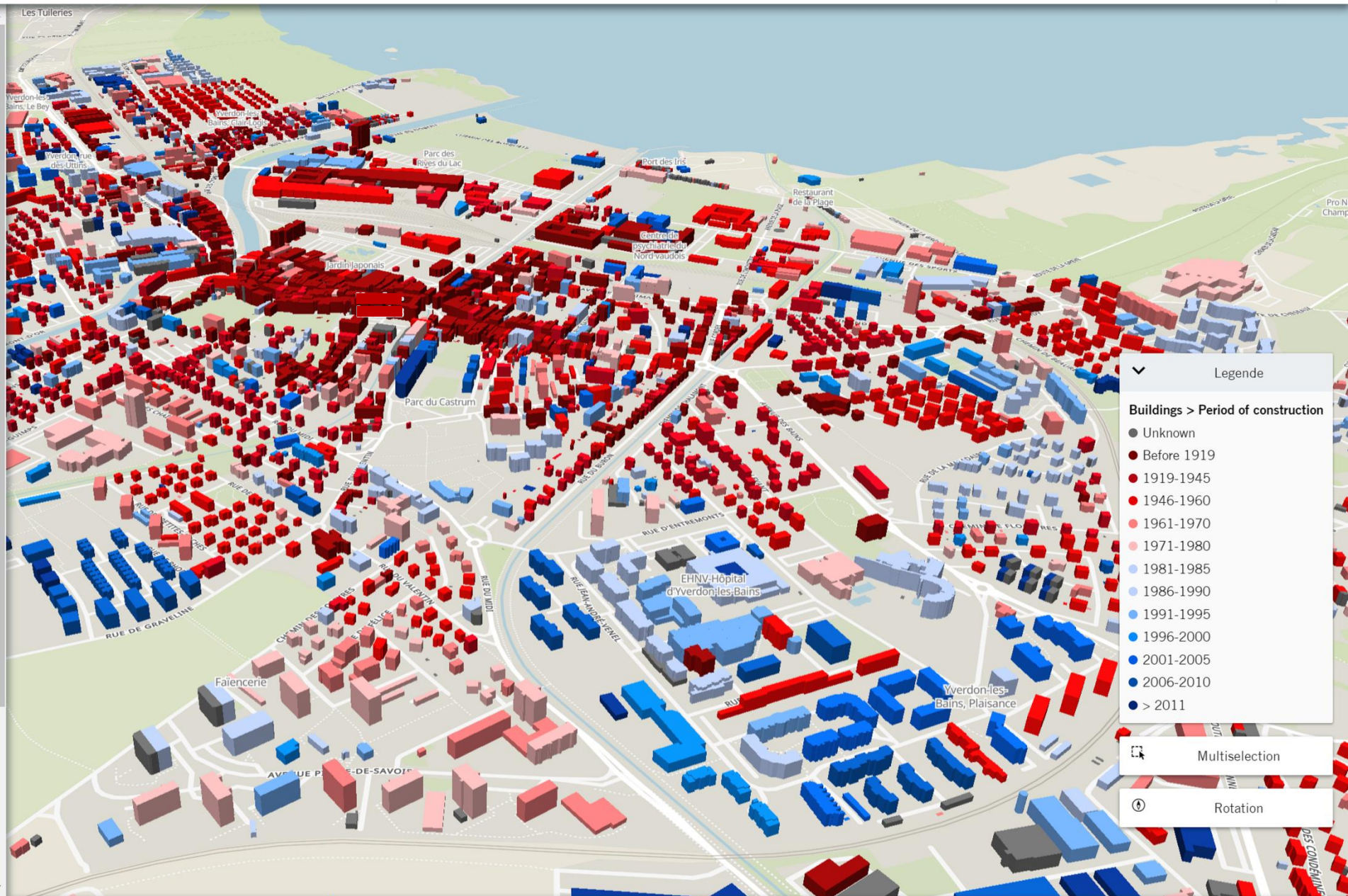
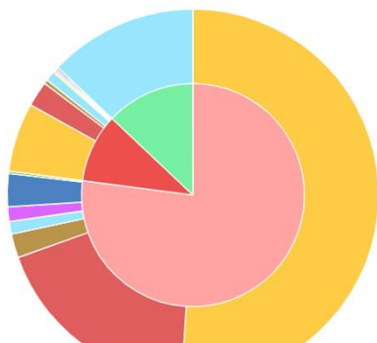


Heated living space  
217.74  
ha



CO<sub>2</sub> Emission  
79.481  
Mt CO<sub>2eq</sub>

### Local energy mix



2016

2020

2030

2040

2050



## COCKPIT

Enter a search term...

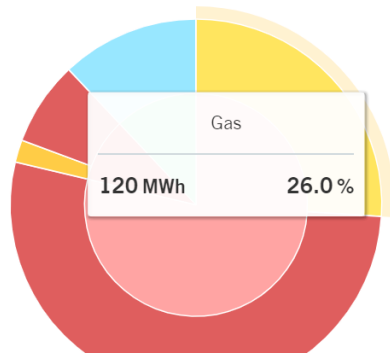
2016

Inhabitants Not available	Buildings 10	Area 1.93 ha

Primary energy consumption 543.19 MWh/a	Final energy consumption 459.69 MWh/a

Heated living space 2,182.6 m <sup>2</sup>	CO <sub>2</sub> Emission 0.113 Mt CO <sub>2</sub> eq

### Local energy mix



## MAP TOPICS

What do you want to visualize?

The following topics can be shown on the map.

### Buildings

- ☐ Cadastre
- ☐ Period of construction
- ☒ Main category type
- ☐ Energy reference area
- ☐ Heat consumption
- ☐ Heating energy carrier

### 100m Raster

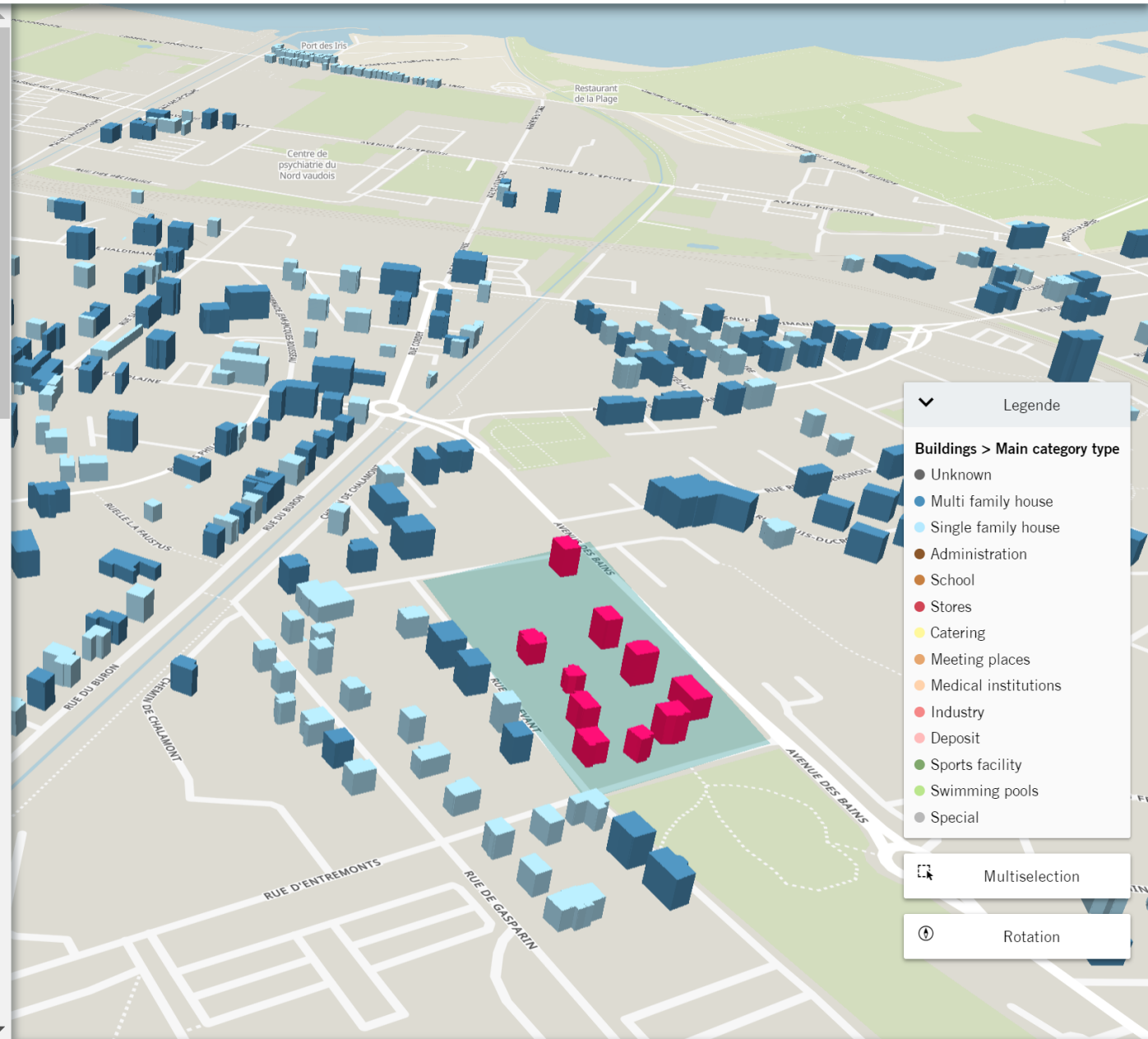
#### Filter functions

#### Period of construction



#### Main category type

- ☐ Unknown
- ☒ Multi family house
- ☒ Single family house
- ☐ Administration
- ☐ School



Legende

Buildings > Main category type

- Unknown
- Multi family house
- Single family house
- Administration
- School
- Stores
- Catering
- Meeting places
- Medical institutions
- Industry
- Deposit
- Sports facility
- Swimming pools
- Special

Multiselection

Rotation

2016

2020

2030

2040

2050

## BUILDINGS

Q Enter a search term...

2016

KPI

Detail Information

Energy Conversion technologies

General features

Facade

Windows

Roof

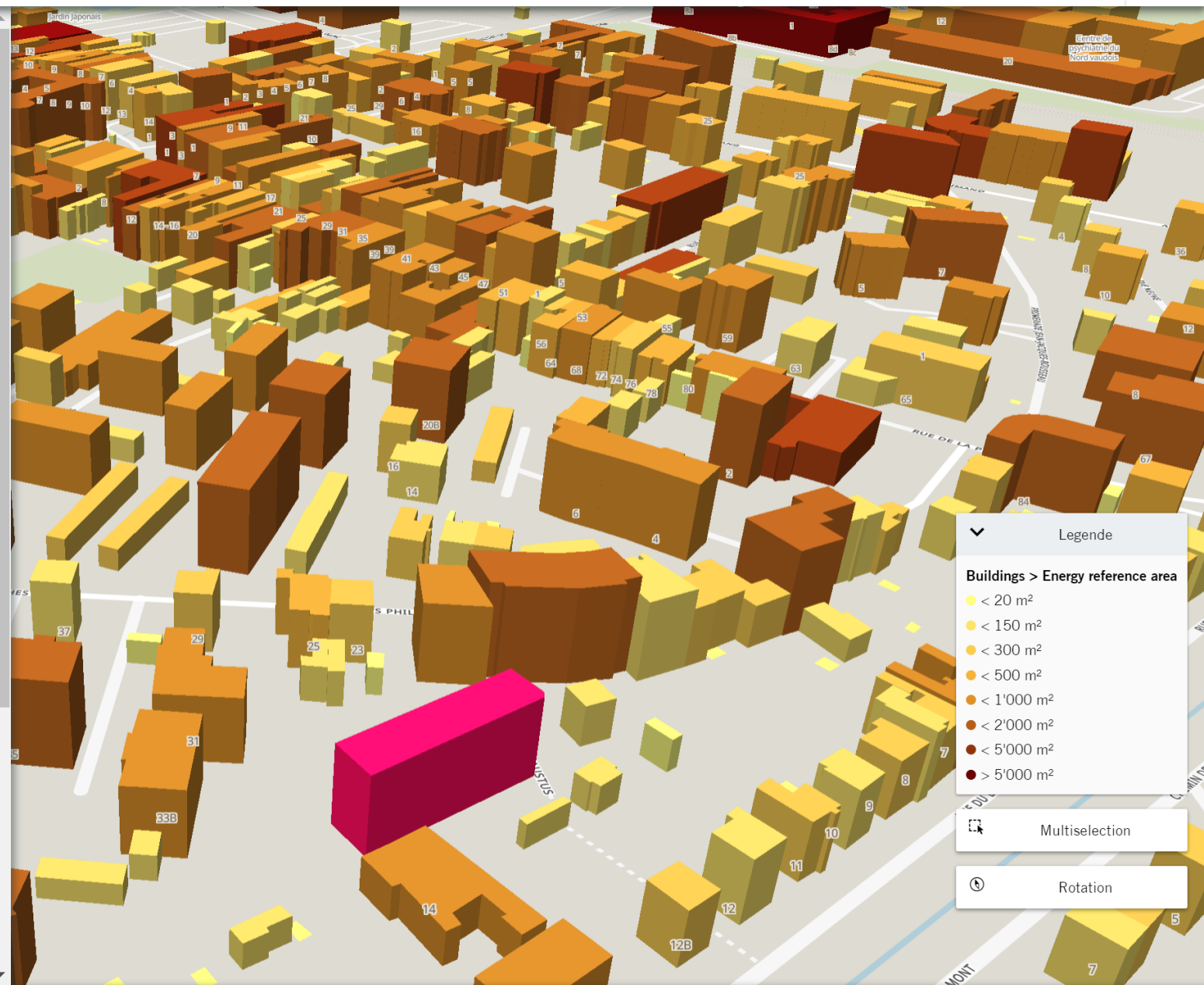
Basement

Heat / Cooling

Refurbishment

Various

Building ID	3164435
Construction year	1993
Main allocation	Administration ▼
Building status	Building existing ▼
Energy label	Minergie ECO ▼
Altitude	
Living area (m <sup>2</sup> )	Minergie
Height	Minergie ECO
Volume (m <sup>3</sup> )	Minergie-P
Number of floors	Minergie-P ECO
Neighboring buildings	Minergie-A
Number of residential units	Minergie-A ECO
Number of inhabitants	
Number of premises	



Legende

**Buildings > Energy reference area**

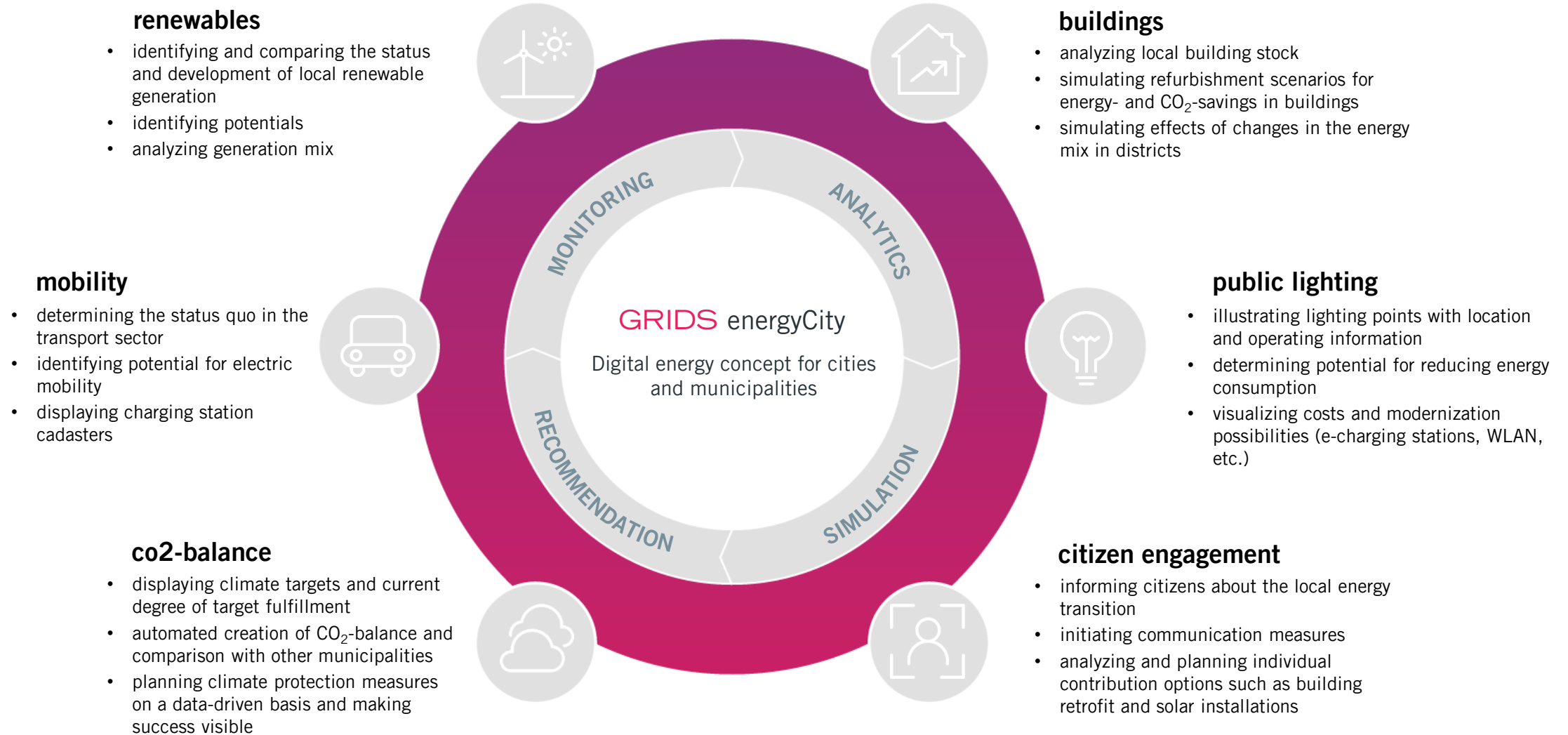
- < 20 m<sup>2</sup>
- < 150 m<sup>2</sup>
- < 300 m<sup>2</sup>
- < 500 m<sup>2</sup>
- < 1'000 m<sup>2</sup>
- < 2'000 m<sup>2</sup>
- < 5'000 m<sup>2</sup>
- > 5'000 m<sup>2</sup>

Multiselection

Rotation



# The modules of **GRIDS** energyCity support you in all fields of the energy transition



THANK YOU FOR YOUR  
ATTENTION !

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