

Integrated Solutions for Positive Energy and Resilient Cities

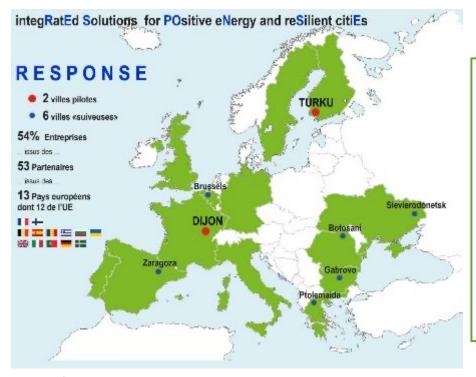
RESPONSE FOR SUSTAINABLE PLACES

A FAIR ENERGY TRANSITION: DEVELOPING PEBS

**IN DEPRIVED AREAS** 



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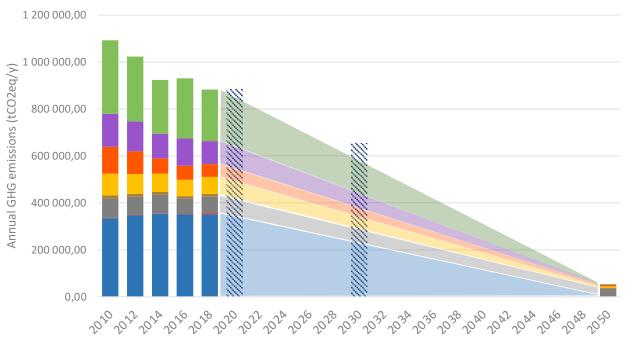


# RESPONSE project 2020-2025 Consortium 50+ partners:

- Dijon consortium 19 partners
- Turku consortium 18 partners
- 6 Fellow cities with 9 partners
- 8 « horizontal partners »
   (technical experts, project
   managers, research centres, etc.)



#### Dijon Métropole: Annual GHG emissions, by sector, with objectives 2020, 2030 & 2050



Tertiary

Energy industry

Other industries

Waste treatment

Road transportation







#### **Fontaine d'Ouche District**



# • Dijon PEBs:

- Built in 1968
- 1400+ inhabitants and users,
   40%+ below poverty line
- 5 residential buildings, 3 schools, city services buildings and road areas
- Energy consumption reduction 2019-2023: -39%
- Energy production/consumption : 112%



#### **PEB: Summary**

RESPONSE



- 3 schools
  - ~500 schoolchildren and teachers
- City-owned assets
  - Streets, sport centre, parkings
- District heating network
- 5 social residential buildings
  - 2 Orvitis + 3 GDH
  - ~650 inhabitants
- Management DM, EDF, Bouygues
  - Over 20 Working groups

#### Fontaine d'Ouche: District already under transformation



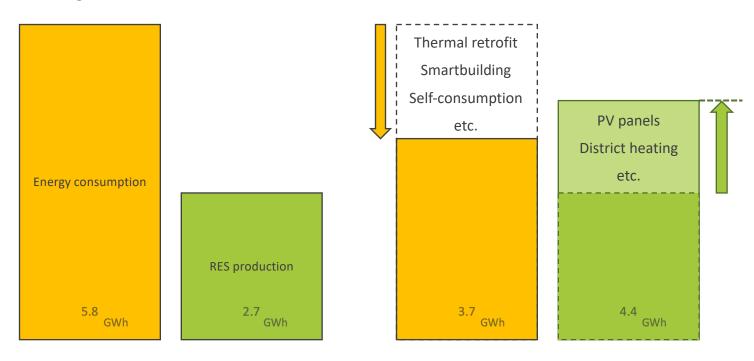


**Demolition of older buildings** 

#### Fontaine d'Ouche: District already under transformation



#### **PEB: Summary**





2020

2023-goal

# **Example: Buffon School**

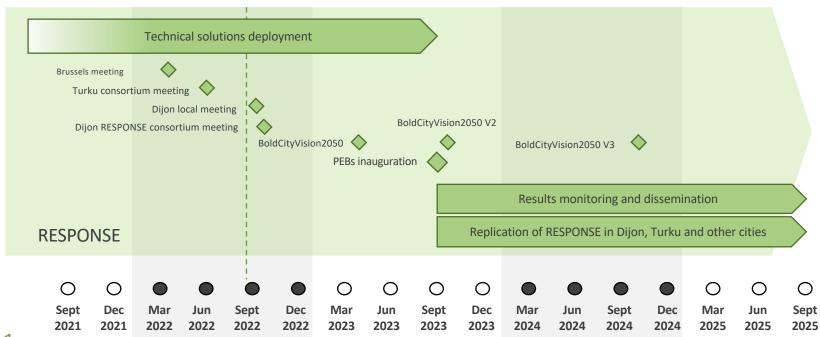








#### **RESPONSE Dijon timeline in a nutshell**



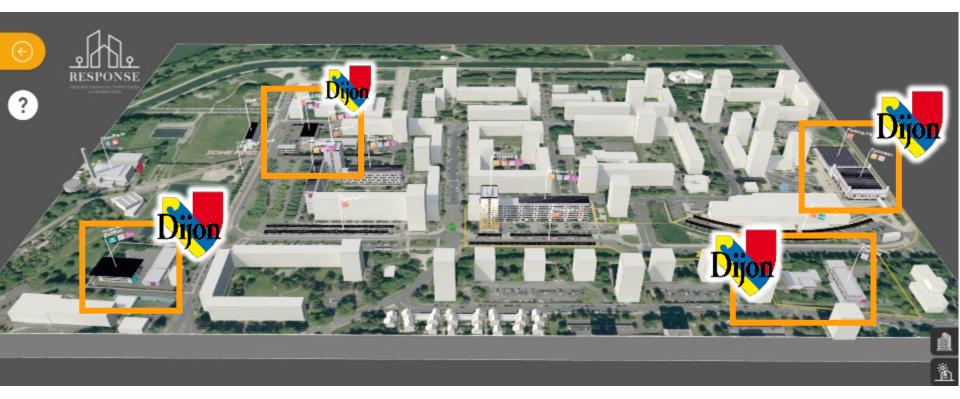


# Visit RESPONSE via our online tool <a href="https://response.metropole-dijon.fr/">https://response.metropole-dijon.fr/</a>



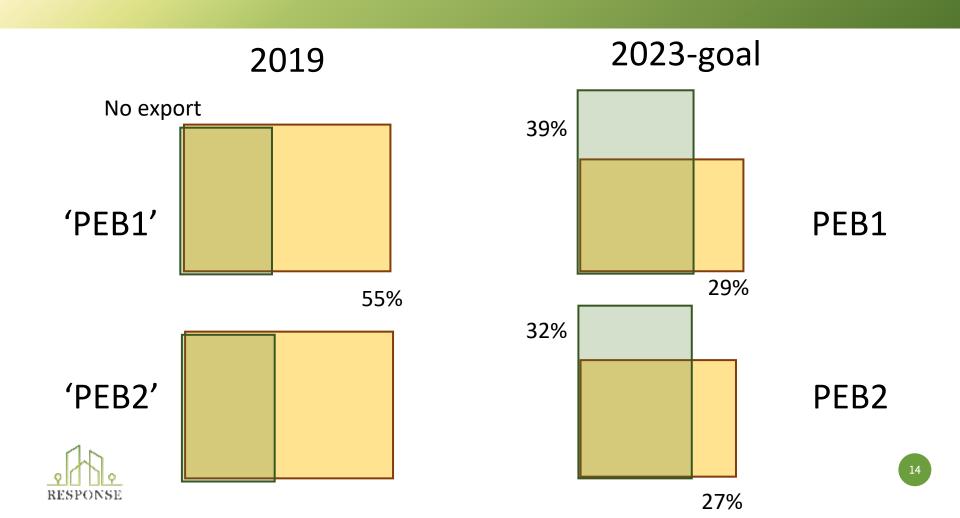


#### City owned buildings: 3 schools and a sport centre



#### Blocks composed of 5 residential buildings owned by social landlords (650 tenants)





# A city project with the citizens





# **Communication**





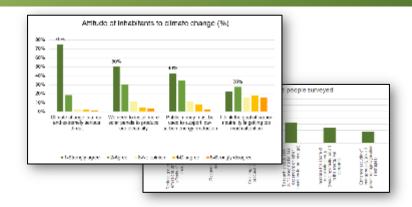




#### **Citizen empowerment**







#### **Tools and Actions:**

- Civocracy platform : digital participation platform for community engagement
- Both physical and virtual models of the project as a presentation medium for residents and partners
- Open innovation challenges (Ideathon and hackathon) to develop solutions to the problems of the Energy Transition in the region
- Questionnaires on a regular basis
- Project ambassadors

#### What's in it for the inhabitants?

### Being proud to be on the forefront of Dijon city

Stop wasting energy

Thermal retrofitting (-40% consumption)

Smart meters(-15% consumption)

Produce more, local basis

District heating (less natural gas in the mix, more biomass and burned solid waste, and biomethane from sewage sludge)

Solar electricity with local selfconsumption **Store for efficiency** 

Thermal storage (sensible, phase change materials)

Intraday battery storage

CONSUMPTION OVERALL

**SECURISE ENERGY COSTS** 

LOCAL CONSUMPTION OPTIMIZATION



### Remaining challenges

 Hire project ambassadors in a district with low interest for energy-related subjects?

 How will we explain the value of cost containment solutions when the bill will rise anyway?



















































































































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