

SENERGY NETS aims to demonstrate the technical and economic capability of **Multi-Energy Systems (MES)** to **decarbonize the heating and cooling, power, and gas sectors** through renewable energy sources produced locally as well as sector integration, by primarily focusing on **promising infrastructure and business models**.

Horizon Europe Innovation Action Project | Duration: Sep 2022 – Aug 2026 | 19 partners from 8 EU Countries  
Budget: 9,9mEUR | Coordinator: EIFER (European Institute for Energy Research)

## OBJECTIVES

- Decarbonize the heating and cooling sector using local RES production and sector coupling
- Decarbonize the power sector by providing cost efficient flexibility
- Provide flexibility services by delivering a set of tools for planning and operation
- Integrate flexibility services from MES by delivering a set of tools for DSO planning and operation
- Enable flexibility provision at local scale by defining market requirements for DSO ancillary services adapted to MES
- Maximize the impact by developing and applying a consolidated method to evaluate the overall created value by sector integration

## METHODS AND RESULTS

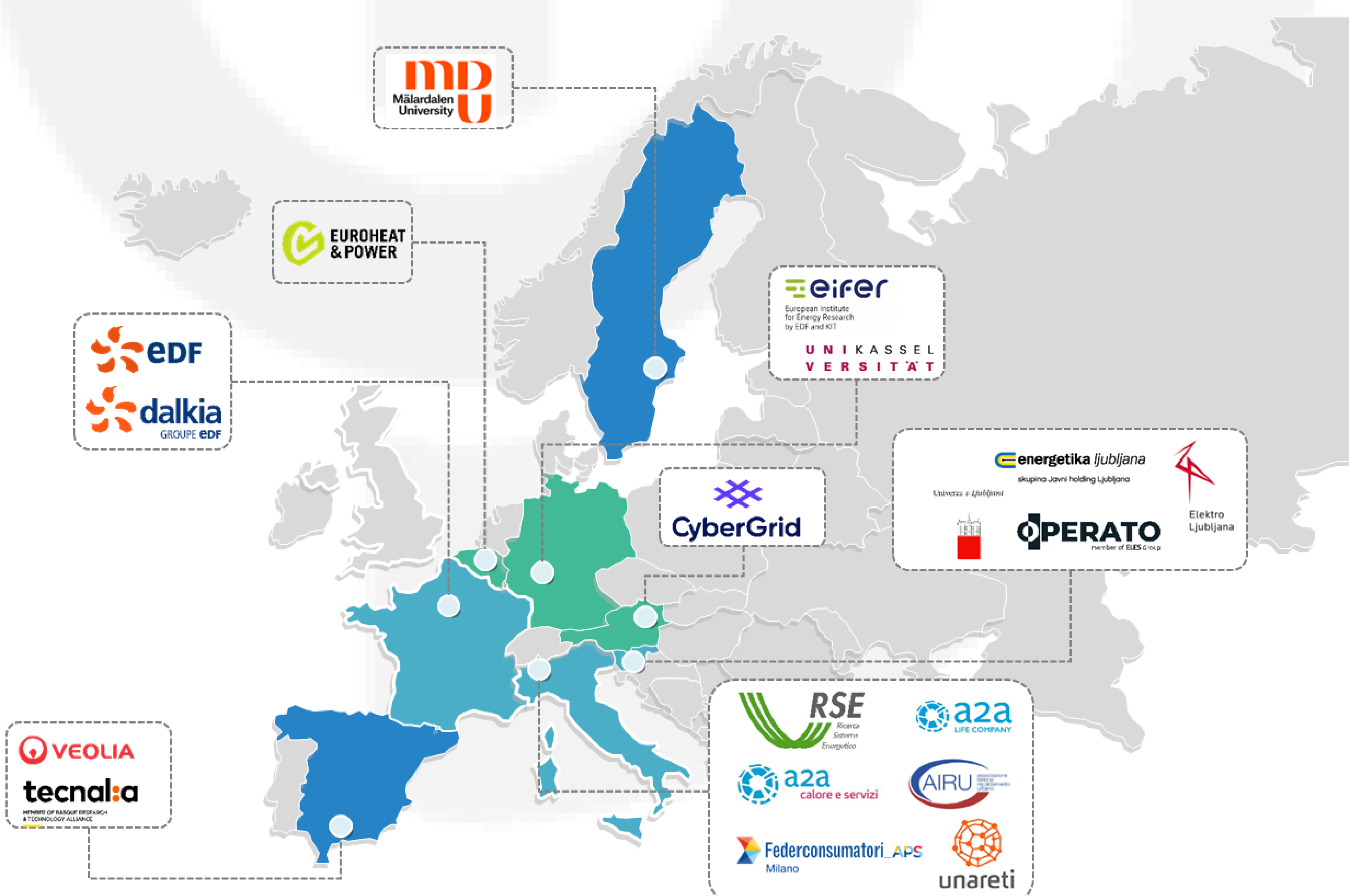
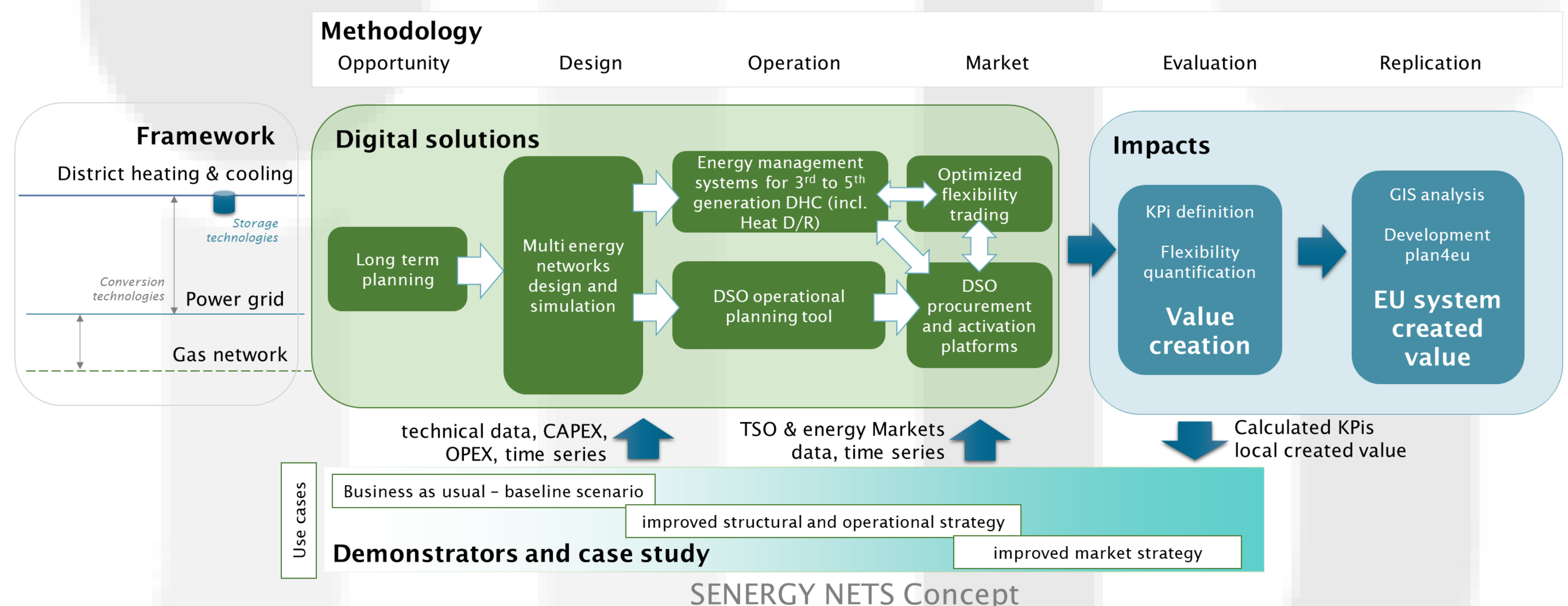
SENERGY NETS is developing a set of tools and platforms aimed to:

- Optimize the planning of District Heating and Cooling
- Optimize distribution grids
- Allow the provision of flexibility services to Distribution and Transmission System Operators

while including sector coupling considerations.

The solutions will be implemented on three pilot sites located in Milan (IT), Ljubljana (SI) and Paris (FR). Their replicability will be tested in two additional case studies presenting alternative climatic, economic and geographic conditions in Västerås (SW) and Cordoba (ES).

SENERGY-NETS is developing a consolidated methodology to estimate the overall value created by sector integration and to assess the impacts on the European power system, based on current economic, regulation, and market rules.



## SENERGY NETS CONSORTIUM

The transdisciplinary consortium brings together experts from public authorities, providers of energy infrastructure and services, research institutions, entrepreneurs and consumer associations. They provide the necessary expertise and capacities to develop and evaluate tools and services, that will enable the integration of multi-energy systems.



Funded by the European Union



Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. The European Union can not be held responsible for them.