PED StepWise
towards zero carbon neighbourhoods.

GOALS

A participatory **step-by-step implementation plan** for zero carbon districts within existing neighbourhoods.

Evaluation & validation on **3 Living Labs**

climate-neutral neighbourhoods by 2050.

METHODS

- **Research & analysis** of already existing zero carbon neighbourhood concepts.
- **Development of a prototype** for the integrated decarbonisation of existing neighbourhoods.

- **Data-survey/collection of existing data in the Living Labs,** needs & requirement of the residents/users.
- **Developing an integrated energy concept** for each Living Lab.
- **integrating the local conditions of the Living Labs** into the implementation plan.

THE LIVING LABS

Gartenheim, Vienna:

For the Living Lab Gartenheim the challenge is to **replace the gas heaters** in all buildings and apartments and decarbonize the heat supply of the district.

multifamily houses / single family houses

- Around 200 single family houses.
- 8 multifamily houses.
- All residential buildings.
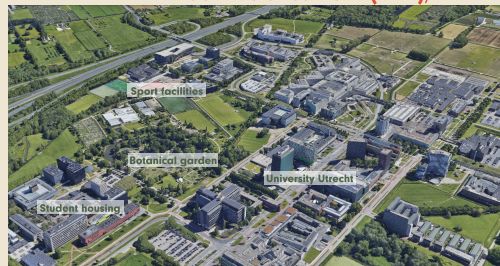- All gas heated.

Stadionområdet, Malmo:

For the Living Lab Stadionområdet we aim to develop a **comprehensive solution for an efficient energy system** in the area, aligning with city planning efforts to **increase renewable energy** production and foster sustainable cooperation models.

Residential buildings / Malmö FF Stadium / Sport facilities

- City's main district for sport and education.
- Includes the Malmö FF soccer stadium and several sports facilities.
- A few residential buildings.

Utrecht Science Park (USP), Utrecht:

For the Living Lab USP the objective is to develop a **local micro grid** in order to maximize sustainable energy production and minimize the missmatch between local production and local demand.

Sport facilities / Botanical garden / University Utrecht / Student housing

- Largest science park in the Netherlands.
- Around 60 buildings hosting two universities, 170 businesses, sports facilities, student housing, and a botanical garden.
- Daily 30.000 employees and over 55.000 students – 5.000 students live in the student dorms.
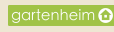
THE PARTNERS

Field of Expertise
- Energy, Technology
- Financial assesment
- Organisational process
- Participation process
- Representative of Living Lab

Austria

e7 Energy Markt Analyse GmbH

realitylab GmbH — realitylab

Arteria Tech GmbH — ARTERIA TECHNOLOGIES

Gartenheim — gartenheim

Sweden

City of Malmö

Energy Infrastructure Solution Nordic (E.ON) — e·on

KTH Royal Institute of Technology

Research Institute of Sweden AB — RISE

white Architects — white

Malmö FF

Netherlands

University of Applied Sciences Utrecht — HOGESCHOOL UTRECHT

Utrecht University — Utrecht University