

# Road Mobility

BROKERAGE  
EVENT



Centrum Badawcze PAN  
Konwersja Energii i Źródła Odnawialne  
**KEZO**

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KEZO Research Centre – Living-Lab

Poland | Department of Distributed Energy and Renewable Energy Sources | KEZO Research Centre

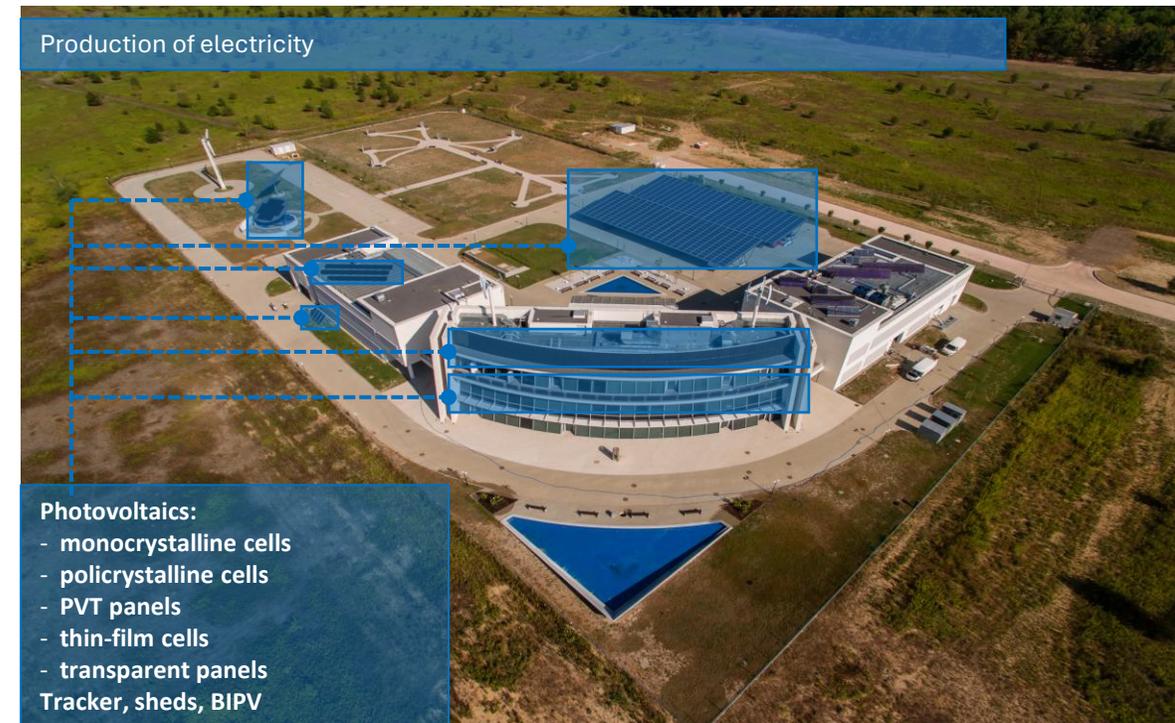
### Expertise of the department:

- Energy mapping,
- Energy planning, modelling and management
- Integration of RES with the energy system
- Energy communities
- EVs in the energy system (V2X)

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**Production of heat and power in cogeneration**

**Gas systems:**

- fuel cell
- Stirling engines
- ignition engines
- gas microturbine

100kWe/165kWt

PVT type photovoltaic panels

**Biomass systems:**

- biomass gasifier with CHP unit coupled with ignition engine 30kWe/80kt
- CHP unit coupled with pellet-fired Stirling engine

**Heat Production**

**Heat pumps:**

- ground- source high-temperature with CO<sub>2</sub>
- air-source
- absorption heat pump air/water supplied with gas

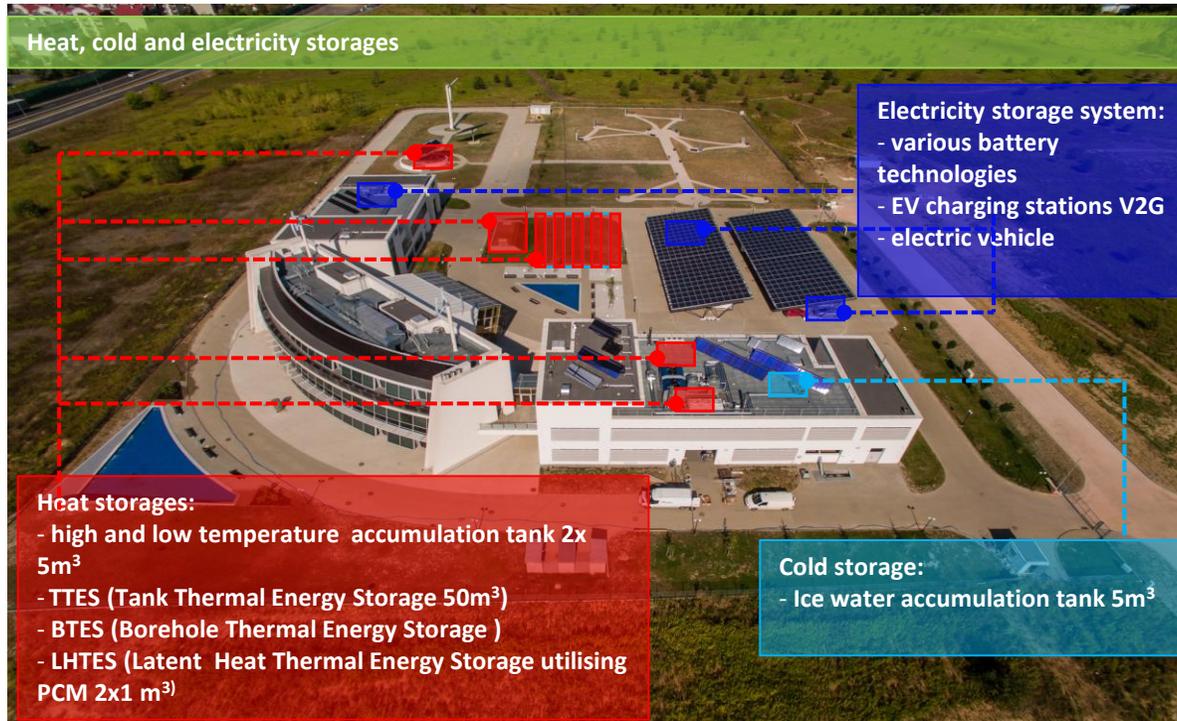
**Solar collectors:**

- vacuum-tube „heat pipe” type
- direct- flow type
- flat-plate type

**Boilers:**

- biomass-fired
- gas condensing

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## Topics of interest: #2Zero #CCAM #Batt4EU

- EV (Battery and Hydrogen) as an energy asset in the energy system – new markets, new bussines models, etc.
- V2X (Vehicle to Home, Vehicle to Building, Vehicle to Grid) in Smart Energy System

## Specific contribution to the topic

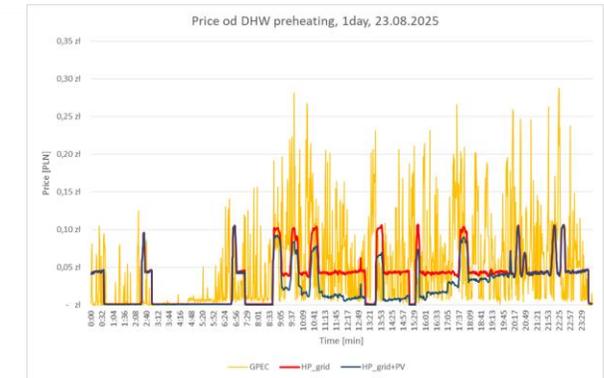
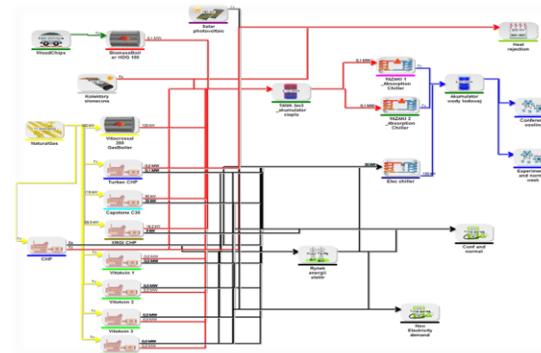
- technology demonstrators in real conditions – local coordination
- identification and involvement of local stakeholders (partners) – active partnerships with DSOs, SMEs, cities
- planning and modeling of energy systems
- communication and dissemination

# Technology profile

Energy mapping (municipality, city, district, buiding) – electricity, heating/cooling



Planning and modeling of the energy systems



Demonstration and testing of V2X technologies

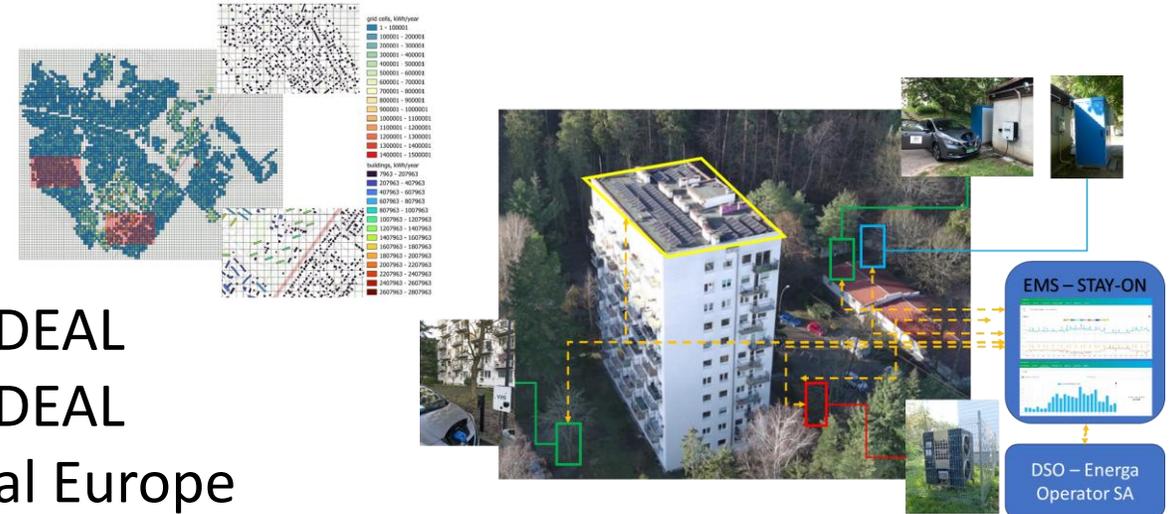


# Experience

Project leader, PI, WP and Task leader – coordination of tasks, technical analysis, stakeholder engagement, demonstration activities, dissemination and communication

1. GREENHEAT
2. SERENE
3. SUSTENANCE
4. HYPERGRYD
5. LOCALISED
6. V4Grid

EOG  
 H2020  
 H2020  
 H2020 GREENDEAL  
 H2020 GREENDEAL  
 Interreg Central Europe



**GREENHEAT**

**V4Grid**



**SERENE**



**SUSTENANCE**



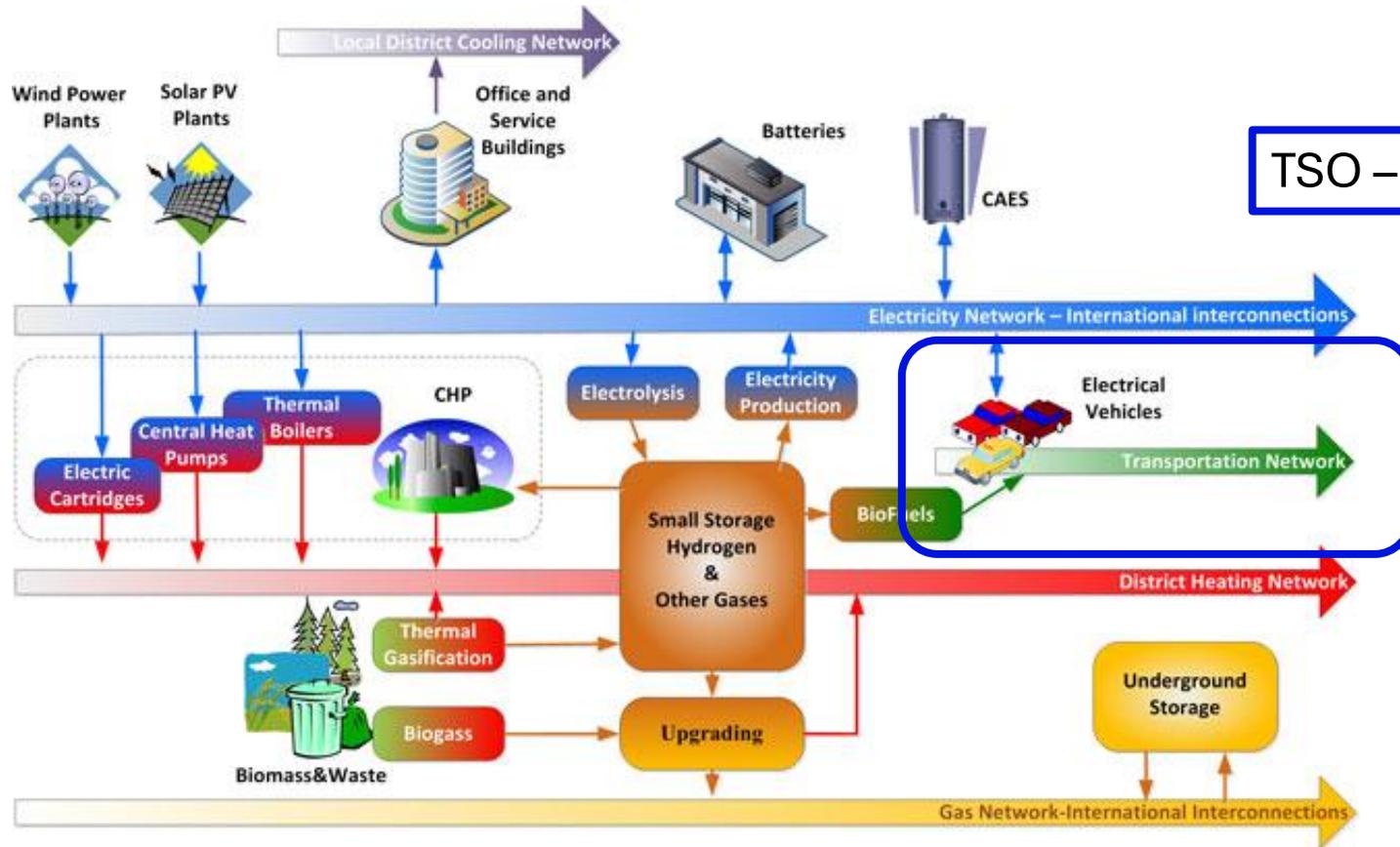
**HYPERGRYD**



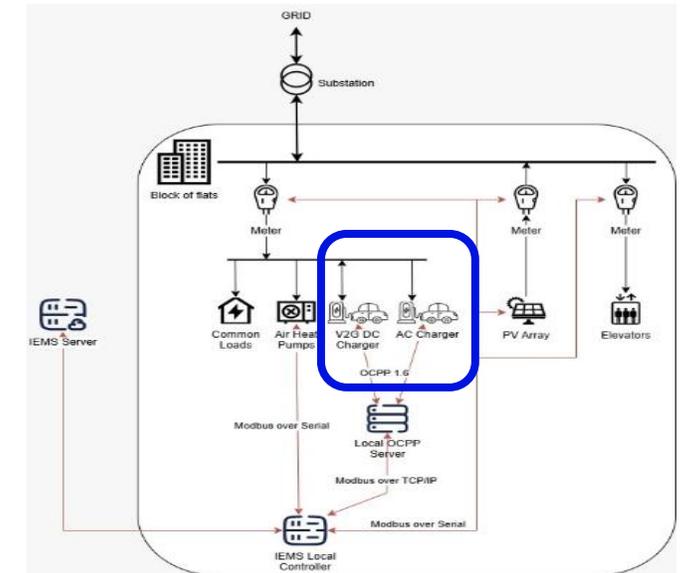
**LOCALISED**



# All topics related to EVs in the Smart Energy System



TSO – DSO – agregator – EMS – EV - user



**Current consortium** – potential partners from Poland (**DSOs** - ENERGA OPERATOR, TAURON, Toyota Central Heat Europe – associated partner, **Municipalities , cities** – SOPOT, Legionowo, Płock, ..., **SMEs** - Stay-On EM,.. )

# Thank you