

DEM4PED

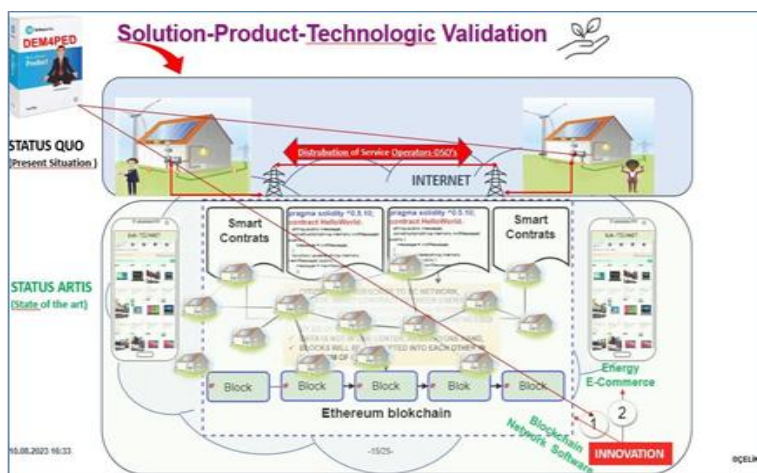
Data Exchange Model For Positive Energy Districts

By removing barriers on the production and trading energy will boost up the total energy production and market in the two neighborhood, district, village, town, city, country, inter-countries spectrum.

Developing sustainable future cities depends on the opportunities to optimally integrate and mobilize food, water, and energy (FWE) resources in a synergistic way to reduce water, carbon, and ecological footprints, and to increase the community resilience against challenges exacerbated by climate change, population growth, and resources depletion.

This authentic and original proposal; enables producers and consumers of renewable solar energy to exchange energy with each other with the most innovative processes and products offered by information technologies, ensuring smart and optimized energy demand /supply planning and execution capabilities and minimizing transmission and storage cost.

The project focused on the realization of new Business Model by instant, subscription creation, energy trading and subscriber termination contracts (smart contracts) over the Blockchain network with the state-of-the-art information technologies of multi solar power generation districts.



ERA-Net Smart Energy Systems



This project has been funded by partners of the ERA-Net Smart Energy Systems (www.eranet-smartenergysystems.eu) and Mission Innovation (mission-innovation.net) through the Joint Call 2023. As such, this project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 883973.



Project Duration

31.03.2024 - 30.09.2025

Project Budget

Total Budget: € 874,431

Funding: € 535,331

Project Coordinator

OSTIM TECHNICAL UNIVERSITY (Türkiye)

Project Partners

- OSTIM TECHNICAL UNIVERSITY (Türkiye)
- SOFTWARE IMAGINATION and VISION SRL - S/MAVI (Romania)
- MASARYK UNIVERSITY INSTITUTE OF COMPUTER SCIENCE (Czechia)

Project Website

<https://etaum.ostimtech.net/projects/dem4ped>



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ERA-Net Smart Energy Systems Joint Call 2023 (MICall23)

This project has been awarded funding within the ERA-Net SES Joint Call 2023 for transnational research, development and demonstration projects.

Main Objectives

- The business model and supporting IT services will be the first application rival for the limited several R&D projects running in the Europe.
- By removing barriers on the production and trading energy will boost up the total energy production and market in the two neighborhood, district, village, town, city, country, inter-countries spectrum.
- Using your own energy produced in your house roof-installed PV and selling over-production to the nearest and most fitted neighborhood or vice-versa according to the smart contracts or agreements instantly done by DaaP's (Decentralized Applications) sounds remarkable effect on the green energy need and transformation.
- By this project the capability build by the small scale PV producers&consumers integration will be extended to the all kind of private / public, low-medium-large scale producers and consumers. Also additional to the solar energy the other renewable energy production resources such as wind, hydrogen will be integrated in order to get product diversification..

Main Results

By the project, targeted main trio Key Exploitation Results (KER's) are;

- PEDNET-Blockchain Test Net V.1 (SaaS): Customized blockchain network application, provides users to easily subscribe producers, consumers, and prosumers (both produce & consumes) searched by consumers, to make smart contract in order to buy/sell their renewable energy by one touch on platform or change their choice any instant of day.
- Bridge Services (SaaS): that provide data to feed network from telemeters, sensors and internet of things-IoT's.
- Artificial Intelligence Support (SaaS): Smart algorithm supports to make-decision on the most efficient buyers, sellers, price, production planning and agreements by smart contracts.

**Joint Programming for Flourishing Innovation –
from Local and Regional Trials
towards a Transnational Knowledge
Community**

www.eranet-smartenergysystems.eu



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