

PROJECT RESULT

PARTNERS



Partner Websites

<https://www.amsterdamuas.com>

<https://www.cartif.es>

<https://www.deusto.es>

PROJECT

EU Programme:

Horizon 2020 Innovation Action

Coordination:

City of Amsterdam

Partners:

29 partners, 10 countries

European grant:

19.6 M€

Get in touch:

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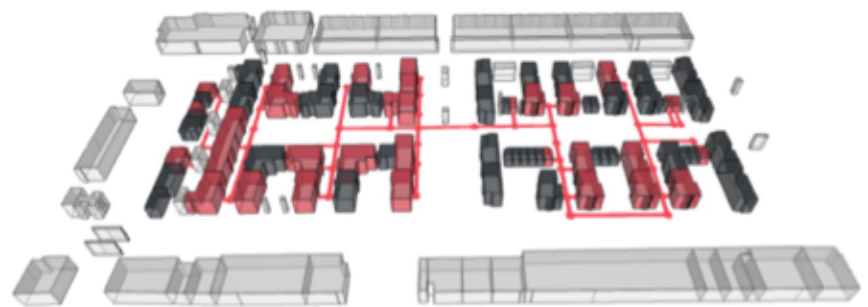
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Model portfolio for energy systems impact assessment at district level

Result in a nutshell



- A portfolio of modelling tools, frameworks, and methods was developed in ATELIER to support the creation of Positive Energy Districts (PEDs).
- These tools were designed to address specific project tasks and collectively provide a comprehensive approach to PED development.
- The methodologies leverage open-source and open-access tools, which have been adapted, expanded, and supplemented with new datasets as needed.

Demonstration site



- Amsterdam PED: Buiksloterham.
- Bilbao PED: Zorrotzaure.
- Fellow cities: Bratislava, Budapest, Copenhagen, Krakow, Matosinhos and Riga.

Detail on result

Technical aspects:

- Portfolio includes complementary tools and frameworks specifically developed for Positive Energy Districts (PEDs).
- Utilises both open-source and proprietary modelling tools tailored for specific district-level energy assessments.
- Continuous validation with real-world data ensures robust and reliable models.

Technical requirements:

- Ensuring interoperability among diverse modelling tools to enhance integration.
- Ongoing collaborative approach and resource sharing between AUAS, CARTIF, and DEUSTO.
- Development of standardized methodologies tailored to various stages of PED implementation.

Advantages:

- Comprehensive set of specialized tools addressing multiple aspects of PED development.
- Utilization of both open-source and proprietary tools provides flexibility and broad applicability.
- Facilitates evidence-based urban planning and policymaking.

Challenges:

- Fragmented current state of models necessitates greater integration.
- Economic uncertainty and rising costs complicate accurate financial modelling.
- Securing continuous funding and maintaining sustained collaborative efforts.
- Managing and ensuring sustained collaboration and interoperability between diverse stakeholders and tools.

Further development

Potential for further development:

- Further integration of AI and digital twins to optimize PED planning.
- Expansion and alignment with global initiatives like IEA Annex 83.
- Creation of a sustainable joint business model for ongoing exploitation.

Potential areas of applicability:

- Support for urban planning and development of Positive Energy Districts.
- Use by municipalities and urban planners focused on sustainability and climate neutrality.
- Research and policymaking in sustainable urban energy transitions.

