atelier
Positive Energy Districts

PARTNERS

waag futurelab

https://waag.org/en/

PROJECT

EU Programme:
Horizon 2020 Innovation Action

Coordination:
City of Amsterdam

Partners:
29 partners, 10 countries

European grant:
19.6 M€

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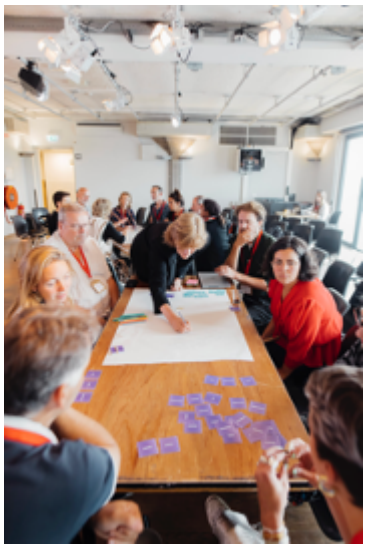
PROJECT RESULT

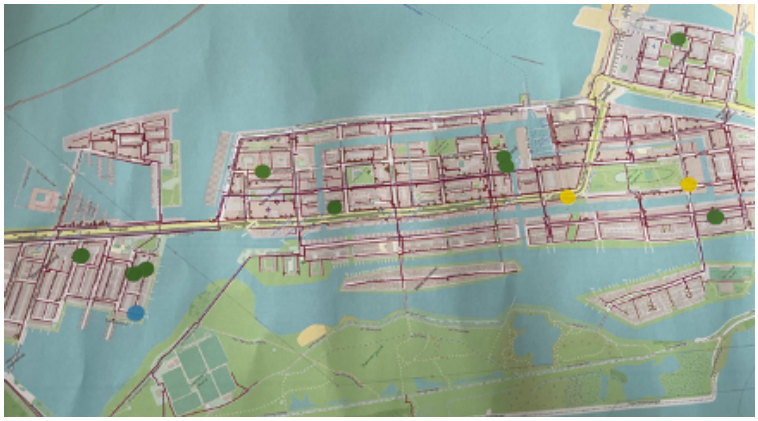
Scientific Knowledge on energy data commons

Result in a nutshell



We carried out (a) citizen science activities in order to allow citizens to become acquainted with their own energy use and (b) an energy data sharing experiment using a community platform. During this experiment we carried out value workshops, in order to engage citizens in a reflection about the added value of data sharing and the preconditions that need to be satisfied in an energy data sharing community.
Building on the results of these reflections about values, an academic article will be published in an academic journal.

Demonstration site



The IJburg district in Amsterdam was chosen to perform the data sharing experiment. It is located on a man-made island in the river IJ and the first inhabitants moved in 2002.

Detail on result

We chose open source technologies to measure the data

- We provided a dongle by SmartStuff, which could be inserted into the P1 portal of the smart meter and allowed to monitor energy use and production real-time
- We experimented with a platform provided by EnergyID, which allowed to assemble data from all participants in one place and monitor the energy they use and generate over time

The technologies were not yet mature enough for use

- The dongle was easy to use for the more tech savvy participants, but for some of the participants it raised some difficulties. Problems included: (a) difficulty finding the P1 portal, (b) needing an adaptor to make the dongle fit into an older meter, (c) difficulty to access the online platform, (d) the dongle needs polishing to fit into the p1 portal.
- It was easy to share data with the EnergyID platform, but we also received some critical feedback: (a) the platform was not accessible to the participants (an administrator needed to act as mediator), (b) the graphs on the platform needed explanation for some participants, & (c) some participants suggested adding the possibility to compare households to learn from differences in energy use.

Advantages:

- Citizens responded positively to the monitoring of their own energy use. They noted a lot of learnings from these exercises, such as (a) about the devices in their house that use a lot of energy (b) the energy use when everything is turned off (at night), and (c) what they can do to bring their energy use down.
- Citizens also responded positively to the use of the community platform, as this (a) showed them the discrepancy between the energy that is generated and the energy that is used, (b) the discrepancy between the timing of the use of energy and the timining of its generation, and (c) allowed to see communal dependency which opened up discussions about collaboration.

Challenges:

- Dilemma's related to data sharing need to be resolved, and participants would solve them in differing ways. We explored that with the values workshop.

Further development

Potential for further development:

- The values workshops offer a perspective to how citizens reflect on the governance of their energy data, about (a) what they consider to be valuable goals of energy data sharing, and (b) which conditions they want to see respected before sharing their data. This is helpful input for the design of a governance model for energy data commons, and (b) it is helpful input for the design of the platform itself. For example: a platform that serves energy solidarity and learning may provide different info than a platform that maximizes privacy and personal autonomy.

Potential areas of applicability:

- These results offer helpful insights for other developers of energy data commons and developers of energy data platforms. It is for this reason that we wil shape an academic article to share the knowledge.

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