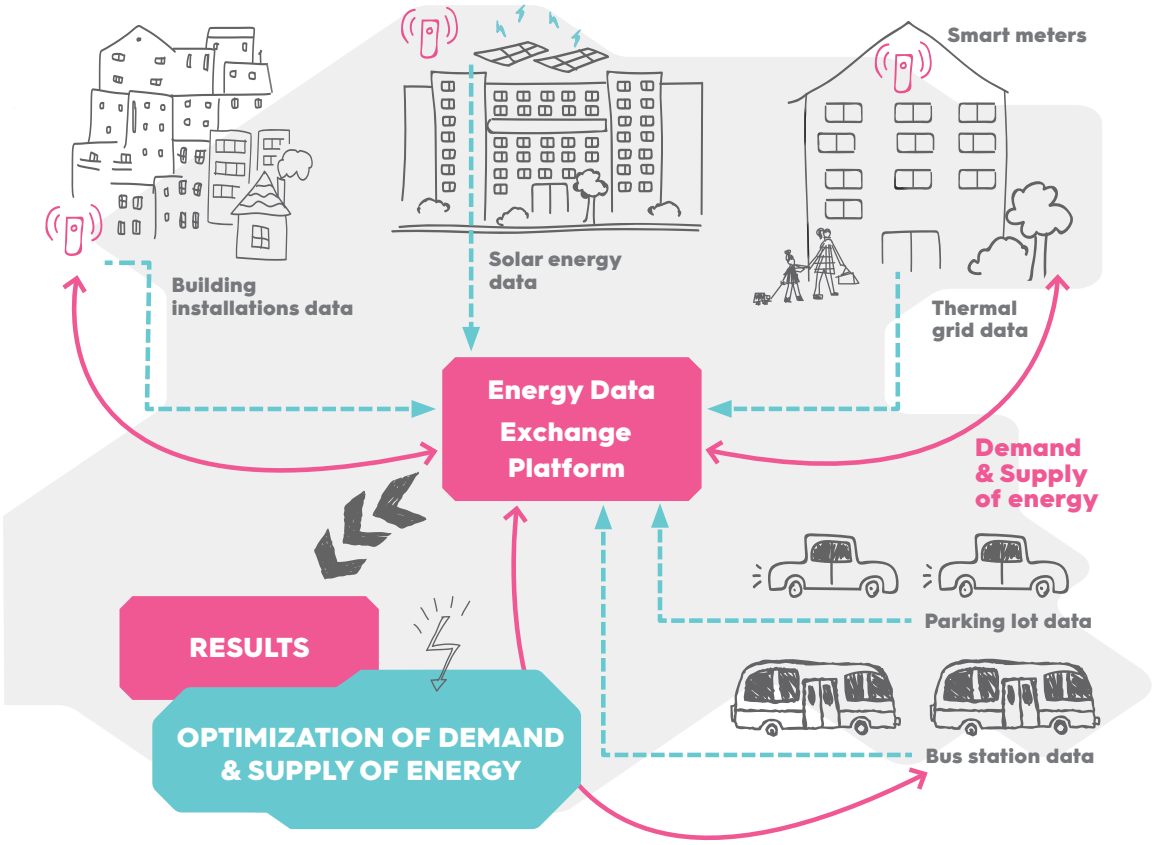
FACTSHEET R8

RUGGEDISED

Energy Management System

Rotterdam | **Energy management and ICT**



This solution will look at the management of all energy streams between buildings in order to optimize energy distributions between buildings (minimize peakloads, maximization of use of RES and to lower the energy losses). All energy-data from the buildings part of the project are gathered in one big database and are analysed so that demand and supply of energy can be optimised.

Main partners involved:

City of Rotterdam | Eneco | RSM Erasmus University

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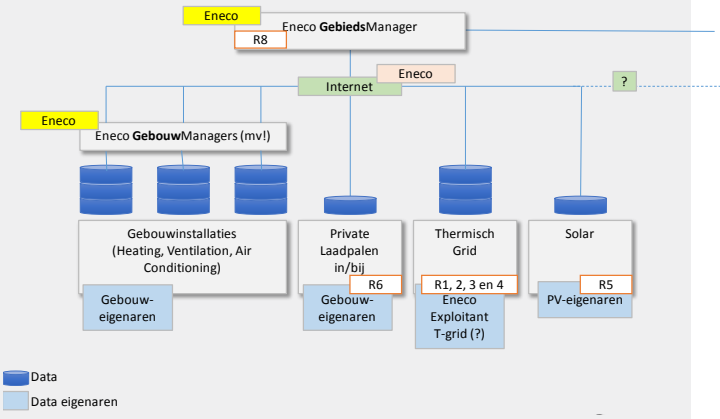
How does it work?

Since the thermal and electric smart grid is quite complicated, it is important to manage all energy streams. The demand side as well as the supply side should be well measured and monitored, in order to make good energy management possible. A lot of data from all the different activities and energy measures come together and will be analysed thoroughly.

Smart ICT solutions will ensure that the demand and the energy supply for all buildings and public space s involved (including sub-surface structures) is managed to a high standard. By connecting the gathered data to a data exchange platform, the overall energy management system can operate the energy flows among the different assets (buildings and public spaces) in the most efficient way.

A dynamic, continuously-matching equilibrium among those assets that require energy and those with a demand for energy will become active.



This approach yields deeper insights resulting in efficient and effective energy management of the entire area as well as maintenance. And with the knowledge of the Erasmus University's models - concerning the economic analysis of energy consumption behaviour - energy management will be fully optimised. Preventive maintenance and energy-efficient behaviour is promoted.

Estimated impacts

Optimisation of energy streams results in lower costs for everyone; the owners of the buildings but also the citizens of Rotterdam (south).

Replication potential

The results of the energy management system can be replicated to other parts of Rotterdam. Replication is possible in all cities, but the details of the system depend very strongly on the specifications of the city and the governance objectives of the cities in question.

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