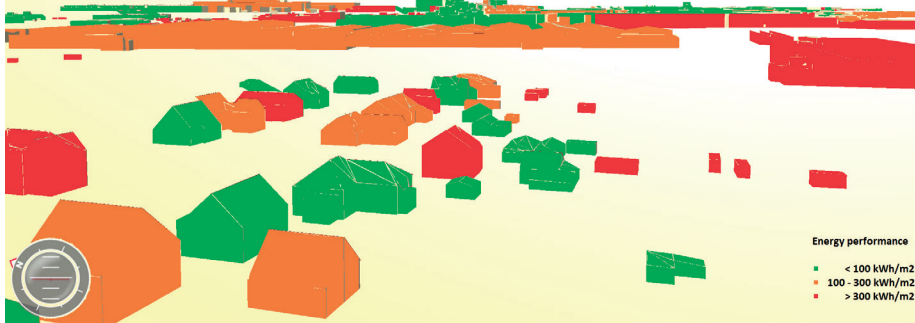


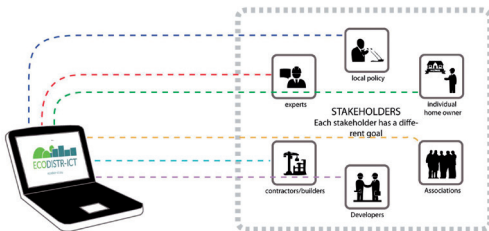
Smart energy district development with Ecodistr-ICT

3D representation of the energy performance of a district, based on Lidar aerial imaging and energy calculation routines



Local communities and cities play a crucial role in the transition to a low carbon future. Considering the fact that by 2050 about half of the current building stock in Europe will still be operational, tackling the energy performance of existing buildings is a top priority. EnergyVille develops knowledge to support public and private stakeholders in this transition. Our technological solutions are applied in more than 55 urban testing grounds throughout Europe.

From individual building refurbishment to urban district retrofits



The Ecodistr-ICT integrated decision support system connects stakeholders in district renovation processes in a single cloud based software environment.

Current practice tends to take place in the form of individual refurbishment projects. However, there is much to gain through upscaled and collective retrofit, as it provides unique opportunities for the regeneration of districts and cities. This approach offers numerous advantages, such as:

- Allowing prioritised and phased role-out of retrofit measures;
- Economies of scale making the projects more financially viable;
- Possibilities to integrate district energy solutions, such as local renewable energy production;
- Opportunities to integrate other important social, economic and environmental considerations into the decision-making process.

Ecodistr-ICT: A toolbox to support sustainable district renewal

During the past years, EnergyVille has coordinated the development of a modular, open source software platform to support such decision-making processes for district renovation. The platform allows to bring together multiple stakeholders –including local inhabitants– in a single online environment in order to overcome the current fragmentation, and thus reach a jointly supported vision for the district. It provides trustworthy insights on costs and benefits of various design options, taking into account the entire life cycle of the buildings, as well as environmental and social impacts at district level.

The platform has been realised under the framework of the European FP7 project Ecodistr-ICT and has been tested in five pilot projects across Europe: Rotterdam (NL), Valencia (SP), Stockholm (SE), Warsaw (PL) and Antwerp (BE). Thanks to its modular nature, KPIs and calculation modules can be selected specific for each case study. Connecting proprietary tools which are used at local administrations is also possible.

In the Antwerp case study, the tool has been applied in the district Kiel-West; a multi-cultural district with around 6,000 inhabitants or 2,500 housing units including about 80 % social housing. The district contains a diverse housing stock ranging from modernist high-rise social housing to privately owned single-family houses. In collaboration with local actors, a district retrofit strategy has been developed, aiming at cost-effective reduction of the energy demand up to 60 %, while introducing renewable energy production and increasing liveability and comfort.

Join us and test the Ecodistr-ICT platform

The regeneration of existing districts in our cities requires a coordinated approach towards design, planning and implementation of retrofitting projects. Are you a city official, a design firm, contractor or project developer that is interested to get acquainted with the advantages of the Ecodistr-ICT platform? Contact us to experience how integrated decision support tools can guide you and your stakeholders to design district renewal projects that are fit for a liveable urban environment and climate-neutral future.



Ecodistr-ICT Dashboard: details of the district Kiel-West from the Antwerp case study.

Energyville



Association of KU Leuven, VITO and IMEC in the field of sustainable energy and intelligent energy systems

<http://www.energyville.be/en>

Ecodistr-ICT



Project coordinator: Han.Vandevyvere@vito.be
Project partners: VITO (BE), SP (SE), TNO (NL), CSTB (FR), Strusoft (SE), VABI (NL), Omgeving (BE), Arup (NL), Bipolaire Architectos (SP), and White Architects (SE)
<http://ecodistr-ict.eu/>



This project has received funding from the European Union's Seventh Programme for research, technological development and demonstration under grant agreement No 608702