

Accelerating delivery of smarter cities and districts to achieve energy goals

April 2 2015



Making substantial reductions in energy demand, green house gas emissions and incorporating renewable technologies at district and city level is a tricky task. A new community of cities is discovering real solutions with real impact as part of the CITYFiED project

What does a city with strong scientific skills, plans for a multi-fuel CHP plant and new sustainable housing districts; a future European Capital of Culture developing a powerful energy master plan; and district pioneering citizen and public engagement in redesigning its energy future have in common?

They are all part of a growing 'Community of Interest' navigating the complex systems, partnerships and financing formulas to find the most efficient route to achieving near zero energy districts as part of the CITYFiED project.

The project knowledge and experience is anchored in large-scale works at three demonstration sites incorporating technologies and approaches to achieving innovative and efficient districts. These sites are located across a range of climatic conditions in the cities of Lund, Sweden, Laguna de Duero, Spain and Soma, Turkey, respectively. Between them, they will achieve more than 70 kWh/m²yr of energy savings, a reduction of at least 13,000 tons in CO₂ emissions will be achieved through the retrofitting of 2,300 dwellings and change the lives of over 7,000 citizens.

"Our approach has been engineered to be as accessible as possible – based on a sound and feasible replication plan, which will be virtually tested in a City Cluster of 11 representative European cities" explains Markus Paulsson of the city of Lund and coordinator of the three central demonstration sites. "But the largest 'return on investment' if you like, is saved for a group of 40 cities and districts – as they will discover first hand the smartest and fastest routes to success, based on a sound methodology and proven experience".

Project coordinator Ali Vasallo of research center CARTIF outlines the thinking - "we know time and resources are precious, so from the start, we wanted to create a low investment, high-impact formula designed to help facilitate a city or districts' energy goals". Knowledge and technology transfer is delivered by a series of webinars and accompanying resources available live, as part of a group, or to consult at anytime in a dedicated "CITY Smart" portal reserved for Community of Interest (COI) members.

The approach of COI members has been just as pragmatic and constructive. San Sebastian general manager Eukén Sesé is keen to have exchanges with the group on business models, management systems and district heating whilst sharing their systems approach to [energy efficiency](#) developed in the STEEP project.

In Estonia, Tartu's Smart City Lab is a lively hub for improving public services and business processes. For executive board member Rene Tonnisson, "Smart City development is a high priority for Tartu in coming years and we are looking for suitable networks dealing with related issues in order to learn from other cities having similar ambitions and challenges". Tartu has plenty to offer in exchange, "With a strong set of experiences in district heating and cooling - that reach up to 90% penetration in some cases – and a range of electric mobility solutions already deployed, I am looking forward to a mutual transfer of knowledge and experience sharing between the CITYFiED partners".

For Zabrze, Poland, joining the CITYFiED Community of Interest is an ideal support to their plans not only for wider European collaboration; but for a new energy-efficient district using renewable energy sources such as small-scale photovoltaics integrated into building designs and enhancing development of a biogas plant.

In Belgium, COI member Brussels are looking to CITYFiED to help on both the strategic and operational levels. Mohamed Ouriaghli, Deputy Mayor for Housing, Equal Opportunities and ICT outlines a couple of reasons for joining the project: "Brussels is very busy organizing our smart cities projects and looking to the future. We are familiar with the concepts and have strong foundations; but in the past lacked a unified strategic plan" he outlined. "In addition, with responsibility for around 3,000 housing units, we always need to be on the look out for new solutions. CITYFiED is exactly the kind of laboratory that will develop our know-how on these topics".

Ali Vasallo is enthusiastic about the ability of the community to inspire each other and the project's ability to support these leaders in European energy transition: "We aim to provide the technical know-how and a framework for local leaders to make more confident, cost-effective and time sensitive decisions for reaching their stated ambitions". "This applies to cities and districts of all sizes and maturities with COI members ranging from 15,000 inhabitants to 1,5 million and above."

The CITYFiED Community of Interest is open to towns, cities, districts and relevant municipal housing and energy agencies from across the EU. Interested parties in joining the community should contact alec.walker-love@cityfied.eu to benefit from one of the limited places available.

Provided by Youris.com

Citation: Accelerating delivery of smarter cities and districts to achieve energy goals (2015, April 2) retrieved 23 April 2024 from <https://phys.org/news/2015-04-delivery-smarter-cities-districts-energy.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.