

SMART ENERGY MANAGEMENT AND SECURITY (SEMS)

How can IoT-based systems and services be part of creating a more sustainable energy system?

WHY?

More sustainable ways of managing energy systems is one way to tackle climate change. Even though technological infrastructures in themselves will not be the only solution to this, IoT-based systems and services have the potential to be part of the solution for approaching sustainable living in contemporary and future smart cities.

WHAT?

The ambition of the SEMS project is to address such sustainability issues, both in local districts and on the city level. One of the project partners, Eon, has developed a solution for balancing heating and cooling in a way that connects buildings with different needs and balancing the energy between them. The system (ectogrid™) and the cloud service (ectocloud™) uses all available energy flows and makes it possible to decrease both pollution and the energy consumption in a city. Further, it makes possible to store, harvest and share energy in local contexts. But how do we, the citizens, fit into this system and how do we interact with it?

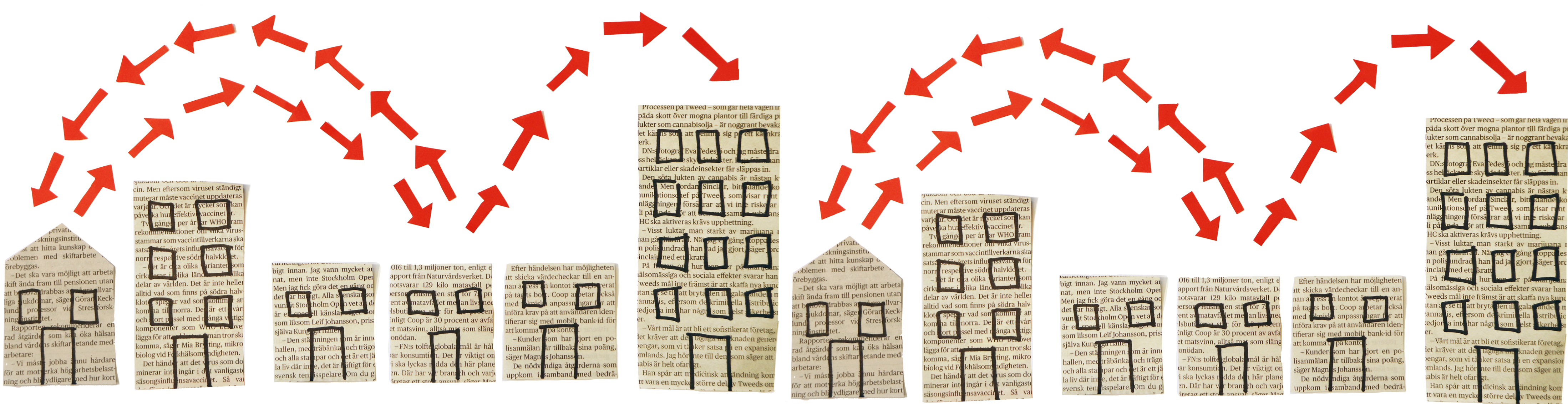
HOW?

IoT-based systems relies on complex flows of data and system components. These are mostly “invisible” to human perception. How can we design experiences that makes a user understand what is happening and what actions one could take?

Related to this is the issue of artificial intelligence (AI) in IoT-based systems. How can we develop interfaces and interactions where users communicate with the AI in a way that approaches a dialogical format, rather than the AI acting solely based on its autonomous decisions?

And, how can we collaboratively develop compelling future scenarios that illustrates added value for urban life in relation to energy management?

Project partners: Eon and Topp
Application area: SMART CITIES, SMART LIVING
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USE AND ABUSE?

In a smart city, energy can be shared. But why would I want to share energy (what’s in it for me?) and who should actually “own” surplus energy?