Boosting Energy Awareness with
mobile interfaces and real-time feedback

BeAware

The prime challenge in BeAware is to provide the consumer with a new kind of feedback about electricity conservation and turn them into active and responsible consumers. We will integrate awareness cues through mobile and ambient interfaces into consumers' everyday lives taking into account cognitive capabilities and social practices.

Smart technology and enlightened people

- a great combination for saving energy in the home

Energy Life

BeAware will develop ubiquitous, mobile, and ambient and web interfaces to provide cues to residents. The detailed and next-to-real time consumption information is collected through pervasive wireless sensing.

Cognitive capabilities and social practices are covered by game-like applications. *Energy Life* has been designed by BeAware to be an engaging and informational aid to the user. Users are encouraged to take actions in electricity conservation by making the consequences visible of their electric device usage with intuitive, real-time feedback. The application is a web-based solution for mobile phones. *Energy Life* includes an ambient interface that makes use of the home lighting and lamps as a mean to communicate with the user.
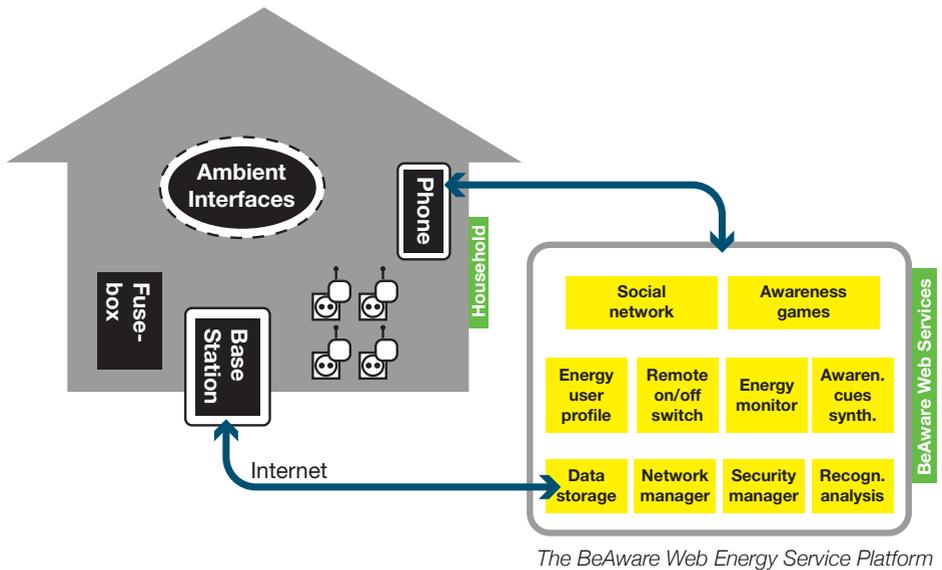
The BeAware Web Energy Service Platform

A service platform and web approach will ensure scalable, deployable innovation in the consumer power market enabling a combined service to:

- Monitor the consumption and understand the effects of different choices.
- Control with more precision power consuming appliances and systems (lights, heating, etc.) with advanced personalization.
- Share consumption practices in groups and communities. This can create opportunities for learning better practices or incentives for adopting virtuous behaviours.

The technology developed in the project will be set up in two different pilot sites; one Nordic field site (Sweden/Finland) and one Southern European field site (Italy). In each site, studies will be carried in a home environment. The research approach is highly multidisciplinary and combines a variety of approaches in the area of user studies, user centred design and evaluation. Disciplines include cognitive science, social psychology, anthropology, and design. The user research approach will be a combination of qualitative and quantitative field studies and trials.

Helsinki University of Technology

Two units at HUT are part of the consortium: The Helsinki Institute for Information Technology HIIT is a joint research institute of the two leading research universities in Finland, and the Power System Laboratory at the Department of Electrical Engineering. www.hiit.fi | powersystems.tkk.fi/eng | www.tkk.fi

BaseN Corporation

BaseN is an international infrastructure measurement and management service provider. The services are based on BaseN's proprietary BaseN Platform, which uses grid-computing to achieve linear scalability and high processing capacity. www.basen.net

Enel.si

Enel.si is offering sustainable services, products and integrated solutions for energy efficiency. The focus is on renewable energy sources. www.enelsi.it

Engineering Ingegneria Informatica

Market leader along the whole value chain of software production: from design, development and outsourcing, to IT and strategic consultancy. www.eng.it

Intelligence for Environment & Security

Research and its application into real solutions. A wide domain of expertise witihin location and communication technologies. www.i4es.it

Interactive Institute, Energy Design

Interactive Institute in Sweden conducts world leading applied IT research that emphasizes interactivity, design and artistic viewpoints. www.tii.se/energydesign

University of Padova, Department of General Psychology

The research activity of HTLab focuses on psychological and social aspect of human-technology interaction and mediated communication. www.psicologia.unipd.it/htlab

Vattenfall Research and Development AB

Research and development for the continuous improvement of performance and environmental properties within generation and distribution of electricity and heat. www.vattenfall.com

BeAware is a joint European research project, coordinated by Helsinki University of Technology, investigating how next generation ICT can be designed to reduce energy consumption in the home.

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