ICT for Sustainable Growth

Be Aware

At a Glance

Project: BeAware Boosting Energy Awareness With Adaptive Real-time Environments

Projects coordinator

TEKNILLINEN KORKEAKOULU – Finland Jacucci Giulio guilio.jacucci@hiit.fi

Duration: 36 months from 01/05/2008

Total cost: 3.965.801 € EC Contribution 2.711.816 €

Programme:



Seventh Framework Programme

Project web site: http://www.energyawareness.eu

Consortium:

8 Partners from 3 countries



Reduction of energy consumption is a societal challenge that requires combination of technical, economical, and social means. So far, energy conservation has focused on new technologies and automation, treating users as passive consumers. However, strong evidence suggests that users can adapt actively their behaviour to energy saving with suitable feedback, support, and incentives, reducing significantly and cost-effectively energy use without impacting adversely their comfort. At present, energy information flows are slow, aggregated, and hidden, being operated by a market lacking incentives and proper service models. The opaqueness discourages users to learn and apply conservation strategies in their everyday lives. However, novel ICT's offer opportunities for removing this bottleneck. In particular, ubiquitous interfaces combined with low-cost sensors support real-time information from energy networks and consumption, empowering users to learn and share conservation strategies.

BeAware studies how ubiquitous information can turn users into active players by developing:

1) an open and capillary infrastructure sensing wirelessly energy consumption at appliance level;

2) ambient and mobile interaction to integrate energy

use profiles into users' everyday life;

 value added service platforms and models where consumers can act on ubiquitous

energy information while energy producers and other stakeholders gain new business opportunities. BeAware combines research excellence with relevant industrial involvement. To ensure wide applicability, a Nordic and a Southern evaluation site are planned. A liaison with the CITRIS programme in the USA facilitates dissemination.

The expected impact focuses on

1) grounding the conservation potential to users' cognitive constraints and practices,

 ubiquitous computing applications for sensing wirelessly energy use and enabling users to act, and

 value added service models to innovate a new energy and multi-utility market.

Participants:

- TEKNILLINEN KORKEAKOULU, FINLAND
- BASEN OY, FINLAND
- THE INTERACTIVE INSTITUTE II AKTIEBOLAG, SWEDEN
- ENGINEERING INGEGNERIA INFORMATICA SPA, ITALY
- UNIVERSITY OF PADOVA, ITALY
- ENEL.SI ENELSI SRL, ITALY
- IES SOLUTIONS SRL, ITALY
- VATTENFALL RESEARCH AND DEVELOPMENT AB, SWEDEN