



## BewareE Newsletter No. 3

The European Project BewareE examines ways of reducing the Energy Consumption by behavioural Changes

### Objectives

In order to fight climate change all potentials for lowering energy consumption have to be exploited. Despite refurbishment works during the last decades households still account for roughly 30 % of the total energy consumption in Europe. Tackling global warming is not only a technological problem – e.g. replacing conventional energy sources by renewable energy sources and promoting energy efficiency in traffic, industries and buildings – but also a problem of human behaviour. Human behaviour consists to a considerable degree of day-to-day routines which are not favourable to a sustainable use of energy.

The Beware project, co-funded by the Executive Agency for Competitiveness and Innovation EACI, aims to push the implementation of “energy awareness services” for changing energy consuming behaviour in European households. A household energy awareness service is any kind of action or tool to support residents in adopting sustainable energy consuming behaviours. These changes of behaviour relate to daily routines, purchasing and investment behaviours.

In collaboration with several stakeholders of the housing sec-

tor, the project consortium systematically gathered, evaluated and disseminated energy awareness services.

### Results

The project generated a database of energy awareness services to support housing organizations and companies, public and private energy service providers in developing own initiatives. Together with several partners, both private and public, best practice examples for energy services were promoted through workshops, presentations, public actions, newsletters, brochures and manuals.



27 country reports explained the national framework conditions of the identified energy awareness services.

139 energy awareness services from all over Europe were identified. These services are provided by housing companies, NGOs, utilities, consumer associations and similar organisations and address tenants and house owners.

Based on a SWOT analysis 36 out of the 139 found services were selected as “best-practice” examples to highlight the most promising awareness services. This selection was realised according to five criteria:

1. residents acceptance;
2. potential market size [% of the whole market];
3. energy reduction potential [% of total domestic energy use];
4. initial costs [€/per service unit for enterprises, home owners or per household/year];
5. development stage.

Subsequently, services’ transferability to the specific national framework conditions in France, Germany, Spain and the Netherlands was assessed with regard to the following criteria: (i) Political regulatory framework conditions (PC), (ii) Market topics (MC) and (iii) Socio-cultural barriers (SC).



The Northern European countries (Sweden, Finland, Denmark) have developed the most comprehensive set of energy awareness services targeted to large parts of society (see Scharp 2008a and Scharp 2008b).

The Central European countries (Denmark, Britain, Germany, France, Belgium, Austria and the Netherlands) and Denmark display a broad spectrum of energy awareness services, but these are mostly regional or local projects that are not spread across the country (see Scharp 2008a and Scharp 2008b).



In particular in Southern and East-European countries technology-oriented energy services are prevailing, for example training measures for architects. Only a few services are targeting user behaviour. Even in those countries with a broad array of energy awareness services, these reach only a small share of populations.

The BewareE partners developed a six step approach for creating and implementing behavioural change services. This approach can be considered as an adapted form of the Service Engineering (SE) approach in the field of behavioural changes. It was tested in several In-house workshop with service providers.

In each of the four countries five in-house workshops have been carried out, involving different service providers in the residential sector. The aim of these workshops was to develop a service (idea) fitting the specific background and individual needs of the organisations involved. “Implementation plans” were conceived, which describe an energy awareness services that might be provided by the service provider in question.



Based on gathered knowledge the BewareE project partners developed national strategies to recommend important country-specific actions for speeding up the implementation of energy awareness services. To this purpose a comprehensive three steps approach was conceived: Firstly, a core objective was defined and explained (e.g. “promoting energy savings through better information on energy costs”). Secondly, the main reasons for the strategy and the objective were explained in terms of scientific evidence, special needs, obstacles, success factors or innovative players. Subsequently, fields of actions as well as possible actions of the main stakeholders were outlined.

The project outcomes are presented in a brochure and in a detailed 50 pages manual. Both publications are available in English, German, French, Dutch and Spanish language and are ready for download at [www.izt.de/bewaree](http://www.izt.de/bewaree).

### Lessons learnt

Results show a huge variety of energy services provided in Europe, ranging from campaigns, exhibitions and events to low cost incentives, monitoring and empowerment services. Well-organized awareness-raising services can bring about energy savings from 5% – 10% and in some cases up to 20% a year. This goes along with household cost savings of up to 300 euro a year.

Only a few of the behaviour-related energy services draw on scientific insights on influencing consumer behaviour: Simple information services are prevailing, even though this approach seems to be not very effective. Only some services can be categorised as feedback or empowerment measures which appear to bring about the highest energy

savings and the most persistent behavioural changes. Consequently, all strategies for promoting energy services should be informed by scientific evidence on energy services' effectiveness.

Analysis revealed that collaboration between different actors is a key factor for successful service provision. A coordinated mix of tools, competencies and methods is necessary. Thus, successful services are often provided in collaboration of utilities, energy or environmental agencies, housing companies, local or regional administrations, NGOs, technology companies, etc.



Promoting energy awareness services and developing national strategies for a systematic and broad supply is a matter of urgency for all countries of the EU. However service providers face a number of important barriers when designing and implementing services. One major obstacle to providing energy awareness services is getting sufficient funding. Energy awareness services are not considered as core business for potential service providers like housing companies or utilities. Staff is needed to develop and implement effective services and, in some cases, so is expensive technical equipment. Furthermore, residents are mostly reluctant to pay for extra services. Therefore, new innovative forms of financing must be considered.



### Success stories

IZT was invited by the German National Housing association – GdW Bundesverband Deutscher Wohnungsunternehmen – and the national tenants association – DMB Deutscher Mieterbund – to present the results of the BewareE project. GdW represents 3.600 housing companies with millions of flats in Germany. DMB represents more than 2 million tenants. As rising energy costs are increasingly important for both housing companies and residents for both organisations the results of the BewareE project are highly relevant. In particular the strongly varying effectiveness of different energy awareness services raised a lot of interest. Hence both organisations are planning to conceive a common guide for implementing behavioural change measures, drawing on the results of the German BewareE manual.



In Spain energy services aiming to change residents' behaviour have been almost unknown. At the beginning of the project, Inasmet Tecnalia launched a broad media campaign about the objectives of the BewareE project. Several newspapers and radio stations were attracted by the project and required further information. The following newspapers reported on the BewareE project: Diario Gipuzkoa, el Mundo, Estrategia Europa, Deia, etc. Altogether these account for an average number of 350.000 printed copies. Moreover, the project attracted interest of

several radio stations (Radio Euskadi, Radio Vitoria, Onda Vasca, Radio Vasca) and on line magazines. All in all, Inasmet may have reached up to 600,000 people through its initial campaign.



Moreover, several stakeholders in the housing sector requested information and support for their own projects.. IVAM and IZT have accompanied housing companies to implement energy services. EIFER's expertise is requested for the implementation of upcoming projects of several housing companies in France. Inasmet will advice the Basque Government for the future development of energy awareness services.



## More information

The final outcome of the project has been published in a manual available in 5 languages and giving practical advice for the planning and implementation of energy awareness services. These guides highlight central challenges for the successful implementation of services and provide practical solutions for interested companies and organisations. It could be downloaded at the BewareE website <http://projekte.izt.de/bewaree/>.

The project BewareE is part of the European research program Intelligent Energy Europe 2006 (EIE/07/242/SI2.467624 – BewareE). It was launched in December 2007 and runs until May 2010. More information about BewareE, energy services and the methodology can be found on the website [www.izt.de/bewaree](http://www.izt.de/bewaree)

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