



Energy research Centre of the Netherlands

Behavioural research and insight in energy use implications for Utilities and Policymakers

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A match made in heaven?

1. We have technologies and services with great potential

- For improved customer-utilities service, retainment, relationships, communication
- For increased transparency on energy use
- For contributing to reduction of energy consumption and DSM

2. We have customers with

- Attitude and knowledge
- Motivations, expectations, needs
- Capacities for action

3. And we have utilities

- Who wish to retain or create better relationships with their customers
- Also with attitude, knowledge, motivations and capacity for interacting with the customers

What is the potential of these products and services?

- The potential is
 - As good or bad as the match between the real and the represented consumer
 - And as good or bad as the customer's attitude; motivation and capacity allows for
- To complicate the matter:
 - many different customers
 - And all these customers are embedded in practices that dictate energy consumption patterns

Relationships between customers and utilities

The relationship between customers and utilities depends on 1 key mechanism:

- The creation of a meaningful, empowering relationship that allows the consumer to either behave the same but still save energy, or change his practices or successfully change them

Creating a meaningful and empowering relationship. Implications for Utilities

1. Raise attitude, knowledge and awareness
2. Create motivation
3. Build Capacity

To complicate the issue....:
In all these steps you need to target the
behavioural practice,
not only the individual

What is this behavioural practice??

- What is behaviour?
 - two types of energy-related behaviour:
 - efficiency behaviour
 - curtailment behaviour
- Both types of behaviour strongly interact with and are influenced and defined by:
 - available energy technologies and systems
 - the social and cultural norms, networks
 - Political/regulatory system
- **This interaction is the behavioural practice that defines to great extent an individual's motivations; attitude and capacity for action!**

The importance of this behavioural practice....

- If the social dilemma is not dealt with
 - Costs today, benefits for the future
 - Costs individuals, benefits for industry and other individuals
- And if the systems does not change as well...
- Then:
 - the individual will soon revert to the old behaviour for lack of socio-technical support

That is why utilities need to work with and be supported by actions of policymakers and regulators!

Examples of successful approaches

- SANIT_Germany
- Energy expert programme_Finland
- Enerlin_Latvia
- Manchester in My Planet pledge_UK
- Samsoe_Denmark

Attitude, Knowledge and Awareness (1)

- The customer needs to know why
- EE needs to be the answer to consumer problem
- You need to find a message meaningful to the consumer and his social environment
 - Depends/differs for each category of customers
 - Customers are not a heterogeneous group
 - Customers can have multiple conflicting identities

Attitude, Knowledge and Awareness (2)

- Message needs to be:
 - Clear, fun, easy
 - Not blaming the customer!
 - Not conflicting with other messages
 - I.e. cheap energy vs. consumption reduction
- A new appropriate social norm is to be created
 - Social marketing is key!

Motivating the consumer

- Technology/service needs to fit the needs and requirements of consumer
- needs and requirements result from the practices

Motivating the consumer

- Multiplicity of benefits motivates many
 - Benefits different for every customer group
 - Even each individual might need multiple benefits to suit his multiple identities
 - focus on benefits in addition to costs, such as increased comfort, or increased property value, noise reduction, health, sense of being in control
 - The customers calculates immediate costs and not investment return....
- Easy and quick rewards keep motivated
 - Icons of long-term success
 - In addition to long(er) term benefits
 - Prestige, social status, feeling of empowerment (what I do as an individual matters!)
 - Feedback!

Motivating the consumer

- Good examples work
 - Work with role models (actors, mayor, singers)
 - successful examples, excursions, fieldtrips
 - use trained experts from target group to help them
 - Use representatives with good communication and social skills... and that are meaningful to/ tailored to the customer
- Beware of comparisons!!
 - Knowing what the neighbors or peers do
 - can motivate to do even better,
 - discourage
 - and even motivate to use more.....

Empowerment/capacity building

Several resources need to be in place:

1. Infrastructure
 - All necessary technologies and knowledge have to be available on the market or preferably already installed (TV/ Computer/ICT)
2. Feedback on social level
3. A Network (human and technological/infrastructural)
 - Back-up/helpdesk
 - Make use of already existing networks familiar to customers
 - Embed initiative in broader campaign
 - Link up with ongoing initiatives, trends, fashion
4. The necessary supporting policies, regulations and social norms

An example of a practice approach: feedback

To be effective feedback should:

1. build on the most appropriate attitude and motivations and capacity building
2. Be part of broader action to supply facilitating conditions
 - initiating a broader change or social movement
 - targeting the level of social interaction and mobilization
 - focusing on collective action, interaction, negotiation

An example of a practice approach: feedback

- not only target the respective individuals
- also the other stakeholders
- And not only focus on why people do not behave
- But also focus on what conventions shape the individual behaviour: why do people behave the way they do and find it difficult to change?

Supporting actions from policy makers and regulators

- Allow more flexible project planning, goal setting and evaluation
 - intermediaries need to adapt to contexts
- support the creation of new 'appropriate' energy-efficient behaviour
 - create new institutions, certification schemes, permanent bodies including end-user representatives, permanent technological fixates (e.g. metering devices), new service providers

Supporting actions from policy makers and regulators

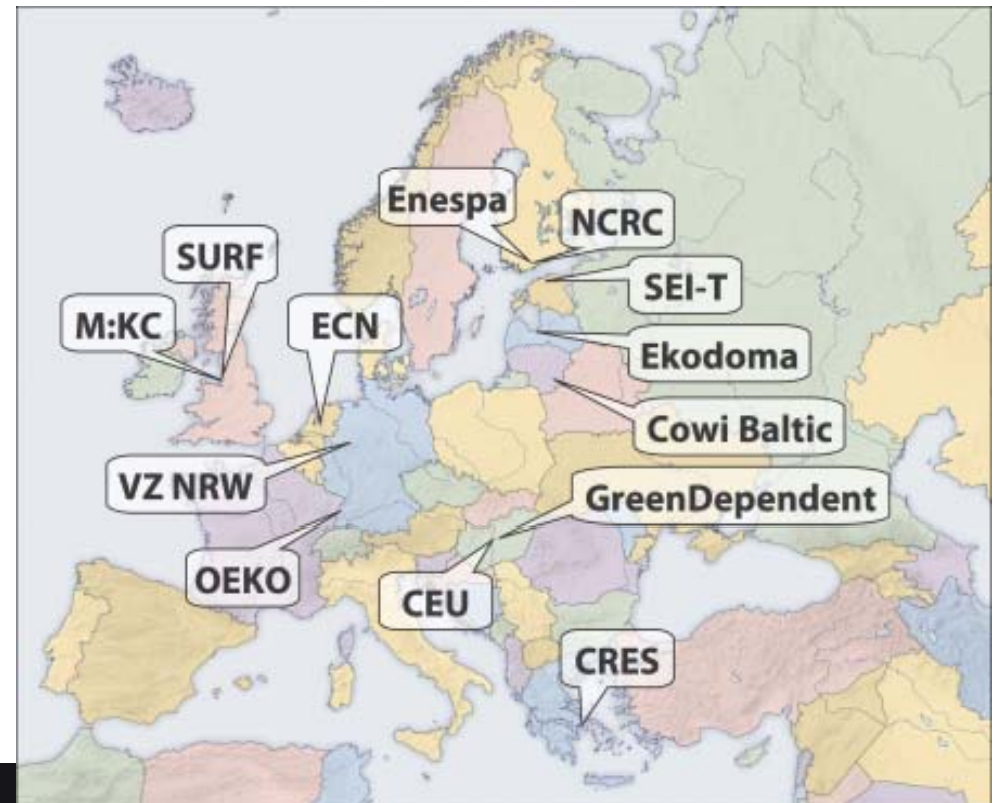
- EE priorities framed and funded through long-term programmes, on national, local and sectoral level.
- Projects should sit within long-term programmes rather than as standalone initiatives.
- The results should be included in energy policy evaluations and used as new baselines.
- Aim for long-term changes/short-term goals
 - achievable within one electoral cycle.
 - Ensures continuity



Changing Behaviour

Aim: develop practical toolkit for practioners to improve outcomes of DSM programmes

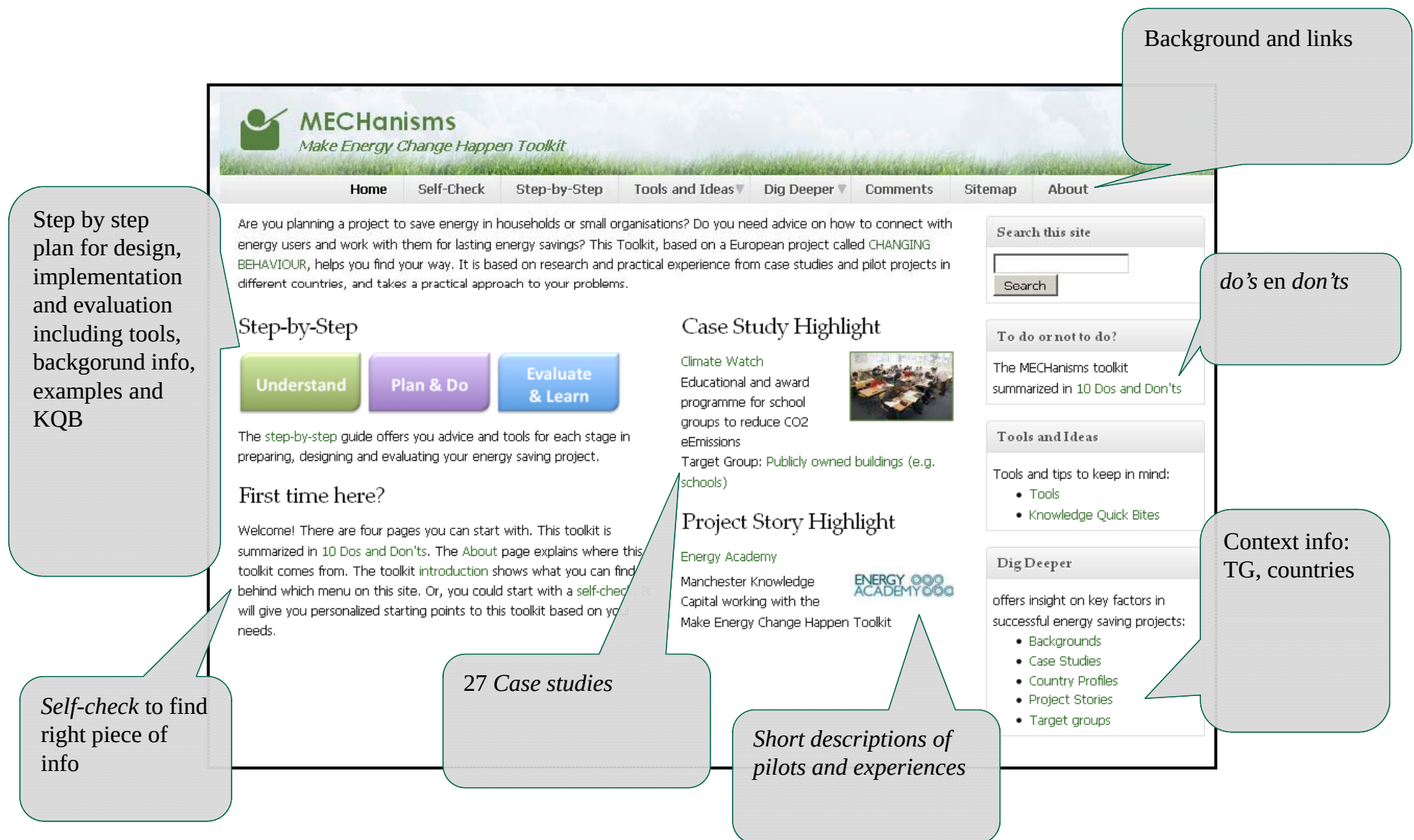
- EC - FP7
 - Coordinator NCRC
 - 2008-2010
 - 13 project partners
 - 6 researchers
 - 7 practicioners
- >Action research approach**



MECHanism

Make Energy Change Happen toolkit

- Goal: consumer behavioural change
- How: supporting developers and implementers
- Status:
 - Second version being reviewed
 - 1 January 2011: public version online in 4 languages (English, German, Hungarian, Greek)



Where can I find the details?

- Create Acceptance:
 - toolkit to design a good fit between end-users and a technology
 - www.createacceptance.net
- Changing Behaviour:
 - toolkit for implementing demand side management programmes
 - www.energychange.info



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Changing Behaviour

Contextualising behavioural change in energy programmes involving intermediaries and policymaking organizations working towards changing behaviour

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BACKGROUND AND AIM OF THE PROJECT

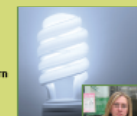
Shifting the European energy market toward an increased focus on energy services based on end-user needs requires a close understanding of end-user behaviour. This project focuses on energy demand side management (DSM) programmes to promote energy efficiency and conservation, and additionally on integrative programmes which combine efficiency and end-user generation.

It aims to work together with intermediary organisations (energy agencies, NGOs, consultancies and ESCOs) to develop a theoretically rich but practical conceptual model and toolkit of the sociotechnical change involved in energy DSM programmes.

METHODS AND RESULTS

1. Inventory of European DSM programmes

We start our work (WP1) by making an inventory and analysis of existing programmes to learn from past success and failure. We focus on programmes with broad target groups, such as households, the building sector, municipalities and SMEs. Examples of programme covered include energy audits for SMEs, households or buildings; market transformation programmes promoting efficient appliances and renewable energy solutions for end-users; programmes promoting energy efficient building design, renovation and usage; training and capacity development programmes; campaigns and competitions.



2. Conceptual model: success factors, models of change, methods of target group interaction



It is not easy to change patterns of energy use. Programmes to reduce energy consumption only capture a small share of the potential. We can find some reasons to this problem in previous social science research on technological systems. Concepts like routines, path dependence and sociotechnical systems explain why existing patterns persist even when they are problematic. But we can also find positive examples of change from the past. We thus know that change usually requires a network of actors, and occurs via negotiation and alignment of diverse interests. In WP2, we select for closer analysis 10-20 of the best and worst examples of previous European DSM programmes. We examine how they have interacted with their target groups and wider networks of stakeholders. We also examine the impact of context on these programmes, including the role of culture, institutions, gender, resistance, education and communication, participation, risk and trust, economic and psychological drivers and barriers and sector-specific requirements.

3. Dialogue with intermediary organisations

Intermediary organisations have a growing role in energy markets and services. Our project aims to co-operate intensively with intermediary organisations working with energy issues and accelerate their capacity for Energy DSM. We do so by mapping the field of energy intermediaries, by organising workshops, discussing our findings, and jointly identifying best practices for European transfer reflecting the different degrees of transfer, the adjustment to local conditions and belief systems, as well as the necessary measures to adapt programmes into new contexts. Four regional workshops are organised in Tallinn, Budapest, Manchester and Athens.



4. Pilot projects with context-tailored best practice programmes

The conceptual model developed in the previous stages is further tested in real-life pilot projects. The pilot projects will also test various ways of tailoring existing programmes to new contexts. The pilots will provide new knowledge about how programmes need to be designed so as to fit into their cultural, institutional and policy context. They will help to develop and refine our approach under real-life conditions.

5. Toolkit development and evaluation

The outcomes of the project will be used for designing a highly usable 'toolkit for practitioners'. The toolkit will be sensitive to the influence of context, time and actors, and will thus facilitate the cross-country transfer and adaptation to local context of European best practices. In particular, the toolkit will address the diversity of conditions and behaviour patterns in old and new EU Member States.



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