

Closing the Loop

Behavioural changes are necessary to get the full impact on energy efficiency.

What works and what doesn't

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Achieving *lasting* behavioral change is:

- unlikely to take place if only individual behaviours are targeted
- while the context in which these behaviours are embedded remains the same





ieadsm energy efficiency

Themes



smart metering

Task 24



transport





building retrofits



SMEs



Repertoire of Human Behavior





"All models are wrong, but some of them are useful" George E.P. Box (1979)

Desk study Helicopter overview

Learning from models and theories of change used in case studies

Understanding their benefits and drawbacks

Impact on design, implementation, monitoring and evaluation





Desk study+ Case studies

- Existing projects
- From participating countries
- Discussed in workshops





Target audience

Intermediaries





Policymakers

(Research) funders/investors

Technology developers, industry









In General:

- 1. Do: Know what model or theory underlies (your) intervention
- 2. Do: Acknowledge that every model or theory is useful for what it aims to do
- 3. Do: Take the end-user perspective as a starting point





Several of 'our' Retrofitting cases informed by neo classical economics: money and information



http://www.contemporaryartdaily.com/wp-content/uploads/2012/02/2.jpg http://pinterest.com/kyrpersa/homo-economicus/

ieadsm What can we learn?

They do well within what they intend to do

- The programmes are relatively easy to evaluate quantitatively
- The retrofitting market can grow
- Subsidy often used to the max
- Many homes insulated

Task 24

- Economic discipline underpinning does manage to nudge a certain percentage
- Sometimes even a new norm seems to be emerging...
- Participants often already decided to retrofit, but now retrofit more comprehensively

But if we want to tell a learning story:

- One-off programmes, no continuity after insulation
- Paradox: demand for information! And a lot of prefinancing required...
- Hardly no flexibility: Only financial and technological tailoring
- Not focused on changing use patterns (routine behaviour).
- Danger of rebound
- And: will this really change the building sector or market?





- 1. Focus on the social side
- 2. Its not just what we buy, its what we do
- 3. Change lifestyles not lightbulbs
- 4. Think of the benefits for end users as well
- 5. Use trusted intermediaries to create trusted messages
- 6. Don't ask for too much upfront financing or information
- 7. Use a toolbox of interventions and go Beyond kWh targets
- 8. Don't box people in too much, focus on the function of energy use
- Pre-scope, benchmark your heart out, measure and model
 10.Learn from the unwilling





- 1. Time isn't always money
- 2. Technology is everything, simply pushing it wont work
- 3. Make sure the value for the customer is clear, be transparent
- 4. Information needs more than tech, real people work best
- 5. Learn from those that do not want to participate, find the luddites
- 6. Include the home and household dynamics
- 7. Personalities are very influential
- 8. The home is their castle
- 9. Don't give smartphones to people with no internet
- 10.Focus on the why
- 11.Participation is key
- 12.No one likes waste
- 13.Tell me how I am doing

30% of energy demand is locked in behavioural wedge

Task 24 ieadsm energy efficiency

Task 24 premise



Includes: technology uptake use and maintenance purchasing investment habits and routine social acceptability

This behavioural wedge results from:

- ✓ Homo sapiens ≠ Homo economicus
- Overly technocratic approaches
- Limited transfer of best practice and research to the policy domain
- Lack of meaningful monitoring and evaluation

The Monster

Subtask 1 analysis of IEA DSM Task 24: Closing the Loop: Behaviour Change in DSM - From Theory to Practice



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FoFiD

Read the full monster here: http://bit.ly/task24monster

OTHER GOOD REASON TO APPLY TO THE BLOK VOOR BLOK PROGRAM IS THAT YOU CAN BUILD A NEW KENNEL WITH THE LEFTOVER PAPER STACKS FROM THE APPLICATION FORMS...

E



Once upon a time... in a country full of speedsters called The Netherlands, eco-driving was a practice for organic, whole-grain musli-eating animal rights activists - or hippies. 'If there's even the slightest bit of testosterone in your blood, you'll make your engine roar' they'd say.

Every day... these proud Dutchmen would spill way too much gasoline during their drives, so as to feel their freedom and protect their status as the alpha male in the concrete jungle.

But, one day... the national government decided to start a campaign to promote more economical driving. After all, too much gas was spilled, too many greenhouse gasses were emitted and too many particles were set free to pollute the cities. The campaign basically showed that you can be a tough guy even when driving economically. A parody of The Dukes of Hazard was used in advertisements on eco-driving to support this message. Furthermore, training sessions were offered to learn the new way of driving, these techniques became a part of the driving school curriculum and fuel saving technology (such as feedback systems) and tire pressure controls were promoted.

Because of that... between 2,2 and 3,75 Mton of CO2 emission were avoided through HNR between 2000 and 2009. The costs for the campaign were below 10 €/ton CO2, which is a very cheap solution to the problem! 69% of all drivers in The Netherlands used one or more principles of eco-driving in 2009, and 84% were familiar with the concept. The campaign was a roaring success.

But then...due to a change in government after 2008, this success declined. This can be largely ascribed to the budget cuts and the changing course of the Dutch policy (technology instead of behaviour as a solution; increasing the speed limit from 120 km/h to 130 km/h which sends a very confusing message to drivers!).

But still... eco-driving is now embedded in the Dutch society. The implementation on different levels, such as the integration of the techniques in driving schools and the support of sector organisations such as ANWB (AA patrol) were a key factor of this change in social norm.

And, ever since then... you can be a tough guy whilst driving economically. And a nice addition: it will save you some money too. The end.



Business models for a more effective market uptake of DSM energy services for SMEs and communities





- We need a better understanding of what works and why
- We need new value driven Business Models + development competencies



What will we do in this task?

- Identify + analyse effective business models & underpinning services
- SMEs and residential communities
- National energy ecosystems
- Guidelines
- Working together
- Contribute to the growth of the supply and demand market



Where do we stand

Collected 250 propositions in participating countries/ global 69 global, 59 NL, 25 AUS, 30 Se, 65 CH

- Metering, visualization, analytics and actionable feedback on appliance level
- Renovation retrofitting delivered in Packaging models
- Facilitator models (targeting process not tech)
- SME Value Chain EE
- Open data based models
- Lighting programmes
- Waste energy to work
- Space/room for E/H/ tech models
- Energy Performance Contracting
- Next generation shares in RES models

B2B, B2B2C, B2C



First insights: context

- Energy efficiency market is dominated by limited types of business models
 - resources and processes are built and managed solely within the firm
 - often fail to leverage the creative potential of the user
- Energy efficiency market is described in terms of technological, financial or legal possibilities.
 - framing influences creation BM: as technical or contractual constructions.
- Context is an important factor influencing business models
 - Not only global but also local and entrepreneurial



Are we able to think in change?





Any Questions?

