ieadsm
Task 24
energy efficiency

Phase II: Behaviour Change in DSM
Helping the Behaviour Changers

Why Are We Doing Task 24?

There is no behaviour change 'silver bullet', just like there is no technological silver bullet that will ensure wholescale energy-efficient practices. Designing and implementing the right programmes and policies that can be measured and evaluated to have achieved lasting behavioural and cultural change is extremely difficult. Task 24, the first global research collaboration on behaviour change and demand-side management (DSM), helped address these difficulties by developing a practical toolbox for 'Behaviour Changers' (researchers, implementers and policymakers) with examples of best (and good) practice and learnings from various cultures and contexts (see Subtask 8 – Toolbox for Behaviour Changers). Part of this toolbox are internationally-validated standard behaviour change evaluation tools 'beyond kWh', and looking 'beyond energy', to the multiple benefits of energy efficiency. We have also developed a 'Behaviour Changer Framework' (BCF) which can be used to visualise, design, evaluate and reiterate real-life behaviour change programmes and pilots. Our overarching 'language' to help translate between the different Behaviour Changer sectors is storytelling. We co-edited the largest-ever Special Issue in *Energy Research and Social Sciences*, called "Narratives and Storytelling in Energy and Climate Change Research". This Task relied on a large, global network of sector-specific DSM experts – the 'Behaviour Changers' - from participating and interested countries to engage in our various research activities.

Phase I of Task 24 – Theory

Phase I of this Task (www.ieadsm.org/task/task-24-phase-1/) has completed several Deliverables, including the expert network and an online platform for continued exchange of knowledge and successes, a large-scale analysis of the helicopter overview of various theories and models in their applied case studies, several reports, factsheets and guidelines on how to evaluate behavioural interventions and the participating country reports with specific to do's and not to do's, future research questions and re-iterated case studies following our best practice recommendations. There are over 40 publications on our website for Phase I which was finalized in mid-2015.

Phase II of Task 24 – Practice

Phase II is based on the premise that the reason why energy efficiency is still one of the greatest market failures of our time, is the continued use of overly technocratic approaches to what is essentially a human issue – with a (largely) human solution. We believe that a better understanding of the human aspect of energy use, including behavioural and societal drivers and barriers and external and internal contexts, will greatly improve the uptake of energy efficiency and DSM policies and programmes. This is not at all to say that technology, market and business models and energy supply are not hugely important aspects of the Energy System. Instead, we pose that the *Energy System begins and ends with the human need for the services derived from energy (warmth, comfort, entertainment, mobility, hygiene, safety etc) and that behavioural interventions using technology, market and business models and changes to supply and delivery of energy are the all-important means to that end.*

The main objective of Phase II is take good theory into practice to allow Behaviour Changers (from government, industry, intermediaries, research and the third sector) to:

- Engage in an international expert network
- Identify the top 3 DSM issues for each country
- Identify and engage countries' networks in the 5 Behaviour Changer sectors using the Behaviour Changer Framework
- Use and test a Collective Impact Approach to develop shared methodologies, guidelines and a common 'language' based on narratives to aid Behaviour Changers - a 'toolbox of 'interventions'
- Standardise how to evaluate behaviour change programmes 'Beyond kWh'
- Collate national learnings into an overarching (international) story

Phase II (www.ieadsm.org/task/task-24-phase-2/) will be finalised December 2018.

Main Issues and Sectors Studied

Six countries (though the US and Canada were jointly represented via the Consortium for Energy Efficiency) financially participated in Phase II: Austria, Canada, Ireland, New Zealand, the Netherlands, Sweden and the US. In each country, we chose a different sector and top issue to be examined in depth, although there were similarities as to what the usual top DSM issues were found to be: transport, SMBs, split incentives between landlords and tenants (commercial and residential) and uptake of new energy technologies and systems.

The following issues were examined in depth:

- Austria – Inclusion of behaviour change evaluation methods in the new *energy efficiency law* and uptake of the mobility-sharing platforms in the *transport sector*
- Canada and the US – Building Operator behaviours in the *health sector* and credible evaluation methodologies for the *utility sector*
- Ireland – Using public libraries as Middle Actors to loan out home energy saving kits in the *residential sector*
- New Zealand – P2P neighbourhood-sharing platforms and Home Energy Audit Tool (HEAT) kits in the *residential sector*
- The Netherlands – ICT use in the *higher education sector*
- Sweden – Green Leasing in the *commercial office sector*
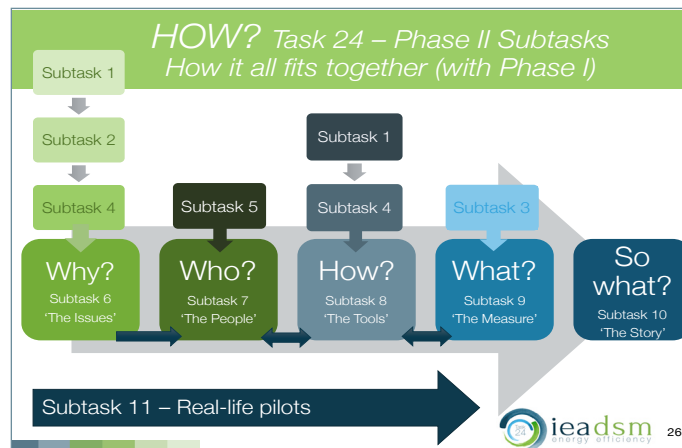
Outputs and Deliverables

Task 24 held over 60 workshops (30+ in Phase II) in over 20 countries and was represented in almost 60 of the top International conferences as well as in seminars and lectures. It released almost 100 publications – from peer-reviewed papers on storytelling and evaluation, to technical reports, policy briefs, peer-reviewed conference proceedings, IEA reports, workshop minutes and magazine articles and blogs. Several of our field research pilots won international awards, as did our Behaviour Changer Framework. Evaluation of these pilots showed that the Task 24 approach based on facilitating multi-stakeholder collaboration to achieve a collective impact really works: in some pilot buildings, we measured almost 20% reduction in energy use following our interventions. Our expert network reached >350 Behaviour Changers in over 20 countries and this work was presented to an audience in the thousands and attracted co- and in-kind funding and support in the $100,000s. It is the DSM TCP Task with the most output and greatest reach, by far.

The structure of Phase II and its Subtasks

Insights of Task 24

- There is no silver bullet model, framework or theory for behaviour change
- Homo economicus doesn't exist, even though economic models are most prevalent in behavioural interventions
- Habits are the most difficult thing to break and they're ~95% of our energy use
- There is no such thing as individual energy use
- We need to focus on whole-system, societal change
- This can't be done in isolation by one sector – collaboration between sectors is key
- We need to facilitate shared learning and collaboration in multiple stakeholders, which is difficult and often has translation issues
- We thus need a common language – we found narratives really work, as do cross-country case study comparisons and standardising and validating evaluation methods
- We need to create collective impact in real-life – and Task 24 has developed the right tools and processes based on good social science practice & design thinking

The main moral of the Task 24 story is:
it's all about the people!

Task Duration

April 2015 – December 2018

Participating Countries

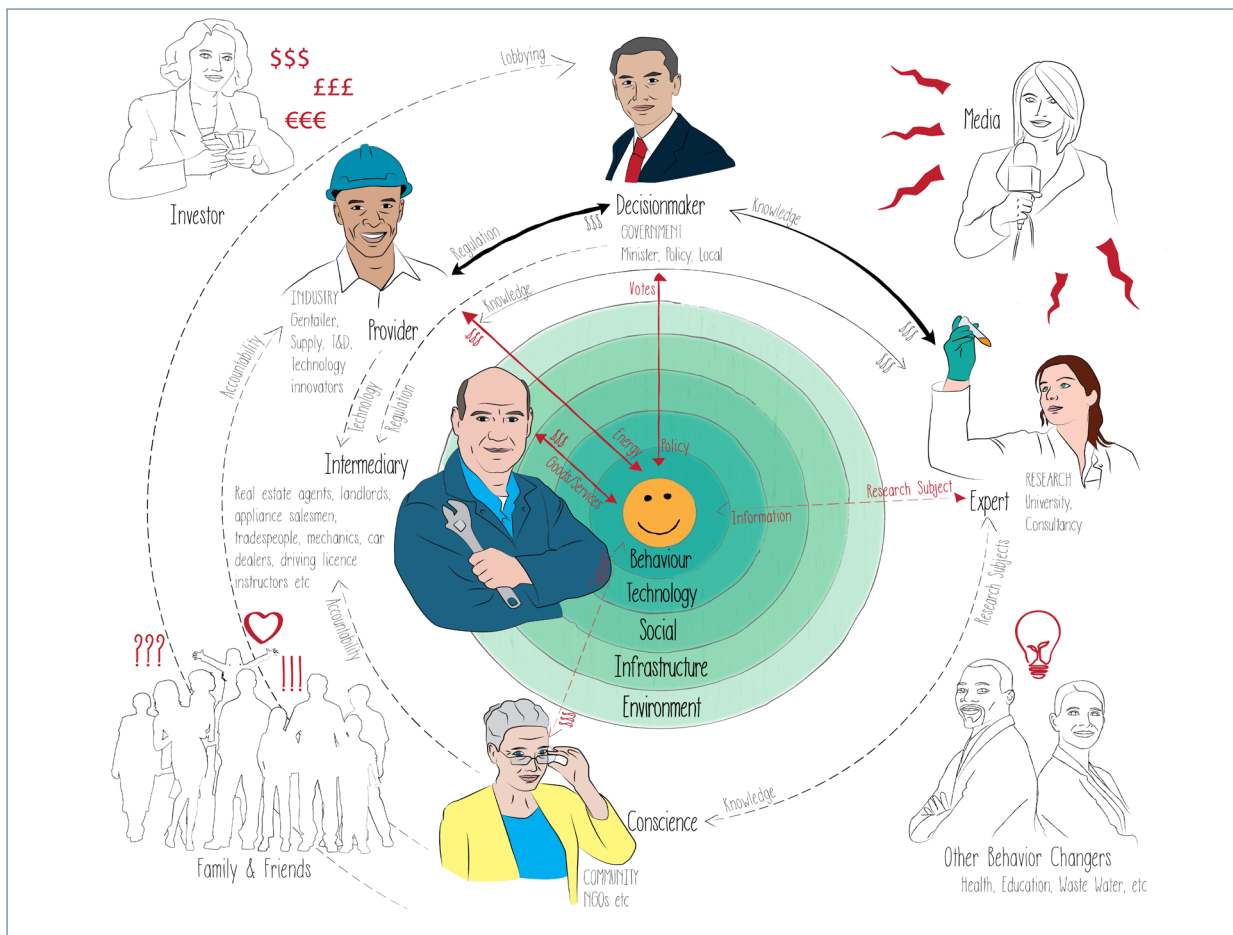|	
Austria	New Zealand
Ireland	Sweden
Netherlands	United States & Canada *(via the Consortium for Energy Efficiency)*

Task Publications

All official publications can be found on
www.ieadsm.org

Operating Agents

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Task 24 Behaviour Changer Framework

Most Seminal Task 24 Publications

Karlin, B., Ford, R., Wu, A., Nasser, V., and Frantz, C., (2015a). IEA DSM Task 24 Subtask 3 Deliverable 3A. How do we know what we know: A Review of Behaviour-Based Energy Efficiency Data Collection Methodology, Los Angeles, USA: IEA DSM.

Moezzi, M., Janda, K. & Rotmann, S., (2017). Using stories, narratives, and storytelling in energy and climate change research. Energy Research and Social Science, Special Issue on Storytelling in Energy and Climate Change Research, Volume 31, September 2017, Pages 1-10.

Mourik, R.M. & Rotmann, S., (2013). IEA DSM Task 24 Subtask 1. Most of the Time what we do is what we do most of the time. And sometimes we do something new. Analysis of case studies, Eindhoven, NL and Wellington, New Zealand: IEA DSM Task 24.

Mourik, R.M., van Summeren, L.F.M., Rotmann., S., & Breukers, S. (2015). Did you behave as we designed you to? Monitoring and evaluating behavioural change in demand-side management: from what to why, ECEEE Summer Study Proceedings, Hyéres, France: ECEEE.

Rotmann, S., (2016). How to Create a 'Magic Carpet' for Behaviour Change, ACEEE Summer Study on Energy Efficiency in Buildings, Monterey Bay, USA: ACEEE.

Rotmann S. (2017): "Once upon a time…" Eliciting energy and behaviour change stories using a fairy tale story spine, Energy Research and Social Science, Special Issue on Storytelling in Energy and Climate Change Research. Volume 31, September 2017, Pages 303-310.

Rotmann, S. (2018a). Subtask 8 – Toolbox for Behaviour Changers. IEA DSM Task 24.
Rotmann, S. (2018b). Subtask 8 – Storytelling from A to Z. IEA DSM Task 24.
Rotmann, S. (2018c). Subtask 10 - The overarching country stories