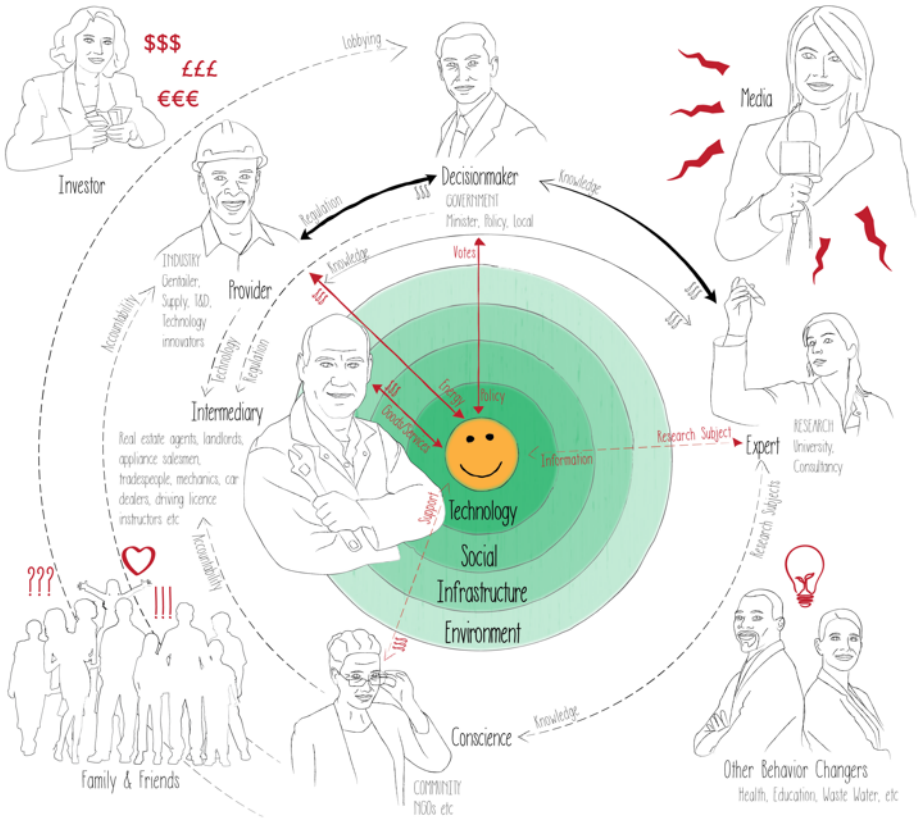
International Energy Agency

Energy Technology Initiative on

Demand Side Management Technologies and Programmes



ECEEE Summer Study

Task 24 – Phase II

Helping the Behaviour Changers

Workshop minutes

June 2015 and 2017

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Teresa Kallsperger

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ECEEE summer study, June 5, 2015

How to run the Behaviour Changer Framework (BFC) with more than 50 people in less than 1h?

The run sheet:

1. Overview of Task 24 (5 minutes)
2. Explain the BCF – what is this tool actually meant to do? (5mins)
    - It is a collective impact tool (the process comes before the outcome)
    - It helps visualise the energy system through the human lens
    - It is a back-casting tool as it helps us imagine best practice (in the real world) and describe the current status and what is needed in order to achieve best practice
    - It is a tool to help different Behaviour Changers (BCs) to think about the best possible scenario (that is possible under the current system) and then collectively work on solving problems and co-create the right intervention to change this specific behaviour from current status to best practice (i.e. a common goal)
    - It also helps to evaluate and measure the path towards the best practice (via the specific intervention that was chosen, and the specific indices to measure success for each BC) and helps us re-iterate, where necessary
    - It helps identify multiple benefits and discuss how to measure them
    - It helps us appreciate each other's world, the lock-ins, restrictions, relationships both good and bad which the system throws up without the BCs choice (necessarily)
3. Break up the BC sectors in the room, chose sectors that are not represented (e.g. intermediaries, anyone who is a landlord or has worked in retail, energy auditing etc.) (2mins)
4. Imagine a specific, pre-prepared scenario (3mins)
5. Break-off session - decide which concrete BC you want to invite to the table to design the tool; what their specific mandates, stakeholders and restrictions are (10mins)
6. Quickly go round the room and tell each other's top issues (5mins)
7. Talk about each of your tools in the toolbox (specific to this behaviour) (5mins)
8. Describe the EU context together (technology, social, i/s, environment etc.) (5mins)
9. Start with the most important relationships (r/s), describe the exchange in the r/s, conflicts and drivers (3mins)
10. Go to the next r/s etc. (as long as it takes)
11. Collect feedback (10mins)

From Ruth's notes on the day

General notes to this specific example (landlord split-incentive issue relating to insulation subsidies in France):

Tenants should be one of the BCs on the map (seeing Landlords were the *End Users*), add a few 'blank' BCs to be able to add when needed. If tenants are not explicitly on board, not only through being represented by the *Conscience* or their landlord, the whole exercise is for nothing, because of rebound. A perfect scenario, by definition, is one where all perspectives are represented and have a consensus, i.e. it is not a perfect scenario for what only one stakeholder would want. Always compromise. The process is the goal. The setting, standing around this board, walking around, allows for a trusted feeling, is non-judgmental and brings everyone into the process.

Recommendations for field trial:

Being agents in role play is brilliant because it creates empathy for each other's position, which is an essential part of the process – so, make everyone do their own mandates etc. but before they tell the story, assign them different BCs and make them role play their exercise to see how much they know of each other and understand each other already. *Decisionmakers* are too boxed in here. Allow for more change and flexibility in what they are and want, multi-layered identities allowing for difference within categories would be better. Participants need collectively to decide who to invite, max 15 people in the room.

Also make sure somewhere that you explicitly ask them to reflect on multiple benefits, not only mandate and restrictions (➔ that is part of the initial ST6 exercise but needs to be remembered and reiterated during ST7).

Make it into a twister play – possibly for ice breaking exercise, you could put the BCs on each of their parts and make hold hands if they already had good r/s with other BCs?

Time restrictions, logistics constraints should also be discussed for each BC ➔ this is part of the bombs/conflict scenario work.
How are we going to work towards getting the participants to commit to the scenario and the roadmap? Perhaps make it into sessions instead of just one, make it into a real process, building up complexity ➔ that is the idea, that this is used over time to

a) describe the current scenario and each other's roles and contexts, including the *End User* and their behaviour;
b) visualise together, the future best practice including any compromises that need to be made due to system restrictions
c) co-create a roadmap of how to go from current scenario to best practice, including re-mapping all the relationships where need be, removing some bombs, including more love hearts, creating new r/s and taking out any tools that are not relevant to that specific behaviour or *End User*
d) discuss multiple benefits and how to measure them for each BC and the roadmap
e) decide on exactly who does what, when, with whom, in what way and how they will measure it. Every year during Task 24 workshops, we will assess where we are and if we are moving towards best practice goal or if we need to re-iterate our intervention. National Experts can do this more often, e.g. check in with their Behaviour Changers every 3-6 months.

ECEEE attendees at our Behaviour Changer Framework workshop (almost 50 all up)

ECEEE Summer Study, June 2, 2017

How to help Behaviour Changers in Graz reduce fine air pollution

Introduction

Quick overview of Task 24 (Dr Sea Rotmann, Operating Agent)
Quick overview of the Clair City[1] EU project on Air Pollution (Dr Tim Chatterton, UWE)
Quick overview of the 'Feinstaub' air pollution issue in Graz (Austrian National Expert Teresa Kallsperger, Grazer Energy Agency)

The 'magic carpet' or Behaviour Changer Framework of Task 24 is explained in more detail here and as part of the ECEEE Summer Study display, where it won "most promising or innovative project presented", in a paper here.

We undertook a quick 'magic carpet ride' with people who joined our informal session and, in less than ¾ of an hour, managed to elicit a lot of interesting insights. These are discussed below (thanks to Teresa Kallsperger for the minutes).

Image showing the 'magic carpet' in action during the informal session at ECEEE 2017.

The Actors: their mandates, stakeholders, restrictions and tools

The End User: Car drivers in Graz

We chose this specific End User and behavioural issue as small particulate air pollution is one of the biggest contributors to ill health in Graz. The problem is so bad, that Grazer/Innen live, on average, one year less than residents in other Austrian cities. The behaviour and End User we concentrated on were car drivers, particularly commuters, who drove their cars to and from work, usually on their own.

[1] http://www.claircity.eu/

END USER: CAR DRIVERS IN GRAZ

MANDATE:

- Get to work
- Get to take shopping home
- Hobby activities
- Be a good citizen

TOOLBOX:
- End users = voters
- Manpower (e.g. demonstrate against s.th.)

STAKEHOLDERS:

- Family
- Employer
- Friend/hobbyists
- Politicians

RESTRICTIONS REGARDING AIR POLLUTION: Why can't/don't you act on this?

- Time restrictions (get to work, pick up children, do shopping, social/family obligations)
- End user needs flexibility
- Financial reasons: employer provides car
- Heating with wood is just too comfortable
- End user not interested in e-car (no charging station at home, not flexible enough etc.)
- Societal attitudes regarding car as a status etc.

The Decisionmakers: City-level politicians

DECISION MAKERS: POLITICIANS AT CITY LEVEL

MANDATE:

- Ge re-elected
- Economic growth of Graz
- Positive budget
- Promote public good

TOOLBOX:
- Subsidies/penalties/taxes etc. (financial instruments on):
  - Changing parking prices/ amount of slots
  - Improve conditions for cyclists (more infrastructure), make public transport cheaper + more attractive
- "Order" science

STAKEHOLDERS:

- Voters of Graz
- Party
- Lobbyists
- Media

RESTRICTIONS REGARDING AIR POLLUTION: Why can't/don't you act on this?

- Politicians at city level want to be re-elected
- Regulations from global political level (economic, infrastructure, environment etc.)

The Experts: Researchers studying air pollution, transport and health

EXPERTS on air pollution, transport, energy+ health

Live fast, not long!
Living in Graz worth dying for!

MANDATE:

- Get funding
- Do research
- Publish papers
- Change the world!

STAKEHOLDERS:

- Government/EU
- Transport + land-use planners
- Business + service providers
- Research subjects (citizens + commuters)

TOOLBOX:

- Scientific papers, magazine articles, expert interviews, quantitative/qualitative studies…
- Opinion, society (should) believe in

RESTRICTIONS REGARDING AIR POLLUTION: Why can't/don't you act on this?

- Perfect funding is needed
- Slow admin-processes: getting permission and access to data (lack of monitoring
- Invisibility of the problem

The Middle Actors: Grazer Energy Agency (AT National Expert)

MIDDLE ACTORS: GRAZ ENERGY AGENCY

MANDATE:

- Get funding
- Get resources
- Pilot best-practice
- Networking, leadership

STAKEHOLDERS:

- Government + EU
- Municipality of Graz
- Policy makers
- Experts

TOOLBOX:

- Independency
- Study results, concepts, project results
- Network
- Marketing campaign

RESTRICTIONS REGARDING AIR POLLUTION: Why can't/don't you act on this?

- Dependency on municipality + political will
- Lack of influence
- Lack of resources

The Providers:
(1) Transport and Land-Use Planners
(2) Business and Service Providers (incl. employers)

PROVIDERS: TRANSPORT/LAND-USE PLANNERS

MANDATE:

- Make city operate
- Long-term infrastructure
- Control development
- Quality of life

TOOLBOX:
- Implementation of political will
- Study results/ experience
- Network
- Marketing campaigns

STAKEHOLDERS:

- Politicians/mayor
- Transport lobbyists
- Business and service providers
- Citizens/commuters

RESTRICTIONS REGARDING AIR POLLUTION: Why can't/don't you act on this?

- Political restrictions and dependency on political will
- Providers can only operate within 4-year political periods

PROVIDERS: BUSINESSES + SERVICE PROVIDERS

MANDATE:

- Make $$
- Get people to do their business
- Provide access/parking
- Lobby politicians

TOOLBOX:
- Employment of many citizens
- Offering incentives to drive cars/not drive cars (billing)
- Marketing campaigns

STAKEHOLDERS:

- Employees/staff
- Customers
- Service users + providers
- Investors

RESTRICTIONS REGARDING AIR POLLUTION: Why can't/don't you act on this?

- Societal attitudes regarding car as a status etc.
- Employees satisfaction with own cars
- Lack of alternative infrastructure for our employees (public transport etc.)

The Conscience: NGOs such as "Critical Mass"

CONSCIENCE: NGOs such as Critical Mass

MANDATE:

- Improve air pollution
- Activism/lobby
- Inform and engage citizens
- publicity

STAKEHOLDERS:

- Citizens
- Media
- Members
- Other NGOs

TOOLBOX:

- Climate change agenda
- Environmental concern
- Statistics on improved health/less cost, etc.
- Media, marketing, activist campaign

RESTRICTIONS REGARDING AIR POLLUTION: Why can't/don't you act on this?

- Lack of influence – we try our best!
- conservative views in Graz, lack of people joining

Layers around the End Users

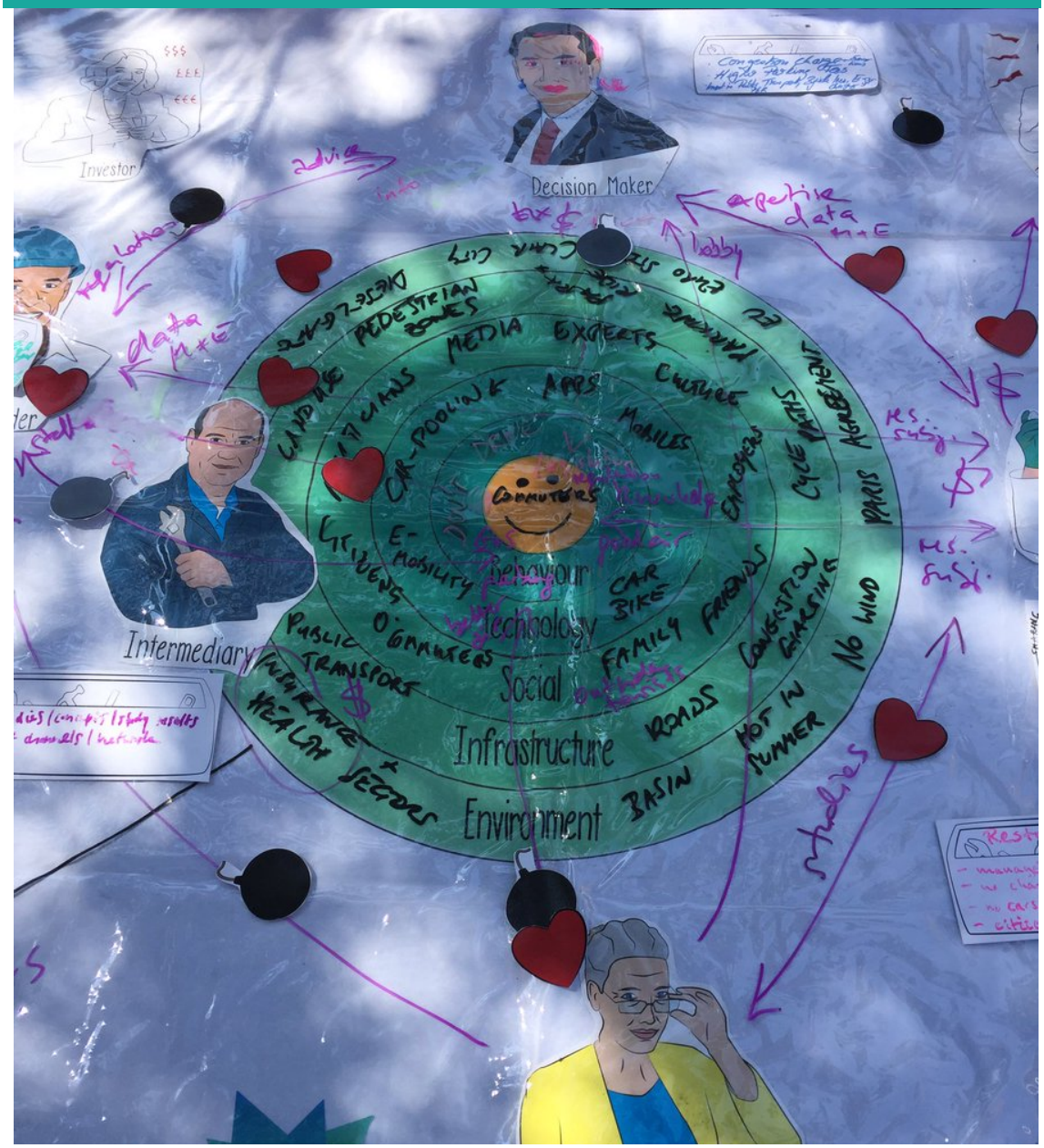
This exercise helped us understand the End User and the many complex layers, from which the choice to drive or not drive, is informed.

BEHAVIOUR	Of end users: Drive/ don't drive
TECHNOLOGY	• options: cars, bikes, public transport • New technology: e-cars, apps, car-pooling/sharing, multi-modal points like Tim
SOCIAL	• Behaviour of family, friends, employer, colleagues, other citizens, politicians, media, experts, modern culture
INFRASTRUCTURE	• Public transport, cycle lanes, park and ride • Roads, parking spots, congestion • Land-use restriction, pedestrian-only-areas
ENVIRONMENT	• Basin/valley in Graz • No wind, hot climate, "inversion weather" • EU directive/ standards/ Paris agreement • Health sector/insurance • Clair city

Relationships

In this short exercise, we discussed some of the main relationships between different Behaviour Changers and the End User.

3. RELATIONSHIPS



IEA Demand Side Management Energy Technology Initiative

The Demand-Side Management (DSM) Energy Technology Initiative is one of more than 40 Co-operative Energy Technology Initiatives within the framework of the International Energy Agency (IEA). The Demand-Side Management (DSM) Energy Technology Initiative, which was initiated in 1993, deals with a variety of strategies to reduce energy demand. The following member countries and sponsors have been working to identify and promote opportunities for DSM:

Austria	Norway
Belgium	Spain
Finland	Sweden
India	Switzerland
Ireland	Canada
Italy	United Kingdom
Republic of Korea	United States
Netherlands	ECI (sponsor)
New Zealand	RAP (sponsor)

Programme Vision: Demand-side activities should be active elements and the first choice in all energy policy decisions designed to create more reliable and more sustainable energy systems
Programme Mission: Deliver to its stakeholders, materials that are readily applicable for them in crafting and implementing policies and measures. The Programme should also deliver technology and applications that either facilitate operations of energy systems or facilitate necessary market transformations

The DSM Energy Technology Initiative's work is organized into two clusters:
The **load shape cluster**, and
The **load level cluster**.

The 'load shape" cluster will include Tasks that seek to impact the shape of the load curve over very short (minutes-hours-day) to longer (days-week-season) time periods. Work within this cluster primarily increases the reliability of systems. The "load level" will include Tasks that seek to shift the load curve to lower demand levels or shift between loads from one energy system to another. Work within this cluster primarily targets the reduction of emissions.

A total of 24 projects or "Tasks" have been initiated since the beginning of the DSM Programme. The overall program is monitored by an Executive Committee consisting of representatives from each contracting party to the DSM Energy Technology Initiative. The leadership and management of the individual Tasks are the responsibility of Operating Agents.

These Tasks and their respective Operating Agents are:

Task 1 International Database on Demand-Side Management & Evaluation Guidebook on the Impact of DSM and EE for Kyoto's GHG Targets – Completed
Harry Vreuls, RVO, the Netherlands

Task 2 Communications Technologies for Demand-Side Management – Completed
Richard Formby, EA Technology, United Kingdom

Task 3 Cooperative Procurement of Innovative Technologies for Demand-Side Management – Completed
Hans Westling, Promandat AB, Sweden

Task 4 Development of Improved Methods for Integrating Demand-Side Management into Resource Planning – Completed
Grayson Heffner, EPRI, United States

Task 5 Techniques for Implementation of Demand-Side Management Technology in the Marketplace – Completed
Juan Comas, FECSA, Spain

Task 6 DSM and Energy Efficiency in Changing Electricity Business Environments – Completed
David Crossley, Energy Futures, Australia Pty. Ltd., Australia

Task 7 International Collaboration on Market Transformation – Completed
Verney Ryan, BRE, United Kingdom

Task 8 Demand-Side Bidding in a Competitive Electricity Market – Completed
Linda Hull, EA Technology Ltd, United Kingdom

Task 9 The Role of Municipalities in a Liberalised System – Completed
Martin Cahn, Energie Cites, France

Task 10 Performance Contracting – Completed
Hans Westling, Promandat AB, Sweden

Task 11 Time of Use Pricing and Energy Use for Demand Management Delivery- Completed
Richard Formby, EA Technology Ltd, United Kingdom

Task 12 Energy Standards - to be determined

Task 13 Demand Response Resources - Completed
Ross Malme, RETX, United States

Task 14 White Certificates – Completed
Antonio Capozza, CESI, Italy

Task 15 Network-Driven DSM - Completed
David Crossley, Energy Futures Australia Pty. Ltd, Australia

Task 16 Competitive Energy Services
Jan W. Bleyl, Graz Energy Agency, Austria / Seppo Silvonen/Pertti Koski, Motiva, Finland

Task 17 Integration of Demand Side Management, Distributed Generation, Renewable Energy Sources and Energy Storages
Seppo Kärkkäinen, Elektraflex Oy, Finland

Task 18 Demand Side Management and Climate Change - Completed
David Crossley, Energy Futures Australia Pty. Ltd, Australia

Task 19 Micro Demand Response and Energy Saving - Completed
Linda Hull, EA Technology Ltd, United Kingdom

Task 20 Branding of Energy Efficiency - Completed
Balawant Joshi, ABPS Infrastructure Private Limited, India

Task 21 Standardisation of Energy Savings Calculations - Completed
Harry Vreuls, SenterNovem, Netherlands

Task 22 Energy Efficiency Portfolio Standards - Completed
Balawant Joshi, ABPS Infrastructure Private Limited, India

Task 23 The Role of Customers in Delivering Effective Smart Grids - Completed
Linda Hull. EA Technology Ltd, United Kingdom

Task 24 Behaviour Change in DSM: Phase 1 - From theory to practice
Phase 2 – Helping the Behaviour Changers
Dr Sea Rotmann, SEA, New Zealand

Task 25 Business Models for a more Effective Market Uptake of DSM Energy Services
Ruth Mourik, DuneWorks, The Netherlands

For additional Information contact the DSM Executive Secretary, Anne Bengtson, E-mail: anne.bengtson@telia.com and visit the IEA DSM website: http://www.ieadsm.org