Dr Sea Rotmann

NZ Operating Agent Task

53rd ExCo meeting Bern

April 4, 2019

New IEA DSM Task
Hard-to-Reach Energy Users

How to reach the hard-to-reach, motivate and engage energy users in the residential and commercial sectors

WHY? Does the IEA DSM need this new ?

This Task will provide ExCo members with:

- A **strong social science platform** for the IEA DSM Programme to stand out among the largely-technology focused TCPs;

- **Leadership in engaging HTR** energy users and communities, HTR experts and other Behaviour Changers in whole-system collaborations that focus on structural transition issues;

- Improved **political buy-in** via policy briefs and guidelines, incl recommendations that can improve the effectiveness of existing policy interventions and help better design and implement new ones;

- **Coordination** with the IEA Secretariat and other international bodies interested in this area of research (e.g. G20, Horizon 2020, eceee, energypoverty.eu, ACEEE, BEHAVE, BECC…);

- Ability to **collaborate with non-state actors** across multiple countries / sectors that have the resources and mandates to conduct large-scale behavioural field trials,

- This also = **new members**, both countries and sponsors (e.g. Spain & Canada are likely to join);

- Ability for **non-participating ExCo members** to contribute to an international publication on the hard-to-reach energy users in their countries;

- Interesting **webinars** for DSMU;

- More **flexibility** for the Operating Agent to engage with non-state actors and non-IEA DSM countries to collect a wider range of research and insights, including into **developing countries.**

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WHY?

The main impact expected from this Task is to develop a **greater understanding who the HTR energy user group is and how to better engage these users** with well-designed and targeted interventions.

The primary aim of the Task is to **enable participating countries to improve policy, industry, research and community outcomes** focusing on hard-to-reach energy users, by applying insights and lessons learned from collaboration with other countries & global experts.

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1. To build on IEA DSM Task 24 behaviour change expertise and global expert network (ST1)
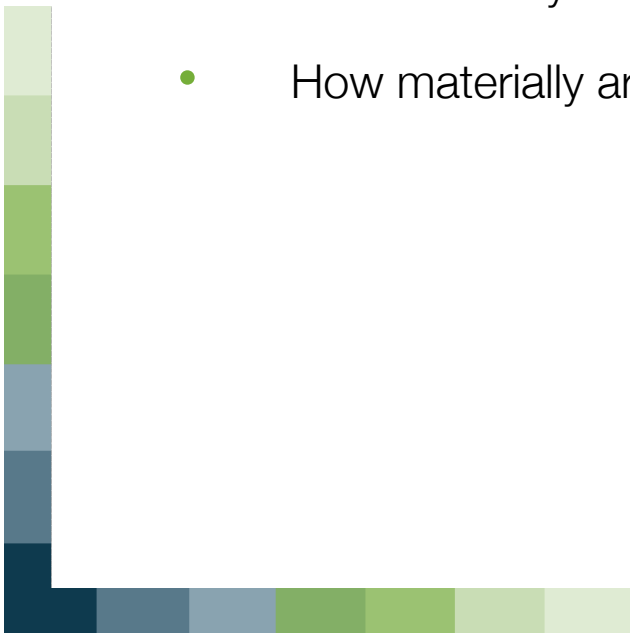
- *How can the toolbox for Behaviour Changers developed by Task 24 be used to support better interventions targeted at the hard-to-reach energy users?*

1. To build on IEA DSM Task 24 behaviour change expertise and global expert network

2. To explore the many differing definitions of what constitutes a "Hard-to-Reach" (ST2)

- Who are HtR energy users in each participating country?

- How can they be defined and described?

- How materially are these HTR markets underserved?

1. To build on IEA DSM Task 24 behaviour change expertise and global expert network
2. To explore the many differing definitions of what constitutes a "Hard-to-Reach"
3. To test the hypothesis that this underserved user group may entail a large number of energy users (ST2a)

   - Based on country statistics and expert opinions, what is the approximate, estimated size of the HTR user group in each participating country?
   - How many vulnerable HTR users are situational and transitory and can we better quantify these groups by better categorising them?
   - Based on implemented pilots and case studies in each participating country, what is the potential effectiveness (or effect size) that one can expect from behavioural-oriented policy intervention on this group?

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WHY?

1. To build on IEA DSM Task 24 behaviour change expertise and global expert network
2. To explore the many differing definitions of what constitutes a "Hard-to-Reach"
3. To test the hypothesis that this underserved user group may entail a large number of energy users
4. To collect insights into best practice & shared learnings (ST2 & 2a)

   • What type of policy interventions (e.g. non-pricing mechanisms addressing contextual factors) and behaviour change programmes have the potential to motivate and engage HTR users to use energy more effectively and efficiently?

   • What is the level of public acceptability of such policy interventions in each participating country?

   • What are the ethical challenges associated to them?

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WHY?

1. To build on IEA DSM Task 24 behaviour change expertise and global expert network
2. To explore the many differing definitions of what constitutes a "Hard-to-Reach"
3. To test the hypothesis that this underserved user group may entail a large number of energy users
4. To collect insights into best practice and shared learnings (ST2 & 2a)
5. To test and validate a new research process (ST3)
   - Can the SCI process be adapted to the HTR audience?
   - Can we internationally validate this process in the field?
   - How can it be improved, based on the empirical research done in this Task?

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WHY?

1. To build on IEA DSM Task 24 behaviour change expertise and global expert network
2. To explore the many differing definitions of what constitutes a "Hard-to-Reach"
3. To test the hypothesis that this underserved user group may entail a large number of energy users
4. To collect insights into best practice and shared learnings (ST2 & 2a)
5. To test and validate a new research process (ST3)
6. To explore opportunities for field research piloting (ST4)
   - Can we use field research pilots to prove that a robust, internationally-validated, standardised process for behavioural interventions on the HTR, is a better approach than the current scattergun one?
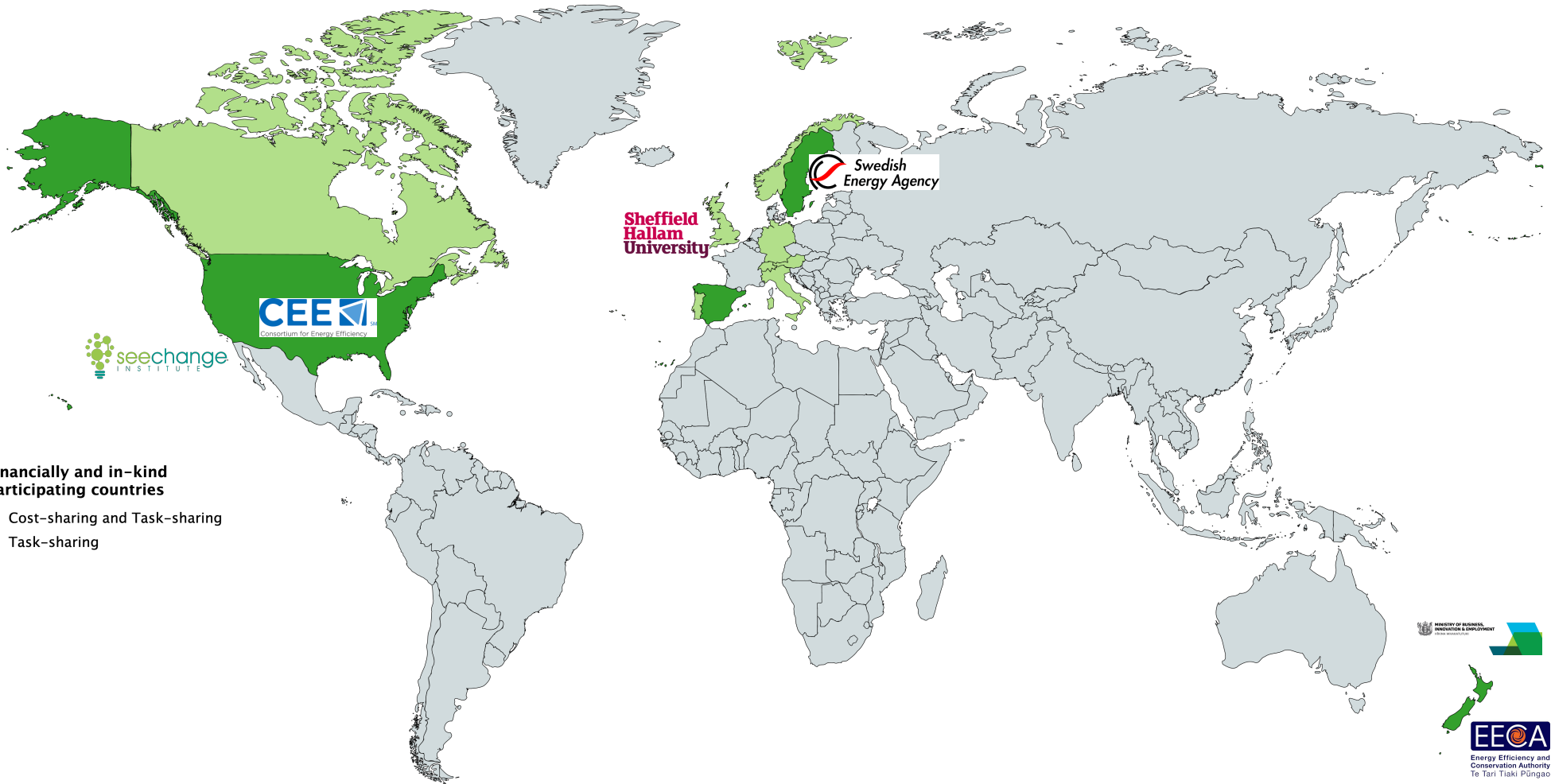
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HOW did we develop this research Task?

- We studied one HTR user group (hospital building operators) in our ST11 Task 24 case study with Atrium Health (2016-18), to great success…

- In the Year 7 participation of US via CEE, we learned just how vexing even the definition of HTR was…

- Plus, several IEA DSM countries did not want to see Task 24 work on behaviour change discontinue…

- Plus, the new govt in NZ undertook an Electricity Pricing Review which showed a lot of vulnerable Kiwis are living in energy hardship (with the associated social and health implications)…

- So, we scoped Task Work Plan (after concept paper was accepted by ExCo in October 2018) under the leadership of NZ and Dr Sea Rotmann, together with Sweden and the US / Canada (via CEE) as main participating countries…

- We found great National Experts for each country (one behavioural economist, one health and fuel poverty researcher, one general behaviour programme manager) and a Chief Advisor who has years of experience researching the hard-to-reach…

- Project Partner SCI continues closely collaborating with us and has made their SCI process available to us for testing…

- We approached over 60 experts from 17 countries for input

  and ideas (experts from 11 countries co-created the Work Plan)

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WHO is joining this Task?

Financially and in-kind participating countries

- Cost-sharing and Task-sharing
- Task-sharing

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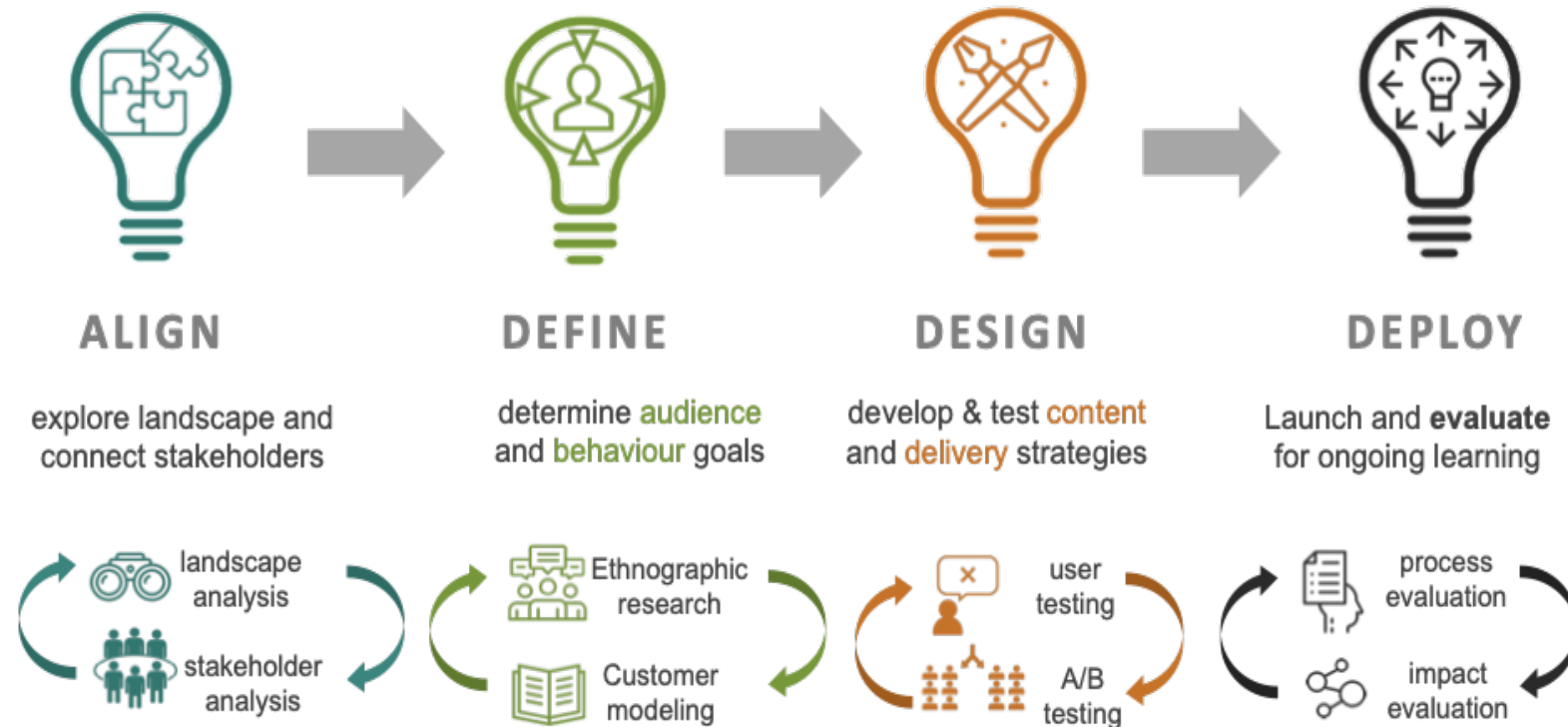
CEE
Consortium for Energy Efficiency

Sheffield Hallam University

Swedish Energy Agency

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT

EECA
Energy Efficiency and Conservation Authority
Te Tari Tiaki Pūngao

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1. Operating Agent – Dr Sea Rotmann (NZ)
2. Chief Advisor – Dr Aimee Ambrose (UK)
3. Project Partner/s – Dr Beth Karlin (SCI/US) and Sheffield Hallam University (UK)
4. PhD students - Mariona Alcaraz (PhD on *Incidence of energy cultures in the decarbonisation of hard-to-reach energy users in the residential sector* – UPC Spain)
   - To be determined (international PhD scholarship on HTR from EC Marie Skłodowska-Curie programme and delivered by Sheffield Hallam University with Citizens Advice (CA) and the IEA DSM)
   - TBD (PhD on *energy invisibility* in co-supervision with Dr. Jenny Palm (Lund University) – UK/SE)
5. National Experts – Drs. Kim O-Sullivan (GE/NZ) & Daniel Gnoth (NZ)
   - Dr. Luis Mundaca (SE)
   - Kira Ashby (US/CA)
6. Co-funders - TBD

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HOW are we going to do this research?

- Fostering transdisciplinary and multi-stakeholder collaboration
- Moving from attribution to contribution model, from categories to characteristics and programme to process
- Internationally-validating and testing a new research process via field research pilots

ALIGN
explore landscape and connect stakeholders

DEFINE
determine audience and behaviour goals

DESIGN
develop & test content and delivery strategies

DEPLOY
Launch and evaluate for ongoing learning

landscape analysis
stakeholder analysis

Ethnographic research
Customer modeling

user testing
A/B testing

process evaluation
impact evaluation

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Subtasks of HTR Task

HOW

ST0 – Administering & disseminating HTR Task

ST1 – Expert network on hard-to-reach energy users in residential & commercial sectors

ST2 – Definitions & case study analysis

ST2a – International Publication on HTR

ST3 – Developing & standardising a robust research process to engage the HTR

ST4 – Field research pilots

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Subtask 0 –
Administration & ExCo reporting

Please accept this Work Plan for
research to commence May 1
New HTR Task, Phase 3 of Task 24

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Subtask 1 – Expert network & dissemination

Dissemination other than ST2 & 2a

Subtask 2 –
HTR definition and case studies

Cost-sharing participants only

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Subtask 2a –
International HTR publication

Note: only if we find min. 12 country participants willing to cost-share with NZD5,000 each
Preferably in collaboration with IEA Secretariat

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Subtask 3 –
Standardised & validated new research process

Will also be applied to ST2&2a case study comparison templates
Can be applied ex-post and ex-durante

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Subtask 4 –
Field research pilots

Note: will depend on level of NSA co-funding. Can be applied to current or recently completed field pilots

HOW are we funding this research?

- NZD50,000 per year per participating country for cost-sharing (for 3 years)
- NZD5,000 per additional country participating in ST2a
- Chief Scientist funded in-kind by Project Partner Sheffield Hallam University (20 person days per year at £675 per day)
- 2 person months per year for participating countries' National Experts
- 3 PhD students, fully funded
  - White Rose studentship on energy invisibility funded by UKERC (UK/SE, with OA as project partner)
  - Marie Curie studentship on HTR funded by H2020 (UK/OA with CEA as project partner)
  - Spanish PhD on energy cultures in HTR in residential sector (E/NZ)
- In-kind, Task-sharing contributions by other HTR experts
- Financial and/or in-kind contributions to undertake field pilots, including by Non-State Actors (NSAs)
- Free support by SCI to undertake ST3 (validating their research process)
- Free use of SCI's *Teamwork* as project management platform.

➔ Massive amount of leverage, at least 3x the value that participating countries pay for!
➔ We'd like to invite new country participants to join us
➔ We'd also like to invite other DSM countries to join ST2a

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Proposed time line and meetings

ST	2019	2020	2021	2022
0				
1				
2				
2a				
3				
4				

Meetings planned:
- ECEEE summer study informal session (June 2019)
- Monthly online project team meetings (continual)
- BECC special session and 1st international workshop hosted by US (November 2019)
- BEHAVE special session and 2nd international workshop hosted by SE (September 2020)
- IEA DSM meeting and 3rd int'l workshop hosted by NZ (Fall 2021)

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Research outputs and deliverables

Subtask	Deliverable	Deliverable Name	Deliverable Type
0	D0	Work plan defined and signed off	Report
0	D1	Co-supervision of PhD students	PhD theses
1	D2	Expert network and dissemination	Various
1	D3	At least 3 international expert workshops	Workshops
1	D4	2 peer-reviewed scientific papers	Scientific articles
2	D5	HTR Definition	Slide deck
2	D6	Country definitions and case study analyses	Reports
2	D7	Literature Review	Report / Article
2a	D8	International publication on HTR	Book
3	D9	Standardised research process	Report / Article
4	D10	Field research pilots	Reports, Policy Briefs

Thank you very much for your attention!

Any comments or questions?

Huge thanks to my participating country sponsors, the National Experts & other experts who helped develop this Work Plan