



**SUSTAINABLE
PLACES 2024**

24 September 2024

Luxembourg

LUXEMBOURG
INSTITUTE OF SCIENCE
AND TECHNOLOGY

LIST



R2M
RESEARCH TO MAKE
SOLUTION

Energy Communities **WORKSHOP**



Date: Sept 24, 2024



Time: 09:00 – 10:30

Scaling Up User Engagement Strategies for Sustainable Energy Transition



www.sustainableplaces.eu



Presentation of the session

Focus: enhancing user participation in Sustainable energy initiatives

Key themes:

- a) insights from previous workshops on practical user engagement strategies.
- b) Poster presentations from Hestia, Accept and Sender:
 - Theoretical frameworks
 - Recruitment methods
 - Pilot experiences.
- c) Interactive dialogue: fostering exchange between panellists, research institutes, companies and project & pilot leaders.



Marten Boekelo
DuneWorks, Hestia project.



Aggeliki Aggeli

Aalborg University - SSH

Aggeliki is a postdoctoral researcher and architect, currently working on sustainability transitions projects, using a practice-theory oriented and participatory approach. She is leading the engagement package of the Hestia project.

HESTIA aim was to provide a **cost-effective solution** for the **next generation DR services**, which **would leverage the consumer engagement, energy and non-energy services**, while dealing with both energy supply and demand side in a holistic manner

User-engagement aims



1

Engage with residential consumers

2

Exploit the consumer engagement as part of a **cooperative DR strategy at the community level**

3

Involve the residents in the designing of the solutions through **participatory co-creation process**



Who: Families with children, couples incl. retirees

Expectations

Save money and/or "contribute to a liveable planet for their grandchildren"

Impact

Adoption of some DR practices (time-shifting), continuing frustration with energy technologies & finances



Who: Families incl. intergenerational households, couples incl. retirees

Expectations

Improvement of comfort, financial savings, learning about energy communities, doing "common good"

Impact

Increased energy literacy, higher awareness of consumption, adoption of DR practices, stronger sense of (energy) community



Who: Families with children, single people, couples

Expectations

Achieve energy savings, understand energy consumption, learn to shift energy consumption

Impact

Higher awareness of energy consumption, adoption of DR practices, improved sense of community

Pilot communities

Theoretical approach

- Practice-based & **participatory approach**
- **Inclusivity**-focus on gender & intersectionality
- **Blending of professional expertise** with lived experience of households

Special focus of user-engagement strategy



Practical activities

- **Co-creation workshops** incl. women only workshops
- **Home tours** (virtual & face-to face)
- **Individualised approach** to recruitment & engagement activities for each pilot

Shared & informal learning to assist energy literacy

Gendering of energy technologies, roles & energy practices

Life stage & age

Issues shaping user-engagement for household DR

Everyday routines

Co-creating with / working alongside the community

Housing typology

Findings and insights

Partners





Breffní Lennon

UCC - SSH

Breffní Lennon is a Research Fellow at University College Cork, Ireland. He is a human geographer researching the social, environmental and economic challenges of the energy transition and has a specialist interest in understanding peoples' lived experiences of energy through grounded research and the role concepts like 'energy citizenship' play in local and (inter)national decarbonization and climate actions.

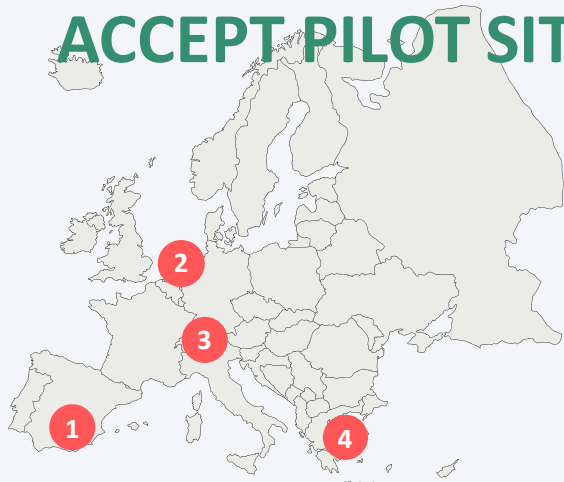


Tamara Hajdu

SIN – SSH Living Labs leader

Tamara works as a Behavioural Scientist at Smart Innovation Norway, leading engagement tasks in the ACCEPT project. She is also a doctoral researcher at the University of Helsinki in the field of social psychology.

ACCEPT PILOT SITES



ACCEPT PROSUMER PERSONAS



SMART TECHNOLOGY
Nikolas Hofman, 45,
"Optimization" "Innovation"
"Awareness"



FINANCIAL CONCERNS
Alexander Adamos, 39
"Energy crisis" "Cost reduction" "Global economy"



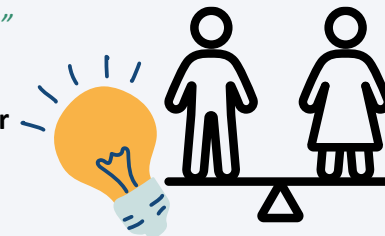
GEOPOLITICAL WARY
Dante Leon, 49
"Autonomy" "Local energy production"
"Political interest"



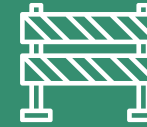
COMMON GOOD
Hugo Bakker, 46
"Environment" "Community"
"Responsibility"



The all male personas serve as a valuable reminder to prioritize gender balance in future data collection efforts.



BARRIERS TO ENERGY COMMUNITY FORMATION



Feed-in Tariff closure

Lack of Organisational Capacity

Limited time

Lack of Funding

Lack of Sites

Reduced Complexity

Knowledge Sharing

Institutional support

Early Stage Funding

Improved Subsidy Support



DRIVERS TO ENERGY COMMUNITY FORMATION

SPAIN - Murcia
"The Urban Community"

1



2 NETHERLANDS - Culemborg
"The Ecological Neighbourhood"



SWITZERLAND - Capriasca
"The Residential Suburb"

3



4 GREECE - Aspra
"The Smart Village"





Aniol Esquerra

Ecoserveis – SSH Pilot Leader

Aniol holds a Degree in Industrial Engineering and two masters of (1) Human Science and Technology and (2) Environment and Renewable Energies.

At Ecoserveis he is specialized in smart efficient renewable energy transition. He combines his experience in energy monitoring with his specialization in energy education to ensure users and communities get involved with technical solutions.

"Ensuring the next generation of energy services applications for demand response, home automation and convenience"

6.63 million € budget

48 month duration

15 partners

DEMONSTRATION SITES



Alginet, Spain



Espoo & Tampere, Finland



Weiz, Austria



SENDER USER JOURNEY



OUR PROJECT

SENDER is a collaborative project that aims to **develop and test the next generation of energy service applications** for demand response, home automation and convenience. To achieve this, it engages consumers/prosumers and energy actors in the **co-design of energy services and mechanisms** that facilitate the use of renewable energies to meet the energy demands of individual households.

OUR OBJECTIVES



2 regulatory documents for new legal frameworks



10 types of stakeholders implicated in the co-construction activities



400 households on three demonstration sites



10% relative improvement in load forecast errors



5 initiatives in synergy with other related EU projects



20% kWh of flexibility per households per year

1

Fill out the Registration Form to participate in the project

If interested in participating, we encourage you to fill in the **registration form**. It is quick and easy. We will ask you some **information** about your **household** to help us understand every case. The SENDER team will **evaluate** if your household is **fit** for the project.

2

Information sessions/workshops will be organised to solve doubts & questions.

You will be able to join these **sessions/workshops** to gather additional **information** about the **process** and to get your questions answered.

3

We will contact you to know more details about your household characteristics

To know which **solution** fits best your **home**, and what specific **devices** you would **need**, we may ask you further questions and/or information about your devices, so we can get ready before the visit.

4

We organize with you the visit with the installer

We will call you to **schedule** the **visit** according to your preferences. You will be able to discuss the time and day that suits you best.

5

We take care of the installation of your smart devices

We will explain the purpose of everything that is being installed. All the **components** are very **small**. Two people will come for the **visit**, one being the **installer**, and **another who can solve** any doubt you may have, who will sync the devices together, and ask you remaining info needed in case there is something missing.

6

Download the SENDER App and start managing your devices remotely!

The SENDER project has developed an **app** to facilitate accessible but accurate **information** to citizens about their **energy use**. With the SENDER App you can see your **consumption** and how it has evolved over time. Moreover, the app allows you **to switch on and off** your smart devices from your phone, even when you are not at home!

7

For one year, we schedule your energy consumption

- 1) To **boost** your home's usage of **renewable energy**
- 2) To **help the grid** learn how to divest from fossil fuels
- 3) To **reduce** your energy **bills**

The SENDER Box can **schedule domestic electricity consumption** to make homes renewable energy installations **more profitable**, to **optimize your energy usage** and to help the electric grid be ready to rely mainly in renewable energy sources.

The SENDER Box will do so on its own. **You do not have to do anything**, just live your life as usual, and keep it switched on as much as possible.

8

Feel free to contact us!

The **project team** will be **available** to solve any doubt or issue during the whole project. We are **here to help** at any time. We are encouraged people with a will to develop projects that can **help the environment** and cope with the **energy transition**, so if there's something you would like to comment, just write us, or give us a call!

9

(Bonus) If you own an electric vehicle, solar panels, or both...

SENDER can help you **synchronise your energy use** with periods in which prices are the lowest, and renewable sources at the highest (including your own!). SENDER can schedule your consumption (or vehicle charging) to match periods in which a) your solar panels are **generating more energy** that you would otherwise use, or b) when energy prices are lowest. What's more, SENDER can do so without you noticing. At the end of the month, the energy that you used will have been sourced from **greener sources**, while you may also have **reduced your bills!**

WWW.SENDER-H2020.EU/

H2020 SENDER

@H2020Sender

Round Table

Moderator: Marten Boekelo, DuneWorks, Hestia project.



Aggeliki Aggeli



Aniol Esquerra



Arjen Schamhart



Q&A Join SLIDO!

slido.com
CODE: #8805875

