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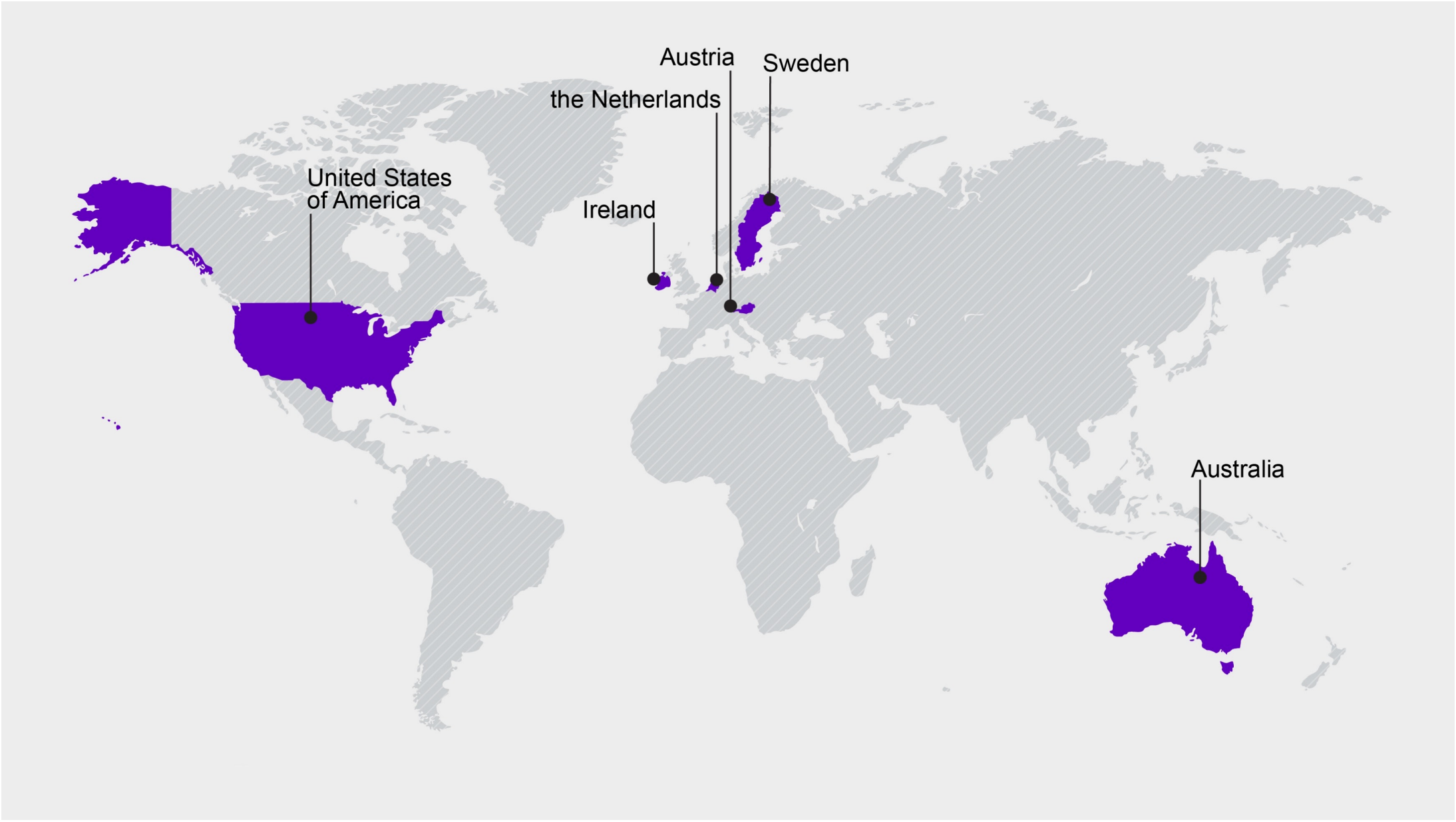
Anna Åberg, Chalmers University of Technology and Camilla Andersson, KTH- Royal Institute of Technology


Austria
Sweden
the Netherlands
United States
of America
Ireland
Australia

Subtask 1: Learning across regions and best practices

(Helene Ahlborg, Chalmers)

ELSEVIER

Renewable and Sustainable Energy Reviews

Volume 199, July 2024, 114542

Thirty-five years of research on energy and power: A landscape analysis

Helene Ahlborg [a], Kavya Michael [a], Samuel John Unsworth [a], Sylvère Hategekimana [a b], Olufolahan Osunmuyiwa [a c], Anna Åberg [a], Martin Hultman [a]

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https://doi.org/10.1016/j.rser.2024.114542

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Subtask 2: Understanding and countering systematic inertias in policy (Marielle Feenstra and Joy Clancy, 75inQ, NL)

Netherlands Case study

Users TCP Gender and Energy Task, Subtask 2

March 2024 Joy Clancy, Marielle Feenstra and Hanna Kreuger

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Energy consulting: A tool for inclusion?

Beatrix Hausner, Samira Karner, Hannah Tomasi, Azadeh Badieijaryani (ÖGUT), final version: 2023

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Austria's Integrated Energy and Climate Plan, Mission 2030, *Langfriststrategie* 2050, and *Regierungsprogramm* 2020-2024: A critical analysis

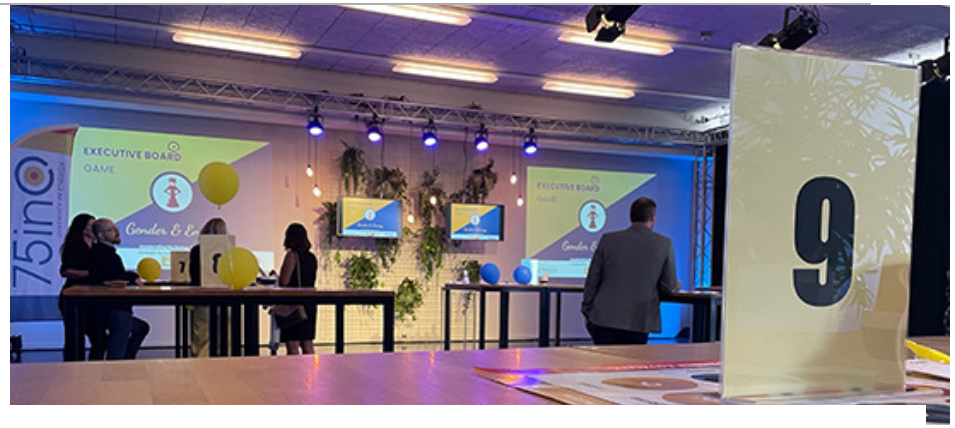
Azadeh Badieijaryani, Beatrix Hausner, Samira Karner, David Horvath (ÖGUT), 2022. Analysis in the context of the Austrian work participation "IEA User-Centred Energy Systems 'Empowering all': Gender Equality for the Energy Transition".

Sweden's Integrated Energy and Climate Plan: An analysis

June 2023

Kavya Michael, Martin Hultman

The Gender Dimension and Impact of the Fit for 55 Package

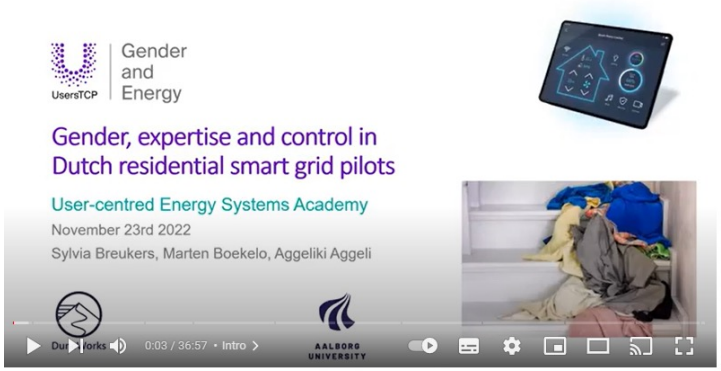


GENDER JUST ENERGY POLICY FRAMEWORK CRITERIA

TENETS	ELEMENTS	CRITERIA
Recognitional energy justice	Energy users	R1. Intersectionality of energy users R2. Diversity of energy users' needs
	Energy poverty	R3. Intersectionality of energy poverty
Distributive energy justice	Energy consumption	D1. Gender equity in access to energy services D2. Gender equity in support for energy consumers
	Energy production	D3 Gender equality in STEM education D4. Gender equality in the energy labour market
	Energy governance	D5. Cross-sectoral integration of gender-energy nexus D6. Multi-level integration of gender-energy nexus
Procedural energy justice	Energy participation	P1. Inclusive representation of actors
	Energy rights	P2. Inclusion of gender-energy rights in legislation P3. Inclusion of gender-energy rights in policy

Subtask 3: Designing inclusive and efficient technological interventions (Anna Åberg, Chalmers)

- **household planner placed at the heart of the home,** visible to all family members (possibly kitchen or hallway?)
- shift mindset from traditional energy visualization with technical focus to showing **energy in context with activity and household members**
- allow and invite all household members to **participate in household planning with energy use in mind**
- design concept that resembles a printed calendar or poster, rather than web-application, **integration into everyday object/tool and routine** to overcome value-action-gap
- **e-paper touch-screen:** no backlight, only uses energy when the picture changes



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Factsheet: Creating energy technologies, that are meaningful and usable for all

Beatrix Hausner, ÖGUT

How technology developers can contribute to making sustainable energy supply more equal in terms of accessibility to ensure the participation of all.

Technologies are not neutral, but reflect the ideas, values, and perceptions of those who developed them. There is a risk that they are designed without considering the needs and experiences of large parts of the population. This can lead to an exclusionary effect if, for example, the developed technologies require too much technical knowledge or are simply too expensive.

Three types of exclusion

Energy Poverty

families

Intersectionality
Age

Affordability
Prices and choice

Focus | Households

Cooking
Heating / cooling
Appliances

"We did not expect that there would be so much technology in the house that we don't understand anything about."

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What drives exclusion, and how can we mitigate those drivers?

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Driver 1:Current framings of users in the energy sector rest upon implicit social hierarchies and norms, including gendered ones

- Homogenization of users
  - One type of user (in high income countries)
  - Static user
- Stereotyping
  - Households
  - Women and men
  - Users from “the Global South”
- General problems:
  - Lack of disaggregated and power aware quantitative data
  - Overreliance on quantitative data

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Recommendations and good practice examples

- Develop nuanced tools for quantitative data collection
- Open up the household and focus on relational aspects of energy
- Consider both masculinity and femininity norms
- Promote and facilitate knowledge flows from low income to high income countries
- Adopt mixed methods (qualitative and quantitative) to counter the overreliance on quantitative data.

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Driver 2: Users' needs are not being met/considered in technology design

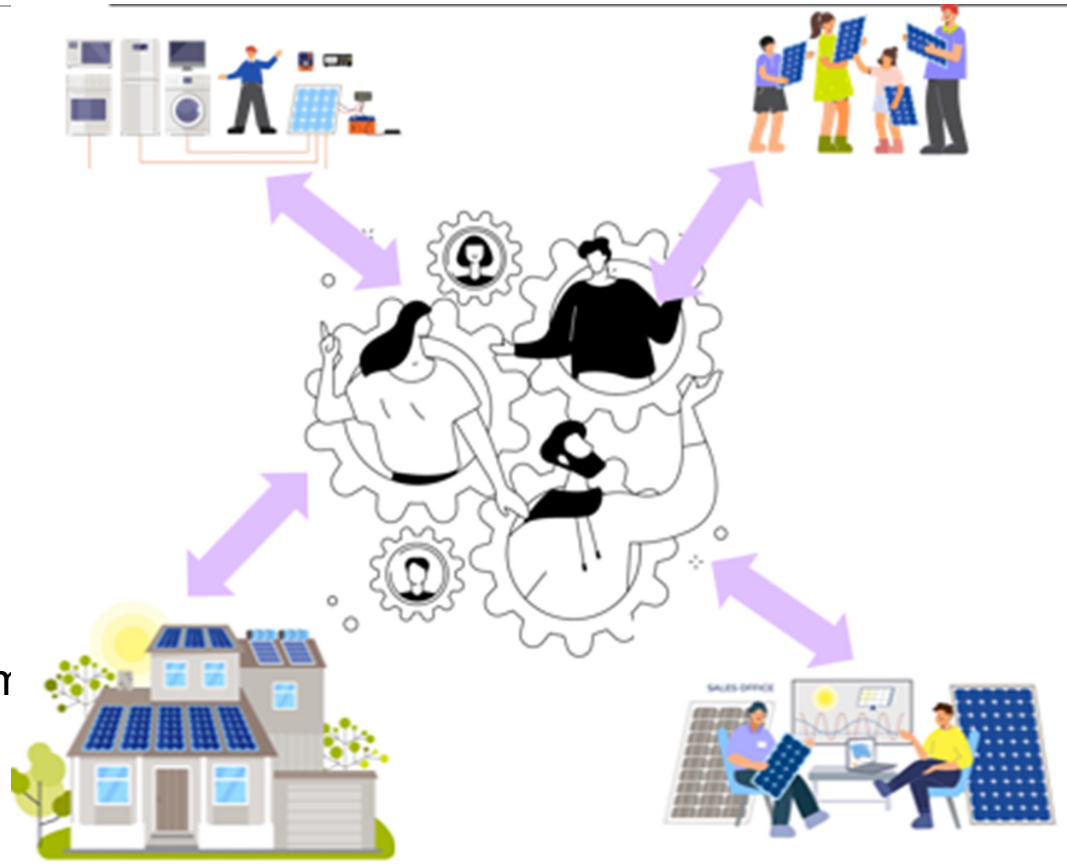

Image from

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Recommendations and good practice examples

- Empower users by addressing knowledge exclusion as part of energy transitions projects
- Low tech user friendly solutions:
- Develop new and use existing inclusive GESI aware design methods.

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Factsheet: Creating energy technologies, that are meaningful and usable for all

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Fig. 1 Example of the "Whānau HEAT Kit" used in this study (Image: Dr Sea Rotmann)

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Driver 3: Policy siloing

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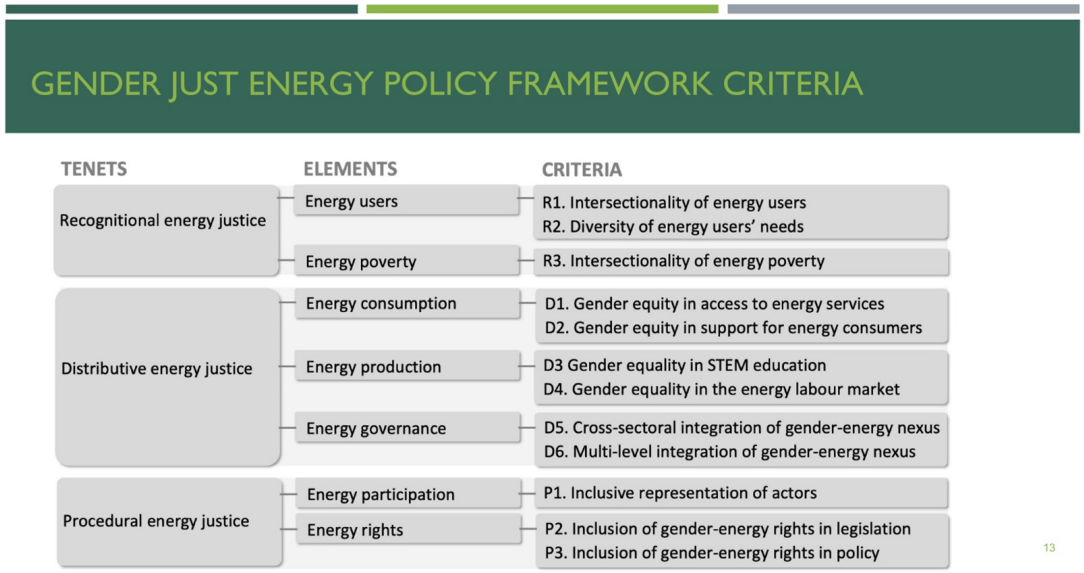
Recommendations and good practice

- Integrate gender and social inclusion concerns into energy policy
- Enhance Inter-Departmental Coordination
- Use participatory processes for designing inclusive and user centred policies
- Utilise gender aware policy tools for planning and assessment.



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Driver 4: Lack of middle actors, institutions and platforms between policy makers, utilities and users.

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Recommendations and good practice

- Empower local communities and diverse groups and listen to them
- Strengthen existing intermediary actors.
- Empower and engage municipalities and other local governances structures.

- Resource allocation!

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Energy consulting: A tool for inclusion?

Beatrix Hausner, Samira Karner, Hannah Tomasi, Azadeh Badieijaryani (ÖGUT), final version: 2023

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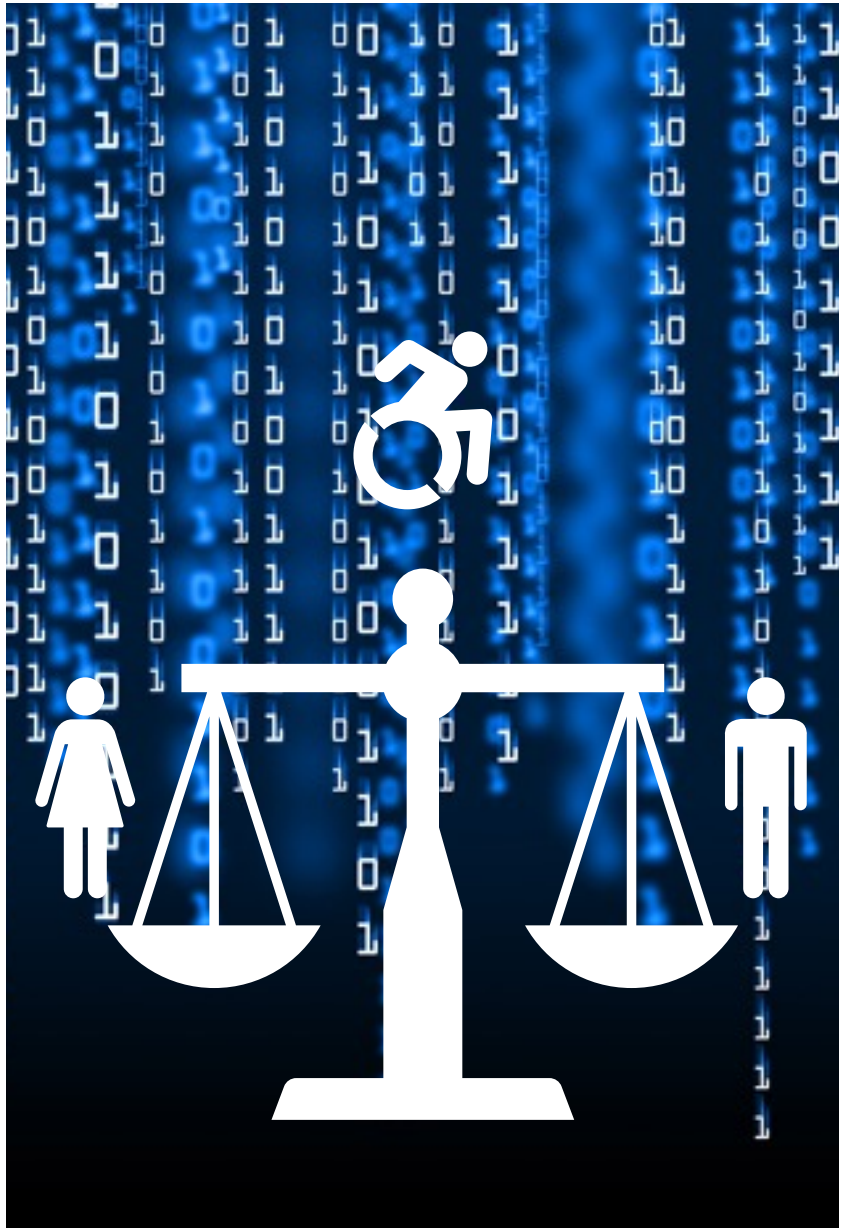
Balance climate urgency and social justice urgency



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PHASE 2

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Phase 2: emPOWERing all

Phase 1 challenge: Stereotypical norms and framings of users are drivers of exclusion

Phase 2 subtask: 1 **Re-framing just energy transitions**

Phase 1 challenge: Exclusion in policy, governance and implementation design

Phase 2 subtask: 2 **Scaling just energy transitions: closing the gap between users and policy**

Phase 1 challenge: Exclusion from knowledge and as knowers and experts

Phase 2 subtask: 3 **Reimagining just energy user transitions: Prototyping inclusive interventions and technologies**

4 **Knowledge hub Helpdesk**

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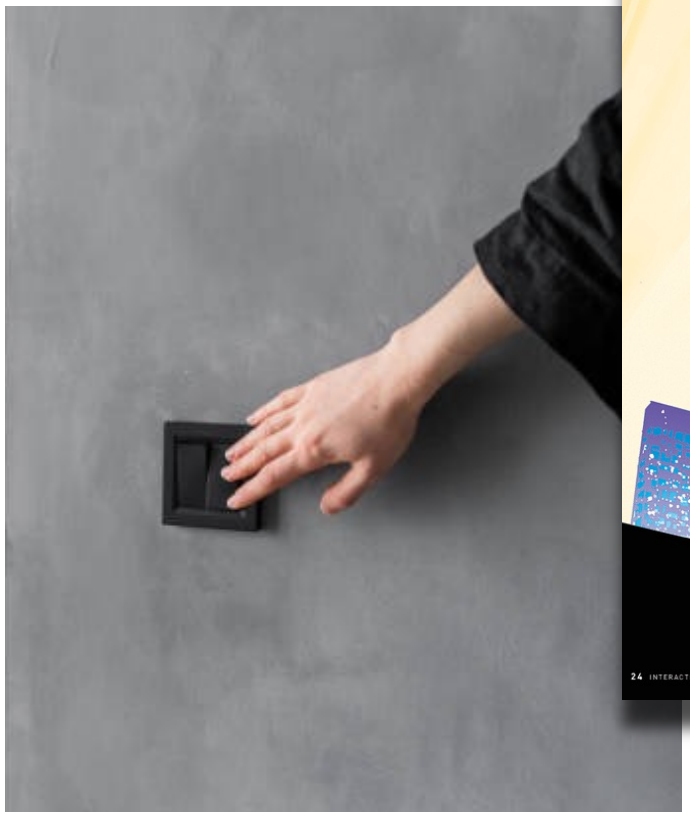
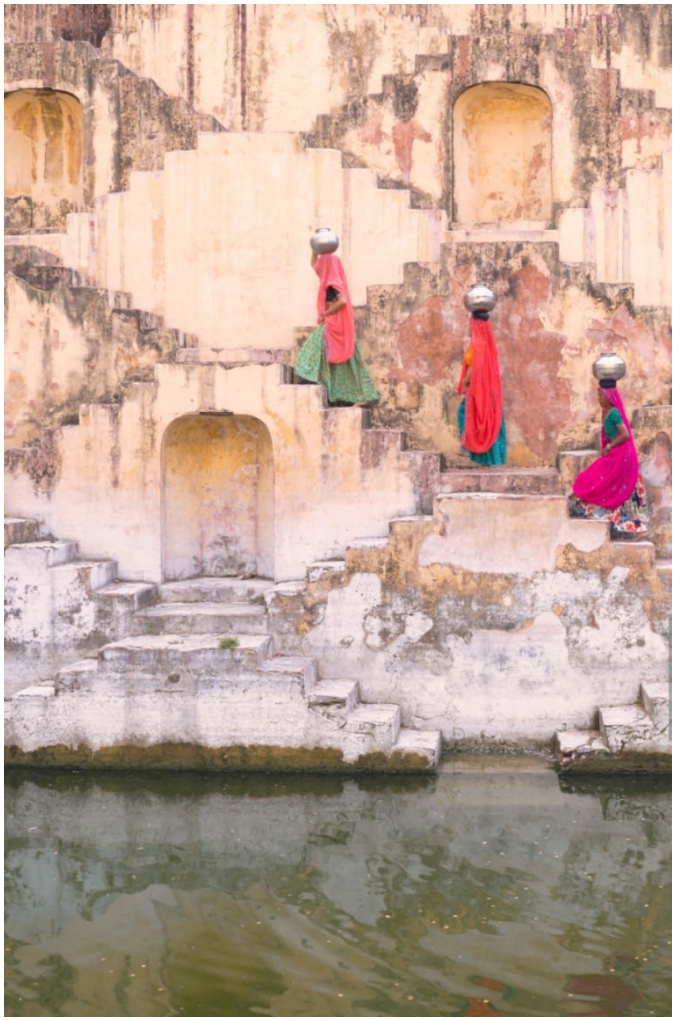
Subtask 1 - Re-framing just energy transitions



Strengers, Y. (2014). Smart Energy in Everyday Life: Are you Designing for Resource Man? *Interactions*, *21*(4), 24–31. https://doi.org/10.1145/2621931



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Subtask 1 - Re-framing just energy transitions

Disaggregated data

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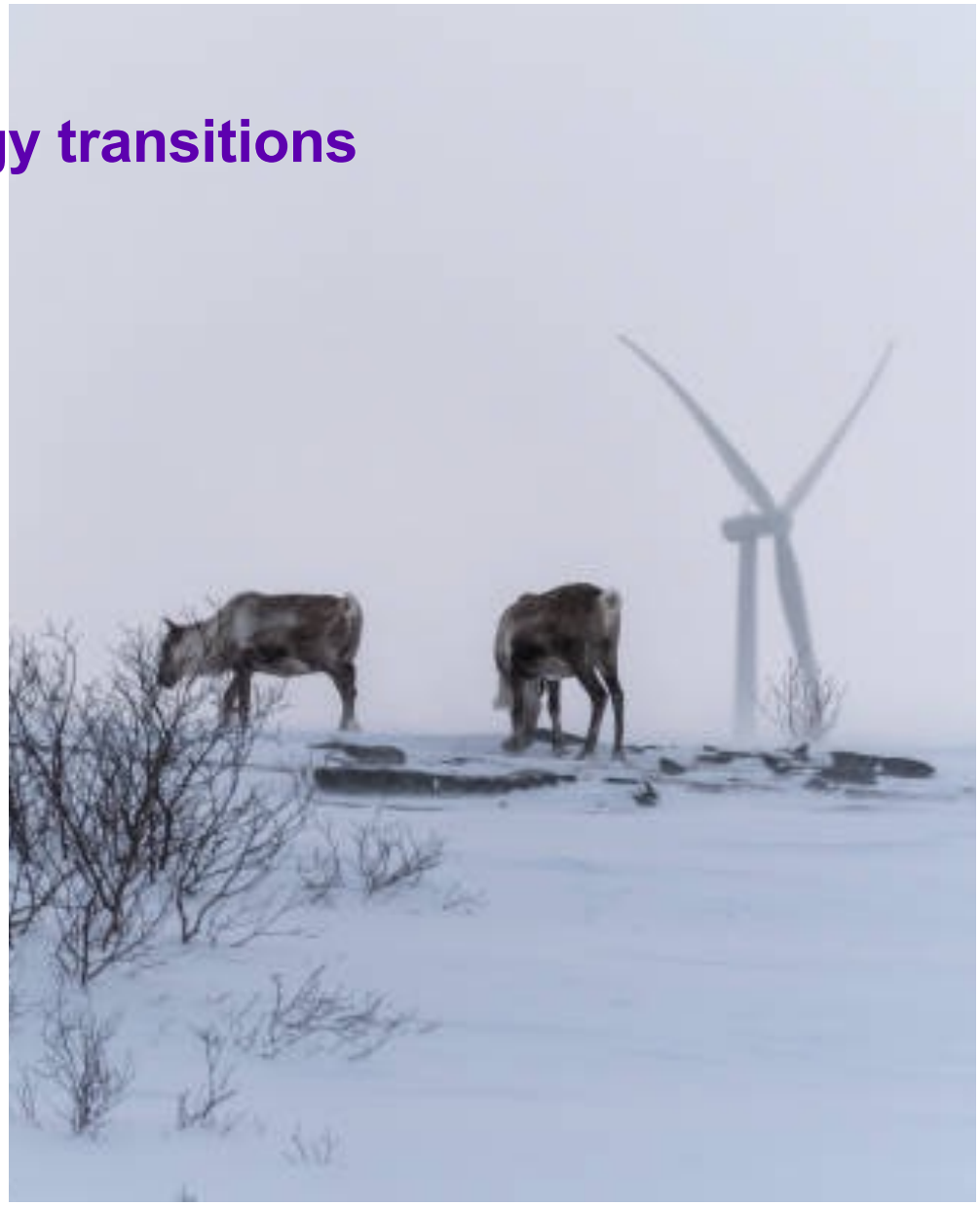
Subtask 1 - Re-framing just energy transitions



Indigenous perspectives

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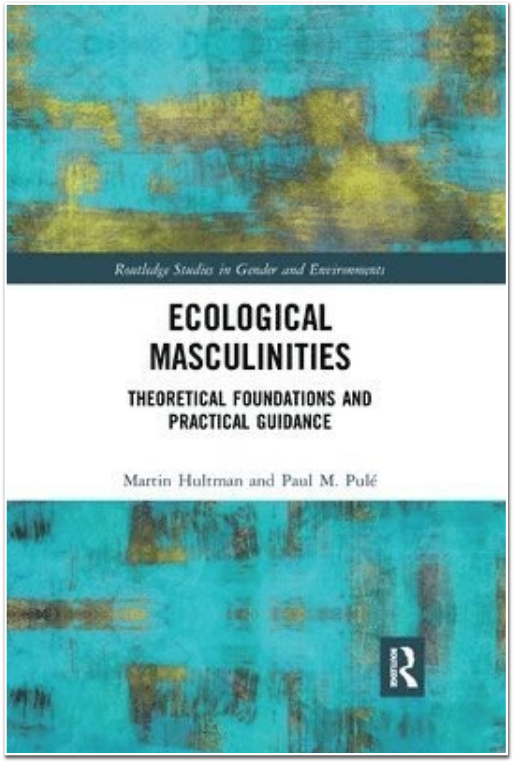
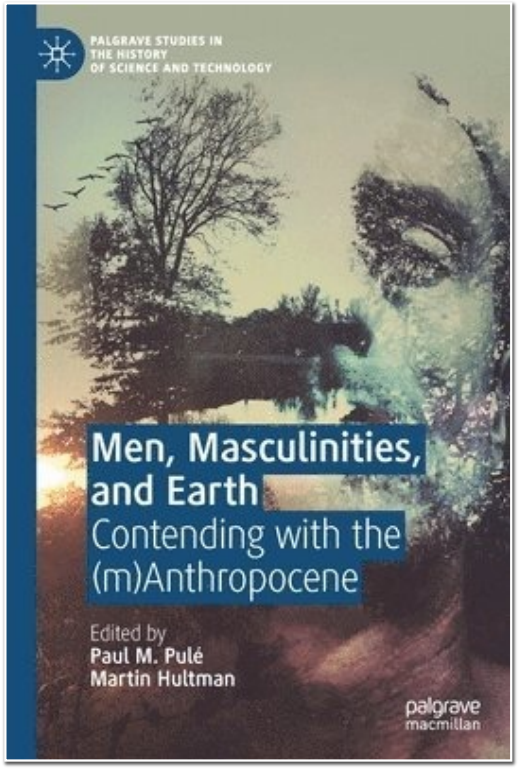
Subtask 1 - Re-framing just energy transitions





Masculinities

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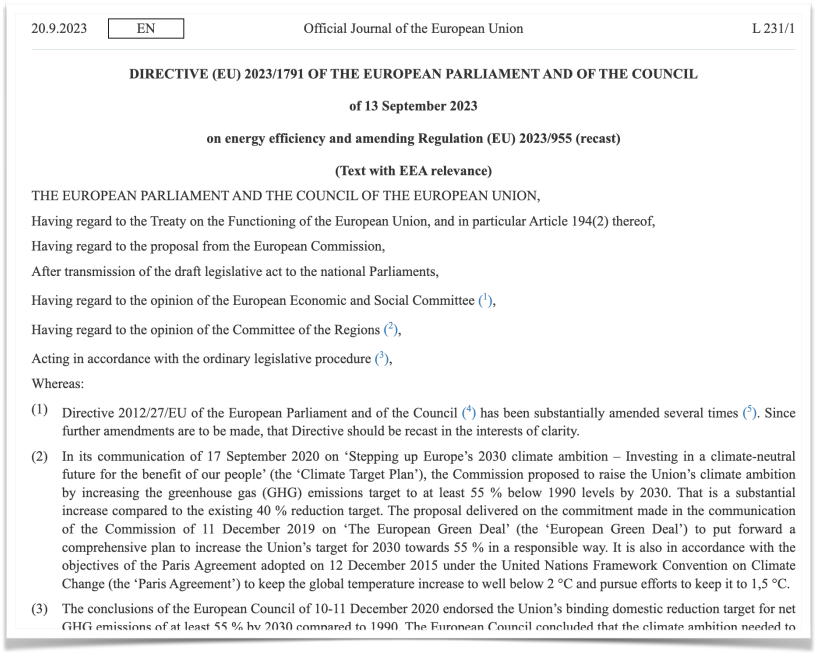
Subtask 2 - Scaling just energy transitions:

Closing the gap between users and policy



20.9.2023 EN Official Journal of the European Union L 231/1

DIRECTIVE (EU) 2023/1791 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 13 September 2023

on energy efficiency and amending Regulation (EU) 2023/955 (recast)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 194(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national Parliaments,

Having regard to the opinion of the European Economic and Social Committee ([1]),

Having regard to the opinion of the Committee of the Regions ([2]),

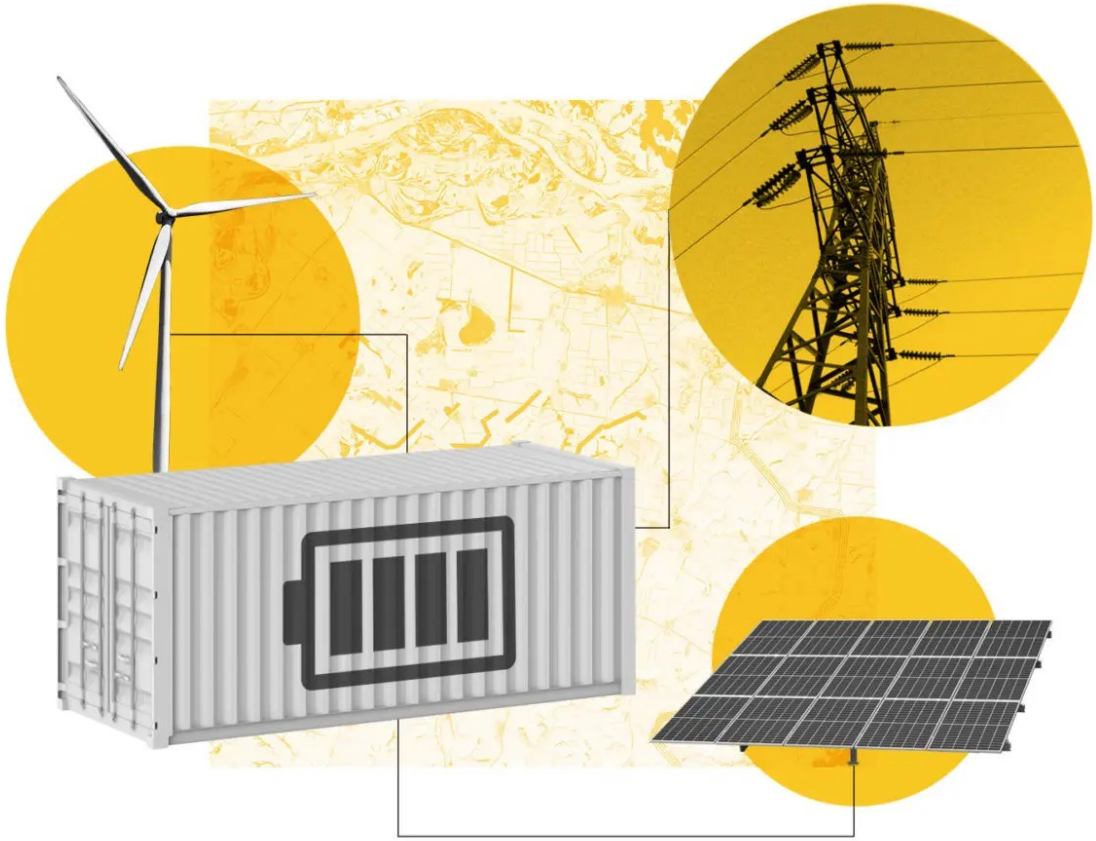
Acting in accordance with the ordinary legislative procedure ([3]),

Whereas:

(1) Directive 2012/27/EU of the European Parliament and of the Council ([4]) has been substantially amended several times ([5]). Since further amendments are to be made, that Directive should be recast in the interests of clarity.

(2) In its communication of 17 September 2020 on 'Stepping up Europe's 2030 climate ambition – Investing in a climate-neutral future for the benefit of our people' (the 'Climate Target Plan'), the Commission proposed to raise the Union's climate ambition by increasing the greenhouse gas (GHG) emissions target to at least 55 % below 1990 levels by 2030. That is a substantial increase compared to the existing 40 % reduction target. The proposal delivered on the commitment made in the communication of the Commission of 11 December 2019 on 'The European Green Deal' (the 'European Green Deal') to put forward a comprehensive plan to increase the Union's target for 2030 towards 55 % in a responsible way. It is also in accordance with the objectives of the Paris Agreement adopted on 12 December 2015 under the United Nations Framework Convention on Climate Change (the 'Paris Agreement') to keep the global temperature increase to well below 2 °C and pursue efforts to keep it to 1,5 °C.

(3) The conclusions of the European Council of 10-11 December 2020 endorsed the Union's binding domestic reduction target for net GHG emissions of at least 55 % by 2030 compared to 1990. The European Council concluded that the climate ambition needed to



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Subtask 2 - Scaling just energy transitions:
Closing the gap between users and policy

Energy is one of the least gender diverse sectors of the global economy today.

(IEA, 2019)

Gendered energy sector

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Subtask 2 - Scaling just energy transitions:
Closing the gap between users and policy

Small and medium enterprises (SMEs)

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Subtask 2 - Scaling just energy transitions:

Closing the gap between users and policy

ENERGY COMMUNITIES

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Subtask 3 - Reimagining just energy transitions:

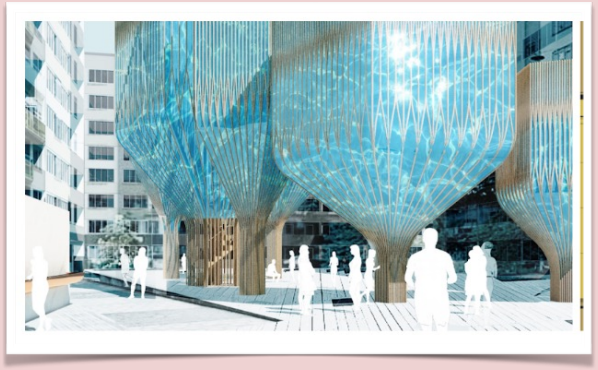
Prototyping inclusive interventions and technologies

SUBTASK 3 A

Beyond ‘smart grids’ - towards new understandings of smartness in relation to energy citizenship

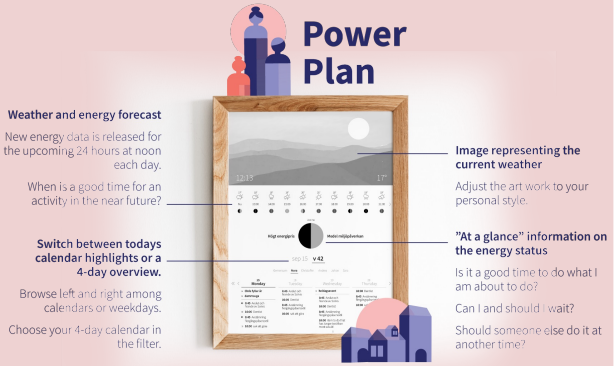
SUBTASK 3 B

Prototyping low-carbon sufficiency lifestyles in the built environment



SUBTASK 3 C

Prototyping gender sensitive energy engagement tools



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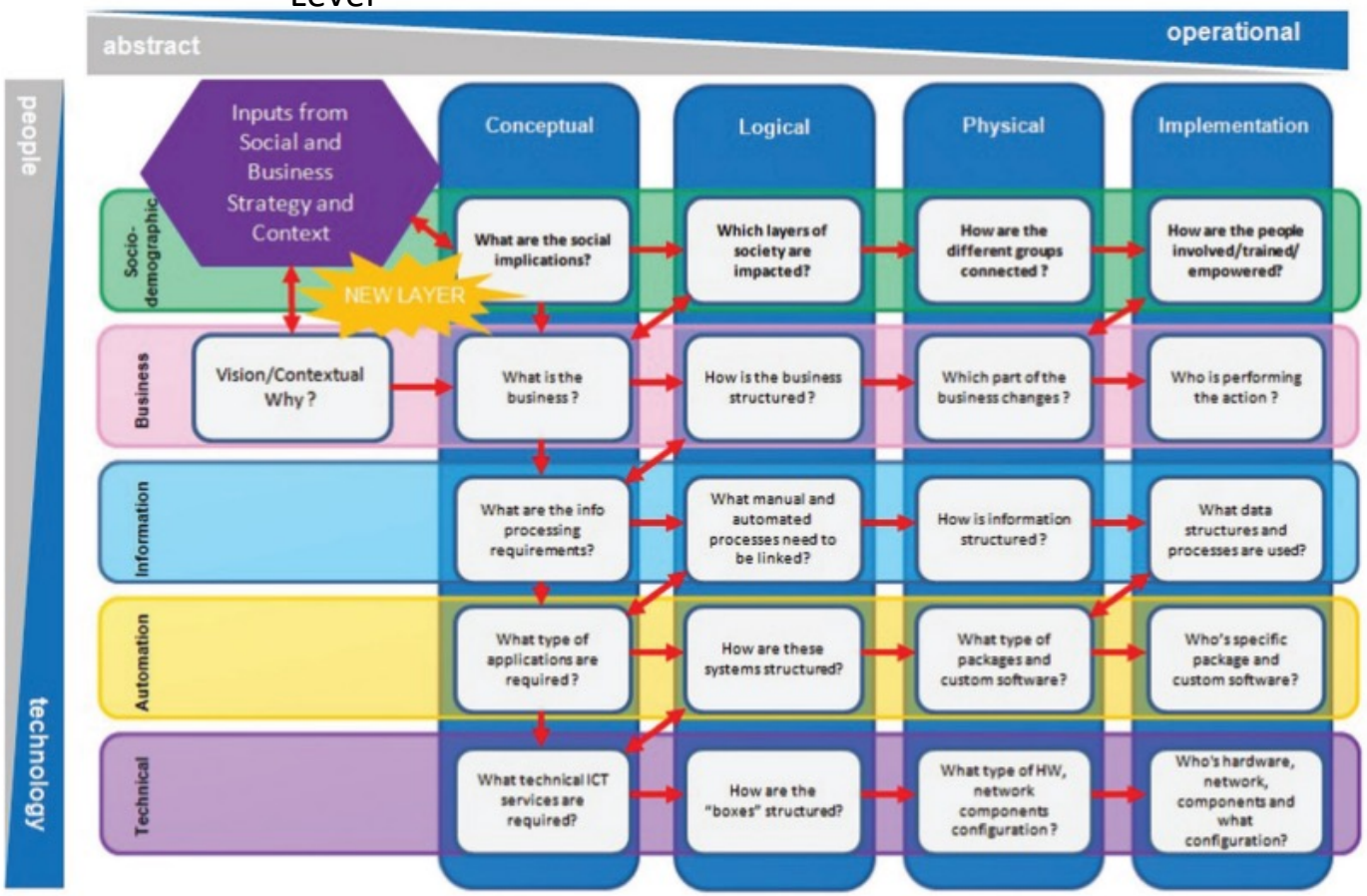
Subtask 4 - Knowledge hub helpdesk

Prototyping inclusive interventions and technologies

Smartgrid: Extended Architecture Layers to Include Socio-Demographic Layer

Based on NIST, IEEE Smartgrid Architecture Layers and Iteration Level



Mohideen and Demazy. "Inclusive Community Energy Resilience in Bangladesh." 2022.

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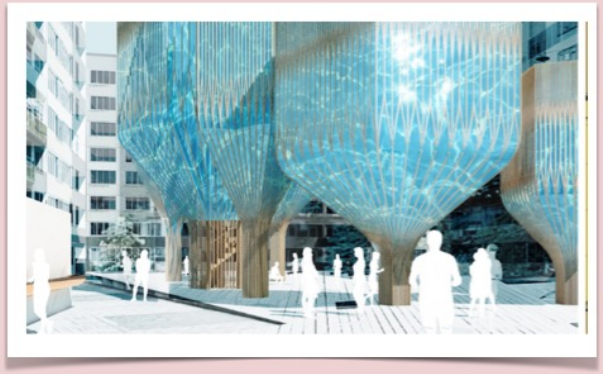
SUBTASK 3 A

Beyond ‘smart grids’ - towards new understandings of smartness in relation to energy citizenship

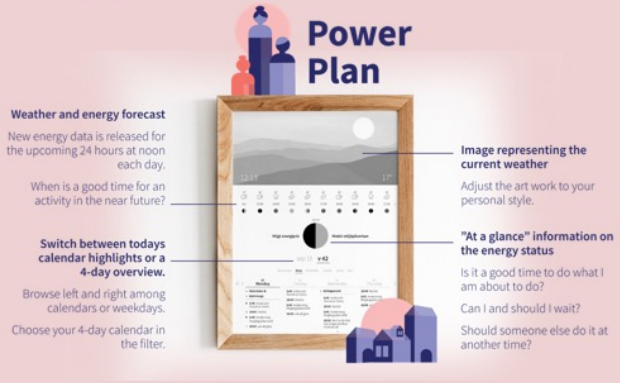
SUBTASK 3 B

Prototyping low-carbon sufficiency lifestyles in the built environment



SUBTASK 3 C

Prototyping gender sensitive energy engagement tools



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EmPOWERing All
Just and Inclusive Energy Transitions for All

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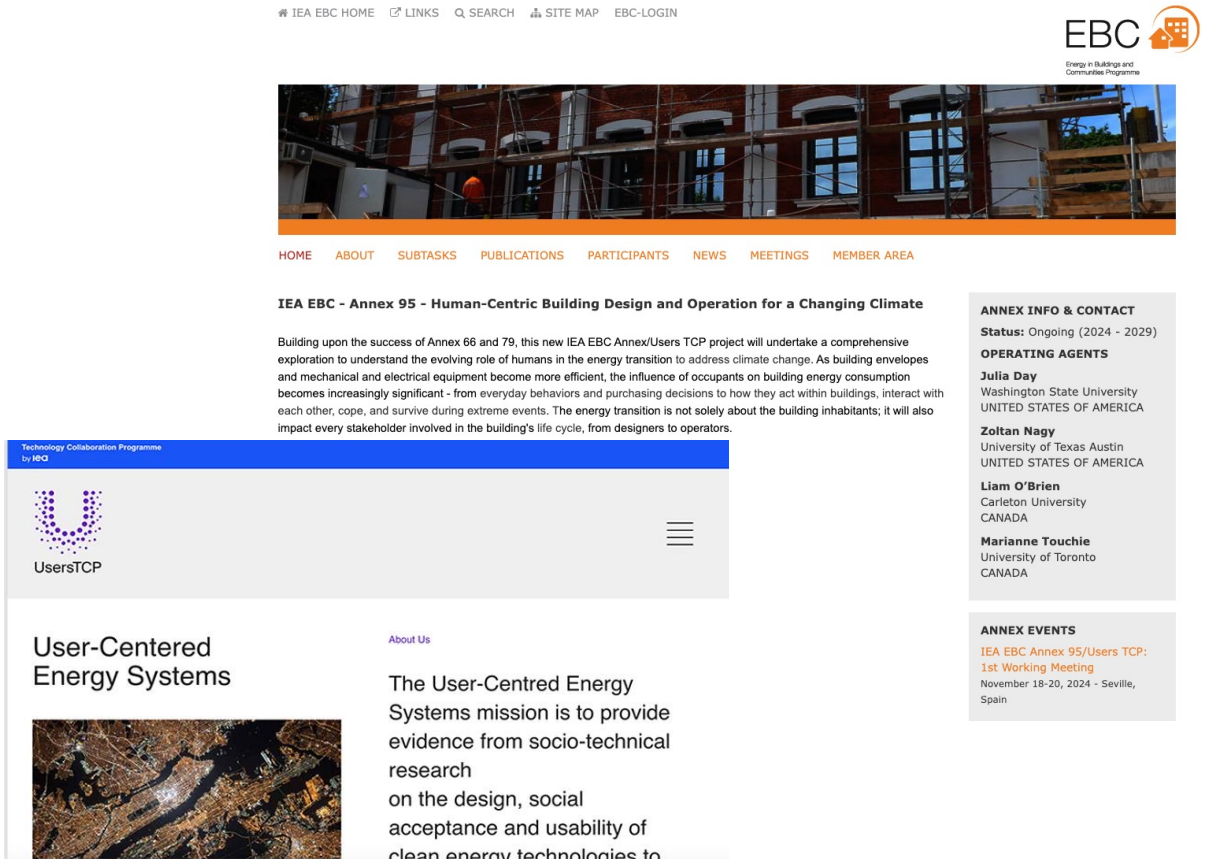
Contact:
admin@userstcp.org



User-Centred Energy Systems Academy

UsersTCP | Social License to Automate

UsersTCP | Public Engagement for Energy Infrastructure

UsersTCP | Peer-to-Peer Energy Trading

UsersTCP | CampaignXchange

UsersTCP | Hard-to-Reach Energy Users

UsersTCP | Behavioural Insights Platform

UsersTCP | Gender and Energy