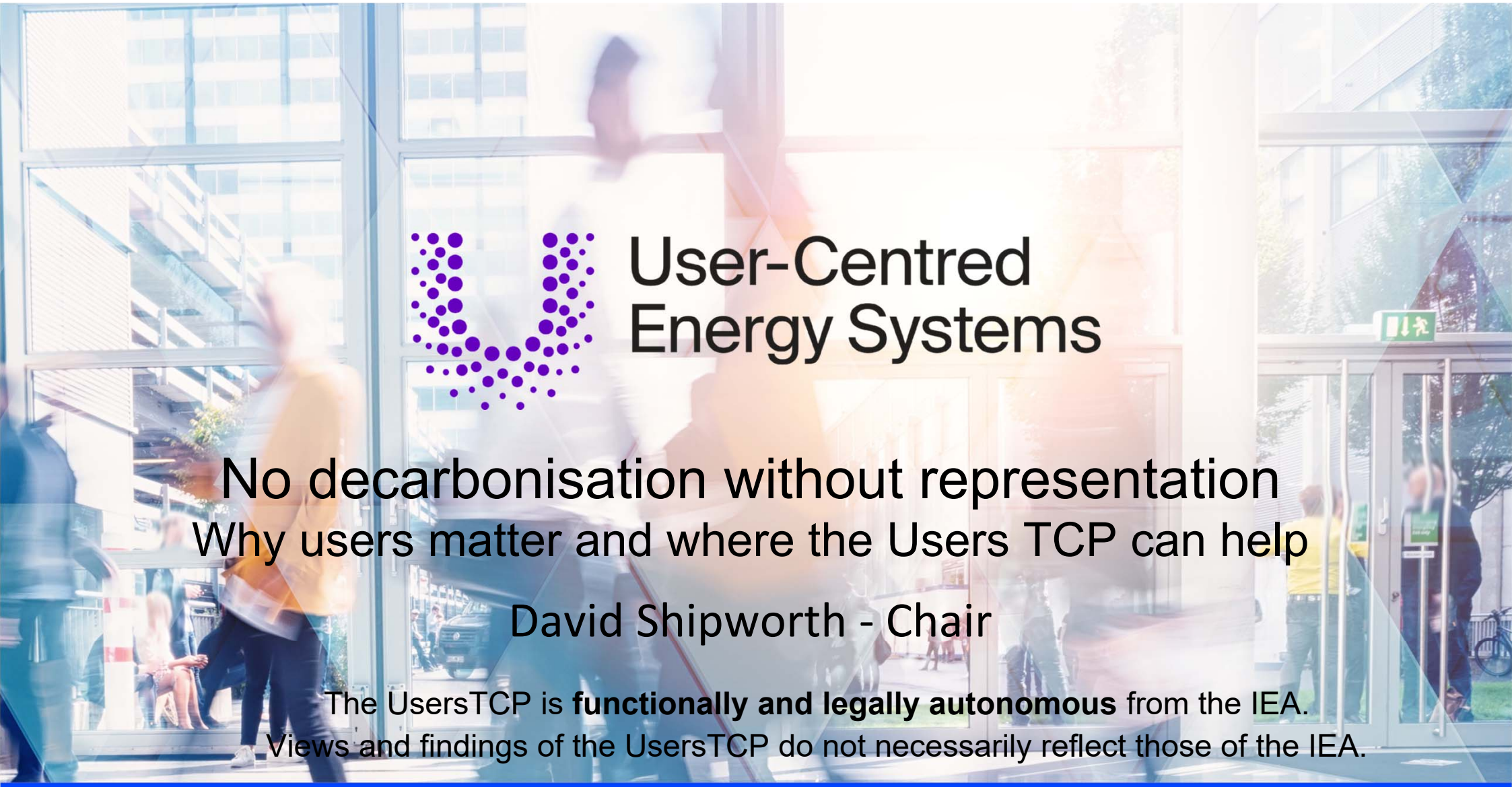


User-Centred Energy Systems

No decarbonisation without representation

Why users matter and where the Users TCP can help

David Shipworth - Chair

The UsersTCP is **functionally and legally autonomous** from the IEA.
Views and findings of the UsersTCP do not necessarily reflect those of the IEA.

UsersTCP

No decarbonisation without representation!

- We can’t decarbonize without a democratic mandate
- The IEA’s ‘key pillars of decarbonization’ all require the public to *permit*, *purchase* and *participate* in their future
- The Fridays for the Future generation don’t trust us and won’t go unheard.

UsersTCP

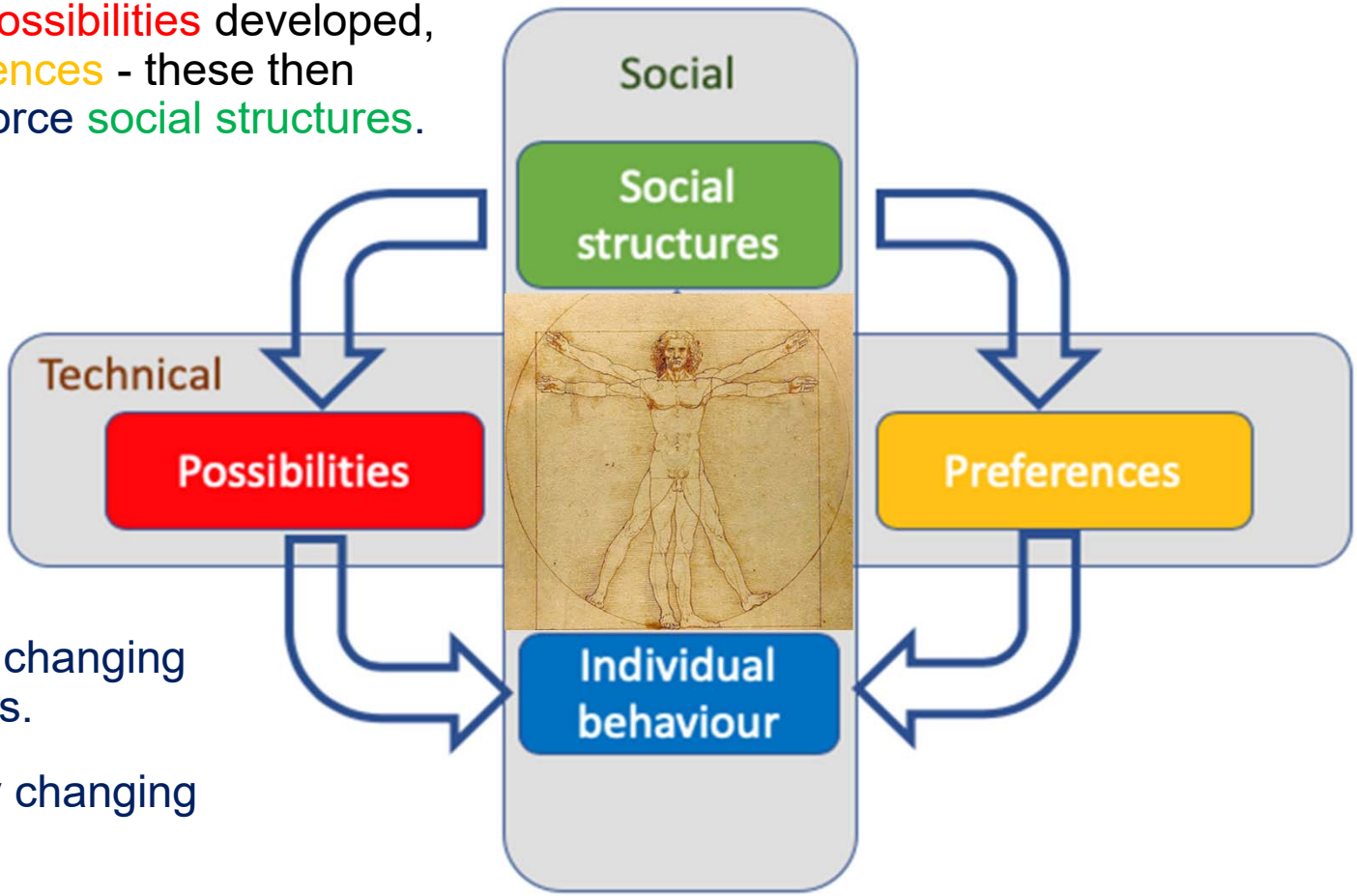
No decarbonisation without representation!

Social structures shape the technical possibilities developed, but also consumers' technology preferences - these then shape individual behaviour which reinforce social structures.

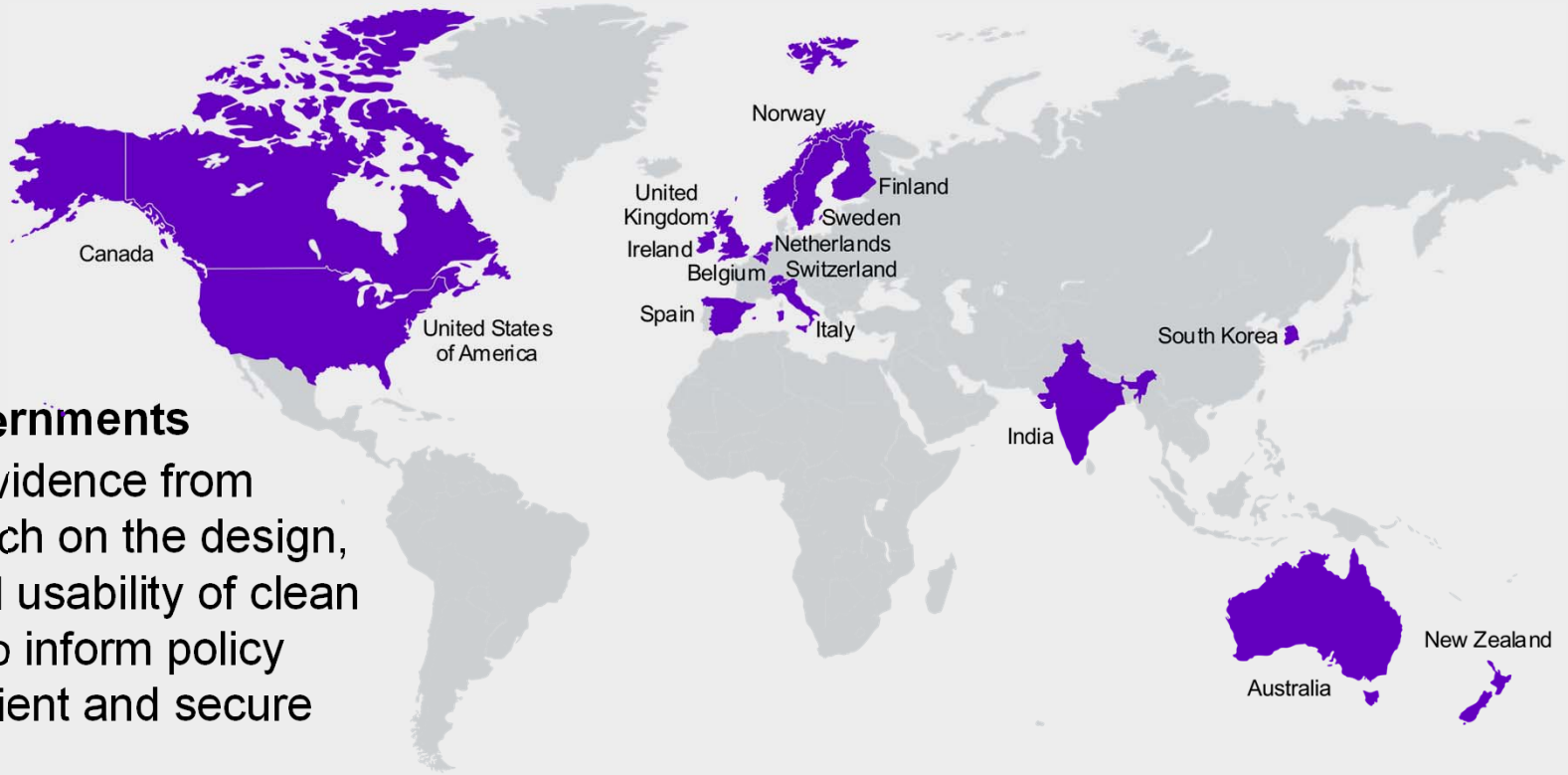
All these are mediated through our images of others: technologists' and businesses' images of users; users' images of their peers and businesses; and regulators' images of technologists and users.

These images shape our actions – so changing images changes actions and outcomes.

The Users TCP changes outcomes by changing actors' images of users.



UsersTCP



6 active Tasks

15 participating governments

Mission: to provide evidence from socio-technical research on the design, social acceptance and usability of clean energy technologies to inform policy making for clean, efficient and secure energy transitions.

Tasks

- UsersTCP | Business Models and Systems
- UsersTCP | Hard-to-Reach Energy Users
- UsersTCP | Peer-to-Peer Energy Trading
- UsersTCP | Social License to Automate
- UsersTCP | Behavioural Insights Platform
- UsersTCP | Gender and Energy

UsersTCP

Benefits of participating in the Users TCP

Enables complex projects to be undertaken

Enhances national R & D Programmes

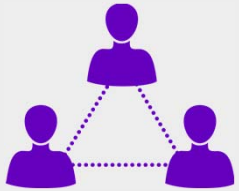
Promotes standardisation

Accelerates the pace of clean technology uptake and effective use

Promotes international understanding

Reflects latest trends and issues

Saves time and money



Creates important networks

Increases the pool of knowledge

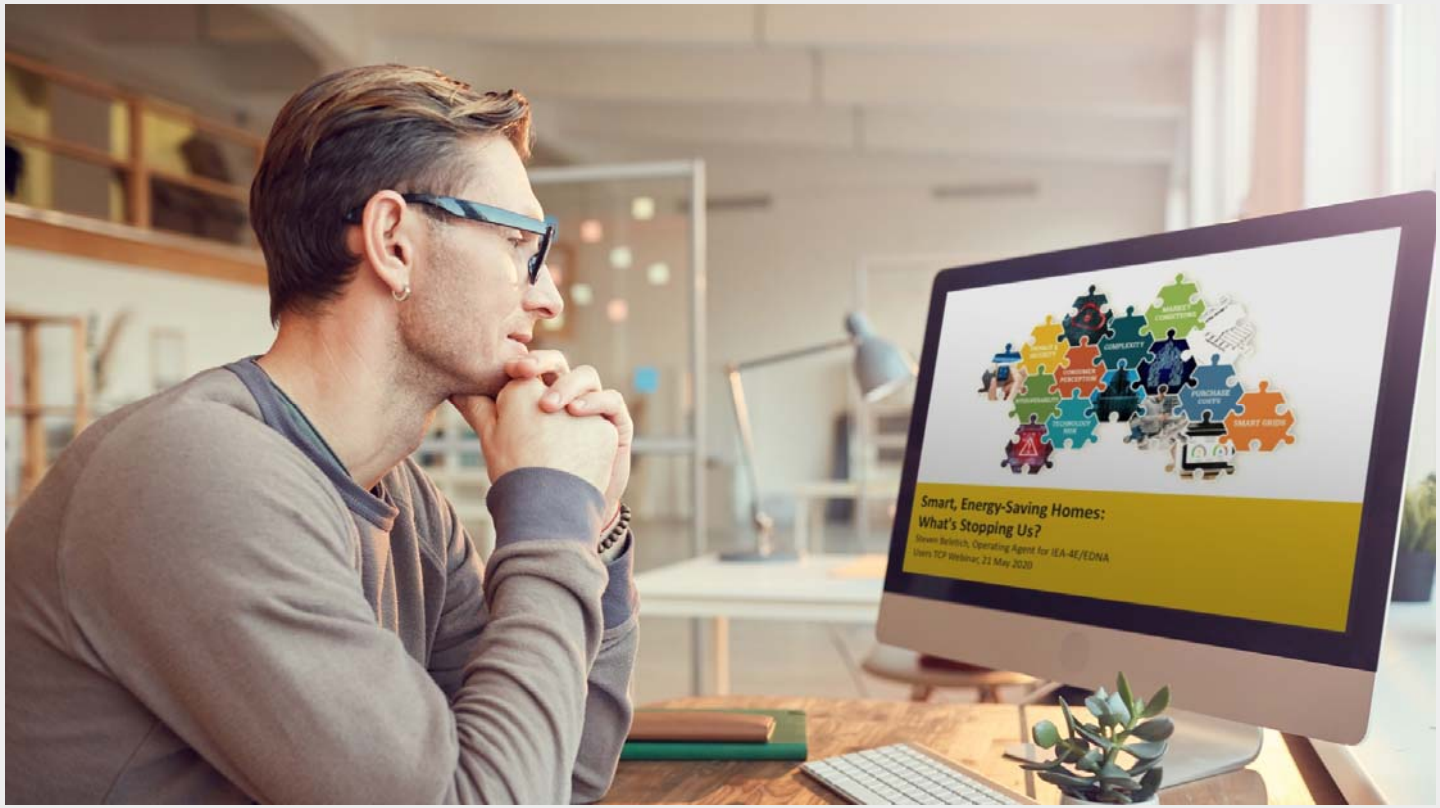
Permits national specialisation

User-Centred Energy Systems Academy

Builds on the success of over 50 webinars delivered through the DSM University

The Academy provides access to the knowledge developed through our research programmes and the wider work of our partners via monthly webinars

All webinars available to view on YouTube



UsersTCP

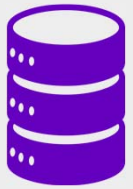
Energy Sector Behavioural Insights Platform

Current programmes target:

- information simplification and framing;
- real-time feedback mechanisms;
- social norms and peer comparisons.

The Behaviour Insights Platform includes

A global network of policy makers



A database of policy case studies

Guidance for policy makers

Policy impacts likely to be improved through:

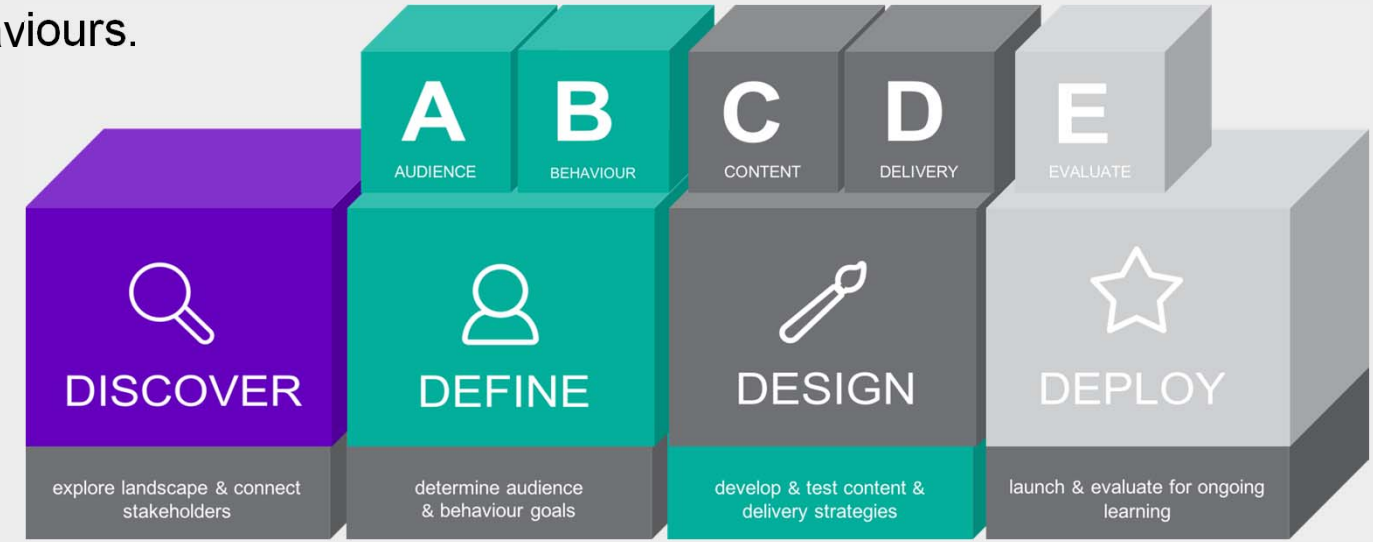
- gamification & positive competition; goal-setting & commitment devices; rewards.
- changes to product design and default options to facilitate and automatize energy efficient choices.

UsersTCP

Hard-To-Reach Energy Users

HTR energy users - identifying who and how many they are, where they are and how to better motivate and engage them in energy efficiency and demand-side interventions geared at changing their energy-using behaviours.

- Most see small businesses and vulnerable households (energy poor, low income, households in minority groups and who rent) as being hardest to reach.



- Many also see high-income households, high energy users, landlords and building operators as being hard to reach.

Global Observatory on Peer-to-Peer, Community Self-Consumption & Transactive Energy

- Desired policy outcomes should drive system design – don't 'leave it to the market'.
- Proactive balancing is much harder than post-hoc settlement
- Multiple supplier models could help all parties
- Prosumer roles are currently legally ambiguous and risky
- Network charging models are crucial to financial viability
- Systems need to be 'cybersecure by design' and failure tolerant
- Where data is processed matters for data protection
- Regulators must support actors' changing roles and responsibilities

‘Plug & Play’ Smart Home Technologies: A joint scoping project with 4E EDNA

Current challenges:

- Misrepresenting SHT benefits causes distrust disengagement.
- SHTs frequently don’t accommodate user’s complex, diverse and dynamic needs.
- The onboarding experience often fails to prepare users to operate their SHTs,
- Many users feel intimidated by the complexity of the systems.
- Installation errors make using the technologies harder and the feedback less useful.
- Automation is liked – provided users remain in control.
- Poor automation undermines user trust and they intervene.

Recommendations:

- Encourage business to create usable, holistic solutions
- Develop shared infrastructures to help speed up understanding of usability issues in the energy sector
- Governments should design markets that flow the value of increased flexibility to the right place in the system, including the demand side.
- Don’t wait for usability issues to emerge, actively seek to uncover them now. The development of shared learning infrastructures can help speed this up.
- Invest in innovation to help the sector understand how to deliver positive and engaging user experiences.

Task Proposal on Public Engagement [UK]

UsersTCP

Decarbonisation requires democratization – without a public mandate we will fail

- Both the IEA Net Zero report, and the UK CCC estimates that around 2/3^{rds} of emissions reductions will require some form of behavioural change
- Public engagement is needed to ensure new infrastructure produces fair outcomes
- Public Engagement facilitates action, builds trust, and helps develop better and fairer policies through awareness-raising, public consultation & civic empowerment

The proposed Public Engagement Task will:

- Foster international collaboration to develop best practice guidance
- Identify and share information between countries
- Identify common issues and challenges and identify solutions

UsersTCP

Contact Us

For more information,
visit userstcp.org
or email TCP Secretariat
at admin@userstcp.org