

Ensuring an inclusive transition for all consumers



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EIS 24

30th October 2024

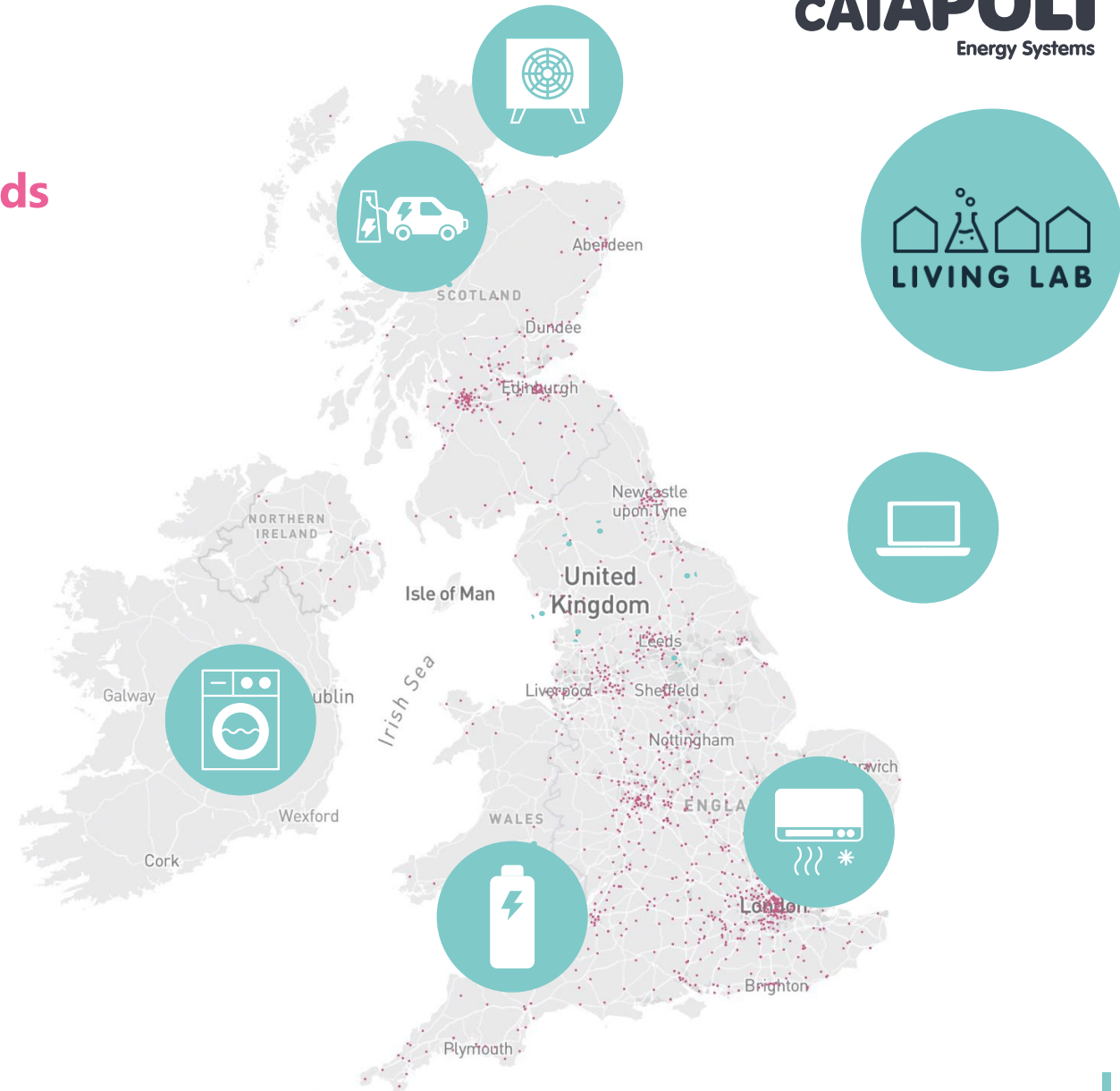
What is the Living Lab?

A community of over 4,800 diverse households who want to help the UK get to Net Zero

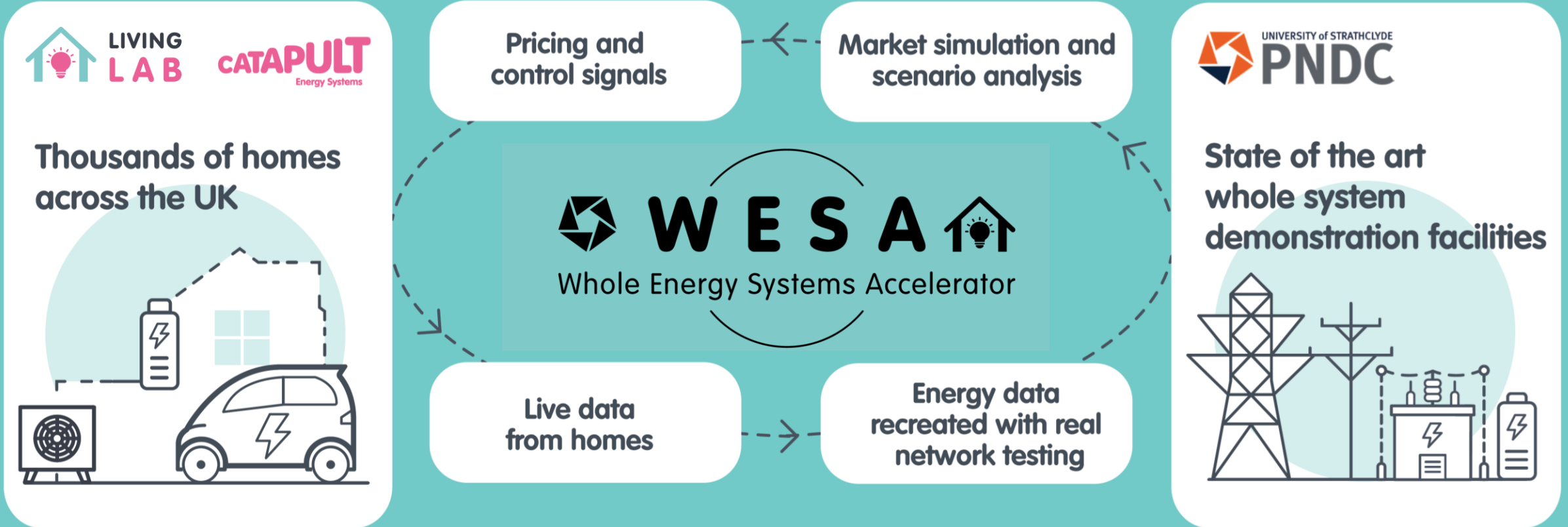
We help government and private sector innovators understand:

- How energy use is changing
- What all kinds of consumers need and want from energy
- How well new products, services, policy and regulatory innovations work for real people, in real homes
- Whether their business models are viable
- Whether new innovations work for the energy system

<https://es.catapult.org.uk/tools-and-labs/living-lab/>



WESA: Whole systems trials with consumers, networks, market innovations



<https://es.catapult.org.uk/tools-and-labs/wesa/>

WESA: Whole systems trials with consumers, networks, market innovations

Real time models of future energy markets and regulations

LIVING LAB CATAPULT
Energy Systems

Thousands of homes across the UK



Real consumers, real homes

Pricing and control signals

Market simulation and scenario analysis

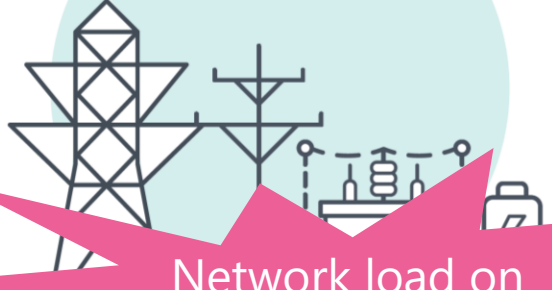
WESA
Whole Energy Systems Accelerator

Live data from homes

Energy data recreated with real network testing

UNIVERSITY OF STRATHCLYDE PNDC

State of the art whole system demonstration facilities



Network load on emulated networks

<https://es.catapult.org.uk/tools-and-labs/wesa/>

Why are some people at risk of being left behind in the energy transition?



Disability or long term illness

- Need higher temperatures to stay healthy
- Using energy for essential medical/ mobility equipment
- Physical accessibility of equipment

Money

- No/limited savings
- Low/unstable income
- Access to grants and loans

Digital skills or access

- Lack of home/mobile internet access
- Low digital skills
- Accessibility of technology

Geography

- Availability of fuel types
- DCC coverage: no smart meter

Physical space

- Inability to make changes to the home [e.g. tenants, planning restrictions]
- Lack of indoor/outdoor space for new technologies

Challenging life circumstances

- Lack of time to even think about energy
- English as second language

Engagement with energy market

- Unable to switch supplier [e.g. because of account debt]
- Unable to access information on alternative options
- Time/willingness to switch supplier and service
- Ability to understand that the price of energy may vary

To make sure the transition is inclusive and works for all, we need to...



Involve the widest range of consumers in innovation, to **pre-empt and prevent risks we can see coming**



Harness business opportunities to benefit everyone and ensure **equity of outcomes**



Current/recent projects

Can market-based flex services replace the diversity lost by the RTS meter switch-off, provide viable business models to flex services, and deliver good outcomes to consumers?

connectedresponse



How might a switchover to new heating systems be managed for vulnerable households?



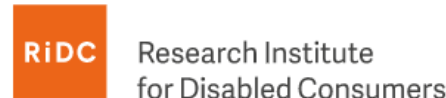
How can we ensure that low income and vulnerable consumers are able to participate in a smart, flexible energy system?



Can smart data be used to identify and better support households at risk of and in fuel poverty?



How can we design trials that include disabled and digitally excluded people?



Could type of use pricing / split metering incentivise flex of the biggest loads, while maintaining fair pricing for non-shiftable demand?



Thank you!

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