

## Introduction to EDOL

### Overview

The Energy Demand Observatory and Laboratory – EDOL – is a major new research capacity in the UK. This five year research project, led by UCL and the University of Oxford, will provide a platform for longitudinal and experimental research on energy use in homes.

The project runs from Jan 23 to Dec 27, but we hope to make the case for retaining longitudinal data collection well beyond that.



### EDOL components

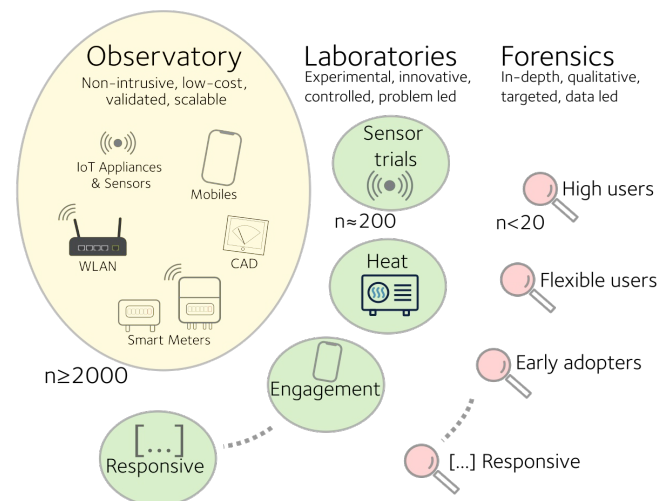
**Observatory:** Around 2000 GB homes, fully instrumented, control group

**Laboratories:** administered by EDOL alone or in partnership. 100-200 households. Four functions, exploring: technology, engagement, policy, instrumentation.

**Forensics:** up to 20 households, more in-depth analysis of the causes of unusual energy use

### Our aims and objectives are to:

- ❖ enable and strengthen foundational scientific understanding of how and why energy is used in homes through data-rich sociotechnical research;
- ❖ deliver applied research and modelling flexibly and responsively to a fast-moving technological and policy landscape;
- ❖ make representative and reliable data available to scientists, industry and policymakers;
- ❖ sustain the UK's world-leading research in data-driven approaches to energy data collection, analysis and access;
- ❖ innovate new, cost-effective smart data solutions for collecting energy data at scale.



## Please share your experience & research / data ideas

### Learning from previous projects

*"A large number of field trials have attempted to understand energy use in buildings. Nevertheless, the number of studies with complete monitoring equally capturing building data, technologies and people is limited."*

(Higginson et al, 2018:64, doi.org/10.1007/978-3-319-99097-2\_5)

We have the benefit of learning from our predecessor project SERL (Smart Energy Research Lab), nevertheless we are very keen to learn from previous research, particularly to avoid known errors in either design or implementation.

### What learning points can you advise on?

### Designing the EDOL Observatory and Laboratories

EDOL is consulting with expert and stakeholder communities on use-cases and data needs to address commercial, academic and policy challenges.

If you want to be added to our list of stakeholders / interested parties, please let us know (tina.fawcett@eci.ox.ac.uk)

What types of data should be collected, at which resolution and over which time periods?

What data would you like EDOL to collect and share?