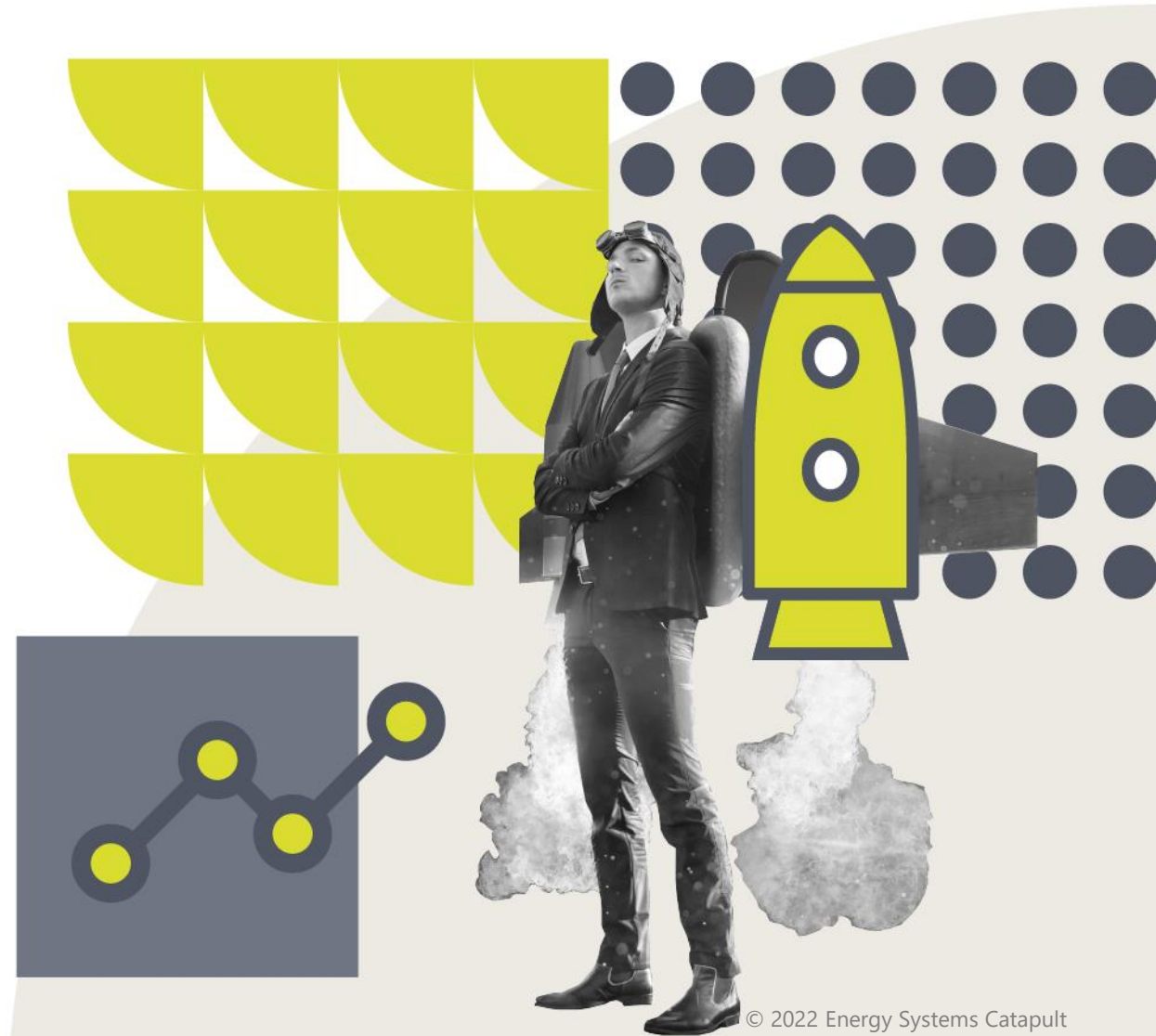


**SMARTLINE
HEAT AS A SERVICE WORKSHOP**

EDMUND HUNT

DESIGN LEAD

11th OCTOBER 2022



- An introduction to Heat as a Service - help you understand what it is
- How it can help target those that need help
- Create your own HaaS for social good

ABOUT US.

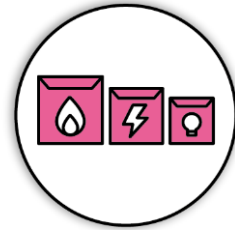
MISSION: UNLEASHING INNOVATION AND OPEN NEW MARKETS TO CAPTURE THE CLEAN GROWTH OPPORTUNITY.

WHO?

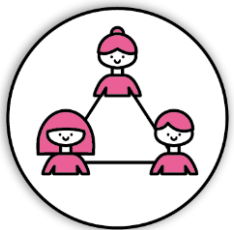


INNOVATION EXPERTS

WHAT?



SUPPORTING INNOVATORS TO COMMERCIALISE



PARTNERS & COLLABORATORS



HELPING TO DESIGN THE FUTURE ENERGY SYSTEM TO UNLOCK INNOVATION

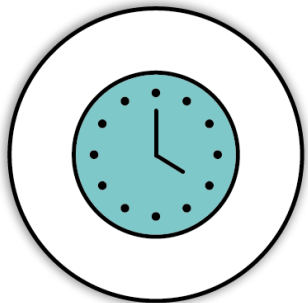
- Consumer Insight and Proposition Design
- Business Model Innovation
- Harnessing Digital and Data
- Test and Demonstration
- Delivering Large Scale Innovation Trials
- Whole System Modelling
- Clean Tech Engineering
- Systems Engineering
- Integrating the Transport and Energy Systems
- Markets, Policy and Regulation
- Decarbonising Local Places
- Decarbonising the Public Sector Estate
- Decarbonising Campuses, Business Parks and Industrial Estates

We work with
Innovate UK

The Living Lab – 1000 homes to test innovations with real people

1 RAPID TEST AND FEEDBACK CYCLE

A ready-built lab of hundreds of homes for you to easily test and validate your products and services.

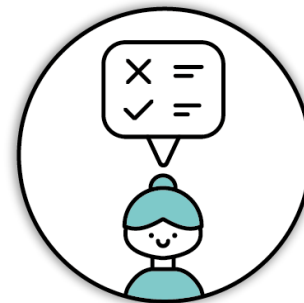


2 AFFORDABLE AND VALUABLE

Free up your time to be more productive in the design and development of your products and services.

3 UNDERSTAND YOUR CUSTOMER

Understand how your products and services are being used and their effectiveness.



4 ACCELERATE COMMERCIALISATION

Improve your product, service or business model and get it ready for market.



A safe, quick and affordable, real-world test environment to de-risk and scale innovations by running trials directly with consumers in their homes.

**LET'S EXPLAIN HaaS A
LITTLE FIRST...**

People might want low carbon if it solved their problems



Poor control



Draughts

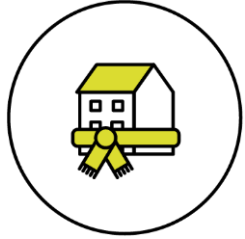


Damp

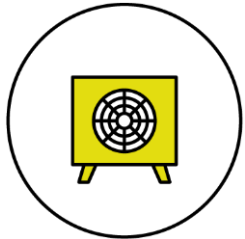


Overheating

The industry has some challenges to deliver zero carbon



How to retrofit homes



Giving confidence that Heat Pumps work



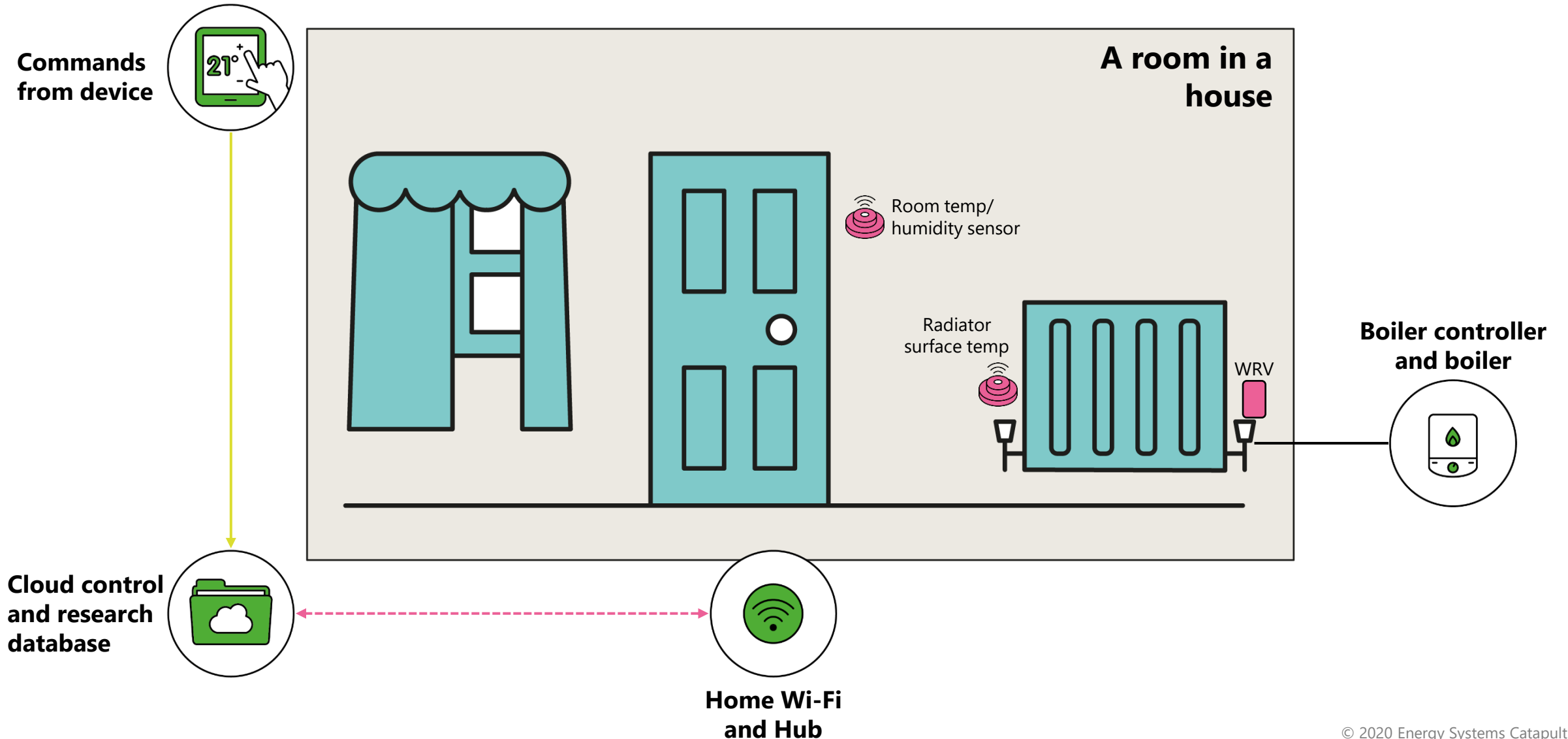
Unlocking flexible heating

People would switch to low carbon heating systems if they knew they could get comfortable, for a fair price

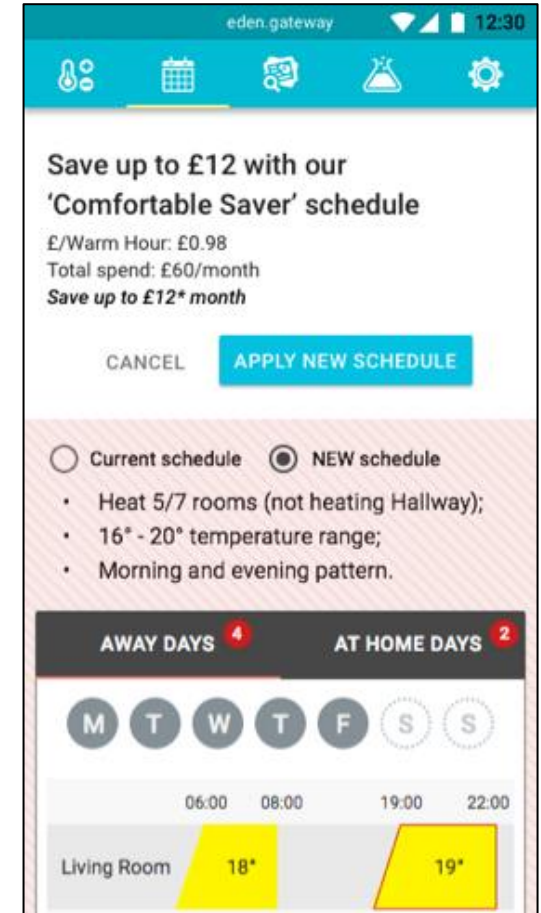
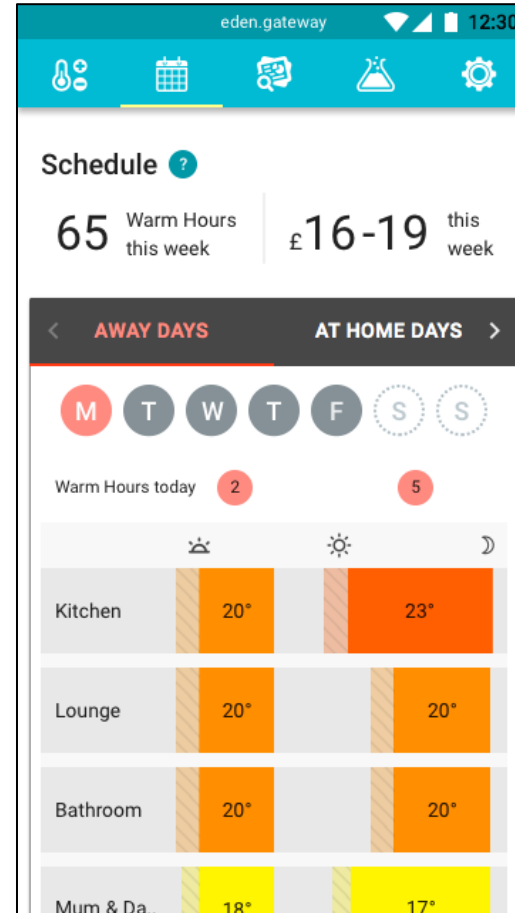
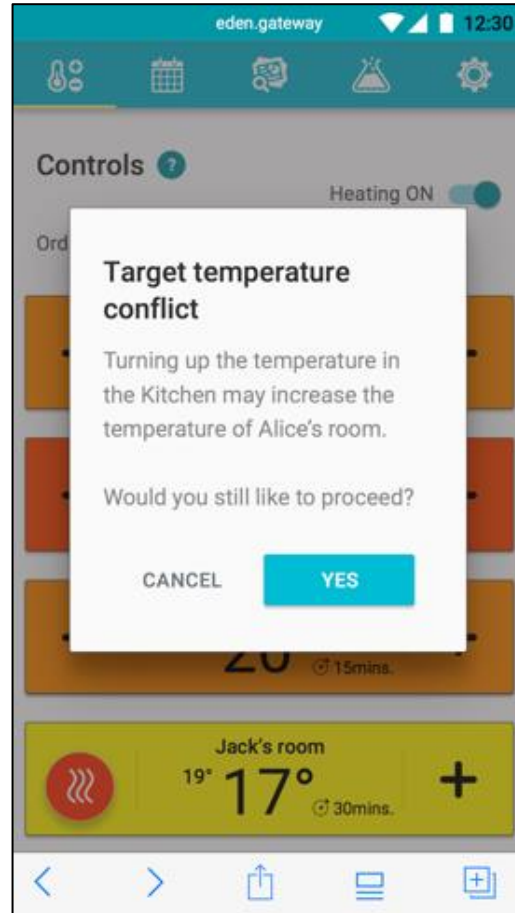
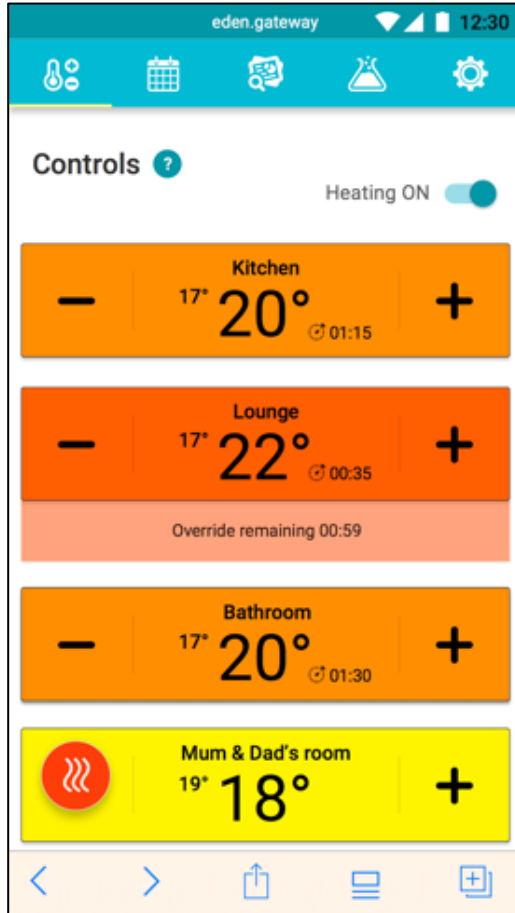
What oven was
this cooked in?



We upgraded homes with zonal control and sensors to create a Living Lab



Data helps understand and shape heating expectations



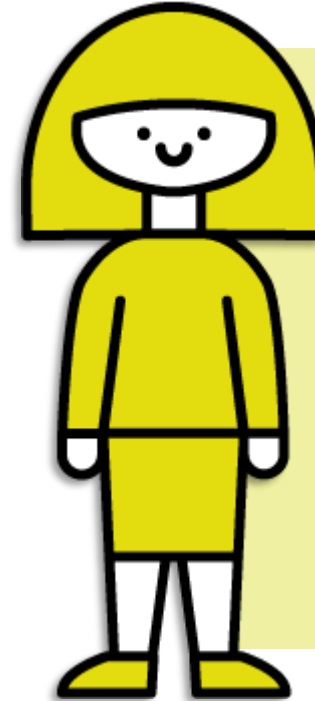
What if consumers bought Heat-as-a-Service?

Last year I spent

- £1,400 on
- 15,000kWh of gas and
- 4,000kWh of electricity

Next year, it's hard to know

- How much fuel I need
- What it will cost, or
- What experience I will get



I want to

choose how much I spend
warming the rooms I want...
...to the temperatures I like...
...when I like

Heat Plans: a starter-for-ten energy service

Warm hours
Hours any room is warm

FixedTime

65 Warm Hours

Your current schedule, no changes allowed.

£7.15
Week

11p / Warm Hour

Extra Warm Hours
25p / Hour

Pence per warm hour
Like "mpg" for heating

Schedule
Temperature of rooms at any time

Extras
Cost of warmth outside the schedule

REASON TO ACT

CONSUMERS



High carbon
heat
e.g. gas boiler

WILLING



ABLE

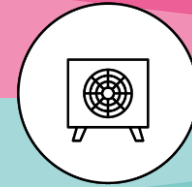


Low-carbon
ready
e.g. insulated

WILLING



ABLE

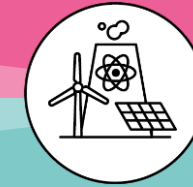


Low carbon
installed
e.g. heat pump

WILLING



ABLE



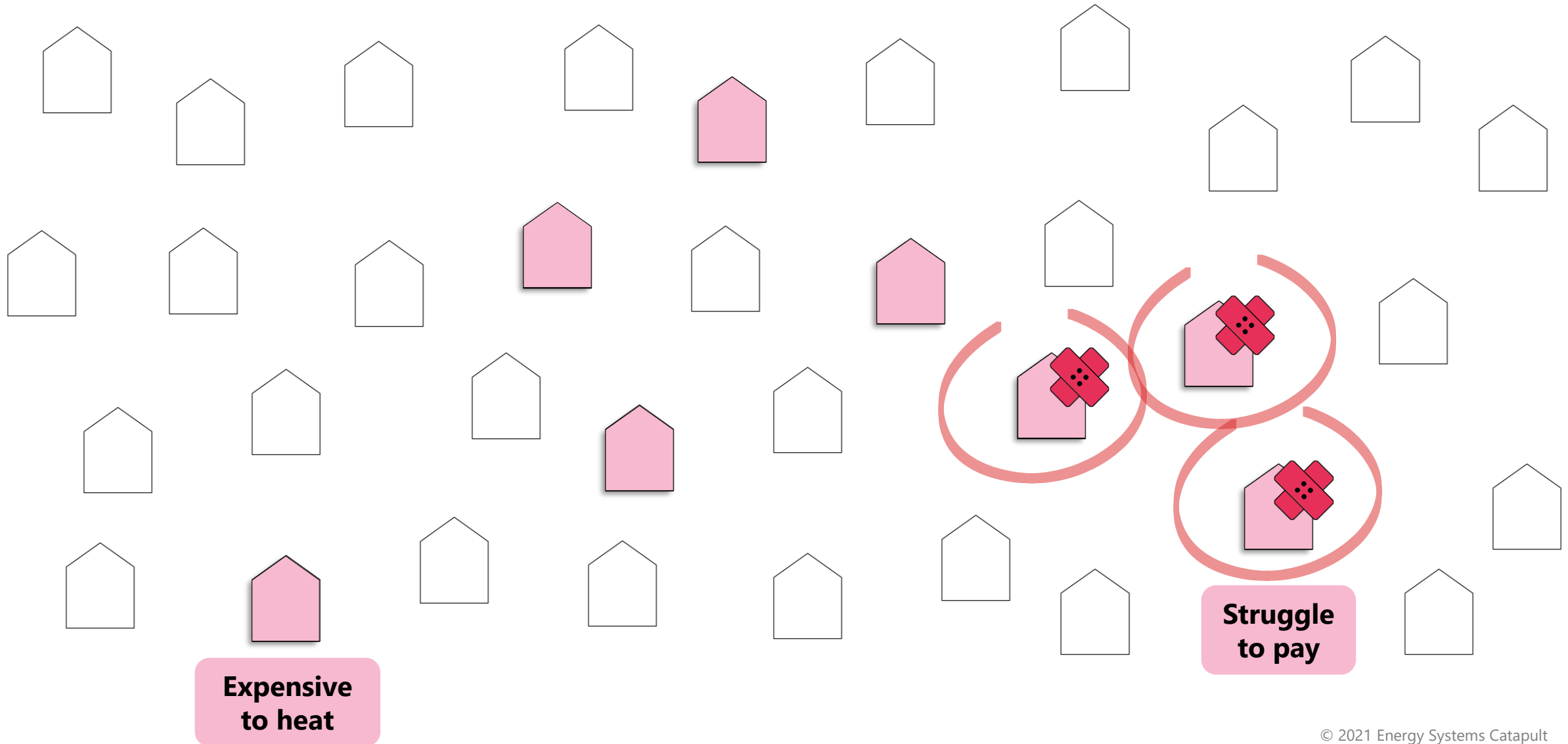
Low carbon
energy
(flexibility key)

SUPPLY CHAIN



REASON TO ACT

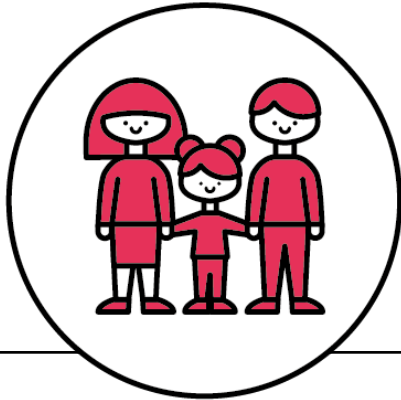
It could show who need help with their bill to help target support to reduce the risk of fuel poverty



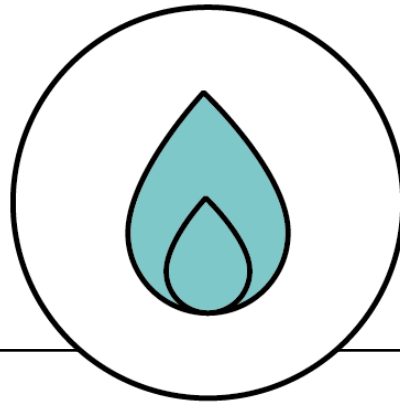
YOUR REFLECTIONS

**TARGETING THOSE IN
NEED**

Problems paying heating bills are already causing harm



Millions already struggle to pay for their heating



Gas prices are rising



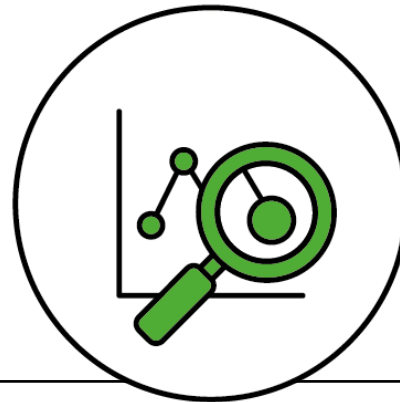
This costs the health sector billions/year

Is support helping?

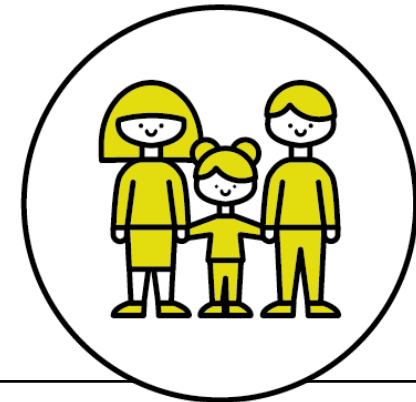
16%

of the >£2.55bn per year
spent goes to fuel poor

[Committee on Fuel Poverty Annual Report 2021](#)



It is hard to find people
who need help



Ill people don't want very
disruptive measures (e.g.
wall insulation)

WARM HOME PRESCRIPTION

CATAPULT
Energy Systems

- Designed and piloted in weeks
- Kept people warm and well at home
- Reduced pressure on the NHS
- Found people for ECO & HUG



severn wye



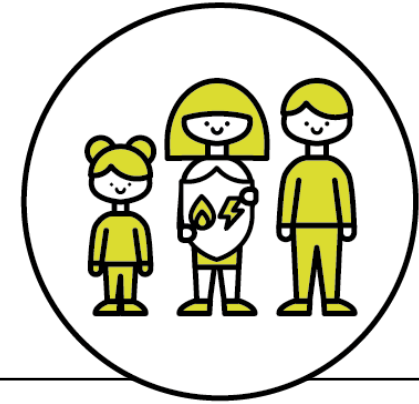
Last year we showed Warm Home Prescriptions could help



Health-workers found people in need



The health service paid for their warmth



People felt well enough to schedule home energy improvements

Video



- [Play Warmth on Prescription video](#)

**TIME TO CREATE
YOUR OWN WARMTH
ON PRESCRIPTION...**