

Technology, users and everyday lives

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Overview

- Context
- Overview of the project
- Findings so far...
- Conclusions

Context

- UK housing stock is more than 26m homes – 25% of CO₂ emissions
- Retrofitting homes with energy efficient ‘measures’ key approach
- Policy drivers:
 - Climate change
 - Fuel/energy poverty
 - ‘Squeezed’ middle income

Context

- Installation of ‘basic measures’ – appears promising, less so for more ‘technical’ fixes
- Social Housing (approx 18%) used as ‘market makers’ and test bed for broader roll out
- Numerous programmes to facilitate retrofit over time
- Policy changing radically – Green Deal and Energy Company Obligation

Context

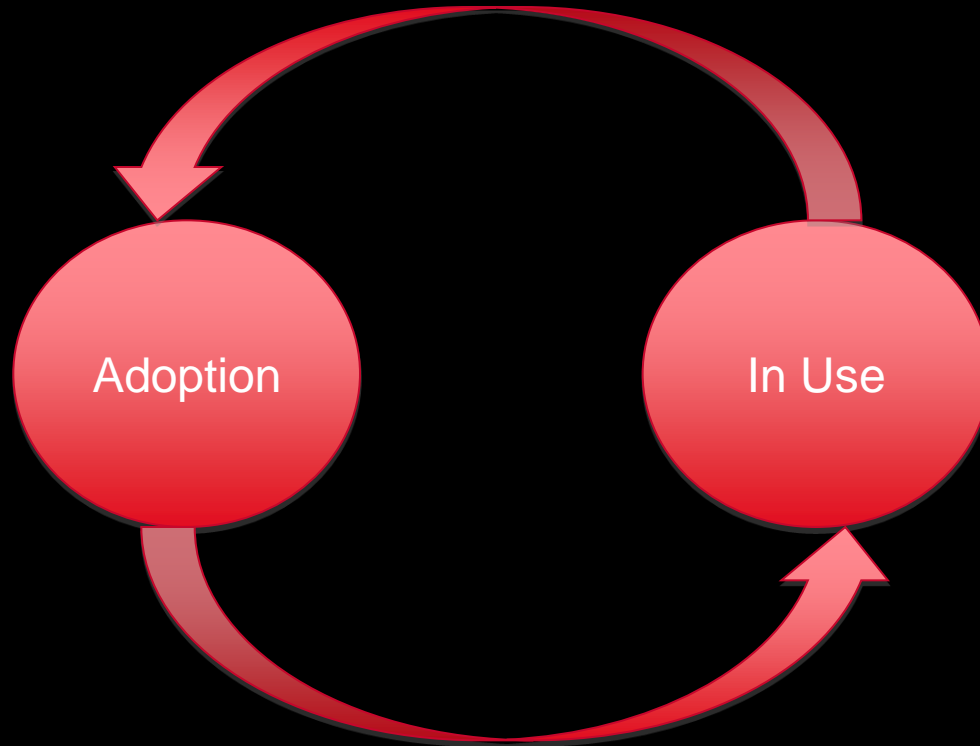
- Capturing learning from previous retrofit programmes – little evaluation happening
- What learning there is – is it being fed back to policy actors and technologists?

On-going research study

Engineering and Physical Sciences Research Council (EPSRC) project: Aims are:

1. To better understand the issues faced by technology providers, developers and housing providers when **supplying energy reducing technologies** to vulnerable households
2. To better understand the barriers and concerns to **participating in energy reducing programmes** by vulnerable households
3. To develop a **co-developmental link** between technology providers, developers and housing providers and vulnerable households in order to better address fuel poverty in the UK.

It's really about 2 main issues...



... and understanding what shapes them

Methodology

1. Scoping focus group research
 2. Analysis of secondary data from previous surveys of households
 3. User-centred design workshops
 4. Systematic literature review
 5. Interviews with households, landlords, designers and installers
 6. Feedback workshops
- **Complete early 2013**

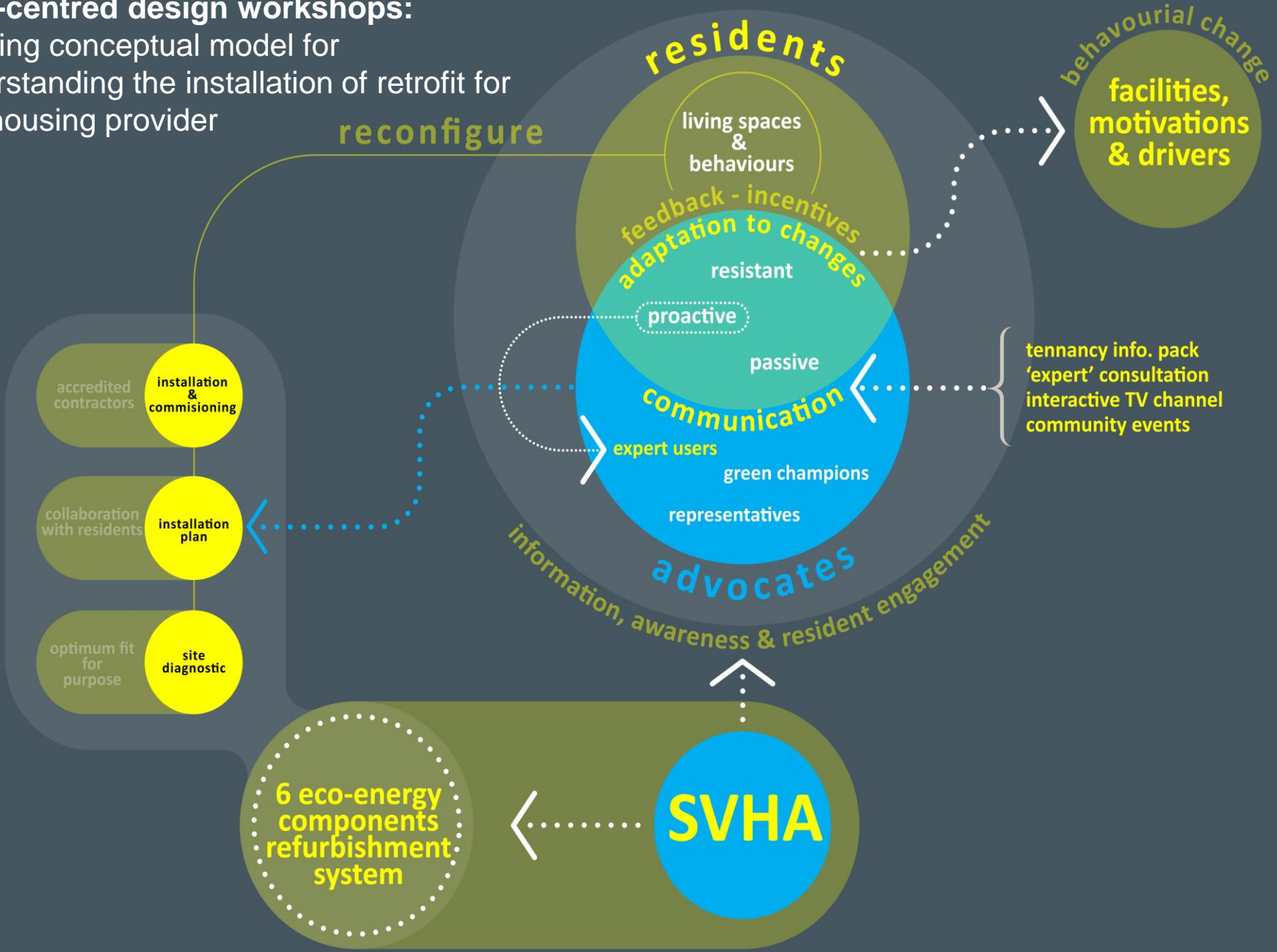
Early findings

- User-centered design workshops
- Scoping focus group research with social housing tenants
 - 34 tenants over 6 focus groups
 - Adoption, installation and in-use
- Three key themes arising:
 - Getting the measures installed
 - Learning to live with the measures
 - Emerging narratives of resistance

User-centred design workshops:

Working conceptual model for understanding the installation of retrofit for one housing provider

conformity



Getting measures installed

- Process issues around disruption and inconvenience:

The thing is with loft insulation, I'd partly ... we put it in ourselves and then we boarded it. When they came round and said we've only got six inches and it needs to be eight inches, I was going to pull all my walls up and put it in again. There is no point.

We don't. I couldn't empty the loft when they came round to do it. Because I couldn't empty it they wouldn't do it so it never got done.

Getting measures installed

- Concern about change:

I was quite worried. Obviously, it's your heating is everything, isn't it? I kept thinking, is it going to be a nightmare. Is it going to keep switching off? Am I going to be able to control it right? That was it really. The cost was, I don't know, I was a bit scared at first...it was like, oh my god. Am I going to be warm? Is it something that's got to stay if I don't like it? It was all them thoughts that went through my head.

Learning to use technology

- Little attention to helping householder understand technology:

He just went upstairs and he went, “right”, he said, “don’t touch anything on this. We [the landlord] don’t really know what we are doing. Only such a body can deal with this solar. If you just want to—if you want your radiators on, just press on there and then press that to turn it off and that was it.

Learning to use technology

- People not content with not knowing, people seeking ways to learn.
- Turning to family, friends and neighbours for help

My daughter is quite good, she's sent it down and advised I know she's checked. I've got it on that little thing, we had one on the wall.

"...a lot of people come with problems to me".

Learning to use technology

- Identity work – objecting to being novices in their own home.

If I start turning off switches ... I'm not an idiot. Obviously, these switches are to do with the immersion, but is it all right to turn them off turn both of them off or something. Something needed to be done. I don't know what the one switch is doing. It's hasn't stopped the water from coming out boiling.

- Suggests people acting against being positioned as 'non-experts' by self-learning or opting out.

Resisting technology

- Learning how to use technology as ‘aggravation’:

I’m 58, so I consider myself to be, even though I’m technically aware of technology to put it bluntly. Unless it’s something I’m really interested in, I just don’t want to know. I don’t want the aggravation of having to work it all out and see how it works and then do it...

An overarching finding: trust and stories

- The stories we tell
 - Transmits experiences and norms
 - Vehicle to help us make sense of our world
 - What is the 'right' way and should be 'believed in'
 - Rumours – another form of story

Concluding thoughts

- Area framed as technical and mysterious
- People attempting to humanise and regularise their world
- Disconnect between designer, installer, landlord and occupant
- Socio-technical issue - need for social scientists and technologists to better integrate knowledge – how can this be done?

Further information

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