



Ministerio de Energía
Presidencia de la Nación

Behavioural Insights in Residential Energy Efficiency – The UK Experience

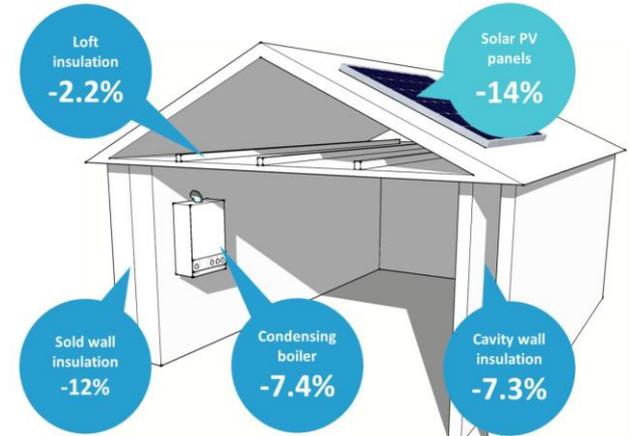
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Behaviour Change for Energy Efficiency: Opportunities for International Cooperation in the G20 and beyond, Paris, 12 September 2018

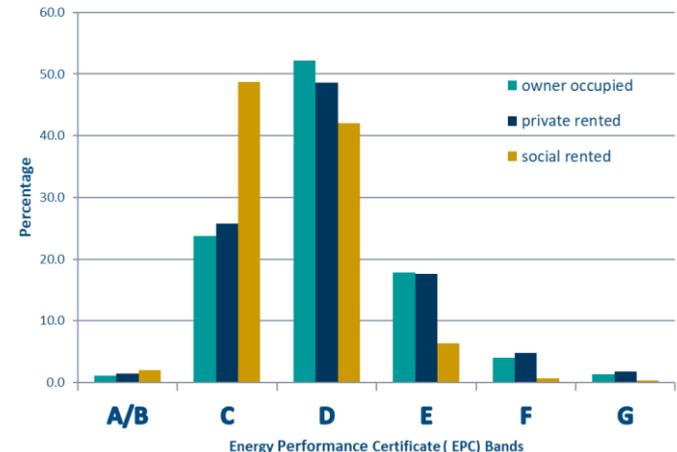
What is the UK context for residential energy efficiency?

- Oldest housing stock in Europe. 20% built pre 1919.
- Majority of energy comes from heating. Most effective measures insulation, heating system upgrade, solar PV.
- Aspiration to move as many homes as possible to C by 2035 (75% currently below C)
- £10k + to renovate many homes
- Past demand lead programmes (e.g. Green Deal) unsuccessful

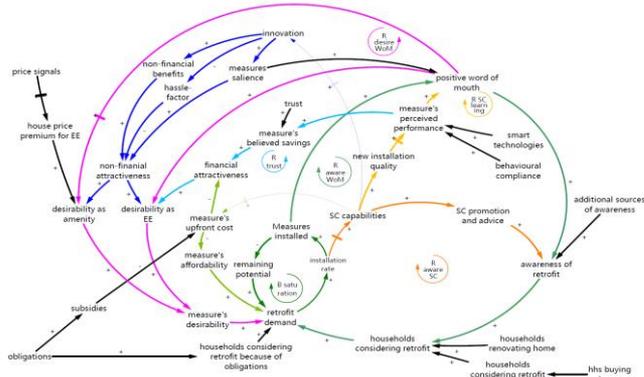
NB: out of scope: smart meters + 'turning down heat'



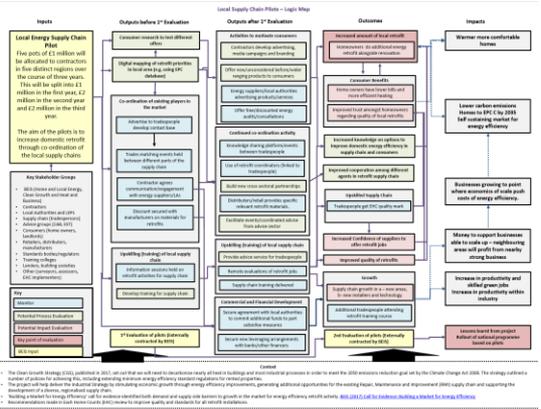
Energy Efficiency Rating of homes by Tenure (England, 2016)



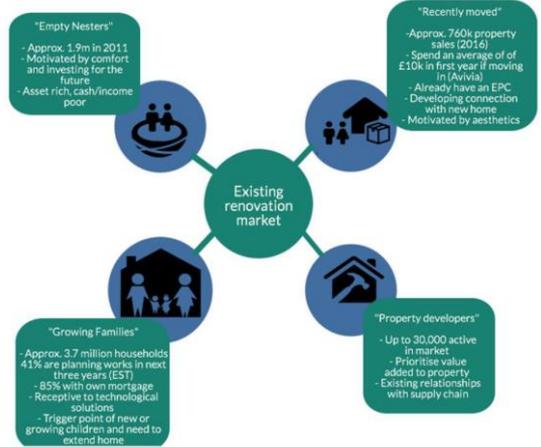
Approaches to identifying solutions & understanding behaviours



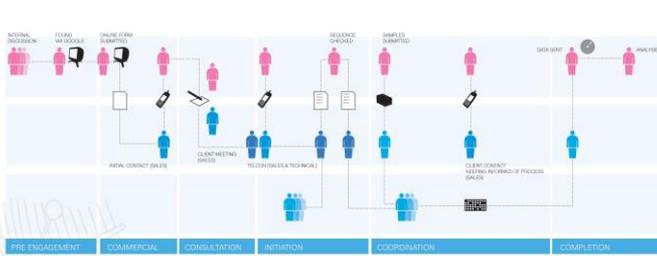
A CLD depicts qualitatively causal interconnections and feedback loops (Sterman, 2000). Arrows indicate the relation between variables, with signs next to the arrows → specifying the polarity of the respective causal relation. If X changes, a plus (minus) indicates a change of Y in the same (opposite) direction. A double line perpendicular to an arrow ⊥ indicates a delay. Feedback processes are causal links forming closed loops, with B representing balancing and R representing reinforcing feedback loops. Balancing loops counteract whereas reinforcing loops strengthen the direction of change given to the system.
Figure 1: Model causal structure



Local Energy Supply Chain - High Map



- System dynamics/ causal loop
- Theory of change
- Segmentation work



- Customer journey mapping



- Focus groups

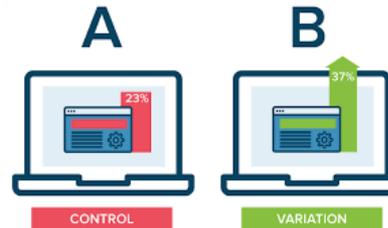
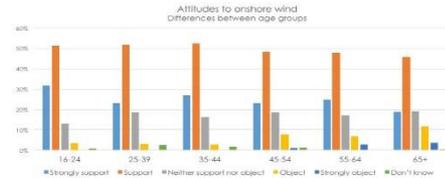
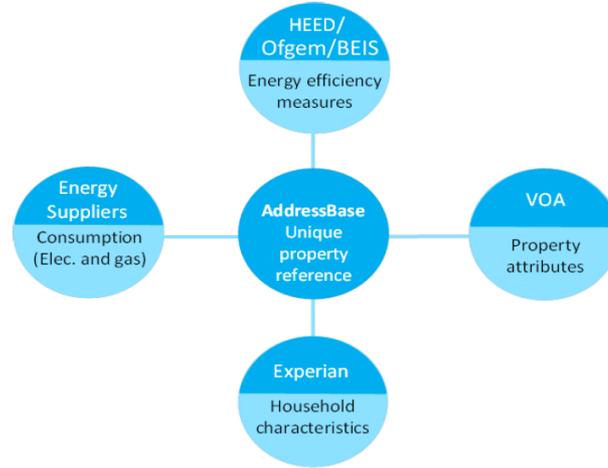
How have behavioural insights shaped efficiency policy in this sector?

Policy/ Approach	Non-Behavioural	Insight	Behavioural
Tax/ Fiscal incentives	Low interest loans Multiple site visits for assurance	'Irrational dislike' of loans [85% pay for improvements] "Like a reward" Any hassle you lose them	Small cashback "rewards" Free assessments Time limited discounts Same as any other loan process
Energy Performance Certificates	Factual presentation of details, including savings	Social norms Simplicity/ cognitive overload Distant Future High level construal	X% of people have installed Y measure 1 pager Inspire not detail
Supply chain support	People make decisions in isolation. EE a 'standalone decision' If there's demand, supply will come	New behaviours are hard to create If they do it, it will be as part of something else	Pilots for supply chain skills Builders offer EE alongside other work Linking up parts of trade
Energy saving advice service	Information provision is sufficient	Discounting – people don't care about bill savings Social norms Commitment actions	Sell other benefits 'Book a reminder' 'One stop shop' tradespeople, finance offers all in one place 'People in your area' comparisons

Results of the policy/programme



- *Traditional Monitoring & Verification*



- *National Energy Efficiency Data-framework*
- *Public Attitudes Tracker [PAT] on EPCs*
- *A-B Testing/ user design on advice service*

Lessons learned

- Understand **what it is people really value** – it's often not what we think (e.g. energy savings vs property value).
- Don't "sell the **loan** instead of the **car**."
- **Simplicity** in the customer journey, and lack of hassle is key.
- Speak to people about their behaviours, **but don't rely on attitudinal surveys**.
- Build in a **rigorous testing of assumptions** early into policymaking process

Opportunities for international collaboration?

1. Collaborate on common features and lessons learned

- E.G. Many countries have EPCs. What's best way to design them?
- Many countries have fiscal incentives, what levels are necessary to incentivise action?

2. Work together on evaluation design

- Agree common protocols for evaluating programs. We need these, otherwise we cannot learn anything.

3. Work across departments not just Behavioural Insights Teams

- Exchange can happen between BiTs, but also between departments, which are building inhouse behaviour change teams
- Share experience on the process as well as the content
- **NB:** Caution on differences in national circumstances