

## Behaviour and Business Models – adoption and commercialisation

### The Opportunity and the Challenge:

Teams in i-Stute and elsewhere are developing innovative and more efficient solutions for heating and cooling in different markets. But how can an understanding of peoples' behaviour support their adoption and use? How do we see the solutions coming to market with business models that will be commercially successful without relying on significant subsidies?

### Behavioural Science: *How will new energy solutions appeal to people who would buy and use them?*

Popularised by recent talk of “nudging”, the field of Behavioural Science considers:

- Are people rational?
- What principles govern human behaviour?
- What interventions lead to behaviour change?
- How and why do people cooperate and coordinate with others?
- How do culture and institutional factors interact with individual behaviour?
- What are the psychological and economic foundations of value?

The truth is we like to do what we already do, we discount & procrastinate, our attention is fleeting, small barriers create big hurdles, we like to do what others do, how choices are framed matters and we prefer pennies saved today to more significant savings in the future. Not great news for new energy solutions that involve novel technologies and large, up-front investments. But research offers opportunities as well: presenting information to engage, peer comparisons & social solutions and what to expect from price incentives

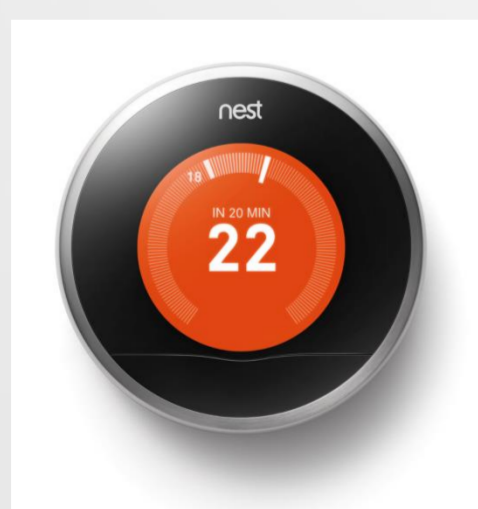
### Business Strategy & Government Policy: *What business models likely to succeed in the market?*

A business model states how a company's strategic positioning and competitive advantage delivers sustained performance:

- It articulates the value proposition
- It identifies a market segment
- It defines the structure of the value chain
- It estimates the cost structure and profit potential
- It describes the firm's position within the supply chain
- It formulates the strategic logic by which the firm will gain and hold advantage

Full consideration of these factors moves from technology innovation to fulfilling a customer value proposition and what the balance needs to be between private and public involvement.

### Some examples to think about.....



Nest and British Gas's Hive are smart solutions offering not just information but also control

- One from an incumbent
- One a new company



Opower encourages energy efficiency & demand management

- Through comparing usage with similar households
- By “white labelling” its services through existing utilities



### Research in i-STUTE

- What do we know about the influence of behaviour in energy usage?
- Building a library of business models & studying what works
- Applying concepts of behavioural science to solutions proposed in i-Stute
  - Heat pump + storage combinations
- Experimental assessment of behavioural factors
  - Display information