

## Interreg Europe Policy Learning Platform **Policy Brief on Behaviour Change** for Energy Efficiency

**Simon Hunkin** Thematic Expert on Low-carbon economy





European Union | European Regional Development Fund



#### Aims

- Understand the importance of behaviour change
- Present the current science based on behavioural economics
- Give guiding principles for behaviour change
- Highlight possible policy interventions
- Final policy brief will be further shaped by today's discussions

Behaviour change for energy efficiency



A Policy Brief from the Policy Learning Platform on Low-carbon economy

December 2018





# Impact of Behaviour

#### Framework

- Buildings account for 40% of EU energy consumption and 35% of CO2 emissions
- 2010 Energy Performance of Buildings Directive + 2018 revision
  - Member states to develop long-term strategies for renovation of public and private buildings to nZEB by 2050
- A key priority of Structural Funds (ERDF + CF)
  - Investment Priority 4





#### Importance of behaviour change

- New technologies and materials available, but need to boost uptake and encourage use
- EEA has calculated anywhere from 5-20% energy savings from behaviour change alone
- Energy efficiency gap difference between expected and actual impact – largely determined by behaviour (inc. rebound effects)







#### Understanding Behaviour



### Kahneman's Systems

"Social scientists in the 1970s broadly accepted two ideas about human nature. First, people are generally rational...Second, emotions...explain most of the occasions on which people depart from rationality."

However, research has "traced [systematic] errors to the machinery of cognition, rather than corruption by emotion."

Daniel Kahneman



## **Cognitive Biases**



Bias	Impact
Conservatism bias	Individuals do not revise their beliefs when presented with new evidence; highly resistant to new information that goes against it
Present bias	Short-term gains put above long-term gains, even if latter is larger. System 1 seeks immediate gratification
Status quo bias	Individuals have an aversion to changing as it requires a re-wiring of System 1
Bandwagon effect	When making decisions, individuals tend to do what others do. Individuals adopt views they hear often, especially if from someone they respect
Substitution	Individuals replace decisions they cannot make with ones that they can
Anchoring	Individuals are over-reliant on the first figure or information that they hear when making decisions
Diversification bias	Individuals struggle to make decisions about multiple topics at once and can suffer from decision fatigue, falling back on usual behaviour

### Social and contextual issues

#### Economic/social marginalisation

More likely to embrace short-term decisions/investments

#### Social status

- 'Green' as a social marker
- Energy-intensive technologies
- Differing incentives
  - Renter/owner
  - Public authority/building user





# Guiding Principles

#### 11

## **Guiding Principles**

- Nudge
  - Be aware of cognitive biases and how people make fast decisions
- Co-create
  - Involve those who will be targeted by a measure in creating it; engage system two
- Automate
  - As far as possible, use technology to help avoid human error





## The EAST Framework

Nudge **Co-create** Automate 1. Define the outcome 2. Understand the context 3. Build your intervention Make it Easy Make it Attractive Make it Social • Make it Timely 4. Test, learn, adapt





#### Policy Interventions

#### Energy audits

- Determine starting point and what needs to be improved
- Essential for determining what behaviour must change
- Should be a frequent/ongoing process for continuous improvement





#### Feedback measures

- Communicating energy consumption to users
- Direct feedback
  - Smart meters, web-platforms, apps
- Indirect feedback
  - Analytical energy bills, usage reports
- Essential in effective learning and change reinforcement







#### Training, awareness raising

- People need to engage with new concepts and ideas to change behaviour
- Introduce new ideas and concepts, with feedback and reinforcement
  - Long-term campaigns (targets)
  - Interactive
  - Engaging
- Many tools available: Videos, group discussions, games, personal advice, one-to-one training, demonstrations



#### Choice architecture

- Steer people towards the most beneficial outcomes (nudging)
  - Defaults
  - Reduced choice
  - Framing
  - Labelling





280

kWh/annum

38 dB

A+++

ENERGIA · EHEPTUR ENERTEIA · ENERGIJA

**155** L

2010/1060

ENERGY · ENERGIE · ENERGI

≁¥ ■===

**54** L

### **Community initiatives**

- Noted as being especially effective
- Involvement of known individuals builds trust and commitment
- Ongoing feedback and engagement
  - Group trainings/classes
  - Public commitments
  - Competitions



### **Incentives & Prohibitions**



- Economic and social incentives to encourage behaviour change
  - Awards/Rewards
  - Subsidies
  - Bonuses
- Alternately, punishments and bans can be used; but should be avoided as much as possible



#### **Concluding remarks**



- Measuring and feedback measures are vital for understanding the situation and keeping change on track
- Nudge, co-create and automate as far as possible
- Make change Easy, Attractive, Social and Timely
- Mixture of measures needed, but avoiding conflicted incentives we will see good practices later that mix measures very well



## Thank you!

Simon Hunkin Thematic expert on Low-carbon economy s.hunkin@policylearning.eu

