Behavioural Insights in Energy Policy

Gerdien de Vries

BEHAVE 2020 - the 6th European Conference on Behaviour and Energy Efficiency
Breakout Session 22 April 2021

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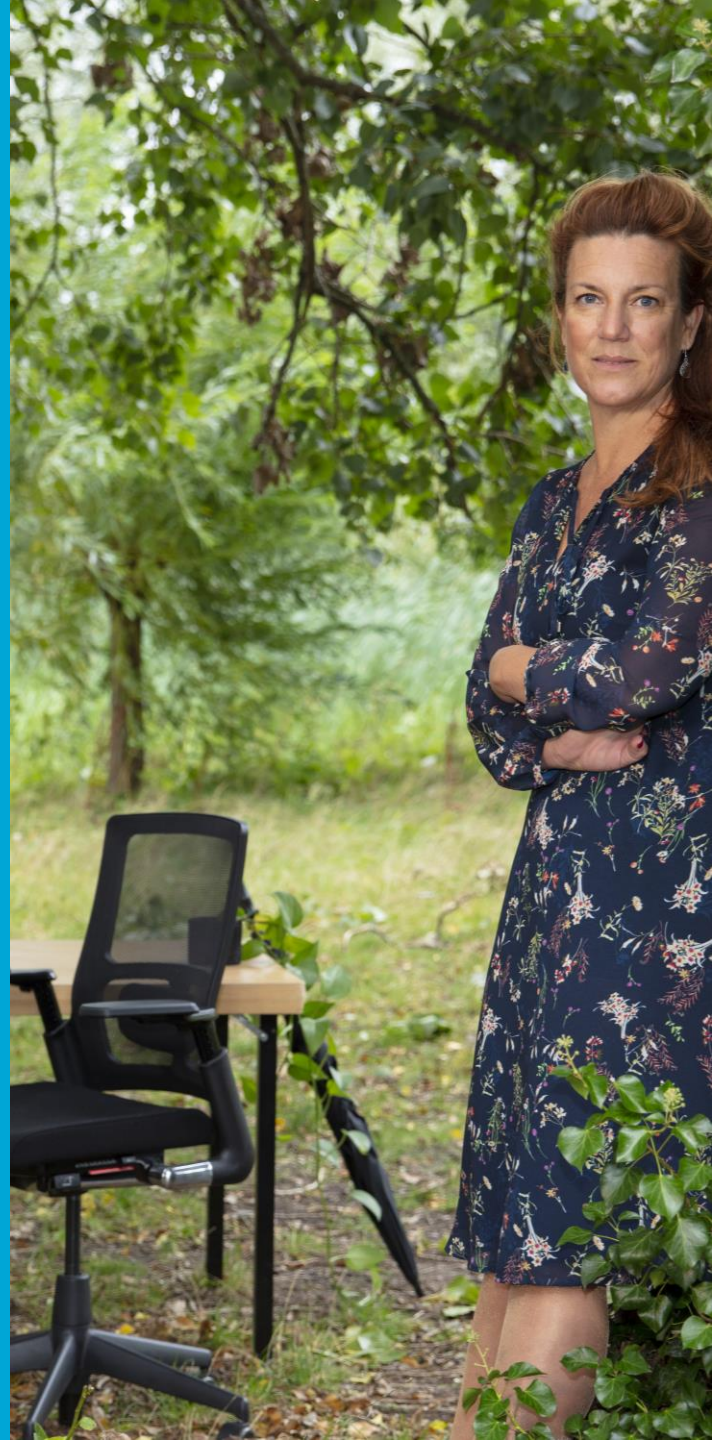

Who am I?

- **Assistant Professor**
  Faculty Technology, Policy, and Management
- **Scientific Director**
  TPM Energy Transition Lab
- **Co-founder**
  Platform for Social Innovation in the Energy Transition
  Delft Energy Institute
- **Dutch Expert “Behavioural Insights in Energy Policy”**
  International Energy Agency | RVO | Climate Crisis Policy Team
- **Climate Psychologist**

Electric Car Charging

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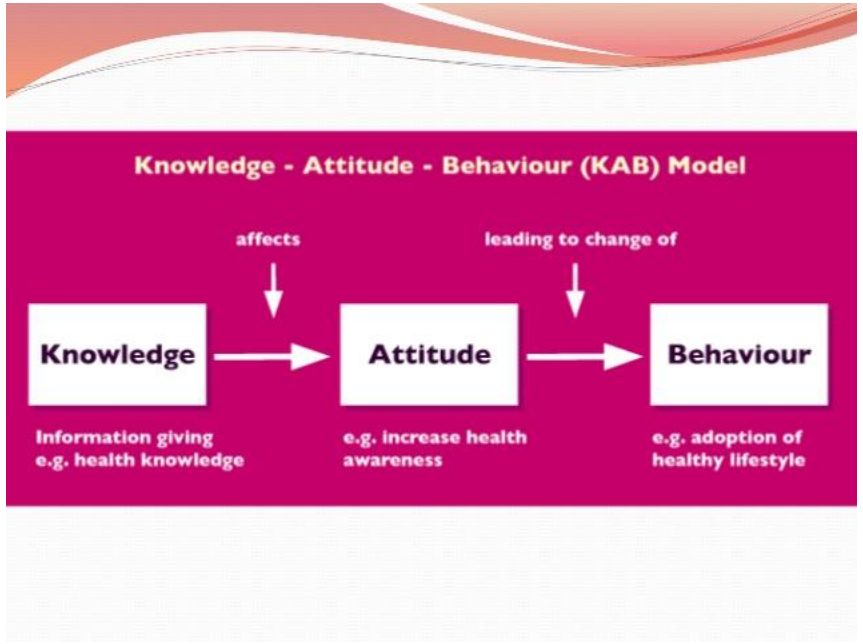
Policy instruments



https://brucegerencser.net/2015/01/heaven-hell-carrot-stick/

Understanding human decision-making can provide insights on how to design more effective policies on sustainable consumption and production

UN Environment, 2017

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Why psychology is so important for energy policy

"… no deadlines, no geographic location, no single cause, solution, or enemy. Our brains, constantly scanning for the cues that we need to process and categorize information, find none, and we are left grasping at air.

But we still need these cues – we cannot deal with it otherwise – and so we create and impose our own.

Don't even think about it. George Marshall (2014, p.94)

5. Choice-supportive bias.

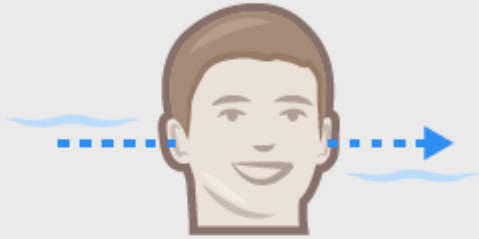
When you choose something, you tend to feel positive about it, even if that **choice has flaws**. Like how you think your dog is awesome — even if it bites people every once in a while.

6. Clustering illusion.

This is the tendency to **see patterns in random events**. It is key to various gambling fallacies, like the idea that red is more or less likely to turn up on a roulette table after a string of reds.

7. Confirmation bias.

We tend to listen only to information that confirms our **preconceptions** — one of the many reasons it's so hard to have an intelligent conversation about climate change.



8. Conservatism bias.

Where people favor prior evidence over new evidence or information that has emerged. People were **slow to accept** that the Earth was round because they maintained their earlier understanding that the planet was flat.

9. Information bias.

The tendency to **seek information when it does not affect action**. More information

10. Ostrich effect.

The decision to **ignore dangerous or negative information** by "burying"

11. Outcome bias.

Judging a decision based on the **outcome** — rather than how exactly the decision was made

12. Overconfidence.

Some of us are **too confident about our abilities**, and this causes us to take greater risks

Behavioural energy policy goals

Reduction
of carbon footprint

Acceptance
of energy/sustainable technologies and policies

Adaptation
to climate change effects

What is the goal of energy policy stimulating dynamic EV charging?

Reduction
Acceptance
Adaptation

Energy Policies can be…

Behaviourally-aligned

(hindsight)

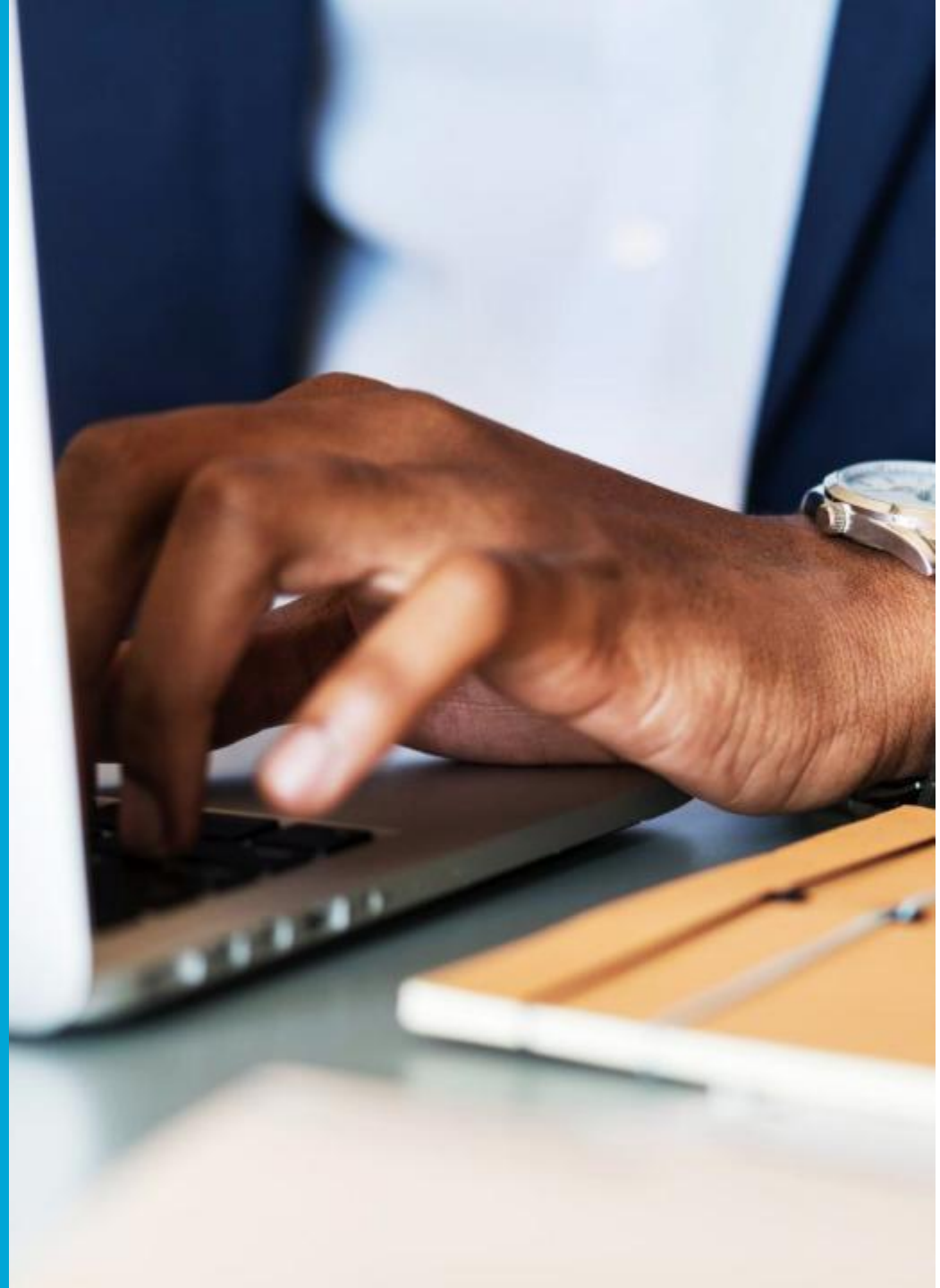
Behaviourally-informed

(theoretical)

Behaviourally-tested

(assessed)

EU report "Behavioral Insights 2016"



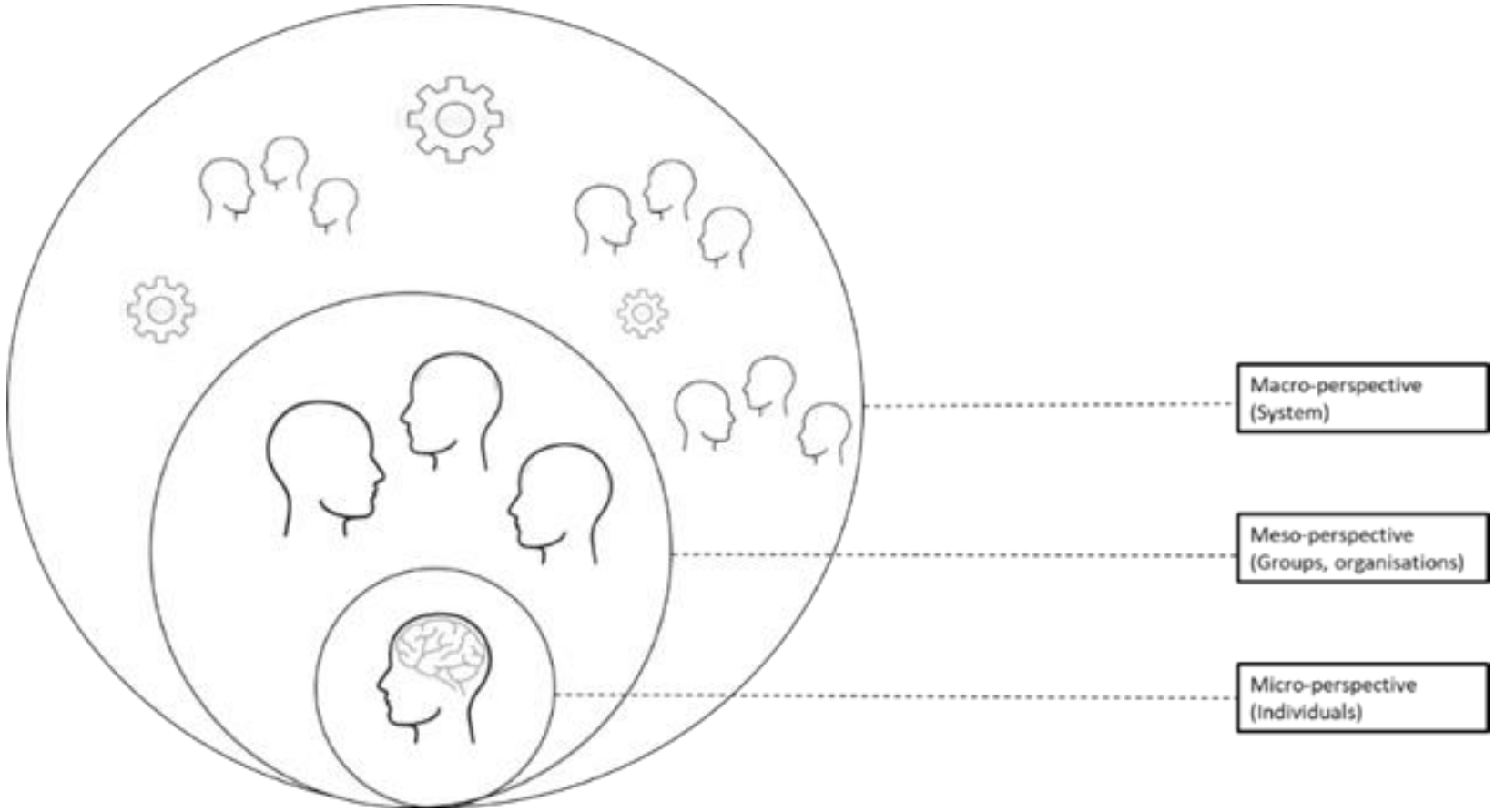
Scientific Relevance

Behavioural diagnostics
Psychologists have theories on human brain, reflexes, cognition, emotions, perceptions, expectations, personality, values etc) and know how to assess and analyse this.

More and more: integration of micro-perspective and system perspective.

Behavioural interventions
Psychologists have tools to design and test behavioural interventions (e.g., random controlled experiments)

Perspective



Methods

Research Stage	Example
Observing behaviour in real-life systems	Policymakers do not reach their sustainable policy goals. Homeowners lack behind in sustainable home-renovations.
Analysing multi-actor behaviour within a theoretical framework. Formulating hypotheses	The literature on (general) barriers to green behaviour suggests that hassle prevents people to renovate sustainably.
Empirical measuring of mechanisms underlying behaviour (surveying)	Homeowners complete a questionnaire on hassle-perceptions, other barriers, and influencing factors. Policymakers and contractors are being interviewed on barriers.
Designing interventions such as tools or policies.	Design workshop with experts on interventions to prevent hassle (e.g., nudging, framing).
Experimental testing of interventions in a lab setting.	Test the effectiveness of a set of public and/or private services that can unburden homeowners.
Field testing of interventions: placing the research back in the system.	Make the service available for all homeowners. Monitor how many people use the service.
Share insights and provide recommendations to improve the real-life system.	Report findings in science and society (academic article, report, blog, presentations etc).

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Behavioural **Interventions**

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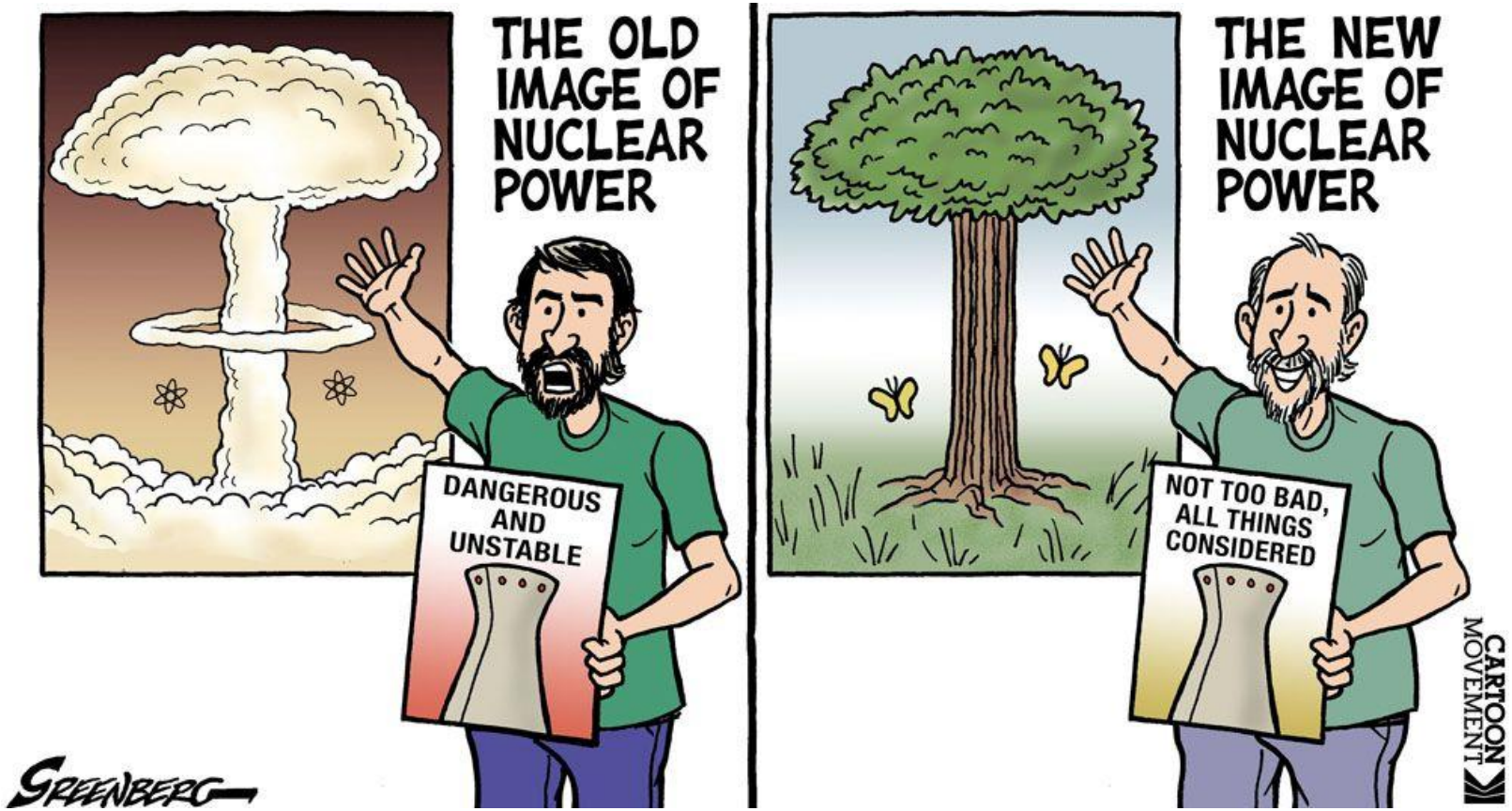
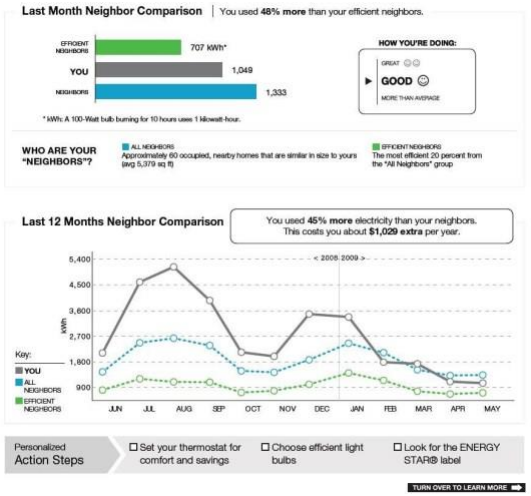
Framing


THE OLD IMAGE OF NUCLEAR POWER
DANGEROUS AND UNSTABLE
THE NEW IMAGE OF NUCLEAR POWER
NOT TOO BAD, ALL THINGS CONSIDERED
GREENBERG
CARTOON MOVEMENT

“Green Nudging”



Finally… take responsibility

- Are behavioural interventions perceived as manipulation or facilitation?
- What is the role of the “intervener” (e.g., Shell, Greenpeace or national government)?
- Should interventions be transparent or are they less effective then?
- Should there always be an opt-out?
- What is well-being? Who decides about that?

https://www.nytimes.com/2015/11/01/upshot/the-power-of-nudges-for-good-and-bad.html

Would you consider applying behavioural insights in your future energy policies?

Yes
No
Don’t know yet

User-Centred Energy Systems

IEA

Behavioural insights for demand-side energy policy and programmes

An environment scan

December 2020

Users TCP and IEA

Technology Collaboration Programme by IEA

Collaboration?

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https://www.tudelft.nl/tpm/energy-transition-lab
https://www.tudelft.nl/siet