



Nudging consumers towards energy efficiency through behavioural science

NUDGE is a project funded by the European Horizon 2020 programme that aspires to systematically assess and fully unleash the potential of behavioural interventions towards achieving higher energy efficiency, paving the way to the generalized use of such interventions as a worthy addition to the policy-making toolbox.

The project



Achieving the full energy transition potential calls for a paradigm shift, and many solutions are investigated to involve many people and support them in reducing their energy consumption. Reducing energy consumption requires behavioral changes, from behaviors when using heaters and electrical appliances, to behaviors that contribute to the energy inefficiency of our homes.

NUDGE will study, test and evaluate different behavioural interventions for energy efficiency, paving the way for new policies and human behaviour.

The designed interventions are compared against traditional ones in pilots in Greece, Belgium, Germany, Portugal and Croatia, with diverse and innovative:



- Energy use scenarios (e.g., PV production for EV charging, demand response for natural gas),
- Demographic and socio-economic variables of the involved populations, and
- Platforms to make the interventions operational (smart mobile apps, dashboards, web portals, educational material and intergenerational learning practices).

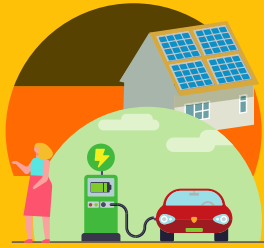
Our pilots



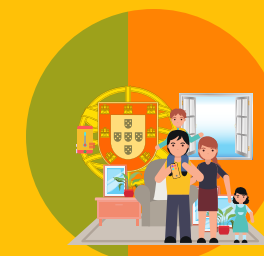
Interdisciplinary project-based education on home energy consumption for children in **Belgium**



Efficient control of heating and hot water preparation for natural gas boilers in **Greece**



Optimization of electric Vehicle charging with self-produced PV power in **Germany**



Healthy homes for long-lasting energy efficiency behaviour in **Portugal**



Promoting distributed self-production for local energy communities in **Croatia**

Work steps & objectives



NUDGE is based on the application of behavioural science principles to develop a mixed approach for analyzing consumer profiles, designing energy efficiency interventions tailored to individual psychological and contextual variables, by leveraging digital platforms and data analytics, and evaluating their behaviour change potential.



Once the behavioural science inspired framework is established, the pilot work starts with trial setups, towards testing and evaluating the designed interventions through trials engaging consumers across multiple energy scenarios, under real-life conditions.



In order to encourage change, a digital approach (eg. smart meters, thermostats, mobile applications) will be applied, which enables energy consumers to actively and efficiently monitor and manage energy consumption, as well as education for the best possible application and adoption of new habits.



Finally, NUDGE will combine all work inputs to provide a consolidated view of the pilots' outcomes and translate them into recommendations for different stakeholders, including policy and decision-makers, energy and technology providers (e.g., smartphone app designers), energy communities and consumer associations. Recommendations, on the design and impact of behavioural energy interventions, will foster investments in energy efficiency improvements.

Nudges?

Nudging is a soft push that can make people act or react – and consume less energy. Nudges can be classified into 6 categories.

FACILITATING NUDGES

Nudges that facilitate desirable behaviours by diminishing the physical or mental effort of individuals

CONFRONT NUDGES

Nudges that seek to prevent an unwanted behaviour by instilling doubt about it

SOCIAL INFLUENCE NUDGES

Nudges that draw on humans' desire to comply with what they perceive as others' expectations from them

FEAR NUDGES

Nudges that attempt to generate fear and uncertainty

REINFORCEMENT NUDGES

Nudges that reinforce behaviours

DECEIVE NUDGES

Nudges that favour desirable behaviours by deceiving users' perception about alternatives

Project partners and contact

10 partners from 7 European countries implement and evaluate different behavioural interventions for energy efficiency across 5 pilots in different EU states.



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Find out more on www.nudgeproject.eu!