

# Provision of personalized information on energy, IEQ and health leading to energy efficient behavior and habits

Ana Tisov, [a.tisov@huygen.net](mailto:a.tisov@huygen.net), Simona D'Oca, [s.doca@huygen.net](mailto:s.doca@huygen.net)  
 Huygen Engineers and Consultants, Maastricht, The Netherlands

## INTRODUCTION

- Buildings represent 40% of global energy consumption in EU.
- EU argues the necessity to increase energy efficiency in buildings.
- People do not understand or trust information coming from their utility bills, smart meters or energy performance certification (EPC).
- People (not buildings) dictate how much energy is consumed.

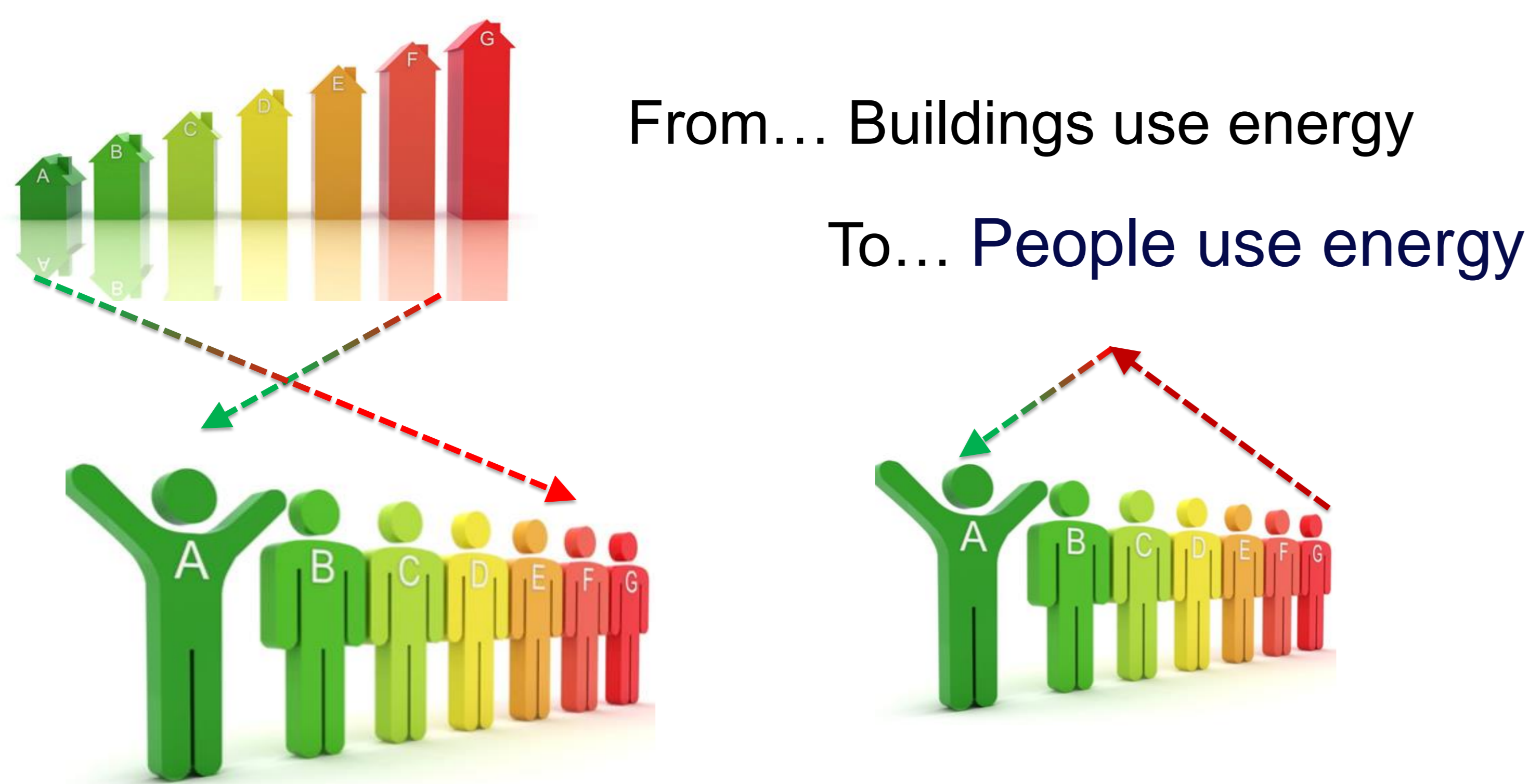


Figure 1 – The H2020 MOBISTYLE project attempts to change a prevailing assumption that buildings use energy to an understanding that in fact people use energy.

## ANTHROPOLOGICAL BASED METHODOLOGY

- The MOBISTYLE project adopts a user-centric approach from applied anthropology. It presents a four step anthropological approach helping to develop user-friendly ICT tools (Figure 4).
  - Identification
  - Research
  - Interpretation
  - Testing
- Qualitative inquiries (focus groups, elicitation studies, questionnaires, interviews etc.) are elaborated to discover user's current practices and use of existing technologies.

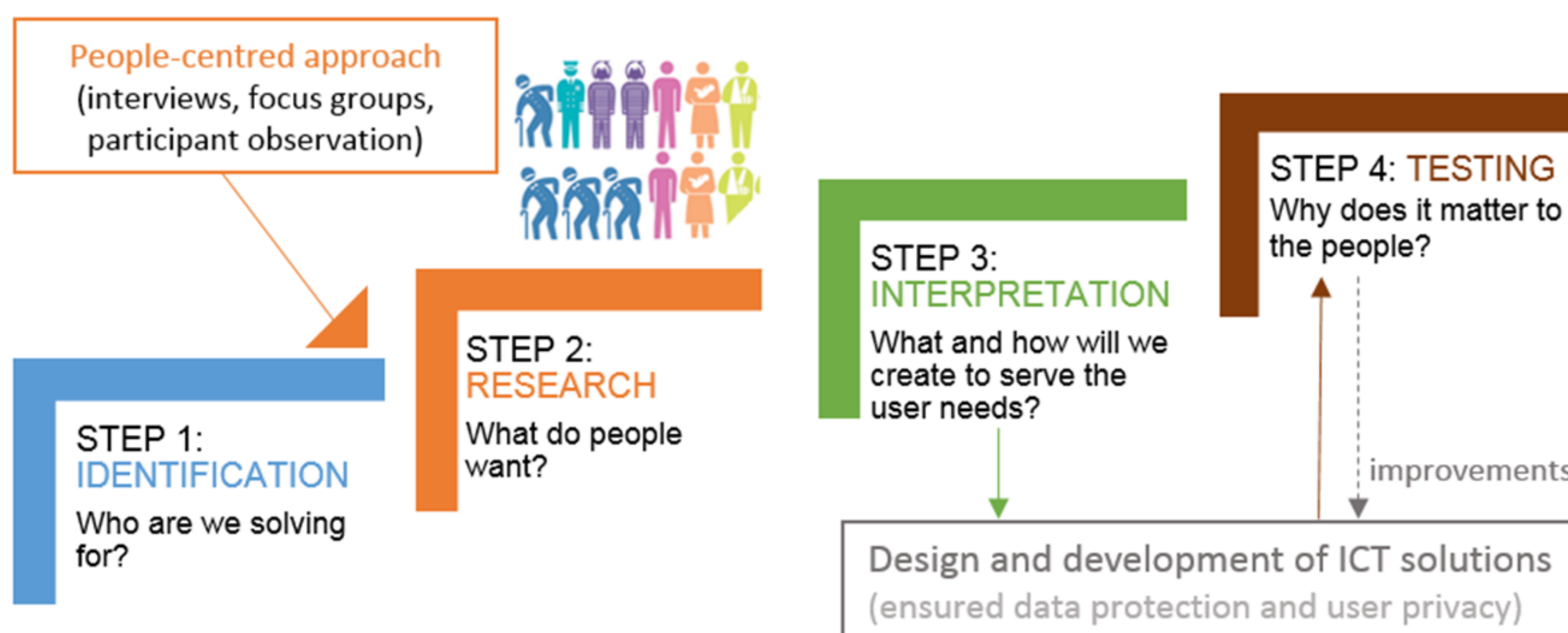


Figure 4 – The MOBISTYLE approach integrating social science aspects into occupant behavior research.

## RESULTS

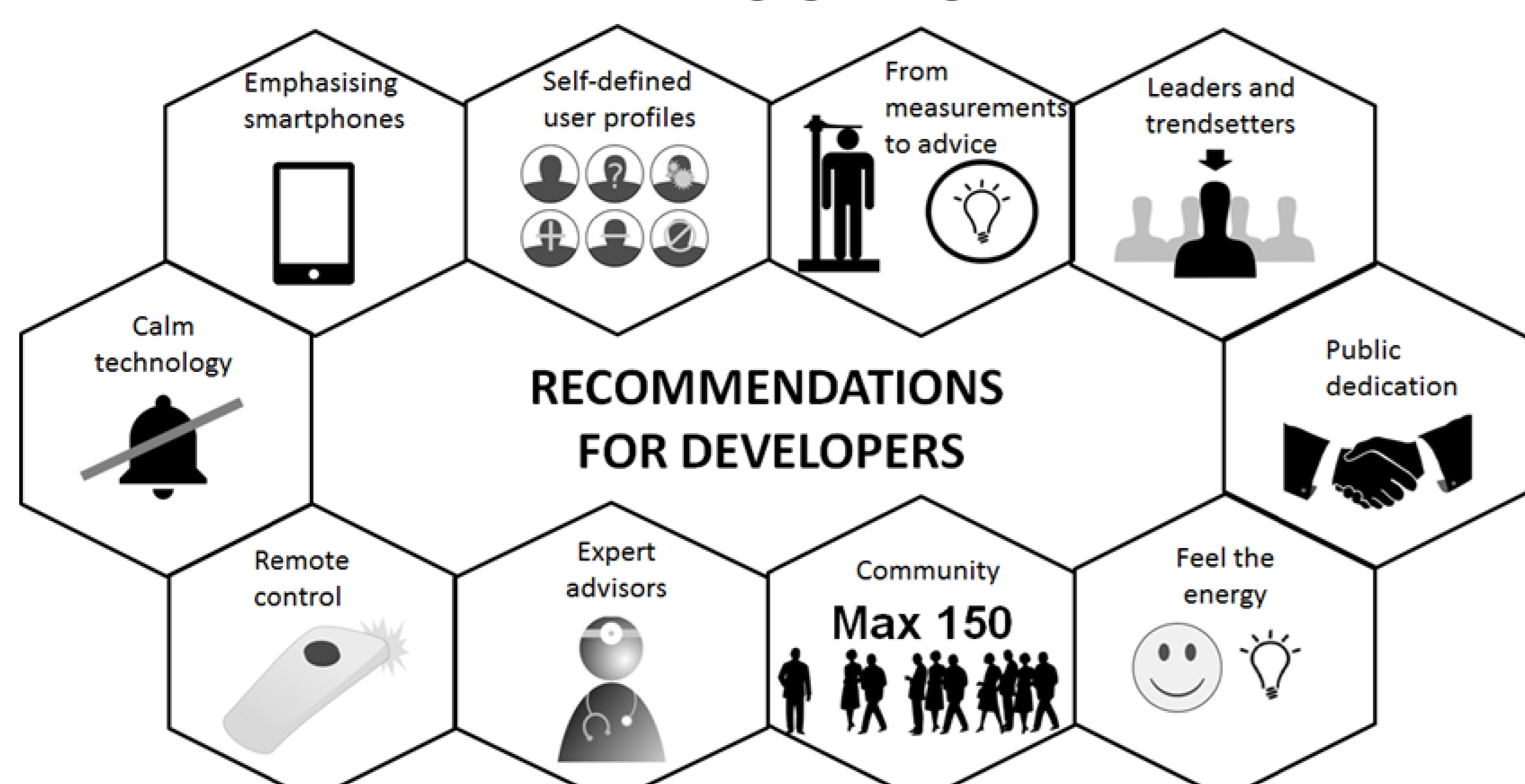


Figure 5 – Ten MOBISTYLE recommendations for the ICT developers based on the focus groups findings.

## MOBISTYLE OBJECTIVE

The overarching goal is to motivate behavioral change by raising users awareness.

This is achieved by providing attractive, personalized, pro-active ICT based solutions giving knowledge on energy use, indoor environmental quality (IEQ), health and lifestyle.

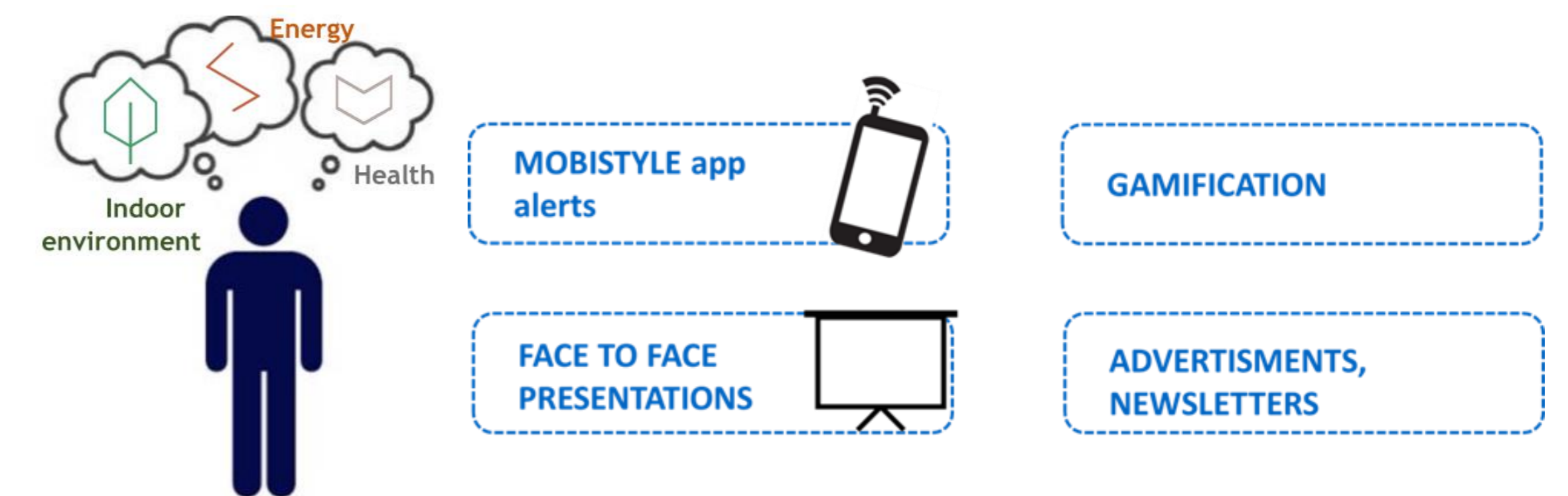


Figure 2 – The aim of the MOBISTYLE is to educate building users on how to behave in their buildings by increasing their awareness by combined information on their energy usage, IEQ, health, and lifestyle.

## WHY IT IS IMPORTANT TO UNDERSTAND USERS' BEHAVIOR?

- Users are one of the major factors influencing building energy consumption.
- Users contribute to uncertainty between predicted and real energy use.

## Main MOBISTYLE research questions

- Which are the long-lasting motivating factors for users to change their behavior?
- How do they use existing ICT based solutions?
- What is needed to make these solutions user-friendly?

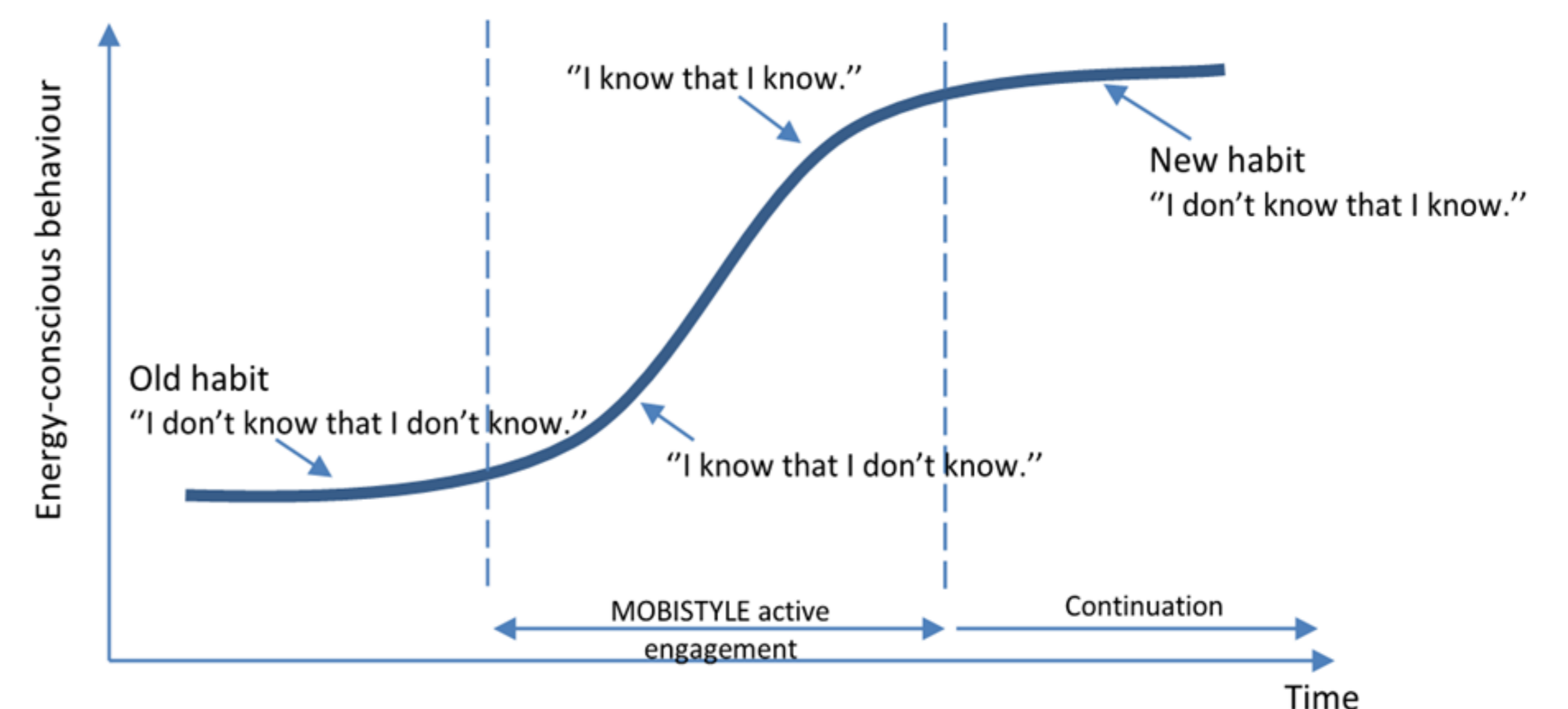


Figure 3 – The MOBISTYLE awareness process encouraging a change from energy unconscious to energy conscious behaviour due to the engagement with the MOBISTYLE ICT based solutions.

## DEMONSTRATION

The MOBISTYLE approach is validated for the five demonstration cases, in five different geo-clusters:

- Social housing apartments at Kildenparken, Aalborg, Denmark;
- University buildings at the University of Ljubljana, Slovenia;
- Apartments at the Hotel Residence L'Orologio, Turin, Italy;
- Health care centre Mosae Vita, Maastricht, The Netherlands;
- Residential houses as part of the Smart City Wroclaw, Poland.

## FURTHER WORK

A behavioral action plan is under development for further integration into the ICT MOBISTYLE mobile application supported by gamified features.

Contact the MOBISTYLE team

[info@mobistyle-project.eu](mailto:info@mobistyle-project.eu) [www.mobistyle-project.eu](http://www.mobistyle-project.eu) [@MOBISTYLE\\_EU](https://twitter.com/MOBISTYLE_EU)

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