

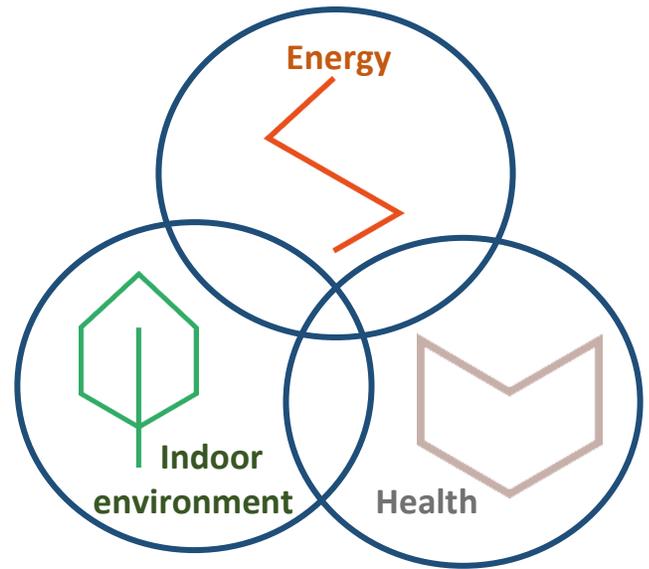
# MOBISTYLE

## Newsletter

September 2017



This project has received funding from the European Union's Horizon 2020 framework programme for research and innovation under grant agreement no 723032.



### What is MOBISTYLE?

42-months European project focusing on motivating end-users behavioral change through ICT-based personalized information on user's energy use, indoor environment, and health.

This newsletter introduces you...

**the MOBISTYLE people-centred approach.**

In the MOBISTYLE project, the *development of the ICT-based tools* is supported by a **people-centred approach**, involving users as a necessary and knowledgeable stakeholder during the design and development processes. Identification of consumers and observation of their everyday lifestyle is a prerequisite in such approach in order to understand their needs. Figure 1 presents the developed MOBISTYLE methodology; a four step anthropological approach helping to develop user-friendly ICT tools.

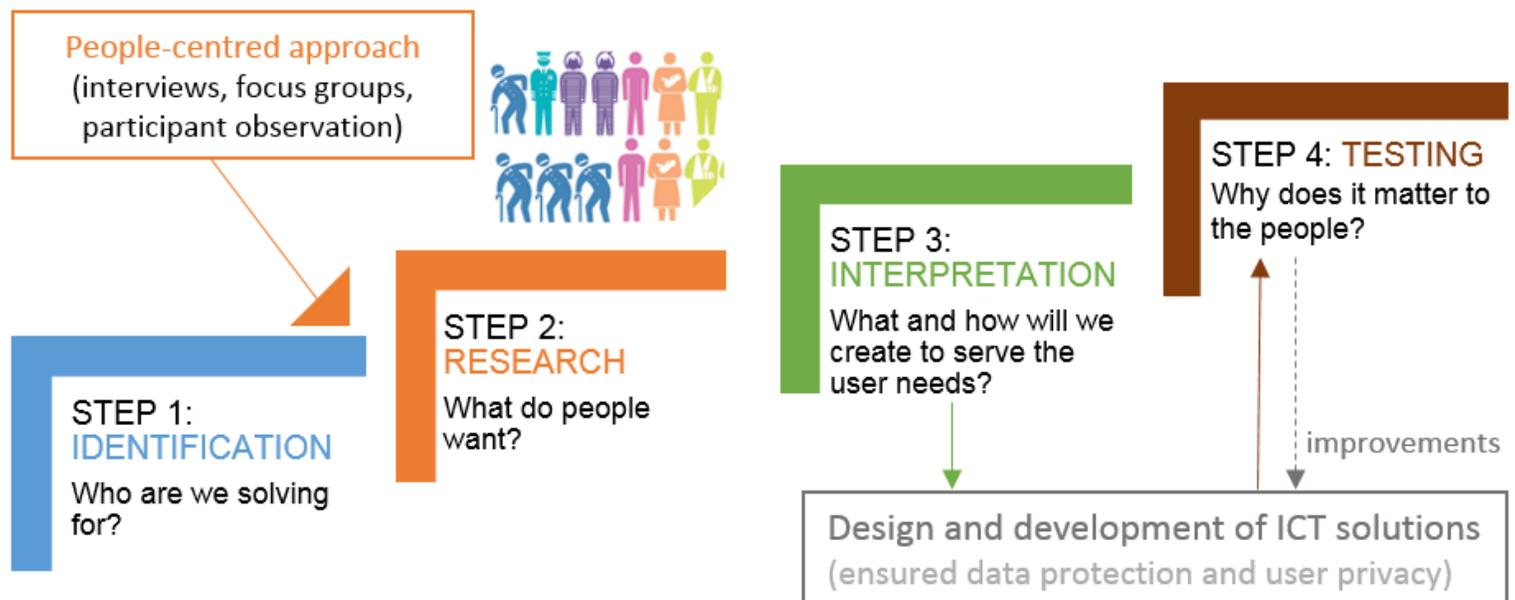


Figure 1: MOBISTYLE approach integrating social science aspects into occupant behavior research.  
Developed by Podjed, D., IRI-UL: [dan.podjed@iri.uni-lj.si](mailto:dan.podjed@iri.uni-lj.si)

## ❖ Why an anthropological approach?

In the first phase, the MOBISTYLE project is focusing on an anthropological observation of users, scrutinizing their level of engagement with building components, technology, energy systems and ICT tools in their everyday life. The anthropological approach enables to access 'thick data', as an in-depth understanding of human behaviour, able to penetrate beyond the quantified behaviour of 'big data' collected via technological solutions. This understanding defines requirements for developing the ICT tools in order to provide user-friendly and attractive services.

Through anthropological observations, it is possible to understand not only how and when people consume energy, but why do they actually do it. This additional layer of personal information opens opportunities to understand and educate users at the individual level, increasing their awareness of how and when their daily habits have an effect on energy consumption. One of the most promising outcomes of this methodology is the shift in perception from passive building occupants to pro-active users, who become co-creators of their surrounding environment.

**Focus groups**, supplemented by participant observation, have proven to be a useful research technique for studying users' habits, motivations, needs and expectations in the MOBISTYLE project since they allow researchers to study people in a less structured conversation pattern than typically occurs in an ethnographic interview.

For each demo case, one focus group involving 5-8 people users per case, was carried out on:

- ✓ Danish demonstration case: 21 March 2017
- ✓ Polish demonstration case: 12 April 2017
- ✓ Slovenian demonstration case: 13 April 2017
- ✓ Italian demonstration case: 31 May 2017
- ✓ Dutch demonstration case: 27 June 2017

Findings from the focus groups, supplemented by one-on-one interviews and participant observation have been instrumental in preparing ten key recommendations which defined the boundary conditions for the further development of the MOBISTYLE ICT tools and awareness campaign, as illustrated in Figure 2.

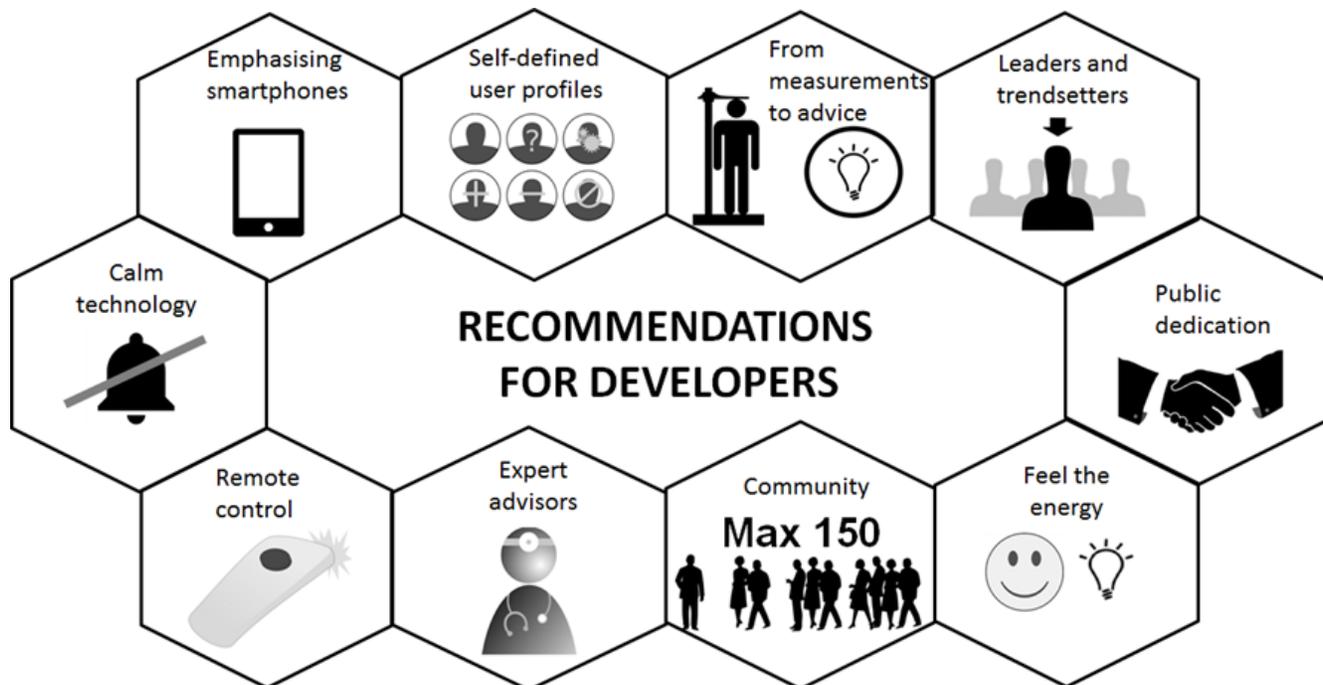


Figure 2: MOBISTYLE recommendations for the ICT developers based on the focus groups findings.

## ❖ 10 people-centred recommendations for the technology development based on focus groups

1. **Emphasising smartphones:** Smartphones are among the most widespread ICT tools and people in the focus groups preferred the usage of the smartphone as the main platform for communication between the users and the MOBISTYLE service.
2. **Self-defined user profile:** Users should have the possibility to create their own user profiles and to set customized personal pro-environmental goals. This can give them a feeling of active participation in defining settings for influencing their own habits.
3. **Customised and location-based advice:** By combining measurements from sensors with location-based services (e.g. weather data), generic and local-specific advices can be prepared according to the local environmental characteristics.
4. **Calm Technology principles:** ICT tools should not irritate the user with too frequent unnecessary notifications. Instead, the developers should rely on Calm Technology principles<sup>1</sup> which suggest that the most robust and reliable technologies are those that disappear and weave themselves into the fabric of everyday life until they are indistinguishable from it.
5. **Individual controls:** Ideally, the user should be able to adjust various parameters influencing his or her indoor comfort through the same ICT tool providing him or her building performance information.
6. **Expert advisors:** It is recommended to prepare communication material by experts (i.e. researchers) providing advice or explaining tasks which will be encouraged via the ICT tool. Advice should be supported by a trusted reliable source as this can improve people's propensity to behave in a suggested way.
7. **Spreading the concept through leaders and trendsetters:** When implementing the technology, the developers should focus on early adopters trendsetters and influencers who are able to motivate others to use the novelty in a community. Furthermore, popular local public figures can help spreading the main message.
8. **"Feel the energy" approach:** The problem related to energy saving is that energy is often impossible to be felt and cognitively processed. The users are unable to perceive the quantity of energy they are using in their everyday practices. Therefore, energy should be visualised in a clear and understandable way, without using standardised units of measuring energy and power.
9. **Public dedication to a goal:** The technology used should enable public commitment to a goal, which has to be meaningful and relevant for an individual and a community. Social media or existing local groups in different cases can be used for this purpose.
10. **Community size:** Buildings with a larger number of inhabitants (> 150) witness problems of social bonds breakdown. In such cases, the developers should support establishing new communities and enable people to create new ties for helping each other and exchanging information through the ICT tool.

## This newsletter's partner in style:

### Institute for Innovation and Development of University of Ljubljana (IRI UL)

IRI UL is a non-profit research institute, an independent legal



body established by the University of Ljubljana and ten technologically advanced Slovenian companies with a mission to initiate the creation, transfer, distribution and application of knowledge by transferring research results into practice.

Website: [www.iri.uni-lj.si](http://www.iri.uni-lj.si)

### Main role in MOBISTYLE

IRI UL is responsible for the work package *Mapping of data supply and communication needs for different types of end-users* and the Slovenian demonstration case; Faculty buildings of University of Ljubljana.

IRI-UL will contribute by bringing in different expertise in the area of anthropology, mechanical engineering and ICT technologies.

<sup>1</sup> Case, A. Calm Technology: Principles and Patterns for Non-Intrusive Design, 1st ed; O'Reilly Media, USA, 2015.

## What's new?

- ✓ **First Energy Workshop at the Slovenian demonstration case, 13-14 June 2017.**

On 13 and 14 June 2017 the Whirlpool Energy Workshop was organized at the Faculty of Chemistry and Chemical Technology, University of Ljubljana (SI demonstration case).

The Energy Workshop process has been developed by Whirlpool and tailored according to the needs of the MOBISTYLE project and characteristics of the Slovenian demonstration site. The list of behavioural ideas (for all users of the faculty buildings) leading to energy savings was generated and communicated to the targeted building user groups.



Figure 3: Energy workshop in Ljubljana, Slovenia.



Figure 4: The MOBISTYLE presentation at the Sustainable Places 2017.

- ✓ **MOBISTYLE project at the Sustainable Places Conference, 28 - 30 June 2017.**

MOBISTYLE coordinator Huygen Installatie Adviseurs had an opportunity to present the project's multidisciplinary approach and the first results at the Sustainable Places 2017 conference which took place in Middlesbrough, UK 28 - 30 June 2017.

The MOBISTYLE project received special attention as it recognizes that without a user's acceptance and understanding of the importance of energy efficiency targets it is difficult to achieve these targets anticipated by the European Union.

Through anthropological inquiries (focus groups) it was identified that health and well-being are more important motivating factors than energy savings and CO<sub>2</sub> emissions. Therefore, instead of being tacked at the end, health should be incorporated intentionally in a decision-making process.

The MOBISTYLE paper *"People-centred approach for ICT tools supporting energy efficient and healthy behaviour in buildings"* was submitted to the *Buildings* journal special issue.

The full presentation is available: [http://www.sustainableplaces.eu/wp-content/uploads/2017/07/MOBISTYLE\\_SP\\_28-June.pdf](http://www.sustainableplaces.eu/wp-content/uploads/2017/07/MOBISTYLE_SP_28-June.pdf)

## What's next?

- ❖ **Preparation of the demonstration sites**

By the end of the project's first year (September 2017) the generic MOBISTYLE approach has been configured for each demonstration case. For all the demonstration cases the main MOBISTYLE objective remains the same: to raise consumer awareness and motivate behavioral change leading towards energy efficient building usage.

As the demonstration sites present real life situations in five different locations covering different building types, different types of end-users and different scales each case has additional specific objectives.

The deliverables, defining specific objectives and the monitoring activities for each demonstration case, will be soon available on the website: [www.mobistyle-project.eu](http://www.mobistyle-project.eu).

- ❖ **MOBISTYLE 3<sup>rd</sup> meeting in Wroclaw, Poland**

The 3<sup>rd</sup> consortium meeting will be held in Wroclaw, Poland 6 and 7 November 2017.

This meeting is important in order to lay down all the requirements and specifications of each demonstration case that will shape the development of MOBISTYLE solutions based on the identified users needs.

### MOBISTYLE partners:



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[www.mobistyle-project.eu](http://www.mobistyle-project.eu)

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