

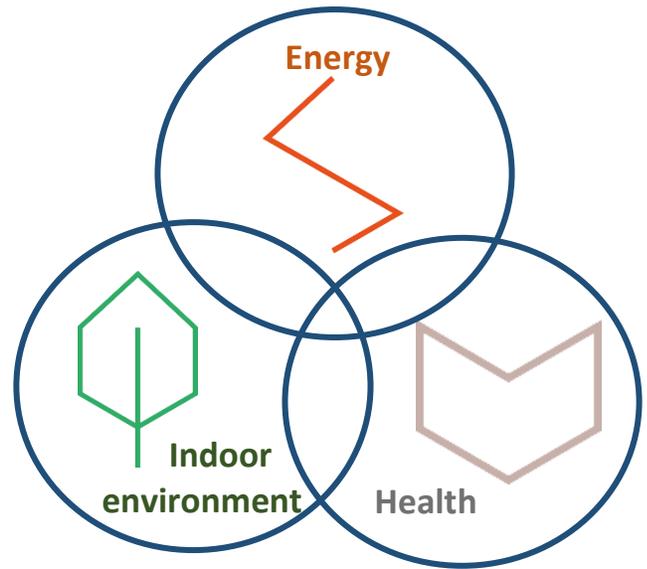
MOBISTYLE

Newsletter

November 2018



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What is MOBISTYLE?

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

This newsletter introduces...

the MOBISTYLE demonstration projects.

MOBISTYLE demonstration covers real life situations in five different climatic regions covering different building types, different types of end-users and different scales (building, district).

Residential building complex Kildeparken: Aalborg, Denmark

18 residential apartments in 10 different two-story apartment blocks. Climate: Northern.

Faculty buildings at the University of Ljubljana: Ljubljana, Slovenia

8 office rooms, 4 faculty buildings. Climate: Continental Central.

Hotel residence apartments L'Orologio: Turin, Italy

4 hotel guest rooms/apartments and reception. Climate: Mediterranean.

Office building Qeske: Kerkrade, The Netherlands

Open plan office in a five story office building. Climate: Western Central.

Smart City Wroclaw: Wroclaw, Poland

1000 residential units (detached & multi-family houses, apartment blocks). Climate: Eastern.





Figure 1: Danish demonstration case – Kildeparken residential area, Aalborg, Denmark.

✓ Residential area Kildeparken in Aalborg, Denmark

Kildeparken, a complex of residential buildings, serves as the Danish demonstration case. The demonstration will be carried out in 18 apartments which were selected among the already renovated apartments at Kildeparken area.

The main MOBISTYLE goal here is to demonstrate a sustainable behavioural change leading towards a significant reduction of energy use by offering ICT based solution giving information and knowledge regarding occupant’s indoor environment quality (IEQ) and energy use. Additional requirement is that the developed MOBISTYLE Game should work with the already established and offered services for the residents at Kildeparken.

The main goal in terms of energy saving is to achieve reduction in heating and hot water demand. As the residents are occupants in social housing apartments, the idea is to stimulate the improved IEQ where improving their indoor air quality can furthermore improve their sleeping quality.

✓ Smarty city in Wroclaw, Poland

The Polish demonstration case is covering monitoring of 1000 residential buildings located in Wroclaw whose building owners are clients of Polish energy provider TAURON.

The main objective for this MOBISTYLE demonstration is to monitor electricity consumption based on gathered data and provide information to users that will motivate them to change behaviour (more energy efficient building use in their homes). The electricity from the appliances and plug loads will be monitored where the data will be translated into actions stimulating the reduction of unnecessary usage of electricity and improvement of indoor air quality (sleeping quality in bedrooms).

Furthermore, by using data coming from the installed Whirlpool smart washing machines, the usage of the washing cycles will be optimized by giving users weekly challenges that they can sign for when using the MOBISTYLE Game.

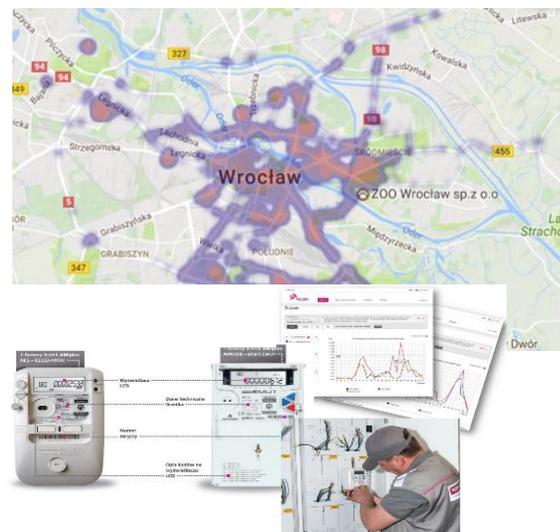


Figure 2: Polish demonstration case – Smart city Wroclaw, Poland.



Figure 3: Dutch demonstration case – Qeske office spaces, Kerkrade, the Netherlands.

✓ Qeske office spaces in Kerkrade, the Netherlands

The Dutch demonstration case is an initiative in which education, colleges, universities and companies form a platform. The building users consist of students (age of 20+), young entrepreneurs, experienced professionals, and professors (age up to 65). The MOBISTYLE demonstration will cover one floor of this office building.

The MOBISTYLE objective for the Dutch demonstration case is to improve health, well-being while reducing energy use by realizing an optimal indoor climate in offices through dynamic indoor temperature settings. This ensures healthy and productive office environment and thus also achieves energy savings compared to a traditional air-conditioned office. The specific objective is to establish a correlation between different indoor environment situations and occupant’s health (physiological) response and how occupants perceive such conditions (psychological).

✓ Apartments of a hotel Residence L'Orologio in Turin, Italy

The Italian demonstration case is covering Orologio Living Apartments, an urban residence hotel located in a central area of Turin where hotel guests are mostly long-term stayers.

The MOBISTYLE demonstration will cover four apartments inside this hotel and the reception area. The specific objective for the Italian demonstration case is to monitor IEQ and electricity consumption in order to provide the hotel guests feedback on their energy use with guidance on how to save energy while creating a healthy and adequate indoor environment. The main idea is to optimize HVAC and home appliances operation while consequently reducing overheating problem and improving IEQ.

The relation and interaction between the building's performance and guest's influence on it will be made visible to the hotel guests by deploying the guests an easy to understand and attractive MOBISTYLE Dashboard.



Figure 4: Italian demonstration case – Hotel Residence L'Orologio, Turin, Italy.

This newsletter's partners in style:

University of Aalborg (AAU)



The Architectural Engineering division of AALBORG UNIVERSITET Department of Civil Engineering is concerned with research and education in the analysis, design, construction, and operation of engineering systems. It focuses on an integrated, multidisciplinary approach to achieve optimal building designs and pays special attention to their impacts on the indoor as well as the surrounding environment. This implies integration of architectural design with engineering systems and other key players in all areas of the building process circumstances in the built environment.

Website: <https://www.civil.aau.dk/>.

Main role in MOBISTYLE

The research group from AAU contributes to development of methodologies to monitor human practices in the perspective of energy use and indoor environment. AAU is also leading the work package on demonstration cases.



Figure 5: Slovenian demonstration case – Faculty buildings of University of Ljubljana, Slovenia.

✓ Faculty buildings of the University in Ljubljana, Slovenia

The main MOBISTYLE demonstration in Slovenia is related to the monitoring of the four faculty buildings at the University of Ljubljana (UL) where the specific objective for this demonstration case is improved IEQ as a result of modified behaviour. Energy saving is to be achieved in parallel due to improved IEQ. The demonstration will take place at the specific rooms of Faculty of Computer and Information Science (FRI) and Faculty of Chemistry and Chemical Technology (FKKT).

The main goal in terms of energy saving is to achieve reduction in energy use due to a change of IEQ. Idea is to encourage actions that help to improve IEQ, lighting quality, view to outside and to reduce overheating, glare problem. This can help improving the occupant's mood and well-being (also productivity) while improving the interaction (and understanding) of users with building systems. The professors, researchers and permanent students occupying the offices will be encouraged to actions which they can control themselves. The information about their behaviour and suggestions on how to improve these actions will be given to them via the MOBISTYLE Dashboard.

What's new?

✓ MOBISTYLE workshop at the BEHAVE 2018 Conference

The MOBISTYLE workshop was organized during the BEHAVE conference, on September 5 in Zurich, aiming to bring together EU research projects having the same objective: to improve buildings occupants behavior leading to more energy conscious everyday building usage. In this view, the expertise and lessons learnt of four H2020 sister projects funded in the same call, MOBISTYLE, ENTROPY, ChArGED and PEAKapp, were exchanged. The workshop was opened by the MOBISTYLE Project Advisor and moderated by the MOBISTYLE team. Through pitches introducing the sister projects and by facilitating parallel open discussions among the invited speakers, the interactive discussion emerged with attendees of the workshop.



Figure 6: The MOBISTYLE workshop at the BEHAVE included interactive discussions with audience around tables to prompt feedback on the developed approaches.

✓ MOBISTYLE at The4BEES Final event in Turin, Italy

Simona d'Oca (Huygen) shared the project lessons learned at the The4BEES final event in Turin on October 23. It was agreed that ICT solutions need to be developed together with users if we want to achieve radical changes; from our behavior to energy savings.

✓ MOBISTYLE at the RETROFIT Europe Conference!

A MOBISTYLE workshop was organized as part of the SBE conference RETROFIT EUROPE! in Eindhoven on November 6 where the discussion was on how to educate users to become more proactive and conscious about their behavior in buildings.



Figure 7: Dan Podjed (University of Ljubljana) presented the MOBISTYLE people-centric approach and explained that if we want to engage people in buildings, we should not call them consumers or clients.

✓ MOBISTYLE at ENTROPY workshop 'The Next Day for Energy Efficiency' in Athens

Maria Margoudi (Highskillz) presented the project at the 'The Next Day for Energy Efficiency' workshop in Athens on November 7. She introduced the MOBISTYLE Game and explained how through series of gamified challenges we can nudge user to change behavior in a fun way.

✓ MOBISTYLE at the REHVA Brussels Summit

Simona d'Oca (Huygen) presented the project at the REHVA Summit in Brussels on November 13. She explained that building ecosystem is smart only if both people and systems are smart. MOBISTYLE uses a people-centric approach based on data to put these dual smartness into a system.

✓ MOBISTYLE Consumers Advisory Board (MCAB) meeting at the Active House Alliance Symposium 2018

The first meeting of the MCAB members took place on November 8 where first MOBISTYLE exploitation ideas were discussed. The MOBISTYLE Open Users Platform objectives were discussed to see whether the project satisfies the market needs are offering something different (beneficial). For the MOBISTYLE consortium this meeting presented a valuable opportunity as the feedback from the important market players was obtained and this will shape further development of the platform and its functionalities.

What's next?

❖ MOBISTYLE workshop at CLIMA 2019

A MOBISTYLE working session will be organized as part of the next [CLIMA 2019 event](#).

Through facilitating a workshop with an open discussion between the MCAB members, the idea is to further discuss the usability of the developed MOBISTYLE solutions and the MOBISTYLE approach.

If you are not a member of the MCAB but yet interested in learning about the MOBISTYLE principles and the project's ICT solutions, you should contact the MOBISTYLE team: info@mobistyle-project.si.

❖ MOBISTYLE 6th meeting in Aalborg, Denmark

The 6th consortium meeting will be held in Aalborg, Denmark 8-10 April 2019.

MOBISTYLE partners:



Stay tuned until our next newsletter is out by following us on Twitter or visit our website!

 [@MOBISTYLE_EU](https://twitter.com/MOBISTYLE_EU)

 www.mobistyle-project.eu