News
The strategic research project UserTEC is now ending its second year. WP3 has started up and WP4 is just about to start. Next big issue is that we this winter will send out our survey on energy and heat consumption to 1750 homeowners.

WP3 is up and running
In the summer 2014 WP3 started. WP3 deals with buildings and technologies promoting energy conscious behavior and is led by Prof. Per Heiselberg from AAU. The idea is that knowledge gained in WP1 and WP2 can feed into WP3. WP1 looks at how users interact with buildings and technologies and through this interaction consumes energy, whereas WP2 deals with how different actors can communicate together on what energy consumption is. If this type of knowledge can be included and utilized to develop more user adopted technologies and buildings, the hope is that we can develop new technologies which are not just energy efficient in principle, but also save energy when used by real humans in real homes and do this without compromising the indoor environment. This becomes even more relevant in future energy efficient residential buildings where control with factors as temperature, airflow and sunlight have to be managed much more carefully.

The work in WP3 includes cooperation with the window companies Inwido and Velux, researchers from The Technical University of Denmark (DTU) represented by International Centre for Indoor Environment and Energy as well as researchers from AAU, department of civil engineering and The Danish Building Research Institute. One of the ideas for new energy efficient technology development is to find ways to improve the indoor climate of residential buildings by using the surrounding microclimate.

A new PhD student in WP3
During 2014 UserTEC employed the fifth PhD: Kim Trangbæk Jønsson (Msc in engineering). Kim’s project will deal with dynamic facades in relation to the user. The study will be conducted as field experiments on residential flats, and the study will consist of both qualitative and quantitative measurements. The field experiments are used to investigate both communication sources to the user as well as automatic control strategies for the dynamic façade. This is to get a better understanding of the user in relation to dynamic facades and to improve the dynamic facades according to the user’s needs. The study is focused on what effect
the dynamic façade will have on both the energy consumption and the indoor environment.

How do companies work with users?
At our partner meeting in Aalborg in October the main topic was how companies work with users. Our representatives from Velux and Grundfos gave an exiting view into their experiences of being part of world leading companies and of the many different ways user representations are involved in their respective companies in both product development and sales departments.

How to represent users
Sarah Darby, our UserTEC partner from the Environmental Change Institute at Oxford University visited WP2 researchers from Sept 29 to Oct 3, and played a leading role when WP2 researchers held a research seminar Oct 1 on the topic “Representing the end user of energy in private households/ of Home Control Technology in a generic form” in which researchers from all WPs participated. The purpose of the seminar was to learn about the involved researchers’ way of conceptualizing the end-user. Obviously communication about end users among actors with different backgrounds and interests can be difficult, which is why WP2 is responsible for developing a form of shared language in which all UserTEC partners can discuss and formulate shared concerns regarding end user practice. The seminar drew on Sarah Darby’s and WP1’s research regarding end user practices, contrasted by WP2 researchers knowledge of the windows of attention to end users issues in product development businesses, and in the daily work of utilities. By confronting and discussing the relationships between these perspectives, we together enriched WP 2’s current suggestion regarding shared representations of end user practices.

WP2 toolbox
Part of the realization of the obligation of WP2 to “analyze and enhance better communication about households’ energy consumption between end-users, designers, engineers and architects as well as energy companies and utilities” is the development of a communication toolbox. This work is now so far under way, that a prototype will be uploaded on the UserTEC website primo 2015. WP2 researchers will visit the partners in 2015 and work out a 2.0 version together with the partners.

Photos from the UserTEC research seminar showing representations of users

UserTEC is a strategic research project lead by Kirsten Gram-Hanssen, SBi, Aalborg University. It is conducted in cooperation with University of Cambridge, University of Oxford, Linköping University, Delft University of Technology and Technical University of Denmark, as well as in cooperation with major Danish and international companies within the building and energy sector. More info at: http://sbi.dk/usertec