

Strategic Research Project

UserTEC

User Practices, Technologies and Residential Energy Consumption

Newsletter no. 2 – June 2014

First year of the project

The strategic research project, UserTEC, has been running one year of the planned five years and the first two work packages, WP1 and WP2, are proceeding as planned. The project's two remaining WP's will start in the beginning of next year. Apart from the kickoff meeting, two meetings have been held with all partners and we have had our first fruitful meeting with the advisory board. Next partner meeting will be in Aalborg 2 October 2014.



Two WP's up and running

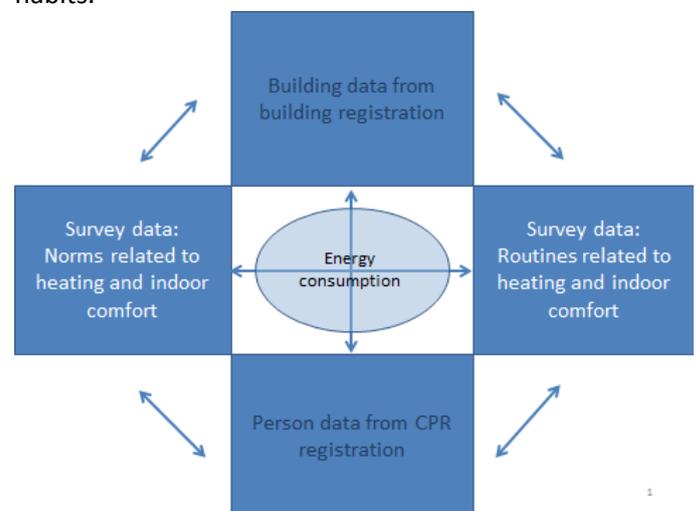
WP 1 is about the how, when, who and why's of households energy consumption and WP 2 focuses on communication about energy. Together these two WP's lay the ground for the projects two remaining WP's on respectively buildings and technologies and user involvement. WP 2 is now working on developing "The competent home keeper" as a persona, based on psychological knowledge. Later this will be tested against the empirical findings from WP 1. The empirical material used in WP 1 include quantitative analyses of existing register and survey data on heat consumption and appliance use, new qualitative analyses within households regarding their comfort practices as well as conducting a major survey in cooperation with WP 3 on comfort practices in households.

The project is supported by:



Survey out next winter

We know from previous research that building characteristics and peoples' socio-economic situation are related, and that this partly can explain some of the variation within households' energy consumption for heating purposes. We also know that the inhabitants' daily habits and routines have a major role in explaining the actual level of consumption. Energy for heating identical buildings can, thus, vary with several hundred percent due to differences in the users' habits.



Social science and STS research on comfort practices have, furthermore, shown how norms of comfort are changing over time along with the changing building characteristics. The more

energy efficient housing we build, the higher are peoples' expectations with regard to comfort. This means that much of the potential savings from more efficient houses are not realized.

The survey to be conducted is not intended to confirm already existing knowledge but to extend it. Much of the research investigated the relations between buildings, people and energy consumption have focused on energy consumption for both heating space and heating water, as these two forms of energy consumption are often combined and measured together in most households. The practices relating to indoor space heating and to use of hot water are, however, highly distinct. In UserTEC we have, through our partner Affaldvarme Aarhus, access to hourly based data for district heating of many thousands of households, and based on this we will be able to make an approximation of the amount of energy used for respectively hot water and for space heating for each individual household. These data will then be combined with information (from national databases) on the buildings and on the people living in the buildings. We will use surveys to ask people about their daily habits as well as their norms of comfort, and through these questions we will search for new relations between buildings, people, their habits and how norms of comfort may relate to building characteristics and possibly guide some of the daily habits.

International PhD exchange

An important part of the UserTEC project is our international cooperation with top universities within the field of understanding households energy consumption. One important aspect of the project's approach to knowledge sharing takes place through PhD student exchanges. In Spring 2014, the first two international PhD students visited AAU-CPH for one month each.

Hui Ben, PhD student at Cambridge University, Department of Architecture, visited us during April 2014. Hui is working with energy efficiency and comfort practices, and she seeks to use practice theoretical approaches to understand comfort practices in households. Together with Line Valdorff Madsen, Hui presented her work at

a research seminar during her stay. In June Kirsten Gram-Hanssen visited Cambridge to assess the first year report of Hui.

Josefin Thoreson, PhD student at Linköping University, Tema T, visited us during May 2014. Josefin is doing a qualitative study focusing on planning and implementation of energy issues in renovation processes of post-war multi-family buildings in a Swedish context. During her stay she focused on summing up and analyzing her findings.

Presentations at conferences

The researchers involved in WP1 and 2 have during the spring 2014 focused on presentations at conferences. At the international conference Energy & Society in Krakow in June Anders Rhiger Hansen presented his analysis on "Social differences in residential heat consumption"; Line Valdorff Madsen's presentation focused on "Can comfort be practiced"; Mette Hove Jacobsen discussed "Patterns of consumption in possession of electrical appliances"; whereas Kirsten Gram-Hanssen presented a review study on "Informing energy policy from practice theoretical studies". From WP2 Pernille V. K. Andersen presented "Handling and breaking tensions: Enhancing 'critical reflection' among professionals and practitioners" at Design Research Society Conference in Umeå, whereas Ellen Christiansen asked the question: "Nice to know- or not? on Informational feedback" at colloquium in the Mensch-Maschine Systeme in Berlin.



Anders and Line in Krakow after their successful presentations at the E&S conference