

## Offer for Collaboration – Partnership Request

### Energy Efficiency - Market Uptake

H2020-EE-2015-3-MarketUptakeSub call of: [H2020-EE-2014-2015](#)

<b>Opening Date</b>	10-12-2014	<b>Deadline Date</b>	04-06-2015 17:00:00 (Brussels local time)
<b>Publication date</b>	11-12-2013	<b>Total Budget</b>	<b>Call</b> €54,300,000
<b>Programme</b>	Horizon 2020		
<b>Status</b>	Open	<b>Main Pillar</b>	Societal Challenges

**Topic:** Consumer engagement for sustainable energy

**EE-10-2015**

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2374-ee-10-2015.html>

Mendel University in Brno is **looking for a partner with experience in energy research and energy use** and especially with the experience with intervention aimed at household energy conservation.

The objective of this call is to propose and implement an action which will motivate the consumers' engagement towards achieving significant household energy savings.

The action in this call needs to focus on the change of the consumers' behavior towards more energy efficient appliances by increasing the wealth of knowledge and awareness of the consumers in relation to their energy consumption.

The expected impact of 1 million € of EU support of this call is expected to deliver annual energy savings of around 10% for at least 5000 households (around 8 GWh/year of savings). This roughly translates to approximately 1600 kWh of savings per household. EU-SILC database<sup>1</sup> identifies the average size of a household in EU as 2.3 persons, so the expected savings are around 700 kWh per person per year.

Eurostat statistics regarding total residential energy consumption [nrg\_100a] and number of households [lfst\_hhnhtych] indicate that in EU, household average of yearly consumption is about 16.1 MWh per year (it is noteworthy that countries with more favorable weather conditions like Spain, Greece, Portugal show values below 10 MWh per year).

Households are among the largest users of energy in the EU, accounting for roughly 30% of final energy consumption. Despite the significant efforts in late years to moderate and reduce energy use, energy consumption per dwelling in the EU has been more or less stable in the past two decades.

According to European Environment Agency, majority (nearly 70%), of energy consumption goes towards the space heating, followed by water heating (15%), electrical appliances and lighting (11 %) and cooking (5 %).

All-electrical appliances and lighting represent about 55 % of the electricity consumed by a household. EEA estimates the cumulative reduction (due to increased efficiency) of the big electrical appliances since 1992 to be about 100 kWh/household.

<sup>1</sup> [http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc\\_lvph01&lang=en](http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_lvph01&lang=en)

This clearly indicates the primary focus of the energy efficiency action aimed towards achieving significant energy savings for household basically means the effort should be towards space and water heating.

Recently, the energy efficiency measures (such as the merits of eco-design of electrical appliances proposed by European Commission), or the trend towards smart electricity grids and detailed electricity metering seems to be among the most popular ways to positively influence the energy consumption of households.

Nevertheless, despite their potential and benefits (e.g. in terms of transmission networks flexibility and energy security), these are clearly not the most promising areas to be targeted.

Basically, the numbers reported above show that 1% of savings in the space heating will outweigh the equivalent improvement in the consumption of the most used and power hungry electrical appliances roughly by a factor of 12.

It is therefore most promising to consider the prospect of influencing the consumers to:

Engage in more efficient way of space heating (e.g. not setting thermostats too high, proper ways of ventilation, and adjustments of the slope of heating curves and use of the so-called equitherm regulation.

Use funds in energy savings, based on the direct evidence of profitability of the investments (especially worthy of consideration in times of historically low interest rates, as can be observed in recent years in the European Union).

The department of Marketing and Trade has extensive experience with consumers' behavior analysis as well as research oriented towards the market targeting, design of advertising and engagement of consumer.

The department is willing to participate in a marketing research targeted towards the identification of the most suitable types of households, as well as the design and implementation of the educational means directed towards the feasibility and profitability of energy saving investments (for instance house insulation, equitherm regulation, controlled ventilation etc.).

The primary contribution of the department will be provided in the better understanding of consumers' perception (primarily those associated with energy costs and their relation to potential energy savings), consumers' motivation and factors that influence their behavior (or the lack of action) in relation to energy investments.

The expected contribution from the EU between EUR 1 and 1.5 million translates roughly to 200 EUR per household (if we maintain the expected impact of roughly 10% of energy consumption per household).

This funding is obviously not suited towards attempts of expensive advertisement campaigns, but rather needs to focus on more narrowly defined target group. In essence it means the funds should primarily be directed towards lowering the information barrier of potential energy investments and to reduce the costs associated with the decision process. This can be achieved by two means: direct educational and informational activities and by demonstration. The demonstration is usually much

more efficient way of influencing the consumer behavior (as evidenced by the trade shows, direct selling and most of visual ads).

In order to fulfil the expected impacts, consumers need to be directed towards engagement of their own funds to secure *profitable* investments. This profitability is often subsequently enhanced by public programs oriented towards the energy conservation and energy efficiency.

The funds therefore need to be applied primarily towards the participation on the understanding of the costs and benefits of energy investments and the indirect, primarily non-financial measures (such as educational training towards the adjustment of daily-life behavior and energy consumption patterns).

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