



Project News: October 2017

The second me² project newsletter provides you with an overview of a recently finalised Whitebook report, the status and results within the Amsterdam and Lisbon Pilots as well as further me² platform developments. Feel free to contact us directly or post any comments at <https://www.linkedin.com/groups/8545691>.

me² - Whitebook report

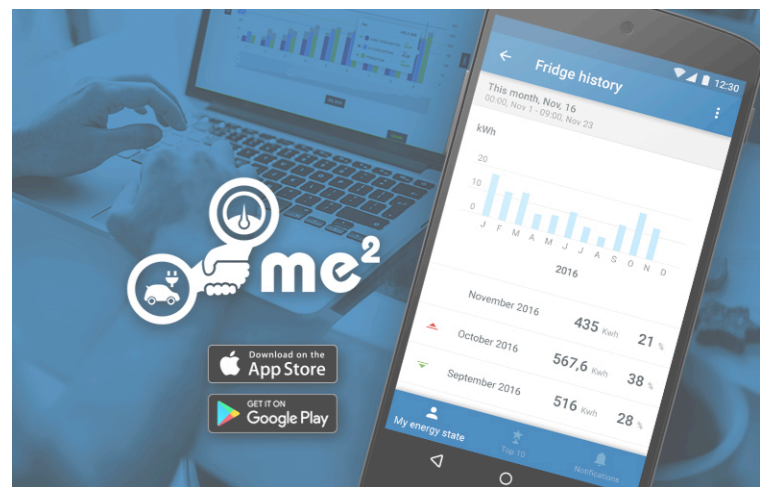
What motivates people to change their energy consumption? Which societal factors contribute to new energy practices? To prepare the ground for answering these questions, consumer analysis was carried out before the actual testing of the me² platform in the two project pilots. This combination of literature study and surveys, design requirements and user-targeted algorithms, was an essential part of the pre-implementation work. A Whitebook report summarising the main findings of this work is now available on the project website, as Deliverable 1.1. Recommendations for the different phases of user interaction are given, along with an evaluation of the effects of various types of incentive in the cross-cultural context of the two project testing grounds, Portugal and the Netherlands. A European policy review is provided as well as practical findings, including a User Scenario for the me² platform.

me² – Recent platform developments

The me² app has now been launched and is available in the App Store for iOS and Google Play for Android. me² users can download the app through a link in the platform.

Having the app is important for increased accessibility of the me² platform and the participants in the Lisbon pilot were excited to have a previous version of the Android app, which was launched in the spring.

The app provides a quick overview of the user's energy consumption in addition to giving feedback to users through notifications and their Green Card.





me² – Start of Amsterdam Pilot

The Dutch pilot was launched on 1 September 2017 and will continue until the end of February 2018. It involves 50 households with a private electric vehicle, as well as one household with an electric scooter and one small business with a shared electric car. The kick-off workshop was held on 7 June, 2017: 20 people took part and were treated to a presentation by the HvA team, were able to meet other pilot participants, and ask questions about the project. During the summer months, the pilot participants received and installed their Cloogy's and created their me² accounts, so that a baseline for their regular energy usage could be collected.

The community composition differs from the Portuguese pilot. Although most users are centred around urban areas, such as Amsterdam and The Hague, the Dutch pilot has participants from different areas of the Netherlands.

Of the Dutch participants, 75% own a private charging point and a little over half of the 50 households also produce their own renewable electricity using PV installations; 80% of the participants (usually) charge their EV at home, with the other 20% charging exclusively at public charging points, either in their neighbourhood, at work or at a fast charger wherever they are.

The results of the Amsterdam Pilot will be presented in a further newsletter in early 2018.

me² – Results Lisbon Pilot

The me² project also involved a pilot in Lisbon, with the objective of testing and demonstrating the commercial viability of the me² system in a small-scale, closed-community environment. This pilot contributed to increased awareness and promoted energy efficiency through the integrated management of electricity, both at home and in the (electric) car.

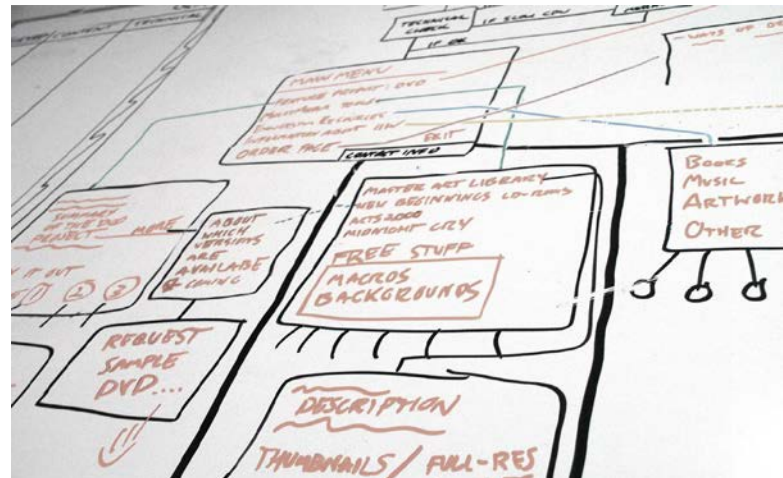
The me² Lisbon Pilot was launched in December 2016 and ended in July 2017. It involved a community of around 50 members with several EV users. Many of the me² community members were municipality employees.

During the pilot, the project team conducted problem-centred interviews to obtain data needed to complement the consumption-monitoring data and the data collected through semi-structured diaries. The focus was on specific problems such as the value proposition of me², the overall business model and finally, a segmentation scale. The results from the 31 completed interviews can be summarised as follows:

Value Proposition

- According to the interviewees, the most important feature of me² was the monitoring of consumption, preferably per piece of equipment as well as per total household, in quarter-time intervals (closest to instantaneous) and the ability to access an historical data log for a comprehensive time span. This data allows people to implement measures to decrease monthly electricity costs. People also mentioned that they find it important to have an efficient, reliable, simple, fast and user-friendly system. One person mentioned that analytical tools would be a plus, such as day-to-day comparisons for intervals of one week or one month. EV owners also mentioned the importance of the system allowing them to know their daily EV consumption. One PV owner mentioned that it was important that the system adjusted his household electric energy demand to the PV-available production, which he could also monitor.

- People mostly just checked their bills, and only every now and then cross-checked them with the DSO-reported meter readings, to find out whether they needed to ask for any corrections to their invoices. One person (with a technical background in energy management) suggested it would be possible to 'manage upstream' by only buying low-consumption equipment and estimating its total power consumption when installed.
- People recognised the added value of being able to monitor the daily consumption of pieces of equipment or the total household, so they can analyse their spending and implement specific measures with regard to each piece of equipment. Most of the people were satisfied with the platform, stating it was easy to understand and to use. There were, however, some mixed opinions about the me² package. Of those interviewed, 25% were concerned about the functionality of the measuring equipment, the transfer of data from the meters to the platform, the accuracy of the data, and even the accuracy of the platform's energy saving tips.
- In answer to a question on the drawbacks of the me² package, many people did not mention any. There were, however, some concerns that data could not be exported and that meter readings seemed at times inaccurate.



Business Model

As to the business model, the results showed that only 30% of people would pay for the installation service by a professional. The average maximum value was €30.

Half the people would be willing to pay for the Cloogy product, up to an average price of €80. Others were not interested or were unsure, saying they had never conducted any market research.

Regarding expected savings in electricity costs, 60% immediately answered that the product would be interesting if there were average monthly savings of €15.



Segmentation scale

The segmentation-scale analysis was performed to identify the motivation of the participants, regarding various aspects, such as environment, financial and competitiveness (seven-point scale - two anchors 1 (strongly disagree) to 7 (strongly agree)). The participants answered as follows:

- I am willing to change my energy consumption if it benefits the environment; Average: 6.5
- I am willing to change my energy consumption if it helps me save money; Average: 6.5
- I am willing to change my energy consumption if it helps me to perform better than the others; Average: 3.9
- I am flexible to change my behaviours if it helps me to reduce my energy consumption; Average: 6.3

In addition, the analysis included how the pilot affected users' behaviour:

- Mostly, people were more aware of turning off standby equipment, such as TV boxes, of unplugging chargers from power sockets, of making better use of laundry machines (fuller loads, fewer times, at off-peak periods if bi-tariff applicable), of closing fridge doors and of turning off lights when no one is in the room.
- Others changed their lightings to LED or tried not to turn on the heating so often, wearing more clothes instead. One interviewee bought a highly certified laundry machine.



Final Workshop

The Final Workshop of the Lisbon Pilot saw the organisation of a conference, 'The Future of Energy Efficiency in Housing', at LISBOA E-Nova. Helder Gonçalves, Director of the National Laboratory of Energy and Geology, and a specialist in several areas related to Energy, presented 'Energy Efficiency Measures Integrated Within Smart Cities'. Luís Caridade, from MediaPrimer, presented the objectives of the project, the results and next steps to an audience of about 50.

Discussions were focused on the presentations, which covered issues around energy efficiency in a very interactive way, with lots of questions and comments from the floor.

A certificate of participation in the Lisbon Pilot was awarded to all the me² participants (present in the workshop). In addition, the top-three participants (with the most green points) won special devices, all related to energy efficiency.



me² – Project overview

June 2016 saw the launch of the European smart city project, me². The project is coordinated by the Amsterdam University of Applied Sciences within the framework of the ERA-NET Cofund Smart Cities and Communities (ENSCC) programme. The me² project represents a new market place for urban players, in which a local community of electric vehicle (EV) users and local smart-meter (SM) owners are brought together by means of a local urban online community. The combination of these technologies in a community allows the integration of mobility with electricity, the balancing of the grid, the reduction of electricity costs, and the encouragement of a feeling of local belonging. me² enables urban demand-side management, i.e. it aims to modify consumer demand for energy, for example in the use of less energy during peak hours in an urban community.

The project applies the technical and academic state of the art, in regard to smart grids, electric mobility, business models and policy incentives, to the development of an innovative service concept. This is validated and optimised in two practical pilots and demonstrations in urban communities in Amsterdam and Lisbon. Partners of the me² consortium are the Amsterdam University of Applied Sciences (NL / coordinator), Catolica Lisbon School of Business and Economics (PT), MediaPrimer (PT), VPS Energy (PT), Lisboa E-NOVA (PT) and MOOSMOAR Energies (AT).



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