



News Letter

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Editorial

Welcome to the third issue of the smartCEM newsletter!

As we introduced in previous issues, thanks to the services smartCEM will pilot we want to demonstrate that electromobility can be a valid alternative for our cities and for consumers. In this issue we go even further and ask a challenging question: can electric vehicles also be a viable option to take on long journeys across different countries? The best way to find out is to interview someone who took on that challenge: Thomas Kemmere, working at Xerox, recently drove from Holland to Italy in a fully electric vehicle (FEV), so we interviewed Thomas to find out about his experience.

This issue also focuses on presenting to you the new Pilot site that recently joined smartCEM: Reggio Emilia, which will evaluate the potential of transportation provided to Municipality employees by means of fleet vehicles. You will also find an update on latest news and developments in the project.

We hope you enjoy your read and keep on following the progress of smartCEM: bringing smart connected electromobility to the streets!



Fernando Zubillaga,
smartCEM project coordinator

INTERVIEW with Thomas Kemmere, SmartCEM Executive, at XEROX

Thomas, tell us a little bit about you

Well in short I guess you can say that I'm someone who cares about the environment, but at the same time really like new technological developments.

So you embarked in a drive from Holland to Italy in an FEV for your family holiday, how did the idea come about?

It was in winter 2011. The Tesla Roadster was out, so was the Nissan LEAF and Peugeot, Citroen and Mitsubishi were also introducing a FEV onto the market. Energy companies were introducing the first mode 3 type 2 charging system (charging using a specific EV socket-outlet) and at the opening of the first CHAdeMO fast charger there was a big party. I was following all this with great interest. I find FEVs a good and promising development.

In the meantime we (my wife, daughter and I) had managed to book a really nice holiday apartment in Tuscany in Italy. But we were wondering how we would get there. The most boring and stressful part of the summer holidays is always the busy motorway drive, could we make that more fun somehow?

So how did you start planning the trip?

We had to find a car. The roadster was no option because it only had 2 seats, the Peugeot also, because its range is quite limited. And basically we were left with one option: The Nissan LEAF. I looked, mailed and called around to find one that we could lend for free and in return we would give lots of publicity about the event, but it didn't work out. But when I called with the request to 'hire at a reduced rate' we found one very fast.

During the preparation we had no idea what to expect. I made a route, a list of hotels, a list of camping sites as well as a list of Nissan dealers. The latter because I thought they'd be friendly and helpful when we'd stop by. And indeed they were.

Can you describe your experience overall?

Well it turned out to be a very enjoyable way of travelling. Instead of rushing across the motorway, we were cruising at 60 km/h across secondary roads. The Navigation was set to shortest route and it took that really literally: we've seen the tiniest roads of Europe! And people are not in a hurry there.

On average we covered about 180 km per day. We used to leave fully charged in the morning, and then, while having lunch, we plugged in and charged some more. As a result, we took the time to encounter different landscapes, different languages and different kinds of food every day.

A nice discovery was that our daughter didn't get car-sick in the LEAF. Obviously this was thanks to the (extreme) efficient driving that I did and also the comfortable seamless transmission of the vehicle.

In the mountains we found out that regenerative breaking does make a difference, but maybe not as much as you would hope for.

In total we had planned 11 days to get to the holiday house, but we could have managed in 7. So in the Italian mountains, south west of Reggio Emilia, we “slowed down” and enjoyed the scenery.

After a good week in the apartment in Tuscany and several day-trips, we did the whole trip in reverse. We also received 2 experimental fast charges at Protoscar and ABB, both in Switzerland.

It was nice to be able to share our experiences of 2011 in 2012 with Mark Nitters (please refer to the second smartCEM newsletter) as he was preparing his family FEV Holiday.

Free reserved city center parking was my favorite thing also so that I could get really lazy about parking. Emission free driving became even more fun when we charged next to a huge array of solar-panels! I loved the fact that the car was automatic, really zippy especially in city driving and smooth to drive.

What challenges did you face?

Actually it turned out to be more of an effort to find a suitable place to sleep in remote areas, rather than a 220V socket for the overnight charge. We always called ahead and asked whether there was room to sleep, and the second question was about electricity. That part always worked out. We did bring about 5 different converter-plugs with us. In Switzerland, we crossed the Jura without problems and then we decided to let ourselves be ‘stranded’ against the slope of the Alps on purpose. We managed to make it almost to the Gotthard (tunnel) when we were running on empty. We then had to turn around and coasted down to the first available place to sleep. Running on less than 5 km charge left does cause a bit of tension.

Can you share some facts and figures about your trip?

Of course, here is some of my log-data:

- 3.106 km total trip length
- Most km in one day, with fast charge: 281,2.
- Most km in one day, without fast charge: 215,1.
- Number of meter climbing: about 6.000. Ardennes, Vosges, Jura, Alps, Apennini.
- Normal charges (10A-220V AC): 46. 27 Nights, 19 in between.
- 32 different 10A-220V AC sockets.
- 4 Fast charges 125A-450V DC: Protoscar 2 / ABB 1 / Nissan Strasbourg 1.
- Busted fuses: 1.
- Number kWh needed for 3.100 km: $3100 \text{ km} / 170 \text{ km} \times 24 \text{ kWh} = 440 \text{ kWh}$.
- Cost for 440 kWh: € 75,-
- Out of which we paid: € 50,-. € 25,- at campings / € 25,- through tips / Hotels and fast charges was free.
- Route is plotted on Google maps: [going](#), [returning](#).
- And for those of you who speak Dutch, you can see more data and many pictures on www.ev2i.nl

PILOT SITE presentation

Reggio Emilia, in northern Italy, has been particularly interested in sustainable mobility in recent years. The interest of the municipality of Reggio Emilia in electromobility is shown by the large fleet of Electric Vehicles used by its employees during their daily activities: whenever they have to move around the town for work, they can take advantage of one of the EVs at their disposal.

Reggio Emilia joined smartCEM project for the purpose of showing the potential of EVs within by an urban public administration, if properly incentivised. This is especially true in Italy, where most cities have one or more traffic restricted area in which only certain classes of vehicles are allowed to go; for this reason EVs can be especially useful for the employees of the public administration since they are not subjected to the restriction of traffic.

The Reggio Emilia pilot within the smartCEM will provide the opportunity to evaluate the potential of light electric vehicles' integration in a public administration car-sharing fleet. SmartCEM services and functionalities about Navigation, Efficient Driving style and Vehicle Sharing will be evaluated.

SmartCEM services will be deployed on 10 vehicles of the fleet, which will be used by a selected group of users. The services will be installed on a 7" Android-based tablet which will be integrated onto the vehicle. Users will be able to take advantage of a navigation system specifically designed for EVs, with points of interest chosen to better suit this mode of transportation. Another service to be deployed is the Efficient Driving adviser which will advise the users on his/her driving style in order to achieve a more eco-friendly driving style and, consequently, a better battery autonomy. A car sharing and monitoring service will also be deployed and integrated with the already existing sharing system used by the municipality.

The Reggio Emilia pilot within the smartCEM project will provide the opportunity to evaluate the potential of light electric vehicles' integration in the car-sharing fleet of a public administration and its eventual improvement.

In Reggio Emilia, the municipality EV service counts about 30 vehicles - 10 of which will be used in the pilot - and about 20 users. Fourteen public charging stations are available, and more are under construction.



photo (left)
Reggio
Emilia's fleet of
electric vans

NEWS / EVENTS

The MOTIT web portal for electric scooter sharing goes live!



photo (above)

The MOTIT eScooter, at the center of the innovative vehicle sharing service launched in Barcelona pilot site

MOTIT is the smart and innovative electric scooter sharing service that will be piloted in Barcelona as part of the smartCEM project. One of the aspects that makes MOTIT really innovative compared to other vehicle sharing services is the fact that you can book, pick-up and drop electric scooters anywhere on the street (users are not tied to picking up and returning vehicles at fixed stations). MOTIT bikes come fully equipped with helmets and navigation to make the service even more flexible for users. RACC (www.racc.es) is leading the Barcelona pilot site, and that the other partners are Creafutur (<http://www.creafutur.com/en>),

Applus Idiada (<http://www.applusidiada.com/en/>) and the Barcelona Municipality (<http://www.bcn.cat/en/ihome.htm>).

See more at: www.motitworld.com

smartCEM at the European ITS Congress in Dublin

On 5th of June smartCEM organised a special session with various speakers from the electromobility cluster of pilot projects. The goal of this session was to demonstrate the potential for EVs in urban and interurban context. smartCEM presented its heterogeneous mobility services (EV-navigation, EV-efficient driving, EV-trip management, EV-charging station management, EV-vehicle sharing management and EV-Smartphone Application) and how they can be integrated to existing multimodal and electro mobility transport services.

In particular, the innovative open sharing scheme of eScooters (MOTIT) was presented by Barcelona smartCEM Pilot site. Representatives of additional pilot cities (Bristol, Paris) involved in CIP projects shared their experience in the context of Electro Mobility aiming at increasing the awareness of EV and encourage the use of electrical vehicles as part of everyday life. Speakers included: Fernando Zubillaga (MLC Cluster); Guido Di Pasquale (Pluservice); João Caetano (Inteli); Josep Laborda - (RACC); Marius Jennings (Bristol City) and Bruno Flinois – (MOPEASY). smartCEM was also presented at the European Commission stand of the congress exhibition area.



photo (far right)

special session on ICT for electromobility organised by smartCEM at the ITS European Congress in Dublin

smartCEM teams up with European projects



According to their commitment for liaison and synergies with other EC-funded projects in the area of electromobility, smartCEM project participated in the Concertation Workshop co-organised by the three projects on ITS for energy efficiency: eCoMove, ECOSTAND and Amitran. The meetings took place on the 15, 16 and 17 of April 2013. The goal of this initiative was to gain a better

understanding of the various “green” applications developed in these projects, their differences and commonalities, and to discuss about how to harmonize them as well as the methodology for their impact assessment. TECNALIA, as partner of the smartCEM Consortium, presented the approach regarding impact assessment as it is being conceived in smartCEM.

Earlier that month smartCEM had also participated in a FOT-NET seminar that took in Barcelona 4-5 April 2013. The event was dedicated to FESTA (the methodology for conducting field operational tests) and how to conduct impact analysis for CIP pilot projects such as smartCEM. This seminar was organised to provide an opportunity for those active in Field Operational Tests (FOT) and CIP pilot projects to share views and update each other on how they are handling the issue of impact analysis in their respective projects. Contributions to the identification of best practices were drawn at the end of the seminar. Project partner TECNALIA presented the smartCEM approach on this subject. smartCEM participated for two purposes: to increase its project dissemination efforts to fellow stakeholders, and as a part of the activities within the cooperative framework among the four ongoing CIP pilot projects: Molecules, ICT4EVEU, MOBIEurope and smartCEM.

All presentations and conclusions drawn from the seminar can be downloaded online: http://www.fot-net.eu/en/news__events/events/past_fot_events/fot-net_seminar_festa_and_impact_analysis_for_cip_pilot_projects.htm

photo (left)
smartCEM participates
in concertations with
other EU projects

smartCEM partners meet in Reggio Emilia

On 12th to 14th of June smartCEM partners met in Reggio Emilia. The meeting was hosted by the University of Modena and Reggio Emilia. The consortium was welcomed by Mr. Alessandro Meggiato, Mobility Department Manager for the Municipality of Reggio Emilia, who also stated his commitment towards the success of the project.

On top of planning for the work ahead, this was a great opportunity for all partners to know the new Reggio Emilia pilot site and see the fleet of electric vehicles already used by the Municipality. Part of this fleet will be equipped with the SmartCEM services. Partners could also ask questions to one of the users, back from his working day on board of an electric vehicle, and thus get first hand opinions on day-to-day electro-mobility experience.

Demos of the smartCEM ICT services and functionalities were presented to the consortium, including the smart phone application common to all pilot sites. The outlook is promising for the upcoming operational phase across smartCEM pilot sites!



photo (right)

SmartCEM partners meet
and demonstrate ICT
services for electromobility

smartCEM Team in Reggio Emilia

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