Smart Communities challenges: can you solve them?

Results of the ITEA customer workshop

Customer orientation and business impact are two key objectives in ITEA; ITEA projects focus on creating real business outcomes and from experience we know that R&D projects are more successful in this when they involve customers from the beginning. To facilitate this, ITEA organised its fourth international customer workshop on 20-21 June. This year, the Barco premises in Kortrijk was the venue for the workshop that included a smart set of selected international customers, key technology providers and innovative SMEs from Belgium, Canada, France, Germany, the Netherlands, Sweden and Turkey to discuss the challenges of Smart Communities. As Smart Communities can be very useful in many cases, there was a wide variety of customers, as you can see in the table on the next page.

On the first day, they presented their most urgent challenges to deploy Smart Communities functionalities. Afterwards, the large industrials presented some key innovation trends relevant to Smart Communities and the SMEs that

Customers	Technology providers	SMEs
Airbus Cybersecurity (FRA)	Airbus Cybersecurity (FRA)	Appnovation Technologies (CAN)
Axians (BEL)	Barco (BEL)	Bumbee Labs (SWE)
Koç University (TUR)	Turkcell Technology (TUR)	CityzenData (FRA)
Migros Retail (TUR)		Esri (CAN)
Port of Antwerp (BEL)		Immanens (FRA)
Toulouse Oncology Center (FRA)		Inovia (SWE)
Turkcell Academy (TUR)		Nurogames (GER)
S2E Technologies (CAN)		

attended the workshop were introduced by ITEA Vice-chairman Philippe Letellier. As Barco hosted the workshop, the participants had the unique opportunity to visit their amazing Experience Center at the beginning of the evening.

On the second day, two parallel sessions focused on the challenges highlighted by the customers. The aim of these parallel sessions was to deliver usable input to initiate new R&D projects targeting clear user and business added value. The topics discussed in-depth during the meeting were:

- Heterogeneous communities
  - Hospital patient journey and apparatus management case (see details below)
  - IoT & Industry monitoring with digital twin case
- Tracking and tracing
- Collaborative learning (see details below)
- Embedded learning
- Miscellaneous challenges

Two of the resulting challenges are outlined below:

Heterogeneous community: Hospital patient journey and apparatus management case
A hospital is a typical example of a heterogeneous community gathering together patients, specialists, doctors, local doctors, nurses and families. As the number of chronically ill patients that will be partly treated from home will increase, several challenges arise in managing this community and all the related interactions well.

Examples of challenges:
- Optimise the matrix of the workflows combining the workflows of the patients and the workflows of the key apparatus
- Breaking silos
- Common data to build a global vision (patient, apparatus usage)
- Optimisation tool on all the data
- Data lake of the history of the patient treatment and results to reuse the diagnosis and protocol

- What data, when, for what, personalised for each person, manageable in a time window
- Visualisation tools of the data to simplify the decision and avoid mistakes
- How to mobilise the customers on such a platform
- Dashboard to support decision
- Heterogeneous components must deliver elements for the dashboard on their risk of breakdown

Collaborative Learning
There are different high-pressure jobs that generate a high rate of job changes: in sales, call centres, cashiers, etc. People leaving a company is a problem, as knowledge is lost. Furthermore, it is important that people stay motivated to keep learning.

Example of challenges:
- Traditional learning will still remain, but more personalised short training is needed to adapt to the dynamic company environment
- Training is sometimes boring; people need to be motivated
- Business model for training is not always clear

More details about these challenges and the challenges of the other topics can be found in the detailed report accessible from the website: https://itea3.org/news/smart-communities-challenges-can-you-solve-them.html. You can also find some initial ideas of solutions to solve these challenges and ideas of ITEA R&D proposals including the interested partners. Feel free to contact the ITEA Office if you are interested in joining a proposal or if would like to contact one of the workshop participants. Once again, this international customer workshop demonstrated its added value to support the ITEA Community to be even more customer-oriented and to work on actual challenges coming from their future customers.

Join our next ITEA PO Days on 4-5 September in Stockholm and pick a challenge described in this document; you can be sure you will respond to the real demands of actual customers. We look forward to discovering new unique innovations!