Future Internet Assembly, Aalborg

Session 2.1 – Smart city applications and services

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Session summary

Dave Carter of Manchester Digital Development Agency introduced and chaired the session which explored the challenges facing various approaches to smart city applications and services, showcasing existing results and identifying recommendations for future developments. He emphasised the need for cities and RDI communities to cooperate on a practical level, and he stressed the cross-border dimension.

Esteve Almirall, Open Cities and Commons4EU project coordinator, issued the first challenge to the group, identifying the city “not as a service provider but as a platform or ecosystem manager” where third parties could provide services and ICT could, besides supporting more efficient processes, be used to do things differently. Business models, sustainability and the lack of instruments to support start-ups in the public context were identified as key issues for application providers. Marja Mattila, CitySDK project coordinator, highlighted the need for greater interoperability between interfaces and, echoing Mr Almirall’s position, the need for better tools to help developers create applications (e.g. software development kits or SDKs) in cities as platforms.

Gianluca Ripa of CEFRIEL developed on the smart city as an ecosystem point, describing it as an “ecosystem of people (in many different roles), human provided services (e.g. citizens as sensors), software services, things and contents, where no single person or organisation is in charge of the whole ecosystem”. Mr Ripa offered good examples of “data as a service” for the private sector, emphasising the need to deliver specific applications using different data sources. He also introduced trust – in all its forms – as key aspects of the development of smart city applications and services. Marco Pistore of FBK and the Trento RISE project, introduced the concept of a smart campus – a combination of a smart city and university – where apps are planned and delivered with students contributing their skills, enthusiasm and interest to the overall innovation ecosystem.

Presentations and positions from three FI-PPP use-case projects (Finest, SmartAgriFood and Instant-Mobility) added a new perspective to the discussion, examining current problems and challenges that cities face in dealing with specific but critical topics, such as food, logistics and mobility. On behalf of Andreas Metzger, the Finest project technical coordinator, Haluk Gokman singled out carbon emissions as one of many issues that move cities to develop more effective transport solutions and where ICT plays a key role. Mr Gokman also described the barriers that SMEs experience in entering the logistics value chains and stressed the need to
address this. **Sjaak Wolfert**, SmartAgriFood's project coordinator, presented current challenges and trends in cities related to food, describing the complexity of the value chains, and therefore the important role of process control and information exchange. According to Mr Wolfert, “integration is one of the main challenges” in the development and delivery of successful apps and services. **Patrick Gatellier**, Instant-Mobility project coordinator, underlined the view of the citizen as service provider (citizens as sensors), and as consumer and beneficiary of the apps and services delivered.

The session revealed some common challenges which need to be addressed at organisational, business, technical and human levels:

- From the organisational perspective, participants agreed that a city could be identified as a complex innovation ecosystem (not as a service provider per se), where complex value chains have to be managed and where sustainability and new business models required special focus.
- From the entrepreneurial perspective, in the smart city context, there is a lack of instruments to support start-ups and developers, and there are barriers preventing SMEs from entering complex value chains.
- From the technical perspective, integration (e.g. data sources) and interoperability were identified as key challenges.
- From the citizen/human perspective, there was common agreement on the important role of citizens in the smart city ecosystem; as provider, user/consumer, beneficiary and developer of smart city applications and services.

Different stakeholders in the smart city ecosystem seem to have reached a good level of knowledge and understanding of these challenges. Many interesting projects, taking part in different funding programmes (CIP, FP7, national and regional programmes), are experimenting with potential solutions. There is therefore urgent need to put all these projects and communities together to explore findings and propose best practices based on common experiences.

**Links and info**


Open Living Labs: http://www.openlivinglabs.eu/

Future Internet Public-Private Partnership: www.fi-ppp.eu