

Towards a Future Internet Public Private Partnership

Position paper

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What use case and scenario in your area would you consider the most appropriate and representative one for large-scale experimentation with the Future Internet platform to be built starting from 2013?

Amongst many usage areas which could benefit from FI-enabled public-private partnerships, the smart grid domain, the environmental issues, and the transport (mobility) and logistics issues are archetypal. In effect, these domains are typical application areas where large scale information system fed by a variety of data bases and sensor/actuator networks have to be deployed and exploited in a variety of business ecosystems operated by multiple public or private organisations. Beside the technology challenges, these FI application domains involve understanding complex individual and community behaviours, societal trends and understanding how usages could switch to new behaviours, and what the incentives are. In addition, deploying large scale energy, transport and environmental schemes involves arbitrating the roles of a variety of public entities, from local authorities to governments: understanding motivations and identifying cooperation means amongst these public stakeholders is essential along with their networking activities with private organisations. This is why use cases and scenarios in these domains, involving such a variety of actors networked, involved in an ecosystem of applications federated in large scale transport, energy and environmental schemes is a priority for us.

What innovative Internet functionality and technologies would you consider important for your suggested use case and scenario?

Aligned with the previous point, the key Future Internet features to be tested in large scale experimentation platform are interoperable and heterogeneous sensor and actuator networks exploited in an horizontal way by a multiplicity of context aware applications. Along with this challenge, the real-time and distributed processing capabilities able to manage huge amount of data is essential.

Which of the identified functionalities would you expect the Future Internet core technology platform to deliver to support your and other usage area scenarios?

Horizontal use and reuse of sensor and actuator capabilities (and processed data) by multiple end-user and M2M applications. From user, societal and business point of views, adding mechanisms for accounting, security, privacy and trust is also mandatory to enable an open and secure market space for context-awareness and IoT interactions.

What kind of experimentation environment would you consider necessary for broad large scale testing of the platform to be developed in your use area? What would be needed to experiment new services and applications cutting across use areas (services and application mash-up) and building a new services and application ecosystem around the prototype implementations of the platform?

Pan European interconnected “living labs” operated both by industrial stakeholders, technology research centres, public authorities and Human/Social/Economics research labs. So understanding the societal trends and usages, the rationales of business ecosystems and the public and private organisational logics could be done at large scale, optimised thanks to the future networks technology and the (networked) innovative applications.

How do you see the potential role of your organisation in the FI-PPP, in the context of Usage areas taking a prominent role in the Initiative, to ensure an appropriate application driven approach?

Umanlab is a multidisciplinary lab led by University Pierre Mendès-France featuring the expertises of researchers in sociology, psychology, political sciences, economy (business modelling/value networks), strategy, innovation management etc. Our lab is already leading the societal, user centric and business modelling research in several R&D project in the future networks domains (for instance UPMF-Umanlab leads the business and user centric research in the FP7 SENSEI project). Umanlab develops methods from the human, social and economy sciences in order to support the technology development and innovation, in particular for the IT and ICT domains. By doing so, we enable the technology developments to be driven by the society, user and business logics from the very early stages of the design processes. Our scenario-based methodological approach enable the diverse stakeholders of the innovation processes, including not only the technology drivers but the end-users as well, the public organisations and business stakeholders to be associated to the definition of the innovative concepts and the system developments.