Title of the workshop
Smart City Infrastructure

Format of the workshop
Panel discussion and live interaction with the participants in the session, including a hands-on demo.

Problem Statement and Objectives of the workshop
The session will bring together experts from projects working on smart cities infrastructures, or across domains using such infrastructures, as well as representatives from smart cities. The main idea is to answer the questions: “What are the infrastructures that are required to respond to smart cities’ requirements?” and “What are the projects under way to respond to these requirements?”. The session will be supported by a hands-on usage of the infrastructure repository from the FI-PPP INFINITY project, and will report on the FIRE hands-on demo.

Two aspects will be more specifically addressed within the session:

1. **Definition and deployment of ICT Infrastructures in Smart Cities** will focus on the definition of ICT infrastructures for smart cities, and the deployment of innovative infrastructure solutions, and addressing questions like “What is an infrastructure for a smart city?”, “How to deploy an infrastructure in a smart city”, and also “How to approach the market?”, and “How to make solutions sustainable and scalable?”. Outcomes from the work performed in ARTEMIS, and more specifically in the “Embedded Systems for Intelligent Buildings” (ES4IB) Centre of Innovation and Excellence, as well as outcomes from projects such as e-GOTHAM will be explored. Examples of Use Cases from the FI-PPP OUTSMART project will be presented, as well as from the SmartSantander FIRE project.

2. **Energy Efficiency for Smart Cities Infrastructures** will debate about how energy efficiency aspects have an impact on smart cities. The focus will be on mobile and fixed (optical) communications, and more broadly on other types of energy-related solutions and urban mobility. Outcomes from the EARTH project, and also from other network-oriented projects looking at energy efficiency from the standpoint of mobile communication (base stations and terminals), fixed communications, etc., will be presented, as well as aspects of energy efficiency in smart cities and in buildings, with outcomes from the FINSENY FI-PPP project. “Mobility in Smart Cities” in a broader sense will also be addressed and involve representatives from the OUTSMART FI-PPP project.

The trust and security issues are important to smart cities infrastructures. Although there is no specific panel on this topic, this will be addressed from different perspectives (network, IoT, etc.), with outcomes from projects such as SysSec and others; the FI-PPP FI-WARE project will briefly explain what they are doing in terms of trust and security, e.g., regarding the requirements expressed by SafeCity, which is looking at safety and security for Smart Cities. This will happen through exchanges between the panel and the audience, where the above-mentioned projects will be represented. A dedicated panel on privacy, security and trust is planned in another session entitled “Internet of Things (IoT) and Future Internet (FI) Architecture”.

In addition, examples of Smart Cities ICT Infrastructures will be shown via a hands-on usage of the FI-PPP Infinity project “web repository”. This web repository of ICT infrastructures, which is planned to become publicly available in April 2012, will include in its 1st release information about several tens
of infrastructures all around Europe at European, national and local level. A number of smart cities representatives were asked to respond to the survey in February-March 2012, showing what smart cities infrastructures are or will be available for experimentation. Once the repository is available, smart cities representatives, as well as any other Future Internet experimenter, will have the opportunity to find existing and emerging ICT infrastructures that can respond to their requirements; this will be demonstrated with a focus on the areas discussed during the session.

A report on the FIRE exhibition area and hands-on demo, which are also held at FIA Aalborg, will also be given, highlighting the potential role of the FIRE facilities in Smart Cities.

Speakers will be requested to tell the audience about lessons learnt from concrete current and past experience / experiments. All panel discussions as well as the demo will involve and be commented by smart cities representatives and FI-PPP usage areas project representatives as well as by the audience.

Session organisers:
Jacques Magen (InterInnov)
Jim Clarke (WIT/TSSG)
Luis M. Correia (IST-TU Lisbon)
Rafael Socorro (Acciona)
Steering Committee contact: Nancy Alonistioti, nancy@di.uoa.gr

Target audience:
Smart cities representatives, industry, SMEs, research organizations, public and private investors, infrastructure owners and operators

Build on previous FIA sessions:
In FIA Budapest, as well as in FIA Poznan, several sessions and meetings were held to discuss the experimental facilities available for Future Internet trials, in particular in the context of the Future Internet Research and Experimentation initiative, FIRE. Sessions on test beds, living labs and trust and security were also organized. With the advent of the FI-PPP including a number of projects looking at answering some of the requirements of smart cities, more short term needs are now being addressed in addition to medium to long term research experiments. The objective of this session is to take advantage of these new projects and confront them with the actual requirements of smart cities, for the benefit of the audience from different angles: researchers will find new areas for their projects; industry and SMEs will find new business opportunities; infrastructure owners and operators will find new users and strategic directions for their development; public authorities and private investors will find where to invest into smart cities infrastructures in the near future.
## Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Organizer</th>
<th>Participants</th>
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<tbody>
<tr>
<td>5 min</td>
<td>Presentation of the agenda and session objectives</td>
<td>Jim Clarke, WIT/TSSG</td>
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</tbody>
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| 55 min| **Opening panel:** What is an infrastructure for a smart city? How to deploy an infrastructure in a smart city?  
  - Topics to be addressed detailed above (examples, deployment, security, demo)  
  - Format: opening and short presentations (30 minutes) and questions/discussions with the audience (15 minutes).  
  - Demo: how to access and navigate the INFINITY web repository (10 minutes) | Moderator: Rafael Soccoro, Acciona  
Panellists (4):  
- Mirko Presser, Head of Smart City Lab, Alexandra, Denmark (OUTSMART)  
- Jonas Kroustrup (Smart Aarhus secretariat, Region Midt)  
- Santiago Benito (ARTEMIS e-GOTHAM project)  
- Jose Manuel Hernandez Munoz, Telefonica (SmartSantander)  
+ Elio Salvadori, Create-Net (INFINITY) for the demo |
| 45 min| **Panel: Energy efficiency for Smart Cities Infrastructures**  
  - Topics to be addressed detailed above (energy efficiency, security).  
  - Format: opening and short presentations (30 minutes) and questions/discussions with the audience (15 minutes). | Moderator: Luis Correia, IST-TU Lisbon  
Panellists (4):  
- Keld Nygaard, Aarhus Vand (utility provider)  
- Dietrich Zeller, Alcatel-Lucent, Germany (EARTH)  
- Klaus Moessner, U. Surrey (OUTSMART)  
- Werner Mohr, NSN (FINSENY) |
| 15 min| **Closing session**  
  - Demo: how to search energy and security aspects in infrastructures via the INFINITY web repository (10 minutes)  
  - Conclusions of the session, report from the FIRE hands-on demo, and announcement of the TridentCom workshop (5 minutes) | Jacques Magen, InterInnov  
+ Manuel Monteiro (EC FIRE Unit) |

### Call for participation:
Closed.

### References:
- INFINITY: [www.fi-infinity.eu](http://www.fi-infinity.eu)
- EARTH: [www.ict-earth.eu](http://www.ict-earth.eu)
- EDIANA: [www.artemis-edian.eu](http://www.artemis-edian.eu)
- SysSec: [http://www.syssec-project.eu/](http://www.syssec-project.eu/)
- FI-WARE: [www.fi-ware.eu](http://www.fi-ware.eu)
- SafeCity: [www.safeCity-project.eu](http://www.safeCity-project.eu)
- OutSmart: [www.fi-ppp-outsmart.eu](http://www.fi-ppp-outsmart.eu)
- FINSENY: [www.fi-ppp-finseny.eu](http://www.fi-ppp-finseny.eu)
- FIRE: [www.ict-fire.eu](http://www.ict-fire.eu)
- TridentCom: [www.tridentcom.org](http://www.tridentcom.org)
- ARTEMIS: [www.artemis-ju.eu](http://www.artemis-ju.eu)
- FI-PPP: [www.fi-ppp.eu](http://www.fi-ppp.eu)

### Past related FIA sessions:

Smart Cities and FIRE: Experimentation and Living Labs for the Future Internet (Budapest): [http://www.future-internet.eu/?id=266](http://www.future-internet.eu/?id=266)


FIRE Research Workshop (Budapest): [http://www.ict-fire.eu/events/fire-research-workshop.html](http://www.ict-fire.eu/events/fire-research-workshop.html)