

## Frequently Asked Questions (FAQ) for the FIRE projects having demonstration stand at FIA/Ghent 15.-17.12.2010

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### 1. Background

This FAQ (Frequently Asked Questions) document is mainly addressed to FIRE (Future Internet Research and Experimentation) projects having an exhibition/demonstration stand at the FIA/Ghent event. It also can be used to provide background information for the whole FIRE community.

Questions are collected based on experience from previous events. Let's continue to collect further questions raised at this event, add them to the list and prepare answers , with the aim of being able to serve better existing and new FIRE community members in the future.

At your service,

FIRESTATION team

## 2. General FIRE

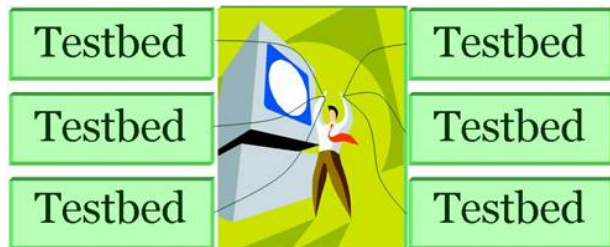
### What is FIRE?

The Future Internet Research and Experimentation - FIRE - Initiative is addressing the need to experiment with realistic networks, creating a multidisciplinary environment for investigating and experimentally validating highly innovative and revolutionary ideas for new networking and service paradigms. FIRE offers a discipline, a platform and tools for trying out innovative ideas for the Future Internet. FIRE promotes the concept of experimentally-driven research, combining visionary academic research with the wide-scale testing and experimentation that is required for industry. FIRE helps to create a dynamic, sustainable, large-scale European Experimental Facility, which is constructed by gradually connecting and federating existing and upcoming testbeds for Future Internet technologies.

FIRE has two interrelated dimensions:

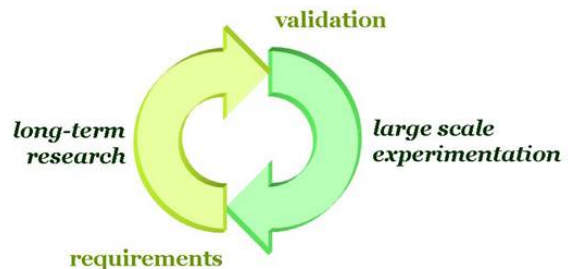
#### FIRE Facility:

Building the FIRE experimental facility to support research for the Future Internet, at different stages of the R&D cycle, based on the design principle of "open coordinated federation of testbeds".



#### FIRE experimentally-driven research:

Visionary multidisciplinary research, defining the challenges for and taking advantage of the FIRE Experimental Facility, consisting of iterative cycles of research, design and large-scale experimentation of new and innovative network and service architectures and paradigms for the Future Internet from an overall system perspective.



### When are the FIRE test facilities available?

The FIRE Facility projects are building a variety of prototypes with different characteristics. The first testbeds are available now; all facilities are subject to development in a demand-driven way. The services and tools remain available beyond the lifetime of the respective projects.

**The FIRE Facility is real – Let's use it!**

**Where I can get more information?**

The FIRE Office is the right place: [contact@ict-fire.eu](mailto:contact@ict-fire.eu)



Contact FIRE-Office

**What is the picture above?**

It is a Mobile code including link to “Email to [contact@ict-fire.eu](mailto:contact@ict-fire.eu)”. Mobile codes are codes in the same way as ordinary barcodes are, but their matrix structure can hold more information. The codes are also mobile in the sense that you can use the camera on your mobile device to scan and decode them, e.g. picture above opens Email application in the smart-phone having [contact@ict-fire.eu](mailto:contact@ict-fire.eu) already on To: -field.

We also have used mobile codes in the new FIRE brochure to “link” paper made brochure to mobile internet.

**What sort of FIRE facilities is available?**

FIRE STATION maintains a database of facilities (see: <http://www.ict-fire.eu/home/fire-projects.html>). On the FIRE portal web (previous link) move the mouse pointer over the project you would like to get more information (short project description pops-up), click the mouse and you will get to the project’s homepage.



### How can I use the existing facilities?

You may contact the facility owner directly if you have identified a proper facility to match your requirements (see: <http://www.ict-fire.eu/home/fire-projects.html>), or else FIRE STATION will help you to find the most appropriate facility(ies), and to bring any requests for adaptations to the attention of the facility owner(s). Please send your request to “contact@ict-fire.eu”.

### 3. Exhibition

#### Are there FIRE projects having demonstrations?

Yes, the following FIRE projects are here:

#### Demos:

- Onelab - R4
- Crew - O4
- Ecode - O1, O3
- Self-NET - R3

#### Coordination and Support Action projects (CSA):

- FIRESTATION info kiosk - P5
- Fireball - C2



#### What does OneLab project demonstrate at FIA exhibition?

A demonstration of the OneLab offer, including the presentation of the facility’s three main testbeds: PlanetLab Europe, the NITOS wireless testbed and the ETOMIC measurement infrastructure. The demonstration will also include an introduction to the new monitoring tool portal supported by OneLab, T-Rex

#### What is the Crew project?

The main target of FP7-CREW ([www.crew-project.eu](http://www.crew-project.eu)) is to establish an open federated test platform, which facilitates experimentally-driven research on cognitive radio, cognitive networking, and advanced spectrum sensing. During the demonstration, two parts of the CREW federation are shown: the IBBT heterogeneous ISM testbed for Wi-Fi and wireless sensor experiments, and the imec advanced spectrum sensing solution.

The ISM testbed is demonstrated through an example basic interference avoidance protocol for Zigbee networks: it is shown how an experiment is configured and executed and how results are collected and visualized in real-time and/or after the experiment. The real-time testbed monitoring interface will show how ZigBee based sensor nodes dynamically select a new communication channel as soon as a Wi-Fi interferer is activated. Furthermore, the spectrum sensing hardware shows a real-time view of the frequency use in the exhibition hall. The integration of advanced spectrum sensing solutions, cognitive components and heterogeneous testbeds within the CREW projects results in a flexible and powerful experimentation environment for researchers in the field cognitive radio, cognitive networking, and spectrum sensing.

### **What is the Ecode project?**

As part of the Future Internet Research and Experimentation (FIRE) initiative, the ECODE FP7 (Experimental COgnitive Distributed Engine) project designs and experiments machine learning-based control functionality. For this purpose, the project has designed, developed, and has experimented a distributed machine learning component that augments the capability and functionality of the routing and the forwarding engine of current routers. To evaluate the executability and the performance of the developed machine learning based control functionality, several experiments have been conducted at the iLab.t facility, located at IBBT.

### **What is the Self-NET project?**

Future Internet network management systems are expected to incorporate self-x capabilities in order to tackle the increased management needs that cannot be addressed through human intervention. Towards this end, Self-NET developed a self-management framework based on the introduction of cognitive capabilities in network elements. In this presentation, the experimentation platform for “Coverage and Capacity Optimization of Self-managed Future Internet Wireless Network”, incorporating the self-management framework of Self-NET, is presented.

### **What is the Panlab (PII) project?**

PII addresses the need for large-scale testing facilities in the communications area by implementing an infrastructure for federating testbeds. The PII project uses the concept of European innovation clusters and builds on the existing testbeds that are supporting scientific and technological endeavour within these clusters. The central objective of PII is to create a testbed federation among these regional innovation clusters in Europe. This will enable companies participating in these clusters to test new communication services and applications across Europe. The testbed federation includes four core innovation clusters and three satellite clusters.

### **What is the FIRESTATION project?**

The FIRESTATION support action project provides the FIRE (Future Internet Research and Experimentation) Initiative with an active hub that matches, guides and co-ordinates demand for - and offering of - experimentation facilities in the context of future networks and services.

The purpose of FIRESTATION is to join forces to allow for the most efficient bilateral (and multilateral when and if appropriate) collaboration, reduce duplication of work, share experiences and best practices and work for the future of experimental research.

FIRESTATION contains a FIRE Office and a FIRE Architecture Board.

The FIRE Office serves as the single contact point and the mediator when looking for either the right experimental resources or new customers for the facilities.

The FIRE Architecture Board involves all FIRE facility builders to jointly decide on the strategy and means to co-ordinate and facilitate the development of FIRE Facility offerings to support the evolving needs of the customers.

FIRESTATION increases the global collaboration between relevant stakeholders, promotes an experimentally-driven approach in Future Internet research and intensifies the usage of experimental facilities, ultimately speeding up the development process of new systems and services.

### **What is the Fireball project?**

FIREBALL establishes a coordination mechanism through which a network of Smart Cities across Europe engages in long term collaboration for adopting User Driven Open Innovation to explore the opportunities of the Future Internet. The coordination process will be grounded in exchange, dialogue and learning between Smart Cities, who are considered as key demand-side drivers of Future Internet innovation. It also will be grounded in bringing together the Future Internet, Living Labs and Smart Cities constituencies. Now that Future Internet driven network infrastructures and applications are in the pipeline, and which potentially might bring economic and social benefits not only to research communities but also to Cities, it becomes all the more urgent to strengthen the role of Cities to elicit their future needs and requirements from the perspective of user driven open innovation. Identifying these needs and requirements elicitation also informs ongoing research, experimentation and deployment activities related to Future Internet and testbeds, and helps to establish a dialogue between the different communities to help form partnerships, and to assess social and economic benefits and discovery of migration paths at early stages.

## 4. Open Calls

### What is an “Open Call”?

The IP projects from Call 5 have each reserved a budget of approximately €1M for funding experiments on their testbeds. Each use case may request up to €200K. The proposals for the experiments will be submitted through the process of so-called “Open Calls”. These will be evaluated in a similar way to the regular EC Calls.

### How do I respond to an Open Call?

Prior to each Open Call, there will be an “Information Day”, co-ordinated by FIRESTATION. At these events, the IP projects will present their facilities in detail and identify the types of experiments which they believe could be interesting to perform. There will be an opportunity to ask questions and for prospective proposers to present their ideas and receive feedback.

The 1<sup>st</sup> Open Call Information Day is planned on 9 February in Brussels (date and location TBC) and will involve the BonFIRE, OFELIA and TEFIS FIRE facilities. An overview of later open calls from CREW and SmartSantander will also be presented.

The Open Calls will be published on the FIRE STATION Website at: [www.ict-fire.eu](http://www.ict-fire.eu).

## 5. Other initiatives

### What is FIA?

The European Future Internet Assembly also known as FIA, is a collaboration between projects that have recognised the need to strengthen European activities on the Future Internet to maintain European competitiveness in the global marketplace.

Currently FIA brings together around 150 research projects that are part of Challenge 1 of the ICT programme of FP7. More information at [http://www.future-internet.eu/fileadmin/documents/misc/What\\_is\\_FIA.pdf](http://www.future-internet.eu/fileadmin/documents/misc/What_is_FIA.pdf)

### What is FI PPP?

The Future Internet Public-Private Partnership (FI PPP) is a 300 M€ initiative supporting FP7 research projects embedded in the ICT Work Programme 2011-2012. The aim is to set up an Internet infrastructure which can be efficiently used by several large-scale trial projects from application sectors such as transport, health and energy. More information at:

[http://ec.europa.eu/information\\_society/activities/foi/lead/fippp/index\\_en.htm](http://ec.europa.eu/information_society/activities/foi/lead/fippp/index_en.htm)

### What is EFIA?

The European Future Internet Alliance (merged EFII and FIRA) intends to establish one unique platform that provides a single point of access for all stakeholders in the European Future Internet domain. This includes industry (ICT and sectors), academia, SMEs, European Commission representatives, National Research authorities and other national and transnational technology "bodies". More information at <http://www.future-internet.eu/news/view/article/efii-fira-evolution.html> and <http://initiative.future-internet.eu/>

More about other initiatives at the **FIRE portal**: <http://www.ict-fire.eu/home/fire-related-initiatives.html>

## 6. Acronyms

FIRE - Future Internet Research and Experimentation

FIA - Future Internet Assembly

FISA - Future Internet Support Action

FP7 – Framework Programme 7

IP – Integrated Project

STREP – Small- or medium- scale focused research project

CIP = Competitiveness and Innovation Framework Programme