

2011

# Future Internet Research and Experimentation (FIRE) Objective ICT-2011.1.6

## CALL 8

European Commission  
Information Society and Media



### FIRE Initiative

The Future Internet Research and Experimentation - FIRE - Initiative is creating multidisciplinary research environment for investigating and experimentally validating innovative and revolutionary ideas for new networking and service paradigms. FIRE is promoting the concept of experimentally-driven research, combining visionary academic research with the wide-scale testing that is required for industry. FIRE works 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.

During the years 2008-2010 two waves of FIRE projects established the first prototypes of FIRE facility and used it for the visionary research on Future Internet. The ICT Work Programme 2011-2012 has foreseen the prolongation and extension of the FIRE activities.

### CALL 8 AT A GLANCE

#### FIRE Federation:

Implementing a demand-driven high level federation framework for all FIRE prototype facilities making the facility self-sustainable towards 2015 (one IP will be accepted).

#### FIRE Experimentation:

Experimentally-driven research in the broad field of the Future Internet using one or more of the existing FIRE facility prototypes (STREPs).

#### Coordination and Support Actions (CSA):

EU-wide co-operation with related EU-level and Member States and associated countries activities such as the Public Private Partnership on the Future Internet, or national experimentation facilities, etc.

#### Indicative budget:

**IP/STREP:** EUR 23 million of which EUR 8 million for IP and EUR 15 million for STREP  
**CSA:** EUR 2 million

### FIRE Federation

Implementing a demand-driven high level federation framework for all FIRE prototype facilities and beyond making the facility self-sustainable towards 2015 based on credible business models assuming a significant decrease of EU funding; including the development of a joint FIRE portal, operated until the end of 2015 and a set of common tools addressing issues such as brokering, user access management, one-stop shopping, measurement and performance analysis. Provisions shall be made for openness towards additional testbeds and facilities, for building as far as possible on proven existing federation models, for the use of open standards, for standardisation and certification policies, for using existing research infrastructures such as GÉANT and the NRENs, and for cooperation with EU national and international initiatives on experimental facilities.

## **FIRE Experimentation**

Experimentally-driven research in the broad field of the Future Internet using one or more of the existing FIRE facility prototypes. Projects should be challenging both in terms of visionary R&D to be undertaken, e.g. on holistic network and service architectures, on applications with high social value, on low energy and cost solutions, etc.; and in terms of innovative usage of the facility, e.g. large scale & diversity of experiments, broad and systematic involvement of large groups of end-users, complex system-level testing, assessment of socio, economic, or environmental impact, and methodology and tools used for measurements and benchmarking. Proposers must demonstrate a clear commitment of the FIRE facilities they intend to use. Where appropriate, participation from international cooperation countries at use level is encouraged.

## **Coordination and Support Actions (CSA)**

EU-wide co-operation with related EU-level and Member States and associated countries activities such as the Public Private Partnership on the Future Internet, or national experimentation facilities; international co-operation with initiatives in industrial countries and emerging economies; co-operation on standardization in order to exploit synergies; socio-economic requirements gathering, impact analysis, and awareness creation.

## **Expected impact:**

- Research projects saving costs on experimentation activities, while at the same time being able to do more diverse and larger scale testing with broad end-user involvement and closer to reality, leading to a better and faster exploitation of research results in infrastructures, products and services.
- Improved European competitiveness in Future Internet research by providing European researchers, in industry and academia, with a unique operational, sustainable, dynamic, and integrated large scale Experimental Facility.
- Broad and innovative use of the Experimental Facility by a significant number of Future Internet research projects in European and national programmes and beyond.
- Better understanding by European industry and academia of the complex nature of the Internet as a system of systems, and enabling them to take this knowledge into account when considering changes, when providing services, and when seeking to take advantage of new market opportunities, including at international level.
- Strategic capability to assess a priori the evolution of Internet networks, services and applications in terms of broad implications at societal, economic and environmental levels, taking into account aspects such as sustainability, privacy, openness, neutrality, and market evolution.

## **Indicative budget distribution:**

IP/STREP: EUR 23 million of which EUR 8 million for IP and EUR 15 million for STREP

CSA: EUR 2 million

### **For further information:**

ICT WORK PROGRAMME 2011:

[http://cordis.europa.eu/fp7/ict/fire/docs/c-wp-201101\\_en.pdf](http://cordis.europa.eu/fp7/ict/fire/docs/c-wp-201101_en.pdf)

Objective 1.6 on ICT proposer's day website:

[http://ec.europa.eu/information\\_society/events/cf/bud11/item-display.cfm?id=5429](http://ec.europa.eu/information_society/events/cf/bud11/item-display.cfm?id=5429)

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

FIRE: [http://cordis.europa.eu/fp7/ict/fire/home\\_en.html](http://cordis.europa.eu/fp7/ict/fire/home_en.html)

FIRE support actions:

Firestation: <http://ict-fire.eu/>

Myfire: <http://www.my-fire.eu/>

Fireball: <http://www.fireball4smartcities.eu/>

Living Labs: [http://ec.europa.eu/information\\_society/activities/livinglabs/index\\_en.htm](http://ec.europa.eu/information_society/activities/livinglabs/index_en.htm)

IPv6 Policy: [http://ec.europa.eu/information\\_society/policy/ipv6/index\\_en.htm](http://ec.europa.eu/information_society/policy/ipv6/index_en.htm)