

Future Internet Research and Experimentation – FIRE

CALL 8, Objective 1.6 (b) (c) (e)

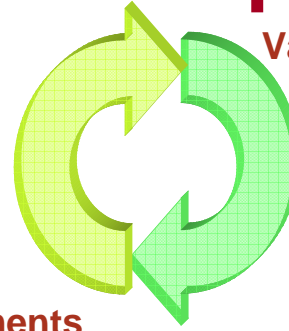
DG INFSO F4 Unit - New Infrastructure Paradigms and Experimental Facilities

FIRE:

Future Internet Research and Experimentation

FIRE Research

Long-term
Research



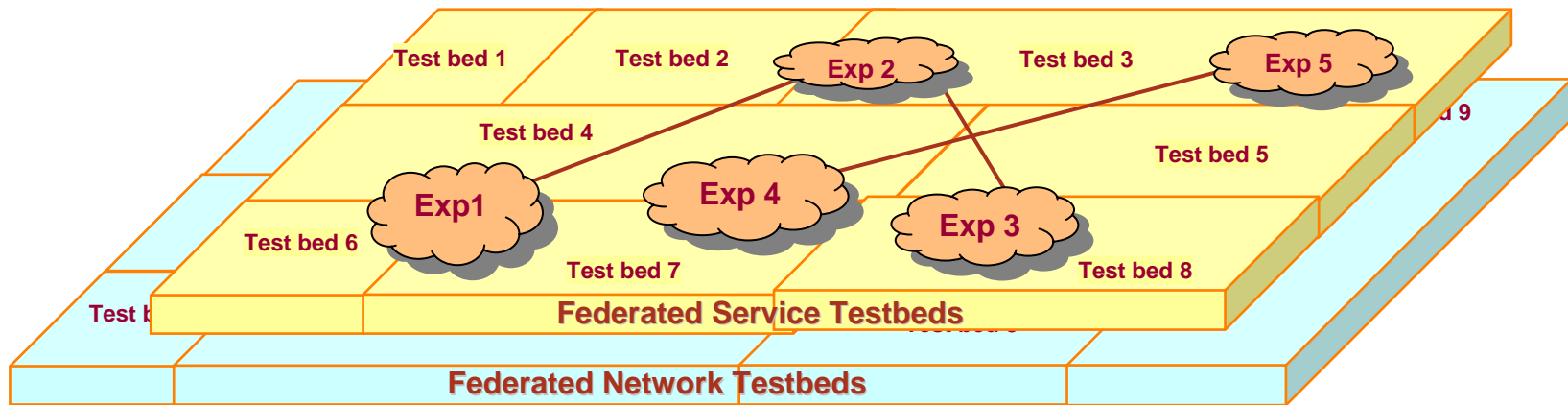
Validation

Large Scale
Experiments

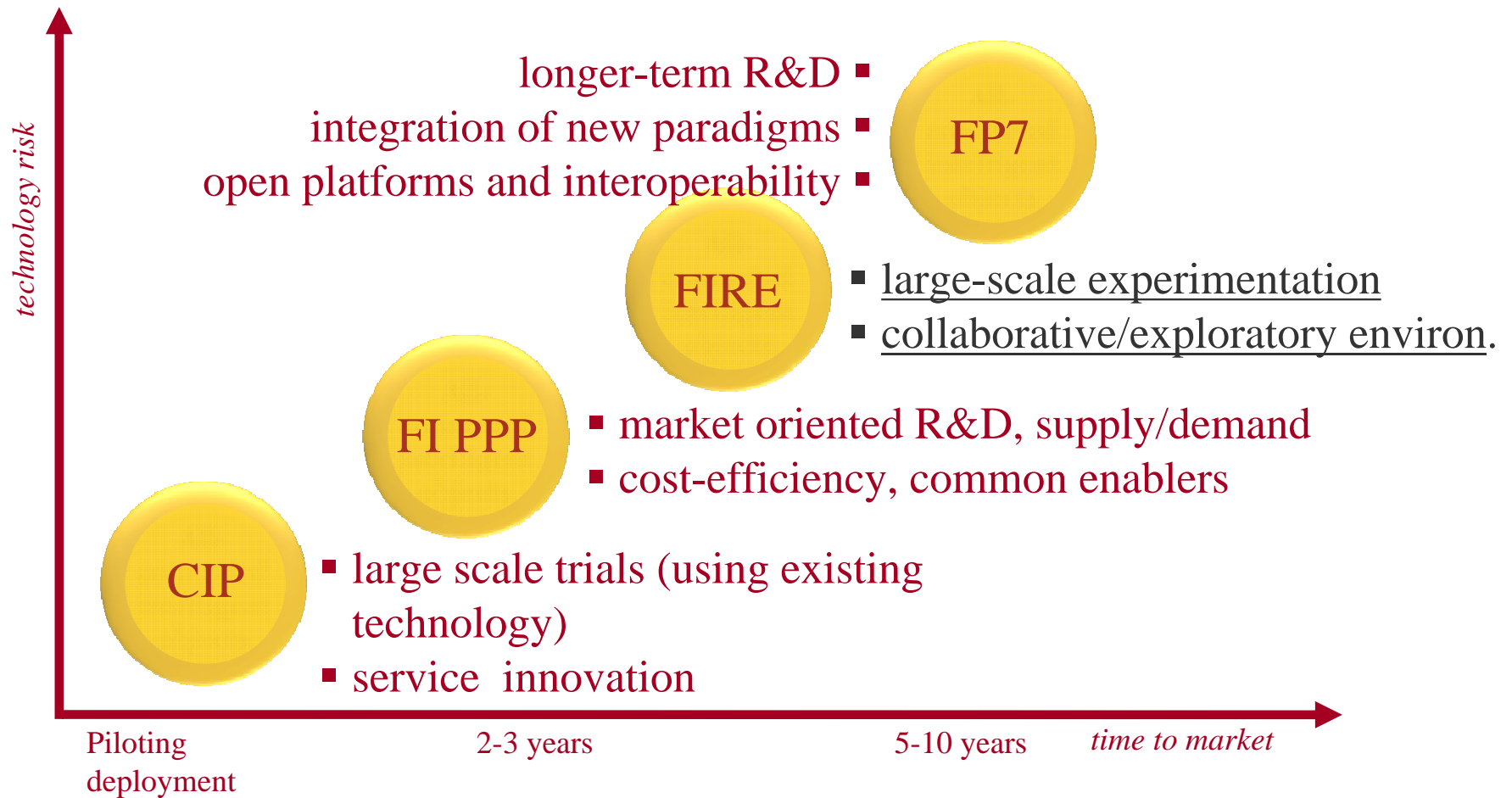
Requirements

FIRE Experimental Facility

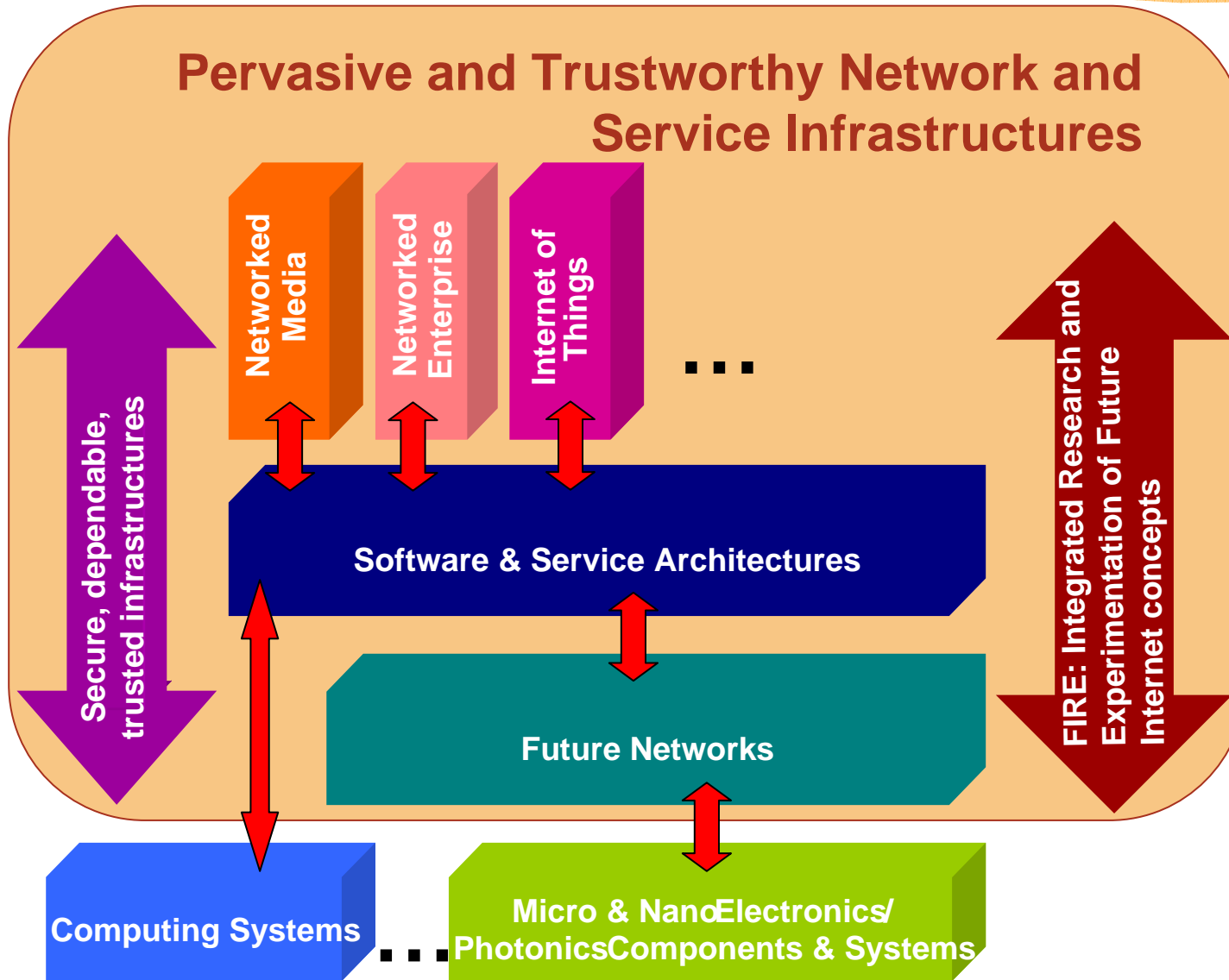
User Communities



Future Internet: Comprehensive EU approach



The position of FIRE in "Challenge 1"



FIRE projects (October 2011)

Coordination and Support Actions

FIREBALL

MyFire

FIREstation

Internet & Society

Internet Science
NoE (EINS)

PARADISO 2

Building the Experimental Facility and stimulating its use

EXPERIMEDIA

OPENLAB

CONFINE

BonFIRE enlarged

Smart Santander

CREW enlarged

BonFIRE

TEFIS

OFELIA

CREW

Users

Users

Experimentally-driven Research

CONECT

EULER

SCAMPI

CONVERGENCE

BONFIRE

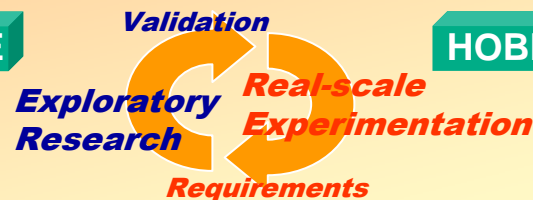
SPITFIRE

HOBNET

NOVI

RESUMENET

ECODE



Facility Projects Call 7 (IPs)


Research projects Call 5 (STREPs)

Network of Excellence, Call 7

Facility Projects Call 5 (IPs)

Research projects Call 2 (STREPs)

Coordination & support actions Call 5



Facility projects and Open Calls

5 IP projects have a ready large scale facility infrastructure that can be used:

- ☛ **BONFIRE – research in the Cloud**
 - ☛ **CREW – radio spectrum and measurements of wireless**
 - ☛ **OFELIA – networking in Open Flow**
 - ☛ **Smart Santander – Internet of Things – 20 000 nodes in one city**
 - ☛ **TEFIS – research in services**
- 

How to use the facility - Open Calls

Facility projects will launch Open Calls for experiments:

Who can participate:

- Research institutes, universities, SMEs, industry

What are the rules:

- Similar evaluation as in EC calls

What is the budget:

- Around 5M € - max 200K€ per experiment

How to participate:

- Submit the proposal
- If successful you will join the consortium with the rights like a normal partner

What are the IPR rules:

- In each case negotiate it with facility provider
 - Your IP can be protected
-

Where to find more information:

- **official FIRE website on Cordis:**
<http://cordis.europa.eu/fp7/ict/fire/>
- FIREstation web page <http://ict-fire.eu/>
- BONFIRE: <http://www.bonfire-project.eu>
- CREW: <http://www.crew-project.eu/>
- OFELIA: <http://www.fp7-ofelia.eu/>
- Smart Santander: www.smartsantander.eu
- TEFIS: <http://www.tefisproject.eu>

See also:

<http://www.ict-fire.eu/events/meetings/1st-fire-open-calls-information-day.html>

FIRE plans under Work Programme 2011/12 (I)

Call 8 (1.6-b): FIRE Federation

- Implement an demand-driven high level federation framework for all FIRE prototype facilities and beyond
- Making the facility self-sustainable towards 2015
 - Develop credible business models assuming decrease of EU funding
 - Develop joint FIRE portal
- Set common tools for:
 - Brokering
 - User access management
 - One-stop shopping
 - Measurement and performance analysis
- Openness
 - Use of open standards and open source approaches
 - To additional testbeds and facilities
 - Standardization and certification policies
 - Use existing research infrastructures (GEANT, NREN)
 - Cooperation with EU national and international initiatives

1 IP, Indicative Budget 8M€

FIRE plans under Work Programme 2011/12 (II)

Additional clarifications on expected roles of the Federation IP(1.6-b FIRE Federation):

- **Coordinating** the different IPs, developing a sustainable framework for Federation
- **Mapping** the different research activities done by related STREPs, in FIRE and elsewhere
- Mapping the experiments running on the different IPs (funded through the open calls)
- **Comparing** it with other activities done in FIA, PPP and other international activities
- Organising **conferences and workshops** (max 2/year) to compare and exchange good practices and to give visibility to most innovative activities
- Leveraging **synergies** between projects to create a sustainable experimental infrastructure
- Implementing **innovative manners to open the federation** to new areas and additional testbeds, usages and approaches, e.g. by **launching and funding open calls** drawing on its budget, organising contests, etc.

FIRE plans under Work Programme 2011/12 (III)

Call 8 (1.6-c): FIRE Experimentation

- Experimentally-driven visionary research on Future Internet
 - Using one or more existing FIRE facility prototypes (need clear commitment)
 - International Cooperation countries at use level is encouraged
- Visionary R&D subjects, e.g.
 - Holistic network and service architectures
 - Applications with high social value
 - Low energy and low cost solutions
- Innovative usage of the FIRE facility(-ies), e.g.
 - Large scale and diversity of experiments
 - Systematic involvement of large group of end-users
 - Complex system-level testing
 - Assessment of societal, economic, or environmental impacts
 - Methodologies and tools for measurements and benchmarking

STREPs, Indicative budget: 15 M€

FIRE plans under Work Programme 2011/12 (III)

Call 8 (1.6-e): FIRE Coordination and Support Action

- **EU-wide cooperation with related activities in Member States and Associated countries**
 - Such as the Public Private Partnership on Future Internet, or national experimentation facilities
- **International cooperation with initiatives in industrial countries / emerging economies**
- **Cooperation on Standardization**
- **Identification of socio-economic requirements, analysing impacts, and creating awareness**

CSAs, Indicative total budget 2M€

FIRE plans under Work Programme 2011/12 (IV)

Call 8 – FIRE Expected Impact

- Saving costs on experimentation activities
 - More diverse and larger scale testing
 - Broad end-user involvement / closer to reality
 - Exploitation of results (infrastructures, products, services)
- Improve EU Competitiveness in Future Internet
 - Integrated large scale Experimental Facility
- Broad and innovative use of Experimental Facility
 - By FI projects from EU, National and Intern. Programmes
- Better understanding of Internet complexity
 - To be better prepared for changes at service level
 - To take advantage of new market opportunities
- Strategic capability to assess Internet evolution
 - As for broad socio-economic-environmental implications
 - Considering Sustainability, Privacy, Openness, Neutrality

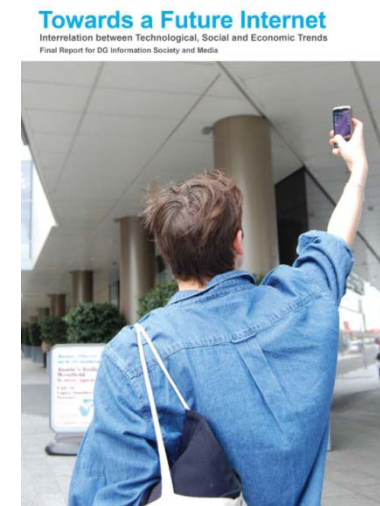
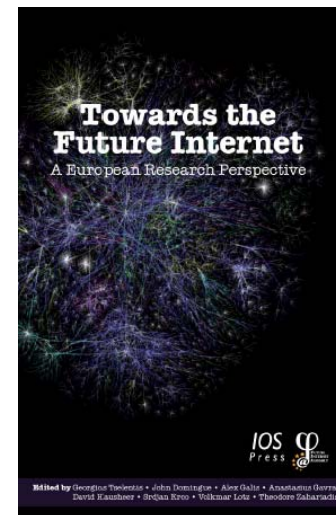
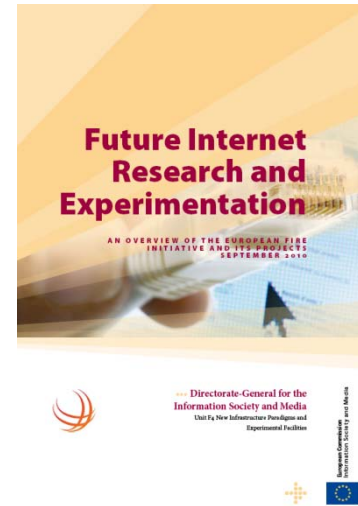
Further information

Websites:

- <http://cordis.europa.eu/fp7/ict/fire>
- <http://www.ict-fire.eu>

Publications:

- http://cordis.europa.eu/fp7/ict/fire/docs/fire-brochure-2010_en.pdf
- <http://www.booksonline.iospress.nl/Content/View.aspx?piid=16465>
- <http://www.internetfutures.eu/wp-content/uploads/2010/11/TAFI-Final-Report.pdf>
- <http://www.ict-fire.eu/home/publications.html>



FIRE:

Future Internet Research and Experimentation

Thank you for your attention



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