



Future Internet Experimental Facility and Experimentally-driven Research

ICT Work Programme 2009/10
Objective 1.6

Summary
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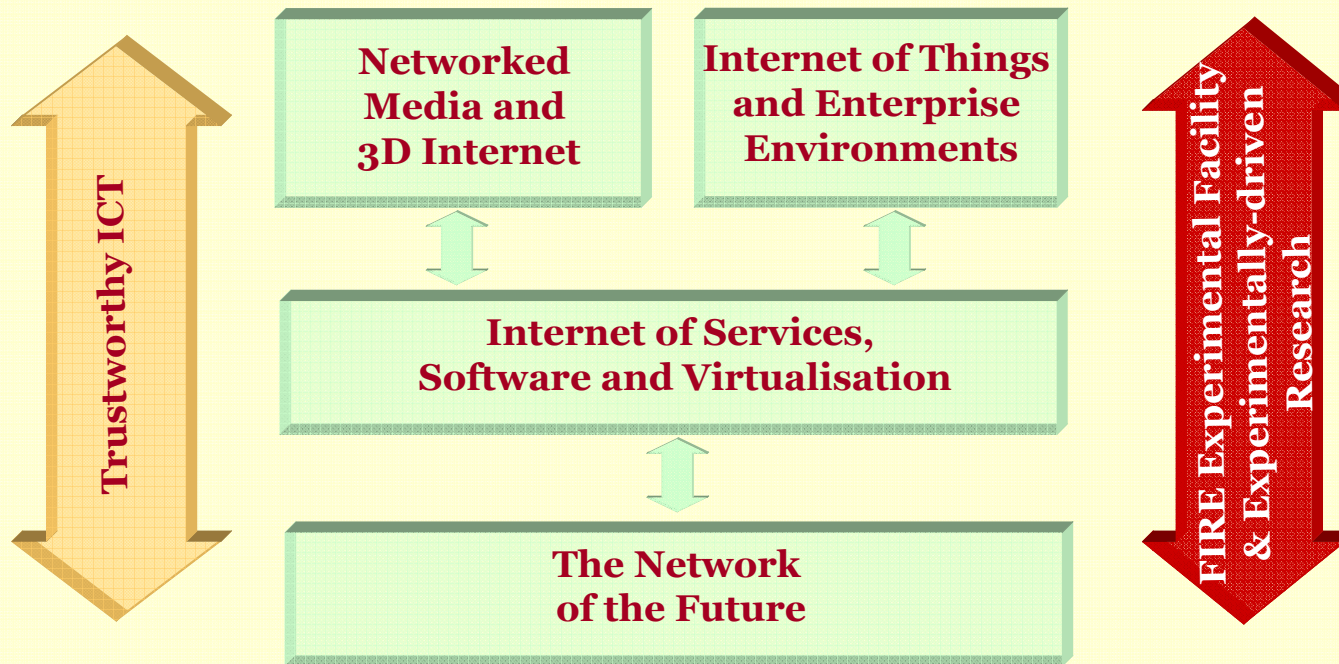
European Commission
Information Society and Media



ICT Challenge 1

Pervasive and Trustworthy Network and Services Infrastructures

THE FUTURE INTERNET



**Planned EU contribution under the federating theme
“Future Internet” in 2009/2010: > 567 M€**





Key Messages about FIRE

Future Internet Research & Experimentation

- FIRE has two interrelated dimensions:

FIRE Research



FIRE Facility

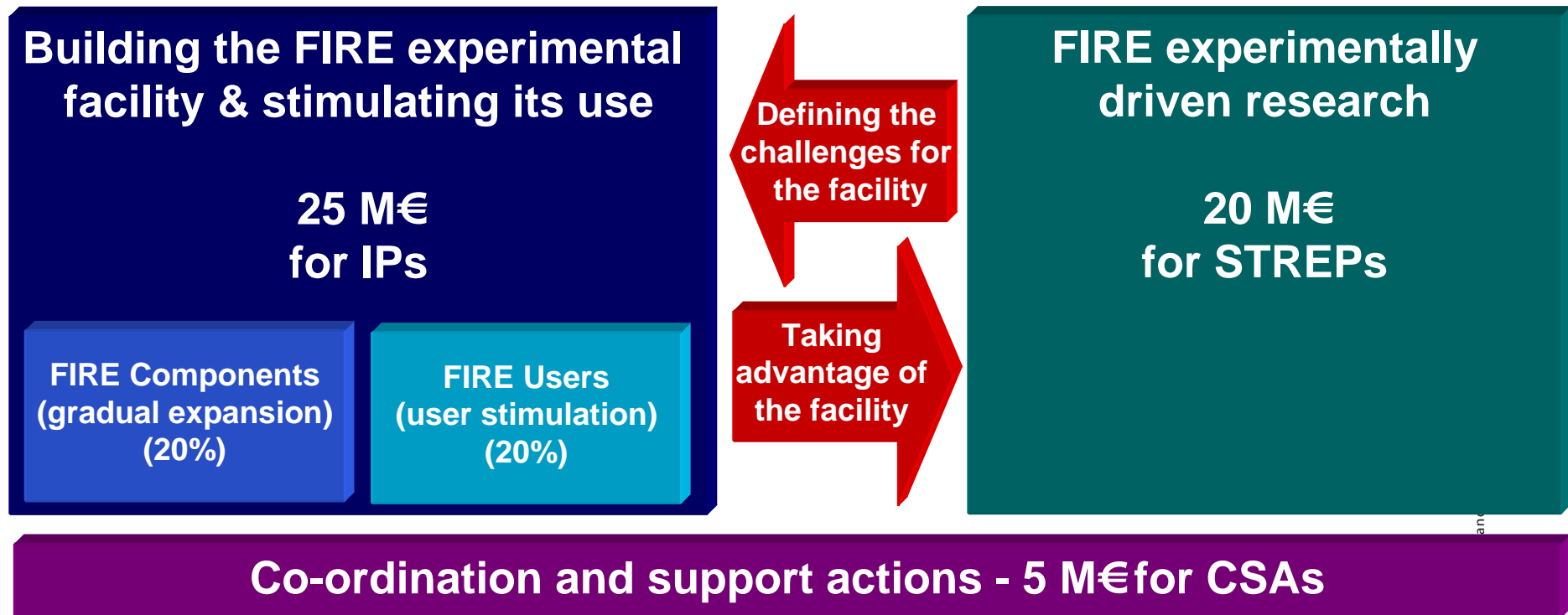


- Facility projects Onelab2, PII, and Federica are already offering testbed services – new being gradually expanded
- FIRE Research under Call5 of Work Programme 2009/10
 - visionary, multidisciplinary & experimentally driven taking a holistic view of FI
 - “Grand Challenge” projects for the FIRE Facility
- FIRE Facility under Call5
 - expand FIRE towards higher services levels allowing for system-level testing
 - provide services to all of Challenge 1 and beyond
 - become operational at an early stage and stimulate innovative use

cordis.europa.eu/fp7/fire



ICT WP 2009/10 - Objective 1.6: Future Internet experimental facility & experimentally-driven research



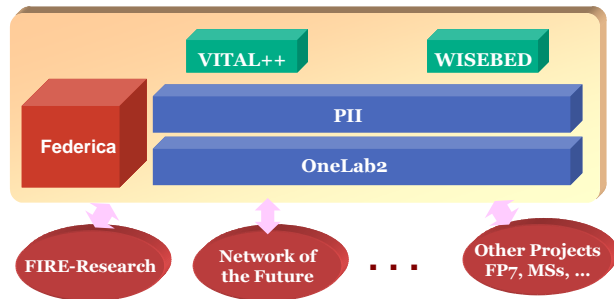
ICT Call 5



Building the FIRE experimental facility and stimulating its use



FP7 – WP 2007/08: Prototyping the federation concept



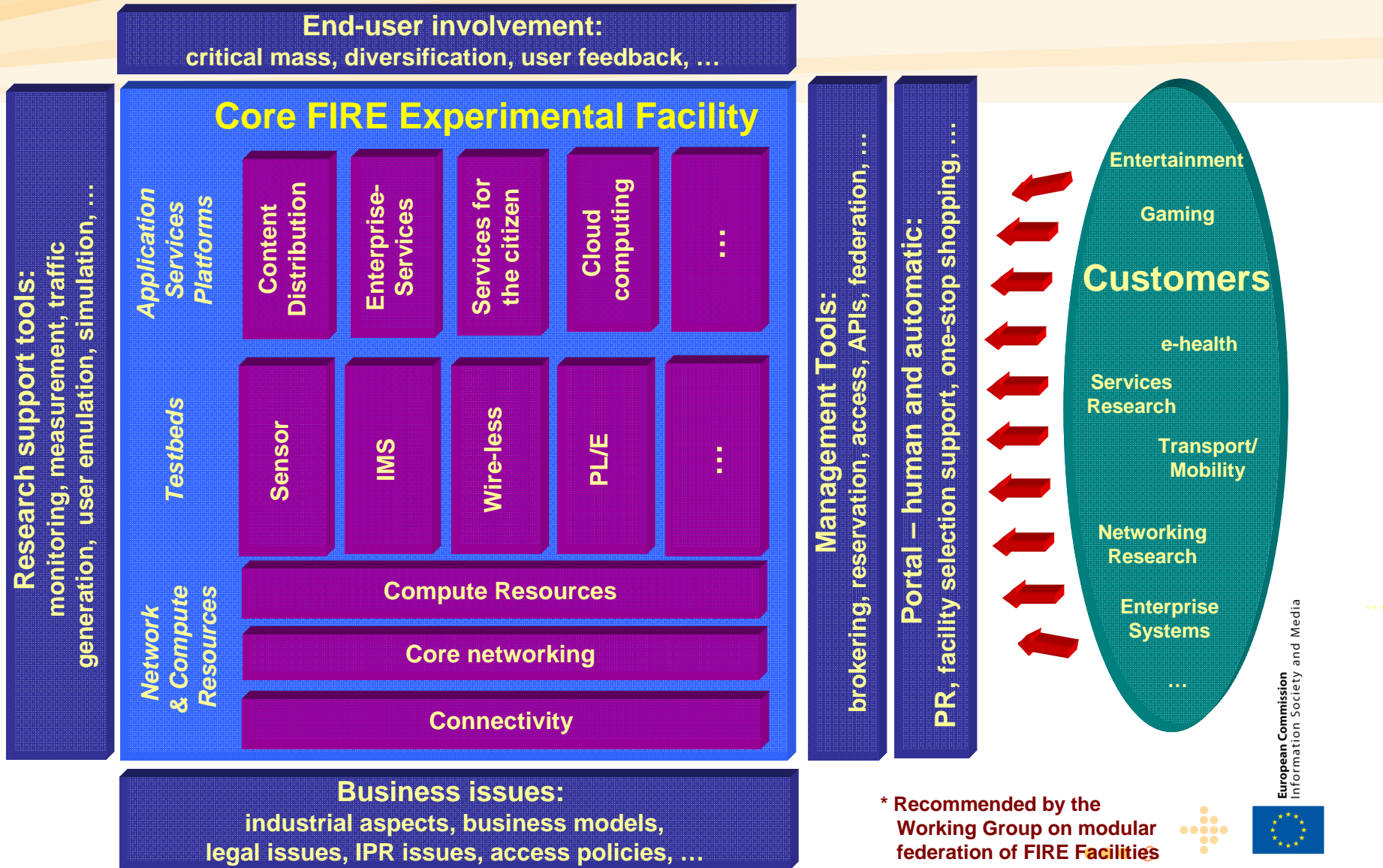
- open and dynamic
- focus on network connectivity layers
- supporting academia and industry
- proof-of-concept → pre-commercial tbs
- understanding the socio-economic dim.
- **availability & gradual expansion of prototype services starting in 2008**

FP7 – WP 2009/10: Building the facility + stimulating its use

- building the FIRE Facility to consist of several FIRE Facility Projects based on the design principle of **open coordinated federation of testbeds**
- supporting **FI Research at all stages** of R&D cycle
- **expanding the scope** towards experimentation at large scale & comparison of visionary approaches for
 - ✓ network architectures and technologies
 - ✓ service architectures and platforms
 - ✓ networked media & trustworthy infrastructures
- experimentation with the FI as a system cutting across layers or being layer less
- direct involvement of user communities
- dynamic, sustainable, open
- early operational prototypes of **FIRE Facility projects** - to be gradually expanded
- stimulating **innovative use** of the FIRE Facility by research customers



A potential collaboration architecture for FIRE Facility projects

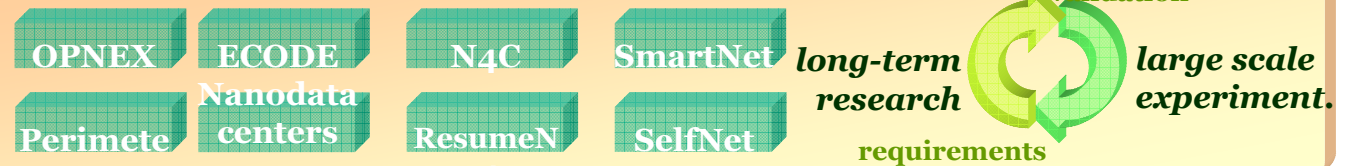


Experimentally-Driven Research in WP 2009-2010

Starting Point:

- Situated Autonomic Communications Initiative under FP6-FET
- First wave of projects under WP 2007/08

Experimentally-driven, multi-disciplinary research



Visionary multidisciplinary research under WP 2009/10:

- Driving and using the Facility:** Defining the challenges for and taking advantage of the Experimental Facility
- Experimentally-driven FI research:** Consisting of iterative cycles of research, design & large-scale experimentation of new and innovative network and service architectures for the Future Internet
- Taking a system perspective of the FI:** Research to consider the Future Internet as a complex system addressing it in a holistic vision and at all relevant levels and layers including to take into account energy, low cost, environmental or socio-economic aspects





FIRE Challenges for 2009 and beyond

- ❑ Working prototypes of the FIRE facility projects by end of 2010 (~ 9 months into Call 5 projects)
- ❑ Collaboration of FIRE facility projects in Working Groups
 - towards high level federation/collaboration/integration
 - sharing a joint user-friendly customer portal
- ❑ Match the offer of the FIRE prototypes with the demand by research projects across Challenge 1
- ❑ Establish FIRE Research as the Grand Challenge projects for the FIRE Facility
- ❑ Establish bilateral federations between FIRE prototypes and with other EU national or international facilities
- ❑ Establish FIRE as an integral part of a potential Future Internet PPP





Upcoming events and references

- ❑ Information Day – Objective 1.6
Brussels - 16 June 2009
- ❑ FIRE Week, Luleå, Sweden
 - Open Day 1 July 2009
 - Onelab2, PII, Federica tutorials 2 July
 - To be presented and published:
 - ✓ FIRE Expert Group Report
 - ✓ Report of the Working Group on modular federation of FIRE Facilities

