



Aggregated overview of FIRE facility and FIRE research project by FIRE STATION

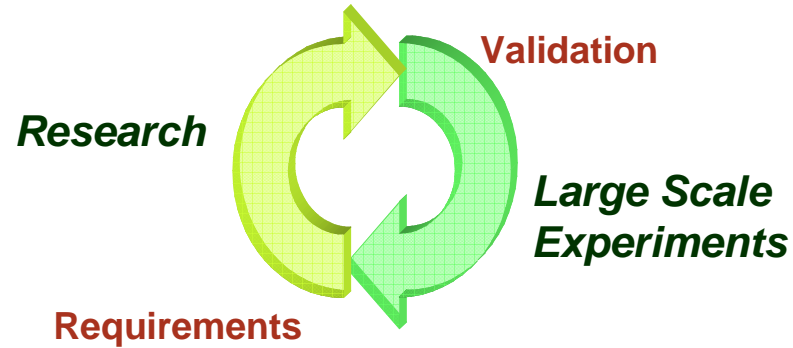
www.ict-fire.eu

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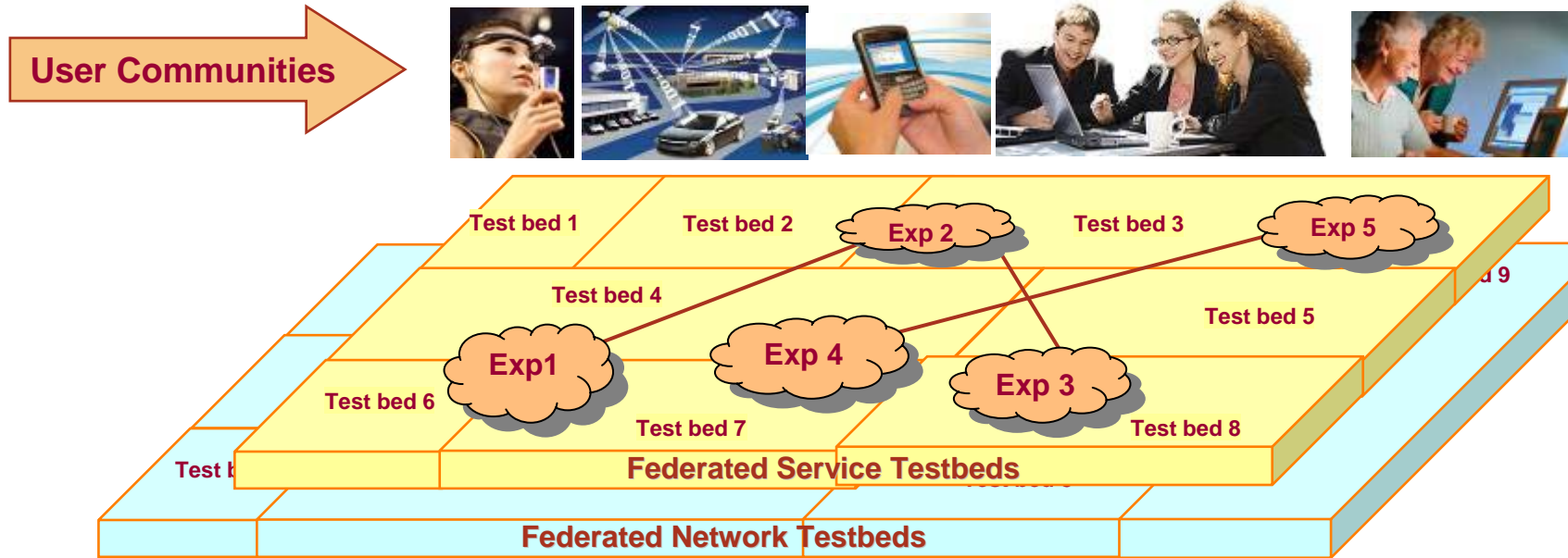
Poznan – 27.10.2011

What is FIRE?

FIRE Research



FIRE Experimental Facility



Experimentally driven R&D

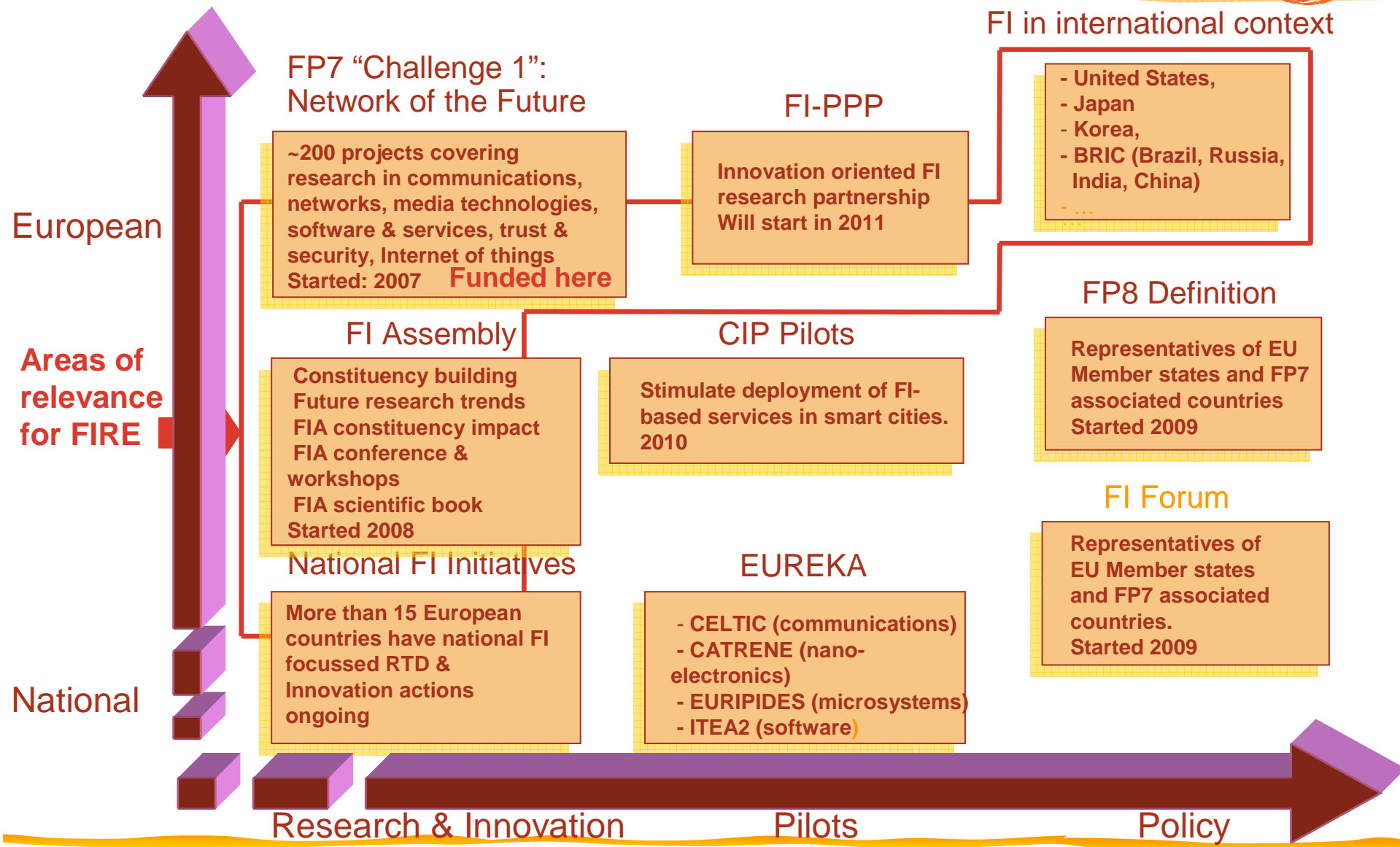
coordination and support measures

experimental facility

experimentally-driven research

- Supporting research and innovation on new network and service architectures
- Through large scale experimentation, predict behaviour and assess non-technical impact

FIRE: One of several Future Internet activities



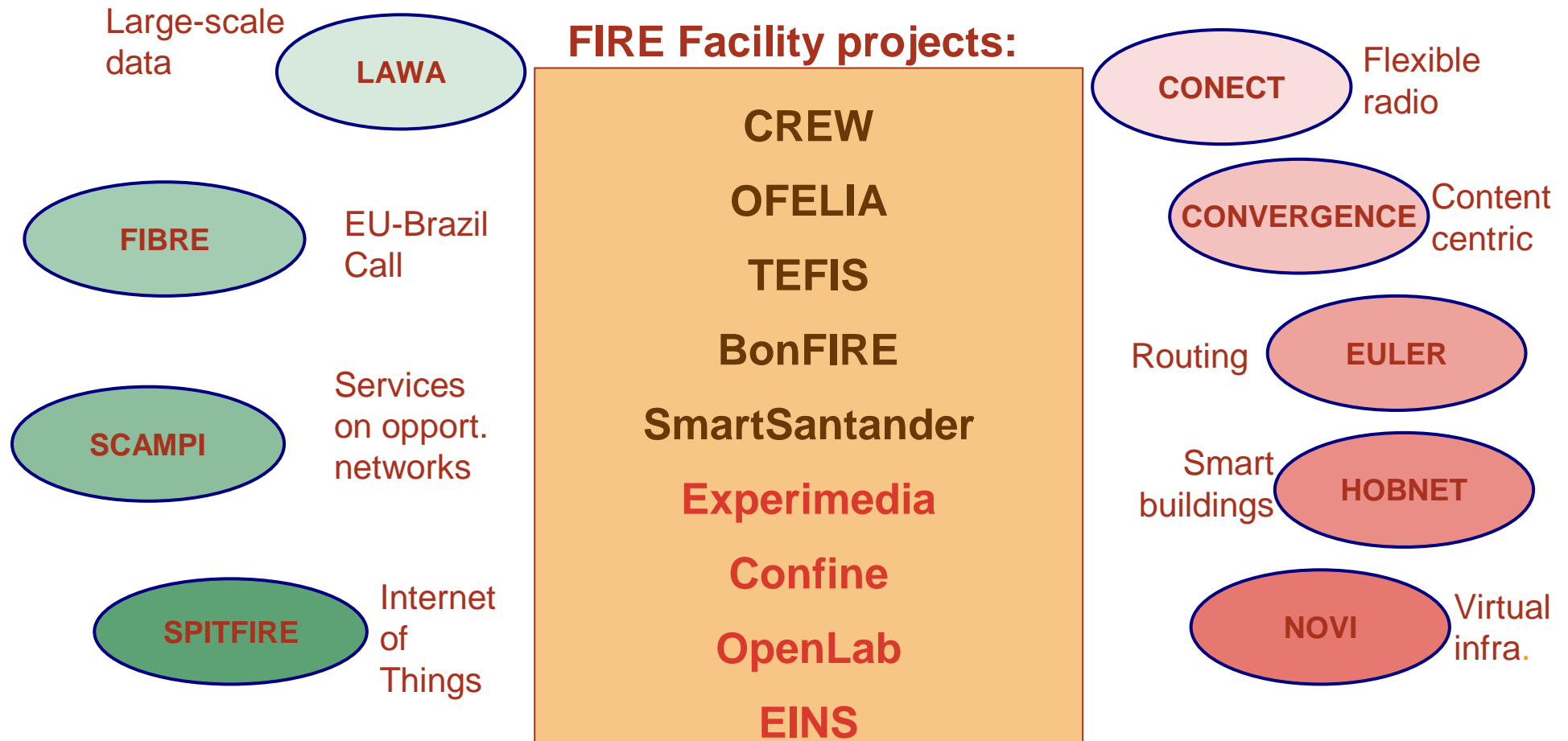
FIRE in the Global Picture



- FIRE-NICT-NSF has agreements to support joint experiments benefitting from cross continental connections
- Glab-VINI-FIRE experiment shown later today.
- BRIC country collaborations driven by MyFIRE
- In Europe FIRE – Glab and IBBT iLab collaborates. FIRE players open to more such collaboration
- GEANT and FIRE



FIRE Projects Call 5 – Call 7



FIRE Facility projects Call 5 *(started mid - 2010)*



- **BonFIRE:** Building service testbeds for Future Internet Research and Experimentation
www.bonfire-project.eu
- **CREW:** Cognitive Radio Experimentation World
www.crew-project.eu
- **OFELIA:** OpenFlow in Europe – Linking Infrastructure and Applications
www.fp7-ofelia.eu
- **Smart Santander:** Large scale sensor network in the Spanish city of Santander
www.smartsantander.eu
- **TEFIS:** Testbed for Future Internet Services
www.tefisproject.eu

FIRE Facility Projects – Call 7 *(started*

October 2011)



- **OpenLab:** PlanetLab Europe (PLE), NITOS, w-iLab.t wireless, IMS telco; LTE cellular wireless; ETOMIC high precision measurement; HEN emulation; and ns-3 simulation.
www.ict-openlab.eu
- **experimedia:** Offering testbeds for large-scale experiments using live events and real-world communities to accelerate the adoption of the Future Media Internet.
www.experimedia.eu
- **Confine:** Community networks incorporating wireless and optical links, heterogeneous nodes, routing protocols, applications and end-users utilising self-provisioning.
www.confine-project.eu
- **EINS:** European INternet Science is a Network of Excellence aiming at developing Internet Science as a foundation for the understanding and evolution of the Internet as a societal and a technological artefact.

FIRE STREP Projects (1)

- **LAWA:** Longitudinal Analytics of Web Archive data. Aims at building an Internet-based experimental testbed for large-scale data analytics. <http://www.lawa-project.eu/>
- **FIBRE:** Future Internet Experimentation between Brazil and Europe. Its goal is to Create a common space between the EU and Brazil for Future Internet (FI) experimental research into network infrastructure and distributed applications, by building and operating a federated EU-Brazil Future Internet experimental facility.
- **Scampi:** Service Platform for Social Aware Mobile and pervasive Computing. SCAMPI will investigate technical solutions for a service platform in mobile and pervasive opportunistic networks.

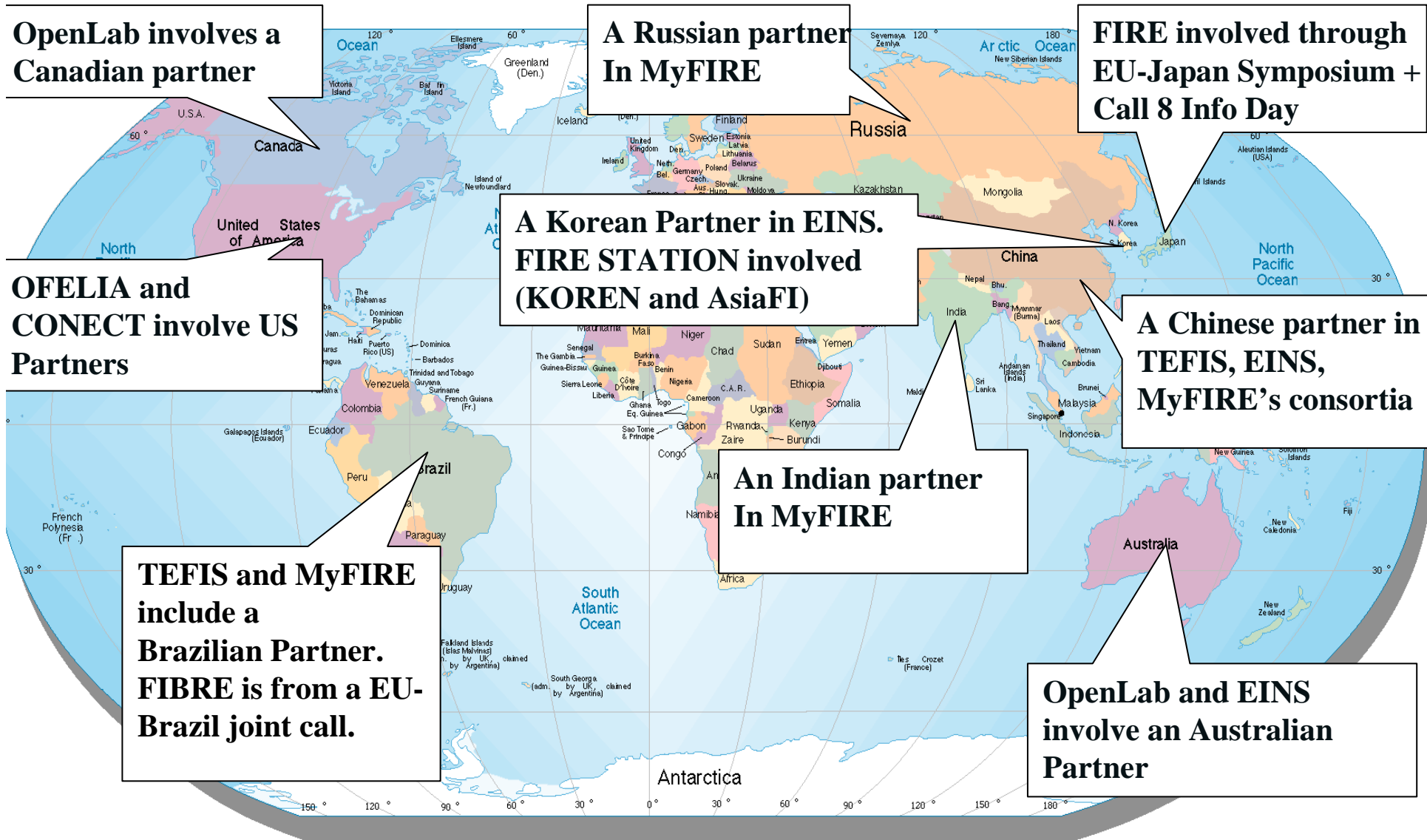
FIRE STREP Projects (2)

- **SPITFIRE:** Semantic-Service Provisioning for the Internet of Things using Future Internet Research by Experimentation. SPITFIRE works towards the realization of a stronger connection between the natural and the digital worlds.
<http://www.spitfire-project.eu/>
- **CONNECT:** Cooperative Networking for High Capacity Transport Architectures. It will develop novel performance bounds of wireless network information flow.
<http://www.conect-ict.eu/>
- **CONVERGENCE:** CONVERGENCE proposes to enhance the Internet with a novel, content-centric, publish-subscribe service model, based on the Versatile Digital Item.
<http://www.ict-convergence.eu/>

FIRE STREP Projects (3)









- **EULER**: Experimental UpdateLess Evolutive Routing. The main objective of EULER is to investigate new routing paradigms so as to develop a distributed and dynamic routing scheme suitable for the future Internet. <http://www.euler-fire-project.eu/>
- **HOBNET**: Holistic Platform Design for Smart Buildings of the Future InterNET. The goal is to maximize the use of FIRE platforms by multidisciplinary developers of Future Internet applications focused on automation and energy efficiency for smart buildings. <http://www.hobnet-project.eu/>
- **NOVI**: Networking innovations Over Virtualized Infrastructures. It aims at composing virtualized e-Infrastructures towards a holistic Future Internet (FI) cloud service. <http://www.fp7-novi.eu/>

Status of International cooperation



FIRE STATION Project

- FIRESTATION is a Coordination & Support Action (CSA) project funded in Framework Programme 7 (FP7), Call 5
- Started 1st of June 2010 for 36 months
- Budget: 1.5 M€

	Beneficiary name	Beneficiary short name, country
	Dimes Association*	<u>DIMES</u> , Finland
	Martel	<u>MAR</u> , Switzerland
	Université Pierre et Marie Curie - Paris 6	<u>UPMC</u> , France
	Eurescom GmbH	<u>EUR</u> , Germany
	GARR	<u>GARR</u> , Italy
	IBBT	<u>IBBT</u> , Belgium
	University Lübeck	<u>UZL</u> , Germany
	University of Southampton	<u>IT Innovation</u> , United Kingdom

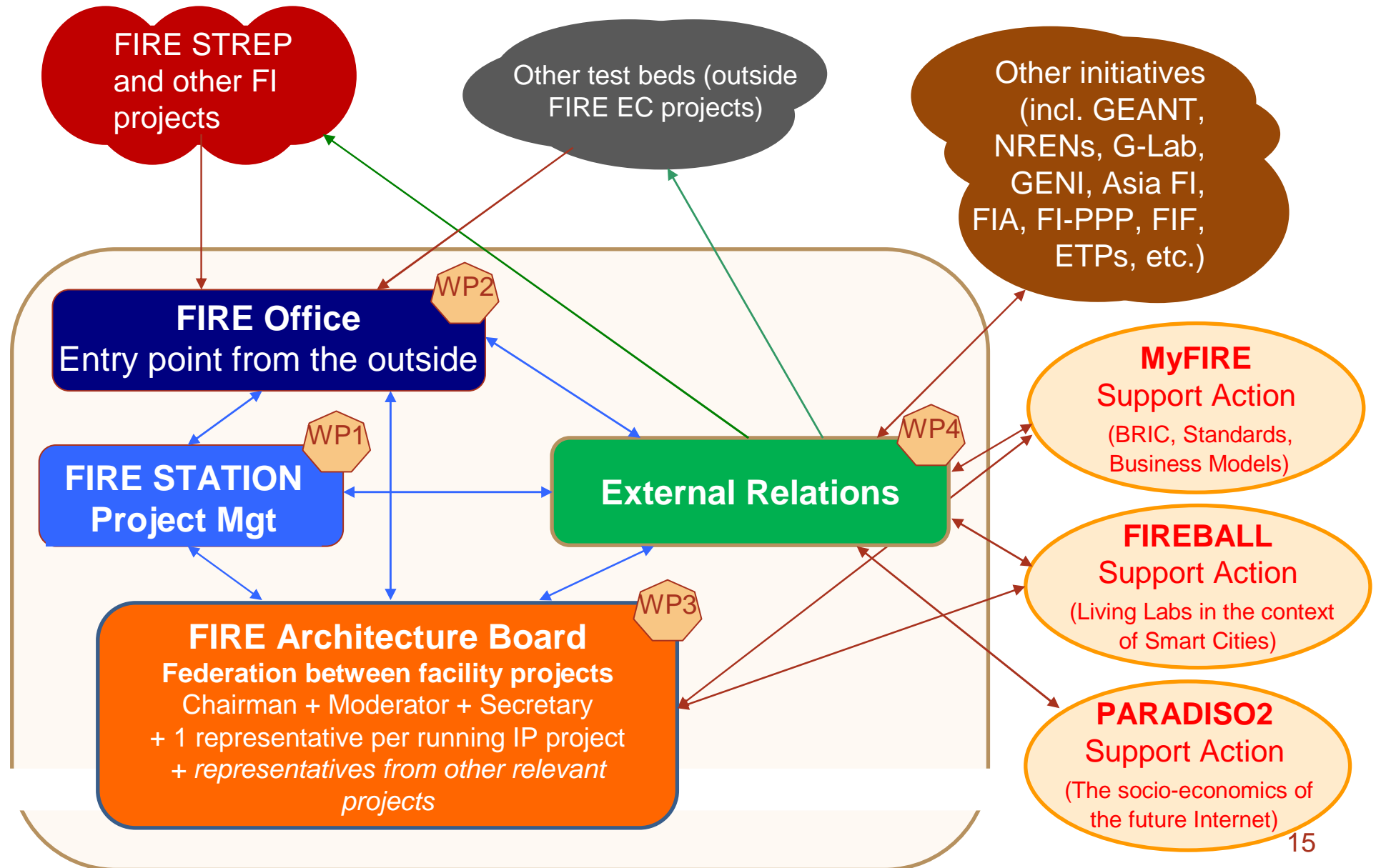
* Coordinator

The objectives of FIRE STATION

1 To move the FIRE facilities towards a more customer-driven, dynamic, effective, sustainable, easy-to-access and easy-to-use **experimental platform**

2 To intensify the collaboration amongst the **FIRE Community**

The FIRESTATION Support Action



The organization of FIRE STATION

FIRE STATION implements a **FIRE Office** and a **FIRE Architecture Board**:

-The **FIRE Office** serves as a **single contact point** and a **mediator** when looking for experimental resources or new customers;

-The **FIRE Architecture Board** involves all FIRE facility builders to decide on the strategy and means to **facilitate the development of FIRE offerings**.

The FIRE Architecture Board (1/2)

The mission of the FIRE Architecture Board is to strengthen the coordination and collaboration among the projects developing FIRE test facilities, including the demand-driven extensions.

Main objectives:

- Supporting the harmonization and extension of the future and existing experimental facilities in FIRE.
- Supporting the development of heterogeneous federation of experimental facilities;

The FIRE Architecture Board (2/2)

FIRE Architecture Board members investigate various topics related to FIRE:

- Measurement and benchmarking, methodology and tools, portal
- FIRE Sustainability, business models, standardization issues.
- FIRE strategy (e.g. international collaboration, FP8 preparation)
- FIRE roadmap for the experimental facilities
- Advancement of the projects (open calls info day, feedback from workshops, next steps)

The FIRE Architecture Board is an ***operational FIRE-wide forum***

FIRE STATION chairs and moderates the Architecture Board; meetings are being held regularly.

FIRE Open Calls

The Open Calls are **designed to stimulate the use of the facilities of each of these facilities through new innovative experiments**. A first “**Open Calls Information Day**” was organized on 9 February 2011 in Brussels for BonFIRE, OFELIA and TEFIS. The Open calls were a **real success**:

- 71 proposals submitted** (*about 10 retained*);
- A total amount of 1.6 million euros funding**;
- Most of the proposals demonstrated technically brilliant ideas with a **real added value for the FIRE facilities**.

A Second Open Call day took place: 14 September 2011 in Brussels:

- The CREW project offered funding to 3 to 5 experiments, with a total budget of €400 K. Deadline: 19 October;
- Smart Santander had a budget of €600K. Deadline: 16 November;
- OpenLab proposed a budget of €500K for 3-5 experiments. Deadline: End of November;



The FIRE Website www.ict-fire.eu

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FIRE research workshop



Supported by



NEWS

24 May 2011

[IoT web survey and workshop on June 8, 2011](#)

SmartSantander project will organize a one-day workshop as part of the IoT week on June 8, 2011 in Barcelona, Spain. All participants are encouraged to fill out a brief...
[\[more\]](#)

24 May 2011

[SmartSantander wins Future Internet Award](#)

The SmartSantander project wins Future Internet Award The EU-funded FIRE project SmartSantander has won the Future Internet Award for the best European Future Internet...
[\[more\]](#)

17 May 2011

[Benchmarking computers and computer networks - white paper](#)

Experts from FIRE projects, among others CREW, BonFIRE, Onelab2 and FIRESTATION has issued a white paper on benchmarking computer networks and computers. With...
[\[more\]](#)

9 May 2011

[4th FIRE newsletter](#)

The 4th Newsletter contains a preview of FIRE's involvement in the FIA-Budapest week (16 - 20 May), especially the FIRE Research Workshop on 16 May, which gives some of...

9 May 2011

[TridentCom 2011](#)

The 7th International ICST conference on testbeds and research infrastructures for the development of networks and communities, TridentCom 2011, was held in Shanghai,...
[\[more\]](#)

2 May 2011

EVENTS

[FIRE research workshop](#)

16 May 2011, Budapest, Hungary. The research workshop is a Future Internet Week event.
[\[more\]](#)

[7th FUTURE INTERNET ASSEMBLY \(including Future Internet Conference and Future Internet Forum\)](#)

17-19 May 2011, Budapest
[\[more\]](#)

[The ICT Proposer's Day 2011](#)

19-20 May 2011, Budapest, Hungary
[\[more\]](#)

[KOREN Workshop 2011](#)

25-26 May 2011, Seoul, Korea
[\[more\]](#)

[CrownCom 2011](#)

31 May - 3 June 2011, Yokohama, Japan
[\[more\]](#)

[Workshop on IoT Experimentation Needs](#)

8 June 2011, Barcelona, Spain
[\[more\]](#)

[Future Network & Mobile Summit](#)

15-17 June 2011, Warsaw, Poland
[\[more\]](#)

[11th GENI Engineering](#)

The FIRE Brochure

Downloadable at <http://www.ict-fire.eu/home/publications.html>



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Publications

- Relevant publications from the predecessor project FIREworks can be found in the section → papers
- FIRE issues regular → newsletters

FIRE brochure



This publication gives an insight into what is real and usable today in FIRE. FIRE Facility projects funded by the European Commission under FP7 ICT Objective 1.6, are presented here, with a focus on examples of experimentation.

The FIRE outcome is open and public for all experimenters who find the facilities offered suited to their R&D needs. The FIRE Facility prototypes invite you as exploratory users: profit from being one of the first users and shape the FIRE Facility according to your needs!

We hope to spark your enthusiasm and ignite your burning desire to explore and experiment within FIRE. We can help you light up the Future Internet, because FIRE is real.

[Download the FIRE brochure.](#)

The FIRE Wiki <http://wiki.ict-fire.eu>

(maintained by the FIRESTATION Support Action)



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Future Internet Research and Experimentation [edit]

What is FIRE?

The Future Internet Research and Experimentation - FIRE - Initiative is addressing the need to experiment with 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 is promoting the concept of experimentally-driven research as conducted by various research projects, combining visionary academic research with the wide-scale testing and experimentation that is required for industry. Among others, 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.

For further information about FIRE, how to use FIRE experimental facilities, or how to contribute to FIRE, please check FIRE web at <http://www.ict-fire.eu/>.

The FIRE brochure downloadable at <http://www.ict-fire.eu/home/publications.html>.

You can contact FIRE office by filling-in the questionnaire at <http://www.ict-fire.eu/contact.html> or by sending Email to [FIRE contact](mailto:FIRE_contact).

The FIRE facility is real – Let's use it!

At your service,

FIRESTATION team

FIRE wiki [edit]

This wiki should serve as a tool for self-organisation of the FIRE community. The wiki is open for now and I hope that we will not have to switch to invitations for editing access. If we restrict the wiki please or if you have other requests send a message to [FIRE contact](mailto:FIRE_contact).

Learning-capable Communication Networks (LCCN) [edit]

The [FP7 ECODE Project](#) dedicated to the application of learning paradigms and techniques to control processes of communication networks, is currently working at establishing a Research Group (RG) at the [Internet Research Task Force \(IRTF\)](#). If you (as individual)/your project are/is interested in this research activity, would like to propose additional study cases, or have already obtained similar experimental results by applying e.g. machine-learning, neuro-science/bio-inspired learning techniques, you are kindly invited to contact us at the [Learning-Capable Communication Networks \(LCCN\) Google Site](#) or share your interests/results on the [IRTF discussion list](#).

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

Thank you for your attention

More information: www.ict-fire.eu

Contact: contact@ict-fire.eu



FIRE



Contact FIRE-Office



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