EUB 2015 EU-Brazil Research and Development Cooperation in Advanced Cyber Infrastructure

EUB 3 – 2015: Experimental Platforms

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Experimental Platforms
DG CONNECT - European Commission

Subtopic EUB 3: Experimental Platforms

Objective and Scope

The objective of cooperation in the area of Experimental Platforms is to enable and promote the **federation of experimental resources** irrespective of their localization in Brazil and in Europe, with a view towards **global experimentation across heterogeneous networks, both wired and wireless,** and a variety of end-systems.

Specific focus

The focus is on **building upon current tools and platforms** in support of **end-to-end experimentation**, creating a pool of, and giving open access to, **shared experimental resources** that complement and supplement those available in each continent.

Linking to existing FIRE facilities is a requirement.

Expected impact

Improving access to, and broadening the scope of, experimental facilities, as well as promoting experimentally-driven research with end-user involvement.

Instruments, funding level and budget

Research & Innovation Actions, Funding level: 100%, Budget: 1,5 M€

FIRE+ Background

cordis.europa.eu/fp7/ict/fire

Why Experimentation?

Systems are too complex, too heterogeneous, too "connected" to be analysed or even simulated

We need to test them, i.e., experiment in the real world, under real conditions, with real traffic/load and real users

No one, even the largest corporations can afford to assemble – much less operate – the "entire" system to be able to test/assess their solutions, developments, improvements

Experimental Facilities

Thus the need for large-scale, heterogeneous, distributed, federated or integrated, shared, open testbeds

- **Open to researchers and external experimenters, including application developers and users**
- **to promote testing and validation and potentially accelerate standardisation**

Obviously, this comes with an overhead, cf. individual testbeds

- **This goes beyond connectivity, to include common tools for scheduling, access control, separation/isolation, monitoring and reporting, benchmarking, …**

FIRE in FP7

Common approach to experimentation as integral part of R&D

- **Common methodologies and tools were developed and gained support across a whole range of areas, from low-layer networking to high-layer applications and services.**

Contractual facilities

- **Involving only partners in the associated project**

External experimenters sponsored to experiment via Open Calls

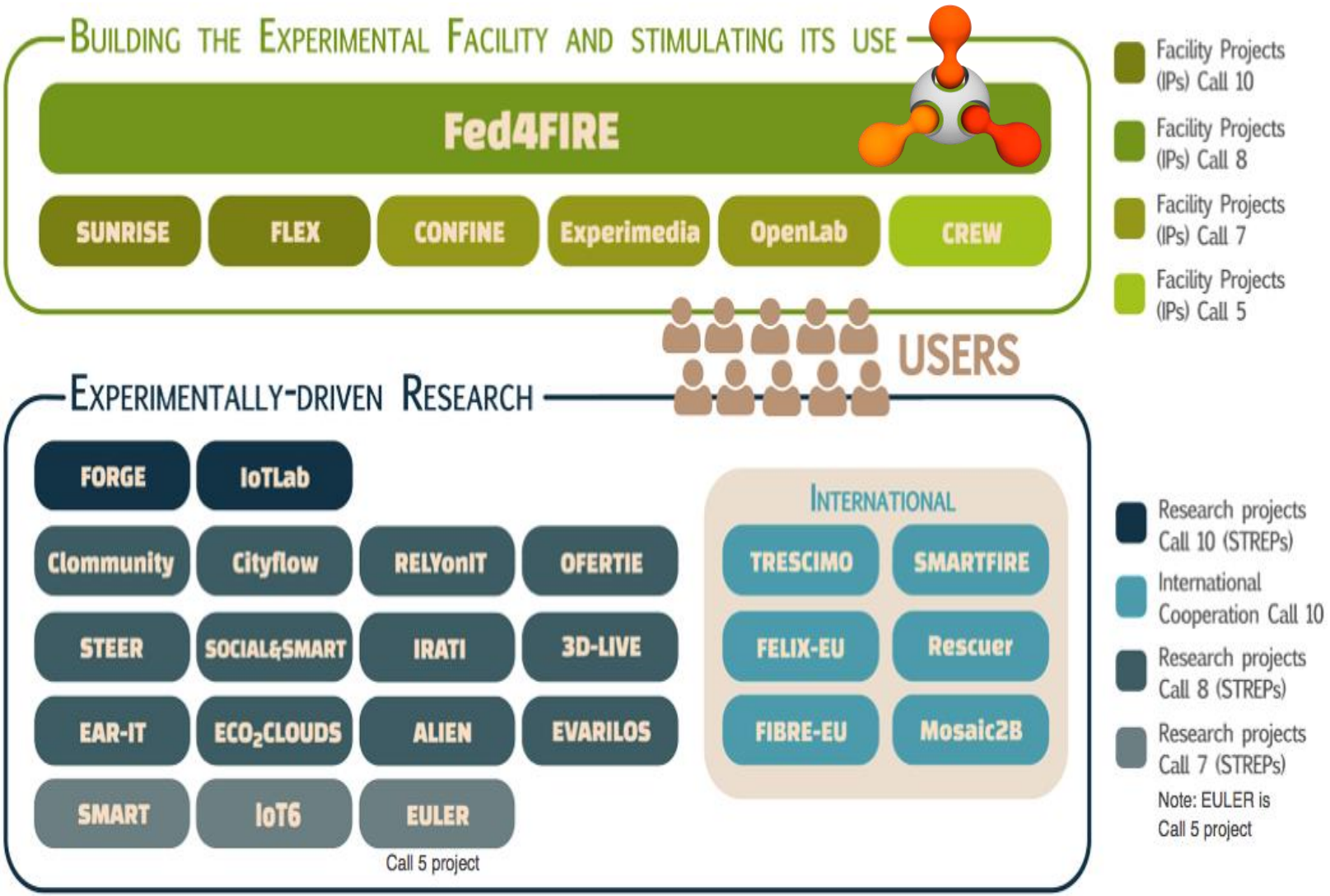
- **To stretch the facilities, in terms of scope, performance, applications**
- **To develop and test methodologies and tools**

External experimenters, including Industry and namely SMEs, came to test and validate their solutions/products

Open Access (BonFIRE, CREW) + SMEs (Fed4FIRE)

European Commission

Facilities and Experimentally-Driven Research



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