



Horizon 2020 – Call 1 Future Internet Information Day

ICT 11. Future Internet Research & Experimentation (FIRE+)

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Disclaimer

These slides are for informal guidance and discussion only.

These slides do not replace the official legal texts of the European Commission.

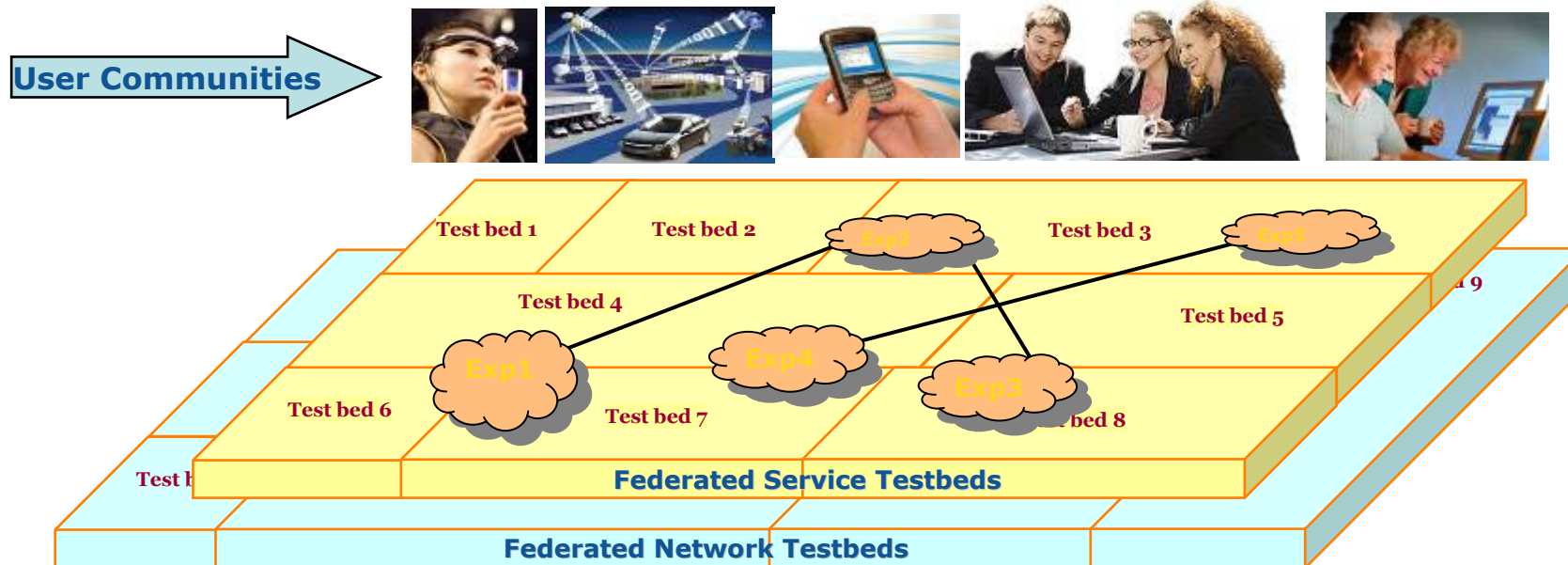
What is FIRE?

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

FIRE Research

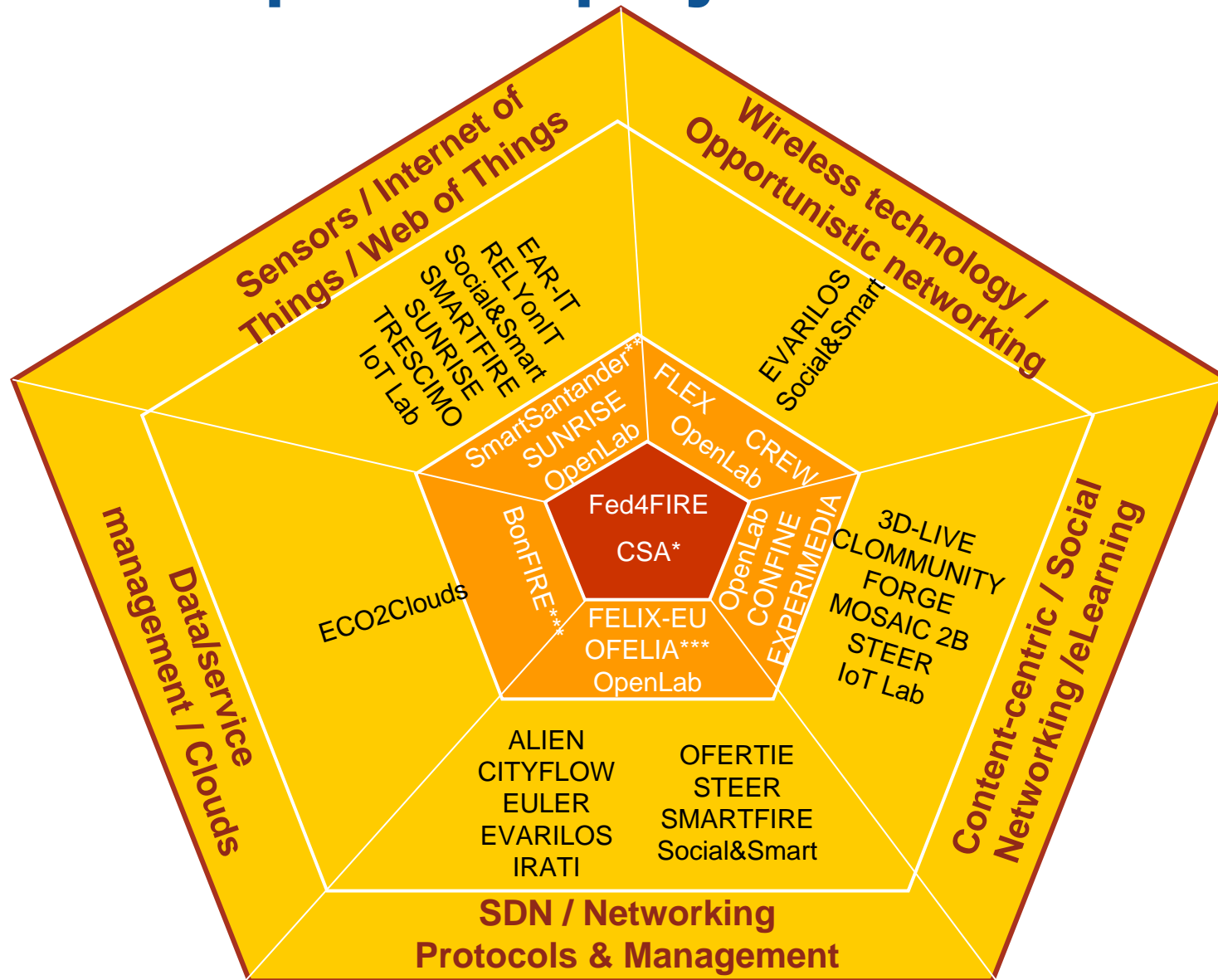


FIRE Experimental Facility





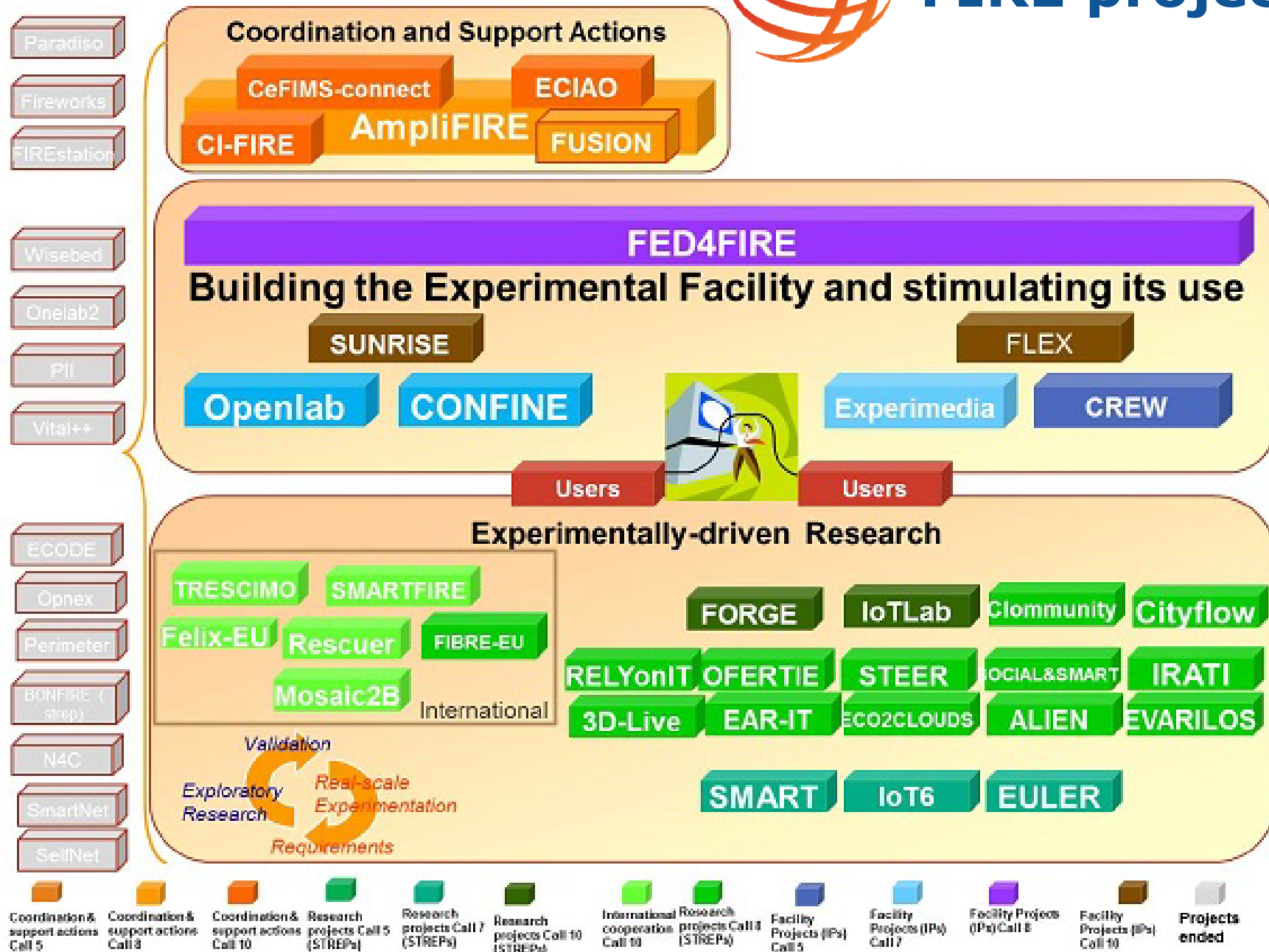
FIRE topics and projects



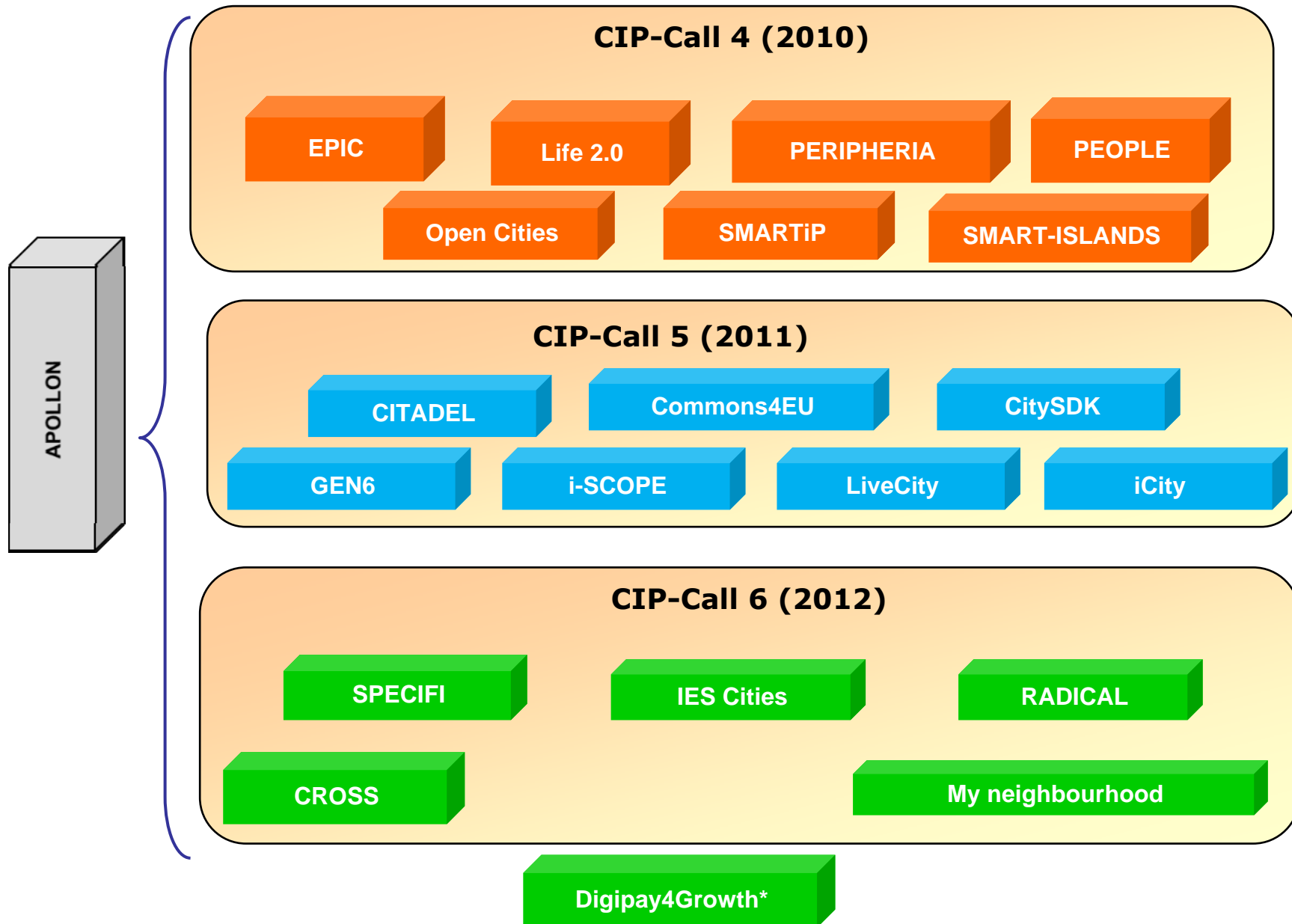
<http://www.ict-fire.eu/home/fire-projects.html>



FIRE projects



Connected Smart Cities





FIRE challenges in Call 1 – WP2014

- Build a Strategic Experimental Infrastructure (FIRE+)
- Experimentation-as-a-Service (EaaS) and Virtual Experimentation
- Seamless experimentation regardless of geography
- Affordable access for small- and medium-size innovators
- Controlled and replicable conditions for experiments
- Real-world prototyping and experimenting environments
- Reap benefits from similar initiatives around the world.



ICT 11 – 2014: FIRE+

a. Research & Innovation Actions

➤ Collaborative actions for the creation, reconfiguration and/or extension of experimental infrastructures

➤ **Areas encouraged: Mobile and Wireless, Cloud, Spectrum, Photonics, Internet of Things (IoT), Distributed Service Platforms, Sensors**

➤ **Also proposals allowing the management, analysis and extraction of value from data acquired from sensors, mobile devices and/or online interactions in social and real networks**

At least 50% of funding for users, experiments, etc.



ICT 11 – 2014: FIRE+ (cont.)

a. Research & Innovation Actions (cont.)

- Experimentation leveraging GÉANT
 - **Emphasis on integration of real-world devices across all communication layers, in order to really deliver to the end-user**
- Experimentation-as-a-Service (EaaS) & Virtual Experimentation
 - **Ad hoc, on demand federation and reconfiguration of facilities**
 - **Tools for reporting, benchmarking and monitoring**

At least 50% of funding for users, experiments, etc.



Informal Guidance - 1

For all the above Research & Innovation actions:

- Actions requesting **large contribution** are expected **5-8 M€** (more on the lower end of 5 M€; upper end contribution, when proposal covers more than one themes)
- Total available funds: **25 Mio €** for all the above actions
- **Sustainability** models should be described in the proposal
- **EaaS** and **Virtual Experimentation** should build on available federation tools

Informal Guidance - 2

At least 50% of funding for the selection of users, experiments, suppliers, etc. in the form of **financial support to 3rd parties** (see Part K of the General Annexes)

For **all** actions with Financial Support to 3rd parties, clearly detail:

- **the objectives and the results to be obtained**
- **a closed list of activities that qualify for financial support**
- **the persons or categories of persons which may receive it**
- **the criteria for awarding financial support**
- **the criteria for calculating the exact amount of the support**
- **the maximum amount to be granted to each third party**
- **the selection process for the selection (e.g. **an open call** or **a contest** organised by the beneficiary in order to award financial support in the form of an award).**



ICT 11 – 2014: FIRE+ (cont.)

b. Innovation Actions

- **One** collaborative project that would identify, evaluate and select **ideas for prototyping and experimentation, testing and validation** and actual experimentation
 - **On top of FIRE+ and in real world environments**
 - **Coming from the Future Internet constituency at large, but also from other constituencies that leverage the Future Internet**



Informal Guidance - 3

- **Broker** function between FIRE+ facilities and experimenters
- One action expected requesting **large contribution**
- Total available funds: **5 Mio €**
- Financial support to 3rd parties is the **core activity** of this action → same conditions apply (Part K of General Annexes)
- Rule of thumb: 80%-20% financial support-action costs



ICT 11 – 2014: FIRE+ (cont.)

c. Coordination and Support Actions

- Identification of European, national and regional experimental facilities for integration into FIRE+
- Roadmap: future needs for advanced networking experimentation at scale
- International cooperation: concrete, reciprocal actions in short- and medium-term with US GENI & preparation for multilateral experimentation and federation around the world



Informal Guidance - 4

- Total available funds: 1,5 Mio €
- Proposals are expected to cover one or more of the themes
- A combination of the first 2 themes seems relevant
- Work on the future vision and strategy of FIRE

- The International Cooperation theme is a specific arrangement, matching a US / NSF initiative (SAVI)

Informal Guidance - 5

- Final recommendations
 - **Quality of proposals** even more important in Horizon 2020
 - Weaknesses will not be negotiated but only scored during evaluation
 - **Innovation** aspects must be evident also in the Research & Innovation actions (100% funding)
 - Involvement of **Industry** partners and in particular **SMEs**
 - Address **exploitation, dissemination** and **sustainability**
 - Familiarize with FIRE portfolio of projects and other relevant developments, results achieved and state of the art.



Expected Impact

- Cover a variety of networking technology areas
- Achieve economies of scale and RoI on infrastructure
- Reduce the time and lift the barriers to experiment
- Impact other application areas, e.g. Connected Smart Cities
- Contribute to standardisation and interoperability
- Enable SMEs to access FIRE for innovative experimentation
- Promote innovative applications and services, close-to-market, short-term, focused, mature ideas.



Where else can I find FIRE in Call 1?

- In other Future Internet specific topics
 - ICT 14: Advanced 5G Network Infrastructure for the FI
 - Opens on 15 July 2014 – Closes on 25 November 2014
 - a. Research and Innovation actions
 - Strand Radio network architecture and technologies*
 - Experiment based research preparing for large scale demonstrator and test-beds, leveraging where possible experimental facilities available in EU Member States or Associated Countries
- Under International Cooperation actions
 - EUJ 4: Experimentation & development on federated testbeds



2nd EU-Japan Coordinated Call



- Coordinated call of EU (EC/Horizon 2020) and Japan (MIC¹ and NICT²)
- Submission and evaluation follow the principles of Horizon 2020 calls with certain specific conditions
- 2nd coordinated call EU-Japan on Net Futures
- Duration: 3 years
- Max funding: 1.5M€ (EU) + 1.5M€ (Japan)
- Call closes on 10 April 2014

¹MIC: Ministry of Internal Affairs and Communications

²NICT: National Institute of ICT



2nd EU-Japan Coordinated Call *Topics*

EUJ1 – Technologies combining big data, internet of things in the cloud

EUJ2 – Optical communications



EUJ3 – Access networks for densely located users

EUJ4 – Experimentation and development on federated Japan–EU testbeds





Federated Japan–EU testbeds

Challenge and Scope

- Connect, federate and share experimental platforms and testbeds in Europe with Japan's orchestrated Smart ICT testbed in order to carry-out global large-scale experimentations
- Enhance the federation of existing IoT and Smart ICT testbeds and extend the research performed on them to new areas
- Develop and implement IoT and Smart ICT open federated architectures for experimentation and perform joint research on top of them



Thank you for your attention!

Any questions?

