



FIREWORKS

FIRE portfolio analysis June 2010

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FIRE portfolio

Large scale data

LAWA

OPNEX

Cognitive routing

Flexible radio

CONNECT

Multi hop wireless

ECODE

FIRE experimental Facilities

PERIMETER

CONVERGENCE

Content-centric

User centric

EULER

Routing

DTN

N4C

HOBNET

Smart buildings

Smart Antennas

Smart-Net

NOVI

Virtualized Infrastructures

Self Mgmt

Self-Net

SCAMPI

Services on Oppor. Netw.

Internet of Things

SPITFIRE

Edge infrastructure

Nanodata-centers

P2P/IMS

Vital++

Resume-Net

Resilience of Network

PlanetLab (OneLab2)
Cognitive radio (CREW)
Open Flow (OFELIA)
IMS (PII)
Services on Cloud/grid (Bonfire, TEFIS)
Sensors (SmartSantander)
Core network (FEDERICA)



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FIRE facility development

PORTAL

- Catalogue
- Discovery tools
- Deployment tools
- ...

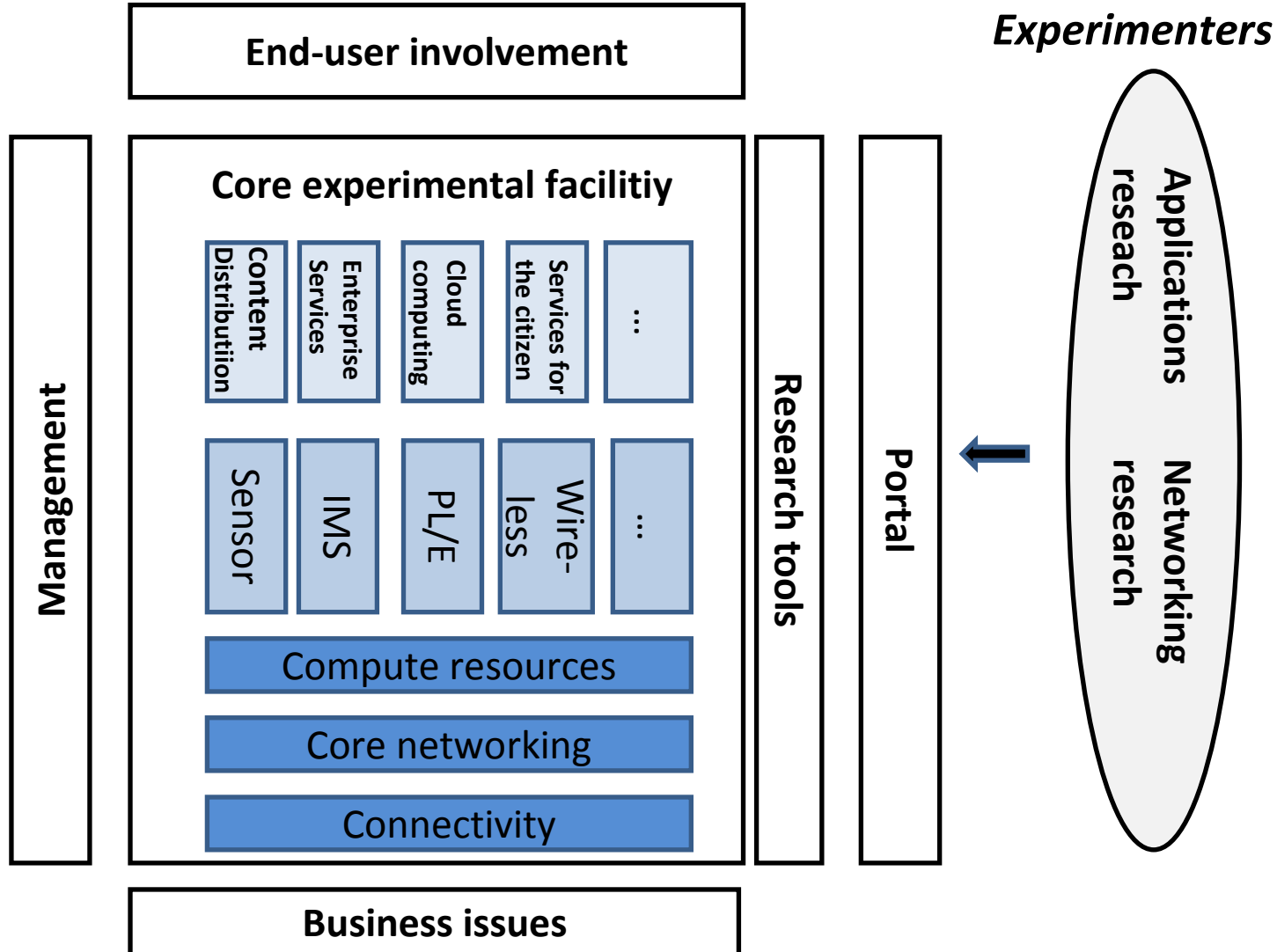
Federation models

- Top down
- Bottom up



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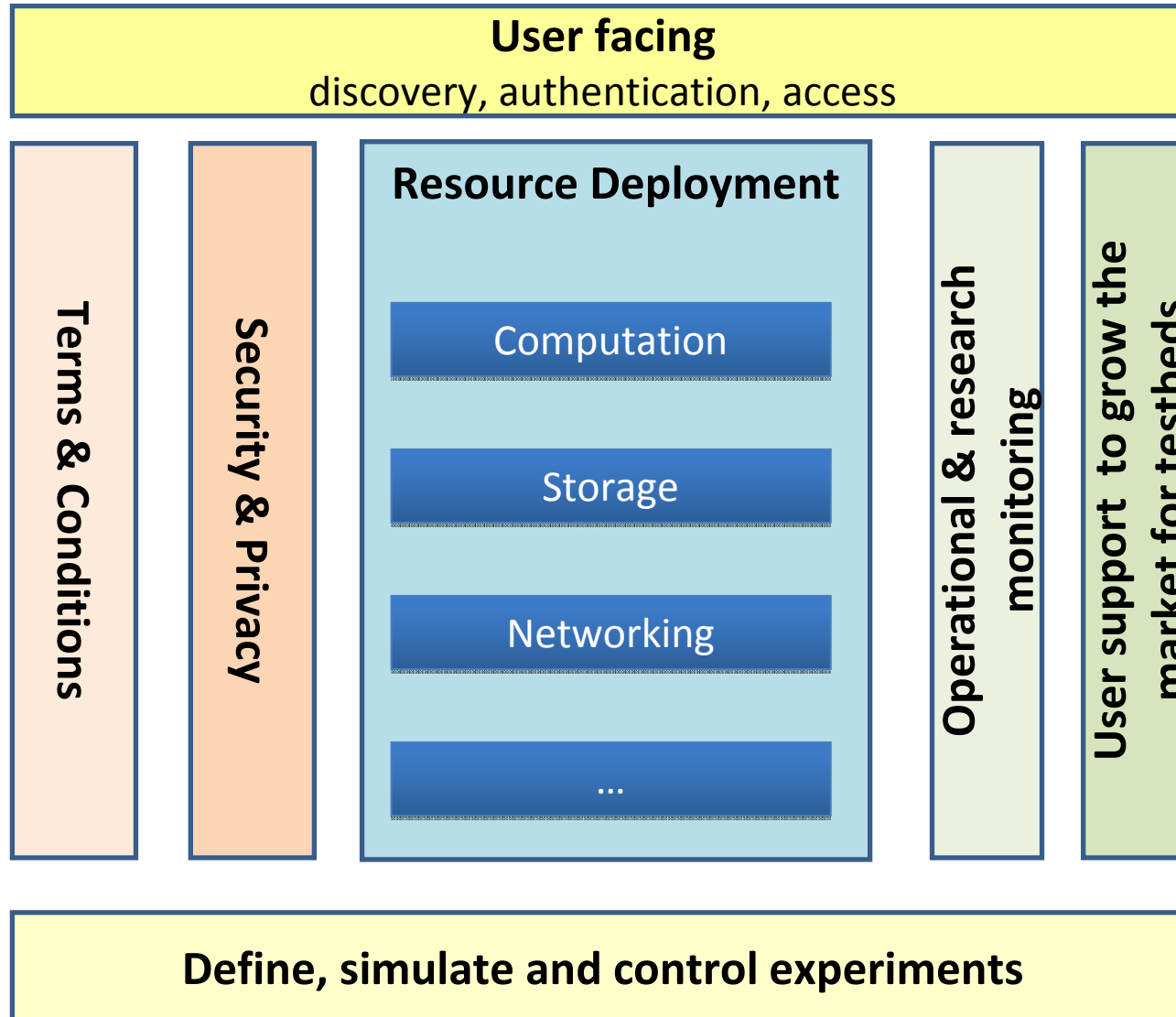
Towards a collaboration and high-level federation structure for the FIRE Facility (summer 2009)





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Fire facility evolution

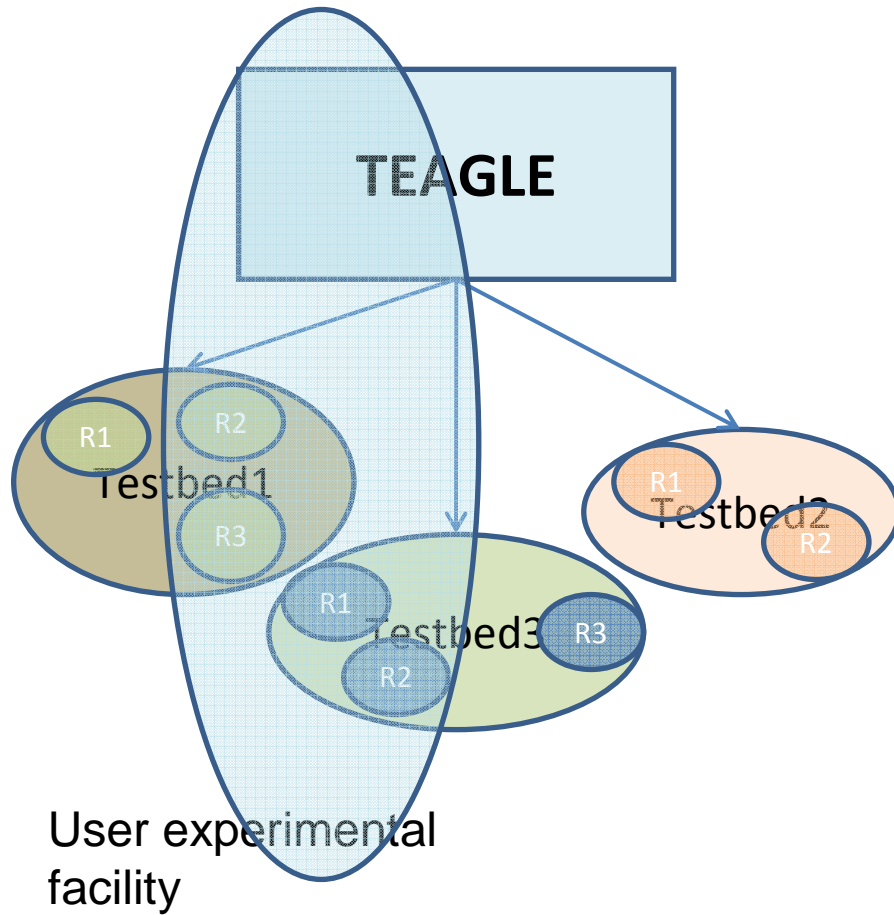




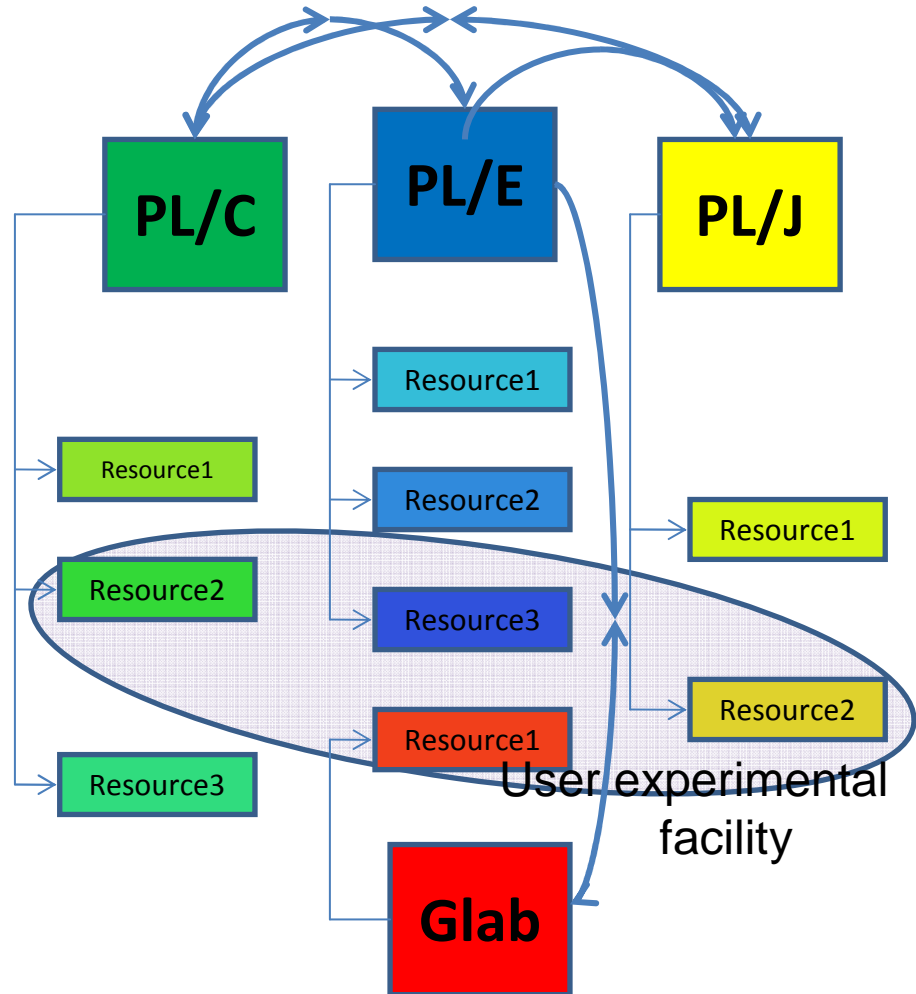
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Federation models

PanLab Model



SFA/PlanetLab Model





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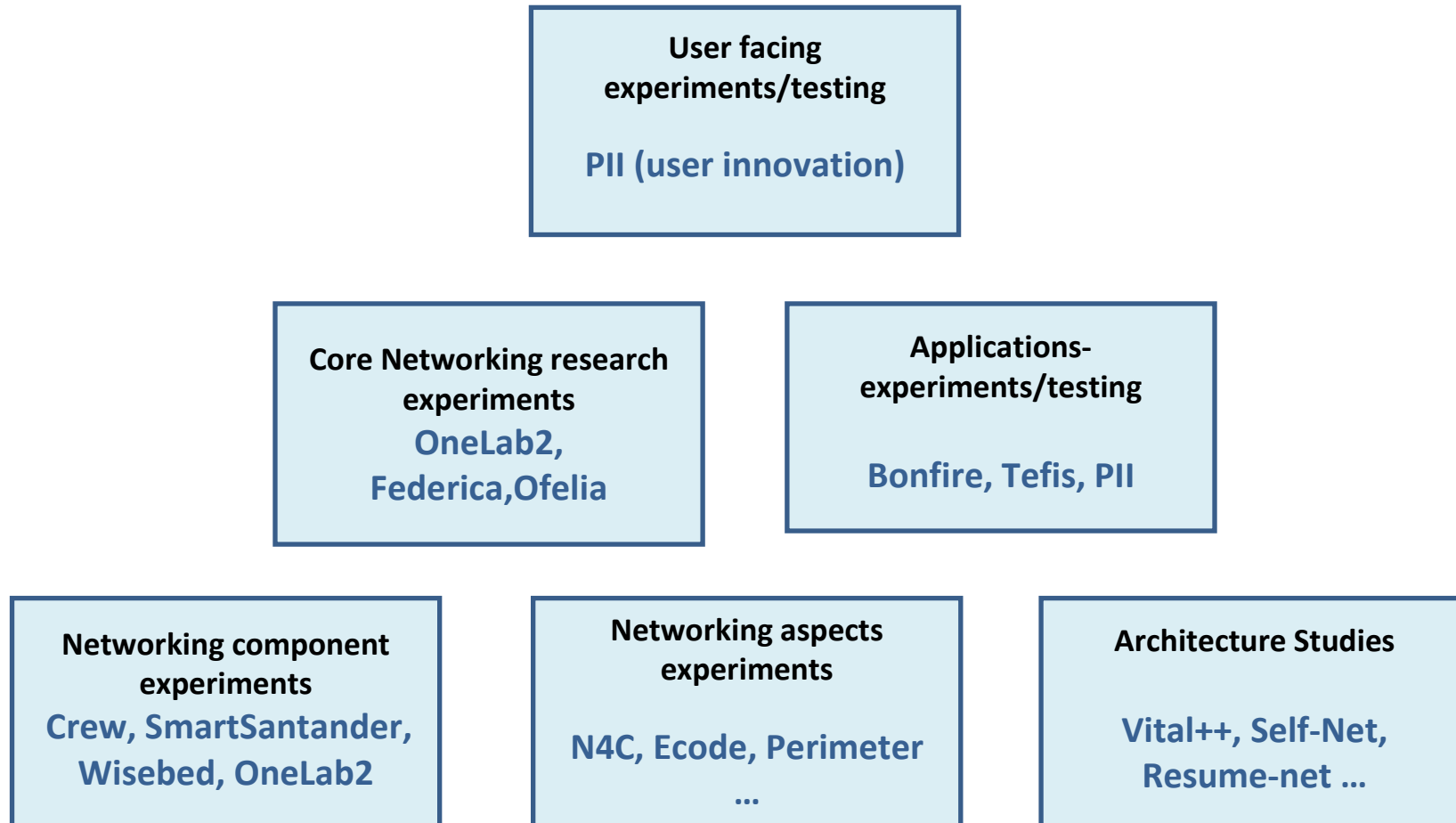
Challenges for test beds

- Create a user base
- Maintain interest in usage
- Create sustainability of test beds
- Support heterogeneous federation of test beds
- Create collaboration on tools and methods



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Testing goals / project

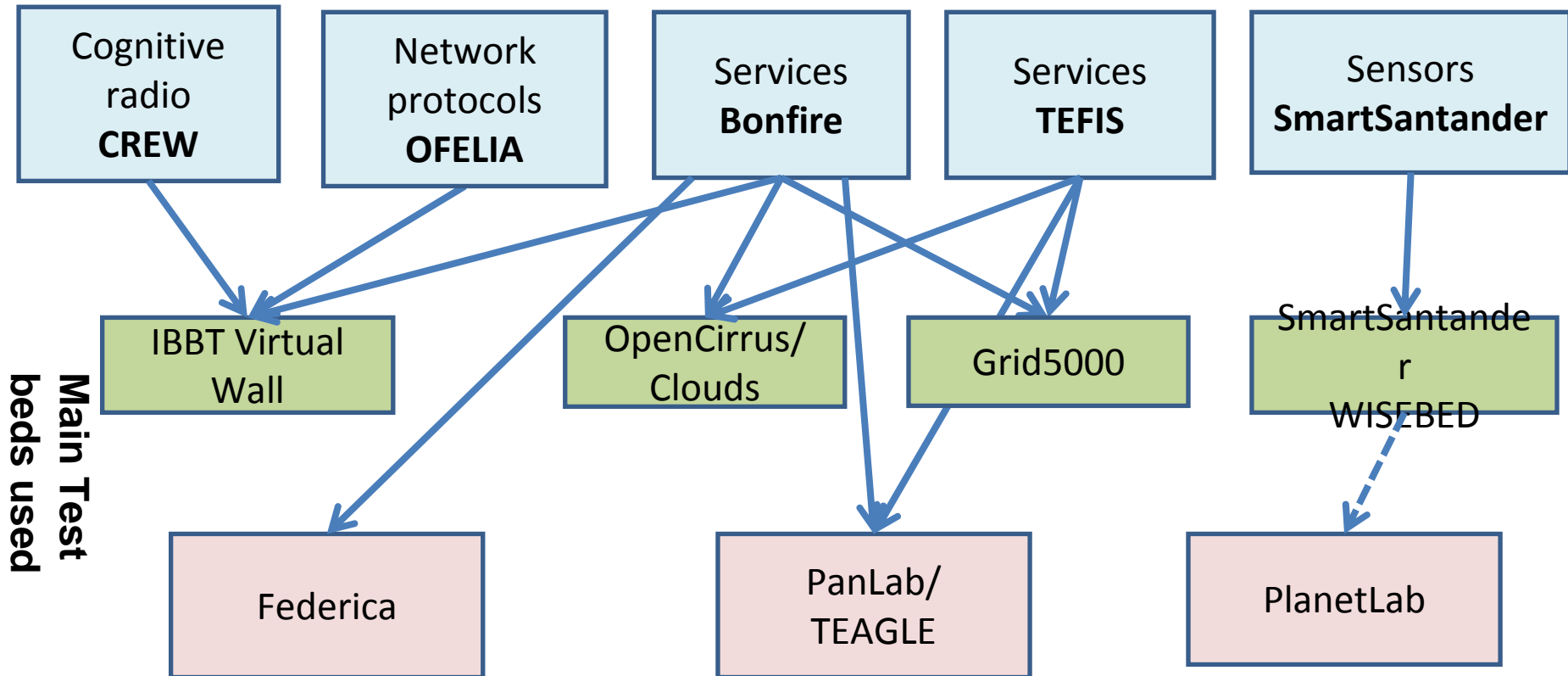




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FIRE Facility projects (call 5)

IP-projects Call 5





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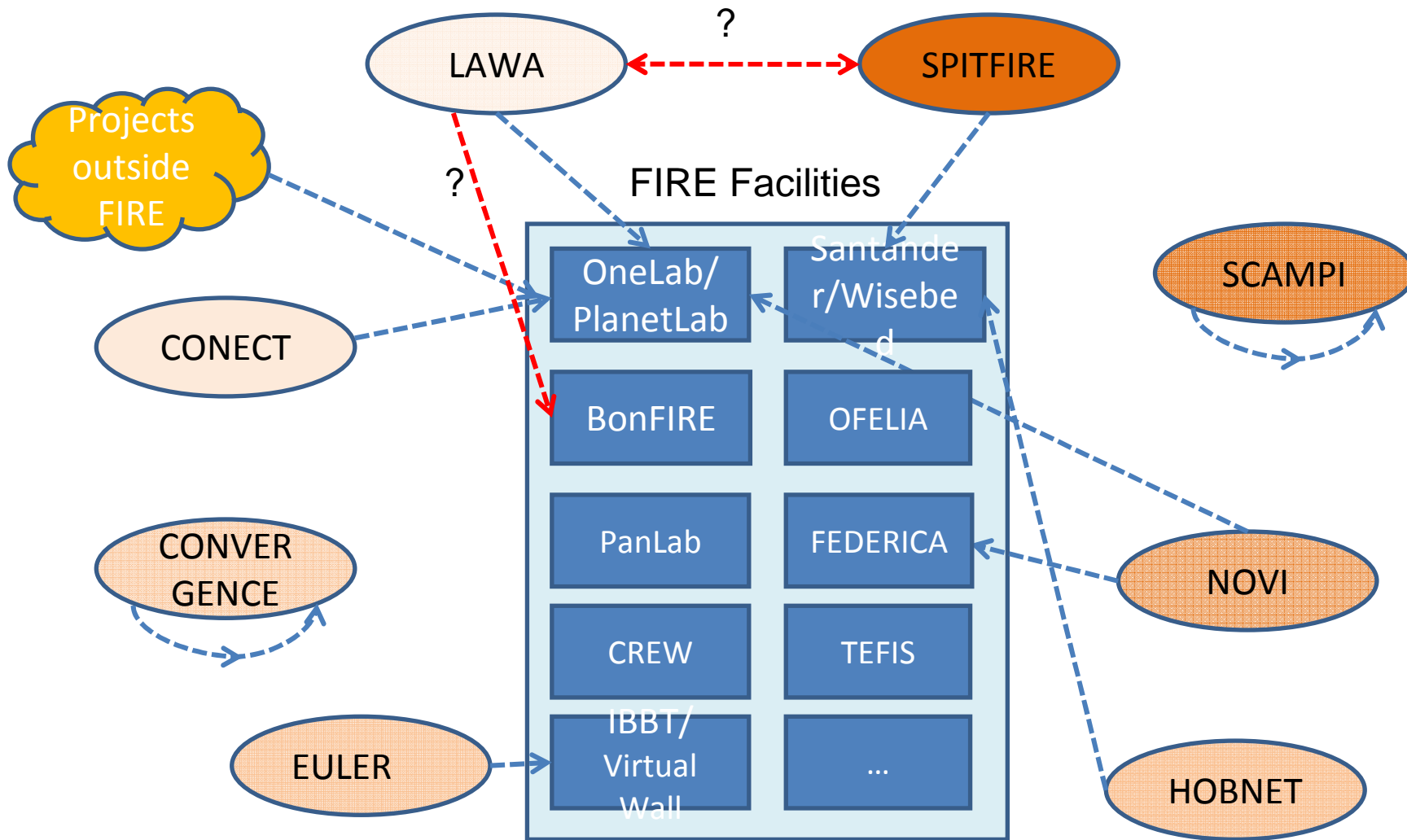
Open calls – starting in 1 year

CREW	cognitive radio
OFELIA	open flow
TEFIS	services and cloud computing
BonFire	services and cloud computing
SmartSantander	sensor networks



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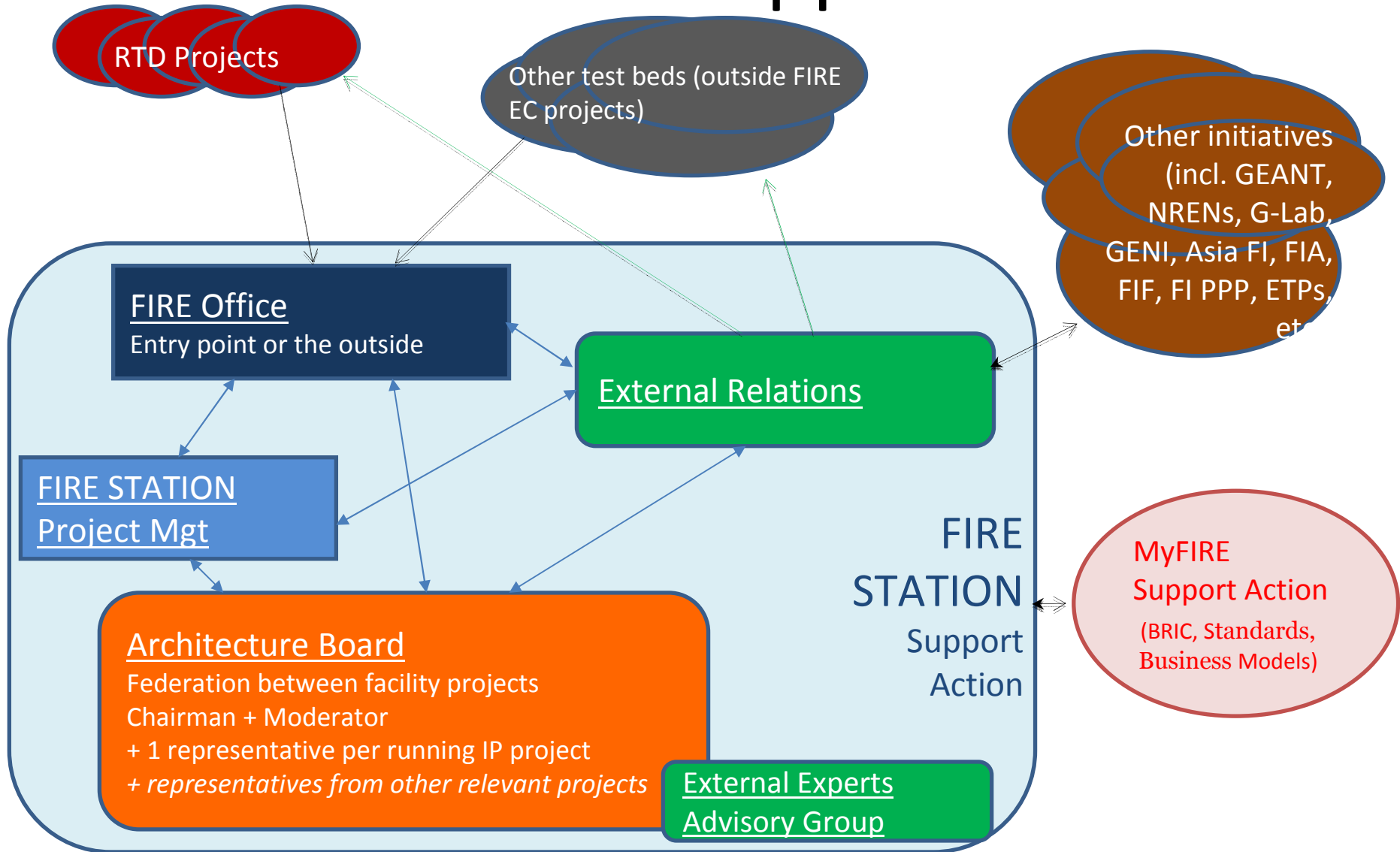
Research projects using facilities





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FIRESTATION support action





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Recommendations

First steps for FIREstation

1. The common portal is important, with stepwise development. Possibly a need of multiple implementations.
2. Fire shows progress in top-down federation (TEAGLE), while SFA (in FIRE + GENI) has shown potential for scalability in bottom-up federation. FIRE should address both strategies.
3. Open call project selection should also address heterogeneous federation. This must be based on project quality, implementation cost and goals of the individual facilities.
4. Support of benchmarking and repeatability of experiments must be encouraged.
5. Develop data sharing/interconnection supported by standards and shared tools.
6. Identify appropriate levels of user support and ensure that best practices are shared among projects