



The European Open Ecosystem for Future Internet Experimentation & Innovation

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FIRE LTE testbeds for Open Experimentation



FLEX aims to enhance existing FIRE facilities with cellular infrastructure for 4G-and-beyond technologies mobile access. FLEX's experimentation environment features highly flexible and versatile equipment: macro-cells, pico-cells, small-cells, real and emulated mobility frameworks. FLEX is integrating the infrastructure with the existing FIRE tools for managing and experimenting with testbed resources. FLEX equipment is leveraging both commercial and open source solutions: 1) the commercial equipment can be used for evaluating novel applications and algorithms on top of fully programmable testbed equipment, whereas 2) the open source setup can be used for implementing technologies and concepts towards 5G technologies. FLEX has organized two Open Calls, through which 2 new testbeds have been integrated in FLEX and 13 innovative experiments have been selected for running over the infrastructure.

How does it work?

FLEX testbeds are already available for experimentation! All the FLEX testbeds follow the open access paradigm, and are remotely reservable and accessible. Five different islands are available for experimentation: The NITOS testbed in Greece; The w-iLab.t testbed in Belgium; The OpenAirInterface testbed in France; The PerformNetworks testbed in Spain; and The FUSECO playground in Germany.

FLEX is following two experimentation approaches. The first approach offers a commercial network that is configurable and enables testing that needs compliance with the market products, while the second one allows for full redesign of the system.

Key achievements

FLEX achievements can be summarized as follows:

- Five FLEX testbeds are online and operating.
- FLEX equipment has been integrated with the existing FIRE management and experiment control tools.
- Real and emulated mobility involving the FLEX components is available for experimentation.
- 6 new partners have been introduced to FLEX via the 1st Open Call.
- 9 innovative experiments have been introduced via the 2nd Open Call. They will be executed over FLEX.

How to get involved?

The FLEX portal offers valuable information on how to conduct experiments and use the infrastructure.

Project Facts

CALL: Collaborative Projects Call 10 | **EXECUTION:** From January 2014 to December 2016

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