



# The European Open Ecosystem for Future Internet Experimentation & Innovation

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# Online Interoperability and Performance Tests for IoT

F-Interop is a European research project developing online interoperability and performance testing tools to support emerging IoT-related technologies. It will support researchers, product development by SMEs, and standardization processes, by providing remotely accessible tools to accelerate standardisation processes and support product development, by offsetting cost and time barriers. It will support new IoT standards and technologies from their genesis to the market.

## How does it work?

F-Interop gathers standardisation partners together with 3 FIRE federations (Fed4FIRE, IoT Lab and OneLab) to build a common experimental Platform as a Service (PaaS). Following an end-user driven methodology, it directly addresses the needs of emerging standards, including: oneM2M (with ETSI), IETF 6TISCH (co-chaired by INRIA), W3C Web of Things. In parallel, F-Interop will launch an Open Call to enable other communities to develop complementary tools and components.

## Key objectives

The aims and objectives of F-Interop can be summarized as follows: 1) to integrate and extend several European testbed federations with a shared "Testbed as a Service" interconnecting three European testbeds federations (Fed4FIRE, OneLab, IoT Lab), bringing together over 32 testbeds and 4755 nodes. It will develop a new architecture model enabling easier access to shared online services. 2) to research and develop online testing tools for the Internet of Things, including for interoperability tests, conformance tests, scalability tests, Quality of Service (QoS) and Quality of Experience (QoE) tests, and energy efficiency tests. 3) to support IoT standardization and enable closer cooperation with the industry, through a close collaboration with standards development organizations, including ETSI, oneM2M, IETF and W3C, and through research and develop online certification and labelling mechanisms. F-Interop will enable an easier participation of researchers and industry in the standardization process. 4) to organize an Open call for SMEs and developers to use and enrich the developed testing platform with additional modules and extensions (additional test tools, test specifications, etc.).

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## How to get involved?

The Open Call will extend the platform to other standardisation activities, as well as to additional tools extensions and SME product validations.

## Project Facts

**CALL:** Collaborative Projects Call 2 - ICT12 | **EXECUTION:** From November 2015 to October 2018

**COORDINATOR:** Serge Fdida (UPMC) and Sébastien Ziegler (Mandat International)

**PARTNERS:** UPMC (France), Mandat International (Switzerland), ETSI (France), EANTC (Germany), iMinds (Belgium), INRIA (France), University of Luxembourg (Luxembourg), Digital Catapult (UK), Device Gateway SA (Switzerland)