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Information and Communication Technologies

Integrating experiments and facilities in FIRE+

Deliverable D6.2
Outreach and Dissemination Report – Year 1

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Abstract

The deliverable **D6.2 Outreach and Dissemination Report** presents F-Interop's communication strategies during the project's first year. This document gives an overview of all dissemination activities including websites, social networks as well as conferences, articles and publications. Finally, it describes the collaborations through FIRE and close cooperation with the targeted standards development organizations and communities.

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Abbreviations and Acronyms

AINA	Advanced Information Networking and Applications
CoAP	Constrained Application Protocol
CSCN	Conference on Standards for Communications & Networking
DG	Device Gateway
ETSI	European Telecommunications Standards Institute
EU	European Union
FP7	Seventh Framework Program
GIoTS	Global IoT Summit
ICC	International Conference on Internet of Things, Data and Cloud Computing
ICT	Information and Communication Technologies
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
IoT	Internet of Things
IPv4	Internet Protocol version 4
IPv6	Internet Protocol version 6
ISG	Industry Specification Group
ITU	International Telecommunication Union
MI	Mandat International
M2M	Machine to Machine
PE-WASUN	Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks
QoS	Quality of Service
RSpecs	Resource Specification for Testbed Resources
SG	Study Group
SME	Small Medium Enterprise
TEMU	Telecommunications and Multimedia
TPAC	Technical Plenary / Advisory Committee
UL	University of Luxembourg
WP	Work Package
W3C	World Wide Web Consortium

1 Introduction

1.1 About F-Interop

F-Interop is a Horizon 2020 European Research project, which proposes to extend the European research infrastructure (FIRE+) with online and remote interoperability and performance test tools supporting emerging technologies from research to standardization and to market launch. The outcome will be a set of tools enabling:

- Standardization communities to save time and resources, to be more inclusive with partners who cannot afford travelling, and to accelerate standardization processes;
- SMEs and companies to develop standards-based interoperable products with a shorter time-to-market and significantly lowered engineering and financial overhead.

F-Interop intends to position FIRE+ as an accelerator for new standards and innovations.

1.2 Deliverable Context and Objectives

1.2.1 Work Package 6 Objectives

WP6 objectives are:

- Maximizing the outreach and use of the F-Interop developed tool by the targeted communities
- Establishing the dissemination and communication strategies and activities
- Communicating the scientific and technical achievements of the project within the consortium, in industry, in academia and a wider community to achieve high visibility of project activities and results
- Liaising with related EC co-funded projects and other research projects that are active during the projects' lifetime
- Participating in community, industrial and academic events with strong participation of project partners
- Establishing and managing the exploitation plan and strategy to ensure F-Interop sustainability

1.2.2 Task 6.1 Objectives - Outreach and dissemination

This task will lead and coordinate the outreach strategy with the consortium partners towards standardization bodies and SMEs. Its prime role is to ensure that all available options to interact with effective and potential end-users is properly exploited. It will define a clear action plan involving all the partners and leveraging on their specific role and contacts in the standardization environment.

The task will also define the project global communication strategy: when and why communicate, how to do it, and to which audience, following the 6W approach (What, Why, When, How, Where and to Whom). The visual identity including logo and graphical chart of the project will be defined and used in all communication. To ensure a professional level of quality in terms of design and presentation in all the project documents and communication, a set of graphical template documents will be designed.

This task will set up and maintain the project website, which will be a) of high quality; b) of interest to a wide and versatile community (different areas serving different interests) and c) updated regularly. The portal will be complemented by a social media communication strategy (e.g. LinkedIn groups, Facebook, etc.) that will ensure a broad diffusion of the project results and promote the project in online discussion communities. Dissemination of project results for the purpose of impact generation in the research community will focus on submitting research papers for publication at leading conferences and workshops, and in high-visibility journals. The project will make publications available in a sensible mixed strategy of 'gold' and 'green' open access publishing. Complementary communication tools, such as videos, posters, white papers, flyers and other printed material will be developed. A dedicated budget has been allocated for supporting those activities.

Furthermore, all documentation that does not cover commercially sensitive information will of course be made available openly (i.e. as many public/non-restricted deliverables as reasonably possible). The project aims at producing software open and reusable components and will consequently select an Open Source license model not limiting the commercial exploitation of project results by partners (e.g. BSD-like license are good candidates) through open access code repositories (e.g. github or other publicly available code repositories).

Finally, the consortium will aim at the organization of at least two public workshops, ideally under premises of a world-renowned conference, focusing on the progress and outcomes of the project, and bringing together other research and industrial efforts with similar or complementary results. At least one of the workshops will include a dedicated tutorial/training session on usage of the technologies and enablers developed in the project, whereas at least one of the workshops will include a dedicated session on discussion of the project innovation potential.

1.3 WP6 Expected Results

Overall F-Interop WP6 expected results and their potential impacts are:

- **Disseminate F-Interop project results:** Reach the public through crowdsourcing and researchers to promote IoT technologies, and more specifically IoT testbeds.
- **Collaboration with other projects and organizations:** Exchange know-how, experiences and tools to maximize chances of the project success and reuse existing knowledge.
- **Cooperation with standardization bodies:** Benefit from and eventually contribute to emerging standards in the area of IoT virtualization and cloudification.
- **Defining joint and individual exploitation plans:** Jointly exploiting the project results, as well as having a clear route to bring forward the individual exploitation plans which reflect needs and aspirations of project partners depending whether they are more scientifically or commercially oriented.

Based on the tasks outlined above, within the project's first year, the following main achievements were accomplished (see precise description in following chapters):

- **A F-Interop website** was set up with access to web portal/application. It is updated regularly by Digital Catapult and EANTC.
- **LinkedIn, Twitter** and **Facebook** pages were set up. It is updated regularly by EANTC.
- **Outreach campaigns** were planned and successfully realized.
- **Disseminated F-Interop** plans and results through conferences and presentations.
- **Disseminated F-Interop** plans and results through articles and publications.
- **A dissemination registry** was created to track relevant activities of all partners.
- **Joint F-Interop exploitation plan** was outlined in a separate deliverable (D6.1).

This document outlines the result from the activities in Task 6.1. It gives the current status of activities using different communication and presentation channels such as: Website, Twitter, LinkedIn, Facebook as well as future plans to further increase the number of different stakeholders interested in utilizing results from the F-Interop project.
As the overall objective of WP6 package is to increase the outreach of the F-Interop project, the targets which were planned are presented together with their completion date and current number of participants in surveys.

1.4 Outreach Strategy

Target group	Technical level	Main focus	Communication means
Public/ citizens	Understandable by a large public of non-specialists	Project presentation Economic impact and societal benefit Personal data protection	Project website Social media Media
Research community	High level on the scientific and technical innovation	Project presentation Scientific innovation	Conferences Publications Specialized networks/ fora Project website Social media
Industry, SDOs, SMEs and public administrations	Focus on the technology enablers and potential economic exploitation and social benefits	Project presentation Scientific and technical innovations Business opportunities Societal benefits	Direct contacts Advisory Board Conferences and fairs Publications Project website

Table 1: Outreach strategy

1.5 Purpose and Scope of the Document

This document reflects the effort made within the first year of F-Interop project regarding dissemination activities as well as liaison initiatives with other projects and organizations that in some way overlap in their activities or their results can be utilized further.

The document is subdivided into sections which detail the dissemination, liaison and standardization activities:

- *Section 1:* Gives an introduction about the F-Interop platform, the objectives of task 6.1, the expected results and an overview of the consortium partners.
- *Section 2:* Outlines dissemination activities through web pages, social networks, presentations and conferences, workshops, events, meetups as well as written publications.
- *Section 3*: Covers internal dissemination activities, such as face-to-face meetings, e-mails, shared repository, which are equally important and represent the basis for work planning and meeting project plans in timely manner.
- *Section 4*: An overview of possible collaborations with other projects and organizations enabling synergy in various domains linked to F-Interop project as well as the current collaboration status.
- *Section 5*: Provides the conclusion.

2 Dissemination Activities

2.1 F-Interop Logo

The F-Interop which was initially proposed for the project proposal has been kept with minor changes.

Figure 1: F-Interop Logo

2.2 F-Interop Website

The F-Interop website http://www.finterop.eu/ hosts a comprehensive public website that contains all relevant information about the project. It provides a centralized access to the various publicly available deliverables, publications and articles related to the project. The website is updated regularly over the lifetime of the project with the project publications and public materials, such as flyers, posters and public deliverables, organized workshops, available services, etc.

The website is divided into six sections, themselves divided into subsections.

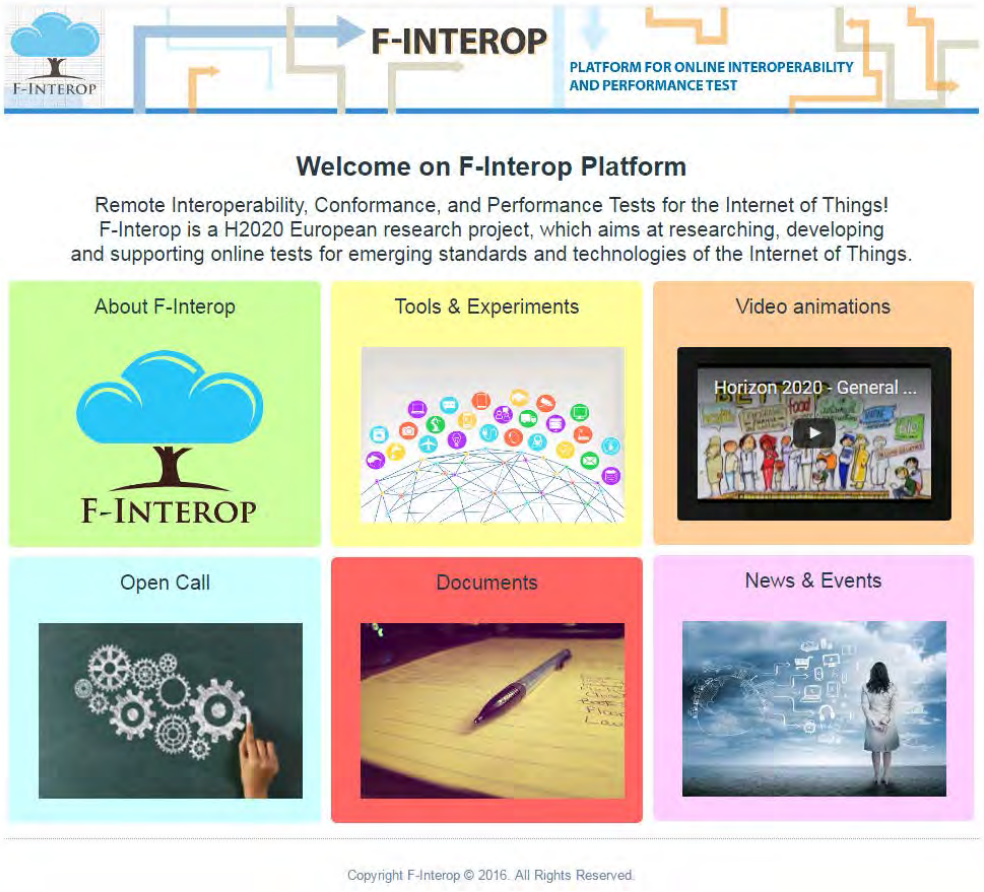

Figure 2: Screenshot Homepage

2.3 Social Networks

2.3.1 Outreach

For F-Interop, the key importance is to reach a wider audience throughout the project both for F-Interop sustainability and to have their involvement to influence the platform under development.

The following key actors were identified at the first stage of the project:

- Researchers/experimenters;
- Crowd/media;
- EC and authorities;
- Potential customers.

We have different strategies and actions for reaching out to F-Interop's audience. The strategies are built around various social media campaigns. Close interaction between F-Interop partners and stakeholders helps us to continuously define market segments and select the appropriate communication channels.

The project intends to develop F-Interop's presence on the social networks, such as LinkedIn, Twitter and Facebook. The first two channels are used to interact with the business community - researchers, SMEs, large industry - while the latter is used for the general public. We always take personal data protection into consideration.

We are eager to strengthen F-Interop's presence on social media to increase the number of followers. All partners are welcome to become supporters and to actively promote the F-Interop initiative on their own websites, channels, presentations and events.

Our task for the project's first year was to set up the strategy and communication tools and to make F-Interop public and visible.

2.3.2 F-Interop on Twitter

The F-Interop Twitter account (https://twitter.com/finterop) was launched in February 15th, 2016. Since then we "tweeted" and "retweeted" our latest news, events and publications.

Figure 3: Screenshot Twitter

2.3.3 F-Interop on LinkedIn

The F-Interop LinkedIn account (http://www.linkedin.com/company/finterop) was set up in August 2016. Disseminated posts include latest news, events and publications.

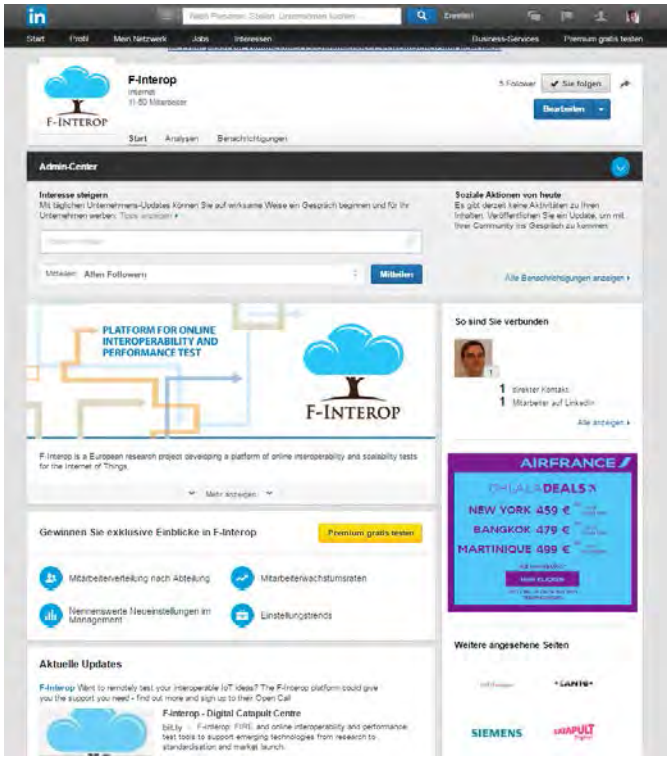

Figure 4: Screenshot LinkedIn

2.3.4 F-Interop on Facebook

F-Interop also disseminates latest news and events via Facebook. The F-Interop Facebook page (https://www.facebook.com/finterop/) was launched in August 2016. Disseminated posts include latest news, events and publications.

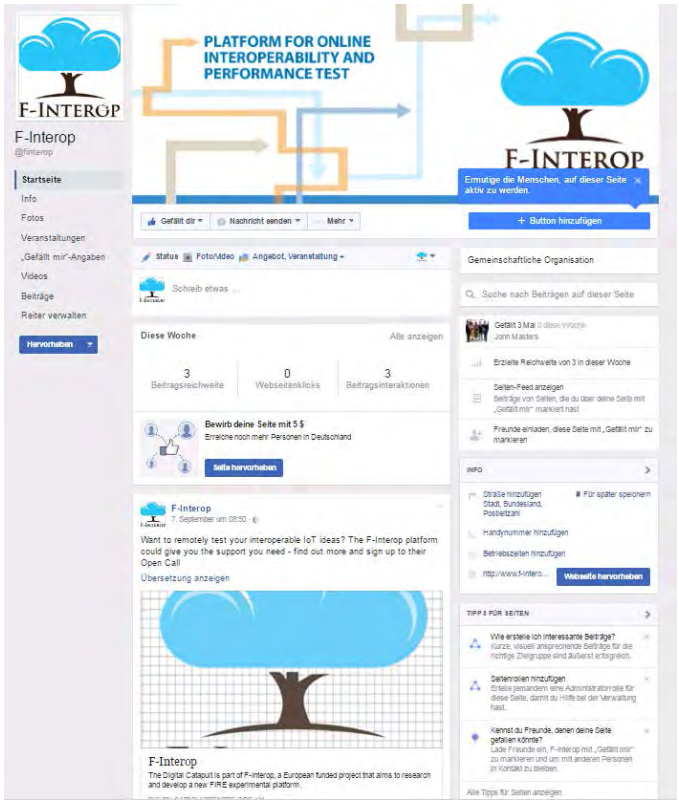

Figure 5: Screenshot Facebook

2.4 Videos

The first video is the generic F-Interop Horizon 2020 video, a three-minute animation clip which gives you a general overview of the program specifics and guides the viewer through the first steps he needs to take to apply to Horizon 2020.

Currently we are working on a series of three videos. The first video introduces the F-Interop platform, answers the 6W questions and what we want to accomplish. The second and third video, planned for the following years, will go more into details about the process and the final achievements.

2.5 F-Interop Flyer & Poster

The project prepares appropriate printed materials like leaflets to promote the project's outcomes to the general public. The flyer and poster can be used for presentations, events and conferences.

The live demo flyer was already used for the EuCNC conference in Greece (June 2016) and also during the Open Info Session at IETF96 in Berlin (July 2016).

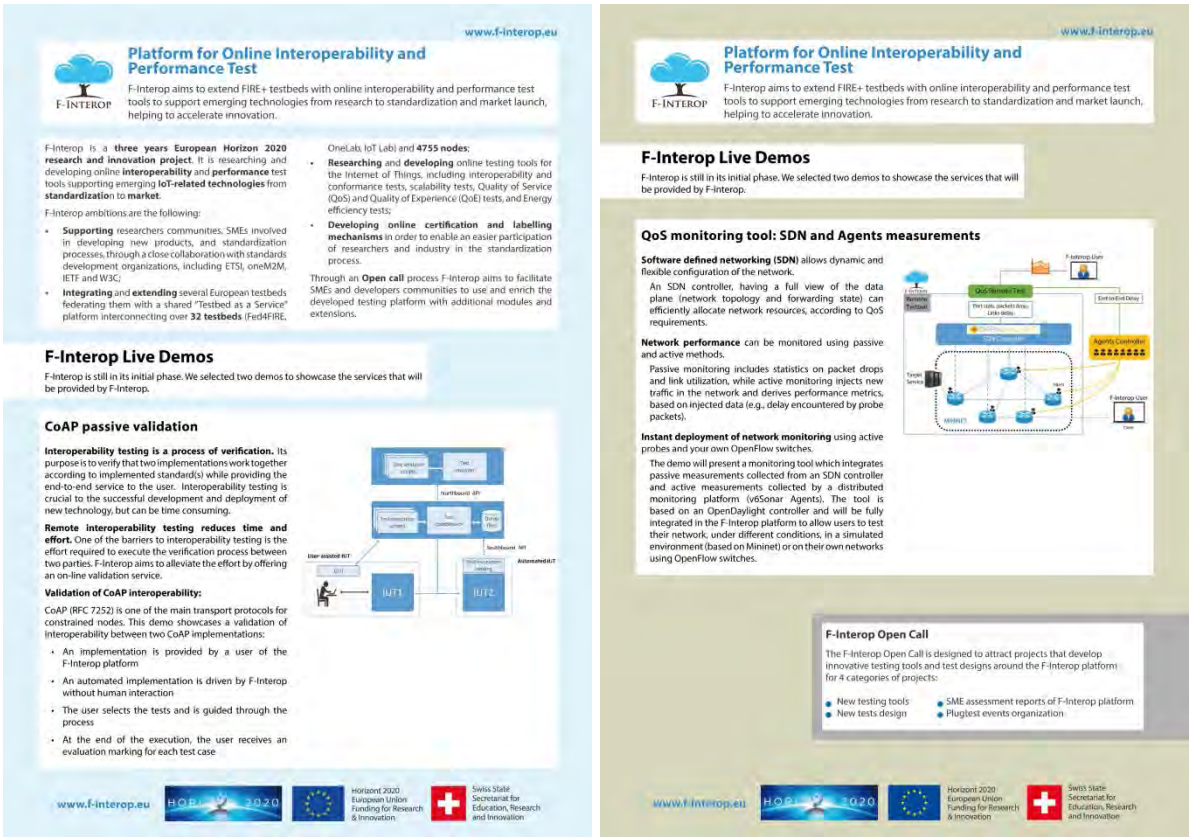

Figure 6: F-Interop Flyer

The following roll-up poster was developed by MI used for the CeBIT in Germany (March 2016) and the Technical Review in UK (September 2016).

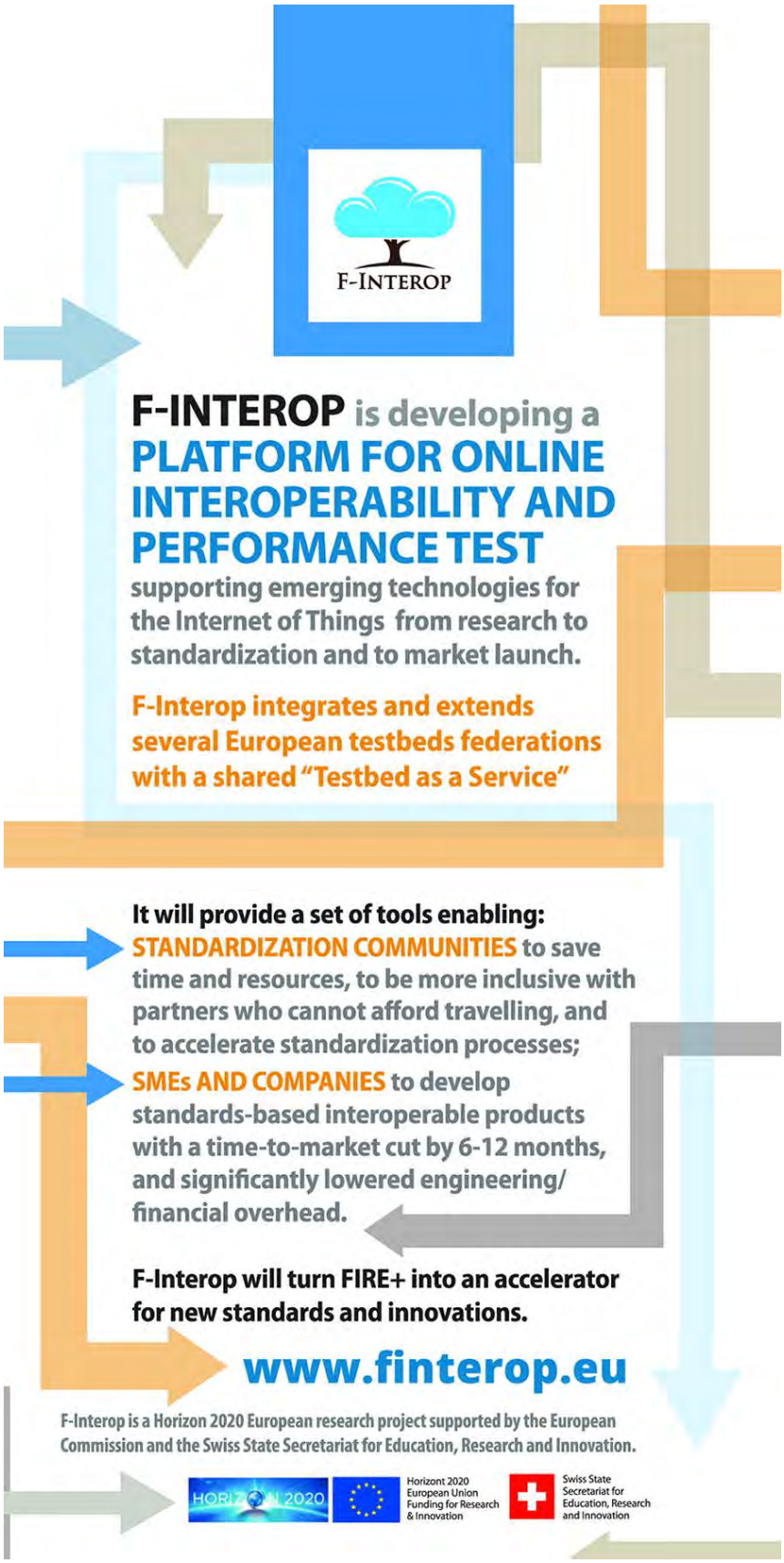

Figure 7: F-Interop Poster

The following Open Call flyer was used for the Open Info Session at IETF96 in Berlin (July 2016) and for the Technical Review Meeting in UK (September 2016).

www.f-interop.eu

Platform for Online Interoperability and Performance Test

F-Interop aims to extend FIRE+ testbeds with online interoperability and performance test tools to support emerging technologies from research to standardization and market launch, helping to accelerate innovation.

F-Interop is a **three years European Horizon 2020 research and innovation project**. It is researching and developing online **interoperability** and **performance** test tools supporting emerging **IoT-related technologies** from **standardization** to **market**.

F-Interop ambitions are the following:

- **Supporting** researchers communities, SMEs involved in developing new products, and standardization processes, through a close collaboration with standards development organizations, including ETSI, oneM2M, IETF and W3C;
- **Integrating** and **extending** several European testbeds federating them with a shared "Testbed as a Service" platform interconnecting over **32 testbeds** (Fed4FIRE, OneLab, IoT Lab) and **4755 nodes**;
- **Researching** and **developing** online testing tools for the Internet of Things, including interoperability and conformance tests, scalability tests, Quality of Service (QoS) and Quality of Experience (QoE) tests, and Energy efficiency tests;
- **Developing online certification and labelling mechanisms** in order to enable an easier participation of researchers and industry in the standardization process.

Through an **Open call** process F-Interop aims to facilitate SMEs and developers communities to use and enrich the developed testing platform with additional modules and extensions.

Open Call

The F-Interop project invites projects extending the F-Interop platform through the process of an open call. The F-Interop Open Call will support R&D for 4 categories of projects:

1. **New testing tools**
Grants of **€100K** each are allocated to support up to **three** 3rd party projects for developing and integrate new testing tools. Funding will cover SW development and HW-SW integration.

2. **New test design**
Grants of **€60K** each are allocated to support up to **three** 3rd party to develop new interoperability tests designs and specifications for supported protocols, including ETSI, IETF, ITU, IEEE and W3C standardization communities.

3. **Plugtest Events**
Grants of **€10K** are allocated to award third parties to conduct **three** remote, online plugtest events, to directly involve interop communities and collect direct usability feedback. Funding will cover the planning, promotion and delivery of each event, as well as preparation of a summary report.

4. **SME F-Interop assessment reports**
Grants of **€10K** each are allocated to support up to **ten** SMEs to test F-Interop platform and provide a written report on potential improvements, with particular attention to UX evaluation.

Final call text published on **f-interop.eu** on:
31st July 2016

Deadline for submission:
25th January 2017, 17:00 (CET)

Notification of selected applicants:
26th April 2017

Projects start:
30th August 2017

Call identifier:
F-Interop01 call

Proposal should be submitted in English

For more information about the open call, please email:
maria.prokopi@digicatapult.org.uk

www.f-interop.eu

Horizon 2020 European Union Funding for Research & Innovation

Swiss State Secretariat for Education, Research and Innovation

Figure 8: F-Interop Open Call Flyer

2.6 Open Call

The F-Interop Open Call is designed to attract projects that develop innovative testing tools and test designs around the F-Interop platform. These applications may be for the purpose of validating the platform or extending the existing capabilities of the platform with new features and capabilities, new interfaces or new tools.

In addition to the tool and test development projects described above, the Open Call will also select three SMEs to conduct plugtest events that will engage even more members of the interoperability and standards development communities.

50 people have attended the first two meet-ups. The next meet-up is planned for November. We have 20K Twitter and LinkedIn impressions in 3 months and 700 blog posts and project page visits.

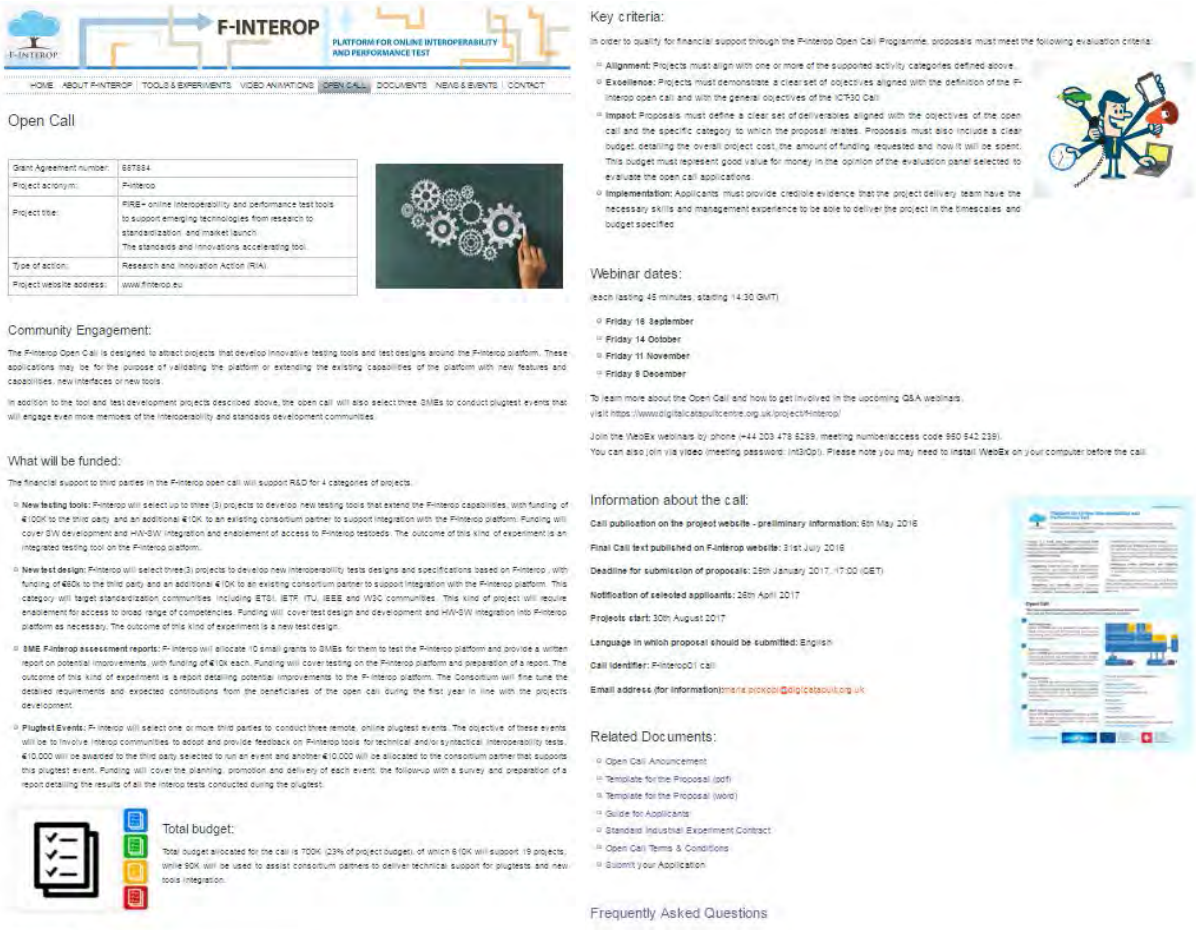

Figure 9: Screenshots Homepage Open Call

Events attended (2015/2016):

- CeBIT, Hannover, booth, 13 – 18 March
- Net Futures, The Egg, Brussels, booth, 20 April
- IoT Week 2016, Belgrade, presentation, 31 May – 02 June
- EuCNC, Athens, booth and live demos, 27 – 30 June
- IETF Meeting 96, Berlin, presentation, 17 – 22 July
- oneM2M TP 23 meeting, Montreal, presentation, 18 – 22 July
- TEMU, Heraklion, presentation, 25 – 27 July
- SenZations, Varsaw, presentation, 28 August – 2 September
- OMA DM & IoP WG call, presentation, 20 September
- W3C TPAC, Lisbon, presentation, 19 – 23 September
- FIRE Forum, Brussels, presentation, 27 September
- Inter-IoT, Paris, presentation, 26 – 28 October

Open Call Promotion:

- IPv6 Forum, 3450 members (https://www.linkedin.com/groups/153146)
- IoT, 76,000 members (https://www.linkedin.com/groups/73311)
- The Linux Foundations, 19,000 members (https://www.linkedin.com/groups/48682)
- IPv6, 11,000 members (https://www.linkedin.com/groups/91720)
- IEEE IoT, 4,900 members (https://www.linkedin.com/groups/5148323)
- Web of Things, 2000 members (https://www.linkedin.com/groups/1818463)
- Horizon 2020, 113,000 members (https://www.linkedin.com/groups/164166)
- IPSO, 700 members (https://www.linkedin.com/groups/2461176)
- UK IPv6 Council, 400 members (https://www.linkedin.com/groups/8128401)
- F-Interop (http://www.f-interop.eu/index.php/news (@finterop))
- FIRE (https://www.ict-fire.eu/f-interop-open-call-to-extend-its-platform/)

2.7 F-Interop Articles and Papers

Articles, papers and demonstrations have been made to promote F-Interop platform.

IoT InterOp-WARE A Heck of a Challenge (2016)[1]

Latif Ladid, President, IPv6 Forum President

Latif Ladid examined the current approach to IoT and what challenges need to be mastered to change the issues of a new IoT interop paradigm.

IoT Interoperability: Challenges and Opportunities (2016)[2]

Michele Nati, Lead Technologist on Personal Data and Trust, Digital Catapult

Michele Nati talks about the challenges and opportunities facing IoT interoperability, and how our F-interop project can provide solutions.

F-Interop Boosting IoT Interoperability (2016)[3]

Michele Nati, Lead Technologist on Personal Data and Trust, Digital Catapult

IoT interoperability represents well-known challenges that could hinder growth and expansion of the IoT ecosystem. Michele Nati, Lead Technologist on Personal Data and Trust at Digital Catapult, explains how our recent F-Interop meetup addressed this.

F-Interop – Online Platform of Interoperability and Performance Tests for the Internet of Things (2016)[4]

Sébastien Ziegler (MI), Serge Fdida (UPMC), Thomas Watteyne (Inria), Cesar Viho (Inria), Conference on Interoperability in IoT (InterIoT), Paris, France, 26-28 October 2016

This article presents an initial set of results from the F-Interop European research project researching online platform for interoperability and performance tests for the Internet of Things. It presents some of the challenges faced by the IoT and online testing, and how F-Interop is addressing them, in order to provide an extensive experimental platform for online tests. It gives an overview of its overall architecture.

[1] Open Data server, http://ckan.iotlab.eu/dataset/articles-and-publications/resource/4dc13cee-bf29-4d06-91e9-7506e7013810
[2] https://www.digitalcatapultcentre.org.uk/iot-interoperability-challenges-opportunities/
[3] https://www.digitalcatapultcentre.org.uk/f-interop-boosting-iot-interoperability/
[4] Open Data server, http://ckan.iotlab.eu/dataset/articles-and-publications/resource/770b7329-32b7-4095-9576-3389cf2b6f71

OneLab: On-demand deployment of IoT over IPv6 Infrastructure as a service for IEEE INFOCOM community (2016)[5]

Loïc Baron, Radomir Klacza, Mohammed Yasin Rahman, Ciro Scognamiglio, Timur Friedman, et al,. IEEE Infocom 2016, Apr 2016, San Francisco, US, Live/Video Demonstration, http://infocom2016.ieee-infocom.org

This demonstration will explain how an experimenter can easily deploy an end-to-end IoT and Cloud infrastructure using the One Lab federation of testbeds. It will highlight the importance of using Ipv6 in this context.

Technical Overview of F-Interop (2016)[6]

Remy Leone, Federico Sismondi, Thomas Watteyne, César Viho, Conference on Interoperability in IoT (InterIoT), Paris, France, 26-28 October 2016

Insights into Frequency Diversity from Measurements on an Indoor Low Power Wireless Network Testbed (2016)[7]

Pedro Henrique Gomes, Ying Chen, Thomas Watteyne, Bhaskar Krishnamachari. IEEE Global Telecommunications Conference (GLOBECOM), Workshop on Low-Layer Implementation and Protocol Design for IoT Applications (IoT-LINK), Washington, US, 4-8 December 2016

Rover: Poor (but Elegant) Man's Testbed (2016)[8]

Zacharie Brodard, Hao Jiang, Tengfei Chang, Thomas Watteyne, Xavier Vilajosana, Pascal Thubert, Geraldine Texier, ACM International Symposium on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks (PE-WASUN), Valletta, Malta, 13-17 November 2016

This paper presents the OpenVisualizer Rover testbed, a simple, easy-to-deploy and cheap testbed for the Internet of Things (IoT). The OpenWSN project provides a free and open-source implementation of a standards-compliant protocol stack for the IoT, as well as all the necessary network management and debugging tools.

[5] Open Data server, http://ckan.iotlab.eu/dataset/articles-and-publications/resource/753edcc1-fd00-42b2-95d4-3e198e0461f4

[6] Open Data server, http://ckan.iotlab.eu/dataset/articles-and-publications/resource/0838b6c0-6128-4030-a94e-9f86406221dd

[7] Open Data server, http://ckan.iotlab.eu/dataset/articles-and-publications/resource/6411e764-2151-4917-a6ef-d76cf08d999d

[8] http://www.f-interop.eu/images/Articles/rover-poor-but-elegant-mans-testbed.pdf

2.8 Disseminating Knowledge

2.8.1 Outreach and Dissemination

The following table gives an overview of all dissemination activities published on the website, social media, at conferences etc. in project's first year until end of October 2016 (date of publication).

Date published	Where?	Conference & Venue/Channel	Type	Title	Authors/ Presenters
December 9th, 2015	Conference	FIRE Forum	Presentation	F-Interop Overview	Timur Friedman
2016	Website	InterComms, Issue 26	Article	IoT InterOp-WARE A Heck of a Challenge	Latif Ladid
March 1st, 2016	Website	CeBIT	News/ Events	F-Interop @ CeBIT	DG, MI
March 1st, 2016	Social Media	Twitter	Tweet	CeBIT	DG, MI
March 14-18th, 2016	Exhibition	CeBIT 2016 Hannover	Exhibition booth	F-Interop – Online testbed for IoT	DG, MI
April 5th, 2016	Conference	IETF 95, IoT Directorate	Presentation	F-Interop: web-based Interop events [brainstorming]	Thomas Watteyne
April 20th, 2016	Conference	Net Futures	Presentation	Testbed as a Service: a paradigm shift	Sébastien Ziegler
May 2016	Website	-	Presentation	F-Interop RollUp	-
June 23rd, 2016	Social Media	Twitter	Tweet	EuCNC	-
June 27-30th, 2016	Conference	EuCNC	Presentation/ Demonstration	F-Interop: Online Interoperability, Performance and Scalability Tests for the Internet of Things	Eldad Zack, Federico Sismondi, Maria Propoki, Lee Tarrant Sébastien Ziegler
July 14th, 2016	Website	EuCNC	Presentation	Live Demos and Open Call	Eldad Zack, Federico Sismondi, Maria Propoki, Lee Tarrant
July 14th, 2016	Website	EuCNC	News/ Events	F-Interop @ EuCNC	-

July 17-22th, 2016	Conference	IETF 96 Standardization meeting	Info Session	Remote Conformance & Interop Testing	Thomas Watteyne Remy Leone, Federico Sismondi, Maria Rita Palattella
July 18th, 2016	Conference/ Website	IETF 96	Presentation	Remote Conformance & Interop Testing	Thomas Watteyne Remy Leone, Federico Sismondi, Maria Rita Palattella
July 22th, 2016	Website	Digital Catapult	Article	IoT Interoperability: Challenges and Opportunities	Michele Nati
July 26th, 2016	Conference	International Conference on Tele-communications and Multimedia (TEMU)	Presentation	F-Interop - Online Platform for IoT Interoperability and Performance Tests	Sébastien Ziegler
July 27th, 2016	Website	Digital Catapult	Article	F-Interop Boosting IoT Interoperability	Michele Nati
July 27th, 2016	Social Media	Twitter	Tweet	F-Interop: Boosting IoT interoperability	Michele Nati
August 11th, 2016	Website	IETF 96	Presentation Video/ Demonstration	Remote Conformance & Interop Testing	Thomas Watteyne, Remy Leone, Federico Sismondi, Maria Rita Palattella
August 5th, 2016	Social Media	Twitter, LinkedIn, Facebook	Post/ Tweet	IoT InterOp-WARE A Heck of a Challenge	Latif Ladid
September 6th, 2016	Social Media	Twitter, LinkedIn, Facebook	Post/ Tweet	F-Interop: getting involved	Michele Nati
September 6th, 2016	Social Media	Twitter, LinkedIn, Facebook	Post/ Tweet	Promotion F-Interop	-
September 9th, 2016	Social Media	Twitter, LinkedIn, Facebook	Post/ Tweet	Promotion Open Call	Digital Catapult
September 19th, 2016	Website	ACM International Symposium (PE-WASUN)	News/ Events	F-Interop @ the 13th ACM PE-WASUN 2016	-
September 20th, 2016	Conference	OMA DM & IOP Info Session	Presentation	F-Interop platform Remote Conformance & Interop Testing	Thomas Watteyne, Remy Leone

September 19-23rd, 2016	Conference	TPAC 2016 Web of Things IG Meeting	Presentation	Remote Conformance & Interop Testing	César Viho, Federico Sismondi
October 2nd, 2016	Social Media	LinkedIn[9]	Promotion Post	700K€ Open Call to submit IoT Test Tools, new test designs, SME F-Interop assessment reports and Plugtest Events	Latif Ladid
October 4th, 2016	Website	Conference on Interoperability in IoT (InterIoT)	Article	Technical Overview of F-Interop	Remy Leone, Federico Sismondi, Thomas Watteyne, César Viho
October 4th, 2016	Website	Conference on Interoperability in IoT (InterIoT)	Article	F-Interop – Online Platform of Interoperability and Performance Tests for the Internet of Things	Sébastien Ziegler, Serge Fdida, Cesar Viho, Thomas Watteyne
October 4th, 2016	Website	IEEE Infocom 2016	Article, Live/ Video Demonstration	OneLab: On-demand deployment of IoT over IPv6 Infrastructure as a service for IEEE INFOCOM community	Loïc Baron, Radomir Klacza, Mohammed Yasin Rahman, Ciro Scognamiglio, Timur Friedman, et al.
October 4th, 2016	Website	IEEE Global Tele-communications Conference	Article	Insights into Frequency Diversity from Measurements on an Indoor Low Power Wireless Network Testbed	Pedro Henrique Gomes, Ying Chen, Thomas Watteyne, Bhaskar Krishnamachari
October 6th, 2016	Website	ACM International Symposium (PE-WASUN)	Article	Rover: Poor (but Elegant) Man's Testbed	Zacharie Brodard, Hao Jiang, Tengfei Chang, Thomas Watteyne, Xavier Vilajosana, Pascal Thubert, Geraldine Texier

[9] LinkedIn IoT groups:

- Information Technology Professionals, Cloud, Mobile, Big Data, IoT, Agile Scrum Lean, IT Jobs; 158,344 members; https://www.linkedin.com/groups/3732032
- Telecoms Professionals: IoT, LTE, M2M, OTT, Internet of Things, Mobile, Telecom; 534,188 members; https://www.linkedin.com/groups/23013
- IoT – Internet of Things, M2M, Smart Cities, Connected Home, Car & Industry, mHealth and Wearables; 50,858 members; -https://www.linkedin.com/groups/8356116
- Internet of Things (IoT), Virtual Reality (VR) + Augmented Reality (AR) Innovators Network; 29,764 members; https://www.linkedin.com/groups/2093378
- IEEE Internet of Things; 5,439 members; https://www.linkedin.com/groups/5148323
- Wearable / IoT; 27,844 members; https://www.linkedin.com/groups/1794802
- IoT Security; 7,201 members; https://www.linkedin.com/groups/4807429

October 7th, 2016	Website	TPAC 2016 Web of Things IG Meeting	Presentation	Remote Conformance & Interop Testing	César Viho, Federico Sismondi
October 13th, 2016	Social Media	Twitter, LinkedIn, Facebook	Post/ Tweet	Promotion Open Call	-
October 26th – 27th, 2016	Conference	Conference on Interoperability in IoT (InterIoT)	Presentation	F-Interop – Online Platform of Interoperability and Performance Tests for the Internet of Things	Sébastien Ziegler

Table 2: Dissemination activities

2.8.2 Past Events, Conferences, Exhibitions and Workshops

The following overview shows all past events, conferences, exhibitions and workshops.

Date	Name	Location	Type	Partners
December 9th, 2015	FIRE Forum	Brussels	Presentation	MI
March 14-18th, 2016	CeBIT	Hannover	Booth	DG
March 23-25th, 2016	AINA	Crans-Montana	Presentation	MI, Inria, UPMC
April 20-21st, 2016	Net Futures	Brussels	Booth	MI
May 10-13th, 2016	oneM2M Plugtest	Seoul	Presentation	ETSI
May 30-June 2nd, 2016	IoT Week	Belgrade	Presentation	MI
June 27-30th, 2016	EuCNC	Athens	Booth & Live demos	Inria, EANTC, Digital Catapult
July 4-6th, 2016	ETSI IP6 ISG	Nice	Booth	MI
July 18-22nd, 2016	oneM2M Meeting	Montreal	Presentation	ETSI
July 18-22nd, 2016	IETF / 6Tisch Plugtest	Berlin	Presentation	UL, Inria
July 25-27th, 2016	TEMU 2016	Heraklion	Presentation	UL, MI
Aug 18-Sep 2nd, 2016	SenZation	Varsaw	Presentation	
September 19-23rd, 2016	TPAC 2016 Web of Things IG Meeting	Lisbon	Presentation	Inria
September 27th, 2016	FIRE Forum	Brussels	Presentation	MI
October 26-27th, 2016	Inter IoT	Paris	Presentation	MI, Inria

Table 3: Past events, conferences, exhibitions and workshops

2.8.3 Upcoming Events and Conferences

The following table gives an overview of upcoming events.

Date	Name	Location	Partners
November 1-2nd, 2016	IEEE CSCN	Berlin	UL, MI
November 19-December 2nd, 2016	oneM2M Plugtest	Kobe	ETSI
December 6-8th, 2016	IEEE GLOBECOM	Washington	UL, MI
December 12-14th, 2016	IEEE IoT World Forum	Washington	UL
March 13-23rd, 2017	ITU SG20	Dubai	MI
May 21-25th, 2017	ICC 2017	Paris	UL
June 6-9th, 2017	IoT Week 2017	Geneva	MI
June 6-9th, 2017	GIoTS 2017	Geneva	MI
July 16-21th, 2017	IETF 99	Prague	Inria

Table 4: Upcoming conferences

2.8.4 Upcoming Exhibitions and Workshops

The following table gives an overview of upcoming exhibitions.

Date	Name	Location	Partners
November 16-17th, 2016	13th ACM PE-WASUN 2016	Malta	Inria

Table 5: Upcoming exhibitions and workshops

3 Internal Dissemination Activities

3.1 Face-to-Face Meetings

Face-to-face meetings were organized throughout the project's first year, as well as meetings at the various F-Interop events.

The list of internal project meetings is given below:

Date	Event	Location	Hosted by
November 23-24th, 2015	Kick-off meeting	Paris	Inria
January 7th, 2016	Technical meeting	Paris	UPMC
March 8-9th, 2016	Plenary meeting	Paris	UPMC
May 3rd-5th, 2016	Bilateral technical meeting	Luxembourg	UL
June 6-7th, 2016	Plenary & Technical meeting	Paris	UPMC
September 29-30th, 2016	Technical review	London	Digital Catapult
October 24-25th, 2016	Plenary & Technical meeting	Paris	Inria

Table 6: F-Interop project meetings

3.2 Project File Repository

A dedicated CKAN Open Data server gives access to the data to be made available to third parties. Links from the F-Interop website directly refer to the Open Data server.

The Intranet, named "Wiki", offers a secured work environment for F-Interop partners. This tool allows each registered participant to easily find any information and related documents concerning the work to be done and the deadlines to meet.

Internal project files are stored on the OneDrive, so that they can be easily accessed by all the partners. In this way, all the results can be quickly disseminated. The folder structure is expandable and can accommodate all the documents that will be produced throughout the project lifetime.

A reporting website is used to facilitate the management. This tool allows partners to declare their activities regarding the project.

3.3 Regular Phone Conferences

GoToMeeting was used to arrange monthly phone conferences between the project partners in the project's first year. Also, Slack was used as way of communication for technical and architectural discussions. Also, ad-hoc technical teleconferences were held among the technical partners of the project for focused discussion on specific topics.

3.4 Mailing Lists

The scientific mailing list for the project is f-interop-scientific@npafi.org and is actively used on a daily basis.

4 Collaboration Activities

4.1 Collaboration through FIRE

Future Internet Research and Experimentation (FIRE) (https://www.ict-fire.eu/) addresses the emerging expectations which are being placed upon the Internet, by providing a research environment for investigating and experimentally validating highly innovative and revolutionary ideas.

The F-Interop project as a FIRE project covers the following subject areas (Figure 10: FIRE projects):

- Sensors/Internet of Things/Web of Things
- Content-centric/Social Networking/eLearning

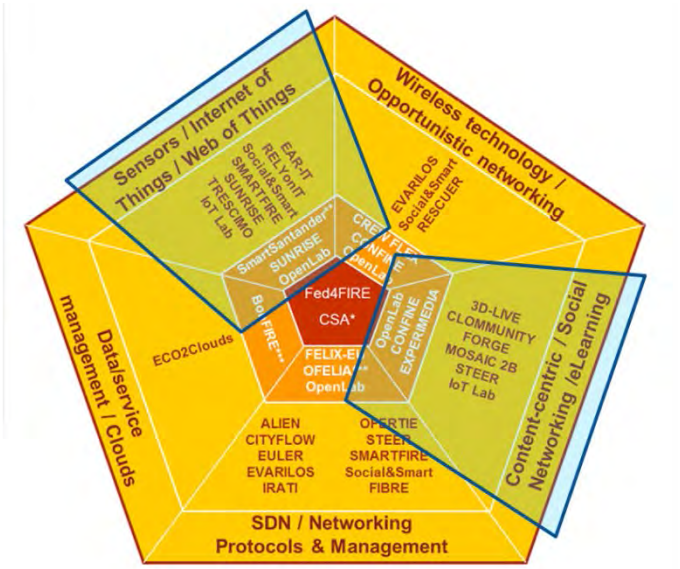

Figure 10: FIRE projects

For FIRE collaboration in Year 1, the following steps were made:

1. Presentation at FIRE+ Board Meeting, Brussels, Belgium, 19 April 2016, *FIRE paradigm shift* by Sébastien Ziegler (MI), IoT Lab, F-Interop and Privacy Flag Coordinator;
2. Presentation at FIRE+ Board Meeting, Bratislava, Slovakia, 28 September 2016, *IoT's offer and needs and F-Interop for online certification* by Sébastien Ziegler (MI);
3. Presentation at FIRE Forum 2016, Bratislava, Slovakia, 27 September 2016, *IoT's offer and needs and F-Interop for online certification* by Sebastien Ziegler (MI);
4. Exhibition demo booth and presentations at the conference EuCNC'2016, Athens, Greece, 27- 30 June, 2016;
5. FIRE Forum 2015, Brussels, Belgium, 9 December 2015:
   5.1. *F-Interop* by Timur Friedman (UPMC),
   5.2. *Federated, demand-driven and sustainable infrastructure for future internet experimentation* by Brecht Vermeulen, iMinds (Fed4FIRE);
6. To share the experience and potential with IoT testbeds to attract a wider interest

of FIRE IoT testbeds;

7. A workshop during the IoT week in London in June 2014;
8. Sharing the F-Interop collaboration model for FIRE exploitation;
9. Dissemination activities with other FIRE projects.

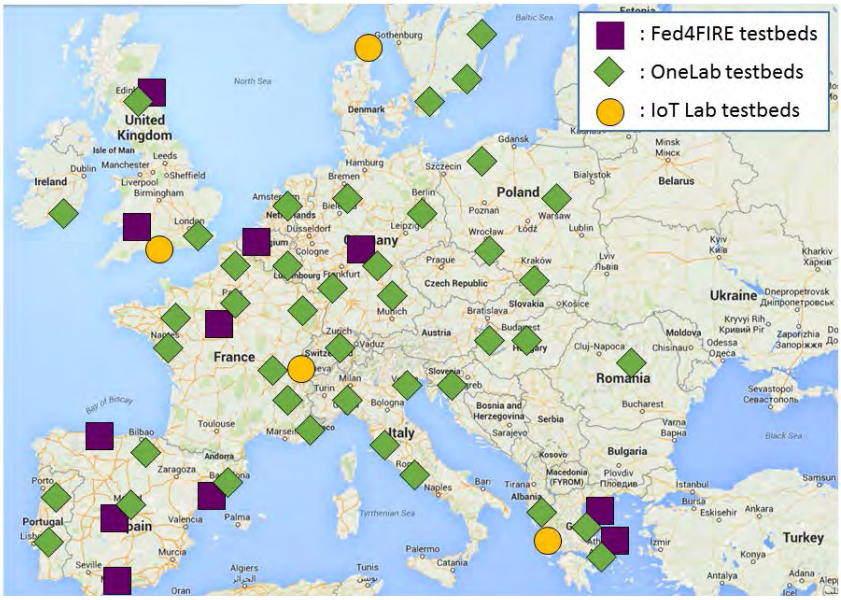

Figure 11: Testbeds

F-Interop will bring together the following three FIRE-related federations of testbeds, which together provide a very large and quite unique set of experimental facilities for testing and experimentations. F-Interop will leverage on their respective experience and tools to develop a mutualized and diversified online experimental platform, as a shared platform of test tools on top of the three major FIRE-related infrastructures. It will enable FIRE+ to move one step further in the direction of an integrated European research infrastructure, while respecting the diversity and autonomy of each federation.

The project has substantially progressed towards the achievement of the objectives. The task T1.1 on Testing tools requirements analysis has been achieved, and the Privacy by Design report has been completed (Deliverable D1.2). The initial architectural view for the integration of the various testbed federations and F-Interop components has been generated and formalized. The designed architecture has been designed in order to ease the extension towards diverse standards and communication protocols. The consortium progressed in designing the Testbed as a Service model, which leverages on virtualization to simplify remote access and interaction for experimenters.

The APIs of the three testbed federations have been studied to identify the differences between them, including in terms of resource descriptions in the RSpecs (resource specification for testbed resources). The necessary APIs have been largely specified in line with the architecture. A proof of concept of the Testbed as a Service API has been presented and will be further developed. The GUI based on MySlice has been discussed in plenary session.

4.1.1 Fed4FIRE

Federation for FIRE

Link: http://www.fed4fire.eu/testbeds

Fed4FIRE aims to establish a common federation framework by developing, adapting or adopting tools that support experiment lifecycle management, monitoring and trustworthiness. A large number of existing experimentation facilities in Europe will be adapted to seamlessly integrate in the federation. Such facilities typically focus on different kinds of networking related research or on different communities regarding services and applications. Example domains are optical networking, wireless networking, software defined networking, cloud computing, grid computing, smart cities, etc. Therefore, the federation will have to support a very heterogeneous set of requirements. To guarantee that the federation framework meets all of them, representatives of all these FIRE research communities will be actively involved in the definition of the federation architecture. Each of them will also lead the uptake of the Fed4FIRE platform in their specific community.

Proposed list of actions:

More technical telcos will be held with the Fed4Fire consortium to get more details from the Fed4Fire infrastructure and tools as well as to be updated with their progress.

List of actions done:

F-Interop has aligned its architecture to Fed4FIRE and used part of its components in order to enable and ease future integration.

A first prototype of a fully automated deployment on Fed4FIRE testbeds of the conformance test suite for CoAP developed in WP2 has been built. In this way, users and contributors can easily use testbed resources in their testing and can also extend the F-interop suite in an easy way (needed for the open calls).

The way this was done:

- the RSpec was extended with ansible commands
- jFed was extended to execute automatically the ansible playbooks
- jFed was extended to be able to run as a testbed as a service component with a REST API on top
- Speaks-for mechanism is used to transfer credentials of a user in a secure way to the REST API.

iMinds promoted F-interop as a project using the Fed4FIRE testbeds on the Fed4FIRE booth at EuCNC 2016 and promoted the automatic ansible framework from F-interop in the GENIFIRE co-organized summer school in Gent in July 2016.

Additional synergies will be developed with the Fed4FIRE+ project, in which UPMC, iMinds and MI are partners.

4.1.2 OneLab

OneLab Future Internet Testbeds

Link: https://onelab.eu/services

OneLab offers access to testbeds – “through OneLab, you can easily test the software system that you have designed to function in any one of the following networked communication environments: ad-hoc wireless networks, with mobility and sensing capabilities wireless broadband access networks the public fixed-line Internet, at a global scale emulated environments, both wireless and fixed-line”.

Wireless, sensing, and mobility testbeds - Internet of Things testing environments

These platforms offer both fixed nodes and mobile nodes with controlled mobility via robots or model trains. Some of the environments are rooms wrapped in Faraday cages, isolated from normal radio interference. Others are in typical office building environments.

- FIT IoT-Lab
- NITOS
- w-iLab.ts

A poster and demo using the FIT IoT-Lab testbed has been presented at IEEE INFOCOM, 10-15 April 2015, San Francisco, CA. The purpose of the demo was to present the capability of automating an IoT and Cloud deployment over IPv6. This work is benefiting to the automation work of F-Interop.

Areas of potential cooperation and synergies with the list of F-Interop tasks concerned:

There are two ways for potential cooperation with OneLab:

- Use of their website to promote F-Interop project;
- Exchange know-how in the area of IoT testing environments.

Investigate whether an open source SW (e.g. tools) can be used within F-Interop framework.

For example, OneLab uses “a set of highly capable experiment control tools. These are free open-source tools designed around a set of interfaces that are being adopted worldwide, meaning that these tools are evolving to meet the needs of an ever-growing community of experimenters, and can be tailored, if needed, for particular requirements.”

Proposed list of actions:

Propose meetings/ telcos with the consortium of OneLab in order to further discuss the potential collaboration and the exchange of knowledge.

4.1.3 IoT Lab

Link: http://www.iotlab.eu/

IoT Lab is a European Research project which aims at researching the potential of crowdsourcing and the Internet of things for multidisciplinary research and experiments with more end-user interactions. IoT Lab is offering a platform bringing together citizens, end-users and researchers to work together and to address real challenges by combining the research community and the wisdom of the crowd.

IoT Lab intends to:

- Extend existing testbeds through crowdsourcing, enabling richer and more distributed experiments;
- Bring the researcher and the end-user together, with closer interactions between the experiments and the society;
- Support multidisciplinary experiments;
- Increase testbed economic sustainability.

The European IoT lab project federates several IoT-related testbeds together with crowd sourcing and crowd sensing capabilities. It aims at researching the potential of crowdsourcing to extend IoT testbed infrastructure for multidisciplinary experiments with more end-user interactions. On the IoT testbed side, it includes several testbeds, including smart campuses and smart buildings, as well as a smart office testbed. The platform gathers a large heterogeneity of IoT devices enabling F-Interop to expose all sorts of devices using distinct communication protocols. On the user side, the platform enables interaction with end-users distributed across Europe.

List of actions done:

MI started working on the long-term exploitation plan by engaging the IoT Lab association to support the long-term maintenance of the platform.

4.2 Direct Support to Standardization

F-Interop has worked in close cooperation with the targeted standards development organizations and communities. Collaboration links are active and effective. This first period of time enabled the consortium to organize and prepare the Open Call and its related communication tools, with a dedicated section on the project website. Material and information have been prepared, including detailed guidelines, and supporting documents.

The milestone MS22 “Open call website and information tool made public and launched” has been achieved at M6, and we expect to achieve MS23 “Open call selection started” due at M12 on time.

The project is globally well aligned with its work plan. The due deliverables have been submitted on time.

The consortium progressed in designing and specifying the various testing tools, including a detailed analysis of interoperability and conformance testing tools, in order to optimize the generic part of it. In parallel, the deliverable D3.1 presenting the Performance test tools detailed framework report has been completed in advance.

The overall approach for performance tools, privacy tools as well as spatial and map representation is clearly defined. The performance testing tools benefits already from initial prototypes for QoS monitoring, timeline controller, network impairment and CoAP client emulator. In the area of privacy tools, study and analysis was conducted and a preliminary design of the privacy Tool module was presented during June face-to-face Meeting in Paris. For spatial and map representation, extensive research was undertaken to the available candidate and initial testing of the most promising among the candidates is now in progress.

4.2.1 IETF (6TiSCH)

The “Internet Engineering Task Force”, is the SDO behind most of the technology we are using in the Internet today (IPv4, IPv6, ICMP, TPC, UDP, HTTP, etc.). The IETF is organized in working groups, each addressing a particular topic, from routing to application protocol and security. Since 2008, 7 working groups have been created to address constrained devices and networks, which include the Internet of Things (6LoWPAN, 6TiSCH, ACE, CoRE, COSE, LWIG and ROLL). An IoT Directorate oversees and coordinates the activities of these working groups.

Consortium members of F-Interop are very present in the IETF. Inria is co-chairing 6TiSCH. The chairs of the CoRE and ROLL working groups are members of the F-Interop advisory board, and have a clear interest in the F-Interop tool. ETSI organizes plugtests around IETF IoT technologies, including the technology developed at 6TiSCH and 6LoWPAN. UL is a key contributor to the 6TiSCH, developing test suites for (new) standards, providing feedback on architecture and choices as well as listing requirements and identifying standards.

F-Interop contributed to IETF 6TiSCH activities and took part in several IETF meetings, including plugtests, in order to present the project and initial demonstrations.

List of actions done:

- Presentation of F-Interop at IoT Directorate meeting at IETF95 (Buenos Aires, April 2016)
- EuCNC conference (Athens, June 2016)
- Open Info Session at IETF96 (Berlin, July 2016)

A first preliminary version of a cloud-based solution has been developed for CoAP and 6TisCH remote interoperability testing and has been demonstrated to the public at EuCNC conference and at the IETF 96 Open Info Session.

An information meeting was organized about F-Interop our platform for online and remote conformance and interoperability testing, targeted at IoT-related standards (6TiSCH, 6LoWPAN, CoAP...) The purpose of this Info Session was to provide a technical overview of the platform, describe how the IETF community can use and contribute to it, and get feedback. Attendance was ~30 people in the room, ~10 online. We had a lot of questions during the session, which have been summarized in an internal document that will be worked out within the project.

4.2.2 W3C Web of Things

The World Wide Web Consortium (W3C) is an international community where member organizations, a full-time staff, and the public work together to develop web standards. W3C's mission is to lead the web to its full potential.

W3C is on the Advisory Board and Inria is now following the WoT standardization. F-Interop worked in close cooperation with the WS3C Web of Things working group and is now directly engaged in its activities. Objectives of F-project are well aligned with their current interests and needs.

List of actions done:

- Participation (as observers) to the WoT-plugfest and presentation of F-interop, to the Web of Things – Interest Group (WoT-IG) of the W3C, at TPAC-conference, 23 September 2016, Lisbon
    - Successful session (~50 persons) with interesting discussions (~1 hour)
    - Not yet clear standards available, Plugfests are done using “best practices” document
    - WoT expressed the need of having open source reference implementations, testing tools to start introducing them into WoT-Plugfests
    - The semantic testing needs to be further analyzed still not a clear view on their requirements for the testing tools

Next steps:

- Schedule a telco meeting and discussing the approach for doing interop testing in WoT context
- Starting with limited number of test cases and discussing requirements & potential issues
    - Participation in weekly telcos
    - Participation in the remote plugfests (next one is in February 2017)

4.2.3 IPv6 Ready Logo

The IPv6 Forum's IPv6 Ready Logo Program is a conformance and interoperability testing program intended to increase user confidence by demonstrating that IPv6 is available now and is ready to be used. The IPv6 Ready Logo Committee mission is to define the test specifications for IPv6 conformance and interoperability testing, to provide access to self-test tools and to deliver the IPv6 Ready Logo.

The key objectives and benefits of the IPv6 Ready Logo Program are to:

- Verify protocol implementation and validate interoperability of IPv6 products
- Provide access to free self-testing tools
- Provide IPv6 Ready Logo testing laboratories across the globe dedicated to provide testing assistance or services

Proposed list of actions:

- Extensive Interoperability and Conformance testing requirements for IPv6 Stacks
    - All must and should tested within standard RFC

List of actions done:

MI is working in close cooperation with UL to support the IPv6 Ready logo, as committed in the description of work. MI and UL are organizing a workshop with the University of New Hampshire InterOperability Laboratory (UNH-IOL), which is also a member of the advisory board and leading the tests for the IPv6 Ready Logo program, in order to align the F-Interop platform with the IPv6 Ready Logo requirements.

F-Interop will more specifically support the IPv6 Ready Logo labelling process. It will work in close cooperation with the partners of the IPv6 Ready Logo to support, extend and improve such labelling processes, with a focus on online certification.

4.2.4 ETSI

ETSI is a world-leading standards developing organization for Information and Communication Technologies (ICT).

F-Interop will work in close interaction with ETSI IP6 in order to enable a sustainable development and use of the designed technology. ETSI is a member of the consortium and is ensuring a direct liaison with oneM2M ongoing standardization.

Participation in the discussions:

- For the remote interoperability and conformance testing requirement analysis and participated in the group discussions for Privacy and security by design as well as Architecture and FIRE+ integration design
- To enable remote conformance/interoperability testing using CoAP as basis to be afterwards applied to other technologies such oneM2M
- On how to apply remote testing concepts to conformance testing
- On how F-Interop platform can best fit and be exploited within oneM2M community

ETSI has organized 3 interoperability events during this period, in which F-Interop project has been promoted:

- ETSI 2nd 6TiSCH Plugtests, February 2016, Inria, Paris, France,
- oneM2M#2 Interoperability event, May 2016, Seoul, Korea,
- ETSI 6TiSCH/6lo Plugtests, July 2016, Berlin, Germany.

Also, a more detailed presentation of F-Interop was given during the oneM2M TP#24 in Montreal, Canada.

4.2.5 OneM2M

OneM2M is a global initiative to ensure the most efficient deployment of Machine-to-Machine (M2M) communications systems and the Internet of Things (IoT). Its aim is to develop technical specifications for a common M2M Service Layer that can be embedded within various hardware and software to connect the wide range of devices worldwide with M2M application servers. OneM2M comprises fourteen partners including ETSI and seven other leading ICT SDOs. ETSI provides staffing and a large part of the IT infrastructure to support oneM2M.

List of actions done:

Introduction to F-Interop during a meeting (TP#24):

- To save resources and decrease development cost
- To perform earlier and easier testing
- To accelerate standardization process

Start the development of some test tools:

- Called oneM2M DevKit (for the time being)
- To be integrated into the platform
- To be used prior and during the oneM2M testing events

Community reaction:

- F-Interop is exactly what we were looking for!
- High interest in the Open Call
- Interest to get more information on how community could contribute
- A demo would be more than welcome

Continue promotion of F-Interop

Proposed list of actions:

- OneM2M#3 Plugtest – Demo of functional platform and oneM2M Devkit (November 2016)
- OneM2M Plenary meetings – Support for oneM2M Open Call applicants (2017)
- OneM2M#4 Plugtest – Use of F-Interop platform and oneM2M DevKit (July 2017)

4.2.6 ITU

The ITU (International Telecommunication Union) has joined F-Interop Advisory board with a clear interest for the F-Interop tools. MI is a member of ITU-T, and is Rapporteur on Research and Emerging Technologies for the Internet of Things and Smart Cities (Study Group 20 on IoT and Smart Cities).

MI will contribute to disseminate F-Interop outcomes and results through relevant channels, including the SG20, SG11 and the JCA-IoT:

- **ITU-T Study Group 20** – IoT and its applications including smart cities and communities (SC&C)
- **ITU-T Study Group 11** – Signaling requirements, protocols and test specifications

Proposed list of actions:

- F-Interop presentation planned at the next SG20 (Feb/March 2017)
- Global dissemination
- Contributions and potential recommendation

4.2.7 IEEE

UL and MI are Chair and Vice-Chair of the IEEE Subcommittee on the IoT and will contribute to promote F-Interop tool in the corresponding community, with a focus on:

- IEEE 1888 Standard for Ubiquitous Green Community Control Network, which defines a data exchange protocol that generalizes and interconnects M2M components over IPv4/v6-based networks
- IEEE P2413 to develop a standard architectural framework for the IoT to promote cross-domain interaction, aid system interoperability and functional compatibility

5 Conclusion

This deliverable presents the outreach strategies during the project's first year. Based on the task, the main achievements, disseminating F-Interop through websites including several social media platforms as well as flyer and poster to make the project visible and public, were accomplished. Following the 6W approach, the project's global communication strategy with all available options to interact with effective and potential end-users is properly exploited.

F-Interop is active in the marketing area operating regularly the three recognized social media platforms Twitter, LinkedIn and Facebook. We are eager to strengthen F-Interop's presence on social media to increase the number of followers. The visibility on the Internet is good, but can also be increased further. On Google search you will find the F-Interop social media websites among the top 10 results.

The F-Interop project benefits already of a strong dissemination with several papers published and presentations made in international conferences and venues.

This document will be updated by deliverables D6.3 outreach and dissemination report - Year 2 as well as D6.4 outreach and dissemination report - Year 3 describing respectively the global activities and communications in the coming two years.