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## **D9.5 – Third dissemination activity report and revision of plan**

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Abstract	This deliverable describes the different dissemination activities of the Fed4FIRE consortium, as well as the actions taken to raise public awareness. These activities can be split up into different categories being: Raising public awareness, scientific dissemination, liaison and cooperation with other organizations and projects and training activities
Keywords	Public awareness, dissemination, publications, training, liaison

Nature of the deliverable	R	Report	X
	P	Prototype	
	D	Demonstrator	
	O	Other	
Dissemination level	PU	Public	X
	PP	Restricted to other programme participants (including the Commission)	
	RE	Restricted to a group specified by the consortium (including the Commission)	
	CO	Confidential, only for members of the consortium (including the Commission)	

## Disclaimer#

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## Executive Summary

The Fed4FIRE project has a clearly defined dissemination strategy and has been updating this strategy through this first phase of the project. The strategy is centred on 4 lines and these are listed below:

- Raising public awareness through
- Scientific dissemination in publications and demonstrations at exhibitions
- Liaison and cooperation with other organizations and projects
- Training activities

All of these activities are equally important but are targeting different aspect of the dissemination plan. Public awareness is raised through the project website which also serves as the main information platform regarding the project itself, but also contains all relevant information regarding the Open Calls issued by the Fed4FIRE project. Restructuring of the website, which started in the previous reporting period, has been completed.

Results of the project and general findings originating from the project activities are disseminated through scientific journals and international conferences and events as well as participation in workshops and exhibitions. These channels provide access to the community which is served by Fed4FIRE and which will benefit of its activities.

This community is however also kept in touch with Fed4FIRE, even on an international scale, by establishing contacts with fellow organizations, projects and initiatives around the world. Most of these contacts originate form personal contacts, previous collaborations between these organizations and partners of the Fed4FIRE project, but also new initiatives have been taken and are fostered for future continuation.

Finally Fed4FIRE also establishes materials and channels through which experimenters and future users of the facilities can receive training, both through supporting documents as well as hands-on training workshops.

As mentioned above this dissemination plan is constantly updated to contain actual information but also plans for future activities.

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## 1 Introduction

This deliverable describes the different dissemination activities of the Fed4FIRE consortium, as well as the actions taken to raise public awareness in period M29 – M38 (February – November 2015). These activities can be split up into the following categories and presented in the remainder of this document:

- Raising public awareness through
  - the project website
  - the compilation of promotional material
  - representation at selected events
  - organization and participation at specific workshops
- Scientific dissemination in publications and demonstrations at exhibitions
- Liaison and cooperation with other organizations and projects
- Training activities

## 2 Public awareness activities

### 2.1 Project website

Already at the start of the project, the Fed4FIRE consortium has set up a public website which was reported in the deliverables D9.1, D9.2, and D9.4. The website has been set-up to serve the following three objectives:

- To provide public information on the project, consortium and activities,
- To announce and provide detailed information on the Open Calls issued by the Fed4FIRE project, and
- To establish an information exchange platform among the federation and the wide public

As reported in the deliverable D9.4, the project consortium decided to redesign the project website from both design and content organisation perspectives and part of the work was done during the previous reporting period.

In the current reporting period, February – November 2015 covered in this deliverable, the Fed4FIRE website (<http://www.fed4fire.eu/>) has been further improved and updated (Figure 1).

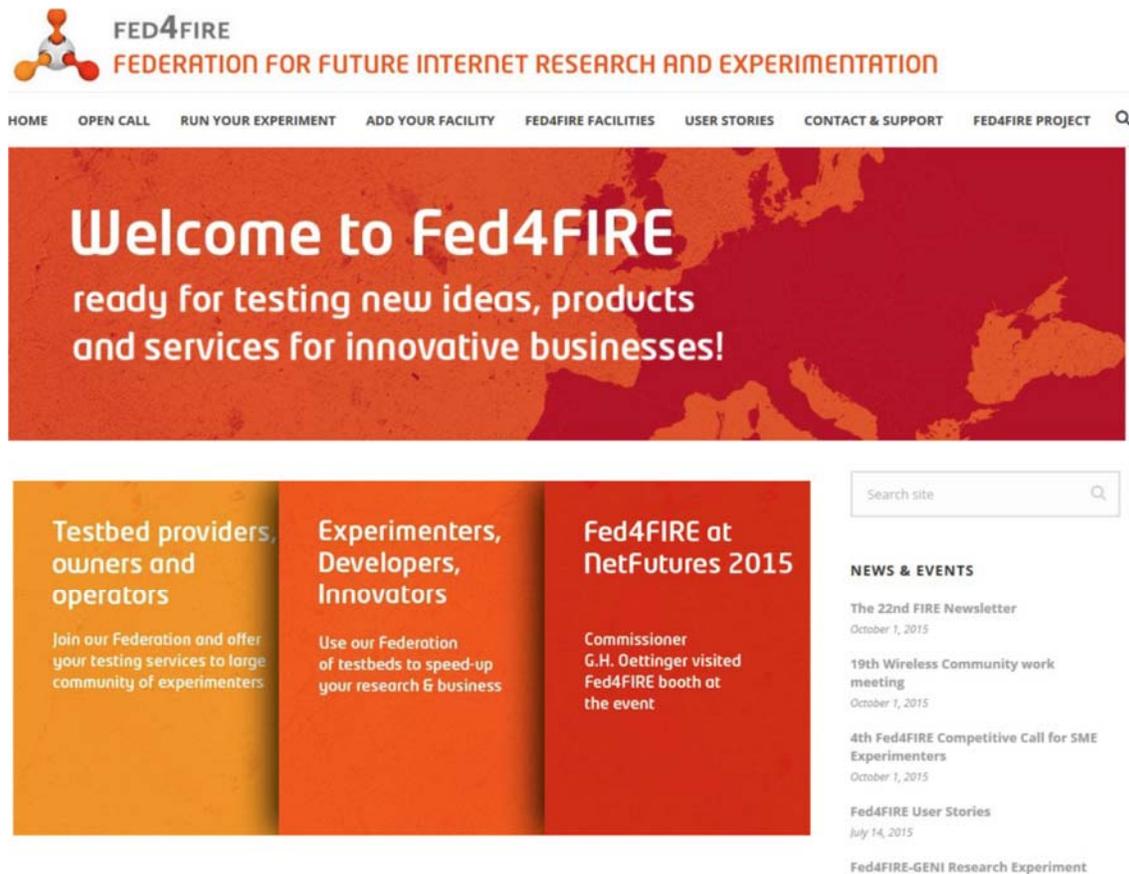


Figure 1: Fed4FIRE Website – Homepage (status on 27 November 2015)

Beside the new graphical design of the website, the main intention for its restructuring was to move from a typical EU project website towards a Federation website, which is more suitable to present the federation of testbeds, its facilities, and opportunities for experimenters, etc. For this purpose, two

following two dedicated sections for potential experimenters and testbed providers have been updated (**Figure 2**):

- Run your experiment – providing all necessary information for the experimenters, who are potential users of the Fed4FIRE facilities, including presentation of all related Fed4FIRE processes and tools,
- Add your facility – providing all necessary information for the testbed providers, interested to include their facilities into the federation, including information on the related processes, options, and related tools.

**FED4FIRE**  
FEDERATION FOR FUTURE INTERNET RESEARCH AND EXPERIMENTATION

HOME OPEN CALL **RUN YOUR EXPERIMENT** ADD YOUR FACILITY FED4FIRE FACILITIES USER STORIES CONTACT & SUPPORT FED4FIRE PROJECT

RUN YOUR EXPERIMENT

### PUT YOUR ICT IDEA OR SOLUTION TO THE TEST!

Fed4FIRE provides a set of tools enabling easy configuration and execution of experimental set-ups on a wide range of Fed4FIRE testbeds. These testbeds cover various technology domains, including but not limited to cloud computing, wireless and wired networking, sensor networks, and software defined networking. Fed4FIRE testbeds can be fully operated remotely, where the only technical requirement for experimenters is to have standard Internet connectivity.

If you are interested in using the Fed4FIRE facilities to evaluate or characterize your research, development or innovation, our support team is at your service to provide you with the necessary assistance to answer your questions related to the feasibility and applicability of your planned set-up, and will get you started in no time by guiding you through the entire process.

*In the scope of Fed4FIRE Open Access, usage of our facilities is free of charge – subject of feasibility confirmation by Fed4FIRE.*

### GETTING STARTED

Once you have a clear picture on which experiment you want to run (e.g. to test your prototype or product, service or application, a new protocol or process, etc.) and what you would like to test, which parameters or features you would like to investigate, which problem you would like to solve, technology or solution choice you would like to make, etc... you should get in contact with us so that we can assist you with:

- Identifying necessary technical requirements derived from your initial idea and
- Identifying suitable Fed4FIRE testbeds to implement your experiment

*“To get an idea about opportunities for testing by using our facilities, take a look into --user stories-- and get inspired by other external experimenters who used the Fed4FIRE facilities in the past.”*

### HOW TO PROCEED?

Experienced experimenters can define needed tests by considering Fed4FIRE --documentation-- and information about --testbeds--, and proceed with the experiment preparation by using the Fed4FIRE --tools--.

Or, take advantage of an experienced Fed4FIRE support team to help you by contacting us at [contact@fed4fire.eu](mailto:contact@fed4fire.eu).

### EXPERIMENT PREPARATION

In this step, your testing environment will be specified and configured by using the Fed4FIRE --tools--. In order to use the tools and configure your experiment, you will have to agree on Fed4FIRE --umbrella Terms and Conditions-- and in some cases on --local Terms and Conditions-- related to testbeds involved in your experiment.

To be able to use the Fed4FIRE tools to configure your experiment, you will need to create an account and certificate (see right). If you already do not have one you will have to create your SSH key.

Afterwards, experimenters can proceed with the experiment configuration by using the tools or can contact the Fed4FIRE support team at [contact@fed4fire.eu](mailto:contact@fed4fire.eu) for further guidance.

To get a Fed4FIRE Account and Certificate:

**ACCOUNT**

Here, to create SSH Key

To login, sign up, create new experiment, or join an existing experimenter:

**Login / Sign Up**

Create Your Experiment Step-by-Step Experiments Configuration (Video) Training Webinar for Experimenters Training Slides for Experimenters Detailed Fed4FIRE Tutorials Support Fed4FIRE Google Setup

### EXPERIMENTATION AND CONCLUSION OF THE TEST

In principle, the same tools used for configuration of an experiment in the previous step are also used to execute, monitor, and control a running experiment as well as to collect the experiment results at the end. When needed, Fed4FIRE support team is ready to assist you during this phase as well.

Upon completion of your test, we will ask you to help us to improve and promote our facilities in the future by providing us with following feedback:

- **[compulsory]** You need to fill out a compulsory --feedback form-- on your satisfaction from using our facilities from both technical and support points of view
- **[compulsory]** If you publish results that were obtained from our testbeds, a reference to Fed4FIRE or the specific testing environment used is required
- **[optional]** Provided you are happy with our services, we would appreciate being able to use your case - obviously without any confidential details - to inspire other people. Providing us with a user story to be published on our website, allows others to take advantage of your experience
- **[optional]** Keep in touch with us and let us know later on about further development of your product, service, or solution you made based on the testing results you gathered in our federation

Figure 2: Fed4FIRE Website – Run your experiment page (status on 27 November 2015)

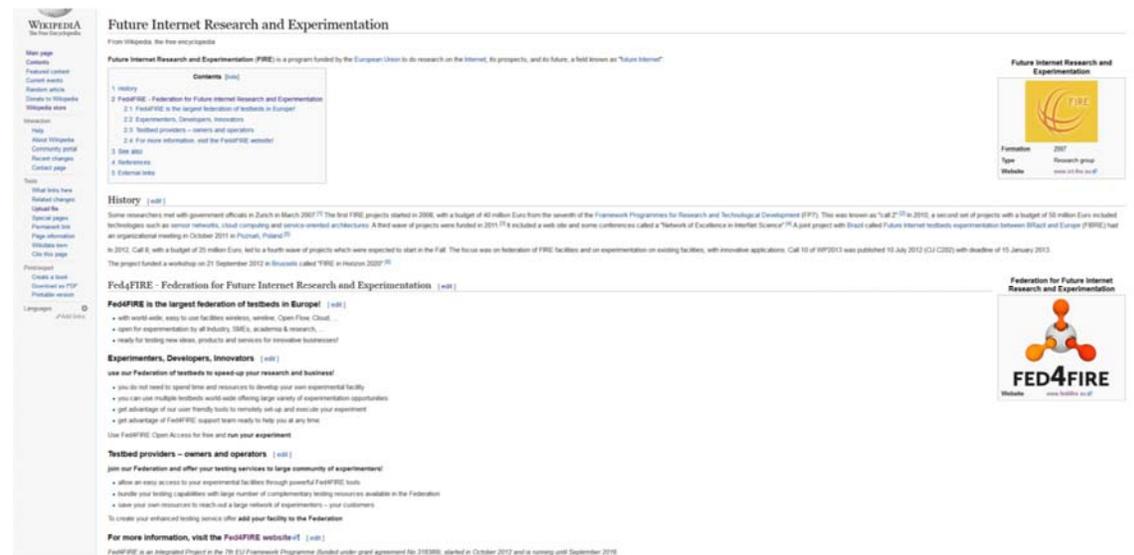
## 2.2 Further Social Media Channels

Beside the project website, Fed4FIRE established and maintains the following social media channels, in order to ensure a wide dissemination of its activities and promotion of the testbed federation:

- Wikipedia ([https://en.wikipedia.org/wiki/Future\\_Internet\\_Research\\_and\\_Experimentation](https://en.wikipedia.org/wiki/Future_Internet_Research_and_Experimentation)),
- LinkedIn, and
- Twitter.

**The Fed4FIRE Wikipedia entry is provided under the FIRE umbrella (**

**Figure 3) and includes basic information about opportunities and benefits for experimenters and testbed providers given by the Fed4FIRE Federation of Testbeds.**



**Figure 3: Fed4FIRE in Wikipedia**

The Fed4FIRE LinkedIn Group has been set up to use this media to present the Fed4FIRE project and the testbed federation as well as to reach further potential experimenters and distribute relevant information to them.

**The Twitter account (**

**Figure 4) is used to timely spread the most actual information from the project.**

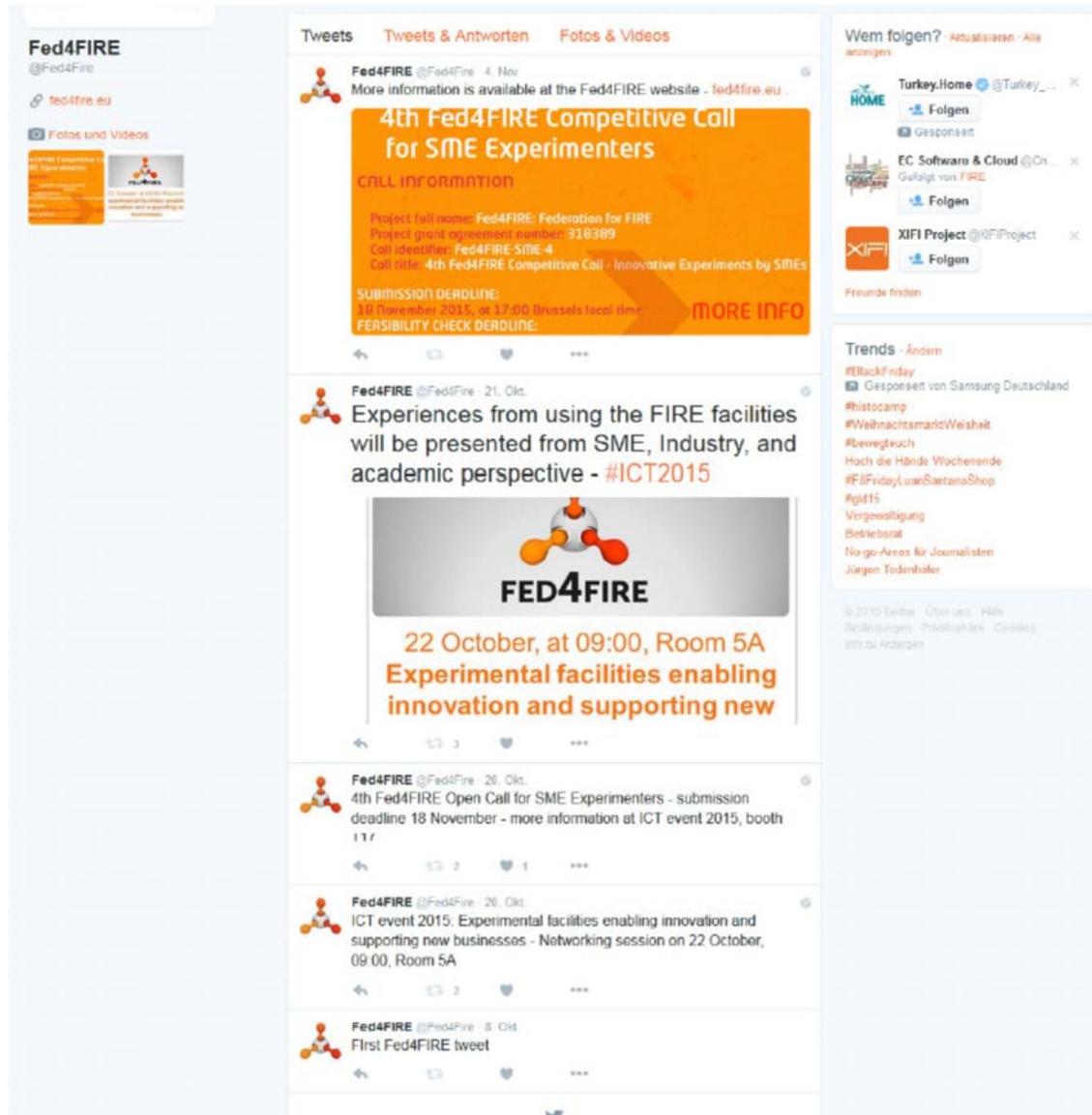


Figure 4: Fed4FIRE in Twitter

## 2.3 Promotion material

In order to support the public awareness activities, the project created corresponding marketing material, which have been updated from time to time and/or adapted to be presented at various occasions as appropriate. The marketing material includes project flyers, posters, and newsletters. Selected material is provided on the project website.

Furthermore, in order to reach as wide research community as possible, the Fed4FIRE promotional activities have been carried out with other projects from the FIRE area, by using communication channels established by the FIRE umbrella projects and corresponding FIRE website ([www.ict-fire.eu](http://www.ict-fire.eu)), FIRE LinkedIn network, FIRE newsletters, and further publications.

In order to ensure proper promotion of the Fed4FIRE project and the testbed federation, appropriate posters have been designed and presented at the following occasions (selected posters can be found on the Fed4FIRE website at <http://www.fed4fire.eu/flyers/>):

- Net Futures 2015,
- EUCNC 2015, and
- ICT event 2015.

The posters (Figure 5) presents general targets of the federation and its technical framework, opportunities for experimenters while using the Fed4FIRE facilities, the experimenters' feedback to Fed4FIRE, and overall Fed4FIRE testbed landscape and opportunities for further testbeds to join the federation.

Beside general project flyers presenting the Fed4FIRE project and its framework, a flyer for CeBIT 2015 targeting SMEs, a brochure with Experimenters User Stories, and a journalistic presentation of the experimenters' benefits from using the Fed4FIRE have been designed and disseminated (also available at <http://www.fed4fire.eu/flyers/>).



Figure 5: Fed4FIRE posters at ICT event 2015 (selection)

The User Stories and the Benefits are also presented in web format at <http://www.fed4fire.eu/user-stories/>.

## 2.4 Project workshops

### 2.4.1 Fed4FIRE-GENI Research Experiment Summit (FGRE 2015)

The Global Environment for Network Innovation (GENI) and European facility for Future Internet Research and Experimentation (FIRE) infrastructures have been built for exploring future Internet at scale. They support at-scale experimentation on shared and heterogeneous GENI and FIRE resources among multiple users, permit users deep programmability throughout the network, and offer collaborative and exploratory environments for innovative research and education. More and more researchers, educators, and students have started or are starting to conduct research and educational experiments on the GENI and FIRE infrastructures. More information is available at <http://www.geni.net> and <http://www.fed4fire.eu>.

The FGRE summit was held in Ghent, Belgium on July 6-10, 2015. It consisted of a keynote speech, tutorials, hands-on experiments, and team projects. The summit provided participants opportunities to learn and use the various resources and tools available in Fed4FIRE and GENI environment. Undergraduate and graduate students, faculty member at different-level colleges and researchers from industry (both SME and large companies) were welcome to participate. The agenda is shown below.

	Monday	Tuesday		Wednesday			Thursday	Friday
Block I (8:30-10)	Welcome Intro to Fed4FIRE Intro To GENI	Emulation, Scale Up, stitching, cloud		LabWiki hands-on	Wireless Sensors		Team Project	Team Project
Block II (10:30 – 12:30)	Getting started tutorial (Lab zero)  Introduction to APIs	11:30-12:30 Labwiki presentation		Wireless & Mobile robots	Big data analysis	Ansible	Team Project	Team Project
Block III (1:30 – 3:30)	More advanced tutorial (Lab one)	Smartcity Smart-santander	Open-flow	Team Project			Team Project	Team project presentations, and evaluation
Project (4-5.30)	OpenFlow introduction  Use case presentation of openflow  Introduction to team projects and team formation	Smart-Fire tutorial	Open-flow 1.3 and NFV	Team Project			Team Project	
Evening		Social event (19:00)		Lab visit (17:30 – 18:00)				

## 2.4.2 Fed4FIRE Workshop: Experimental facilities enabling innovation and supporting new businesses

This project workshop was organised as a networking session at the ICT event 2015, held in Lisbon on 20-22 October 2015.

The workshop illustrated how it is possible to grow business and develop innovative products by using advanced Internet testing facilities and support. In this context, we discussed opportunities to remotely use a large number of testbeds available world-wide, providing experimental resources in various areas; wireline and wireless experimental networks, cloud computing, Smart City and Internet of Things testing environments, community laboratories involving end users, etc.

As the main innovative communities creating new product and ideas for future business are not yet aware of all the opportunities to enhance and speed up the innovation by experimentation and testing, the Fed4FIRE project organised this networking session, to increase the awareness among these communities and involve more innovation drivers, in particular SMEs, start-ups, etc.

At the workshop, we shared gathered experience in working with the innovation drivers, to encourage and convince a wider community to use the experimental facilities as well as to identify the newest requirements on the innovative testing, where customers who already used the facilities presented their own experience from the experimentation. We also discussed position of experimentation within entire experimental driven innovation cycle and related opportunities for the innovation drivers.

The workshop agenda was organised as follows:

- Introduction, Halid Hrasnica (Eurescom)
- Experimental Innovation Cycle, Brecht Vermeulen (iMinds)
- Deployment of the Super Stream Collider, Martín Serrano (National University of Ireland Galway)
- Televic's experience and lessons learned, Dirk Van Den Wouwer (Televic)
- Open Discussion

In this way, the workshop gathered related experiences from both academic/research and industry/SME perspectives, clearly presenting benefits from using the FIRE facilities by a wide community.

### 3 Scientific dissemination

This section lists the publications in scientific journals and at international conferences and events. Invited papers are specifically listed as well as recent submissions for which acceptance notifications have not been received at the time of writing.

#### 3.1 Publications

##### 3.1.1 Conference proceedings

- "SDN controller for context-aware data delivery in dynamic service chaining", B. Martini, F. Paganelli, A.A. Mohammed, M. Gharbaoui, A. Sgambelluri, P. Castoldi, 1<sup>st</sup> IEEE Conference on Network Softwarization (NetSoft), 2015, London, 13-17 April 2015
- "Design, Architecture and Implementation of a Resource Discovery, Reservation and Provisioning Framework for Testbeds"; Donatos Stavropoulos, Aris Dadoukis, Thierry Rakotoarivelo, Max Ott, Thanasis Korakis and Leandros Tassiulas, "International Workshop on Wireless Networks: Measurements and Experimentation (WINMEE)", Bombay, India (May 25, 2015)
- "PerformLTE: a Testbed for LTE testing in the Future Internet"; Almudena Diaz-Zayas, Cesar A. Garcia-Perez, Alvaro M. Recio Perez, and Pedro Merino-Gomez, presented at "13th International Conference on Wired & Wireless Internet Communications 2015", Malaga, Spain, 25-27 May 2015
- "A Framework to Integrate SCPI Compliant Instruments into 4G/5G Testbeds"; César A. García, Álvaro M. Recio, Álvaro Rios, Almudena Díaz, Pedro Merino, "Jornadas de Concurrencia and Sistemas Distribuidos 2015 (Conference on Concurrency and Distributed Systems)", Malaga, 10-12 June, 2015
- "Tengu: an Experimentation Platform for Big data Applications"; Thomas Vanhove, Gregory Van Seghbroeck, Tim Wauters, Filip De Turck, Brecht Vermeulen, Piet Demeester, "The International Workshop on Computer and Networking Experimental Research Using Testbeds", Columbus, Ohio, USA, June 29 - July 2, 2015
- "Cross-Functional resource orchestration in optical telco clouds", B. Martini, M. Gharbaoui, P. Castoldi, 17<sup>th</sup> International Conference on Transparent Optical Networks (ICTON2015), Budapest, Hungary, 5-9 July 2015
- "Experimenting the integration of green optical access and metro networks based on SDN", L. Valcarenghi, K. Kondepu, A. Sgambelluri, F. Cugini, P. Castoldi, G. Rodriguez de los Santos, R. Aparicio Morenilla, D. Larrabeiti López, Proc., International Conference on Transparent Optical Networks (ICTON), Budapest, Hungary, July 5-9 2015
- "Towards Semantic Monitoring Data Collection and Representation in Federated Infrastructures"; Yahya Al-Hazmi, Yahya Al-Hazmi, Thomas Magedanz, accepted for presentation at "3<sup>rd</sup> International Conference on Future Internet of Things and Cloud (FiCloud2015)", Rome, Italy, 24-26 August 2015
- "Federation tools: An Island Connectivity Experiment with Community-Lab"; Gerard Marin, Leandro Navarro, Chris Blondia, Bart Braem, 4<sup>th</sup> International Workshop on Community Networks and Bottom-up-Broadband (CNBuB 2015)", Rome, Italy, 24-26 August 2015
- "MOFI: Monitoring Ontology for Federated Infrastructures"; Yahya Al-Hazmi, Thomas Magedanz, "3rd IEEE International Workshop M&N 2015, Coimbra, Portugal, 12-13 Oct 2015

- "medVC - a Remote Collaboration Solution Enhanced with Cloud Services and Future Internet Capacities"; Marzena BŁASZCZYŃSKA, Cezary MAZUREK, Piotr PAWAŁOWSKI, Piotr SZYMANIAK, Sergiusz ZIELIŃSKI, "eChallenges 2015 conference", Vilnius, Lithuania, 25-26 November 2015 ((ISBN: 978-1-905824-52-6)

### 3.1.2 Recent submissions

- "Optimizing Reconfiguration Triggering upon Load Fluctuations in Energy-Efficient TWDM PONs"; Luca Valcarengi, Koteswararao Kondepu, Piero Castoldi, submitted to "Globecom 2015", San Diego, USA, 06-10 December 2015
- "Balancing the Impact of ONU Tuning Overhead in Reconfigurable TWDM-PONs: An FPGA-based Evaluation"; Koteswararao Kondepu, Luca Valcarengi, and Piero Castoldi, submitted to "Globecom 2015", San Diego, USA, 06-10 December 2015
- "Extending TestelDroid to support remote control and large-scale testing in mobile networks"; Almudena Díaz-Zayas, Álvaro M. Recio-Pérez, Cesar A. García-Pérez, Pedro Merino, submitted to "ValueTools Conference 2015", Berlin, Germany, 14-16 December 2015
- "Design and Evaluation of SDN-based Orchestration System for Cloud Data Centers", B. Martini, D. Adami, M. Gharbaoui, L. Donatini, P. Castoldi, S. Giordano, IEEE International Conference on Communications, 23-27 May 2016, Kuala Lumpur, Malaysia
- "SDN-Controlled Energy-Efficient Mobile X-haul: An Experimental Evaluation in Federated Testbeds", L. Valcarengi, K. Kondepu, A. Sgambelluri, F. Cugini, P. Castoldi, R. Aparicio Morenilla, D. Larrabeiti López, Proc., IEEE/OSA Optical Fiber Communication Conference and Exposition (OFC), 2016.
- "Reconfiguration Triggering Optimization in TWDM PONs with Fluctuating Load", K. Kondepu, L. Valcarengi and P. Castoldi, Proc., IEEE/OSA Optical Fiber Communication Conference and Exposition (OFC), 2016 .

### 3.1.3 Journals

- "Validation of Future Internet Technologies for Added Value Precision Agriculture Solutions based on Satellite Imagery"; Jonathan Becedas, Rubén Pérez, Gerardo González, published in "International Journal of Remote Sensing", Volume 36, Issue 15, 2015 (DOI:10.1080/01431161.2015.1070324)
- "Extensive and repeatable experimentation in mobile communications with programmable instruments"; Cesar A. García-Pérez, Álvaro M. Recio-Pérez, Alvaro Rios-Gomez, Almudena Diaz-Zayas, Pedro Merino-Gomez, submitted to IEEE Transactions on Instruments and Measurements.

## 3.2 Demonstrations / Participation at Exhibitions

### 3.2.1 Net Futures and EUCNC 2015 events

The Fed4FIRE project maintained booths in the exhibition areas of the following two important community annual events:

- Net Futures, in Brussels on 25/26 March 2015 (Figure 6) and
- EUCNC, in Paris on 30 June – 2 July 2015

Beside the promotion material presented at the booths, Fed4FIRE provided a live demonstration of its framework by offering opportunity to the visitors, to directly use the Fed4FIRE tools, in order to configure and execute an experiment by using the federated testbed facilities.



Figure 6: Commissioner Oettinger visiting Fed4FIRE booth at Net Futures 2015

### 3.2.2 ICT Event 2015

The bi-annual ICT events – 2015 edition organised in Lisbon on 20-22 October 2015 – presents an opportunity to approach a wider audience from various industry sectors, which was reason for Fed4FIRE to propose and maintain an exhibition booth this year in Lisbon (Figure 7). From the technical point of view, the demonstrations presented were similar to these shown at the above mentioned events, but were tailored to provide explanation to less experience experimenters, so that the ICT event audience could be addressed properly.



**Figure 7: Fed4FIRE booth at ICT event 2015**

Accordingly, a number of new contacts have been established and the community of potential FIRE experimenters has been significantly enlarged in both; their number and areas of interest they represent. The networking session organised at the event (Sec. 0) was also promoted at the booth, which resulted with corresponding interest from the audience and a full session room.

### 3.2.3 KSTIT 2015 conference

At KSTIT 2015 conference in Cracow, 16-18 September 2015, Fed4FIRE had a demonstration organized as part of the PL-LAB2020 project booth (Figure 8). PL-LAB2020 is a polish project aiming at extending the capabilities of PL-LAB testbed which during the conference was still being integrated with Fed4FIRE. KSTIT is the biggest conference on telecommunications and teleinformatics in Poland attended by both the academia and industry representatives focused on R&D activities.

The main goal of the exhibition was to disseminate information about the Fed4FIRE and encourage polish researches to run their experiments using the Fed4FIRE facilities. The exhibition covered the following aspects:

- Overall presentation of the Fed4FIRE project, its motivation and goals as well as the overview of the federated testbeds. More technical presentation covering experiment workflow and common experimenter's tools. Printed materials were used; both posters and leaflets.
- Demonstration of a simple experiment execution on iMinds Virtual Wall and PL-LAB testbeds using the jFed GUI. The demonstration covered the entire lifecycle of the experiment including finding appropriate resources, designing, running and accessing the experiment resources.



Figure 8: Fed4FIRE at KSTIT 2015

### 3.3 Representation at relevant events

- GEC22 / GENI-FIRE workshop 4, March 2015, Washington, USA - Brecht Vermeulen (iMinds)
- CENI Workshop 2015 (<http://www.euchina-fire.eu>) - Brecht Vermeulen (iMinds)
- GENI-FIRE international workshop, May 2015 - Brecht Vermeulen (iMinds)
- 9th International Conference on Autonomous Infrastructure, Management and Security (AIMS 2015, <http://www.aims-conference.org/2015/>), June 22-25, 2015, University of Ghent, Belgium - Brecht Vermeulen (iMinds)

## 4 Liaison and cooperation

### 4.1 FIRE collaboration

Representatives of the Fed4FIRE project continued their involvement in wide FIRE activities, such as participation and contributions to the activities of the FIRE Architecture Board and of the FIRE Dissemination Working Group (DWG).

The DWG organised regular monthly audio conferences to discuss joint activities, representation at events, participation at workshops, and joint publications. Fed4FIRE was providing inputs for various communication activities of the FIRE community; its website, flyers, brochure, success stories, etc. Furthermore, representation of the FIRE projects at various occasions have been discussed and coordinated. The DWG meetings also gave an opportunity for direct interaction with EC representatives and exchange of actual information, where the related feedbacks have been communicated to the project.

Fed4FIRE has also continued to work together with the CSA Fusion in order to reach-out to SMEs (especially for the open calls for experiments). In the scope of these activities, Fed4FIRE presented Opportunities for SME Experimenters at workshop on Future Internet Opportunities for Innovative European Enterprises, held in London on 11 March 2015.

Fed4FIRE has collaborated with the FIRE project FIESTA, where Brecht Vermeulen attended the Summer School “Federation, Service Openness and Semantic Interoperability Summer School” (September 2015), presented the Fed4FIRE views on federation and contributed to hands-on sessions. Fed4FIRE contributed to the FIRE Board session on “Facilities Define the Future” (October 2015) and the FIRE Forum session on “Preparing for a European Experimental Infrastructure” (December 2015).

### 4.2 Liaison with GENI

Fed4FIRE is responsible for the organization of the GENI-FIRE collaboration that has been further enhanced. The mission of this collaboration was established in a “Joint Statement of Interest”:

*“The EU and US research communities wish to perform collaborative research, on the basis of equality and reciprocity, in areas of mutual interest, which may be characterized as (a) investigations of the research infrastructures suitable for hosting at-scale experimentation in future internet architectures, services, and applications, and (b) use of such infrastructures for experimental research. We envision that our collaboration will encompass joint specification of system interfaces, development of interoperable systems, adoption of each other’s tools, experimental linkages of our testbeds, and experimentation that spans our infrastructures. We further envision that students and young professors from the US and EU will visit each other and collaborate deeply in these activities, in hopes of sparking friendships and life-long research collaborations between the communities.”*

The 4<sup>th</sup> GENI-FIRE international workshop has been organized in May 2015, in Washington. Several sessions highlighted progress on funded collaborations, clouds, wireless networks, ontologies, federation aspects and monitoring. 40 experts attended the workshop and regarded the collaborations as very successful.

Besides these technical workshops, Fed4FIRE also organized, in collaboration with GENI the Fed4FIRE-GENI Research Experiment Summit (FGRE 2015) (see description above).

## 5 Training activities - Support for experimenters and proposers

### 5.1 Open Call Support

The dedicated webpages, which include all necessary information for the proposers to help them to understand objectives and formal requirements of Open Calls, have been maintained to support the 3<sup>rd</sup> and 4<sup>th</sup> edition of the open calls (within the reporting period) for SME experimenters. The pages also included various related documentation and guidance documents as well as the proposal template:

- Template for proposals
- Training/tutorial material for experimenters
- Training/tutorial material for new facility providers
- "GUIDE FOR APPLICANTS participating in a competitive call for additional beneficiaries in an ICT Integrated Project or Network of excellence"
- "GUIDANCE NOTE for project coordinators planning a competitive call for additional beneficiaries in an ICT Integrated Project or Network of excellence"

The communication hub, established at the project website through its contact e-mail address is used as first contact point for helpdesk established to support the proposers for the project open calls. In addition, the website includes a Frequently Asked Questions section where all questions and answers relevant to the open calls are gathered.

Furthermore, the website provides a submission portal used to collect proposals for the open calls and further related information from the proposers, ensuring that the proposals and the related data can be updated by the proposers until defined deadlines.

Beside the mentioned documentation accompanying publication of the Open Calls, the project established extensive tutorials for experimenters on various aspects of the Fed4FIRE Federation, which is also linked to the project website (<http://www.fed4fire.eu/tutorials.html>). Of course, these tutorials target the potential Open Call proposers but are also provided for a wide related research community to understand how the Fed4FIRE facilities and tools can be used generally in the future and beyond the project Open Calls.

Finally, in order to provide further support for the experimenters using the Fed4FIRE testbeds and tools, a Fed4FIRE experimenter discussion forum has been established and maintained at <https://groups.google.com/forum/#!forum/fed4fire-experimenters>.

### 5.2 Tutorials for Experimenters and Testbed Providers

All necessary documentation supporting the experimenters and testbed providers have been completed as planned and as reported in the deliverable D9.4 and previous deliverables on the project dissemination and training activities. Of course, the available material has been updated in the meanwhile in accordance with the feedback gathered from using the material.

Furthermore, in the scope of preparation of the training material and tutorials, the corresponding websites (for experimenters and for testbed providers) have been redesigned and new material added, as presented in Sec 2.1.

## 6 Outlook

In the upcoming period, the Fed4FIRE project will continue to follow its dissemination plan, as is laid down in the project deliverable D9.1 “Initial Activity Plan”, in the Fed4FIRE Description of Work, and the previous report on dissemination activities and future plans (D9.2 and D9.4).

A particular attention will also be given to organisation of discussion among wider communities on sustainability of the FIRE facilities in the future. Here, the Fed4FIRE project may be able to lead this discussion, based on the outcomes of the sustainability work done in WP2, including recently established Federation Board and its work. For this purpose and also to present its achievements, the Fed4FIRE project is aiming at organisation of its final workshop during the upcoming period, in the context of its collaboration with GENI.

The next GENI-FIRE meeting (and final Fed4FIRE workshop) will be organised in Brussels on 18-19-20 April 2016, just before the Net Futures event 2016, which will be also held in Brussels. This GEFI (“Global Experimentation for the Future Internet”) workshop will be organized with the representatives from US, Japan and Brazil.

At Net Futures 2016 itself, Fed4FIRE is planning to organise a demonstration booth and present the recent project achievements.

Fed4FIRE will further organize the next FGRE Summer School in Ghent in July 2016.