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Large-scale Integrated Project (IP)

D12.4.2: Report on Campus Party Events (FI-WARE Activities/Actions)

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1.1 Executive Summary

This report is part of Dissemination Activities task, as framed in the Communication, Collaboration and Dissemination activities of the FI-WARE project.

As part of the dissemination actions proposed by the partners selected during FI-WARE's third call for new partners, the project is going to be actively introduced at various Campus Party events between 2013 and 2014. Periodic reports will be published after these events. More specifically – but also depending on the own Campus Party dates:

- The first report was delivered in October 2013, about the Campus Party Europe in London (held during September 2013).
- The present report is delivered at the end of February 2014 since the Campus Party Brazil held in Sao Paulo ended on the 1st of February 2014.
- The final one should be delivered by Summer 2014, again depending on the CP date.

This document is therefore a report summarizing all the FI-WARE activities that took place at the Campus Party Brazil in Sao Paulo. Its index follows that of the previous report, and will be also followed in the next (and last) document. Please note that this document is complemented by, and complements, D12.2.5 "Report on Communication and Dissemination activities", especially on the chapters about promotional materials and dissemination actions through social networks.

1.2 About This Document

This report is the second of this task's series of three documents summarizing the activities carried out in the framework of FI-WARE during the various Campus Party events in which the project is going to be presented. This document focuses on the Campus Party Brazil (CPBR) in Sao Paulo.

1.3 Intended Audience

The document targets all types of stakeholders, especially public authorities, sponsors, venture capitalists and entrepreneurs. It is not a technical document, though it is also of interest to the developers community.

1.4 Acknowledgements

The current document has been elaborated using a number of collaborative tools, with the help of Ogilvy One and also Telefónica I+D as Project, task and WP coordinators.

1.5 Keyword list

Campus Party, Campusero, Developer, Web Entrepreneur, Venture Capitalist, SME, Community, Geek, Hackathon, Challenges, End-users, FI-WARE, PPP, Architecture Board, Steering Board, Roadmap, Reference Architecture, Generic Enabler, Open Specifications, Developers Community and Tools, ICT.

1.6 Changes History

Release	Major changes description	Date	Editor
V0.47	First draft of deliverable, submission to TID	2014-02-20	Javier de Vicente, Esther Paniagua, Iris Rubio, Eduardo Martín, Raúl Sánchez, Fátima Ruiz Clavijo, Belén Ruigómez, Óscar López, Francisco Vigara (FNE), Miguel A. Expósito (AE3), Isabel Rosado (AE3)
V0.48	Improvements in format following TID's recommendations	2014-02-26	Javier de Vicente (FNE)
V0.49	Improvements in wording following TID's recommendations	2014-02-27	Javier de Vicente (FNE)

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2 Campus Party

2.1 Rationale

Campus Party™ is a global and successful growing concept created in 1997 by a group of Spanish entrepreneurs, and today it is one of the most important events in ICT, and a technology & human ecosystem around the biggest geek social network that includes Public Administrations, large companies and SMEs, active internet communities and NGOs helping impulse a digital and cooperative society through the use of technology. Check http://www,campus-party.org

The community around Campus Party includes massive technology users, opinion leaders, researchers, entrepreneurs and creative minds that are ready to identify new opportunities to create daring things for a better society. As of February 2014 this community has reached 315,000 “campuseros” from 130 different countries. Campus Party is also a meeting point where supply meets demand between private companies, public institutions and ICT experts.

Today, Campus Party is reaching 8 different countries: Brazil, Colombia, Ecuador, Spain, Mexico, Peru, UK and Germany; and the next steps for its global internationalization include India, Kazakhstan, China, Russia, Greece and Israel, among others.

Campus Party is a unique model with more than 500 hours of lectures, forums, hands-on workshops, debates, ”hackathons” and challenges related to different ICT topics. These take place in several stages around four big-theme areas: Science, Innovation, Creativity and Digital Entertainment. Each edition features experts who share the most innovative trends with the participants. Examples include: Al Gore, Nobel Prize of Peace 2007; Sir Tim Berners-Lee and Vinton “Vint” Cerf, fathers of the Internet; Neil Armstrong and Buzz Aldrin; Stephen Hawking; Paulo Coelho; Steve Wozniak, co-founder of Apple; John “Maddog” Hall, developer of Linux, and Don Tapscott, among many others. All of them maintain a high level of commitment and involvement with the Campus Party™ project and they are part of our “Campusero” community.

Campus Party counts with the maximum institutional and private support in every hosting country, with the presence of Prime Ministers, Presidents and Ministers, local institutions and municipalities, local development agencies and national or multilateral public organizations such as the SEGIB or the European Commission, among others.

Figure 1. Campus Party Brazil. Logo

It is really an asset for FI-WARE taking active part in several Campus Party events. The project gets a totally revolutionary exposure to the real world of developers out there, who have the opportunity to experience and test the FI-WARE applications and spread the word. Campus Party’s ecosystem is also filled with venture capitalists and entrepreneurs alike, and they also get to know the details of FI-WARE first hand, being able to explore the possibilities that such a technology can deliver.

After London (September 2013), Sao Paulo was chosen to be the hosting city for the second public presentation of the FI-WARE results at a Campus Party, and the first in South America. This includes the presentation of the FI-LAB (FI-WARE Open Innovation Lab http://lab.fi-ware.org) there. According to (October 2012) official data from the Technology & Innovation Ministry, Brazil's IT sector has employed about 1.2 million people and is on pace to generate 900,000 new jobs by the year 2022.

The reader can visit http://www.campus-party.com.br/2014/index.html and have all the details on the CPBR.

Figure 2. Welcome to CPBR 2014 in Sao Paulo

2.2 Venue and location

The premises of Anhembi Park (São Paulo in Avenida Olavo Fontoura, 1.209) hosted the CPBR event from Monday the 27th of January 2014 to Sunday the 2nd of February. Anhembi Park is a convention centre located in the Santana district. It was opened back in 1970 and has been periodically refurbished ever since, the last time being 2012. At 400,000 square meters of indoor space and 93,000 meters of outdoor space, it is one of the largest event grounds in Latin America. More than twenty large fairs, each drawing in excess of 50,000 visitors, are celebrated annually at the convention centre. It also hosts the annual Carnival of São Paulo.

As usual, the venue featured several stages, focused on specific themes.

The main stage (see http://www.campus-party.com.br/2014/palco-principal.html for more details) is the home and platform for keynote speakers. The two main FI-WARE activities that took place there were the FI-WARE opening ("FI-WARE: Open APIs for Open Minds") and the awards

ceremony of the FI-WARE Challenges. Other activities at this stage included the speeches of Bruce Dickinson and Silvio Meira.

Figure 3. Anhembi Park

The Pythagoras stage (see http://www.campus-party.com.br/2014/pitagoras.html for more details) is the developers' stage, and FI-WARE was also one of its pillars. The "Programming with FI-WARE" conference took place there. Other contents included speeches on MongoDB, WebApps with AngularJS, Game engines for Android, Apps for Firefox, Twitter's own APIs for streaming, and strategies for Open Source programming.

Figure 4. One of the CPBR stages

Other stages include the Archimedes stage (Open source, Security; see http://www.campus-party.com.br/2014/arquimedes.html), the Hypatia stage (E-Commerce, social media, education 2.0 and big data; see http://www.campus-party.com.br/2014/Hypatia.html), the Galileo stage (robotics, innovative materials; see http://www.campus-party.com.br/2014/galileu.html), the Gutenberg stage for startups (see http://www.campus-party.com.br/2014/gutenberg.html), the Michelangelo stage for multimedia (see http://www.campus-party.com.br/2014/michelangelo.html), and others.

Figure 5. Venue Map

The venue was divided into three zones: the camping area, the Arena (live quarter) and the Startup & Makers/Open Campus area. The Arena is where some of the stands are (e.g. FI-WARE, VIVO), where the campuseros sit and work and where the conferences and workshops take place. In all Campus Parties, this is the zone that is bursting with ideas, information exchange and the heat from the hardware.

Figure 6. The Arena

Just as in the CPE London, late at night and sometimes early in the morning, the campuseros go back to their tents in the camping area and have a quick rest. In the Brazilian edition, the majority of the campuseros sleep in the camping area, and there were 8000 attendees, so the camping area needs to be huge.

Figure 7. Campuseros' tents at the CPBR

Figure 8. The Open Campus area

2.3 The CPBR in figures

This section is a collection of bullet-pointed key messages, focusing on the facts and figures of the CPBR in Sao Paulo:

- 8.000 campuseros
- Almost 20 different countries were represented

- 74% of the campuseros are male with ages between 18 and 29.
- 5.000 tents in the camping area.
- 120.000 visitors total at the Startup/Open Campus and Arena areas.
- Press clipping has been worth 400 million R$ (around 130 million €)
- More than 500 journalists working at the CPBR
- Campuse.ro streaming service: 70.000 live plays and more than 150.000 on demand
- More than 500 hours of content. More than 700 speakers
- 250 startups taking part at the Startup & Makers Camp. They were visited by 140 investors
- 2.000 people were trained on e-Inclusion.
- 64K square meters (useful)
- Internet connection: 40 GB
- Consumption of resources: electricity 18 KWA, water 150K liters, food 62K kilograms.
- 2.625 news: 239 newsprint, 2216 online media, 160 TV and radio.

Figure 9. Paco Ragageles, founder of the Campus Party and member of the FI-WARE consortium, being interviewed by national TV O GLOBO

3 FI-WARE activities at Campus Party Brazil 2014

3.1 Overview

This chapter is broken down into five categories: sessions, workshops, challenges, branding and the FI-WARE stand.

The sessions were published at http://www.campus-party.com.br/2014/agenda-geral2014.html and the workshops were published at http://www.campus-party.com.br/2014/agenda-workshop3.html The main difference between these activities is that sessions and round tables were not necessarily technical, but rather conceptual, serving as introductory high-level pills for gathering the attention of developers, entrepreneurs, media and public bodies present at the CPBR. Workshops were very technical, and aimed exclusively at the developer community, focusing on the architecture and building blocks that FI-WARE delivers and that can work for building the challenges projects and any other. More details about the activities dealing with the FI-WARE Challenges are given in subchapter 3.4. The reader should note that the "Description" paragraph in 3.2 and 3.3 is the text as used internally for creating the CPBR website's contents that accompanied each conference or workshop; then, "Further Considerations" are given, after our on-the-field experience during the CPBR, and these considerations include updated information like number of attendees, questions asked and overall result. This approach was followed for D12.4.1 as well.

The activities concerning the final phases of challenges 1 and 2 are also explained in Chapter 3. The branding activities to visually promote FI-WARE at the CPBR are also listed and these are then linked to the presence of FI-WARE through our project's stand at the Campus Party.

Figure 10. The opening ceremony at the main stage

3.2 Sessions

3.2.1 FI-WARE: Open APIs for Open Minds

Where: Main Stage

When: Tuesday, 28th of January, 11:00 AM - 12.00 AM

Description[1]: "The Internet has evolved to be the cloud where key applications of our own personal and professional spheres are run. Thus, it is essential to have an available standard open

[1] As used internally for creating the CPBR website's texts that accompanied each conference (see http://www.campus-party.com.br/2014/FI-WARE.html)

platform that, besides connecting, offers simple and powerful APIs to facilitate the development of innovative applications. APIs with publicly available specifications, royalty-free and that do not rely on a single provider. This is the function of the FI-WARE platform: building the Internet of the Future based on open standards. The FI-Lab, based on FI-WARE, creates an ecosystem of open, global innovation that brings together entrepreneurs with their potential customers and investors, where public administration has opened its data at the service of innovation and entrepreneurship.

Do not miss the chance to know all about FI-WARE, FI-Lab and the new challenges that will open during Campus Party, with over 400 K€ in prizes for entrepreneurs!

Speakers:

Jon "Maddog" Hall is the Executive Director of Linux International.

Bruno Souza: Consultant at Summa Technologies and an expert on Cloud Computing in ToolsCloud, he is also known as "Javaman".

Francisco Jariego is the Enablers & Technology Director at Telefónica I+D and a Member of the Executive Committee of Telefónica I+D. He was Director of Technological Strategy from 2009. Francisco holds a Ph. D in Physics from the Autónoma University of Madrid. He joined Telefónica I+D in 1990 collaborating in the modeling and optimization of algorithms. Since then he has been responsible in different research projects in areas such as network planning, operation & maintenance, supply chain management, business intelligence, strategic planning and regulation. During the deregulation of the Spanish telecommunications market, he actively participated in the development of techno-economical studies about network evolution and cost structures that led to the development of a cost-accounting system for Telefonica. He has served as Director of Network and Services Management until 2009, and he is currently responsible for the definition and coordination of Telefónica I+D's technological strategy. Currently he is also Member of the Board of Directors for the European Technology Platform NESSI (Networked European Software and Services Initiative) and Member of the Board of Directors for the Autonomic Communication Forum.

3.2.1.1 Further considerations[2]

Around 500 people attended the FI-WARE opening at the CPBR. An estimated 1500 streamed it on the Campuse.ro platform. In this conference, the FI-Ops, FI-Lab and FI-WARE brands were presented to the Brazilian media and campuseros.

Bruno Souza stressed the importance of open source and cloud computing (built with open source), and then linked these concepts to FI-WARE and FI-Lab as European alternatives to the US' current ICT monopoly. FI-WARE, in his words, can work as a set of tools that achieve a level of independence from already established (North American) infrastructures.

Francisco Jariego continued also in this vein. He said "If we want to engage a community we need to make open solutions for them. FI-WARE needs to be open". The open standard "is FI-WARE", the sustainable ecosystem "is FI-Lab". FI-WARE was described as an advanced OpenStack-based ecosystem full of GEs able to "do things". FI-Lab is actually the meeting point where everything is available to the community. In this regard, he commented on the fact that business and sponsors (e.g. brands but also cities) are able to get in touch there with developers and programmers (offering services), and described it as "a true market place".

All the FI-WARE challenges were announced, including too the 3rd and 4th challenges – Smart Society Challenge and Fi-WARE Excellence challenge). The FI-WARE activities that would take place during the CPBR were also announced.

Jon Maddog Hall took the floor afterwards with an "I am sceptic. It is my job to be sceptic" interesting attitude. "Will this be taken over by large companies?" is the first question he asked

[2] Updated information (if applicable) and other considerations like number of attendees, questions asked and overall result.

himself, but Fi-WARE has proved to be actually open and available to the small developers. People is able to test it, programmers can work on a readymade version of the GEs. After commenting on the polemic NSA case, Jon stressed the importance of ethics in coding, which can protect us from certain uses, too, and said that it will be important to see how FI-WARE manages this.

The three main questions that the audience asked were:

- "Is support guaranteed?" Francisco Jariego answered positively and explained the further support from the FI-WARE companies and also the EU's in recent calls (100 M€ in SME-based projects) for initiatives that will span from 2014 to 2016.
- "Since the cloud components are EU-based", one finalist explained that "Brazil wants to keep its citizens' data in Brazil, so what are the implications of this? What are the plans to extend – geographically – FI-WARE?" F. Jariego explained that certain, non-European companies are interested in adopting FI-WARE and more importantly to offer it as a commercial platform. Jon Hall recommended to set up a FI-Lab implementation "in your basement", since FI-WARE is actually a set of standards, and the next steps will be key to guarantee its openness. About the business model of open standards, Jon explained, a standard is "just a starting point but you can go beyond that, you can go beyond the API and guarantee better scalability, efficiency, more services or better QoS".
- "Does FI-WARE have any success stories?" Though still a bit early for that, Telefónica is planning to use FI-WARE for its own IoT developments, to mention just one example, and that means something.

Figure 11. Francisco Jariego during the FI-WARE Opening at the CPBR

3.2.2 Programming with FI-WARE

Where: Pythagoras (Developers') Stage

When: Tuesday, 28th of January, 17:00 PM - 18.00 PM

Description: Software developers have at their disposal hundreds of programming languages and each fulfils a specific function; but amid the many options available, what are the five key languages to learn?

In this talk we will show the keys for programming your first application using FI-WARE. With a practical demonstration, our speakers will explain how to work with the platform and its open APIs: collecting data from sensors (Internet of Things), publishing and processing this information with multimedia content in real time Big Data, developing data and content mashups are just some of the endless possibilities to realize your ideas. Start working with FI-WARE and encourage to submit their proposals for new challenges, with more than € 400 in prizes!

Speakers:

David Ruiz: Geek passionate about software development and entrepreneurship. Developer Evangelist Firefox OS and M2M at the Center for Digital Innovation at Telefonica Brazil and a member of the Institute Campus Party.

Carlos Ralli Ucendo: Expert IPv6 and future Internet services of Telefónica I+D. Development Team FI-WARE.

Figure 12. Carlos Ralli, of the FI-WARE consortium, during the "Programming with FI-WARE" conference

3.2.2.1 Further considerations

Around 300 attendees were present. Carlos Ralli gave a much more practical approach into FI-WARE. He talked about all the available components – GEs – and about FI-Lab. Several cities are already connected to the FI-Lab ecosystem, and some Latin America cities are expected to connect as well soon; this was sufficiently supported during his speech. Mr. Ralli also explained the previous steps during the CPE in London, including information on how the Hackathon went, even with only five days of coaching – as probably the best proof of the readiness of FI-WARE's GEs.

The FI-WARE Catalogue was also introduced, as well as some of the key GEs like some of the IoT, Cloud and Data most important ones. This presentation was intended to secure attendance in the FI-WARE workshops.

3.2.3 M2M, Smart Cities and FI-WARE (Round table)

Where: Galileo Stage

When: Wednesday, 29th of January, 17:00 PM – 18:15 PM

Description: FI-WARE provides resources that can be applied in multiple fields. Undoubtedly, one of the most interesting ones is the "Smart City". FI-WARE makes available an extensive catalogue of open APIs based on patterns that can help cities become more efficient. Developers then rely on pre-defined structures. Furthermore, the development that takes place in a city, can perfectly work for another. Through different examples we will know the features of the FI-WARE platform in this field.

Mediation: Katia Militelo. Editor in Chief of the Journal Info. Specializing in Technology and Business, Katia has done work for Editora Abril , Globo and the Folha de Sao Paulo .

Participants:

Eduardo Takeshi. Telefónica Digital. Manager M2M and Cloud. Marketing Manager for Telefonica Digital Products for Machine-to-Machine or M2M, with experience in the digital and telecom market.

Jann Alexander. Jann is an electrical engineer graduated from the Faculty of Industrial Engineering with post graduation in Business Administration from Fundação Getúlio Vargas. Worked for companies like Siemens, MetroRED, BrasilTelecom, Telefonica, AT&T and Telmex in engineering and marketing. In the NEC group, Jann worked four years in Japan as a Marketing Manager for international business. He is currently the General Manager of Marketing & Strategy for Latin America.

David Ruiz: Geek passionate about software development and entrepreneurship. Developer Evangelist Firefox OS and M2M at the Center for Digital Innovation at Telefonica Brazil and a member of the Institute Campus Party.

Andreu Veà is a well known Internet pioneer and entrepreneur in Spain. He founded the fourth Internet Service Provider company there in 1994 and later helped devise the Internet strategy of Retevision-Auna, a Spanish national telco-carrier. A telecom and electronics engineer, he wrote the first Ph.D dissertation (2002) focused on the Internet. Dr. Veà leads efforts to extend networking to small communities, and serves on the Telecom and Smart-Cities advisory committees of the Autonomous Government of Catalonia and the City of Barcelona. He has written several books, dozens of articles and has given more than 800 lectures, symposia and seminars on the Internet and its impact. Dr. Veà also serves as President of the Board at ISOC-ES.

Juanjo Hierro: FI-WARE's Chief Architect, Development Team FI-WARE and FI-WARE Coordinator.

3.2.3.1 **Further considerations**

The discussion has focused on the importance of the need for a standard platform for all Smart Cities. It is key – and that is what FI-WARE is doing – since all cities, large or small, have actually basic common problems (parking, water, garbage collection), and it is also key for the economic sustainability of the Smart City concept, since any city would have an open architecture to start building its services on top of it, and any developer could easily program and sell his/her solutions on top of an architecture that is reused by many cities. FI-Lab, in this regard, is a meeting point for all cities to share their data and get to meet the right developer, wherever he/she is coming from.

The City Protocol Society has also been presented, a society for the definition of protocols which are commonly used by many cities. Some of the members include San Francisco, Barcelona, Taipei and Vienna.

The future explosion of the Internet of Things paradigm will mostly depend on the cheapness of the sensors, but also on the easiness for developers to quickly develop applications, and the existence of a common test-bed that can also work as a showcase. This is what FI-WARE and FI-Lab are enabling.

Figure 13. The M2M & Smart Cities panellists

3.2.4 FI-Lab: Building a true open innovation ecosystem (Round table)

Where: Hypathia Stage

When: Thursday, 30th of January, 11:00 AM – 12:30 PM

Description: Want to know about the power of open innovation? FI-Lab (http://lab.fi-ware.org) is the open meeting point of the FI-WARE platform, where entrepreneurs can realize their ideas and find customers and investors who want to bet on apps that were developed here. This is a clear example of how you can build an innovation ecosystem to which all kinds of persons can contribute to, either public or private. After an introduction on FI-Lab, the panellists will share their point of view and present its possibilities. Do not miss this opportunity to truly innovate!

Mediation:

Juanjo Hierro and Amure Pinho

Speakers:

Amure Pinho (StartUp Weekend Brazil). Angel Investor, Co-founder and CEO of the Sync technology group, focusing on interactivity, mobile and web. Chosen by Endeavor as one of the 10

most innovative companies in the country for 2012. He is a leader in mobility and interactivity in Brazil and has become an international reference for the main startup acceleration programmes in the country.

Bruno Souza: Consultant at Summa Technologies and an expert on Cloud Computing in ToolsCloud, is also known as "Javaman".

Borja Adsuara. Borja is a university professor, Parliamentary advisor and consultant in Strategy Digital Enterprises and Public Administrations. One of the most active and influential figures of the Internet in Spain, he was General Manager of Corporate Public Entity "Red.es"; Director of the Observatory of Telecommunications and Information Society, Director General for Development of the Information Society and Director of the Office of the Secretary State Culture. He has participated in all cultural legislation and the Information Society in Spain since 1992.

Juan Jose Hierro currently holds the position of Senior Technology Expert at Telefónica I+D (R&D Labs). He obtained a degree in Computer Science in 1990 from the Universidad Politécnica de Madrid (UPM) and owns a certificate of proficiency research. He is involved in several R&D&i activities at Telefónica I+D in areas such as Cloud Computing, Internet of Things, BigData and Context Management and Future Web or Mashup technologies. He is the project coordinator and chief architect of FI-WARE.

3.2.4.1 Further considerations

Around 100 attendees were present during this session. After Juanjo Hierro had again explained the reasons why FI-Lab is one of the key assets of the FI initiative, Borja Adsuara of Red.es commented on the global – beyond Europe – interest of the EU in the FI initiative. In this regard, Bruno Souza stressed the importance of gaining real independence from the North American ICT monopoly. FI-WARE can be an enabler in itself for this purpose. Some of the key concepts raised during the round table were:

- Public lightning, garbage management and recycling, plus mobility are three of the main problems that FI-WARE can tackle.
- A common standard for many cities is the most important thing to have if we expect a community of developers big enough, making things on top of such standardised architecture. CKAN is one of the communities standardising the way cities publish open data. FI-WARE needs to go beyond the publication of open data, and to eventually make it possible to integrate such data in a way they become useful and meaningful for further applications. FI-WARE is in touch with the CKAN community for this reason.
- City authorities should follow the FI-WARE Challenges approach and let the citizens propose ways to solve the city's issues. Interesting ideas will come, many of them not yet thought by the own city officials.

3.2.5 FI-WARE Applications in Robotics

Where: Galileo Stage

When: Saturday, 1st of February, 15:45 PM - 16.45 PM

Description: The expert in robotics, Ángel Hernández, will present the integration of robotic control elements using the FI-WARE platform. Together with partner Jesús Domínguez, Ángel has worked on the remote control of one of their robots over the internet and all this has been made possible thanks to the potential of FI-WARE. Using tools such as virtual machines, the FI-WARE Context Broker and the Mashup GEs, the parameters of the sensors, movements and actions, for example, can become accessible via the cloud and to the robot.

Panelist: Ángel Hernandez is the R&D Project Manager of Ikergune, a research centre focused on Robotics and Biotechnology, where he leads the development of new conception synergising lines with the automotive industry. Ángel is also an experienced robotics Campusero advisor. He is an enthusiastic engineer who started making robots at the age of 11.

3.2.5.1 Further considerations

Ángel started his conference by presenting both himself and his work and by giving a general presentation of the FI-WARE project, since most of the audience (50 p.) was new to it. Then he moved on to explaining the benefits of connecting robots to a cloud infrastructure, after mentioning the current cloud services on offer (Google Cloud and others). These benefits include having a less heavy computation in the robot, by moving part of it to the cloud and thus gaining battery life, one of the key problems of all robots.

Ángel commented on the current architectures for connecting your robot to a cloud infrastructure, such as the one provided in FI-WARE, and then proceeded to show a demo with one of his own robots!

Figure 14. The panellists of the FI-WARE sessions included ICT celebrities such as Jon "Maddog" Hall

3.3 Workshops

3.3.1 Developing your first application using FI-WARE (parts I & II)

Where: "Workshop 3" space

When: Wednesday, 29th of January and Thursday, 30th of January, 16:45 PM – 18:45 PM

Description: Develop your first app for the Future Internet with FI-WARE! In this workshop you will have the opportunity to create your first application based on FI-WARE and the FI-Lab, an environment where you can experience the platform. With the support of our experts, we provide the tools and APIs to implement your ideas and prepare an instance of your application to make it

known within this global ecosystem of open innovation based on the FI-WARE technology. Help build the Future Internet!

3.3.1.1 Further considerations

Around 50 attendees were present at the two-part FI-WARE workshop in the CPBR. For the first part of it (Wed 29/01), the FI-WARE team explained how the FI-Lab instance in Santander is able to perform a series of tasks. Based on the IoT GEs, this instance is nevertheless much more than that, and is able to send alerts, collect a number of data, get in touch with the authorities' end and deliver a complete Smart City solution. After explaining all the relevant possibilities, the FI-WARE developers explain which GEs are used and how they are interconnected. To create a complete application mashup such as the one shown in Santander, Cloud concepts, Wirecloud, WStore and the identity manager GE were then thoroughly explained through easy examples (e.g. creating your own weather widget with Wirecloud).

For the second part of the FI-WARE workshop (Thu 30/01), the FI-WARE team focused on the IoT GEs (DZA and Fizway) and sensorML illustrating these through sensors and actuators; but they also dwelt on the Data GEs and the media stream oriented GEs. Some of the attendees were already taking part in the FI-WARE Challenges 1& 2, but others were not. We expect these to be on board the Challenge 3 – and potentially the "FI-WARE Excellence" challenge as well.

Figure 15. Workshop 3, where the FI-WARE workshops took place

3.4 Activities concerning the FI-WARE Challenges

3.4.1 Demos and Coaching

Where: FI-WARE Stand

When: Tuesday, 28th of January, 14:00 PM – 17:30 PM and 19:00 PM – 21:00 PM

Description[3]: Two different areas were prepared at the FI-WARE stand, depending on the Challenge (Smart Cities and Smart Business) that the teams were to present; then these were distributed and directed to the right jury and zone. The ideas that were pre-selected (and sent to the EC in the non-deliverable "FI-WARE Challenges 1 and 2 Finalist projects and Jury" report [Jan 2014]) before the CPBR had a chance to be explained face-to-face to the members of the jury. The following are the complete teams.

Smart Cities challenge:

FI-GUARDIAN	Marcos Marconi
	Viviane Lessa
	José Leonam Carvalho
Sparky	Alejandro Santamaría Arza
	Tenoch González Rojas
SmartBox	Álvaro Romero Izquierdo
	Francisco Javier Herrero Sánchez
Apparkart	Marco Vereda
	Julio Galarón
La Urbo	Daniel Lima
	Helio Lima
	Leticia Duarte
Cares	Juan Manuel Romero
	Margarita Vaca
SmartAppCity	Javier Gurría
	Daniel Menchaca
Social Market	Claudio Esposito
	Salvatore Toti
WeCollect	Ignacio García
	Fernando Ruiz

SmartTraffic	Alfonso Escriche
	Carlos Vicente
	Mateo del Río
SmartZity	Daniel Prol Martín Ambrosio
	Alejandro Céspedes Vicente
	César Álvarez Jiménez
Paprika	Enylton Machado Coelho
	Henrick Almeida Correa
Spring	Ovidio Mircea
	Marian Claudio
QuickParking	Antonio Sánchez
	Oscar Ramírez
Urban M	Daniel García
	Alejandro López
City Brain	Sergio Chamorro
	David Alfonso Guzman
Spmart Parking	Carlos A. Albarrán
	Jorge Luis Gallardo

Smart Business & Industry Challenge:

Context	Joel Lopez Salcedo
	Alexander Romero
Shake&Go	Sergio D. López
	Lousanje Ramirez
Interact	Stelios Sotiriadis
	Alejandro Preventis

Kituris	Edwin Marcelo Llauca
	Cristian Patricio Espiraza
Smaheater	David Lechón
	Deepak Mishra
FoodLoop	Christoph Muller
	Brian Christ

[3] These activities were held with a small number of people (the finalists of the challenges) and thus they were not included in the CPBR website. They were announced exclusively to them. These "Description" paragraphs are the editors' explanations of what happened at the CPBR.

Smart Customer Support	Derick Leony
	Victor Guerra
Carbon Control	Darragh Kirby
	Shane O¨Shullyvan
Shelfz	Florian Klemt
	Lauren Kramme
Smart Taxi	Valeriya Zaytseva
	Federico López
Appetitoo	Ivan Paudice
	Marco Vladovich
VPC	Tatiana Orlova
	Yori Orlov
Cloud Industry	Nixon I. Rondon
	Leonardo Alvarado
	Mr Peter Praeder
Galvyas	Joao Vieira
	Debora Reis
Ombudsman Office 2.0	Adriel Almeida Café
	Diego Bonfim
Amico	Dmitri Ignatev
	Dani Samer
MyCity4Me	Jesus Martín
	Carlos Fernández
Wadjet	Jorge Fernández
	Xavier Xao
SmartAdStore	Carlos Albarrán
	Israel Tamogo
FoneSense	Christian Ryder
	Mark Willamson

Table 1. All the participants of the FI-WARE Challenges present at the CPBR

Some of them included: (Smart Cities) *Spring App*, which enables the generation and management of information based on user context and location (that can then include or be extended to allergies, pollution, smart alerts, etc) making use of, among others, the FI-WARE Cloud component. Its next steps include its integration with home automation and an interface for public authorities. Also *Apparkart*, based on Smart parking meters connected to FI-WARE; *Urban M*, based on IoT and provided with a prototype built on the chassis of a real bike. This idea circles around B2C and B2B smart bikes. The competition in this field is not ICT-savvy and the market is increasing each year. This project is based on Bluetooth, the IdM (OAuth) GE, Big Data and GPS. Use cases include tracking sensors in each session, environmental data and anti-theft. All of the ideas presented were very high-quality, and the teams often shown technology and business profiles as part of its members, giving and taking the floor, making this part of the CPBR a dynamic, inspiring and energising experience for all of the FI-WARE consortium members attending.

Other projects included (Smart Business): *FS*, based on BLE Bluetooth Low Energy: this idea is based on the concept of personalised alerts popping up in the user's phone when in close proximity to certain BLE beacons, for instance when shopping or at a museum. Business models range from rental of BLE network to third parties, re-selling context and behavioural data, and pay-per-click in, for instance, malls or other areas. Also, an SDK is being designed for sellers (shops) in case they want to fine-tune or change the app. BLE beacons are not connected to the internet, but through a Raspberry PI this information could be sent outside the local network. The FI-WARE context broker GE and Identity management GE are expected to be eventually used. *Shake N Go* is File Processing as a Service, covering security, logging, and others. Sources, shakers and targets are the key elements both conceptually and from the perspective of business. They can be jointly configured as a Lego, or also the client can buy the entire solution and pay per use (size and number of documents, mainly). Shakers include translators and mail senders, among others. Sources can be file grabbers and targets can be any file container like FTP or Dropbox. *Inter@ct* (Motion sensor driven gesture recognition) was another idea. It offers services for accessing and storing generic and personalized gestures. It can be used for impaired people and third party applications. Even a new GE has been created (motion sensor GE). *Smart Customer Support*, for businesses seeking a better customer support experience. *Shelfz.com*, for shopping, and *CarbonControl*, for environmental applications, were also presented.

Figure 16. Presenting the ideas to the challenges juries (Smart Business on the left, Smart City on the right)

3.4.2 Presentation of the final versions and deliberation

Where: FI-WARE Stand, Production Room, Onsite in the Arena

When: Friday, 31st of January, All day long

Description: On the 31st, all of the teams presented the final versions of their projects. This was sometimes done at the FI-WARE stand, other times onsite in the Arena at the very desks of the teams and also a room at the Production area was booked, in case a contingency plan after a potential Wi-Fi cut happened at the other places. Several teams brought their solutions already deployed – at least to a certain extent – and used the coaching sessions to integrate them within FI-WARE.

This time, not only more common questions regarding the GEs were asked by the jury, but also issues as sustainability of the products and the ability of the teams to potentially provide a basis for a developers' community, based on their products, were tackled. Scalability and legal issues, at least at this point of the projects (most of them incorporated parts not yet fully developed) were also considered. A typical question dealt with the business models of each solution: exactly who pays, which amount and on which basis (subscription, pay-per-use, public authority providing the money, private users providing the money, etc). Most of the projects had thought of different viable business models. The level of quality was high.

The final deliberation took place in the evening.

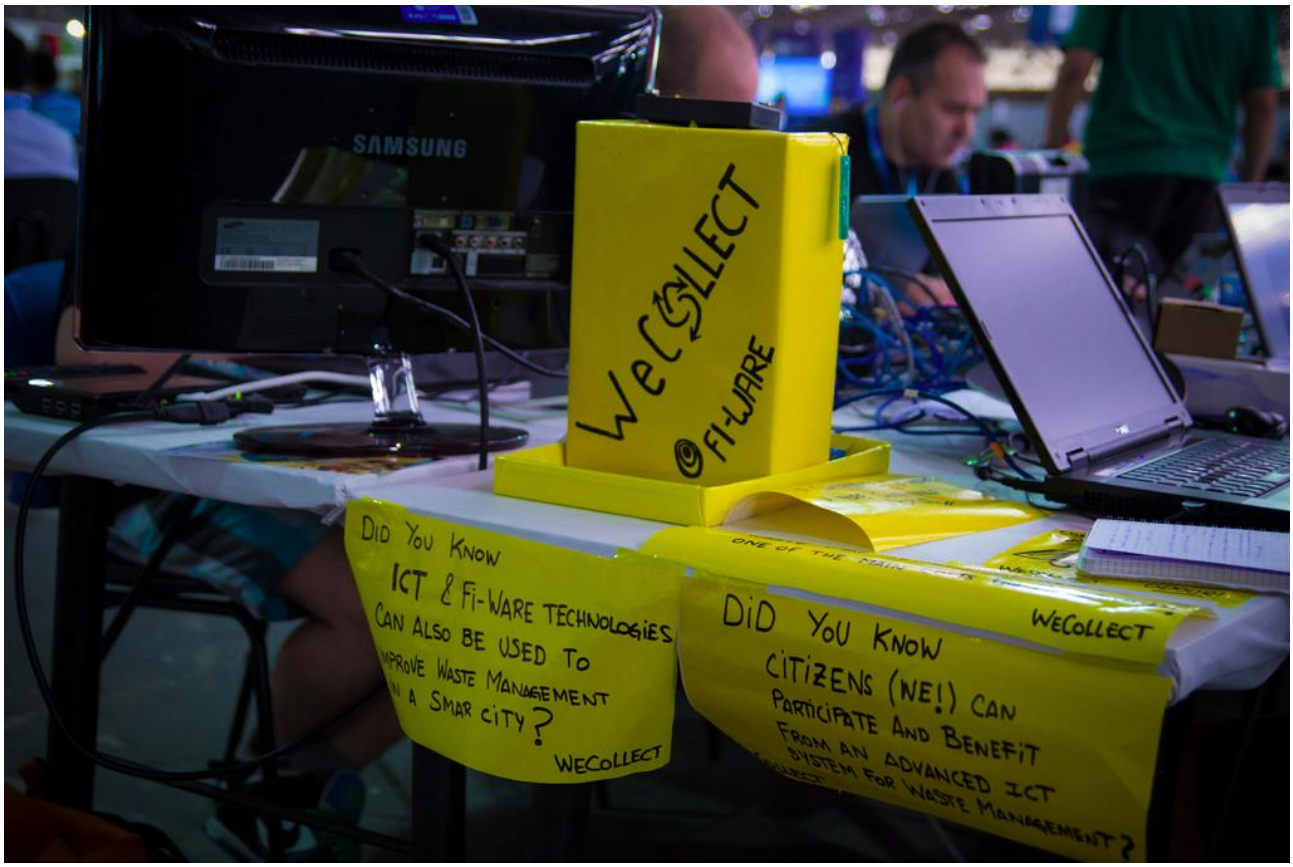

Figure 17. At work on the FI-WARE challenges

3.4.3 Awards Ceremony

Where: Main Stage

When: Saturday, 1st of February, 17:30 PM

Description: The ceremony took place at the main stage, presented by Paco Ragageles and Raúl Sánchez of Futura Networks and Juan José Hierro from Telefónica I+D.

The winners were distributed in two groups. The first group included the Smart Business, whose teams were awarded by Mr. Paulo Teixeira (Federal Representative) and then a brief speech about their merits and projects was given for each of them. The second group was the Smart City winners, whose teams were awarded by Mr. Simão Pedro Chiovetti (Municipal Secretary of Services, Sao Paulo City Council), and the same operation was done.

The reader is referred to D12.5.1, where the winner projects and teams are described with much more detail.

Figure 18. Awards ceremony: the FoodLoop project won the Smart Business first prize

Figure 19. The final photo, with all the developers and the FI-WARE team

3.5 Branding: Presence of FI-WARE at the CPBR

FI-WARE had a very strong presence in the latest CPBR in Sao Paulo. The sponsorship was equivalent to one and a half *Gold* sponsorships. This not only ensures proper branding but also, as seen in the previous chapters, a sufficient number of sessions and workshops. Back to the panels and banners, these are indicated in the map below:

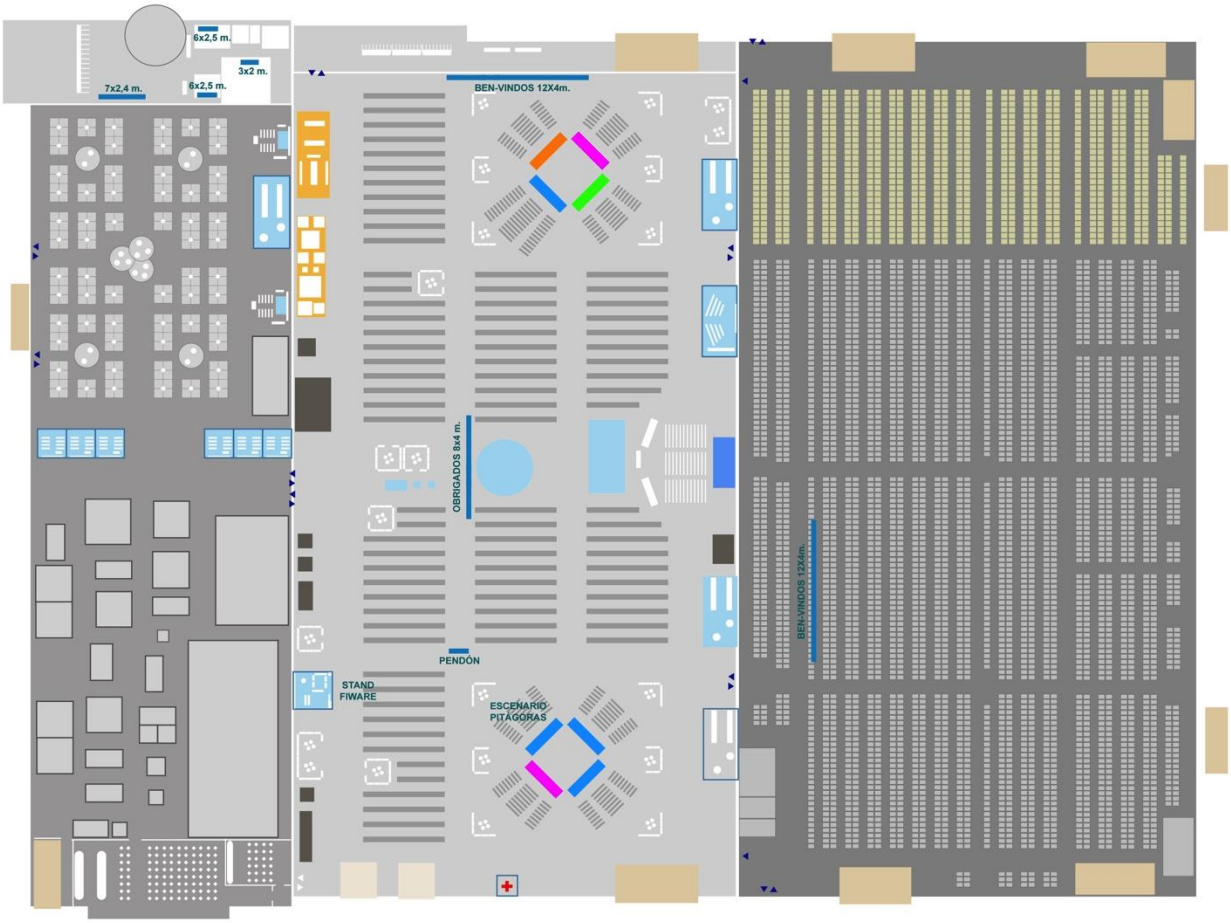

Figure 20. Location of the main panels in which FI-WARE was featured

The FI-WARE brand was placed at strategic places. Four elements were located at the entrance and VIP and multipurpose rooms:

- Two 6 x 2.5 m banners
- One 3 x 2 m panel (VIP room, photocall)
- One large 7 x 2.4 m panel (main entrance)

Two huge extra banners (12 x 4 m) were located:

- By the Stadium stage, close to the Arena's exit
- In the camping area

These included the "Ben-Vindos" (Welcome) message.

Also, the "Obrigado a todos" (Thank you all!) large panel was displaying the FI-WARE brand as well, located on the entrance from the Open Campus to the Arena. This panel's dimensions were 8 x 4 meters.

There was also a 5 x 2 m. banner by the Pythagoras stage, and FI-WARE was permanently displayed at the backdrop of such stage, too.

Figure 21. Design for the large banner by the Pythagoras stage

This was effectively complemented by the fact that around 25 members of the consortium – including many developers from the FI-WARE technical teams – were physically present and ready to help the campuseros. FI-WARE appeared as a reality supporting developers, entrepreneurs and the CPBR infrastructure itself. FI-WARE, again, *was there* for them.

Figure 22. The "Obrigado a todos" large panel with all the CPBR sponsors

3.6 The FI-WARE stand at the CPBR

The FI-WARE stand was located in the Arena, strategically placed nearby the catering entrance, which is where all the campuseros have lunch and dinner. The FI-WARE stand was a roughly 10 x 10 meters space which acted as a meeting point for almost any FI-WARE activity, specially regarding the challenges. It was, at all times, populated with members of the FI-WARE consortium and development teams ready to help, advise and promote the project's results. More specifically, the FI-WARE team of developers was permanently seating next to the stand, willing to help the participants of the FI-WARE Challenges and any other people interested in FI-WARE. For more details on the stand's designs please refer to D12.2.5.

Figure 23. One of the queues by the FI-WARE stand

The branding elements of the FI-WARE stand included a backdrop, measuring 10 x 4 m, promoting the FI-Lab and FI-WARE brands, a 1 x 3 m totem promoting the FI-WARE t-shirt, and a 2 x 2 totem, Game Boy-inspired and showing a real time FI-WARE application.

The stand also acted as a meeting point for institutional activities, like the visit of the EC representative, and for operational issues like meeting the Challenges teams prior to their presentations to the FI-WARE team, and for giving away the FI-WARE promotional materials. The institutional visits at the CPBR included:

- Mr. Paulo Teixeira (Federal Representative)
- Mr. Simão Pedro Chiovetti (Municipal Secretary of Services, Sao Paulo City Council)
- Julio Francisco Semeghini Neto (Federal Secretary for the Regional Development)
- Alexandre Padilha (Minister of Health and now running for Presidency)
- Gilberto Kassab (Major of Sao Paulo)

Figure 24. Alexandre Padilha at the CPBR

3.7 Promotional materials distributed at the CPBR and communication activities

As stated in D12.2.5 (see the “FI-WARE Communication Milestones” chapter) various different promotional materials were produced for FI-WARE’s promotion at the CPBR. These included:

- T-shirts in two versions (Green and Black).
- A set of materials (mugs, mouse pads, flags, stickers) to be used and/or worn by the finalists at Campus Party.

All the materials are ready for re-use at

https://www.dropbox.com/sh/0xqgys2q29d2ou1/ew6pT6puGB

Figure 25. A different perspective of the Arena from the FI-WARE stand (notice one of the promotional tees)

Furthermore, please be again referred to D12.2.5 for specific details on the dissemination actions carried out to ensure visibility, interest and participation in all the FI-WARE activities at the CPBR in Sao Paulo.

4 Lessons learnt and conclusions

After the successful implementation of all the FI-WARE activities described in D12.4.1 in the Campus Party Europe in London, the next step was highly demanding for the consortium and Futura Networks, Ogilvy One and Telefónica I+D in particular: bringing the FI-WARE assets to the Latin American sphere, and more specifically to the huge Brazilian community of developers – and to the largest Campus Party, too.

By performing a diverse set of conferences, round tables, workshops all of them trying to engage the also diverse ecosystem of developers attending, the FI-WARE and FI-Lab assets again gained visibility in a vast community of potential users and stakeholders who up to that point were alien to key results that could be adopted where so far only non-EU technology has been the usual tool.

FI-WARE, once more, has shared stages, spaces and interest with some of the most prominent ICT individuals, ideas and companies around. We have kept the momentum going, and in the third year of the project FI-WARE is now known by key developers, bloggers, SMEs and public bodies that can adopt it for their Smart City services, their revolutionary mobile apps, their robots, their services for businesses and industry, and for the lives of us all. Not only in Europe, but also in Brazil.

Until September 2013, FI-WARE was in practical terms only known by the EU ICT community. That changed in London, and continued to change with smaller but key events (e.g. Santander) across several months. With the one-week exposure during the Campus Party Brazil in Sao Paulo, and supported by the two first challenges, FI-WARE has reached a peak in terms of diffusion and knowledge outside the usual ICT box. It is really the young developers' community the one to take this forward, helped and supported by factual compromise from the public authorities in each of the many countries that in one way or another have been present at both CP events.

Figure 26. Campuseros in the Arena

Once more the environment, full of active young minds, has been exactly the one to look forward to in future events. These are the main lessons learnt:

- Challenges are indispensable to reach a desirable level of interest before and during the Campus Party events
- How we reach the community, in their own language, with their own rules, is key to success
- FI-WARE is sexy: it covers most of the characteristics that EU and non-EU developers and application providers are seeking: it is open, it is not linked to some monopoly, and it is compact on one hand (FI-Lab) and modular on the other (GEs). We need to stay true to these concepts and we need to communicate them
- Real success stories, real support and real proof of FI-WARE's openness, security and ethics models is needed to further engage the SME and young developers' communities.
- Smart City is not the only field in which FI-WARE can succeed, but it is definitely one of the most important: if adopted by several cities, and kept open up to some extent, more and more developers will come and provide applications for it, which would mean to provide applications for several cities.
- There are precise conceptual differences between institutional actions and educational actions. We need to be sure of who the audience is, at all times. This also applies to the diffusion of more technical contents: it is needed, but let us watch out who we aim it to.
- Campus Party Europe meant a before and after in EU. Campus Party Brazil has meant the same in LATAM. We are in the right direction and we keep growing, but special interest and resources need to be put in place in order we keep the momentum.

Figure 27. FI-WARE will see you at the next CPE