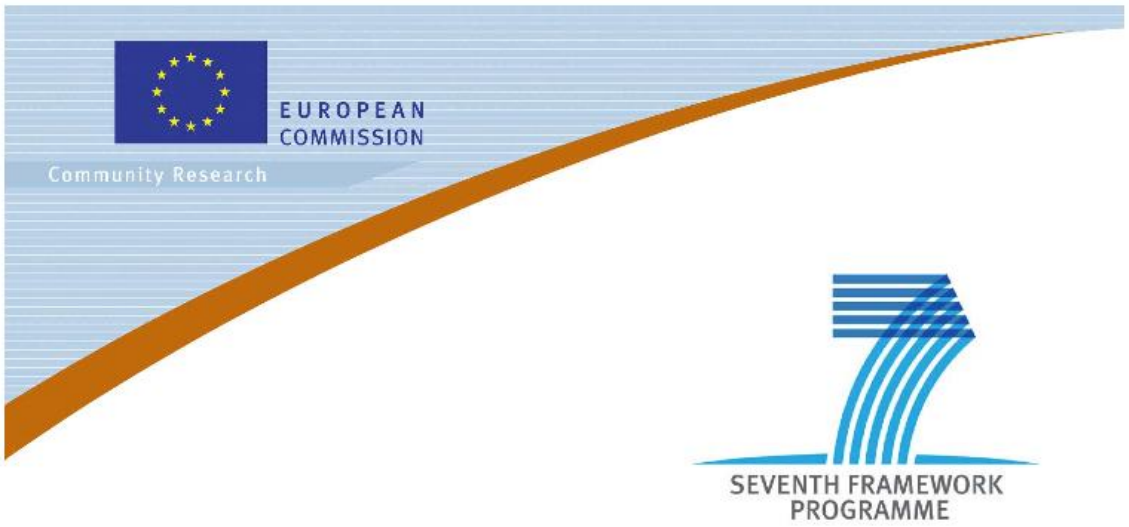

Private Public Partnership Project (PPP)

Large-scale Integrated Project (IP)

D.42.7:
Facilitation of the FIWARE IoT Ready program adoption

Project acronym: FI-Core
Project full title: Future Internet - Core
Contract No.: 632893
Strategic Objective: FI.ICT-2011.1.7 Technology foundation: Future Internet Core Platform
Project Document Number: ICT-2013-FI-632893-WP42-D.42.7
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Author: Eva Arh
Contributors: Eva Arh, INITS Universitätes Gründerservice GmbH, Ales Pustovrh, ABC Accelerator, Tushar Raju, European Innovation Hub, Adam Olszewski, PSNC, Adam Tarcsi, ELTE-Soft, Judith Stiekema, Faubourg Numérique, Cristian Dascalu, Sprintpoint, Rafael Aguado, Bolt

EXECUTIVE SUMMARY

This document presents an overview about activities, results and future outlook for the IoT Ready Program facilitation, executed by iHub.eu as part of the FICORE project in the second half of 2016. FIWARE IoT Ready program certifies IoT hardware, software and combined solutions that are compatible with the FIWARE platform.

First in this report, the goals of the facilitation activities and a relation of these activities to the overall FI-CORE project is introduced. Afterwards the approach has been described in terms of the timeline, executing nodes and tools. Executed activities and achieved results are showcased. The feedback regarding the FIWARE technology and its IoT Ready program that arises from the activities in this project is communicated. To conclude, the future outlook and next steps to be taken are presented in order to enable the success of the IoT Ready program uptake in the future.

The IoT Ready facilitation task was planned for July - December 2016. A significant delay in the FI-CORE amendment allowed the project members to start their activities only in late September. However, iHub.eu and its 8 Third Linked Parties (INITS in Austria, EIH in Germany, Bolt in Spain, Fabourge Numerique in France, Sprintpoint in Romania, ABC Accelerator in Slovenia, PSNC in Poland and ELTE-SOFT in Hungary) managed to achieve ackowledgable results, despite of having only 3 effective months to work. iHub.eu and its members organised, co-organised or attended 18 events in total in their ecosystem to promote the FIWARE IoT Ready Program to IoT compaies and to introduce FIWARE to developers. In addition, 323 IoT companies have been approached and introduced to the IoT Ready program using direct communication (email, calls, LinkedIn). As a result, 10 IoT companies decided to certify their solutions with FIWARE, whereas almost 30 companies are interested to do it in the future. It is important to note that a significant part of interested companies did not know FIWARE before and were attracted to it as a result of the activities within this task.

The project members have also created materials (a hackathon guideline, interactive tutorials for IoT Ready program and IoT components in general) that will be re-used by them and others in the FIWARE Community in future.

The IoT Ready program facilitation also created an impact beyond the goals. For example, universities in Romania are interested to launch FIWARE courses, SMEs in Austria are inquiring for help to build FIWARE based solutions, French industry players consider FIWARE as a technology for their current challenges.

iHub.eu members are seen as FIWARE advocates and are also closely engaged with FIWARE iHubs. Hence, iHub.eu is eager to be involved in the dissemination activities in the future, such as FIWARE IoT Ready program facilitation.

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1 INTRODUCTION

iHub.eu EEIG is the successful result of the I3H project, which aimed at creating an European network of Internet Innovation Hubs (I3H), web entrepreneurs, mentors, investors, students, academia, industry and public sector innovators. The network members together accelerate the transformation of FIWARE technology to create service and applications for the new generation of the Future Internet technologies, addressing the needs of European citizens, companies and society. iHub.eu was established in October 2015 and it gathers 9 innovation centers, accelerators and incubators that work together in order to foster innovation.

Within the task "Facilitation of the FIWARE IoT Ready program adoption" that contributes to the FICORE project dissemination (Task 4.3.2), iHub.eu members engaged and mobilised their network arising from the I3H project and beyond to contribute to enlarging the number of IoT companies that are using and are certified with FIWARE. More specific, the FIWARE IoT Ready program has been in focus for our activities. The iHub.eu members had the target to address IoT device manufacturers in their regions to inform and attract them to the program as well as to gather feedback from them. This feedback is shared within the wider community via FIWARE Ask platform as well as part of this report. In addition, we also organised events that raise awareness about FIWARE and its capabilities among developers. What is important, the materials produced during these activities have been made accessible to other interested parties in order to leverage existing efforts. The goals of the project are summarised here:

- 150 IoT companies are reached with regards to the FIWARE IoT Ready Program
- 50 IoT companies show an interest
- 25 IoT companies go for the certification with AT4Wireless
- All non-repetitive questions from reached-out companies have been published on FIWARE Ask platform
- 270 developers have been reached via different community events (hackathons, sponsored events, meetups), 30% of developers show interested into FIWARE by following up
- creation of materials that can be re-used by the community with regards to Hackathons & other FIWARE presentations

2 APPROACH

8 iHub.eu members (Third Linked Parties) have been actively and directly involved in the IoT Ready Program adoption facilitation and awareness raising among developers in their local ecosystems. Experience shows that regional and even local events are significantly effective in reaching local players and individuals which although interested have objective barriers in attending large international events (e.g. language, money, time, culture). Furthermore, it is crucial to engage into direct communication and discussions with the local ecosystem when introducing and promoting FIWARE. Since FIWARE has not built a strong brand name yet in many countries, local evangelists should leverage their already existing reputation to bring more trustworthiness to FIWARE in eyes of the IoT companies.

The extended network has been engaged to enhance the communication and outreach.

2.1 Timeline

Even though the project theoretically started in July, there was no clear approval until end of September. Hence, the efforts till end of September are related to the preparation - clarifying objectives and needs, developing a strategy and selecting the right tools. During this preparation time it got clear that our project should focus on the FIWARE IoT Ready program facilitation. In October we started to execute the project: launched the interactive tutorials, started communicating with IoT companies, participated in events where we promoted FIWARE IoT ready program, organised and executed hackathons.

2.2 Project executing nodes

INITS University Business Incubator Vienna is the Austria's biggest High Tech incubator, having more than 200 startups in its portfolio and adding more than 20 companies every year. During the last two years , INITS has been active in advocating FIWARE to different stakeholders (developers, see a recording "Europe goes open-source" from the DevFest 2015; City of Vienna, see ADV Tagung FIWARE, introducing FIWARE to relevant startups (e.g. guh.io, Sofasession).

European Innovation Hub (EIH) is a 100% subsidiary of Etventure - a digital business builder and investor. Etventure partners with investors and corporations to transform innovation strategies into new digital products and startups. EIH has broad previous coordination, support and management experience in EU projects including: European Pioneers which is is one of 16 FIWARE accelerators supporting SMEs in building and fostering their businesses based on FIWARE open source technologies.

Bolt is an early stage mentoring and investment program for startups that want to go global from day one. We are supported by a team of 100+ highly experienced global entrepreneurs and investors looking to support and accelerate our startups from prototype in order to successfully scale globally. Since it was founded in 2013 it has been accelerating startups (+99) and promoting FIWARE. Around 20% of its startups deploy commercially using FIWARE components. Bolt is one of the accelerators selected in the I3H project within FIWARE and one of the founding members of iHub EEIG with full liability.

Some of the events with FIWARE have been broadcasted in our youtube channel

https://www.youtube.com/watch?v=HDs4tFVZIS4

https://www.youtube.com/watch?v=fURBz0hN1Zg

https://www.youtube.com/watch?v=nIftpBOP-ak

Sprintpoint is the regional accelerator located in the N-V of Romania, in Cluj-Napoca the TechHub of Romania. In our organisation ecosystem we are managing the local physical HUB - ClujHUB, part of the StartupTransilvania - Entrepreneurship & Innovation Center. We are focused on startup & spin-off acceleration of tech products. Our specialization is targeted on tech & digital: IoT - robotics, AR-VR, data & artificial intelligence, fintech, agrotech. We are involved in the regional ecosystem creation together with 2 universities, 2 clusters, public administration developing the Tetapolis Science & Technology Park and managing the incubation processes. We are globalising local ideas and doing international outreach through the Romanian diaspora located in Sweden, Kuala Lumpur, Vienna, San-Francisco, Bonn and Australia adding to it the pan-European presence of iHUB.eu EEIG.

We joined FIWARE community in January 2015 because of our tech operations & background focusing on smart-city and IoT in general. Also we managed to bring FIWARE closer to the local community opening the Open Agile Smart Cities Romania Chapter, promoting and financing startups, educating and promoting FIWARE through hackathons and workshops.

ABC Accelerator Ljubljana supports the transfer of innovation in entrepreneurship. It is a private accelerator dedicated to selecting the best startups from the Southeast Europe (SEE) region (and beyond), help them to test their products, develop an appropriate business model, spread their business and connect them with its network of investors and corporations. With a strong academic, partnership, and team line-up thus becoming an accelerator for early stage startups with direct access to global markets and financial institutions – investors in Europe and Silicon Valley. Together with the ABC office in Munich and Silicon Valley represents an entrepreneurial ecosystem supporting startups all the way from idea creation to the selling of the company, accelerating all phases of its existence. ABC has been established in Spring 2015 and it joined FIWARE project in that year. It has been connected to FIWARE technologies through iHub network as well as through ARISE Europe project from EIT Digital. FIWARE has also been implemented by ABC's partners and founder, for example Xlab, a Slovenian IT R&D company.

Faubourg Numérique is a non-profit association created by "entrepreneurs for entrepreneurs" with a **focus on IoT (**especially in the following three vertical domains: Industry 4.0, Precision Agriculture, Smart City): our goal is to foster (open) innovation and collaboration of SME's and startups with universities, local governments and leading technology corporates (Google, Salesforce, Intel, Orange,...).

Our approach is BOTTOM-UP: if there is a significant local interest for an action, a technology, an event,...FbN invests collaboratively in these attractive topics. That's how we decided that FIWARE is of strategic importance for Faubourg Numérique: from a "state of the art study" about IoT middleware, the local university (UPJV-INSSET) discovered FIWARE; after attending FIWARE presentation in Paris (by Orange and Thales), FbN helped 3 regional startups to be selected in FIWARE accelerators; then FbN successfully applied to join I3H initiative, and a little bit later, FbN has stimulated 4 regional cities to group and join the OASC network (then FbN is - de facto - the french representative for OASC). The current

situation is that FbN gets more and more interest and questions about FIWARE (for instance about the IoT ready program) from SME'S (even corporates like Vinci) and universities (ESIEE Amiens, Pop School IoT, UTC): so we are putting effort in extending a sustainable business model - to get local public and private funding - to keep on coordinating and stimulating the local FIWARE community.
Thanks to the participation in I3H-iHubs, Faubourg Numérique has joined the IoT-EPI program.
Thanks to our local actions Faubourg Numérique has also been selected by the french government to be part of the "French Tech IoT & Manufacturing Network" that has just started this autumn.
From Faubourg Numérique's point of view, FIWARE is also interesting, to contribute to this national and European initiatives. More or less the same for the local collaboration with Orange (which is also very important for Faubourg Numérique): we have very good collaboration with people from Orange to work around FIWARE: for instance, there is a very interesting local collaboration around the implementation of a FIWARE IoT Agent for LoRa together with Orange, startups and universities.
Faubourg Numérique's interest in the current version iHubs network is mainly linked to the IoT accelerator that Faubourg Numérique wants to build and animate with the local stakeholders: from our point of view, iHubs could provide an efficient way for business extension at European level and a vector of attractiveness for our local and national initiatives.

ELTE-Soft Ltd supports Eötvös Loránd University (ELTE) being the national research and training centre in ICT software technologies. ELTE-Soft and ELTE has a long standing experience in organizing and develop workshops and training courses both in local and regional level. Also being a leading business development consultancy, ELTE and also ELTE-Soft has a deep knowledge in Innovation and Entrepreneurship methodologies and in the fields of FIWARE also (I3H FP7 and EIT FI-PPP projects). The objective of the "Incubating Internet Innovation Hubs" (I3H) project was to contribute to the sustainability of FIWARE program by creating a European network of Internet Innovation Hubs (IIH), regional or thematic clusters that bring together web entrepreneurs, mentors, investors, students, academia, industry, and public sector innovators to speed up the transformation of FIWARE results to services and applications addressing the needs of European citizens, companies, and society. The scouting and networking activities of I3H led by ELTE. ELTE as a member of the EIT Digital, in FI-PPP Liaison project, and founded a FIWARE IoT Open Innovation Lab in the EIT Digital Budapest Associate Partner Group (BAPG), where we continuously offering space, technical and business support for startups and SMEs and also for Students and Professors of the University. The FIWARE IoT Open Innovation Lab serves as an innovation showcase, and a stimulating learning and research sandbox to explore, experience, and accelerate innovative, high-tech ideas complex use-cases. As a result of the FI-PPP Liaison project the IoT Lab was equipped with a variety of emerging devices and cutting-edge technologies (including controllers, smart sensors, focused on the fields of smart home, smart city, e-health and autonomous multicopters).

Our long-term objectives are to:

- support research working groups,
- create IoT cloud test beds,
- organize IoT events and hands-on experience trainings,
- build smart sensor networks to monitor, analyze, visualize data and governance the IoT building blocks according to the Business Processes,

- develop and implement complex, secure applications, IoT architectures in cooperation with industrial partners mainly in consumer, healthcare, transportation, agricultural, geoinformatical and industrial contexts.

ELTE-Soft offers business (BDA, going-to-market strategy) and production related support for teams of University students and marketable researches.

PSNC is the leading ICT research and innovation centre in Poland. PSNC runs Future Lab, an ICT infrastructure and knowledge driven coworking space and accelerator with a number of advanced demonstration labs within the building. PSNC research work focuses on using, innovating and providing optical networking, high-performance computing (HPC), middleware services or advanced Web-based applications to enable advances in e-Science and engineering.
PSNC has been active in many layers of the FI-PPP program (Infinity, SmartAgriFood2, XIFI). PSNC has been one of the most proactive FIWARE Lab nodes in XIFI and now after the project has ended, PSNC continues to sustain the node operations. For the results reached in the XIFI project PSNC has been awarded the "XIFI Gold Label". These label recognizes the commercial exploitation of the FIWARE node already happening at PSNC and action planned in the future. The Poznan FIWARE node, since many months has reached the highest operational level "Karma beyond karma", which is an internal measurement of node reliability in the XIFI project.

In order to achieve the goals, project members leveraged their strengths:

- Reputation in the ecosystem: Every iHub member is an active incubator, accelerator or innovation center in their ecosystem and has shown results in the past. Hence, having Hubs as facilitators bring in the trustworthiness aspect
- Established connections have been used to approach relevant companies in an efficient way. This includes startups in their portfolio, beyond the portfolio, corporate partners, Smart Cities
- Existing channels: iHubs utilised the online (e.g. Twitter, Facebook, Linkedin) and offline channels, e.g. IoT related events that they know in their ecosystems in a way that allows them to target relevant people. For example, in Austria the biggest Facebook developer group has been used as a channel, the annual IoT Forum etc.

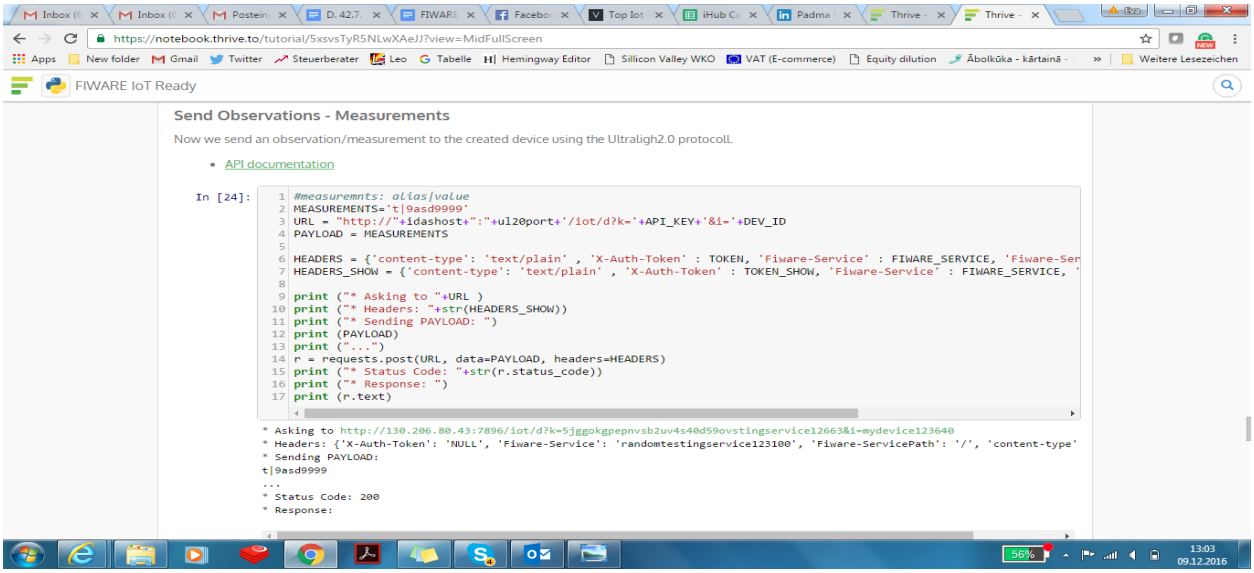
Entities that are part of the FIWARE community, such as A16 Accelerators, I3H hubs, and the FIWARE community platform Mobilise were used as additional channels to reach out to companies that have been working with FIWARE.

2.3 Target groups

In general, we defined two target groups for the IoT Ready program facilitation: companies that have FIWARE already implemented and companies that are not aware of FIWARE yet. For companies that work with FIWARE already, we focus on the certification process and its benefits. For companies, that are not familiar with FIWARE yet, we first introduced FIWARE and its benefits, as well as the FIWARE IoT ready program. Furthermore, developers were targeted and introduced to the FIWARE IoT components through specific events: hackathons in France, Romania and Slovenia.

2.4 Creation of interactive tutorials

During the preparation phase and first talk with potential companies, it became clear that the available technology documentation was too scattered among different channels and formats. This would have been a serious obstacle. Easy-to-follow information regarding the certification process and transparent requirements is seen as crucial in order to attract and / or convince IoT companies to go for the certification. Furthermore, for companies new to FIWARE, we wanted to provide a thorough overview about FIWARE, give an insight into its architecture and showcase the relevant GEs within one single tool. Hence, we created interactive tutorials gathering relevant documentation (like Tour Guide App, existing GEs documentation, FIWARE IoT Ready manual) and letting people explore and test the code on real FIWARE instances. This was done by subcontracting Thrive - a startup that focuses on interactive notebooks. The interactive tutorials will be hosted by Thrive for 1 year; afterwards it is planned to migrate them to a FIWARE node.



The FIWARE IoT Ready interactive tutorial is accessible here: https://notebook.thrive.to/tutorial/5xsvsTyR5NLwXAeJJ?view=MidFullScreen

The FIWARE Tour Guide App interactive tutorial is accessible here:

https://notebook.thrive.to/tutorial/3ffSQAAMpiDLjFTB9?view=MidFullScreen

3 EXECUTED ACTIVITIES AND RESULTS

During this project, iHub Third parties participated or organised at least one event as well as directly approached IoT companies in their ecosystem. Events have played a significant role to raise awareness in local ecosystems whereas direct, customized interactions with IoT companies have been the main tool to attract them to the FIWARE IoT Ready program.

3.1 Events

We organised three hackathons: in Romania, Slovenia and France as well as we had 14 events that were either co-organised, sponsored, attended or hosted by us.

3.1.1 Hackathons

The hubs that organised hackathons have created a best practice manual (see Appendix) that will help other hackathon organisers to manage such events efficiently.

3.1.1.1 Hackathon in Slovenia

The 24-hour long Hackathon took place on 17th and 18th of December at the Faculty of Electrical Engineering. ABC Accelerator teamed up with organization BEST Ljubljana (Board of European Students of Technology) and targeted eager and ambitious students of technology.

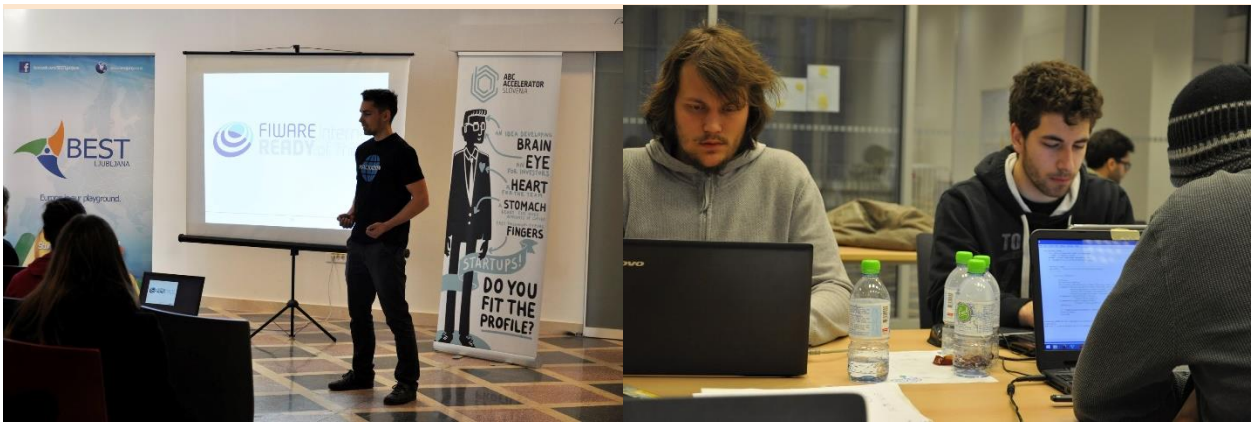
The challenge and the focus of the hackathon was using big data gathered from one of the Slovenian municipalities (Idrija) and making them smart with FIWARE Generic Enablers. Teams were finding new ways of collecting, processing and using data to optimize processes for the cities of the future. We provided real and relevant data, from Slovenian city Idrija, which helped students get useful insight for the challenge.

Before the official start of »hacking«, we provided instructive presentation of FIWARE technologies and ways they can be implemented in order to provide better solutions.

Website: http://www.bdtn.bestljubljana.si/

Facebook event: https://www.facebook.com/events/367344646952764/

Link to materials for hackathon participants: https://drive.google.com/drive/folders/0B7RSXhmqGX2uaFlLa2ZlcUFFWlU?usp=sharing



The following materials were available for the participants:

- Materials and presentations of FIWARE technologies on Drive
- MySQL base of data gathered from slovenian town Idrija
- Orion CB by Faubourg Numerique
- cKan by Faubourg Numerique
- Additional GE's from FIWARE Hackathon in Slovenia

The winning hackathon team created a real-time streaming solution of traffic, which tackled the problem of prediction of congestions and finding a way to avoid them.

Number of attendees: 32

Jury members: 3 (prof. Phd Andrej Kos; faculty of Electrical Engineering, Sergej Zavernik; ABC Accelerator, Tadej Krmac, BEST)

Feedback: We were really pleased that students showed a lot of enthusiasm towards the challenge and the focus of the hackathon. The challenge of making IoT Smart Cities solution was well accepted and students were eager to connect multiple sensors, gather data and develop new technologies.

However, they had some problems connecting and using FIWARE platform, since they found the technical guidelines hard to understand.

The winning hackathon team

3.1.1.2 Hackathon in France

On the 8th and 9th of December Faubourg Numérique organized a 'Smart Building & Smart Industry' hackathon at the technical university ESIEE in Amiens (FR). It was mandatory for the teams to include FIWARE components (IoT agent, Context Broker, ...) in their projects.

The following materials were available for the participants:

- Faubourg Numérique provided one raspberry Pi starter kit per team (10 in total)
- Microchip provided one LoRa board per team
- Orange provided a LoRA Wan local antenna and free access to the associated platform
- FIWARE Lab access

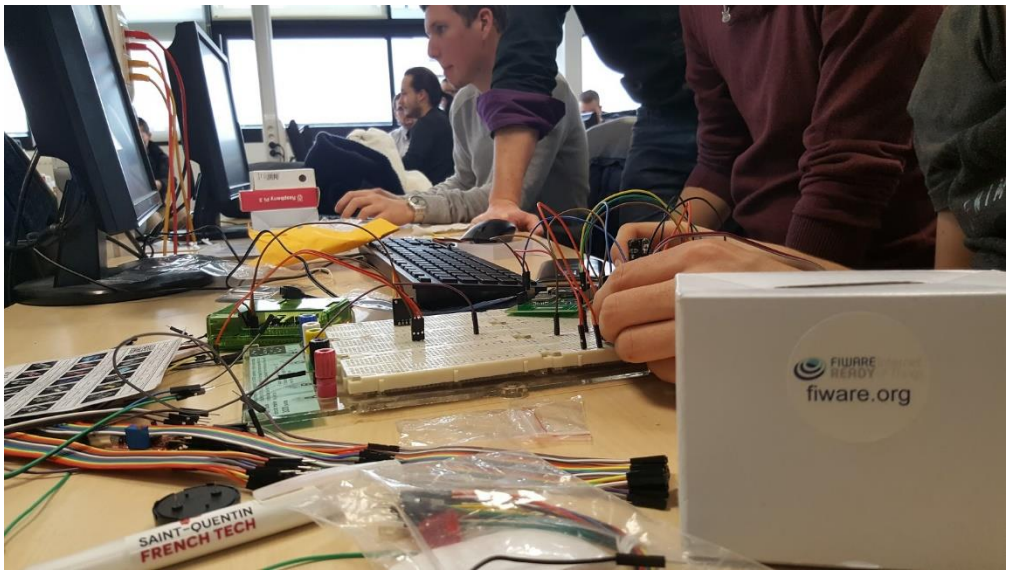
Prize money was given to the first 3 winners.

Programme of the hackathon:

- Choose one of the 2 themes
- Describe a usage scenario, a use case
- Describe the planned implementation
- Conception of an operational prototype "assembly" hardware, middleware, software

The hackathon was kicked-off with an introduction to FIWARE and its components (click here for the introduction presentation.

Kick off of the hackathon



Hard working students during the hackathon…. and of course some good lunch for some extra energy (sponsored by FIWARE)

...and then the pitches

Infrastructure available at ESIEE: Mini factory and elevator test environment.

Number of attendees: 39 (10 teams)

Jury members: 5 (Faubourg Numérique, companies, organisations)

Feedback: both teachers and students were really enthusiastic regarding the initiative. It was the first time for them to engage in such an activity. The efforts of Faubourg Numérique to create such an event and the willingness and energy of the university made this a success. Both the teachers and the students have expressed a serious interest to organise more of such activities. Thus, Faubourg Numérique and the university decided mutually to organize again a hackathon in March (if you we find partners to make this possible), this time focussed on industry/manufacturing (the university has an indoor mini-factory available, incl. robotic arm).

The Raspberry PI starters kits can be reused for the hackathon in March (see below for more information regarding this hackathon), like the produced FIWARE sweaters and rollup. The other material (LoRa board, LoRa Wan antenna and free access to the associated platform) has to be renegotiated if needed.

Also, Faubourg Numérique will take the most active students to the next level by participating in another hackathon in January and try to support them to bring their ideas to an early seed stage.

Learnings: we also learned that it is crucial to have enough time to explain FIWARE's components for a better understanding. More time (one extra day) should be given to the teams to come up with a (more creative) idea for their project and to work longer on their technical solutions.

3.1.1.3 Hackathon in Romania

We held the hackathon called MegaHack, between 11-13 November as part of the Cluj Tehnology Festival http://techfest.ro/festival-events/transylvania-megahack/ in Cluj-Napoca.

Before the hackathon we had a FIWARE Info Session describing the GEs and the FIWARE catalogue. Also we had a factory visit to experiment with robotic arms in action.

The following materials were available for the participants:

- Raspberry Pi's kit's
- LoRaWan access points
- ESA 100 & Wireless Hart access points
- LoRa server access from FlashNet & The Things Network
- FIWARE Lab access
- 2 professional robots
- 1 robotic arm

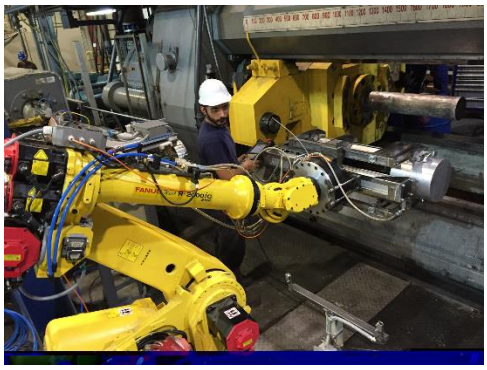
Number of attendees: 220 developers & IT&C professionals plus some students

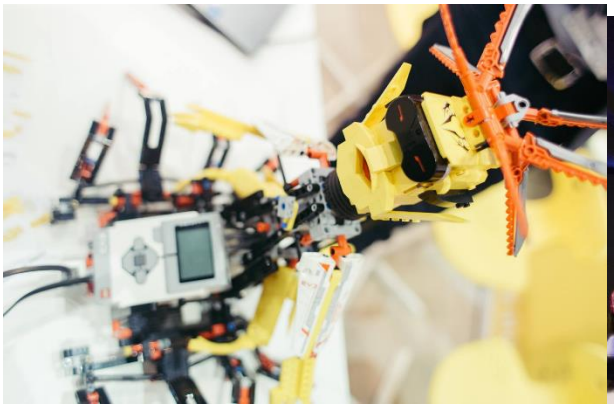
Jury members: 13 (SprintPoint, Partner Companies & Organisations)

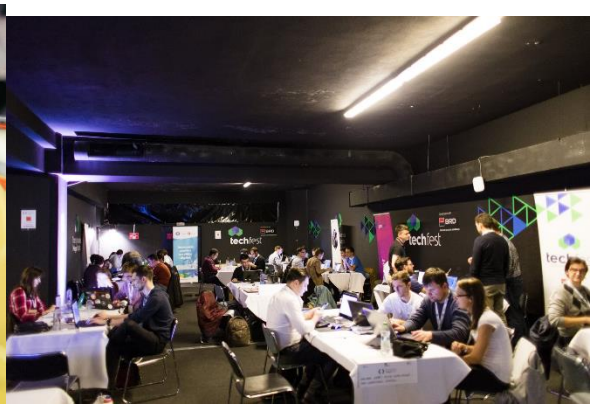
Feedback: The amplitude of the event was a great achievement, generating a huge energy about the approached topics and FIWARE technologies. Some companies and local governments participated with their own challenges creating a diverse experimentation platform. As the hackathon generated an interest into the FIWARE technology, we are planning the implementation of the FIWARE course for computer science students as a follow up with the university partners. The participating city halls are interested to look into more detail on the FIWARE platform to be used for citizen apps and applications.

Learnings: For an even better hackathon experience, more FIWARE support in terms of standard info materials and presentations, hackathon kits, special access to the FIWARE platforms, common online platform of interaction between participants before and after hackathons in order to keep them engaged would be needed. A blended FIWARE course would be useful as well.

Sprintpoint is eager to organise hackathons in the future since they observed that this dynamic environment motivating students, startups and professionals to learn and apply FIWARE in a practical mode.







3.1.2 Co-organised and attended events

3.1.2.1 Austria

INITS sponsored the annual Forum IoT that gathers the community around Internet of Things - startups, corporates and developers. Peter Tschuchnig from INITS was presenting FIWARE and the IoT Ready program in an afternoon session with around **60 listeners**. In addition, he had a booth where he was approached by around **20 interested people** who wanted to:

- get an article for their various media channels
- a few wanted to have a meeting to discuss their requirements in actual development projects and if FIWARE could be a technology base
- information about hands-on possibilities to get engaged with FIWARE

Learnings: People get attracted to FIWARE when they see the current uptake, e.g., FIWARE IoT certification done by Libelium, which is a well-known IoT device manufacturer.

During the event several firms introduced their IOT solutions, but there is still no solution comparable to FIWARE. From our perspective, companies and their people are not ready for FIWARE because they are a whole step behind. While talking to interested people, it got obvious that they do not only want to see use cases where FIWARE is used as a base technology, they also want to see/hear the story how the use case got developed. To be more precise:

- they want to know what are the savings in development time
- if external APIs have been used
- more generally, they want to know if the framework gives them advantages in the development phase.

The main concern of interested people was regarding the availability of commercial hosting offers, since the Lab nodes are still meant for experimental purposes.

3.1.2.2 Germany

The iHub node in Germany co- organized / participated in several events, either as part of another project or specifically for FIWARE. These events were leveraged to talk to potential companies about the benefits of FIWARE Technologies / IoT Ready Program and evaluate their interest in going forward. All events either had an IoT focus or attracted companies from the IoT domain (both hardware & software). Summary of select events where FIWARE could be cross-promoted:

- EclipseCon Stuttgart (attended): October 25 - 27, 2016 / 300+ attendees
    - Scope of Promotion: We had a booth as part of another IoT project and used the opportunity to cross-promote FIWARE technologies where appropriate. Pitched FIWARE to 10+ companies and discussions with 3.

- Smart City Expo Barcelona (attended): November 16, 2016 / 2000+ attendees
    - Scope of Promotion: Approached 20+ companies and distributed brochures / Had 7 discussions with IoT companies operating in the Smart City domain. The biggest factor for interest among the interested parties was due to FIWARE's positioning in the Smart City Domain. The OASC Alliance, with 89+ cities under its belt, proved to be a valuable point in getting their interest.

We also individually approached several startups in our Eco-system that are active in the IoT Hardware / software domain. However, there was no interest for the certification program. This was primarily due to a lack of clear benefits as opposed to the effort involved in the certification process. This despite the fact that efforts were made to collate and simplify the vastly dispersed information to a single concise slide deck (*Annex: FIWARE IoT Ready ppt*).

3.1.2.3 Poland

FIWARE was promoted by PSNC in two events in Poland:

A. November 18th, 2016, Poznan - The Future of IoT workshop gathered 5 mature IoT companies (platform owners) and other IoT stakeholders. The workshop was animated by Devin Fidler from IFTF Palo Alto, US. A number of IoT systems were presented, including presentation of FIWARE and 5 IoT companies were approached. The event was organized by the Poznan Hub (PSNC) with support from TechInnowacje (PSNC hub's tech transfer company)

B. The Poznan Hub (PSNC) presented in Warsaw on the Polish NCP for Horizon 2020 Infoday focused on ICT/FET, NOV 22nd, 2016. Ca 100 participants were approached, mainly ICT startups and R&Ds.

Feedback: In general, companies were rather skeptical about the FIWARE platform and its IoT approach**.** Companies mentioned that benefits of FIWARE and its business model needs to be more specific and clarified. The question “Who pays whom for what?” cannot be answered currently. While the commercial terms are unclear, it is still also not clear whether FIWARE is meant to build and develop or to extend functionality of existing and upcoming platforms. We felt that the no clear answer regarding the future platform maintenance is also seen as an obstacle by IoT companies.

Bi-directionality of data usage is still a huge challenge for FIWARE. In some scenarios users are supposed to both deliver data AND use other's data. Such process must be managed and operated by some other intermediary in terms of access rights, finance, etc.

It is also important to note that startups, mature-businesses and end-users require different ways to be addressed. Some companies made it clear that extending the scale of their existing business scenarios weakens the focus; whereas enabling new scenarios / solutions is seen as commercially attractive.

Such questions arose:

- will our platform be available via FIWARE channels? Would it be for a fee or for free?
- Will our company participate in the development of FIWARE business scenarios?
- what are we going to pay for being integrated in FIWARE?
- will any data/sensors be made available by R&Ds?

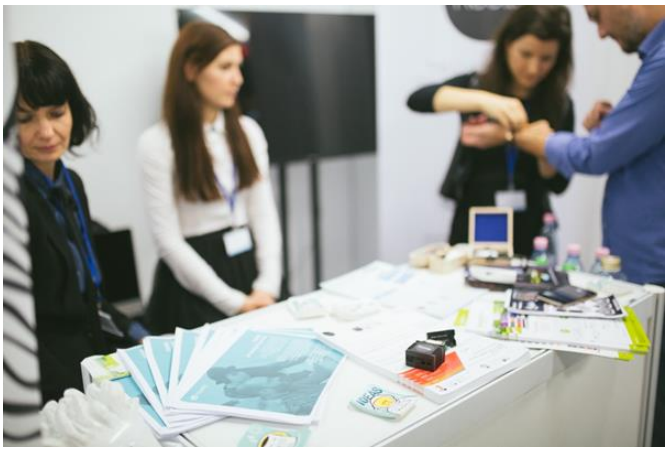
Although after explaining FIWARE to SMEs, it seems to be a perfect fit for them; they are hardly willing to engage as in their opinion the initiative seems to be constructed for fund-chasing startups and not for business-driven IoT platform owners.

3.1.2.4 Slovenia

ABC Accelerator was the sponsor of international »IoT Conference« in Ljubljana with 364 attendees that was taking place on November 25th 2016 at the Faculty of Computer and Information Science of the University of Ljubljana. FIWARE platform and FIWARE IoT Ready program were presented in a special time slot by Adam Tarcsi from ELTE-Soft, Budapest, Hungary. This also showcases the collaborative spirit of iHubs where hubs leverage on each others' strengths. ABC had also the exhibition booth at the conference, where the promo material of FIWARE IoT Ready program was available to all interested participants of the conference. An online presentation from FIWARE expert (from ELTE University Budapest) was delivered to the participants of the conference. The presentation materials were also distributed after the conference to the emails of all participants of the conference. FIWARE was presented but the interest in FIWARE was not overwhelming. Essentially it was perceived as one of the available technologies for developers, similar to IBM's technology or other technologies. The potential for applications in the SmartCities was the one most interesting to the attendees (mentioned by a couple of SmartCities startups attending the conference that did not use the FIWARE yet), but no direct interest resulted from this presentation. These startups remain on the list for follow-up presentations of FIWARE. Additional hackathons could also be organised in 2017 specifically targeting SmartCities applications.

Presentation of FIWARE in front of the Ljubljana IoT conference attendees.

Presentation of FIWARE in front of the Ljubljana IoT conference attendees.



ABC Accelerator's booth at the IoT Conference in Ljubljana promoting FIWARE IoT Ready program

3.1.2.5 Romania

During Cluj Tehnology Festival, the local partner SprintPoint organized the TechTalks 16-17 Nov 2016 - http://techfest.ro/festival-events/techtalks/ in which they presented in both IoT tracks: Smart City + Industrial IoT the power and efficiency of FIWARE to local developers and technology companies. In both tracks the attendance was over 80 participants. We answered many questions and we want to make it a tradition and to make more regular meetups in which to explain FIWARE adoption.

Another event in which we presented FIWARE and Open Agile Smart Cities Initiative was in the frame of Transilvania Smart City Forum on the 16th of November for 70 participants. In this frame we had the privilege to present the FIWARE themes to mayors and municipalities of 3 Romanian cities: Cluj-Napoca, Alba-Iulia and Oradea. Also during this event we agreed to sign the protocol through which we will open the Romania chapter of OASC. This success was possible because of the fit of FIWARE smart city principles and also because of the interesting use cases observed at the OASC city members across Europe.

The presence of city halls attracted embedded developers & hardware providers that are interested in presenting their solutions to the potential public "clients". Their main questions regarding the IoT Ready Program were mainly focused on the time and money resources required and on the process of the certification. They also asked if the IoT Ready program will be open for companies in early 2017. Some questions were related the exposure / marketing / promotion offered by FIWARE Foundation to the certified devices.

3.1.2.6 France

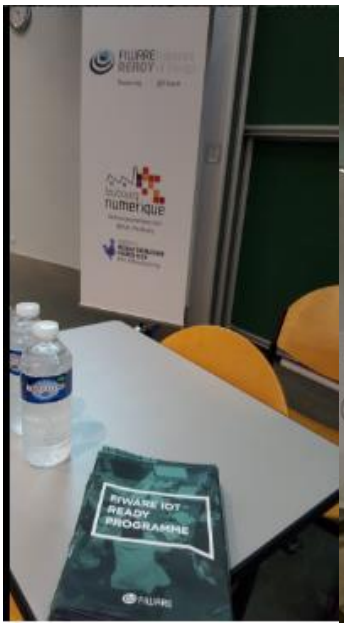
4 events in France were used to promote the IoT Ready program:

A. FIWARE Conference, Amiens, November 16. 50 attendees.
Co-organized by Faubourg Numérique and LaTechAmiénoise. Speakers: Vincent Demortier (Faubourg Numérique) and Laurent Chivot (Orange). Links to the intro presentation and the livestream are available.

Content FIWARE conference:

- General intro FIWARE, incl FIWARE foundation
- Orange commitment in FIWARE community
- Faubourg Numérique/ iHub commitment in community
- Opportunities with the FIWARE IoT Ready program
- Presentation of the FIWARE Bounty hunt (incl new amounts)
- Presentation of new FIWARE IoT Agent for LoRa
- Announcement of local FIWARE hackathon

Conference was closed with drinks and snacks.
As it was a FIWARE conference - all of the attendees had a more or less big interest in FIWARE.
N° of people interested in FIWARE IoT Ready program: 4 (pipeline)



B. Salon Robonumérique, Saint-Quentin. November 23+24
3.500 attendees

The fair was branded Saint-Quentin French Tech IoT & Manufacturing. Faubourg Numérique is leading the local network. The network launch took place during the fair and included various official delegations (incl. embassy of Israel in France). Faubourg Numérique was animating the local IoT ecosystem with a **booth** during the fair. Vincent Demortier (Faubourg Numérique) participated in a **panel session** regarding support & opportunities for startups.

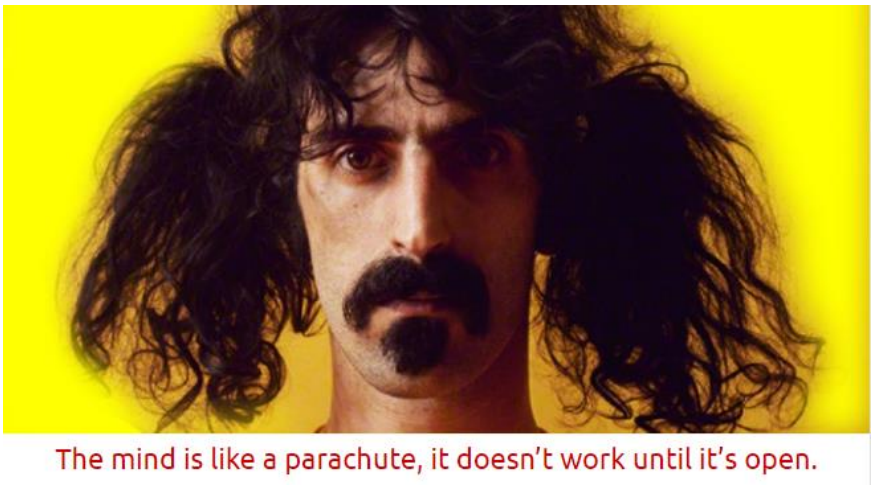
Brochures and rollup of the IoT Ready Program were displayed on the booth to initiate discussions regarding FIWARE and the IoT Ready Program. Moreover POP School IoT in Saint-Quentin was launched (powered by Faubourg Numérique): a new innovative concept of teaching that is adapted to the needs of companies to attract and convert young people from different fields to the domain of IoT. FIWARE is included in this program as well.

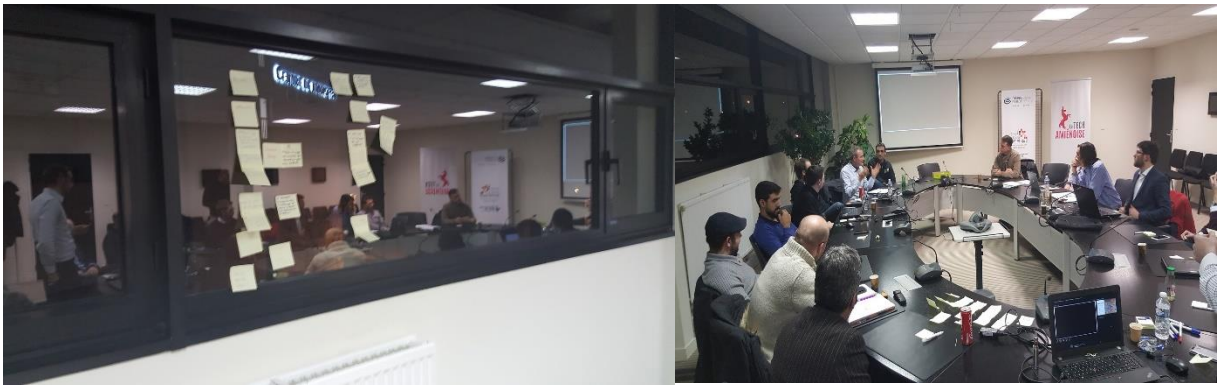
N° of people interested in FIWARE and/or IoT Ready program: +150 brochures distributed & 12 discussions with companies (mainly local SMEs).

C. OASB, December 9, Amiens. 19 attendees

During the event, OASB (Open & Agile Smart Business) concept was launched. The concept is about managing open innovation projects mixing industrial SMEs and digital startups/web entrepreneurs/technical universities. FIWARE IoT architecture is used as a middleware component for rapid prototyping of the proposed solutions.

After the launch where clear industrial problems were identified, the next step is a visit to the site of the industrials and formulations of solutions (the total program will take 4 months). More industrials are interested to participate in this approach and will be added at the beginning of 2017.

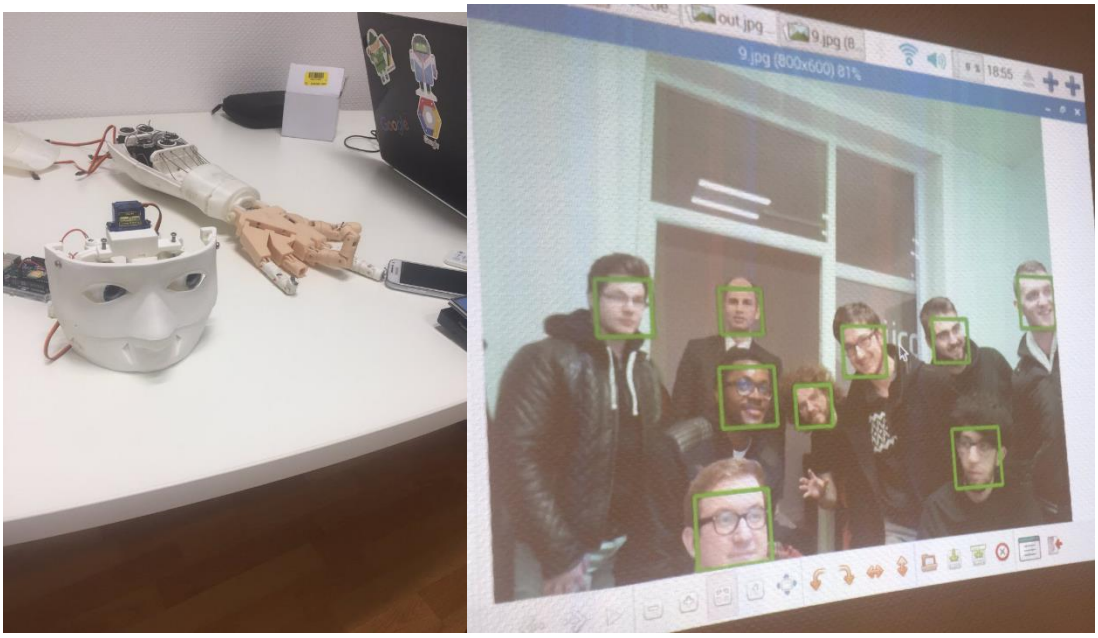




D. Google Developers Group HiPiC meetup (Saint-Quentin) on December 15 gathered 15 attendees. The meetup is powered by Faubourg Numérique (the initiator and driver of the Google Developer Group HiPic).

   The topic of this meetup was robotics. inMoov, the first 3D printed life-sized open source robot and Google Cloud Vision (which can be used for the eyes of the inMoov robot) was presented.

The relationship FIROS, the Open Source software that helps ROS connecting to the FIWARE Cloud was also showcased.



3.1.2.7 Spain

Two main events were connected to the IOT program, one in Malaga (during the FIWARE Summit) and another one in Seville on 21st December 2016 (together with City of Seville, University of Seville, Telefonica, Wellness Telecom, Cibernos, Agenda de la empresa and some local partners). The event in Malaga was decided to be postponed due to the closeness of the date to the FIWARE Summit, so no possibility before end of year

3.1.2.8 Hungary

ELTE-SOFT presented the IoT related goals of the project on the following events:

A) The Hungarian Chamber of Agriculture organized a Panorama Talks series for specific food industry sectors in Hungary. Adam Tarcsi was invited for the Panorama of Food Industry 2016 - Milk Processing event on the November 15, 2016 (Budapest) to present Industry 4.0, and IoT for the Agritech sector. There was more than 50 participants on the conference. The goal of the presentation was to show for the participants (mainly managers, CEOs) possible benefits of using IoT solutions. Although the use of sensors in milk processing or even in the agriculture is not new, most of dairy farms are long before of the adoption of Industry 4.0 solutions. While answered many questions on the topic we realized that the most important tasks on this field is to raising awareness by demonstrating real-life and applicable use cases.

B) We presented FIWARE and the IoT initiative on an IoT workshop in the Info ÉRA 2016 conference on the 16th of November for around 30 participants by demonstrating several IoT ready applications and hands-on demos. The event attracted young developers, teachers, and University students who are interested in starting their IoT-related business. We learnt at the event that the best way to build up an ecosystem on IoT is offering hands-on demos and tutorials and business use-cases together.

3.1.3 Event overview

The table below summarizes the events where project members promoted FIWARE and IoT Ready program. We have reached more than 6000 people in those events in 8 countries and in 12 cities. The table also shows the number of people attending the event in general and also a number of people that are present when for example a FIWARE presentation is given.

Member	Event	Location	Date	Attendees	Attendees @ FIWARE ppt.	# people interest shown	% of people interest shown
INITS	IoT Forum 2016 /10 min talk + Booth	Vienna	9.11.2016	200	60	20	33.33%
FaubNum	FIWARE conference	Amiens	16.11.2016	50	50	4	8.00%
FaubNum	Saint-Quentin French Tech Expo	Saint-Quentin	23.,24.11.2016	3500	3500	150	4.29%
FaubNum	Open & Agile Smart Business open innovation launch	Amiens	8.12.2016	19	19	19	100.00%
FaubNum	Smart building hackathon	Amiens	10.,12.,13.12.2016	39	39	39	100.00%
FaubNum	GDG meetup	Saint-Quentin	15.12.2016	15	n/a		
ABC	FIWARE promotion at IOT conference	Ljubljana	25.11.2016	364	364	0	0.00%
ABC	FIWARE Hackathon	Ljubljana	17.,18.12.2016	32	32	32	100.00%
EIH / FaubNum	IoT - EPI Week	Vienna	11-14.10.2016	200	n/a		
Bolt	IOT FIWARE day UNIVERSITY	Sevilla	21.12.2016	70	Not yet		
EIH	EclipseCon	Ludwigsburg	25.,26.10.2016	300	10	3	30.00%
IHUB	Smart City Expo	Barcelona	15-17.11.2016	0	n/a		
ELTE-SOFT	INFO ÉRA 2016: IoT workshop	Zamárdi	26.11.2016	30	30	2	6.67%
ELTE-SOFT	Panorama of Food Industry 2016 - Milk Processing:	Budapest	15.11.2016	50	30	0	0.00%

	Industry 4.0 and IoT for Agritech						
EIH	Smart City Expo	Barcelona	16.,17.11.2016	1000	20	7	35.00%
SprintPoint	FIWARE Hackathon			220	220	220	100.00%
PSNC	IoT workshop	Poznan	18.11.2016	12	12	12	100.00%
PSNC	Polish NCP ICT/FET Infoday	Warsaw	22.11.2016	100	40	15	37.50%
TOTAL				6089	4374	496	46.77%

3.2 Direct communication

We have approached IoT companies from our ecosystem (our portfolios and beyond) in order to introduce them to the FIWARE IoT Ready program. During this project, we reached out directly to 323 companies. We were classifying the interested of companies in such categories: interested; not interested; going for certification. Where possible, we gathered additional feedback to get an overview what drives the positive or negative decision regarding the interoperability with FIWARE and certification.

Furthermore, we also approached A16 FIWARE accelerators, members of the iHub extended network and EIT Digital ARISE hubs to inform their IoT startups about the FIWARE Iot Ready program. Smart Cities that are part of OASC were also introduced to the FIWARE IoT certification program and its use for Smart Cities.

The full list of approached IoT Companies is seen in Appendix.

The responses we got were very different. It is important to point out here that every single company that decided to do the certification required a lot of individual consultation, guidance and persuasion from our side, very much related due to the lack of awareness regarding FIWARE.

We can classify the feedback of IoT companies in four categories:

1. IoT companies with FIWARE that are not interested into the IoT Ready Program
Product not benefiting from the exposure to the community, integrators, Smart Cities. For example, Smartbow in Austria that have implemented FIWARE did not see a benefit for them to be certified and exposed to the ecosystem as their strategy does not focus on integrations
FIWARE IoT does not solve the "biggest" problems: 1. security issues, 2. integration issues between IoT devices from different manufacturers (however, a progress is being seen)
Companies had a hard time with FIWARE during their time in FIWARE accelerators and they do not see a high enough return to invest their resources in creating an IoT agent and certifying it

2. IoT Companies with FIWARE that were interested into the IoT Ready Program
Interested in being compliant with an open source platform focused on Smart Cities. Interoperability and avoiding vendor lock-is is important when operating in the Smart City field
Seeing a certification as a sales channel in the FIWARE marketplace
Industrial SMEs see FIWARE as an affordable technology to accelerate their IoT projects
A very common reason not to certify in 2016 is the fact that startups simply cannot afford the extra resources for the certification process. They will eventually create and certify their IoT agent at a later point in time. This means that those companies should be regularly kept up-to-date about FIWARE developments

3. IoT companies that did not know FIWARE and are not interested into the IoT Ready Program
FIWARE IoT does not solve the "biggest" problems: 1. security issues, 2. integration issues between IoT devices from different manufacturers (however, progress is being seen)
No development resources available
Not seeing enough value added if the company has already developed its products
They are reluctant to implement open source solutions that they do not know and sometimes do not trust that they will be reliable
Larger companies cannot make a decision to work with FIWARE because of current commercial unclarities, such as hosting availability, prices, SLAs etc.
The “real” and working use-case examples are missing.
The long-term vision of FIWARE, and the FIWARE ecosystem is not clear, and it is hard to find information about it.
The focus of FIWARE is too wide and only tries to solve issues.
It would be interesting if the certification (as a standard) is required for any European smart city /ehealth / etc. projects as an assurance of quality.

4. IoT companies that did not know FIWARE and are interested into the IoT Ready Program
Interested in being compatible with a platform that complies with standards that are relevant for SMart Cities

Interested in being exposed to system integrators - especially attractive for gateway providers. For example, Anovis and Qgate in Austria, both gateway providers, see this as a marketing action that should expose them to companies that need gateways in order to build complete IoT solutions
Interested in accelerating their IoT implementation process (However, for this some case studies should be prepared in future. Companies are interested into the number of actual time savings possible)
Interested but they would require a FIWARE based “Platform as a Service” to go for it

As seen in the graph below, around 16.2% are interested in the certification and 6% actually went for the certification during our project duration. Hence, it is of utmost importance to follow up with the leads next year to assure that interested companies are supported on their way to implement and certify with FIWARE.

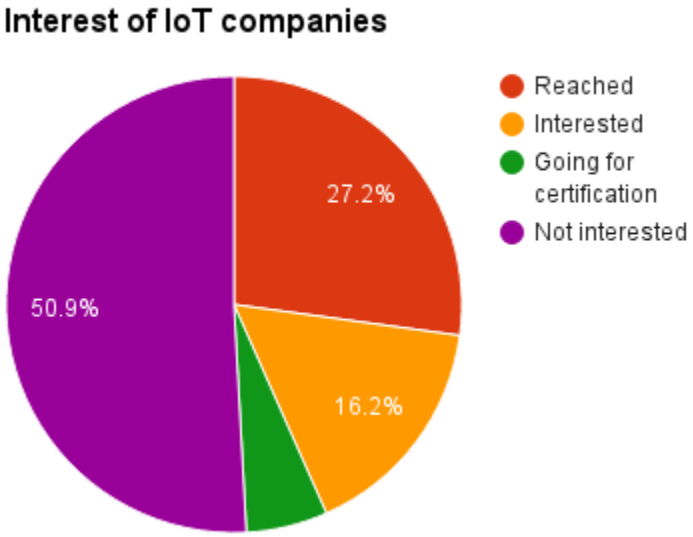


Figure 1: Interest of IoT companies

The table below summarizes the efforts and results of the IoT Ready Program facilitation. Despite the tight time schedule, lack of FIWARE awareness in local ecosystems and lack of clarity about commercial conditions, iHub.eu managed to reach out to more than planned companies, 38 showing interest and 10 going for the certification by the end of 2016. What is very important, there are almost 30 companies that are interested into the FIWARE IoT offering. They were not able to execute necessary activities (including FIWARE implementation from the scratch) by end of 2016. However, this means that these companies will be continuously updated regarding FIWARE progress. The interactive tutorials that were prepared as part of this project will guide them through the FIWARE implementation and certification after the project has been finished.

Goals	Achieved	Description
150	323	reached IoT companies
50	38	IoT device manufacturers showing interest
25	10	of those going for the certification
100%	100%	of questions arising from our contacts posted on https://ask.fiware.org/questions/
270	6089 / 4374	event attendees / event attendees specifically at FIWARE part
30%	46,77%	event attendees showing interest into FIWARE (inquiring info via personal discussions, email, FIWARE channels)
	yes	Hackathon manuals, guidelines, event presentations available for others

Figure 2: Overview of achieved results

4 FUTURE OUTLOOK

During this project we identified aspects that draw the major attention to FIWARE and its IoT ready program. Those **"selling points"** should be leveraged in the future to attract new companies to the FIWARE platform and to facilitate device manufacturers to certify with FIWARE (in a descending order):

1. "FIWARE certified" as a channel into the market exposing you to SW developing companies
2. Being compatible with a standard that more than 100 Smart Cities commit to (OASC)
3. An advantage when applying for certain EU grants, e.g. in Austria
4. Technical enablers that ease the IoT handling process
5. Access to FIWARE community - a developing technology platform with a possibility to contribute and be part of it

IoT device manufacturers that focus on enabling devices, such as gateways for industrial or smart city applications are seen as the most fitting companies to the FIWARE IoT Ready program.

We also discovered topics that some existing and potential FIWARE users are **concerned** with and this should be addressed in the future (not only related to the IoT Ready program):

- availability of commercial nodes
- the scattered technical information around FIWARE and its Generic Enablers (e.g. Powerpoint presentations, Github, websites, downloadable brochures) makes it difficult to attract and retain developers. An improvement is being seen; however it requires even more optimization
- lack of clarity about commercial aspects ("Whom do I pay in the future for what?") hinders Business Developers to give a green light for FIWARE implementation

The list of identified interested companies that should be kept updated and supported is seen below:

Company	Country	iHub	Contact person	Contact details	Interest	Feedback
Sorex	Austria	INiTS	Christian Csank	cc@sorex.eu	Interested	Interested, but no dev resources available for the next 9 months
Luke Roberts Smart Lighting	Austria	INITS	Lukas Pilat	lukas@luke-roberts.com	Interested	Currently working with 3rd party hubs, would be interested once they develop their own gateway.
Flatout Technologies	Austria	INITS	Manuel Mager	mager@flatout-technologies.com	Interested	needs to check dev resources after delivering a customer now
Eguana	Austria	INITS	Philipp Maroschek	philipp.maroschek@eguana.at	Interested	Once dev. resources available, they see this is as a channel into the market.
Guh	Austria	INITS	Simon Hönegger	simon.hoenegger@guh.io	Interested	Context broker on a roadmap, will do it next year
Anovis	Austria	INITS	Adi Reschenhofer	via Facebook	Interested	Seeing this as a sales channel to smart city solution providers
Torsa	Spain	Bolt	Mariano Barroso	marianobarroso@torsa.es	Interested	Large corporation, still issues about FIWARE maturity
Cactus2e	Spain	Bolt	Francisco Cáceres	francisco.caceres@cactus2e.com	Interested	Company with IOT products still in very early stage
Sergi Atanes Calvo	Spain	Bolt	Sergi Atanes Calvo	satanes@matrix.es	Interested	Met in Barcelona, very interested but did not have the time to do it now
Nedap Identification Systems Iberia	Spain	Bolt	Elena Blanco	elena.blanco@nedap.com	Interested	Part of a conglomerate based in Netherlands, technical issues sent to the mother company
La Tech Amienoise	France	Faubourg Numérique	HESDIN Francois	f.hesdin@amiens-metropole.com	Interested	Early stage: application will follow later

Emtel System	Poland	PSNC	Joanna Gratkowska	joanna.gratkowska@emtel-system.pl	Interested	need to check if their beacon can support FIWARE
MedVC	Poland	PSNC	Piotr pawalowski		Interested	need to verify technical alignment with the platform
Twingz	Austria	INITS	Werner Weihs-Sedivy	wws@twingz.com	Interested	In general interested, need to update on FIWARE uptake
Qgate	Austria	INITS	Stefan Pfeffer	sp@microtronics.at	Interested	In general interested, need to update on FIWARE uptake
http://cds.ro/	Romania	SprintPoint			Interested	
http://smartaccessbox.parkingplus.ro/	Romania	SprintPoint			Interested	
http://www.onyxbeacon.com/	Romania	SprintPoint			Interested	
ESIEE	France	Faubourg Numérique	Stéphane Pomportes	pomportes@esiee-amiens.fr	Interested	Early stage: application will follow later
Cédiac	France	Faubourg Numérique	Yves-marie Guyot	yves-marie.guyot@cediac.com	Interested	Early stage: application will follow later
Arion Lab	France	Faubourg Numérique	victorien vanroye	victorien.vanroye@gmail.com	Interested	Early stage: application will follow later
Pentair	France	Faubourg Numérique	Stéphane Golunski	Stephane.Golunski@pentair.com	Interested	Early stage: application will follow later
Apelegec	France	Faubourg Numérique	via agglo		Interested	Early stage: application will follow later
Gemeente Eindhoven	Netherlands	Faubourg Numérique	Joop Bruurs	j.bruurs@eindhoven.nl	Interested	he asked for more info - awaiting

Pop School	France	Faubourg Numérique	Florette eymenier	florette@pop.eu.com	Interested	Early stage: application will follow later
Pilulier connecté	France	Faubourg Numérique	Yoann Perro	yoann.perro@gmail.com	Interested	Early stage: application will follow later
Insset	France	Faubourg Numérique	Christophe Logé	chl-laria@u-picardie.fr	Interested	Early stage: application will follow later
Responscity	India	EIH	Aagam Sanghavi	aagam@responscity.com	Interested	Interested / waiting for feedback on next steps.

Figure 3: List of interested companies

In general, we see that approaching companies where we have an already established relationship has worked much better - those are the companies that either decided to certify or are interested into FIWARE. This furthermore highlights the **FIWARE iHubs** approach where local players are the trusted interface to the ecosystem.

Despite the short time we had, we managed to bring the IoT Ready Program as well as FIWARE in general to our ecosystems and achieved significant results as described before. This has been possible because of using our existing position, contacts and channels. Furthermore, we have set the scene for further FIWARE and its IoT Program growth by gathering and sharing our experience, prepared presentations and interactive tutorials with the FIWARE community.

As the next step, FIWARE IoT Ready Program responsible and we will follow up with the interested companies beyond the lifetime of this task to add more IoT companies to the Catalogue of certified products.

Furthermore, iHubs will continue to pursue the opportunities that arose while facilitating the IoT Ready Program: bringing FIWARE courses to universities in Romania, helping French industrial companies to adopt FIWARE in as part of the Open & Agile Smart Business initiative, guiding SMEs in Austria in order to explore and start using FIWARE. Such experience can again be shared within the community to facilitate the general FIWARE uptake in various regions.

5 APPENDIX

Companies Approached:

Company	Country	iHub	Contact person	Contact details	Interest	Feedback
Moow.Farm	Hungary	ELTE-SOFT			Not interested	
Tridonic	Austria	INITS			Not interested	
U Lux Switch	Austria	INITS			Not interested	
Bilton INITS	Austria	INITS	www.bilton.at		Not interested	
Sorex	Austria	INiTS	Christian Csank	cc@sorex.eu	Interested	Interested, but no dev resources available for the next 9 months
Luke Roberts Smart Lighting	Austria	INITS	Lukas Pilat	lukas@luke-roberts.com	Interested	Currently working with 3rd party hubs, would be interested once they develop their own gateway.
Flatout Technologies	Austria	INITS	Manuel Mager	mager@flatout-technologies.com	Interested	needs to check dev resources after delivering a customer now
Smartbow	Austria	INITS	Dana Tomic	dana.tomic@smartbow.at	Not interested	Not benefiting from the interoperability.
Hostabee	France	Faubourg Numérique	Maxime Mularz	maxime.mularz@hostabee.com	Certifying	is finalizing procedure
Eguana	Austria	INITS	Philipp Maroschek	philipp.maroschek@eguana.at	Interested	Once dev. resouces availabe, they see this is as a channel into the market.
Communithings	Belgium	Faubourg Numérique	Etay Oren	Etay.Oren@communithings.com	Certifying	is finalizing procedure
Guh	Austria	INITS	Simon Hönegger	simon.hoenegger@guh.io	Interested	Context broker on a roadmap, will do it next year

Anovis	Austria	INITS	Adi Reschenhofer	via Facebook	Interested	Seeing this as a sales channel to smart city solution providers
Cellnex Telecom	Spain	Bolt	Jordi alviña, Jose Palomo	jordi.alvinya@cellnextelecom.com	Not interested	
Urban Clouds	Spain	Bolt	Dani Caro	daniel@urban-m.com	Certifying	from BOLT long time ago used fiware
Wellness Telecom	Spain	Bolt	David García	dgarcia@wtelecom.es	Not interested	
Numenti	Spain	Bolt	Paco Molina	francisco.carmona@numenti.com	Not interested	
Cibernos	Spain	Bolt	Carlos Jimenez	cjimenez-laiglesia@cibernos.com	Not interested	
Kapsch	Spain	Bolt	Juan Marin	Juan.Marin@kapsch.net	Not interested	
Bubocar	Spain	Bolt	Sergio López	sergio@bubocar.com	Not interested	
Schneider Electric	Spain	Bolt	Jesús Ríos	raquel.espada@schneider-electric.com	Not interested	
Bosch	Spain	Bolt	Irene Cramer	Ferran.Gonzalez@es.bosch.com	Not interested	
Talky car	Spain	Bolt	Miguel Angel	gonzalo@talkykar.com	Certifying	from BOLT long time ago used fiware (car device)
Set Solutions	Spain	Bolt	Gonzalo	gonzalo@set-solutions.com	Certifying	from BOLT long time ago used fiware (device agains stealing cupper lines)
Green Globe	Spain	Bolt	Miguel Angel	miguel@talkykar.com	Certifying	Last minute certification process (luminic sensor)
Adevice	Spain	Bolt	Antonio Torralba	atorralba@adevice.es	Reached	ALREADY CERTIFIED by FIWARE
Econverter	Spain	Bolt	Gonzalo	gonzalo@econverter.es	Certifying	Last minute (low cost turbine with induction technology and electronics)

CISCO	Spain	Bolt	Carlos Conde	acondequ@cisco.com	Not interested	
Ayesa	Spain	Bolt	Juande Hermosin	jddhermosin@ayesa.com	Not interested	
Isotrol	Spain	Bolt	Beltran Calvo	bcalvo@isotrol.com	Not interested	
Sigfox	Spain	Bolt	Rebeca Crowe	https://es.linkedin.com/in/rebeccacrowe/es	Not interested	
Ikusi	Spain	Bolt	Marina López	https://es.linkedin.com/in/marinalopezbarea	Not interested	
IECISA	Spain	Bolt	Roberto navarro	franciscoj_romero@ieci.es	Not interested	
Huawei	Spain	Bolt	Carlos Delso	marialuisa.melo@huawei.com	Not interested	
DOXA INNOVA & SMART	Spain	Bolt	Alberto Gascón	agascon@doxais.com	Not interested	
GMV	Spain	Bolt	Patricia Tejado	lfalvarez@gmv.com	Not interested	
Altia	Spain	Bolt	Manuel Aranda	https://es.linkedin.com/in/manuel-aranda-55436013	Not interested	
Altitude	Spain	Bolt	Iñigo Herrera	alfredo.redondo@altitude.es	Not interested	
Magic Box Intereactive	Spain	Bolt	Javier Herrero	jherrero@magicbox.es	Not interested	
Torsa	Spain	Bolt	Mariano Barroso	marianobarroso@torsa.es	Interested	Large corporation, still issues about FIWARE maturity
ASTI	Spain	Bolt	Veronica Pascual	veronicapb@asti.es	Not interested	

Hispatec	Spain	Bolt	José Luis Molina	jlmolina@hispatec.es	Not interested	
Cactus2e	Spain	Bolt	Francisco Cáceres	francisco.caceres@cactus2e.com	Interested	Company with IOT products still in very early stage
Sergi Atanes Calvo	Spain	Bolt	Sergi Atanes Calvo	satanes@matrix.es	Interested	Met in Barcelona, very interested but did not have the time to do it now
Nedap Identification Systems Iberia	Spain	Bolt	Elena Blanco	elena.blanco@nedap.com	Interested	Part of a conglomerate based in Netherlands, technical issues sent to the mother company
WIIM	Spain	Bolt	Antonio Sanchez	antonio@byhs.eu	Certifying	from BOLT long time ago used fiware. Expertise in FIWARE, it will be used as part of the Marketplace
La Tech Amienoise	France	Faubourg Numérique	HESDIN Francois	f.hesdin@amiens-metropole.com	Interested	Early stage: application will follow later
Valenciennes Métropole	France	Faubourg Numérique	Charlie Laborie	claborie@valenciennes-metropole.fr	Not interested	
Ville Issy	France	Faubourg Numérique	LEGALE Eric	Eric.LEGALE@ville-issy.fr	Not interested	
Secmotic	Spain	INITS			Certifying	reached via the interactive tutorial, positioning itself as a FIWARE-based development reference
Fibaro	Poland	PSNC	Paulina Rusinek		Reached	
Emtel System	Poland	PSNC	Joanna Gratkowska	joanna.gratkowska@emtel-system.pl	Interested	need to check if their beacon can support FIWARE
MedVC	Poland	PSNC	Piotr pawalowski		Interested	need to verify technical alignment with the platform
Grinfinity	Poland	PSNC	Kamil Nawrocki	kamil.nawrocki@grinfinity.com	Reached	
VOL	Poland	PSNC	Rafal Gebala	Rafal.Gebala@vol.com.pl	Reached	
Microej	France	EIH	Laurent Lagosanto		Not interested	

Software AG	Germany	EIH	Dr. Udo Hafermann		Not interested	
Camynoo	France	EIH	Anne Dorange		Not interested	
ChangeAlert	UK	EIH	Gillen		Not interested	
BeaconInside	Germany	EIH	Corelius Rabsch		Not interested	
Tracktics	Germany	EIH	Benjamin Bruder		Not interested	
MuuseLabs	UK / Belgium	EIH	Theodore Marescaux		Not interested	
Konetik	Germany / Hungary	EIH	Balasz Szabo		Not interested	
SBrick	UK / Hungary	ELTE-SOFT	Tamas Fabian		Not interested	
Lean Network	Hungary	ELTE-SOFT	Peter Megyesi		Reached	
OptoForce	Hungary	ELTE-SOFT	Jozsef Veres		Not interested	
Brewie	Hungary	ELTE-SOFT	Pál Marcell		Not interested	
Instat Football	Hungary	ELTE-SOFT	István Kovach		Not interested	
Web & More	Hungary	ELTE-SOFT	Gergely Balogh		Not interested	
SmartVineyard	Hungary	ELTE-SOFT	Balázs Huszthy		Not interested	
Afflield	Hungary	ELTE-SOFT	Zoltán Bertók		Not interested	

Nevesszel	Hungary	ELTE-SOFT	Peter Varga		Not interested	
Growiee	Hungary	ELTE-SOFT	Paul Gaal		Not interested	
EDO Instruments	Hungary	ELTE-SOFT	Peter Varga		Not interested	
Calmdrive	Hungary	ELTE-SOFT	Kispal Gabor		Not interested	
Brandvee	Hungary	ELTE-SOFT	David Szabo		Not interested	
ArcSecond	Hungary	ELTE-SOFT	Krisztian Szucher		Not interested	
Aero Glass	Hungary	ELTE-SOFT	Akos Maroy		Not interested	
Twingz	Austria	INITS	Werner Weihs-Sedivy	wws@twingz.com	Interested	In general interested, need to update on FIWARE uptake
Qgate	Austria	INITS	Stefan Pfeffer	sp@microtronics.at	Interested	In general interested, need to update on FIWARE uptake
Sentinel d.o.o.	Slovenia	ABC	Gregor Pipan	gregor.pipan@xlab.si	Not interested	
SMARTISCITY	Slovenia	ABC	Blaž Golob	Blaz.Golob@smartis.si	Not interested	
Senlab	Slovenia	ABC	Jure Lampe	jure.lampe@senlab.io	Not interested	
MARKETCLOUD	Italy	ABC	Simone Imbrescia	imbrescia.s@gmail.com	Not interested	
CANELIO	Croatia	ABC	Tomislav Fistric	fistric.tomislav@gmail.com	Reached	

KOOLA	Bosnia and Herzegovina	ABC	Sergio Ermacora	sergio.ermacora@gmail.com	Reached	
VYOOCAM	Croatia		Vedran Vukman	vvukman@vyoocam.com	Reached	
3 PORT d.o.o.	Slovenia	ABC		mail@3-port.si	Reached	
Adin d.o.o.	Slovenia	ABC		info@adin.si	Reached	
Agenda d.o.o.	Slovenia	ABC		info@agenda.si	Reached	
Agitavit Solutions d.o.o.	Slovenia	ABC		info@agitavit.si	Reached	
Applied Informatics GmbH	Germany	ABC		info@appinf.com	Reached	
CGS plus	Slovenia	ABC		info@cgsplus.si	Reached	
Comita d.d.	Slovenia	ABC		info@comita.si	Reached	
Crmt d.o.o.	Slovenia	ABC		info@crmt.com	Reached	
Digidrom	Slovenia	ABC		contact@digidrom.si	Reached	
GenLan d.o.o.	Slovenia	ABC		info@genlan.si	Reached	
IOT40 Systems AG	Slovenia	ABC		info@iot40systems.com	Reached	
IOTLAB7	Slovenia	ABC		info@iotlab7.com	Reached	
Main&Deus d.o.o.Slovenia	Slovenia	ABC		info@main-deus.si	Reached	
Mugo d.o.o.	Slovenia	ABC		matej.tomazin@mugointeractive.com	Reached	
Pleksimo d.o.o.	Slovenia	ABC		info@pleksimo.solutions	Reached	
Printec	Slovenia	ABC		info@printecgroup.si	Reached	

Smart Com d.o.o.	Slovenia	ABC		info@smart-com.si	Reached	
Solvera Lynx d.d.	Slovenia	ABC		info@solvera-lynx.com	Reached	
https://buddyguard.io	Romania	SprintPoint			Reached	
http://www.vikiknows.com/	Romania	SprintPoint			Reached	
http://cds.ro/	Romania	SprintPoint			Interested	
https://tint-ag.myshopify.com/	Romania	SprintPoint			Reached	
https://www.parkingplus.ro/	Romania	SprintPoint			Reached	
http://smartaccessbox.parkingplus.ro/	Romania	SprintPoint			Interested	
http://meetingroomsmanagement.com/	Romania	SprintPoint			Reached	
https://www.getpony.ro/	Romania	SprintPoint			Reached	
http://www.onyxbeacon.com/	Romania	SprintPoint			Interested	
https://www.lpfrg.com/	Romania	SprintPoint			Reached	
http://www.arobs.com/by-business-	Romania	SprintPoint			Reached	

area/building-automation/						
http://hiveinspector.com/en/	Romania	SprintPoint			Reached	
http://security4things.com/	Romania	SprintPoint			Reached	
http://axosuits.com/	Romania	SprintPoint			Reached	
http://loggerdaisy.com/	Romania	SprintPoint			Reached	
http://casa-automata.com/	Romania	SprintPoint			Reached	
https://www.facebook.com/safreesmartlock/	Romania	SprintPoint			Reached	
http://getvera.com/	US	SprintPoint			Reached	
http://www.reflex.help/	Romania	SprintPoint			Reached	
http://www.onyxbeacon.com/tracko/	Romania	SprintPoint			Reached	
http://www.uniglu ko.com/	Slovenia	SprintPoint			Reached	
http://getwikey.com/	Romania	SprintPoint			Reached	
https://ecoisme.com/	UK	SprintPoint			Reached	
https://www.devicehub.net/	Romania	SprintPoint			Reached	
Actemium	France	Faubourg Numérique	Joffrey Dompienne	interaction on FIWARE conference	Not interested	

ESIEE	France	Faubourg Numérique	Stéphane Pomportes	pomportes@esiee-amiens.fr	Interested	Early stage: application will follow later
Eggs-iting	France	Faubourg Numérique	Arnaud Jibaut	a.jibaut@awelty.com	Certifying	is finalizing procedure
Guillaume Guerre	France	Faubourg Numérique	Guillaume Guerre	guillaume.guerre@hotmail.be	Not interested	
Cédiac	France	Faubourg Numérique	Yves-marie Guyot	yves-marie.guyot@cediac.com	Interested	Early stage: application will follow later
Arion Lab	France	Faubourg Numérique	victorien vanroye	victorien.vanroye@gmail.com	Interested	Early stage: application will follow later
Pentair	France	Faubourg Numérique	Stéphane Golunski	Stephane.Golunski@pentair.com	Interested	Early stage: application will follow later
Apelegec	France	Faubourg Numérique	via agglo		Interested	Early stage: application will follow later
Gemeente Eindhoven	Netherlands	Faubourg Numérique	Joop Bruurs	j.bruurs@eindhoven.nl	Interested	he asked for more info - awaiting
PFT Innovaltech	France	Faubourg Numérique	Thomas Moniak	thomas.moniak@pft-innovaltech.fr	Not interested	
Pop School	France	Faubourg Numérique	Florette eymenier	florette@pop.eu.com	Interested	Early stage: application will follow later
Tubesca	France	Faubourg Numérique	via CIC		Not interested	
Noirot	France	Faubourg Numérique	via CIC		Not interested	
4planet	France	Faubourg Numérique	Loic Quattrociocchi	loic.quattrociocchi@4planet.eu	Not interested	
Pilulier connecté	France	Faubourg Numérique	Yoann Perro	yoann.perro@gmail.com	Interested	Early stage: application will follow later

Insset	France	Faubourg Numérique	Christophe Logé	chl-laria@u-picardie.fr	Interested	Early stage: application will follow later
Seval	France	Faubourg Numérique	via CIC		Not interested	
Sacmo	France	Faubourg Numérique	via CIC		Not interested	
Xeilom	France	Faubourg Numérique	via CIC		Not interested	
Choquenet	France	Faubourg Numérique	Mr Choquenet	choquenet@choquenet.com	Not interested	
Inodesign			Mickael Coronado	mickael@inodesign.fr		
Bellequip	Austria	INITS	Helmut Heider	helmut.haider@bellequip.at	Not interested	
Dewise	Austria	INITS	Robert Kron	robert.kron@dewise.io'	Not interested	
Locca	Austria	INITS	JUlian Breitenecker	julian@breitenecker.com	Not interested	
Mavoco	Austria	INITS	Helmut Lehner	helmut.lehner@mavoco.com	Not interested	
Mopius	Austria	INITS	Karl Pletschko	karl.pletschko@mopius.com	Not interested	
NBG Systems	Austria	INITS	Laister	d.laister@nbg.co.at	Not interested	
Paxner	Austria	INITS	Dominik Mayer	dominik.mayer@paxner.com	Not interested	
Rittal	Austria	INITS	Andreas Hrzina	hrzina.a@rittal.at	Not interested	
Sprecher Automation	Austria	INITS	Reinhard Neudorfer	reinhard.neudorfer@sprecher-automation.com	Not interested	

T&G	Austria	INITS	Michael Heidinger	m.heidinger@tug.at	Not interested	
Syscom	Austria	INITS	Mario Nachtnebel	mario.nachtnebel@syscom.at	Not interested	
CivicSmart	USA	EIH	Josh Callies	JCallies@civicsmart.com	Not interested	
Digital Town	USA	EIH	Jack Londgren	Jack@digitaltown.com	Not interested	
Responscity	India	EIH	Aagam Sanghavi	aagam@responscity.com	Interested	Interested / waiting for feedback on next steps.
Nominet	UK	EIH	Cigdem Sengul	cigdem.sengul@nominet.uk	Not interested	
TobyRich	Germany	EIH	Toby Dazenko	tobias.dazenko@tobyrich.com	Not interested	
Virtenio	Germany	EIH		http://www.virtenio.com	Not interested	
Meshine	Germany	EIH		http://www.meshine.eu	Not interested	
Medilad	Germany	EIH		http://www.medilad.com	Not interested	
Wi Castr	UK	INITS		https://wicastr.com/	Not interested	
Chai Energy	USA	INITS		https://chaienergy.com/contact-us/	Not interested	
DevicePilot (1248 Ltd)	UK	INITS		https://www.devicepilot.com/contact/	Not interested	
Continuum Bridge	UK	INITS		info@continuumbridge.com'	Not interested	Focus on SW components and 3rd party Gateways
EpiSensor	IE	INITS		http://episensor.com/contact/	Not interested	

FIWARE IoT Ready Program presentation full version: https://drive.google.com/file/d/0B6FTZGIkH_wISzBnME1lcDk5OE0/view?usp=sharing

FIWARE

IoT Ready Program

Summary

- The **FIWARE platform** provides a **simple** yet **powerful** set of **API's** easing smart application development.
- The FIWARE IoT Ready Program aims to **validate** and **connect** relevant stakeholders and **expand** the IoT ecosystem.
- FIWARE ecosystem is a **unique** business **opportunity** for IoT products.
- Any IoT Protocol can be connected to FIWARE via connectors.
- Get the **IoT Ready** Certification and join the initiative!

The FIWARE platform provides a powerful set of API's

- An open-source, royalty free set of API's for easy smart application development.
- Publicly available reference implementations make it easier to emerge with new products.
- Thousands of startups, SMEs and developers globally are involved in creating solutions based on FIWARE components.
- The platform is supported by the FIWARE Community - an independent open community with members from across the technology industry.

FIWARE IoT Ready Program: Connecting the Stakeholders

- The program aims to connect IoT Companies to our large base of developers.
- The program is open to IoT Hardware and Software companies.
- The FIWARE IoT Ready Program is designed to validate the following types of implementations:
  - Proprietary devices with a complete hardware and software solution.
  - Software implementations working on a general purpose hardware (such as Arduino, Raspberry PI, Mini-PC, Mote sensor, etc.).
  - Libraries to be used by different types of devices using real or virtual sensors.

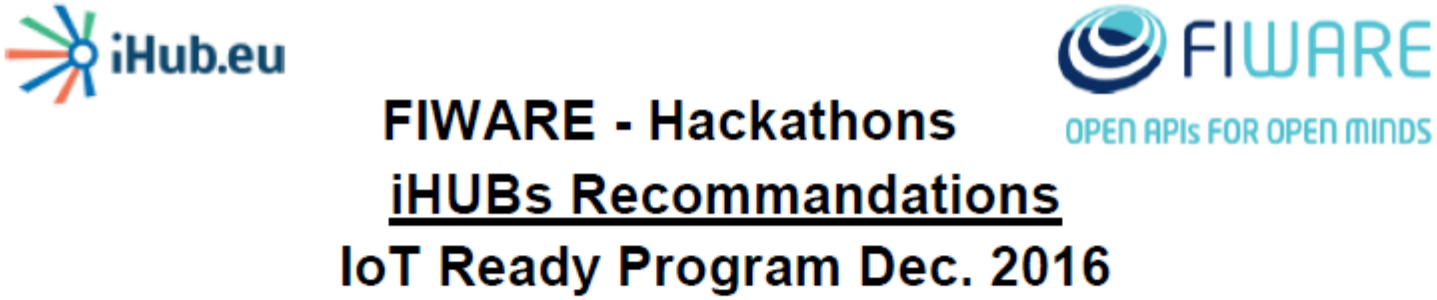
FIWARE ecosystem is a unique business opportunity for IoT products

- Simplicity: FIWARE IoT stack handles well-known IoT protocol standards (MQTT, LWM2M/CoAP, etc) and exposes the same data REST API to developers.
- Flexibility: A connector library (C++ or node.js) to develop your own connector is provided (regardless of protocol or standards used).
- Open-Source: Enabling a truly horizontal IoT open ecosystem and avoiding platform vendor lock-in. Platform of choice for Smart City platforms in 100+cities worldwide.
- Opportunity: Gain access to a growing network of software and hardware vendors.
- Credibility: Gain credibility with the "FIWARE Certified" endorsement.

Any IoT protocol can be connected to FIWARE via connectors

- FIWARE IoT provides ready-made "IoT-Agents" (Connectors) for several key standards
- Any IoT standard or proprietary protocol can be connected to FIWARE using a connector library (node.js or C++)
- In addition: FIWARE IoT stack implements the following well-known standards:
  - OMA NGSI9/10
  - OMA LWM2M
  - MQTT
  - IETF CoAP
  - IETF IPv6

Hackathon best practice guide avialble here: https://drive.google.com/open?id=0B6FTZGIkH_wIdEcwRDEzZzFaMTA
A snapshot of the guide:



FIWARE - Hackathons

iHUBs Recommandations

IoT Ready Program Dec. 2016

OPEN APIs FOR OPEN MINDS

Event operations

We recommend to start organising hackathon in collaboration with **local universities**, as well as **student organisations**. They can help attract hackathon applicants (with technical skills and motivation) and the supporting infrastructure. A very good opportunity is to include specific companies, local administrations or users of the solutions into the planning of the hackathon already as they can thus already help develop the challenge and prepare the data sources for participants. However, this usually means that the hackathon needs to be organised **during weekend** as both the students as well as the infrastructure is utilized during the week-days. Getting universities on board also requires more time - usually several weeks - in order to establish a working collaboration and align all the details. Good practice that we have established in iHub network was implementing weekly meetings between all partners with different responsibilities for organizing the hackathon.

Interactive Tutorials:

The FIWARE IoT Ready interactive tutorial is accessible here https://notebook.thrive.to/tutorial/5xsvsTyR5NLwXAeJJ?view=MidFullScreen

The FIWARE Tour Guide App interactive tutorial is accessible here: https://notebook.thrive.to/tutorial/3ffSQAAMpiDLjFTB9?view=MidFullScreen

A link to Google Drive with presentations used in different events: https://drive.google.com/drive/folders/0B6FTZGIkH_wIb3lPY2M0OGt2SjQ