



SEVENTH FRAMEWORK PROGRAMME

Specific Targeted Research Project

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D7.2.2 Report on Dissemination Activities and Plans b

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TERMS AND ACRONYMS

ACC	International Conference on Advances in Cloud Computing
ACM	Association for Computing Machinery
CEBIT	Centrum für Büroautomation, Informationstechnologie und Telekommunikation
CERP IoT	Cluster of European Research Projects on the Internet of Things
FInES	Future internet Enterprise Systems Cluster
GSN	Global Sensor Networks
IERC	IoT European Research Cluster
ICC	International Conference on Communications
ICDE	International Conference on Data Engineering
IEEE	Institute of Electrical and Electronics Engineers
INFOCOM	International Conference on Computer Communications
IoT-CN	International Workshop on Internet-of-Things Communications and Networking
ISWC	International Semantic Web Conference
IWSN	International Wireless Sensor Networks Workshop
MDM	International Conference on Mobile Data Management
MobiDE	International Workshop on Data Engineering for Wireless and Mobile Access
MUM	International Conference on Mobile and Ubiquitous Multimedia
OGC-SWG	Open Geospatial Consortium – Standards Working Group
OpenIoT	Open source blueprint for large scale self-organizing cloud environments for IoT applications
PerCom	International Conference on Pervasive Computing and Communication
PIMRC	International Symposium on Personal, Indoor and Mobile Radio Communications
ruSMART	Conference on Smart Spaces
SenSys	International Conference on Embedded Networked Sensor Systems
SME	Small and Medium Enterprises
Ubicomp	International Joint Conference on Pervasive and Ubiquitous Computing
VLDB	International Conference on Very Large Databases

1 INTRODUCTION

OpenIoT will significantly advance technology in the areas of sensor information processing, semantic enrichment of sensor data, cloud computing, virtualization of “things”, as well as management of business processes operating on “things”. At the same time, the project will instigate a new deployment paradigm for converging cloud computing with IoT, which will be tested and evaluated in realistic scenarios. Hence, significantly new approaches and experiences will be faced from the successful conclusion of OpenIoT. Most of the extracted results will be of high interest not only to the majority of the partners of the consortium, but also to various external research projects and industrial parties.

1.1 Scope

This deliverable describes the master plan for dissemination during the lifetime of the project, and summarises the dissemination activities to date. This is the second release, an update on D7.2.1. A further release of this deliverable will be created in November 2014 (M36).

1.2 Audience

The audience of this document is primarily the OpenIoT consortium and the European Commission. However, it will also act as a reference for anyone interested in the public reports and other dissemination activities by the OpenIoT project.

1.3 Summary

The OpenIoT project has defined a master dissemination strategy and plan, and summarised all dissemination activities carried out until November 2013.

In 2012, the project has focused on dissemination activities for creating *awareness* about the project and the OpenIoT concept in research and business communities.

In 2013, the project is *promoting* the OpenIoT architecture in order to *engage* more developers and other external stakeholders in the OpenIoT open source project and later end-user validation activities.

In 2014, the project will *demonstrate* the OpenIoT platform and prototype services in order to *involve* companies and other external stakeholders in the post-project phase.

The project will use a wide array of dissemination materials: *public website*, *flyers*, *posters*, *presentations*, *scientific papers*, *online channels* and *giveaways*.

1.4 Structure

In this document, Chapter 2 describes the target groups for OpenIoT dissemination. Chapter 3 describes the main dissemination phases. Chapter 4 describes the available dissemination materials and tools. Chapter 5 describes the key dissemination activities planned over the lifetime of the project.

In D1.8 Annual Management Report, all dissemination activities carried out from December 2011 till November 2013 are summarised.

2 TARGET GROUPS

In this chapter, we describe the four main target groups for OpenIoT dissemination, namely researchers, open source communities, businesses and end users.

2.1 Researchers

The concept of an “Internet-of-Things” (IoT) is still a very new idea and currently a hot topic in the world-wide research community. Researchers in many different domains are investigating and developing new ways of connecting real-world things with a global information space referred to as the Internet. A broad range of small, medium and large-scale research projects are on their way to develop concepts, methods and tools to foster this new and exciting Internet-of-Things idea.

OpenIoT will contribute to this research community by providing an innovative and comprehensive software solution. This software will be made available as open-source software to provide an easy way to adopt and reuse the software and to boost the exchange and creativity within the research community.

We believe that the research community will benefit from this open way of sharing innovative concepts, and that OpenIoT will benefit from the resulting feedback and the impact of this sharing.

The dissemination activities of OpenIoT will be oriented towards the European Research clusters, like the IERC and the FinES cluster, and the academic networks that the OpenIoT consortium partners are linked to. For the IERC, the major communication channels will be the activity chains. The FinES cluster will be addressed by participating in workshops during major IoT conferences. Each partner – individually within specific projects, events or within existing cooperation’s – will contact the academic networks.

2.2 Open-Source Communities

As OpenIoT is an open-source software project, it is vital to attract people that are willing to use open source software and even participate in its development. Such people are in favour of the idea of software being free of limitations and intended to be adopted, reused and enhanced by their own ideas and contributions. This open-source software community will be addressed by using well-known information channels, such as GitHub, Wikipedia, and Freecode.

The OpenIoT solution will be based on other open source projects and their experiences, like GSN¹, AspireRFID² and the extended software foundation Apache³. It is intended to make a clear reference to these initiatives and to network with developers from such related source projects to gain experience and build up the open-source community expansion.

¹ <http://sourceforge.net/apps/trac/gsn/>

² <http://wiki.aspire.ow2.org/xwiki/bin/view/Main/WebHome>

³ <http://www.apache.org>

The overall dissemination goal towards the open source community is to establish OpenIoT as an active and well-known node in the open source project community network.

2.3 Businesses

The OpenIoT solution is designed to enable various forms of business models. The licence model will support an open and extendable core of software modules to be used in any kind of solution, either open source or commercial. This provides the business users with tools to implement their own solutions and allows them to access sensors and actuators in a simpler way. The major dissemination message to the business community will be that this is a solid ground for developing innovative commercial solutions.

The business community has a high priority in the OpenIoT dissemination strategy in order to demonstrate that it is possible to build successful business models upon the OpenIoT framework. The typical roles within these business models will be Solution Providers, Service Providers, Platform Providers, and Infrastructure Providers (see “D7.3.1 Business Models and Stakeholders Exploitation and Business Plans a” for the description of these roles).

The OpenIoT solution is applicable to several business categories. However, the OpenIoT use case demonstrations will primarily address the manufacturing, agriculture (e-science) and city service industries (Smart Cities).

2.4 End Users

The final and most important target group will also be the most challenging one to reach. A typical end user will most likely not be aware of the OpenIoT architecture or features, but will use the services provided by solution providers using the OpenIoT framework. Consequently, the message for the end users will be based on the demonstrators, developed as proof-of-concept implementations for OpenIoT. In the end, an OpenIoT solution must be accepted and adopted by the end users.

The end users to be addressed by the OpenIoT dissemination will primarily be citizens, students, elderly, municipal government officials (e.g., mayors), SME owners, manufacturing staff, environmental scientists, and farmers.

2.5 Timeline

The target groups introduced above are being informed with the updated information about the project by using the different channels for dissemination of the OpenIoT project as described in the previous deliverable (i.e. D7.2.1) and also in section 4 of this document. The target groups are aware about the progress and new improvements of OpenIoT along the different phases of the project and therefore the target groups are addressed at different times. Figure 1 depicts the time line of how these target groups are being and will continue being addressed.

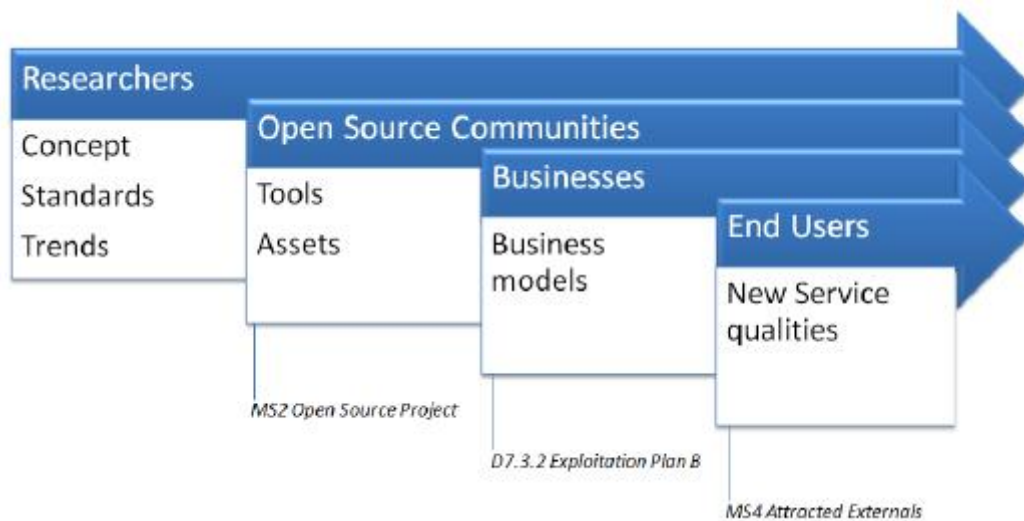


Figure 1: Target groups - timeline for addressing them

The start of addressing each new target group is directly supported by project milestones and updated exploitation planning. From the very beginning, the OpenIoT concept, proposed standards and identified trends have been communicated to researchers.

In Month 9, the OpenIoT open-source project has been established (please see D6.1 "Open Source Software Portal and Wiki"), triggering the start of exchanging early tools and assets with the open source community.

In Month 18, the results and experiences from working with open source communities will result in updated business models (D7.3.2) to be discussed with the business community.

In Month 27, it is planned that the project will achieve a milestone of having attracted many external stakeholders and individuals that need to be stimulated by a continued flow of information about demonstration results from the project.

3 DISSEMINATION PHASES

In this chapter, we describe the dissemination objectives for each project year, and the overall method for achieving each yearly objective.

3.1 Create Awareness – Year 1

Objective: Establish OpenIoT as a key project in the IoT domain.

Method: Create dissemination material with *differentiated* messages per target group:

- Concept
- Benefits

Towards **Researchers**, OpenIoT presented itself as a good research partner for addressing key research questions within the Internet-of-Things area. OpenIoT leads the IERC cluster's Activity Chain 4 (see D7.4 "Cluster Collaboration Plan" for details).

Towards **Open Source Communities**, OpenIoT created an own open source project that works directly with the Global Sensors Networks (GSN) and AspireRFID open source communities. OpenIoT is presenting itself to these open source communities as bringing in new application scenarios and attracting business interest.

Even though not specifically targeting it yet, OpenIoT has a message also for **Businesses**: The Internet-of-Things has the potential to transform how business is conducted in many sectors, and OpenIoT will facilitate new and improved businesses within Smart Cities, manufacturing and agriculture.

3.2 Promote & Engage – Year 2

Objective: Widen participation to external stakeholders.

Method: Publish *concrete* information for each target group:

- The OpenIoT **Architecture** for researchers & open source communities was presented at Future Internet Assembly (FIA) in Dublin (May 2013), at ICT 2013 in Vilnius (November 2013), and was made available at the OpenIoT open source project and repository, <https://github.com/OpenIoT/Org>
- Technical feasibility **demonstrators** for open source communities & businesses are still being created. However, the respective partners have been openly discussing and showcasing the concepts and focus of these demonstrators in public fora like ICT 2013.
- **Scenarios** for businesses were presented at the FIA in Dublin – the aim was to engage businesses in looking at the potential business models that might be disruptive and change the way that certain services are consumed and charged for.

3.3 Demonstrate & Involve – Year 3

Objective: Disseminate results for post-project use.

Method: Publicize *executable* assets:

- Proof-of-concept **prototypes** for Smart Cities, manufacturing and e-science (agriculture) – Towards the mid to late part of Year 3 the prototypes will be stable and possible to be shared and shown publicly. OpenIoT will engage with the three different communities in order to find strategic stakeholders for post-project exploitation.
- Public reference **platform** (from the open source project) – Further involvement in the open source project of developers outside the consortium will be encouraged, to find leverage for establishing a public platform instance giving access to open data.
- Downloadable **widgets and gadgets** – The executable apps and reporting tools created will be provided for download and testing by users outside of the development community, as a teaser for showing off the power of the OpenIoT middleware.

4 DISSEMINATION MATERIAL & TOOLS

In the second year, the project shifted its dissemination focus towards developers and businesses, and therefore the dissemination material was changed to attract these stakeholders. Refer to D7.2.1 for the dissemination materials primarily intended for researchers and technologists.

4.1 Public Website

The website of the project (www.openiot.eu) is the central dissemination tool since most people that hear about the project would look for it online. The website will therefore be continuously updated in order to satisfy all needs for information and possibilities to become engaged. Figure 2 shows a screenshot of the public website.



Figure 2: Public website – www.openiot.eu

DERI and AcrossLimits are in charge of the website from a technical and content perspective. All partners will be linking to it from their own websites. Figure 3 below is an example of linked dissemination through the partner AcrossLimits to the OpenIoT Web portal; the other partners' web portal links to the OpenIoT project are included in the D1.8 "Annual Management Report" for reference.



Figure 3: AcrossLimits portal linking to www.openiot.eu

4.2 Brochure

The project brochure is intended to create interest for the project's core objective – the middleware – and the related application scenarios. All project partners will be disseminating this via their own personal and commercial networks. **Figure 4** is a snapshot of the 2013 OpenIoT Brochure.

The academic/technical two-side flyer (see D7.2.1) has continued to be used at conferences and technical events.

OPENIoT Partners

National University of Ireland Galway NUIG-DERI (Ireland) www.deri.ie	
Athens Information Technology, AIT (Greece) www.ait.gr	
Ecole Polytechnique Federale de Lausanne EPFL (Switzerland) www.epfl.ch	
Fraunhofer-Gesellschaft zur Förderung der Angewandten Forschung E.V., IOSB (Germany) www.iosb.fraunhofer.de	
Electronic Systems and Software Applications S.A., SENSAP (Greece) www.sensap.eu	
AcrossLimits Ltd AL (Malta) www.acrosslimits.com	
Commonwealth Scientific and Industrial Research Organisation, CSIRO (Australia) www.csiro.au	
University of Zagreb Faculty of Electrical Engineering and Computing, UNIZG-FER (Croatia) www.fer.unizg.hr	

WWW.OPENIOT.EU



OPEN SOURCE CLOUD SOLUTION FOR THE INTERNET OF THINGS

"An Enabling Technology for Smarter Cities and Smarter Industries"

The OpenIoT project will facilitate the use of sensors in ICT based services for Smart Cities, Manufacturing and Agriculture.

In the Future Internet, everyday objects, machinery and items will always be connected to the Internet, and thus they can communicate their status, receive instructions and be managed remotely. The applications that this could enable are infinite.

Cloud computing refers to using storage and computing power without having to worry where these are physically located. It is a style of computing in which IT-related capabilities are provided "as a service".

OpenIoT aims to combine Internet-Connected Objects and Cloud Computing to enable ICT companies to easily create smart sensor-based service solutions. The project will research and develop an open technology platform for such applications.

The main technology advances will be:

- Semantic interoperability for Internet-Connected Objects
- Linked Sensor Data
- Pay-as-you-go IoT services
- Utility-driven security and privacy
- Complex queries without programming

OpenIoT is an international joint effort of eight well-renowned partners, including the Global Sensor Network and AspireRFID open source projects.

 The OpenIoT project is co-funded from the European Union's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° #267935

SMARTER CITIES

Campus Guide

The **Campus Guide** will demonstrate aspects of a smart city. Several applications shall be developed and deployed to support the collaborative environment of the Karlsruhe Institute of Technology (KIT) in Germany. The OpenIoT framework will enable situation awareness, supporting communication between people, and allowing interactions with, and via, their environment. An example is the "smart meeting" scenario, where people will be able to find live information about meeting rooms, interact with physical or virtual places and objects, and link all these things into a common information model, accessible in a user-friendly way to students, lecturers and administrators.

Campus Guide use case will be achieved through the OpenIoT proof-of-concept server environment, several sensors, identification via RFID or QR-Code and state-of-the-art smart phones.


Silver Angel

The **Silver Angel** consists of a "Silver City" map and an at-home "Silver Home" security assistant. **Silver City** shows where other people are in the city in a manner that ensures privacy. It indicates the density of human presence in different city areas. This will assist the elderly in maintaining an active social life.

Users can also authorise other users in their close social network to be able to see when they are near a number of known locations (like home, day centre etc). This is especially important to the elderly who tend to feel insecure when they do not know when relatives are coming to visit them or pick them up. **Silver Home** helps assure the elderly that their home is secure. It consists of a warning system that can generate alerts to a smart phone (or touchpad), when a door or window is left open, or unlocked, for too long.

Urban Crowdsensing

Today, more than ever before, we need to raise awareness about environmental factors that strongly impact human health. The **Urban Crowdsensing** application will enable citizens to collect and share urban environment-related data while in motion. Volunteers equipped with state-of-the-art wearable air quality sensors and smartphones will continuously contribute sensed data to the OpenIoT cloud while moving through the city. In addition, other available data sources, such as fixed environmental monitoring stations and "humans-as-sensors" will be integrated through the OpenIoT cloud. This will empower all application users, i.e., citizens, to consume personalized environmental information of interest in real-time, typically in their close vicinity. Both citizens and city officials will be able to observe historical environmental data over a larger geographical area to identify specific trends and to devise actions which can ensure safe and healthy living conditions to all citizens.

SMARTER INDUSTRIES

Material Flow Traceability System

OpenIoT will integrate a **Material Flow Traceability System** in the packaging industry, focusing on processes for printing, die-cutting, folding and gluing of medicine boxes. In this environment, several sensors are used to facilitate production line automation and quality control, such as laser sensors, high-speed 1D/2D barcode verification cameras, weight, contrast/colour and ultrasonic sensors. These sensors are combined into virtual sensors and used to identify events.

The OpenIoT cloud based middleware will enable the dynamic on-demand formulation, calculation and visualisation of Key Performance Indicators (KPI), based on the intelligent selection of virtual sensors and filtering of their information. Instead of pre-programming manufacturing performance reports, OpenIoT will enable dynamic performance monitoring.

KPIs are to be calculated across multiple production lines, and include: consumption rates and amount of scrap produced, machine speeds, product container production rate, efficiency of machines, setup times and machine speed in their various modes (setup/repair/Idle/operation).

Phenonet

Every year, Australian grain breeders plant up to 1 million 10 m² plots across the country to find the best high yielding varieties of wheat and barley. The challenge is to monitor these crops, often located in disparate and remote places, throughout the growing season, and deliver crop performance results over the internet, and at a level of detail, that meets the needs of both scientist and farmer.

The **Phenonet** application uses state-of-the-art sensor network technology to gather environmental data for crop variety trials at a far higher resolution than conventional methods and provides a high performance real-time online data analysis platform that allows scientists and farmers to visualise, process and extract, both real time, and long-term crop performance information, from the acquired sensor measurements.

Figure 4: OpenIoT Brochure

4.3 Flyer 2013

The project flyer for the second year was used in the ICT 2013 as simple one-pager of the size of 1/3 of A4. It describe the main feautres of the Openlot Architecture and the application scenarios of the project. All project partners will be disseminating this via their own personal and commercial networks. Figure 10 is a snapshot of the 2013 OpenIoT Flyer.



Figure 5. OpenIoT Flyer 2013 – front and back views

4.4 Posters

The main project poster is now an eye-catching display highlighting both the OpenIoT system and the business-oriented use cases. The poster has been used at high-profile events like Future Internet Assembly (FIA) in Dublin in May 2013 and the ICT 2013 conference in Vilnius in November 2013. **Figure 6** shows the OpenIoT poster for the year 2013.

In addition, the project has created one poster each for the Smarter Cities and Smarter Industries use cases, see **Figure 7** and **Figure 8**. A separate poster for the Crowd Sensing use case (Zagreb Air) has been created by FER (see **Figure 9**). The academic/technical poster (see D7.2.1) has continued to be used in poster sessions of conferences and technical events.

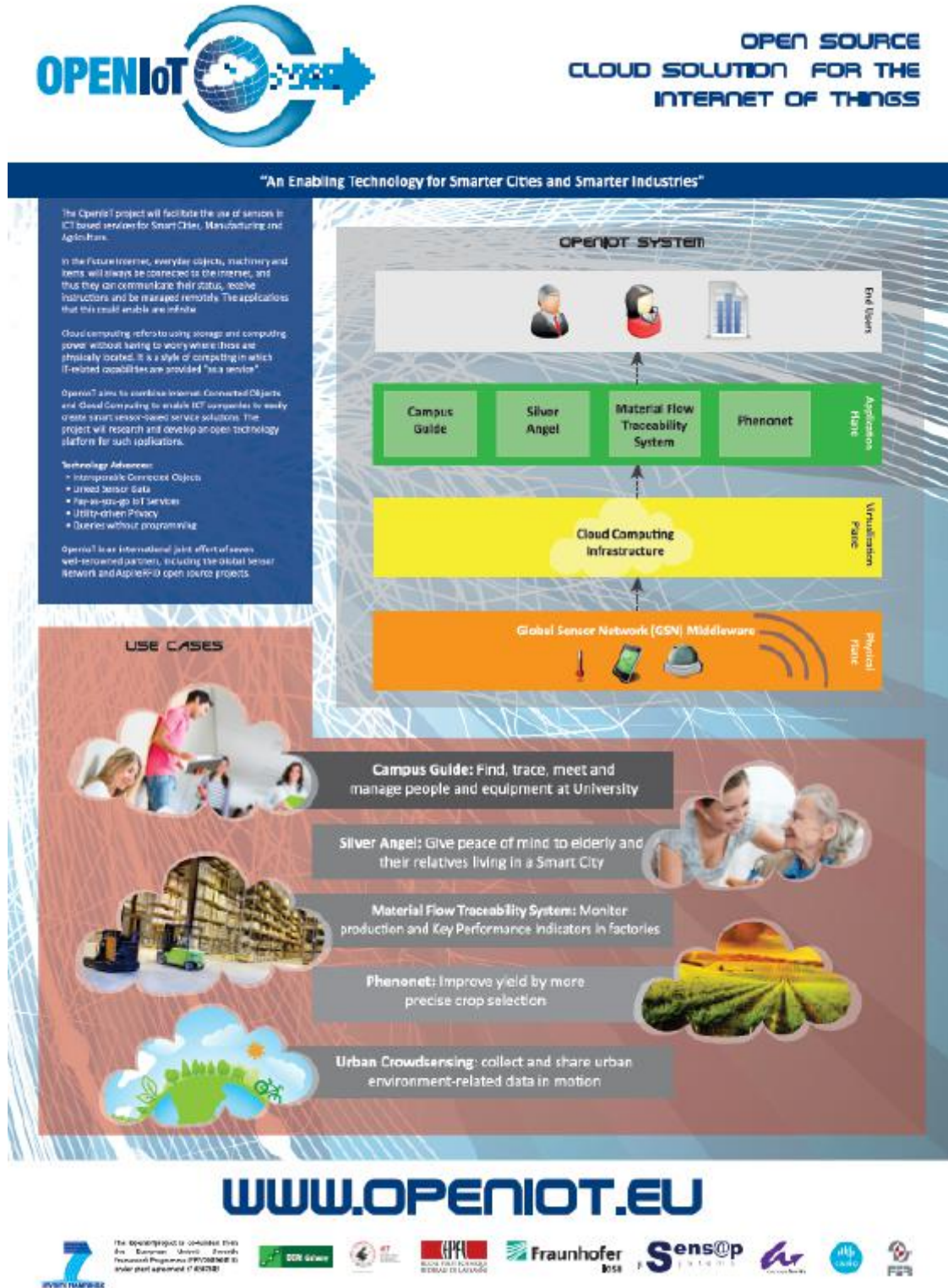


Figure 6: OpenIoT Project Poster



SMARTER CITIES

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WWW.OPENIOT.EU



The OpenIoT project is co-funded by the European Union's Seventh Framework Programme (FP7/2007-2013) under grant agreement N° 247295



DFG



KIT



IRSENER



Fraunhofer BOSS



Sens@p



OpenIoT



ERC



IRSENER

Figure 7: OpenIoT Poster for Smarter Cities use cases



OPENIoT

SMARTER INDUSTRIES

Material Flow Traceability System



OpenIoT will integrate a **Material Flow Traceability System** in the packaging industry, focusing on processes for printing, die-cutting, folding and gluing of medicine boxes. In this environment, several sensors are used to facilitate production line automation and quality control, such as laser sensors, high-speed 1D/2D barcode verification cameras, weight, contrast/colour and ultrasonic sensors. These sensors are combined into virtual sensors and used to identify events.

The OpenIoT cloud based middleware will enable the dynamic on-demand formulation, calculation and visualisation of Key Performance Indicators (KPI), based on the intelligent selection of virtual sensors and filtering of their information. Instead of pre-programming manufacturing performance reports, OpenIoT will enable dynamic performance monitoring.

KPIs are to be calculated across multiple production lines, and include: consumption rates and amount of scrap produced, machine speeds, product container production rate, efficiency of machines, setup times and machine speed in their various modes (setup/repair/idle/operation).

Phenonet

Every year, Australian grain breeders plant up to 1 million 10 m² plots across the country to find the best high yielding varieties of wheat and barley. The challenge is to monitor these crops, often located in disparate and remote places, throughout the growing season, and deliver crop performance results over the internet, and at a level of detail, that meets the needs of both scientist and farmer.

The **Phenonet** application uses state-of-the-art sensor network technology to gather environmental data for crop variety trials at a far higher resolution than conventional methods and provides a high performance real-time online data analysis platform that allows scientists and farmers to visualise, process and extract, both real time, and long-term crop performance information, from the acquired sensor measurements.



WWW.OPENIOT.EU



The OpenIoT project is co-funded from the European Union's Seventh Framework Programme (FP7) under grant agreement n° 228718



Figure 8: OpenIoT Poster for Smarter Industries use cases

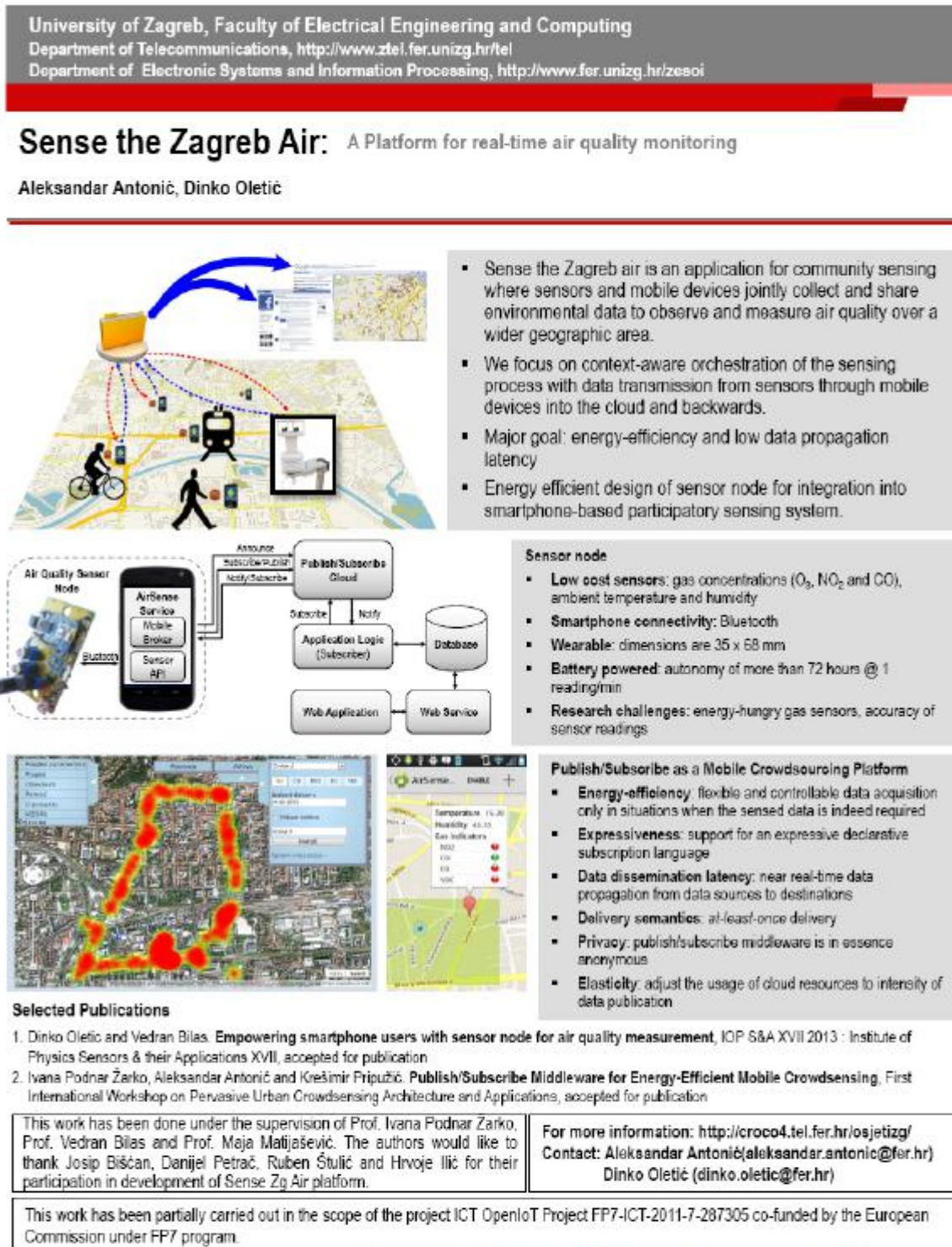


Figure 9: OpenIoT Poster for Crowd Sensing use case (Zagreb Air)

4.5 Newsletters

Newsletters are an effective means to reach the most interested people by accumulating a mailing list for sending them out. As of early December 2013, the OpenIoT mailing list has about 160 members, but this will increase significantly (by est. 150 names), once all the contacts collected at the ICT 2013 exhibition stand have been added.

In addition, an information mail was sent to over 100 system integrators and SMEs to tell them about the project and invite them to contribute by filling in the survey about the needs analysis – May/June 2012.

The first newsletter was sent out on 1st August 2012 (see screenshot of its title page below, i.e., Figure 10) and focused on introducing the project, the partners, and mentioning interesting events and news related to the Internet-of-Things. The targeted audience was around 150 researchers and professional developers within existing IoT communities.



Figure 10: OpenIoT Newsletter Number 1

The second newsletter was sent out on 7th Feb 2013, and focused on announcing the launch of the open source project to make developers aware of the project, and on disseminating the SME Survey results. The strong OpenIoT presence in public events and the CSIRO partner were highlighted. The newsletter mailing list was expanded to around 160 researchers and professional developers.



Figure 11: OpenIoT Newsletter Number 2.

The third newsletter was sent out on 28th Oct 2013, and focused on the release of the first stable version of the OpenIoT middleware as open source, the strengthening of the project consortium with the University of Zagreb as a new project member, and disseminating the IoT Business Scenarios developed for the Future Internet Assembly workshop “Where is the business in Internet-of-Things?”. The strong OpenIoT presence in public events was highlighted. The newsletter mailing list was expanded to around 170 researchers and professional developers, and the newsletter will later be sent to approximately 100 more persons who gave their email address at the OpenIoT stand at the ICT 2013 conference.



Newsletter #3

Open Source Solution for the Internet of Things into the Cloud

www.openiot.eu

Editorial

Dear followers of the OpenIoT project, these are exciting times! We have completed the first open source release of the OpenIoT middleware, while engaging in a big way with the Future Internet and ICT research communities in Europe. At the same time we have expanded the consortium with a new partner - University of Zagreb - that will extend our middleware to better support mobile devices and quality-of-service management.

Read all about the first open source release of the OpenIoT middleware! It will enable developers to use sensor clouds via semantic queries instead of searching for and managing individual sensors. Now, you would not want to miss the opportunity to be among the first to exploit this new platform, would you? The OpenIoT project contributed in a big way to the Future Internet Assembly in Dublin 8-9th May 2013, and are now preparing to exhibit the middleware and example applications in its exhibition stand at the huge ICT 2013 conference in Vilnius 6-8th November 2013. There are already more than 4500 registered participants! In March we intend to go to CEBIT in Hannover. Meet us there!

The other sections of this newsletter gives you further insight on the OpenIoT project and how to get involved.

Manfred Hauswirth, coordinator

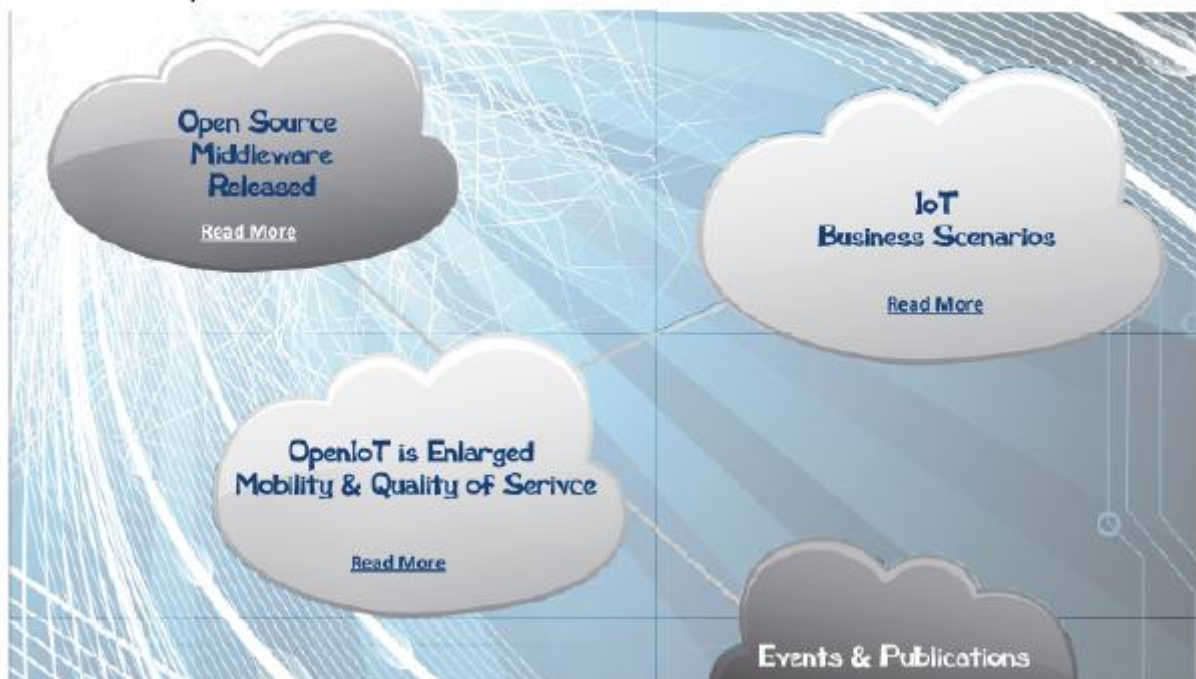


Figure 12: OpenIoT Newsletter Number 3

4.6 Give-aways

Small gadgets and freebies are always a welcome way to give out information to people one meets during conferences/events. This could take a variety of forms from pens to t-shirts, baseball caps to USB sticks and even more esoteric items including stress balls. People tend to pounce on such items and actually keep them for longer than they would a brochure (which normally ends up in some mysterious drawer, at best, or, directly binned in the hotel room, at worst). The purpose of such giveaways is to entice people to keep thinking of OpenIoT, especially towards the last year of the project, when we would be opening up the demonstrations.

During the second year, OpenIoT has procured pens and stress clouds, 1,000 of each, and they have proved very popular at major events like FIA and ICT 2013.



Figure 13: OpenIoT give-aways – pen and stress cloud

4.7 Videos

During the second year a series of videos have been created for technical presentation of the middleware usage and for the use cases. These videos are being used for conference and exhibitions, as well as online media like the created OpenIoT YouTube channel (<http://www.youtube.com/user/OpenIoT>).

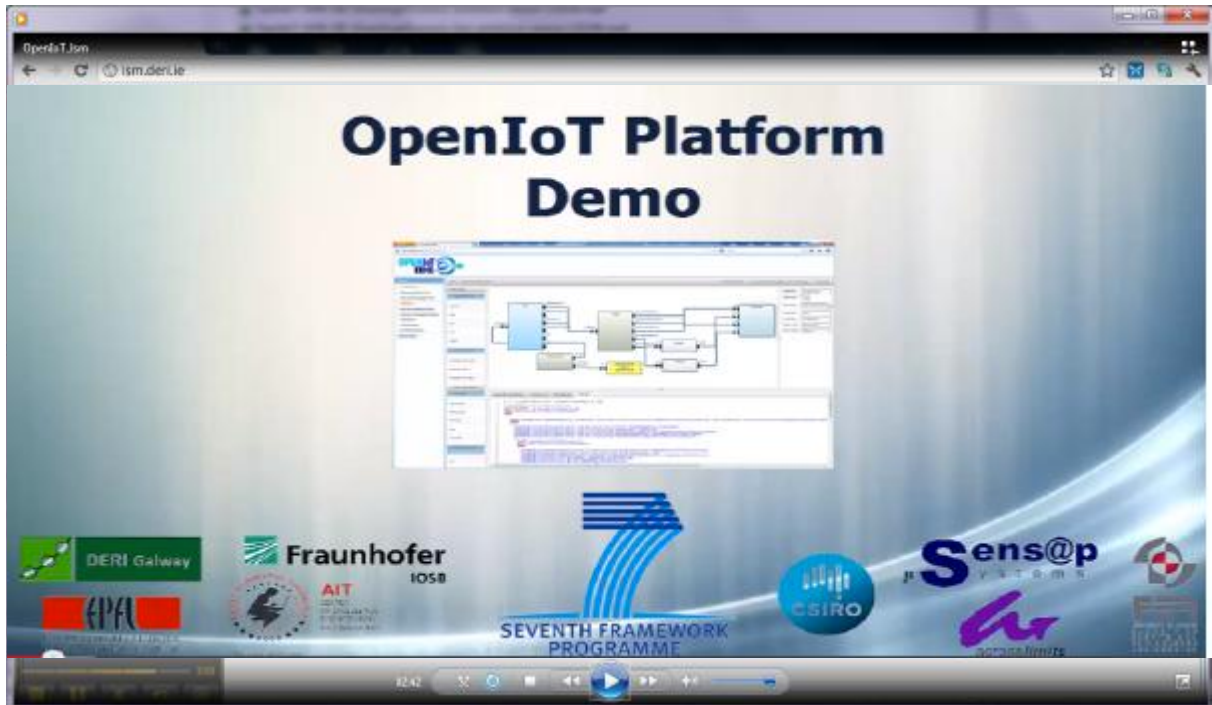


Figure 14: OpenIoT Integrated Demo Video

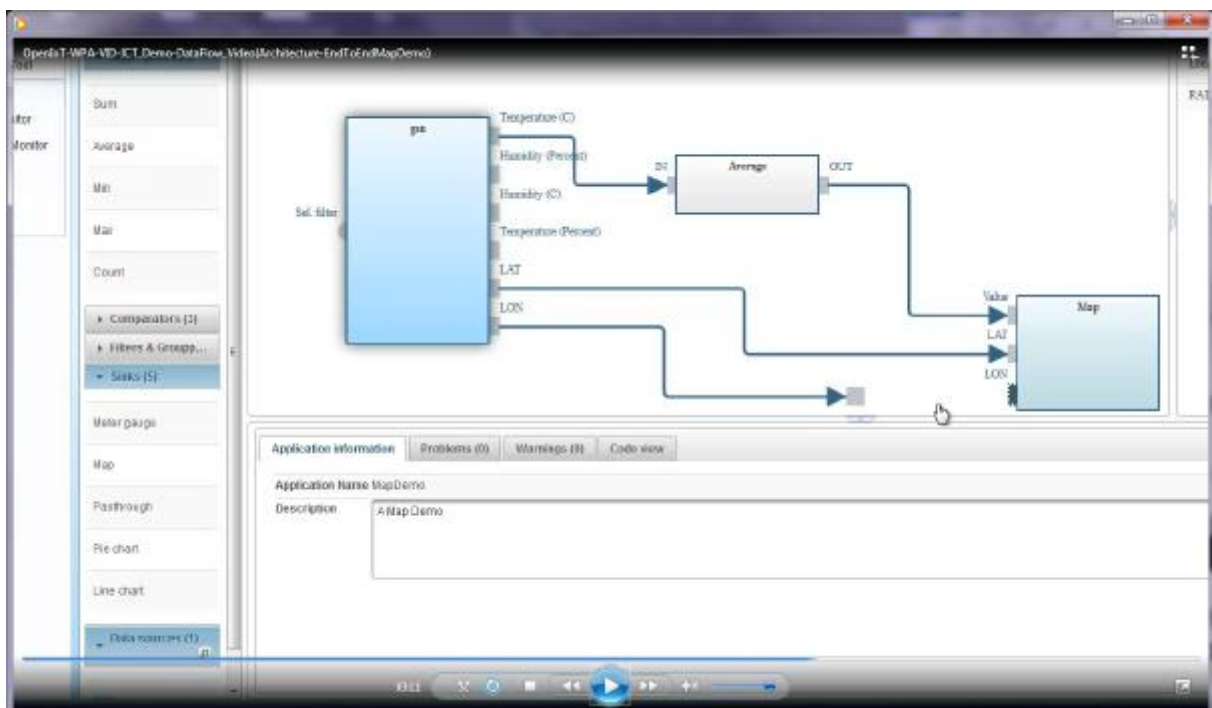


Figure 15: Middleware Service Definition video

<http://www.youtube.com/watch?v=yrhyvx0znOY>



Figure 16: Manufacturing Use Case video

<http://www.youtube.com/watch?v=poJnNATZjEo>



Figure 17: Crowd Sensing Use Case video

<http://www.youtube.com/watch?v=pbdGv9W4CYs>

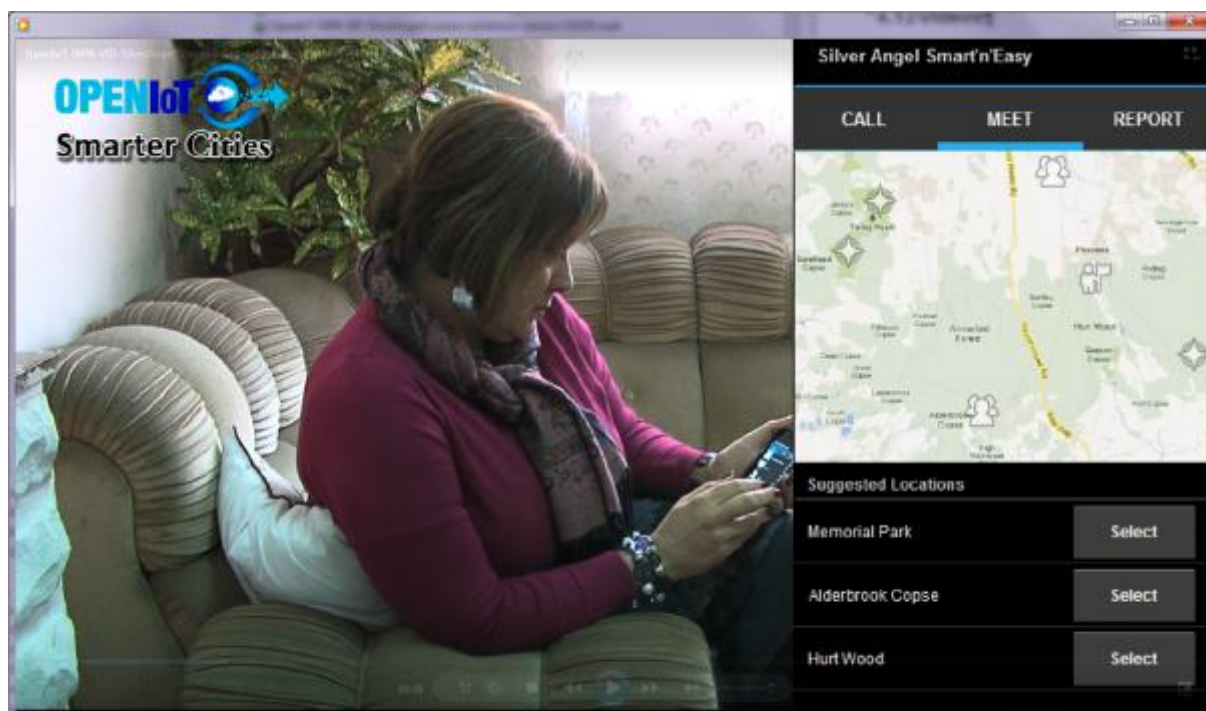


Figure 18: Silver Angel Use Case video

<http://www.youtube.com/watch?v=VGHVwyadstQ>

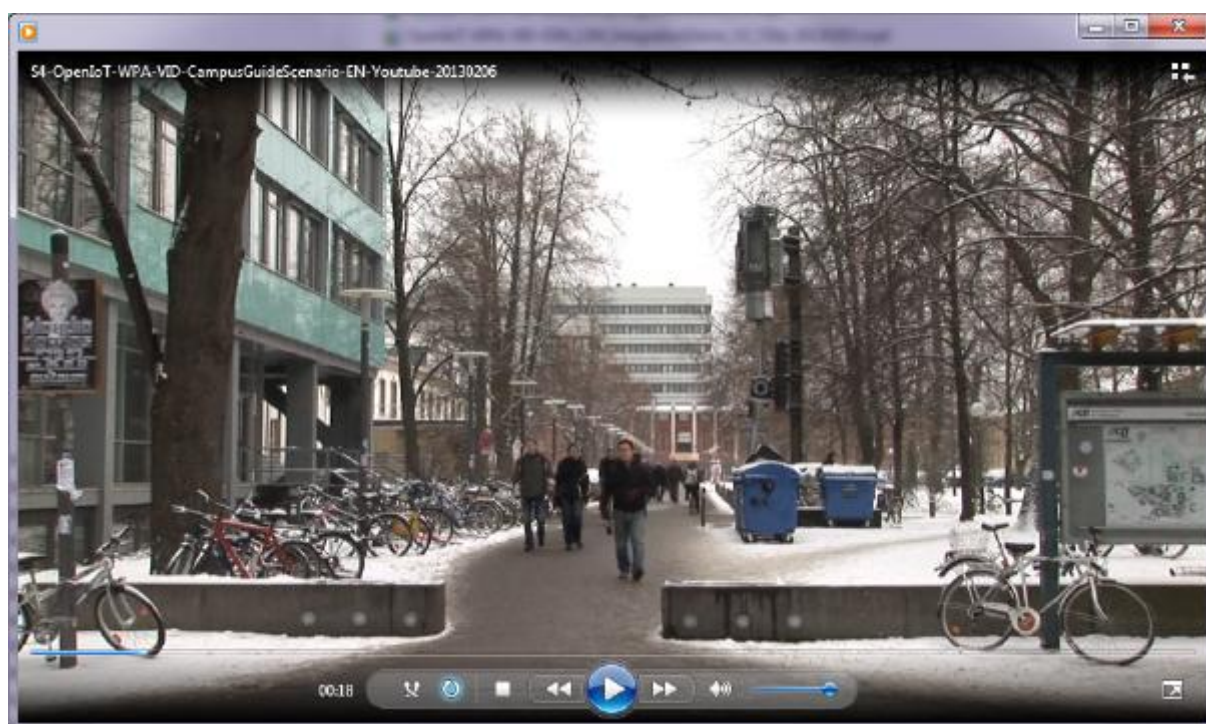


Figure 19: Smart Campus Use Case video

<http://www.youtube.com/watch?v=9mbjVII79rM>

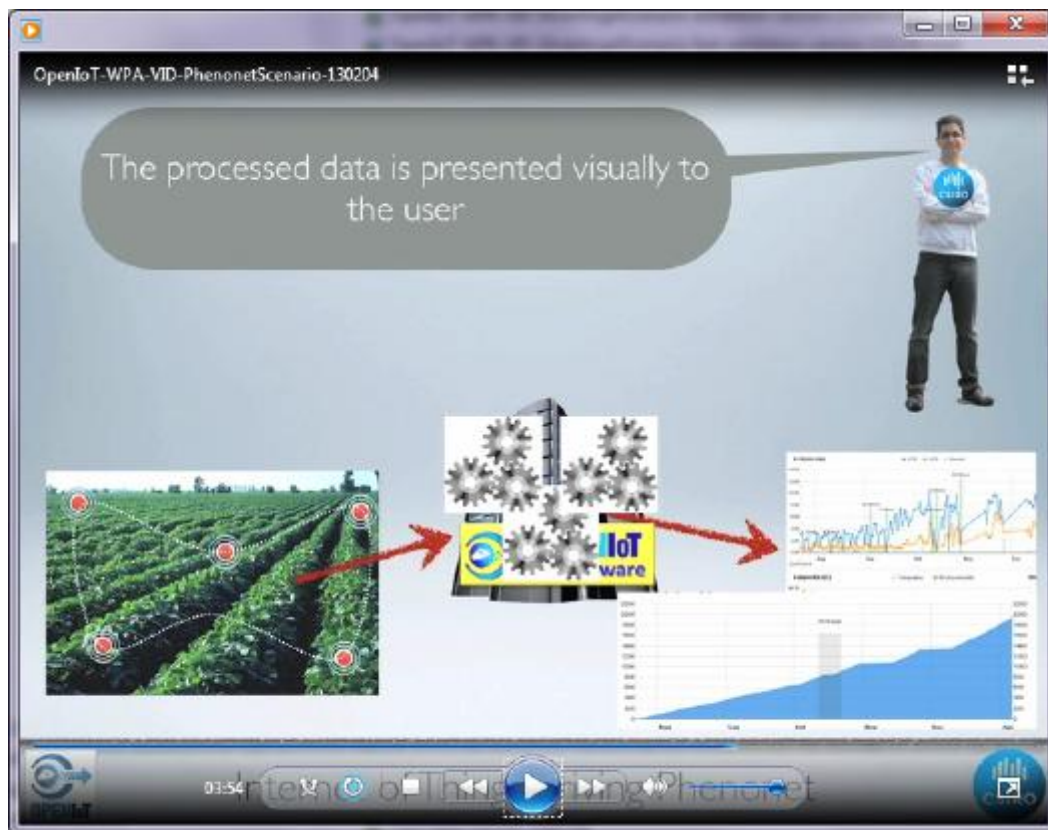


Figure 20: Phenonet Use Case video

4.8 Presentation Slides

Three core presentations have been created in order to facilitate partners who need to present the project to different audiences.

4.8.1 Project Overview

This presentation focuses on the project objectives, results, partners and clusters.

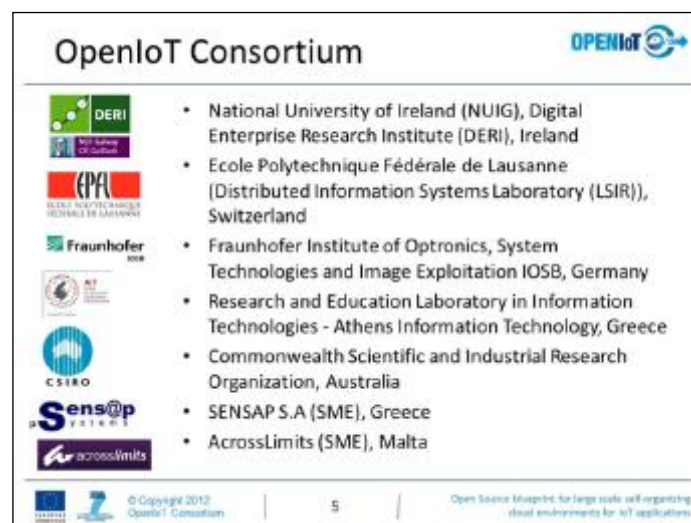


Figure 21: OpenIoT overview presentation – slide example

4.8.2 Technical Perspective

This is a more in-depth presentation looking at the project's technical architecture, key technologies used, contribution to standards (i.e., W3C SSN), related open source projects (i.e., Global Sensor Networks) and proof-of-concept use cases (i.e., Smart Cities, manufacturing, e-science (agriculture, Phenonet)).

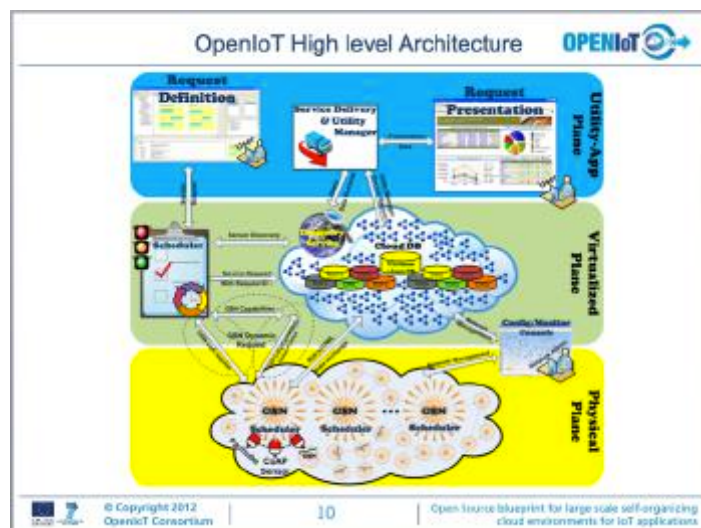


Figure 22: OpenIoT technical presentation – slide example

4.8.3 Business Perspective

This presentation is for the business community and focuses on the overall project idea, the value chain, added values to different business sectors, current and potential scenarios and how to get involved.

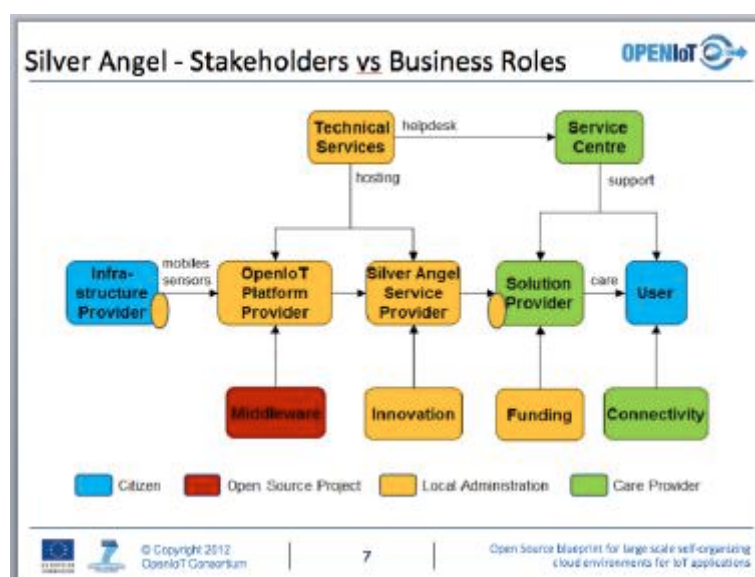


Figure 23: OpenIoT business presentation – slide example

4.9 Scientific Papers and Journals

The academic partners and institutes (DERI, AIT, EPFL, Fraunhofer-IOSB, CSIRO) will publish papers in peer-reviewed journals, reputable international conferences and book chapters on scientific findings from the technical research. The following tables list the key venues that the OpenIoT partners target for the publication of their research results.

4.9.1 Conferences

International Conference on Cloud Computing (CloudCom)

CloudCom is the premier conference on Cloud Computing worldwide, attracting researchers, developers, users, students and practitioners from the fields of big data, systems architecture, services research, virtualization, security and privacy, high performance computing, always with an emphasis on how to build cloud computing platforms with real impact. The conference is co-sponsored by the Institute of Electrical and Electronics Engineers (IEEE), is steered by the Cloud Computing Association, and draws on the excellence of its world-class Program Committee and its participants.

International Conference on Advances in Cloud Computing (ACC)

ACC provides an international forum for researchers, professionals, and industrial practitioners to share advances in the area of Cloud Computing. The main topics of interest are Cloud application architectures, brokering and optimization, support for scalable and elastic services, and performance comparison studies.

International Conference on Computer Communications (INFOCOM)

INFOCOM addresses key topics and issues related to computer communications, with emphasis on traffic management and protocols for both wired and wireless networks. Topics of interest include sensor networks and embedded systems, data centres and Cloud computing, middleware support for networking, self-organizing networks, etc.

International Conference on Communications (ICC)

ICC is one of the most significant scientific and one of the largest events of the networking and communications community, Technical symposia, academic and industry panels, workshops, and tutorials cover a broad spectrum of related topics. Among many more, these include: ad-hoc and sensor networks, wireless networking, communication software and services, next-generation networking.

International Conference on Data Engineering (ICDE)

ICDE is a top-tier conference addressing research issues in designing, building, managing, and evaluating advanced data-intensive systems and applications. It is a leading forum for researchers, practitioners, developers, and users to explore cutting-edge ideas and to exchange techniques, tools, and experiences.

International Conference on Embedded Networked Sensor Systems (SenSys)

SenSys is a highly selective conference for the presentation of research results on systems issues in the area of embedded, networked sensors. It provides a cross-disciplinary venue for researchers addressing the rich space of networked sensor system design issues, including sensor technologies and pervasive computing, sensor data quality, integrity, and trustworthiness, as well as security and privacy in sensor networks.

International Conference on Mobile Data Management (MDM)

MDM is a leading conference dedicated to innovative and important research on mobile data management. It focuses on the rapid and dramatic evolution of mobility-related hardware, addressing issues of mobile data management particularly w.r.t. spatial, spatiotemporal and multimedia data generated by sensors, smartphones to portable computers.

International Conference on Mobile and Ubiquitous Multimedia (MUM)

MUM is a leading annual international conference, which provides a forum for presenting the latest research results on mobile and ubiquitous multimedia. The conference brings together experts from both academia and industry for the exchange of ideas and discussion on future challenges, including middleware and distributed computing support for mobile ubiquitous systems and architectures, systems and algorithms for mobile systems.

International Conference on Pervasive Computing and Communication (PerCom)

PerCom is top-tier conference in the areas of pervasive computing and communications. It addresses state-of-the-art research in the respective fields; among others, topics include data management for pervasive computing, middleware for pervasive services and applications, sensors and RFIDs in pervasive environments, smart devices in intelligent environments, and communication architectures for pervasive computing.

International Semantic Web Conference (ISWC)

ISWC is the premier international conference for the Semantic Web / Linked Data Community. Here, scientists, industry specialists, and practitioners meet to discuss the future of practical, scalable, user-friendly, and game changing solutions for the management of Semantic Web data and Linked Data, the Semantic Sensor Web, Semantic Web and Linked Data in Cloud Environments, and related topics

International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp)

UbiComp is the premier conference for novel research contributions that advance the state of the art in the design, development, deployment, evaluation and understanding of ubiquitous computing systems. UbiComp is an interdisciplinary field of research and development that utilizes and integrates pervasive, wireless, embedded, wearable, and/or mobile technologies to bridge the gaps between the digital and physical worlds.

International Conference on RFID (RFID)

RFID is the premier technical conference for RFID attracting leading experts in the field about the latest developments in RFID as well as practitioners and researchers from industry and academia. Topics range from fundamental technical challenges (e.g., antenna theory, protocols), over the integration of sensors with RFID tags, to RFID applications and software (e.g., middleware, network applications).

International Conference on Very Large Databases (VLDB)

VLDB is top-tier conference for data management and database researchers, vendors, practitioners, application developers, and users. It features research talks, tutorials, demonstrations, and workshops covering current issues in data management, database and information systems research. Data management and databases remain among the main technological cornerstones of emerging applications of the twenty-first century.

International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC)

PIMRC is a premier conference in the wireless research arena and has a long history of bringing together academia, industry and regulatory bodies. The conference features technical sessions, tutorials, workshops, and technology and business panels revolving around the following areas: mobile and wireless networks; services, applications and business; as well as fundamental technical topics in the context of wireless communication.

Conference on Smart Spaces (ruSMART)

ruSMART invites state-of-the-art research and development in all areas of computer networking and data communications. Key areas are the Internet of Things and related technologies, Semantic Web including distributed information management and processing, Cloud computing in smart spaces, and service discovery and composition in smart environments.

International Conference on Extending Database Technology (EDBT)

The EDBT series of conferences is an established and prestigious forum for the exchange of the latest research results in data management. Held in an European locations, the conference provides unique opportunities for database researchers, practitioners, developers, and users to explore new ideas, techniques, and tools, and to exchange experiences. EDBT and ICDT are held annually as joint conferences, beginning in 2009.

International Conference on Ubiquitous Intelligence and Computing (UIC)

UIC is a premier venue in the area of ubiquitous intelligence and computing, and offers a forum for researchers to exchange ideas and experiences in developing intelligent/smart objects, environments and systems.

International Conference on Pervasive Intelligence and Computing (PCom)

PCom is intended to cover all kinds of these intelligent paradigms as well as their applications in various pervasive computing. PCom2013 is to bring together computer scientists, industrial engineers, and researchers to discuss and exchange experimental and theoretical results, novel designs, work-in-progress, experience, case studies, and trend-setting ideas in the areas of Pervasive Intelligence and Computing.

4.9.2 Workshops**International Workshop on Data Engineering for Wireless and Mobile Access (MobiDE)**

MobiDE serves as a forum for researchers and technologists to discuss the state of the art, present their contributions, and set future directions in data management for mobile and wireless access. The topics of interest related to mobile and wireless data engineering include, but are not limited to: static and mobile sensor network databases, mobile database management in the Cloud, pervasive computing, and context-aware data access and query processing.

International Workshop on Internet-of-Things Communications and Networking (IoT-CN)

The International Workshop on Internet-of-Things Communications and Networking (IoT-CN) is particularly focusing on all aspects of networking that aims at providing a forum for researchers as well as practitioners from industry and government to share advances on all aspects of the IoT-enabling technologies (RFID, sensors, Cloud, standardization etc.).

International Wireless Sensor Networks Workshop (IWSN)

IWSN is a forum for researchers, academics, and industrials to debate the different issues related to the interconnection of wireless sensor networks, and discuss relevant theoretical and practical solutions. Topics include interconnecting sensor and actuator networks, integration of sensor networks and Web-based services, and integrated applications and services for cross networks.

Extending Seamlessly to the Internet of Things (esIoT)

esIoT is an international workshop focused on the integration aspects of the Internet of Things (IoT). The emerging machine-to-machine (M2M) systems should provide transparent access to information and services through a seamless integration into the Internet. This workshop provides a forum to

elaborate on ideas and approaches to adapt, extend, or bridge the existing IoT building blocks, such as ETSI M2M, ZigBee, IPv6/6LoWPAN, RFID, and legacy networked embedded systems. In addition, the impact of the IoT on industry, business, and society, including security and privacy requirements, will be discussed.

4.9.3 Journals

Communications Surveys & Tutorials (IEEE)

The IEEE Communications Surveys & Tutorials is a free online journal published by the IEEE Communications Society for tutorials and surveys covering all aspects of the communications field. It provides researchers and other communications professionals with the ideal venue for publishing on-line tutorials and surveys which are exposed to an unlimited global audience. Topics of interest include all areas of communications and networking, including but not limited to: communication Networking, and networking technology, applications, and services; security, trust, and privacy in communication networking; Smart Grid communications and networking; network management; wireless and mobile networks, including ad hoc and sensor networks

Internet Computing (IEEE)

IEEE Internet Computing provides journal-quality evaluation and review of emerging and maturing Internet technologies and applications. The magazine targets the technical and scientific Internet user communities as well as designers and developers of Internet-based applications and enabling technologies. It publishes refereed articles on the latest developments and key trends in Internet technologies and applications. A crossroads between academic researchers and software professionals, the magazine presents novel content from academic and industry experts on a wide range of topics, including applications, architectures, information management, middleware, policies, security, and standards. In addition to peer-reviewed articles, Internet Computing features industry reports, surveys, tutorials, columns, and news.

Pervasive and Mobile Computing (Elsevier)

The Pervasive and Mobile Computing Journal (PMC) is a professional, peer-reviewed journal that publishes high-quality scientific articles (both theory and practice) covering all aspects of pervasive computing and communications. It captures the tremendous developments in such technologies as wireless communications and networking, mobile computing and handheld devices, embedded systems, wearable computers, sensors, RFID tags, smart spaces, middleware, software agents, and the like, have led to the evolution of pervasive computing platforms as natural successor of mobile computing systems.

Pervasive Computing (IEEE)

IEEE Pervasive Computing delivers the latest peer-reviewed developments in pervasive, mobile, and ubiquitous computing to developers, researchers, and educators who want to keep abreast of rapid technology change. With content that is accessible and useful today, the quarterly publication acts as a catalyst for realizing the vision of pervasive (or ubiquitous) computing. The essence of this vision is the creation of environments saturated with computing and wireless communication, yet gracefully integrated with human users. Many key building blocks needed for this vision are now viable commercial technologies: wearable and handheld computers, high-bandwidth wireless communication, location-sensing mechanisms, and so on. The challenge is to combine these technologies into a seamless whole. This will require a multidisciplinary approach, involving hardware designers, wireless engineers, human-computer interaction specialists, software agent developers, and so on.

Pervasive Computing and Communications (Emerald)

The Journal of Pervasive Computing and Communications provides an international premier channel to report, discuss and exchange experimental or theoretical results, novel algorithms, design

methodologies, work-in-progress, experiences, case studies, and trend-setting ideas in the emerging field of pervasive computing and communications as well as potential future directions and issues. The objective of the journal is to provide a descriptive, analytical, and comprehensive assessment of factors, trends, and issues in the ever-changing field of pervasive computing. This authoritative research-based publication also offers in-depth explanations of mobile solutions and their specific applications areas. This timely reference source provides direction for future researchers to pursue when examining issues in the field, and is also the perfect tool for practitioners interested in applying pioneering concepts in practical situations.

Sensor Journal (IEEE)

The IEEE Sensors Journal is a peer-reviewed, monthly online, bi-monthly print journal devoted to sensors and sensing phenomena. The topics of interest include all types of sensing: mechanical, thermal, optical, magnetic, radiation, microwave, chemical, biological, mass, etc., both on the macro and micro levels. Also of interest are sensor packaging, interconnection, modeling, telemetry, CAD, stability (including both systematics and noise), characterization, sensor signal processing, sensor arrays (e.g., e-nose), sensor systems, sensor-actuators, and applications. The Journal was founded in part to create a high quality archival sensors publication whose subscription fees are within the reach of individual practitioners in the field. In our opinion, this goal has been achieved.

Transactions on Communications (IEEE)

IEEE Transactions on Communications is a top journal in computer science focusing on all telecommunication including telephone, telegraphy, facsimile, and point-to-point television, by electromagnetic propagation, including radio; wire; aerial, underground, coaxial, and submarine cables; waveguides, communication satellites, and lasers. Other topics include marine, aeronautical, space, and fixed station services; repeaters, radio relaying, signal storage and regeneration; telecommunication error detection and correction; multiplexing and carrier techniques; communication switching systems; data communications; and communication theory.

Transactions on Knowledge and Data Engineering (IEEE)

IEEE Transactions on Knowledge and Data Engineering is designed to inform researchers, developers, managers, strategic planners, users, and others interested in state-of-the-art and state-of-the-practice activities in the knowledge and data engineering area. This includes well-defined theoretical results and empirical studies that have potential impact on the acquisition, management, storage, and graceful degeneration of knowledge and data, as well as in provision of knowledge and data services. Of further interest is the role of knowledge and data in the development and use of information systems and in the simplification of software and hardware development and maintenance. Specific topics include, but are not limited to: (a) knowledge discovery and data mining, (b) data modelling and management, (c) underlying computational platforms for knowledge and data engineering tools, techniques and systems, and (d) emerging knowledge and data engineering applications

Transactions on Mobile Computing (IEEE)

IEEE Transactions on Mobile Computing is a scholarly archival journal published monthly that focuses on the key technical issues related to (a) architectures, (b) support services, (c) algorithm/protocol design and analysis, (d) mobile environments, (e) mobile communication systems, (f) applications, (g) components, including devices, hardware, and software, (h) implementation issues, including interference, power, and software constraints of mobile devices, and (i) emerging technologies. The journal publishes mature works of research, typically those that have appeared in part in conferences. Furthermore, it focuses on issues at the link-layer and above in wireless communications, and to focus only on topics explicitly or plausibly related to mobile systems.

Transactions on Parallel and Distributed Systems (IEEE)

IEEE Transactions on Parallel and Distributed Systems publishes a range of papers, comments on previously published papers, and survey articles that deal with the parallel and distributed systems research. Topics in parallel systems include: (a) the design, analysis, implementation, of parallel architectures, (b) parallel languages and compilers, scheduling and task partitioning; operating systems, etc., and (c) models of computation, the analysis and design of parallel algorithms, etc.

Topics in distributed systems include: (a) models of computation, algorithms and theory for building distributed system infrastructure and for running distributed applications; (b) systems and middleware design for scalable distributed systems; resource sharing and allocation; fault resilience; security and privacy issues; (c) Internet computing and distributed applications: such as grid systems, autonomic computing, web services, distributed event processing, information centric networking, online social networks, Cloud computing, data centres, and data management in the Internet; (d) emerging applications and networking technologies for distributed systems such as wireless networks, mobile software systems, and cyber-physical systems.

Transactions on Sensor Networks (ACM)

The Transactions on Sensor networks serves as a central, archival venue for the interdisciplinary sensor network research community. It covers research contributions that introduce new concepts, techniques, analyses, or architectures, as well as applied contributions that report on development of new tools and systems or experiences and experiments with high-impact, innovative applications. The Transactions places special attention to contributions on systemic approaches to sensor networks. Among other topics, the journal covers: applications of sensor and actuator networks, data storage and query processing, foundations of sensor networks, Sensor fusion and distributed inference, and in-network processing and aggregation.

Journal of Grid Computing (Springer)

The Journal of Grid Computing explores an emerging technology that enables large-scale resource sharing problem solving within distributed, loosely coordinated groups sometimes termed "virtual organizations". Coverage includes protocols, security, scaling and more. Although the advantages of this technology for classes of applications have been acknowledged, research in a variety of disciplines is needed to broaden the applicability and scope of the current body of knowledge. This journal fills the need, covering such topics as protocols, middleware, and services, security, discovery, sharing, scaling, and more.

4.9.4 Other Key Events

FIA

The Future Internet Assembly is an annual event that is held towards spring under the rotating presidency of the EU. OpenIoT is committed to attend and present (papers or workshops) in order to continue engaging with the audience that is more technical and knowledgeable on core issues related to the Internet of Things.

ICT 2013

This large event, attracting more than 5000 researchers, technologists, business people and participants in FP7 ICT projects was held in Vilnius under the auspices of the Lithuanian Presidency. The whole OpenIoT consortium was present and showcased the middleware, the demonstrators and discuss with the interested audience in the stand which attracted a lot of attention. OpenIoT also organised an approved networking sessions. The next event is expected 2015, after the end of the project.

European SME Summit

This event is organized every year by DG Enterprise and innovative companies meet from all over Europe in order to network and learn about each other. AcrossLimits is a special guest of the DG, having been the 2009 Face of Maltese Entrepreneurs in their publication 'The Secret of Success' published on the occasion of the first SME week.

CeBIT

An annual ICT industry event held in Hannover in Germany that attracts tens of thousands of people looking for commercial solutions for their businesses. In the last year of the project, OpenIoT will aim to attend as part of the Fraunhofer stand, thanks to the IOSB partner.

4.10 White Papers

Based on public project deliverables, scientific papers, interaction with the scientific and industrial communities (e.g., IoT, Cloud Computing, Sensors and RFID Communities, ICT SME Solutions providers and also ICT enterprises and systems integrators) short white papers will be created to be referenced from the public website and newsletters, and to be used as input to IERC activity chains, IoT Forum, ETSI and other organizations as reference. Example white papers are:

- IoT Addressing, Naming and Indexing (submitted to IERC AC2, 2013)
- SME survey on use of Internet-Connected Objects (on website)
- The OpenIoT Architecture (foreseen)
- Application Development Using the OpenIoT Middleware (foreseen)
- Open IoT Applications – Open Source, Open Data (foreseen)

Upon the completion of the project, all public deliverables, white papers and presentations will be part of an extended factsheet, as well as a two-page brochure.

4.11 Online Channels

For the continuous promotion of the different public deliverables and event participation of the partners of the project, nowadays it is vital to broadcast this on social media and other online channels. It is important to only start using these channels when there will be suitable material to feed into it for the intended audience. The AcrossLimits partner is in charge of monitoring the social media; however, all partners will be posting and participating.

4.11.1 Twitter hashtag

Twitter channels are widely used and very well known for sharing short and quick updates. The project partners tweet information using the hashtag **#openiot** on their own twitter channels. The aim is to have more tweets right before and during events, to involve as many end users as possible.

4.11.2 LinkedIn groups

LinkedIn is a business-oriented social network with more than 259 million acquired users in more than 200 countries and territories. There are already groups on it that are active in the Internet-of-Things and Smart Cities domains. The partners are therefore joining these groups and participate by posting and replying to comments. Prominent groups:

- Internet-of-Things, www.linkedin.com/groups?gid=73311, 13575 members
- Smart Cities and City 2.0, <http://www.linkedin.com/groups/SMART-CITIES-CITY-20-1891608>, 6292 members

- Horizon 2020 Information and Communication Technologies - Industrial Leadership, www.linkedin.com/groups?gid=2066081, 6696 members
- Horizon 2020 SME Instrument - Industrial Leadership, www.linkedin.com/groups?gid=2454211&, 2723 members.

4.11.3 Google+ circle and page

This social network's audience is made up of a 69% male population (www.bimeanalytics.com/blog/google-user-statistics-part-ii), mostly professionals in engineering, software developers, web designers, marketing professionals and students. This is a ripe audience for OpenIoT, and therefore we will provide postings of OpenIoT and related events into the Google+ community.

In contrast to YouTube or Twitter, the Google+ network is a more interactive information exchange platform. Therefore, the postings will be done on a personal basis, instead of anonymous project postings. This should support the network building of an IoT community around the OpenIoT group. OpenIoT starts out by sharing information in a Google+ *circle*, with the aim to expand it and use it to create a Google+ *page* for attracting new members beyond the immediate contacts of the existing group members.

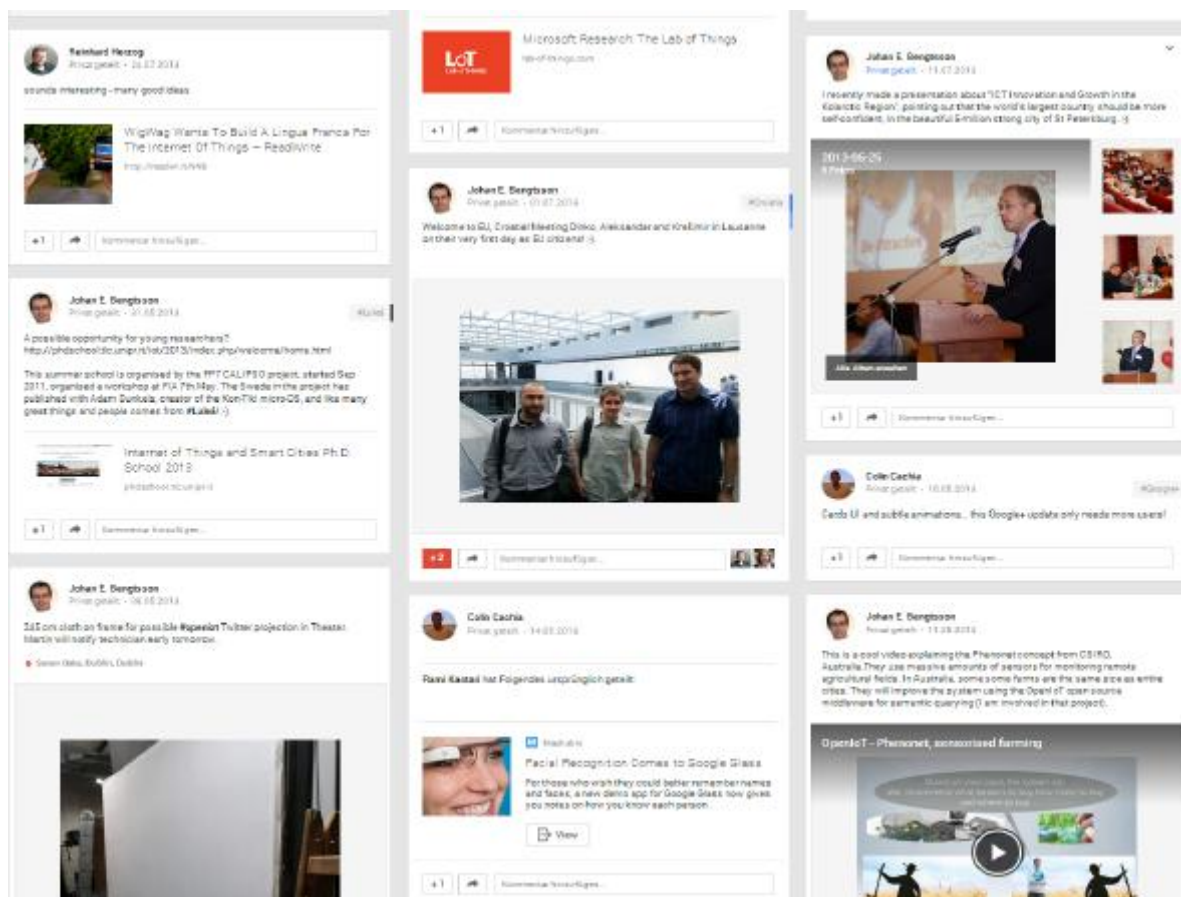


Figure 24: Google+ OpenIoT Circle

4.11.4 Open Source project directories

There are specific online portals that bring together information and links about open source projects, like <http://ohloh.net> and <http://opensourcesoftwaredirectory.com>. These directories directly address the community of developers that use and contribute to various open source projects, and are therefore ripe candidates for being engaged by OpenIoT. A bigger push will be done towards the end of the first year of the project when there will be the public release of the open source project and wiki, in order to recruit developers to start / continue building.

4.11.5 YouTube channel

A leader in distributing audio-visual content, YouTube is a good choice for OpenIoT to publish videos of early demonstrators and later on of its proof-of-concept prototypes. A channel was created and videos have been uploaded. These uploaded videos are falling into two different categories – those that are for the general non-techie public and others that are more informational or showcasing events related to the Internet-of-Things organised by OpenIoT.

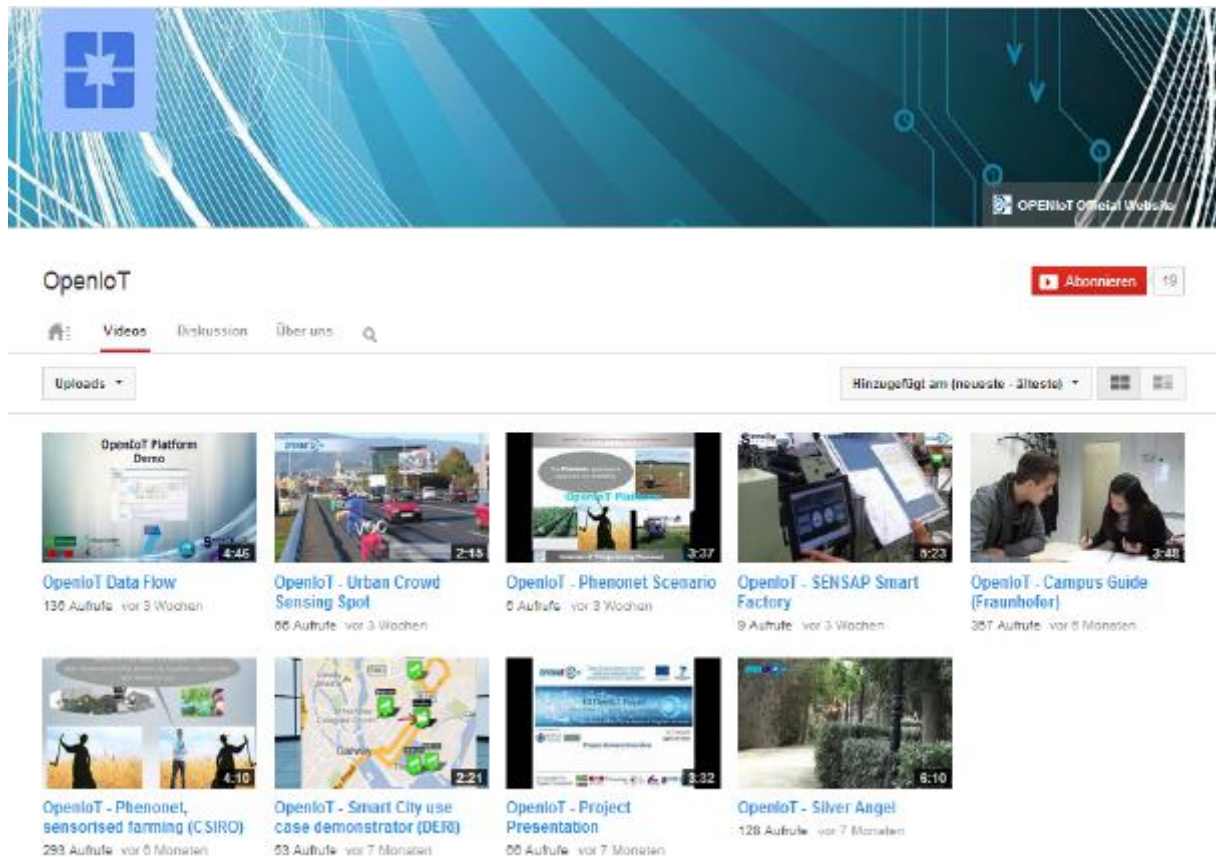


Figure 25: OpenIoT YouTube Channel

4.12 Testimonials

Getting key people to speak or write about OpenIoT is important so that we can get audiences to understand better what the project and its results are all about. Small interviews or articles from personae that are respected for their knowledge in the various domains touched upon by the project's demonstrations (for example, mayors/city administrators, large manufacturing firms CEOs, etc.) would give a better and more believable testimonial than by the project partners themselves.

We will publish these interviews/articles in newsletters and on the public website, and promote them via the online channels.

4.13 Podcasts (for Year 3)

In the third year of the project, targeted podcasts will be created – primarily consisting of a mix of slides and videos (see above sections “Presentations” and “YouTube”). A running commentary will be also given by one of the project partners in order to help the viewers to understand better what is being shown. The content of these podcasts will be focusing on the three prototypes/pilots based on the use cases in Smart Cities, agriculture and manufacturing.

5 DISSEMINATION PLAN

This chapter describes the dissemination plans for the remainder of the project. Past dissemination activity results are reported in D1.8 “Annual Management Report”.

5.1 Overall Plan

In the context of the exploitation and dissemination of the results, the project will rely on the following main dissemination activity types:

1. **Publishing and Presenting** in international scientific journals and prestigious conferences as well as technical papers in telecom conferences, journals and magazines. This gives the project wide visibility, and opens up opportunities for engaging and involving external stakeholders. Special attention will be given to webinars, conferences and workshops targeting open source communities. Also, the project will publish and present beyond Europe. See section 4.9.
2. **Public Reports/White Papers:** There are topics inside the context of the project that meet extensive scientific and industrial interest. The project has already created a couple of white papers in the form of short reports. In addition, public deliverables will be placed online to become input to clusters and to be referenced by newsletters.
3. **Cluster Participation** in IERC, FinES, FIA: OpenIoT will continue actively participating in EU meetings to disseminate results and to promote collaboration with other organizations and projects. OpenIoT aims to organize 12 IERC co-located workshops during the project lifetime. See D7.4 “Cluster Collaboration Plan” for details.
4. **Newsletter** distribution: The 2-4 pages long project newsletter will continue to be published to coincide with select project milestones. This is distributed by partners and on the OpenIoT external mailing list.
5. **Media Promotion Campaigns:** Towards the mid to end of the last year of the project, an intensive media campaign will be launched that promotes the current results to all audiences targeted. This campaign will use a combination of dissemination materials, tools, events and press releases. The aim is to maximize media reach through face-to-face, paper and online channels – for example, getting visibility via press articles and interviews. The creation of press packs for technical journalists and street publications will help technical journalists to have information at hand and not have to look for them online. This is normally a good strategy to adopt if one wants to get visibility. The information in the press packs will be complemented by posting in the online channels described above; however, the tone would be slightly different since the audience of traditional media would be a complete cross-section of society.
6. **Public Website** updates: The third year of the project starts with an overhaul of the public website that is regularly updated and used to promote newsletters, as well as key project results and events. The external mailing list will be kept updated. See Section 4.1 for a snapshot view of the public website.
7. **Demonstrations:** Demonstrations relating to OpenIoT middleware platforms and related applications/trials will continue to be performed. These demonstrations will

be used to present proof-of-concept implementations in prominent events relating to IoT/RFID/WSN systems and solutions. Involvement of industrial actors and SMEs will be given priority towards the end of the third year. Also, events relating to the project application domains (Smart Cities, manufacturing, and e-science (agriculture)) will be pursued. These events should have to be a slightly wider audience than the Internet-of-Things / Future Internet communities, since the aim in this case is to find users and application domain stakeholders rather than developers.

8. **Workshops:** Apart from being present at external conferences and workshops, OpenIoT will continue to organize its own workshops and events. OpenIoT will organize panel discussions as well.

Figure 26 visually describes the actions that are targeted to the different audiences around the project. It is visualized as a set of concentric circles since it will radiate from the central core of the project out to groups that are farther away from the project participants.

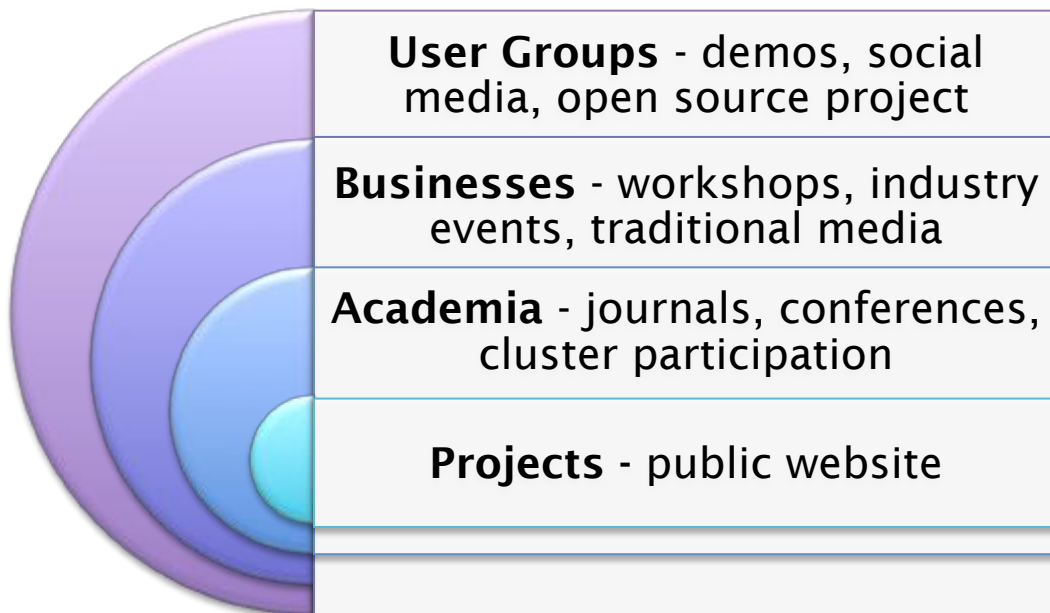


Figure 26: OpenIoT's Dissemination Plan overview

5.2 Dissemination Targets

The following table provides a quantification of the OpenIoT dissemination activities as specified in the OpenIoT contract, and set a basis for verifying whether the project dissemination objectives have been met.

Table 1: Quantification of Dissemination Targets according to the contract

Dissemination Activity	Target Value
Participation in FIA Meetings	Participation in All Meetings
Participation in IERC ⁴ Meetings	Participation in All Meetings
Journal Publications (International Refereed Journals)	8
Publications and Presentations in International Conferences (Peer-Reviewed Papers)	12
OpenIoT Newsletter Issues	4 (on average one issue every 6 months after M6)
Participations in Public Exhibitions and Demonstrations	3
OpenIoT Workshops and/or Conferences	2
Flash studies	2
Production of OpenIoT leaflets	2
Participation in major IoT events outside Europe	1

5.3 Planned Key Activities

This section lists key dissemination activities in chronological order to be performed in the third year of the project. Past dissemination results and participation in events are described in D1.8 “Annual Management Report”.

Some example major European events are

- The annual CEBIT conference in Hannover, Germany. Fraunhofer will be in charge of this (with input from all partners), in its booth.
- The annual Open Days event organized in Brussels by DG Regio.
- The Future Internet Assembly (FIA) conferences.
- The annual IoT Week, where OpenIoT will have an active participation in the scope of IERC meetings and related networking/collaboration sessions.

⁴ IoT-CERP was the predecessor of IERC - <http://www.rfid-in-action.eu/cerp.html>

5.3.1 January-February 2014, Open Source Project media campaign

This is the time when the project needs a strong uptake within open source communities, firstly by making them aware of OpenIoT and then to increase their interest to start contributing to it.

- OpenIoT will be promoted in the open source project directories.
- The open source project will be linked from the new public website.
- Posts on Google+, LinkedIn and Twitter will be used to promote the open source project.

5.3.2 Feb 2014, FOSDEM Open Source Conference in Brussels

OpenIoT will attend and present at the FOSDEM Open Source Conference being held in Brussels on 1st and 2nd February 2014. The OpenIoT concept and open source project will be promoted intensely to increase awareness and to involve more open source developers in the design of the OpenIoT middleware. The posters and giveaways will be used in this event.

5.3.3 February 2014, Newsletter Issue 4

In the fourth edition of its newsletter, the OpenIoT consortium will focus on the OpenIoT middleware completion and use case demonstrators. Also, the OpenIoT involvement in open sourcing activities, the upcoming events of CEBIT in Germany and FIA in Greece can be announced at this time. Information on the finalised demonstrations will be given. All newsletters will be linked from the public website and also promoted on the social media.

5.3.4 March-May 2014, Engaging Businesses media campaign

This is the time when the project should actively engage much more external stakeholder (businesses). The following actions will be performed:

- Participation in LinkedIn Groups
- Online Media campaigns on Twitter and Google+
- First video infomercial available on YouTube

A demonstration of OpenIoT will be given at the Fraunhofer stand at the CEBIT conference which attracts thousands of businesses and professionals in the IT industry. This will be a great opportunity to gain high visibility for the project and showcase all the demonstrators and scenarios.

5.3.5 March 2014, Future Internet Week in Greece

In March 2014 in Greece (on the occasion of the expected Greek EU presidency), and as part of the FIA meetings, OpenIoT will demonstrate the platform and prototype services, while it is facilitating IERC and/or FinES sessions. In particular, OpenIoT will highlight the manufacturing demonstrator with local partners. A demonstration of the manufacturing performance monitoring applications could be presented (by SENSAP) in this context. The project will have an active participation

in the FIA event, through organization and active participation in networking sessions, as well as FIA plenary sessions.

5.3.6 September 2014, OpenIoT Workshop in Croatia

The project will organize an OpenIoT workshop in Croatia, co-located with the annual IEEE technically-cosponsored software conference held in Croatia, where there will be a large group of software developers and industry professionals.

5.3.7 Autumn 2014, OpenDays in Brussels

A delegation from OpenIoT will attend Open Days in Brussels – the annual event where towns and regions meet to discuss innovations in a variety of domains, including Smart Cities.

5.3.8 2014, Manufacturing Event (Packaging Sector)

OpenIoT will participate (through partner SENSAP) to an industry/manufacturing exhibition in the area of packaging. The aim of the project's participation in this event will be to demonstrate the OpenIoT manufacturing use case (on materials flow traceability) to manufacturers – potential end-users of OpenIoT. The project's solution will be offered to the packaging industry, while increasing overall industrial awareness of the OpenIoT middleware. The event will be one of:

- **The Ipex 2014 exhibition**, March 26th-April 2nd 2014, at ExCeL, London. Ipex is the biggest print technology show, which brings the latest in print techniques, materials and machinery to a wider and more international audience. More information is available at: www.ipex.org.
- **The Eurasia Packaging Istanbul Fair**, is the biggest, most comprehensive and effective fair of the Eurasian region and has proven itself among the five most important fairs in Europe. The fair is the biggest annual packaging fair in Europe and an active member of UFI- Global Association of the Exhibition Industry (UFI) and COPE- Confederation of Organisers of Packaging Exhibitions. The event will take place September 18-21, 2014. More information can be found at: <https://www.reedexpo.com/en/Events/3741/Eurasia-Packaging-Istanbul>.

5.3.9 November 2014, Newsletter, Issue 5

A final newsletter will highlight the public launch of the OpenIoT platform and a lively open source project. Also, the practical exploitation / business next steps will be highlighted as well as all public deliverables and results. All newsletters will be linked from the public website and also promoted on the social media.