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Internet of Things and Services

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1. Executive Summary

This deliverable is an updated version of the existing deliverable D12.2.1 Dissemination, cluster and other activities 1 which was submitted in month 6.

The deliverable is part of task T12.1 Dissemination which is to define a comprehensive dissemination strategy with measurable goals. It works as a reference point for all partners in dealing with dissemination and covers the early to middle stages of dissemination; disseminating emerging results and applying ebbitts components in business environments.

The strategic foundation for dissemination which features in the first section of this deliverable has not changed much in relation to the previous deliverable. The overall dissemination objectives, methods and target audiences remain. Focus continues to be on an active and effective dissemination based on agreed terms of use and strong coordination between partners.

What is new is the increase in the production of papers and dissemination activities as the project is maturing. Early results and experiences are disseminated to stakeholders and businesses establishing new contacts and co-operations.

The results of the first project year are highlighted in the dissemination plan. The plan outlines a range of measurable goals that ebbitts has decided upon in order to facilitate an active dissemination and realise the objectives. There are targets on papers, marketing activities, events and website activity. Targets for downloads of documents and visitors have been raised since the number of activities here has been considerably higher than estimated.

All targets for year 1 have been reached apart from the production of a commercial brochure which the ebbitts consortium has decided to postpone until year 3 or 4 to better support exploitation activities after the project has ended.

Another important aspect of the strategy is cluster activities. The ebbitts partners are participating in concertation and cluster activities with other ICT funded projects organised by the European Commission. The four clusters include FinES, IERC, the monitoring and cluster on Smart Buildings/Smart Spaces as well as the Future Internet Assembly (FIA). In conjunction with the next FIA workshop in May in Denmark, ebbitts is co-organising a session on the topic "IoT Applications and Business Models" as well as a full day FinES workshop.

A detailed report for cluster activities can be found in D12.8.1 Cluster collaboration report 1 which will be updated in M24 (D12.8.2).

At the end of this document all completed dissemination activities are listed followed by activities planned from M18 to M30 where this document will be updated.

2. Introduction

2.1 Purpose, context and scope of this deliverable

This document is an update of the existing dissemination strategy that was submitted in month 6 by the ebbitts consortium to support the ongoing dissemination of the project. The aim is to set out an agreed approach to dissemination throughout the project to ensure that dissemination objectives are met in a form agreeable to the Consortium and beneficial for the business interests of individual participants.

The dissemination strategy is intended to optimise dissemination of project knowledge and results to scientific and industrial communities, companies and public organisations.

It continues the work done at the initial stages of dissemination: Raising awareness of the project and disseminating emerging results. It incorporates the EU's model for dissemination which includes:

- Defining the overall objective of dissemination and exploitation
- Determining organisational approaches of the different stakeholders and allocating responsibilities and resources
- Identifying which results to disseminate to which audiences and planning activities accordingly

Since the project is now reaching the end of the first half of the project period, focus will also be on the opportunities to apply the ebbitts components in business environments and promote early exploitation.

2.2 Background

This deliverable is part of task T12.1 Dissemination which is concerned with the coordination of dissemination of project results. It sets up the framework for implementation and execution of the project's dissemination strategy and plans by:

- Defining and agreeing a comprehensive dissemination strategy with measurable goals
- Coordinating the disseminating activities in the project to the appropriate target groups
- Following-up on dissemination goals and reporting the outcome to the Project Board

2.3 Deliverable organisation

This deliverable is organised as follows:

Chapter 3: Dissemination strategy: Objectives and methods, responsibilities and management

Chapter 4: Dissemination plan for achieving the project objectives

Chapter 5: Cluster and other activities with a list of cluster activities for project year 1

Chapter 6: Completed dissemination activities M7-M18

Chapter 7: Planned activities M19-30

Chapter 8-10: Appendixes

Chapter 11: List of figures and tables

3. Dissemination Strategy

3.1 Proposed approach

The ebbbits dissemination strategy is to progressively increase dissemination efforts as project results are obtained in order to assure a wide awareness of the ebbbits project and favourable conditions to facilitate exploitation after the end of project. The dissemination strategy is intended to optimise dissemination of project knowledge and results to companies and organisations which share an interest in the scientific results and the applications, or are potential service providers of ebbbits. Also the ebbbits project is involved in the FIInES and IERC clusters and in the cluster on Smart Buildings/Smart Spaces to create synergies between related projects.

In order to achieve the objectives, partners will actively engage in dissemination activities within their areas of expertise and work together for identifying and carrying out dissemination activities. These include:

- Writing academic and technical papers to be presented at conferences and trade shows and published in leading academic and technical journals
- Organising conferences, exhibitions and workshops
- Creating strong liaisons with business stakeholders and establish powerful scientific standing in professional clusters
- Updating the website continuously with new information on the progress of the project
- Producing marketing material, press releases and newsletters for distribution
- Visiting stakeholders and demonstrating the ebbbits platform

The dissemination of the project and its results will take several forms and use a variety of media. There will be clear acknowledgement of EC funding in all dissemination activities, at any media or event.

All activities will be reported to a central Wiki repository¹ for coordination in order to monitor what happens where and when and to facilitate effective partner cooperation.

The dissemination effort for the project began from day one with the establishment of a website for publicity purposes². The website will store technical developments, events and invitations to join a dedicated mail group/interest group. The site will also display papers and presentations given by consortium members whether at European conferences or workshops. To raise more awareness and gain advantage of viral marketing, ebbbits is on Facebook as well as Wikipedia.

3.2 Objectives and methods

The overall objective of the ebbbits dissemination is to provide an active and professional dissemination of the project results. At the initial stages of dissemination, the main focus is on raising awareness of the project and disseminating emerging results. In later stages, the focus moves towards integrating ebbbits components in other enterprise environments and promoting early exploitation.

¹ <https://forge.fit.fraunhofer.de/af/project/ebbbits/wiki/>

² www.ebbbits-project.eu/news.php

The following table lists the strategic objectives for the early stages of dissemination (project year 1 and 2) and the later stages (project year 3 and 4) together with the methods used to achieve the objectives in the light of the project chronology:

Time	Objective	Methods
Year 1	<p>Create awareness about the ebbits project</p> <p>Dissemination in strategic boards of participants</p> <p>Prepare powerful scientific standing in professional clusters</p>	<ul style="list-style-type: none"> • Publication of support material, flyer and the website • Attendance in seminars and congresses • Press releases and liaison with business stakeholders
Year 2	<p>Continue to build awareness of the ebbits results in academic and scientific circles, both within ICT and business communities.</p> <p>Verify opportunities to apply the ebbits components in business environments and involve other stakeholders</p>	<ul style="list-style-type: none"> • Aligning events with similar EU or national projects • Organise European conference on IoPTS (Internet of People, Things and Services) • Preparation of pre-commercial brochures • Visit business communities • Website enrichment • Peer reviewed papers in international journals • Conference and workshop papers
Be-yond	<p>Prepare to integrate ebbits in other enterprise environments based on the evaluation of the field trials and from SAP's customer base. Promote the early exploitation of an ebbits platform and individual components</p>	<ul style="list-style-type: none"> • Preparation of a commercial brochure • Newsletter to potential users • Take-up of semantic search components • Take-up of the service oriented architecture concepts • Demonstration the ebbits platform

Table 1 Dissemination objectives and methods

3.3 Target audiences

Three major groups of target audiences have been identified and analysed: 1) The research and scientific community in ICT. 2) The industrial community including large industrial corporations, SME's, consulting companies in manufacturing and logistics, supply chain management companies. 3) The agricultural communities including farmers, food processing companies, retailers, authorities, consumer organisations and individual consumers

As the project progresses, the website will widen the scope of target audiences, e.g. targeting consulting companies in manufacturing and logistics, supply chain management companies and consumer organisations and individual consumers, while at the same time provide a greater degree of focus on each of the target groups singled out for early exploitation and in accordance with the customer bases of the industrial partners.

3.4 Dissemination responsibilities

Dissemination activities will be undertaken by the consortium as a whole and by each partner on an individual basis.

The partners are responsible for dissemination within their own areas of expertise and for working together with other partners in locating and organising relevant activities. The partners will also cooperate with external business communities and research clusters.

The following table summarises the dissemination responsibilities for each partner:

Partner	Responsibility
FIT	<p>Present ebbitts at the GSMA Mobile World Congress</p> <p>Disseminate the project results at trade fairs such as CeBIT</p> <p>As project coordinator, be responsible for general dissemination, and in particular dissemination through the EU channels: Cordis news, Cordis wire, Cordis express, European News Room</p> <p>Participate in the FINES cluster (Taskforce Leader on International Relations), the IERC IoT cluster and in the cluster on Smart Buildings/Smart Spaces</p> <p>Administer the BSCW and the Gforge collaborative tools, including establishing a Wiki tool for dissemination coordination</p>
CNET	<p>Disseminate technical results related to ICT technologies and infrastructures. Participates in the IERC cluster (Semantic interoperability)</p>
SAP	<p>Disseminate technical results related to ICT technologies and infrastructures</p> <p>Disseminate the project results at trade fairs such as CeBIT</p>
COMAU	<p>Disseminate advancements in production technology and robotics. COMAU will provide a small flash of a working robot to place on the website</p> <p>Participate in the FINES cluster</p>
TUK	<p>Disseminate results related to ICT and enterprise framework towards research and business community</p>
ISMB	<p>Disseminate technical results related to ICT technologies and infrastructures at both international and national level.</p> <p>Disseminate the project results at fairs in the ICT field.</p> <p>Participate in the IERC cluster</p>
TNM	<p>Disseminate the ebbitts platform to agricultural forums</p>
IN-JET	<p>As Dissemination manager, coordinate the dissemination activities</p> <p>Disseminate technical results related to ICT</p>

Partner	Responsibility
	technologies and infrastructures and business models. Participate in the FINES cluster (Taskforce on Manufacture and Industry).
INTERSOFT	Disseminate technical results related to ICT, especially those related to the application of semantic technologies, towards business and research community

Table 2 Dissemination responsibilities for each partner

3.5 Managing dissemination

The overall management of consortium dissemination activities is the responsibility of the Dissemination Manager.

To coordinate partner activities, a Wiki for dissemination has been established. The Wiki is a web-based space which enables partners to keep track of related activities in order to submit contributions at the right time and place and which allows participants to cooperate. All partners are requested to enter information about national and international events (workshops, conferences, etc) and journals that they are contributing to with information originating from ebbts funded work. Partners can also enter proposed events that they seek partners for.

In order to register the amount of press coverage on the project, each partner will closely monitor the web and written press for any coverage of the project and add articles/links on the BSCW in the folder: Work in Progress, WP 12 under Dissemination activities³.

Press releases produced by the partners should also be published here (See section 4.1.1 in this document for more on press releases)

The information obtained will be published on the website on a page dedicated for media coverage.

3.6 Deliverable classification

Deliverables are classified in relation to type⁴ and dissemination level⁵. All deliverables marked as public will be made publicly available in order to achieve a maximum impact. This default regulation will only deviate in cases of special legitimate interests of consortium partners.

All deliverables are listed on the project website and the ones marked with PU (public) will be available as downloads after they have been accepted by the European Commission.

³ <https://fit-bscw.fit.fraunhofer.de/bscw/bscw.cgi/38963703>

⁴ Types: R = Report - P = Prototype - D = Demonstrator - O = Other

⁵ Dissemination level: PU=public, PP= Restricted to other programme participants (including the Commission Services), RE= Restricted to a group specified by the consortium (including the Commission Services), CO= Confidential, only for members of the consortium (including the Commission Services)

Any major deliverable that will be disseminated to the outside world usually requires external reviewing before being published.

3.7 Protection of intellectual property rights

Representing both academic and commercial interests, the project partners will have different traditions and requirements when it comes to publishing results. Hence, specific rules for dissemination and publication of knowledge from the project are set out in the Grant Agreement, Article II.30 and the Consortium Agreement, section 8.3.

In particular, the following guidelines should be followed:

- The consortium participants may publish information on knowledge arising from the project provided this does not affect the protection of that knowledge. Before any knowledge dissemination takes place that may impact on the exploitation potential of one or more partners, the matter should be agreed with the Project Board.
- Prior to any planned publication a copy shall be sent at the earliest time possible before the publication according to the Consortium Agreement. Any objection to the planned publication shall be made in accordance with the Consortium Agreement in writing to the Coordinator and to any partner concerned within 15 days after receipt of the notice. The objection has to have the form described in the Consortium Agreement section 8.3.1. If no objection is made within the time limit stated above, the publication is permitted but not before an expiry of 30 days.
- A partner may not publish foreground or background knowledge of another partner, even if such foreground or background knowledge is amalgamated with the partner's own foreground, knowledge without the other partners' prior written approval. (CA, section 8.3.2).
- Methodologies and market research studies can be disseminated according to the regulation in the CA in alignment with each party's logo and trademark guidelines and with the prior written agreement of the parties.

3.8 Open source

The consortium partners have agreed on the following when it comes to publicising software results:

- Results marked as public deliverables in the proposal will be made publicly available in order to achieve a maximum impact. This default regulation will only deviate in cases of special legitimate interests of consortium partners.
- Results in form of software will be made available according to the deliverable plan that defines which prototype deliverables will be public at what point in time (see section 1.3.8 in the DOW).
- The method of publication will be to make the specified software available for download on the project website to the general public.
- As ebbitts services and applications are directed towards a highly distributed access mechanism, they can be deployed independently of each other. This allows for putting them under different licences to accommodate for different usage scenarios and consortium partner interests.
- If open source is used as a license, allowing commercial usage will be the minimum expectation and GPL will be explicitly forbidden since it dramatically restricts the uptake of open source by commercial parties. (See DOW, section 3.5 on GPL).

In regard to the use of open source and publication of project results as open source, the following process has been agreed on in the Consortium Agreement, section 4:

- Only own code or code with licenses like Apache 2.0 will be accepted. This regulation prevents any problems that might arise with the exploitation of the code during the course of the project, as it allows all open source licenses and at the same time is suitable for commercial licenses.

The Parties share the common understanding that the Use of the Foreground shall not be predetermined. If a Party intends to incorporate or integrate third party modules in its Foreground software it shall comply with the following:

- Any Foreground that will be issued to open source hereunder shall be licensed under the Apache 2.0 license. In case of use of open source components within Project deliverables, the license of such open source component shall comply with the terms of the Apache 2.0 license. No open source component shall be used which terms would be incompatible with the Apache 2.0 license.
- In case of use of third party components which are licensed under proprietary licenses, each Party shall not include such materials in any Foreground that will be subject to the Apache 2.0 license, provided that the third party owning such materials has given its express written consent in such use.
- Each Party shall check the license terms and conditions of any third party and open source component prior to its integration into its Foreground.
- Each Party shall inform the Quality Manager prior to such integration and shall provide him with all necessary information, especially with a copy of license terms and conditions of the third party or open source component. The Quality Manager will evaluate the terms and the usage scenario and involve the Parties concerned.
- Notwithstanding the foregoing, all affected Parties shall mutually agree in advance, in case their Foreground shall be submitted as open source. Any use of open source in the Project other than those compatible with the Apache 2.0 license shall require unanimous consent by all Parties. Each Party shall therefore not submit any Work to the Project in a manner that would require that all or some of the Foreground, Background or any other Work must be licensed under Controlled Licence Terms, unless all Parties have unanimously approved in writing such use or introduction.

3.9 Acknowledgement of EU funds and use of logos

When disseminating the project, partners ensure that acknowledgement of the source of funding is clearly displayed. This includes the following:

- Acknowledgement of EU funds in all reports and publicity material (including the ones produced by every partner in the name of its company within the framework of the project). Example: The ebbitts project is a four-year project which started in 2010. It is partly funded by the European Commission⁶ under the 7th Framework Programme⁷ in the area of Internet of Things and Enterprise environments under Grant Agreement no. 257852.
- Use of logos⁸. The new logo of the European Commission (from 1 February 2012) must be used on all publications and promotional material.



⁶ http://ec.europa.eu/information_society

⁷ <http://cordis.europa.eu/fp7/ict/>

⁸ http://ec.europa.eu/research/fp7/index_en.cfm?pg=logos

- All publications relating to Foreground shall include the following statement: "The research leading to these results has received funding from the European Union Seventh Framework Programme under Grant Agreement no. 257852".
- Disclaimer. When a partner mentions (in any publication, report, article, etc) the project he is partnering in, the following disclaimer must be added:

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- Check with partners if necessary. See this document, section 3.7 Protection of Intellectual Property Rights

3.10 Dissemination planning

The consortium has outlined a number of dissemination channels and activities to meet the dissemination objectives. The planned activities cover the early stages of dissemination; raising awareness and disseminating emerging results and as the project moves along; the integration of ebbitts components in other enterprise environments and early exploitation.

The following sections outline the planned dissemination channels and activities of the different stages. A detailed list of completed activities is available in chapter 6.

3.10.1 Continuing to raise awareness

Dissemination continues to take place through a rich project website, various printed and electronic brochures, newsletters and press information. The project will also be presented at conferences, seminars and workshops within ICT and industrial domains.

The website

The project website www.ebbitts-project.eu/news.php will be kept updated with news, public deliverables, articles, papers and material from participation at events e.g. presentations, keynote speeches, and conference proceedings. To support viral marketing, ebbitts is on Facebook and it is possible to click "like" from the ebbitts website. ebbitts has also been added to Wikipedia.

For the first year of the project there has been 2500 downloads of documents, primarily deliverables and an average of 293 visitors per month.

Press and marketing

Press releases on partner level are issued ad-hoc in relevant languages.

The first project newsletter was produced at the end of the first project year from partner input and distributed to relevant audiences by the individual partners. Newsletters are planned for April 2012 and September 2012. A flyer has also been prepared to disseminate the objectives, the expected results and impact of the project.

Meetings, conferences and seminars

Partners disseminate the project internally through their internal bulletins and by presentations at internal and external meetings and events.

The ebbits project will arrange a bi-annual European workshop on "The Internet of People, Things and Services". The first one is set for 8-9 May 2012 as a session during the Future Internet Assembly (FIA) on the topic "IoT Applications and Business Models". The target audience for the first event is computer scientists and industrial researchers. The main aim will be to demonstrate European advances in the field of interoperable semantic technologies for Internet-based business applications and disseminate ebbits results. The second conference will focus on agriculture.

3.10.2 Disseminating emerging results

As results are appearing, partners produce academic and technical papers presented at conference and trade shows and published in leading academic and technical journals.

The results of the scientific research work will continuously be submitted for publication to international, peer-reviewed conferences. Dissemination will be targeted at important computer science conferences, both recurrent and ad hoc. So far 7 papers have been submitted of which 6 have been accepted.

Conferences and trade shows

The following annual conferences and events will be targeted:

- CeBIT⁹
- UBICOMM¹⁰
- IEEE SECON¹¹
- Future of the Internet¹²
- Enterprise 2.0¹³ (US-based)

ebbits will organise a number of seminars aimed at academic professionals, industrial technology experts and the European industry at large. Besides the large number of events and networks in the ICT field, special focus will be placed on also disseminating to industrial forums such as the automotive, energy, automation and agricultural industries.

Publications

The scientific results will be disseminated to the academic and industrial communities through peer-reviewed publications. Important media for publications are:

- IEEE Pervasive Computing¹⁴
- Pervasive and Mobile Computing Journal¹⁵
- Ubiquitous Computing and Communication Journal¹⁶
- IEEE Computer¹⁷

Demonstrations

Experience and best practice will be disseminated in the form of demonstrations to the business community and academic practitioners through membership networks.

⁹ <http://www.cebit.de>

¹⁰ <http://www.iaria.org/conferences2009/UBICOMM09.html>

¹¹ <http://www.ieee-secon.org/>

¹² <http://www.future-internet.eu/>

¹³ <http://www.e2conf.com/>

¹⁴ <http://www2.computer.org/portal/web/pervasive/home>

¹⁵ http://www.elsevier.com/wps/find/journaldescription.cws_home/704220/description#description

¹⁶ <http://www.ubicc.org/>

¹⁷ <http://www.computer.org/computer/>

Concertation and clustering

The ebbitts partners are actively participating in concertation activities with other ICT funded projects related to the area of the project and organised by the European Commission. The project is involved in info days, expert groups, IST conferences and other events organised by the EC when relevant. The project may also represent the Commission at some international events as required. A sufficient amount of efforts and travel costs have been reserved in the budget for these activities.

ebbitts will also actively participate in clustering activities aiming to achieve sound IoT building blocks from projects such as ebbitts.

The ebbitts project has joined the IERC IoT, the FInEs clusters and the cluster on Smart Buildings/Smart Spaces. The project is also active in the Future Internet Assembly (FIA).

4. Dissemination Plan

Dissemination and exploitation activities are completely embedded in the different work packages of the project reflecting the intimate and fast transfer of knowledge from the projects research results to public dissemination and commercial exploitation.

4.1 Measureable targets for dissemination activities

The following sections outline measureable goals for dissemination in order to reach the objectives of dissemination and in order to define a targeted approach to selected strategy elements. The Dissemination Manger is responsible for monitoring the progress.

4.1.1 Annual targets for marketing activities:

The project has agreed annual targets for every project period as appear from Table 3. The targets are related to project years, not calendar years. One change has occurred compared to the earlier version of the strategy. The consortium has agreed to move the production of a commercial brochure from year 1 to year 3, possibly 4 to support exploitation better. Since results and experiences will be clearer at the end of the project, a brochure produced at this later stage will be of more value.

Type of activity	Y 1	Actual Y1	Y 2	Y 3	Y 4	Partners involved
Newsletter	1	1	2	2	2	IN-JET/All
Press release	1	1	2	2	4	All
Flyer	1	1			1	IN-JET
Commercial brochure				1		IN-JET
Website enrichment	1	1	1	1	1	IN-JET
Prototype demonstrator	1	2	1	1	1	All

Table 3 Annual targets for marketing activities. The targets for year 1 have been reached.

Press releases

In regard to launching press releases, the following guidelines should be followed:

- No partner may refer to the names of other partners without the prior consent of that partner. If a partner needs to refer to the other partners, then a reference to the project's website, where the approved partner description is provided, is the best solution.
- If the press release contains explicit reference to another partner, the press release should be sent in its original language with an English translation to Louise Riley at IN-JET, who will contact the mentioned partner. The only exception is when two or more partners issue a joint press release.
- A copy of such release should be circulated and placed on the BSCW in the folder: Work in Progress, WP 12, Dissemination activities¹⁸ as soon as the release has taken place

For additional guidelines to dissemination, see this document, section 3.9 Acknowledgement of EU funds and section 3.7 Protection of intellectual property rights.

¹⁸ <https://fitbscw.fit.fraunhofer.de/bscw/bscw.cgi/38963703>

In order to register the amount of press coverage on the project, each partner will closely monitor the web and written press for any coverage of the project and add articles/links on the BSCW in the folder: Work in Progress, WP 12, Dissemination activities.

4.1.2 Annual targets for conferences and events organised by partners

The following table lists the number of conferences, trade fairs, workshops etc. which the partners will organise per project year.

Type of activity	Y 1	Y 2	Y 3	Y 4	Organised by
Bi-annual workshop on The Internet of People, Things and Services		1*		1	Different partners
Seminars/workshops aimed at academic professionals, Industrial technology experts and the European industry at large:					Different partners
Exhibit at either the trade fair CeBIT or the Mobile World Congress		1	1	1	WP5
Organisation of Workshops at either the UbiComp, Sensys or Fusion Conference		1	1	1	WP5
Automatica - Industrial trade fair			1		WP10 (COMAU)
Exhibition of posters and leaflet to perform project marketing and to show project outcomes					
SPS-IPC-Drives - Industrial trade fair				1	WP10 (COMAU)
Exhibition of posters and leaflet to perform project marketing and to show project outcomes.					

Table 4 Annual targets for dissemination events

*This conference takes form of a workshop during the Future Internet Assembly (FIA) in May 2012. Jesper Thestrup from IN-JET is part of the organising committee. The main aim will be to demonstrate European advances in the field of interoperable semantic technologies for Internet-based business applications and disseminate ebbits results

4.1.3 Targets for scientific papers

The following outlines the cumulative targets for scientific papers:

- By the end of year 1: 3 papers submitted
- By the end of year 2: 9 papers submitted (cumulative) and 3 accepted
- By the end of year 3: 16 papers submitted (cumulative) and 7 accepted
- By the end of year 4: 30 papers submitted (cumulative) and 14 accepted



The target for year 1 has been reached. So far 7 papers have been submitted of which 6 have been accepted.

4.1.4 Targets for visits to the website

One of the main channels of communication is the project website which has been established in order to attract a wider interest from the European Community of citizens.

The aim of the website is to make it an interesting and active place with activities such as live demos and on-line demonstrators.

In order to measure the general interest in the ebbitts project, the following targets have been set up for the website per project year.

Type of activity	1	Actual Y1	2	3	4 and beyond
Downloads of documents	100	2500	5000 (300)	6000 (1000)	7000 (2000)
Total number of unique visitors per month	100	293	250 (150)	300 (200)	325 (250)
Number of registered users (members)	20	27	50	100	150
Number of countries visiting	-		10	20	30

Table 5 Targets for website usage. The figures in brackets indicate previous targets

The targets for year 1 have been reached. More than 2500 downloads have happened in year 1 based on download numbers, visible on the ebbitts website. The main point of interest has been the deliverables. The total number of unique visitors per month is derived from website statistics (webalizer) providing the average amount of unique urls per month.

Considering the high amount of downloads and visitors compared to the estimated figures, the targets for those have been adjusted for year 2 and beyond.

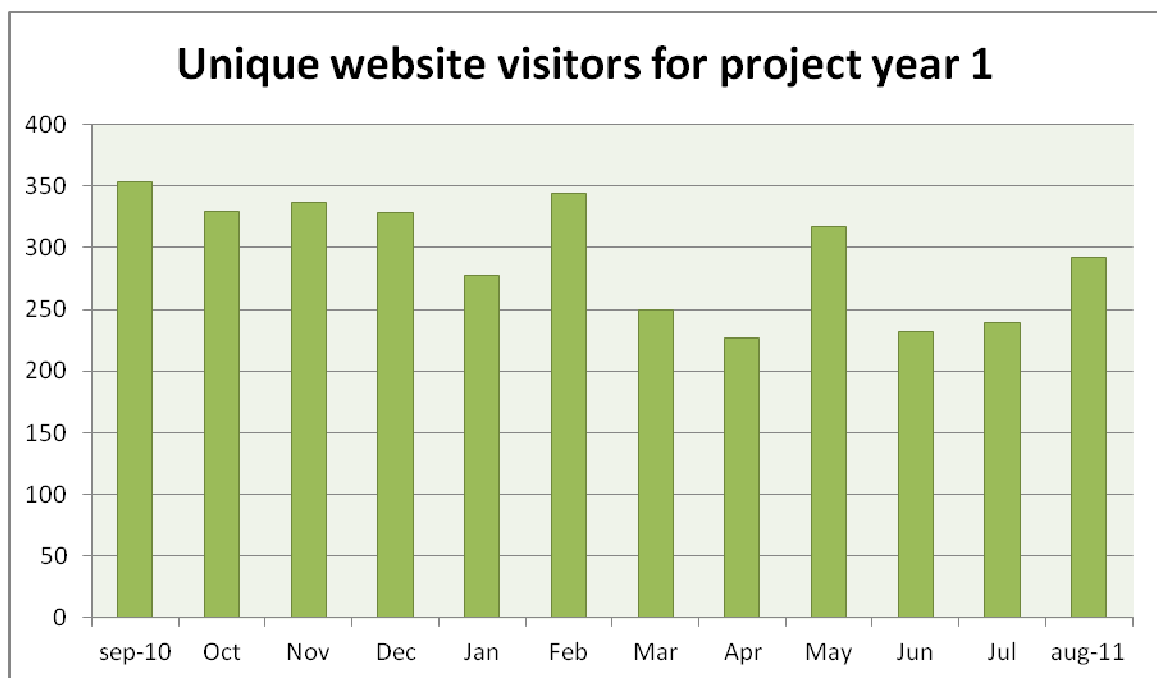


Table 6 Total number of unique website visitors per month

5. Cluster and other Activities

ebbitts partners are active in concertation and cluster activities with other ICT funded projects organised by the European Commission.

5.1 Cluster activities

The ebbitts project has committed to participate in activities in the FInES and IERC clusters. In the FInES cluster, IN-JET leads the Taskforce on Manufacture and Industry and FIT leads the Taskforce on International Relations. FIT and ISMB participate in the IERC cluster together with CNET who has been selected as the leader on Semantic Interoperability. Additionally, FIT will take part in the cluster on Smart Buildings/Smart Spaces. All partners are invited to participate in cluster activities.

In the following, the main clusters are described. A more detailed description of the cluster activities undertaken by ebbitts is found in separate deliverables D12.7 Cluster collaboration plan and D12.8.1 Cluster collaboration report 1.

The **IERC** cluster¹⁹ is bringing EU-funded projects together to define and promote a common vision of the Internet of Things. The ebbitts project participates actively in the cluster activities and brings further potential to the cluster in terms of open service architecture and open governance schemes with a strong international perspective.

Projects in this cluster are:

CASAGRAS2, IoT-i, IoT-A, ebbitts, ELLIOT, SPRINT, NEFFICS, IoT@Work, AMI-4-SME, ASPIRE, BRIDGE CASAGRAS, CASCADAS, CE-RFID, CoBIs, CONFIDENCE, CutelLoop, ETP EPoSS, DACAR, DiYSE (EUREKA ITEA2), Dynamite, EU-IFM, EURIDICE, EUWB, FIA/RWI, GRIFS, HYDRA, IMS2020, INDISPUTABLE KEY, iSURF, LEAPFROG, PEARS Feasibility, PrimeLife, PRIME, PROMISE, RACE networkRFID, SMART, SMMART, StoLPaN

The **FInES** cluster²⁰ is composed of FP6 and FP7 funded projects, as well as experts and stakeholders from all over Europe. The aim of the cluster is to encompass past and current research experts and organisations focusing on benefiting all of us by offering an increased opportunity for synergy and enhanced collaboration among research projects. FInES is uniting the previous Enterprise Interoperability and Collaboration (EI) and Digital Ecosystems (DE) clusters.

A selection of FP7 projects in this cluster (all projects in this cluster can be found on <http://www.fines-cluster.eu/fines/jm/FINES-Public-Information/fines-projects.html>):

ACCESS ICT, COIN, COMMIUS, iSurf, K-NET, SPIKE, SYNERGY, UNITE, VENTURE GATE, YMIR, ebbitts, ENSEMBLE, SPRINT, NisB, NEFFICS

The **Monitoring and Control Cluster on Smart Buildings/Smart Spaces**²¹ is composed of FP6 and FP7 funded projects, as well as experts and stakeholders from all over Europe. The aim of the cluster is to align common activities in the area of monitoring and control of Smart Buildings and spaces. Specific objectives include the discussion on common ontologies and their alignment and merging as well as discussions on semantic interoperability. Common standards and policies on security and privacy, the interplay of Home Healthcare and Ambient Assisted Living as well as interplay of construction and structural monitoring.

Projects in this cluster are:

Hydra, SM4ALL, WASP, ME3Gas, SOFIA, POBICOS, CONSERN, PEBBLES, eDIANA, SMART, AGILE, GENESI, GreenerBuildings, CHIRON, R3-COP

¹⁹ IOT European Research Cluster: <http://www.internet-of-things-research.eu/>

²⁰ Future Internet Enterprise Systems: <http://www.fines-cluster.eu/fines/jm/>

²¹ http://cordis.europa.eu/fp7/ict/necs/home_en.html

5.2 Concertation activities

The ebbbits project will continue its involvement in info days, expert groups, IST conferences and other events organised by the EC when relevant. The project may also represent the Commission at some international events as required. ebbbits actively supports and participates in The Future Internet Assembly (FIA).

The **FIA**²² is structured to permit open interactions and cross-fertilisation across technical domains and works towards the creation of value for the projects involved and development of joint strategic research agenda regarding common actions and requirements. At the moment, the European Future Internet Assembly brings together more than 100 research projects that are part of Challenge 1 of the ICT programme of FP7.

Projects in FIA:

IRMOS, NEXOF-RA, RESERVOIR, SLA@SOI, SOA4ALL, CONTRAIL, SOCIETIES, VISION, WAX, COMPAS, FAST, m:CIUDAD, OPEN, PERSIST, SERVFACE, SHAPE, STREAM, FITTEST, I2WEB, PLAY, SRT-15, S-CUBE, NESSI 2010, SERVICE WEB 3.0, MOSQUITO, SOFI

The table below is an overview of the cluster activities done for the first year of the project, September 2010-August 2011. More information on cluster activities for the first year of the project can be found in the separate deliverable D12.8.1 Cluster collaboration report 1.

<i>What, when, where</i>	<i>Contributing partners</i>	<i>Form</i>
Cluster meeting on Smart Buildings/Smart Spaces, 2 June 2010 in Brussels, Belgium	FIT	Represented ebbbits
FInES cluster meeting on 10 August 2010 in Brussels, Belgium	IN-JET, FIT	Presented the plan for the taskforce on Manufacture and Industry (IN-JET)
Rio-Info, 31 August to 2 September 2010 in Rio de Janeiro	FIT	Keynote speech on IoT and report on FInES activities
IERC cluster meeting 27-29 September 2010 at ICT 2010, Brussels, Belgium	CNET	Presentation titled 'ebbbits Business-Based Internet of Things and Services - An Interoperability platform for a Real-world populated Internet of Things domain'
FInES cluster meeting on 25 January 2011 in Brussels, Belgium	IN-JET, FIT	Introduced a Wiki page for the cluster participants to register their ideas for engaging European level and national stakeholders
IERC cluster meeting at the EWSN Week 23-25 February 2011, Bonn, Germany	CNET	Introduced ebbbits and the project aims
EWSN 2011 on 23-25 February 2011 in a workshop of the IERC cluster in Bonn, Germany	FIT	Poster Presentation and participation in a workshop on Activity Chains "AC 11 - Application scenarios" and "AC 14 - Exploitation" collocated with the 8th European Conference on Wireless Sensor Networks - EWSN 2011 "Application domains in ebbbits: Food Traceability and Traceability in Car

²² <http://www.future-internet.eu/home/future-internet-assembly.html>

		Manufacturing"
FIInES Cluster Meeting, 1 April 2011 in Brussels, Belgium	IN-JET, FIT	Presented the results of activities in the taskforce for Manufacturing and Industry and presented (for FIT) the activities in International Relations and gave a short overview of the BEMO-COFRA project (IN-JET)
RFID meeting 3 May 2011 in Copenhagen, Denmark	IN-JET, SAP	Arranged a workshop to introduce RFID/ IoT in Enterprise Systems for product management. Co-arranged by ebbits and the "RACE network" and the FIInES cluster. Presentation on the future vision on the Internet of Things (SAP) and on the ebbits project (IN-JET)
IERC meeting, 17 May 2011 in Budapest, Hungary	ISMB	Participation and presentation of "Opportunistic Communication Paradigms in ebbits"
Future Internet Week , 16–19 May 2011 in Budapest, Hungary	ISMB	Participation
IST-Africa 2011, 11-13 May 2011 in Gaborone	FIT	Participation and presentation of workshop paper titled "Enterprise Systems in the Internet of Things"
WORLD MANUFACTURING FORUM 2011 16–17 May 2011, Villa Erba, Cernobbio, Como Lake, Italy	COMAU	Participation - The World Manufacturing Forum aims to be a long-term platform for debate among decision-makers upon the most relevant topics surrounding the manufacturing sectors
Concertation meetings, 9 June 2011 in Brussels	FIT, ISMB	Large-Scale, Cooperative WSNs: from Testbeds to Applications
Cluster meeting, 10 June 2011 in Brussels	FIT	M&C for Smart Buildings/Smart Spaces, ontologies and Data Models
Cluster meeting, 10 June 2011 in Brussels	FIT, ISMB	WSNs in Industrial Scenarios
14 July 2011 in Karlsruhe, Germany	FIT	Represented ebbits at the green-IT SMART BUILDING workshop
Tecnologia da Informação em Pernambuco 12 August 2011 in Recife, Pernambuco (Brazil)	COMAU, FIT	Dr. Markus Eisenhauer (Fraunhofer FIT) – Presentation of the collaboration activities between EU-BR Participation at the round table "Desafios da Ciência e Tecnologia no Brasil e em Pernambuco"

Table 7 Cluster activities for the first project year

6. Completed activities M7-M18

This section describes in detail the dissemination activities undertaken by ebbbits partners in the period M7 – M18 (March 2011 through February 2012). It deals with the presentation tools that ebbbits has developed to present the project as well as the external tools for disseminating the project results. It supplements the activities undertaken in M1-M6 which are available in the deliverable D12.2.1. Dissemination strategy, cluster and other activities 1 (submitted M6).

6.1 Knowledge management

To improve the quality of the requirements and to facilitate monitoring and management of the requirements engineering process in a more constructive and consistent way it has been decided to change from GForge to JIRA²³ as requirement management tool. The requirements database has been converted, and an amended workflow model has been applied to strengthen the process and to ensure that quality control is performed and documented.

The Gforge management system will still be used as a Wiki tool for the different work packages and for source code management.

6.2 Presentation tools

To raise awareness about ebbbits and disseminate its results to the selected target group as well as to the interest of a wider audience, a wide range of dissemination channels are used.

6.2.1 Website

The website has been continuously updated and enriched with papers, events, deliverables, news items etc. A menu "ebbbits in the press" has been added to list the press coverage that ebbbits has had. Scientific papers are listed to make it easier to locate results and where copyright restrictions allow it, it is possible to download papers. A RSS feed from the FInES cluster website has been added so that FInES news automatically appears on the ebbbits website. Also the new EC logo has been added to the website.

To gain the advantages of viral marketing, ebbbits is on Facebook and reference to the Facebook page including a "like" function has been created on the project website.



6.2.2 Project flyer

A project flyer was produced featuring a general introduction to the ebbbits project and objectives. See Appendix 1.

²³ JIRA Issue Tracker from Atlassian (<http://www.atlassian.com/software/jira/>)

The ebbbits consortium consists of nine organisations from five European countries, representing a wide taste of Europe in terms of population, culture and economic strength.

The consortium unifies a number of research groups that have a world-leading position in their respective fields:

FIT, Fraunhofer Institute for Applied Information Technology: www.fit.fraunhofer.de
 CNET, CNet Svenska AB: www.cnet.se
 SAP, SAP AG Research: www.sap.com
 COMAU, COMAU S.p.A.: www.comau.it
 TUK, Technical University of Kosice: www.tuke.sk
 ISMB, Istituto Superiore "Mario Boella": www.ismb.it
 TNM, TNM A/S: www.tnm.dk
 IN-JET, In-JeT ApS: www.in-jet.dk
 INTERSOFT, Intersoft AS: www.intersoft.no

Follow the project at: www.ebbbits-project.eu



Enabling the Business-Based Internet of Things and Services



The ebbbits project is a four-year European research project which started in 2010. It is co-funded by the European Commission within the 7th Framework Programme in the area of Internet of Things and enterprise environments under Grant Agreement No. 257852. For more information, contact the project coordinator Dr. Markus Eisenhauser from Fraunhofer FIT: markus.eisenhauser@fit.fraunhofer.de



6.2.3 Posters

To support partners in presentation of ebbbits at conferences, exhibitions and trade shows etc., a general poster has been produced which focuses on the ebbbits platform in general. Two other posters are in the process of being made; one which describes the traceability scenario and one the automotive scenario. See Appendix 2.

An interoperability platform bridging enterprise applications and the physical world

The ebbbits project does research and development that enables businesses to integrate the Internet of Things into mainstream enterprise systems and support online life cycle management.

The ebbbits platform is based on open architecture. It combines information from users, data repositories, devices, and sensors and transforms it into intelligent web services.

The services provide value-added information about products and processes, which can help optimise manufacturing practices and meet regulatory and consumer demands for traceability.

Enterprise Information & Resource Systems The ebbbits platform Public Information Systems and Authentication

Manufacturing Consumers Professional users

Making machines communicate

In automotive manufacturing the ongoing challenge is to find ways how to optimise the production process and to reduce energy consumption in the production plant.

Know the food you eat

There is an increasing demand for traceability of consumer products. In ebbbits the focus is on being able to trace the entire life cycle of an animal from farm to fork as well as tracing the organic production of crops.

Logos: CNET, ISMB, tnm, Fraunhofer FIT, SAP, IN-JET

The ebbbits project is a four-year European research project which started in 2010. It is co-funded by the European Commission within the 7th Framework Programme in the area of Internet of Things and Enterprise environments under Grant Agreement no. 257852.

For more information, contact the project coordinator Dr. Markus Eisenhauser from Fraunhofer FIT: markus.eisenhauser@fit.fraunhofer.de

Visit us at: www.ebbbits-project.eu

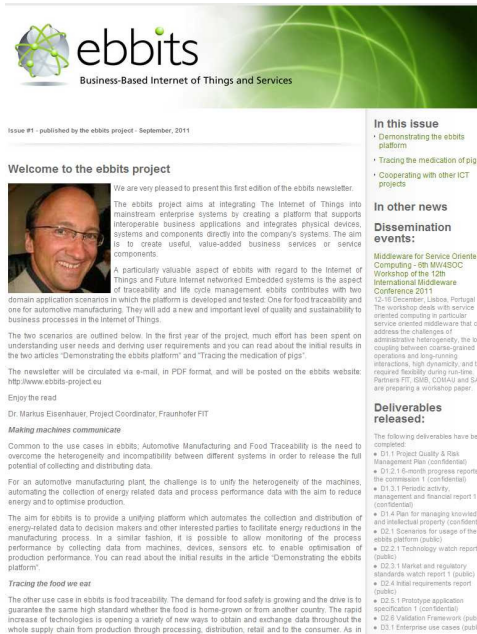
Making machines communicate

In automotive manufacturing the ongoing challenge is to find ways how to optimise the production process and to reduce energy consumption in the production plant.

Know the food you eat

There is an increasing demand for traceability of consumer products. In ebbbits the focus is on being able to trace the entire life cycle of an animal from farm to fork as well as tracing the organic production of crops.

6.2.4 Project newsletter



A newsletter was prepared from partner input and distributed to relevant audiences in September 2011. Focus was on introducing the ebbitts project and the two scenarios: Manufacturing and Traceability. It also featured relevant events organised by ebbitts or of interest to ebbitts and a list of released deliverables.

The newsletter was distributed as html email for the best look, supplemented by a pdf version or any other version that might be preferred. The target group is ICT scientific and research communities as well as agricultural and industrial communities. However, the aim is also to have a wider audience in mind such as consumers, consulting companies in manufacturing and logistics and supply chain management companies. The newsletter can be downloaded from the website.

6.3 External dissemination tools

6.3.1 Papers and events

The consortium set a target of 3 papers submitted in year 1 accumulating to 9 submitted + 3 accepted papers for year 2. So far ebbitts partners have submitted 7 papers of which 6 have been accepted:

- *The EBBITS Project: An Interoperability platform for a Real-world populated Internet of Things domain (TUK,IS)*
 - Knowledge (Znalosti) 2011, Stará Lesná Slovakia, 31 Jan.- 2 Feb. 2011
- *The Semantic Middleware for Networked Embedded Systems Applied in the Internet of Things and Services Domain (TUK, IS)*
 - The 2nd Workshop on Software Services (WoSS), Timisoara, Romania 7 June 2011
 - Paper for SCPE journal, submitted 15 August 2011 published as follows; P. Kostelnik, M. Sarnovsky, K. Furdik: The Semantic Middleware for Networked Embedded Systems Applied in the Internet of Things and Services Domain. In: Scalable Computing: Practice and Experience (SCPE). Scientific International Journal for Parallel and Distributed Computing. Volume 12, Number 3, September 2011, pp. 307–315, ISSN 1895-1767.
- *Correcting Access Restrictions to a Consequence More Flexibly (SAP)*
 - The 24th International Workshop on Description Logics (DL 2011), Barcelona, Spain, 13-16 July 2011
- *Enhancing the exchange of medical data between vets and farmers (SAP, FIT, TNM)*
 - MobileHCI 2011, Stockholm, Sweden 30 Aug. - 2 Sep. 2011
- *Context-Dependent Views to Axioms and Consequences of Semantic Web Ontologies (SAP)*
 - Special Issue of the Journal of Web Semantics on "Reasoning with context in the Semantic Web". Submitted June 2011

- *Reputation-based Self-management of Software Process Artifact Quality in Consortium Research Projects (FIT)*
 - Proceedings of European Software Engineering Conference and the ACM SIGSOFT Symposium on the Foundations of Software Engineering, ACM Press, 2011, 380-384. Conference: ESEC/FSE 2011; Szeged, Hungary, September 5-9, 2011, submitted and accepted
- *Internet of Things Middleware for Enterprise Environments: An Industrial Manufacturing Use-Case (FIT, ISMB, COMAU, SAP).*
 - Workshop paper for M-MPAC 2011, 3rd International Workshop on Middleware for Pervasive Mobile and Embedded Computing at the 12th International Middleware Conference 2011, Lisboa, Portugal, 12-16 December 2011. The paper was submitted but rejected.

Besides producing papers, ebbts partners have participated in conferences, events and meetings. A list of events for M7-18 is presented below.

Partner dissemination and cluster activities M7-M18			
March 2011 through February 2012			
DATE	Place (city, country)	Type of dissemination activity and audience	Partners involved
1-2 March 2011	Horsens, Denmark	The Economic Perspectives for Use of ICT in Pig Production. Workshop arranged by Danish Agriculture & Food Council. Ebbts was introduced by TNM.	TNM
1-3 March 2011	Nuremberg, Germany	Represented ebbts with a poster at the Embedded World Exhibition & Conference	FIT
1-5 March 2011	Hanover, Germany	Exhibited at the trade fair CeBIT 2011 in Hanover	FIT
1 April 2011	Brussels, Belgium	Represented ebbts at the FInES cluster meeting	IN-JET
3 May 2011	Copenhagen, Denmark	RFID in Denmark, workshop to introduce RFID / IoT in Enterprise Systems for product management. Co-arranged by ebbts and the "RACE network" and the FInES cluster	IN-JET, SAP
11-13 May 2011	Gaborone, Botswana	IST-Africa 2011, workshop paper at the Workshop on Networked Enterprises: "Potential and Opportunities for Businesses in Africa: Enterprise Systems in the Internet of Things"	FIT
16 May 2011	Cernobbio, Italy	World Manufacturing Forum 2011	COMAU
17-19 May 2011	Budapest, Hungary	Participation in Future Internet Week	ISMB
6-9 June 2011	Timisoara, Romania	2nd Workshops on Software Services (WoSS), paper: The Semantic Middleware for Networked Embedded Systems Applied in the Internet of Things and Services Domain. Presented by Karol Furdik (IS)	IS, TUK

Partner dissemination and cluster activities M7-M18			
March 2011 through February 2012			
DATE	Place (city, country)	Type of dissemination activity and audience	Partners involved
June 2011	Brussels, Belgium	Participation at the IoT Week	Partners in IERC cluster: CNET, FIT, ISMB
14 July 2011	Karlsruhe, Germany	Represented ebbitts at the green-IT SMART BUILDING workshop	FIT
13-16 July 2011	Barcelona, Spain	The 24th International Workshop on Description Logics (DL 2011), workshop paper: "Correcting Access Restrictions to a Consequence More Flexibly"	SAP
12 August 2011	Recife, Pernambuco (Brazil)	Dr. Markus Eisenhauer– Presentation of the collaboration activities between EU-BR Participation at the round table "Desafios da Ciência e Tecnologia no Brasil e em Pernambuco"	COMAU, FIT
30 August 2011- 2 September 2011	Stockholm, Sweden	MobileHCI 2011, Joint workshop paper: "Enhancing the exchange of medical data between vets and farmers"	FIT, SAP, TNM
5-9 September 2011	Szeged, Hungary	ESEC/FSE 2011, paper: Reputation-based Self-management of Software Process Artifact Quality in Consortium Research Projects	FIT
9 September 2011		Meeting with EFFRA (stakeholder engagement)	IN-JET
12 October 2011	Brussels	FInES Cluster concertation meeting	IN-JET, FIT
26 October 2011	Bratislava, Slovakia	ITAPA 2011 conference, presentation: RTD in a European Context for the benefits of Citizens. Jesper Thestrup presented the ebbitts project and the potential for governance structure in food traceability and environmental matters.	IN-JET
24-28 October 2011	Poznan, Poland	Future Internet Week, Future Internet Assembly: Represented ebbitts and the FInES cluster. Jesper Thestrup participated in the FIA week and in particular in the workshop on IoT and Business Models	IN-JET
30 November 2011	Brussels	Final EURASIAPAC Workshop	FIT
19 -20 December 2011	Brussels	FInES Cluster meeting. Jesper Thestrup represented the Taskforce on Manufacture and Industry and introduced cooperation with EFFRA/Manufacture and the ActionPlanT project. An activity on joint coordination of IoT roadmaps was proposed and agreed. The ebbitts view on industrial life cycle	IN-JET

Partner dissemination and cluster activities M7-M18			
March 2011 through February 2012			
DATE	Place (city, country)	Type of dissemination activity and audience	Partners involved
		management was presented.	

Table 8 Dissemination and cluster activities M7-M18

6.3.2 Press releases and coverage

Press releases on partner level have been sent out to disseminate ebbts progress and results. ebbts is mentioned on partner websites, EU websites, cluster websites and external knowledge websites which focus on IoT. Appendix 3 shows a selection of press coverage that ebbts has had.

6.3.3 RFIDinEUROPE Newsletter, December 2011 issue

As part of the RFID in Europe network, ebbts was asked to do a short presentation for the December newsletter issue. The newsletter can be found on the network website:

<http://www.rfidineurope.eu/files/pdf/RFIDinEurope-Newsletter-December-2011.pdf>

See also Appendix 3.

6.4 Cluster activities

The following activities have been undertaken in M7-M18 for the FInES cluster, the IERC cluster, Monitoring and Control cluster for Smart Buildings/Smart Spaces and FIA.

In general, ebbts partners contribute to the clustering activities by participating in workshops, expert groups and joint conferences. Further, partners participate in the editing of cluster publications and contribute to research roadmaps where relevant. Senior staff members from ebbts participate in cluster meetings and assume positions as leaders of certain activities as required.

Notably, activities in one cluster are often closely aligned with activities in other clusters.

6.4.1 The FInES cluster

ebbts leads two FInEs taskforces “International Relations” and “Manufacture and Industry relationships”. The following cluster meetings in Brussels have been attended in M7-M18:

- 1 April 2011, 12 October 2011, 19-20 December 2011

Taskforce on Manufacture and Industry

This taskforce is led by Jesper Thestrup from IN-JET. The overall strategy is to involve a broad range of industrial and other enterprises in the work undertaken and the results obtained, primarily within the various research projects in the FInES cluster, but also beyond.

In “Manufacture and Industry Relationships” focus has been directed towards creating a strategy for the cluster as well as to work on stakeholder engagement.

Stakeholder engagement

A series of contacts has been carried out from March to May 2011 with the ETP Manufacture through its research organisation EFFRA and the newly started ActionPlanT. The aim is to establish cooperation between EFFRA and the EC and the FInES cluster in the area of Future Internet and the Sensing Enterprise.

The aim of the contacts has been to establish a closer relationship and develop synergies between the "Future Internet" activities of the EC and ICT research topics undertaken by the initiative FoF - Factories of the Future. This has resulted in an initial meeting organised by Jesper Thestrup on 9 September 2011. Besides Jesper Thestrup from the ebbits project, participants were from the EC: Mr. Gerald Santucci, Head of Unit INFSO/D4 and Ms. Cristina Martinez, Chair of FinES cluster, INFSO/D4 as well as Mr. Erastos Filos, INFSO/G2. Mr. Chris Decubber, Research Programme Manager participated from EFFRA.

The meeting was very fruitful. A number of common areas of interest were discussed. The EC and EFFRA recognised a considerable proportion of similarities in values and priorities of the respective vision documents. A matrix was presented at the meeting by Jesper Thestrup using the FInES Research Grand Objectives versus the EFFRA objectives to identify common areas of interest. It was agreed to involve more FInES cluster and ActionPlanT partners in order to align the research work in the two areas towards common goals.

Along the same lines, FI PPP is establishing a "Stakeholder Engagement" Working Group with representatives from all retained FI PPP projects. The objective of this Working Group is to identify related initiatives and communities, and plan concrete means for engaging them to FI PPP work. I would consider this Working Group as the interface that would accumulate the engagement opportunities in operational level. This work could also be aligned with the FInES – EFFRA activities.

At the following FInES cluster meeting on 19-20 December, Mr. Decubber presented the ActionPlanT Research Roadmap and Jesper Thestrup presented the common areas. A number of the participants offered to be involved in further focusing the work on the common challenges. Subsequent to the meeting, a special Wiki page has been created where FInES members can add their comments.

Website

A Wiki has been created containing a complete list of identified stakeholders and the work on stakeholder engagement was agreed and initiated. The Wiki allows partners to identify stakeholders and suggest events to be undertaken with the stakeholders.

The FInES website, maintained by the Ensemble project www.fines-cluster.eu has been updated with information on the taskforce produced by IN-JET.

Other events

Together with the "RACE network", the FInES cluster and "RFID in Denmark", ebbits sponsored and arranged a RFID workshop in Copenhagen on 3 May 2011 with the aim to introduce RFID/ IoT in Enterprise Systems for product management and inaugurate the RFID action plan in Denmark. Among the speakers were The Danish Minister for Research and Innovation Ms. Charlotte Sahl-Madsen, Mr. Florent Frederix from the EC and Mr. Ian Williams from the RACE network. Ralf Ackermann from SAP presented the future vision of Internet of Things and Jesper Thestrup from IN-JET presented the ebbits project with good feedback from the audience. A number of important contacts were made to Danish businesses.

Taskforce on International Relations

The Taskforce on International Relations aims to link with international activities in the area of Future Internet and enterprise systems, building on similarities and complementarities in order to strengthen the position of Europe. Markus Eisenhauer from FIT has been elected as leader of this taskforce. Targeted countries are the BRIC countries (Brazil, Russia, India, China) as well as the US, Japan, South Korea and Africa.

For the taskforce "International Relations" focus has been on strengthening the international relationship with Brazil and African countries. Work has also been directed on producing various background information documents for FInES.

Workshops

The FInES-cluster organised a workshop on Networked Enterprises: Potential and Opportunities for Businesses in Africa at the IST-Africa 2011 in Gaborone, 11-13 May 2011 chaired by Man-Sze Li, IC Focus, UK, and Markus Eisenhauer.

The workshop was a first opportunity to open up dialogues on networked enterprise issues with stakeholders on a vast continent which, despite the turmoil reported in some of the countries, has huge potential in many different domains. In Africa as much as in Europe, the evolution of enterprises and (nascent) enterprise networks, allied with the novel use of existing technologies such as basic e-commerce/e-business transactions and mobile communications, is set to continuously raise the bar of innovation, market expectations, customer demands, as well as entrepreneurial aspirations, though their actual realisation may differ according to the local contexts and needs. FIT submitted and presented a workshop paper titled "Enterprise Systems in the Internet of Things" to promote making key societal infrastructures and business processes more intelligent and sustainable through tighter integration with the Internet.

The discussion focused on relevance and opportunity of Networked Enterprises for Africa, potential areas of joint research interest between EU and Africa and the role of dissemination, autonomy and ownership of knowledge and technologies for businesses. It concluded that Networked Enterprises research would leverage to support businesses in Africa.

Markus Eisenhauer also attended the final EURASIAPAC workshop on 30 November 2011 in Brussels. The event aimed at discussing actions to design effective funding and cooperation programmes aiming at strengthening ICT research cooperation between Europe and Asian-Pacific countries (Japan, Republic of South Korea, Australia, and New-Zealand).

Conferences

Markus Eisenhauer was invited to have a speech on IoT at the University Federal de Pernambuco (UFPE) in Recife, Brazil and report on FInES activities and new European-Brazil projects on 12 August 2011 on the occasion of celebrating 65 years of successful research in UFPE and 60 years of scientific and technological research funding by the National Council for Scientific and Technological Development (CNPq). The talk formed the basis for more intense discussions with the government of Pernambuco, several Brazilian Universities, the Porto Digital de Recife, Research Institutes and Industry and opens the floor for new collaboration between EU-Brazil.

6.4.2 The IERC cluster

Markus Eisenhauer (FIT), Maurizio Spirito (ISMB) and Peter Rosengren (CNET) represent ebbits in this cluster and Peter Rosengren has been elected as leader of Semantic Technologies.

The cluster activities in IERC include participating and presenting ebbits at cluster meetings and contributing to papers. Activities for M7-M18 include:

- Maurizio Spirito (ISMB) participated in the IERC cluster meeting 17 May 2011 during the Future Internet Week 16-19 May 2011 in Budapest, Hungary and gave the presentation "Opportunistic Communication Paradigms in ebbits".

6.4.3 Monitoring and Control Cluster on Smart Buildings/Smart Spaces

Markus Eisenhauer from FIT and Peter Rosengren from CNET represent ebbits in this cluster. Focus is on moving from isolated Embedded Systems into fully networked, cooperating embedded solutions with reliable and secure underlying systems. The traceability scenarios from ebbits with their complexity and heterogeneity are expected to be of considerable interest to this cluster.

Activities have been concerned with the discussion on common ontologies and their alignment and merging as well as discussions on semantic interoperability, common standards and policies on security and privacy, the interplay of Home Healthcare and Ambient Assisted Living as well as interplay of construction and structural monitoring. Specific topics were Support networking in large-scale heterogeneous WSANs, WSANs with scalable monitoring, control and self-diagnosis capabilities and the use of semantic interoperability to allow the cooperation of WSAN with legacy devices/systems.

Cluster Meetings

Markus Eisenhauer represented ebbits as well in the Concertation meetings on Large-Scale, Cooperative WSNs: from Testbeds to Applications on the 9th of June 2011 in Brussels, as well as on the Cluster meeting on "M&C for Smart Buildings/Smart Spaces" on the 10th of June 2011 in Brussels on Ontologies and Data Models and on the Cluster meeting on "WSNs in Industrial Scenarios" on the 10th of June 2011 in Brussels.

FIT also represented ebbits at the Green-IT SMART BUILDING workshop in Karlsruhe, Germany 14 July 2011.

6.4.4 FIA

ebbits (ISMB) participated in the Future Internet Week (the Future Internet Assembly, Future Internet Conference and Future Internet Forum) on 16-19 May 2011, Budapest in Hungary, networking with both existing and newly approved projects (i.e. in ICT Call 7), especially in the IoT domain.

ebbits (IN-JET) participated in the Future Internet Week (the Future Internet Assembly, Future Internet Conference and Future Internet Forum) on 23-26 October 2011, Poznan in Poland, and participated in the workshop on Business Models for the IoT eco-systems.

ebbits (IN-JET) is co-organising a workshop session in conjunction with the FIA meeting in May 2012, in Aalborg, Denmark. The workshop session titled "IoT applications and business models" is organised together with Philippe Cousin, Probe-IT project manager and Man-Sze Li, co-chair of FInES cluster. Jesper Thestrup is also involved in the organisation of a full day FInES workshop with the objective to explore and debate several major inter-connected themes which are expected to have a significant impact on the development of next generation enterprise systems. The workshop will be held in Aalborg during the Future Internet Week. The workshop is expected to yield a report in the form of a Green Paper which helps set the research direction of the FInES as it transitions from a research activity of FP7 to Horizon 2020.

7. Planned Activities M19 – M30

This section describes the planned implementation of the dissemination strategy and the activities planned by ebbts partners in the period M19 – M30 (March 2012 through February 2013).

7.1 Papers and events

From FIT two papers are in the planning process; one on a thorough P2P anonymous network and one on TrustFraMM: A General Meta Trust Framework.

7.1.1 CeBIT 6-10 March 2012, Hanover, Germany

ebbts is co-exhibiting at CeBIT with the project ActionPlanT (FIInES and EFFRA members) on the topic: ICT for the Factories of the Future. ebbts will be present in Hall 26, Stand J13 throughout the whole trade show. The target audience for the event is computer scientists and industrial researchers as well as the broad audience of CeBIT business community visitors. The main aim will be to demonstrate the product life-cycle aspects and disseminate ebbts concepts and early results. 300 electronic tickets will be distributed to the ebbts network.

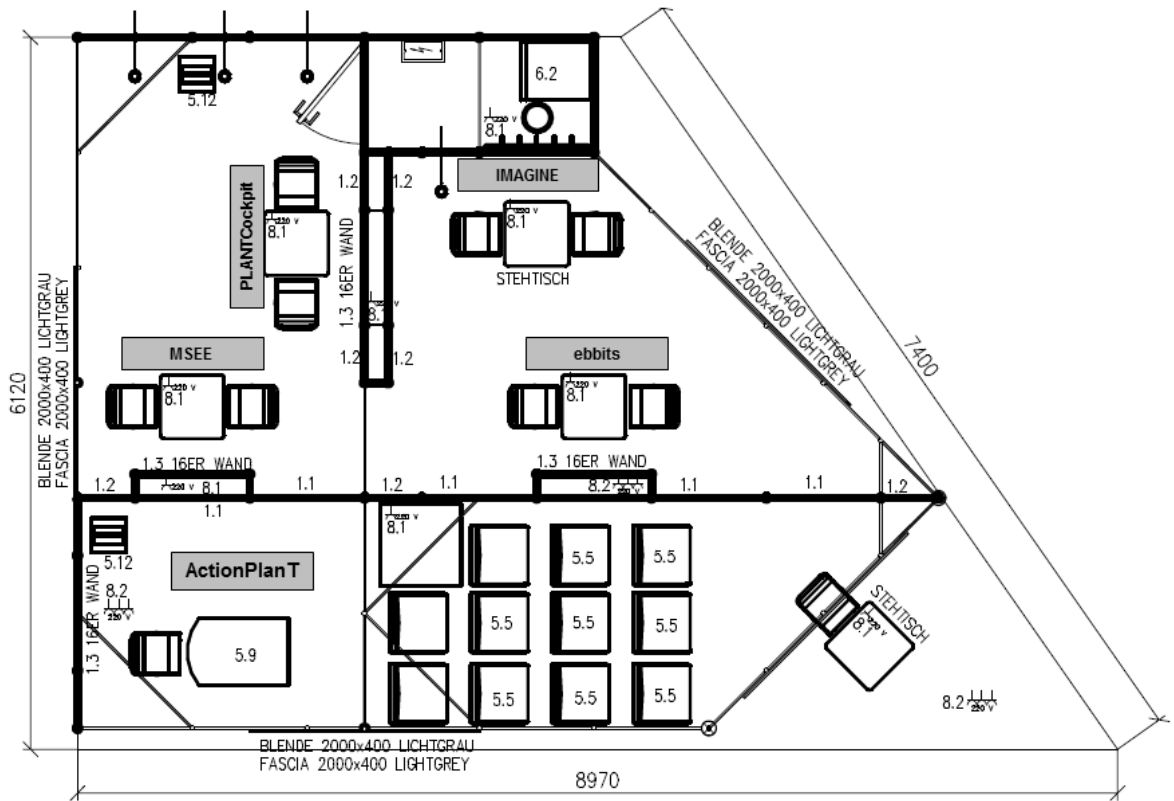


Figure 1 Factories of the Future booth Overview

7.1.2 FIA workshop 10-11 May 2012, Aalborg, Denmark

ebbts is co-arranging a session on the topic "IoT Applications and Business Models" during the Future Internet Assembly (FIA) meeting in Denmark as part of the targets for events in project year 2.

7.1.3 Workshop at the IoT Week 18-22 June 2012

ebbitts partners are planning a workshop for the IoT Week 2012 in Venice, Italy 21 June. The plan is to invite external experts and demonstrate the ebbitts platform.

7.1.4 Other events and conferences

The following list is an overview of the activities that have been prepared for the coming 12 months period. The list is non-exhaustive since new events may be planned with short notice.

Partner planned dissemination activities M19-M30			
March 2012 through February 2013			
DATE	Place (city, country)	Type of dissemination activity and audience	Name of Partner Persons involved
6-10 March 2012	Hanover, Germany	CeBIT 2012 tradeshow. ebbitts will co-exhibit as part of the ActionPlanT stand: ICT for the Factories of the Future	CNET, FIT, IN-JET, IS, ISMB, SAP
7 May 2012	Aalborg, Denmark	Ebbitts is co-organising a full day FInES workshop in conjunction with the FIA Meeting	IN-JET
8-11 May 2012	Aalborg, Denmark	ebbitts is co-organising a session on the topic "IoT Applications and Business Models"	IN-JET
18-22 June 2012	Venice, Italy	CNET and ISMB plan to organise a workshop 21 June at the IoT Week, inviting external experts and with a demonstrator of the ebbitts platform	CNET, ISMB

Table 9 Planned dissemination activities M19-M30

7.2 Project collaboration and presentation tools

7.2.1 Website

The website will be continuously updated and enriched with deliverables, news items, future events etc. Videos of working robots will be integrated into the website.

7.2.2 Posters

The two posters, one for the traceability scenario and one for the automotive scenario will be finished.

7.3 External dissemination activities

7.3.1 Newsletter and press releases

Newsletters will be produced and distributed based on the progress made in ebbitts. The next newsletter is planned for April 2012. Press releases on project level will be prepared.

7.4 Cluster activities

The ebbitts project will continue its clustering activities and other concertation activities, attending info days, expert groups, IST conferences and other events organised by the EC when relevant. The project may also represent the Commission at some international events as required.

The following cluster activities have been planned.

7.4.1 The FInES cluster

The Taskforce on Manufacture and Industry will continue to work on stakeholder engagement. The Wiki page on possible areas of research co-operation between FInES members and ActionPlanT members will be maintained and strengthened. As mentioned Jesper Thestrup (IN-JET) is involved in the organisation of a full day FInES workshop during the Future Internet Week in Aalborg, Denmark in May 2012 with the objective to explore and debate several major inter-connected themes which are expected to have a significant impact on the development of next generation enterprise systems.

A FInES cluster meeting is scheduled for 14-15 March 2012 where the results will be presented.

The Taskforce on International Relations will continue to work on international cooperation.

7.4.2 The IERC cluster

ebbitts will continue its cooperation activities in this cluster.

7.4.3 Cluster on Smart Buildings/Smart Spaces

ebbitts will continue its work in this cluster.

7.4.4 FIA – Future Internet Assembly

As mentioned, ebbitts is co-arranging a session on the topic "IoT Applications and Business Models" during the Future Internet Assembly (FIA) meeting in Aalborg, Denmark 8-10 May 2012.

8. Appendix 1 - Flyer

The ebbitts consortium consists of nine organisations from five European countries, representing a wide taste of Europe in terms of population, culture and economic strength.

The consortium unifies a number of research groups that have a world-leading position in their respective fields:

FIT, Fraunhofer Institute for Applied Information Technology: www.fit.fraunhofer.de

CNET, CNet Svenska AB: www.cnet.se

SAP, SAP AG Research: www.sap.com

COMAU, COMAU S.p.A.: www.comau.it

TUK, Technical University of Kosice: www.tuke.sk

ISMB, Istituto Superiore "Mario Boella": www.ismb.it

TNM, TNM A/S: www.tnmit.dk

IN-JET, In-JeT ApS: www.in-jet.dk

INTERSOFT, Intersoft AS: www.intersoft.sk

Follow the project at: www.ebbitts-project.eu



Enabling the Business-Based Internet of Things and Services



The ebbitts project is a four-year European research project which started in 2010. It is co-funded by the European Commission within the 7th Framework Programme in the area of Internet of Things and enterprise environments under Grant Agreement No. 257852. For more information, contact the project coordinator Dr. Markus Eisenhauer from Fraunhofer FIT: markus.eisenhauer@fit.fraunhofer.de



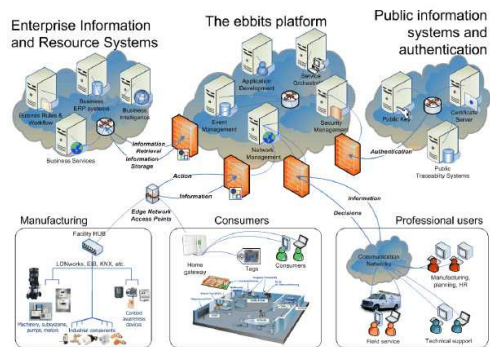
Bridging the gap between enterprise systems and the world of people, things and services

The ebbitts project does research in architecture, technologies and processes that allow businesses to semantically integrate the Internet of Things into mainstream enterprise systems and support online life cycle management.

The aim is to provide semantic resolution to the Internet of Things and thereby present a new bridge between back-end enterprise applications and the surrounding physical world.

This is achieved by establishing a communication infrastructure that automatically and dynamically connects to sensors and devices in the physical world and to mainstream back-end information systems, public authentication systems and regulatory information sources, providing data access for professional users as well as consumers.

The platform is based on a Service-oriented Architecture with open protocols and middleware where every subsystem or device is transformed into a web service with semantic resolution. The ebbitts platform thus enables the convergence of the Internet of People, the Internet of Things and the Internet of Services into the "Internet of People, Things and Services" for business purposes.



Follow the life cycle of products

The platform will be demonstrated in end-to-end business applications that locate, connect to and monitor a product during its entire life cycle. Focus is on two applications: Automotive manufacturing and food traceability.



In automotive manufacturing processes, the ebbitts platform will support interoperability and interconnectivity between various subsystems and demonstrate real-time optimisation metrics, including energy savings.



In terms of food traceability, the platform makes it possible for the consumer to trace the life cycle of the product and receive information e.g. about unsafe or counterfeit products and "best-before" dates by means of RFID tags.

A widely deployed platform and service concept

The vision is that ebbitts will be a widely deployed platform and service concept for the Internet of Things and Services where it is possible for manufacturers to:

- Integrate physical devices, systems and components directly into their optimising systems, i.e. managing workflows and turn them into useful, value-added business services or service components
- Obtain interoperability between various subsystems in manufacturing environments across manufacturing cells, lines end entire plants with the aim to support production and energy optimisation
- Meet increasing consumer demands and regulatory requirements for authentication and traceability of products by providing support for authentication and traceability through ubiquitous services integrated in wireless communication networks and existing smart home infrastructures
- Network products with mainstream enterprise systems in an easy and cost-effective manner via interoperable solutions in an open architecture

9. Appendix 2 – Poster

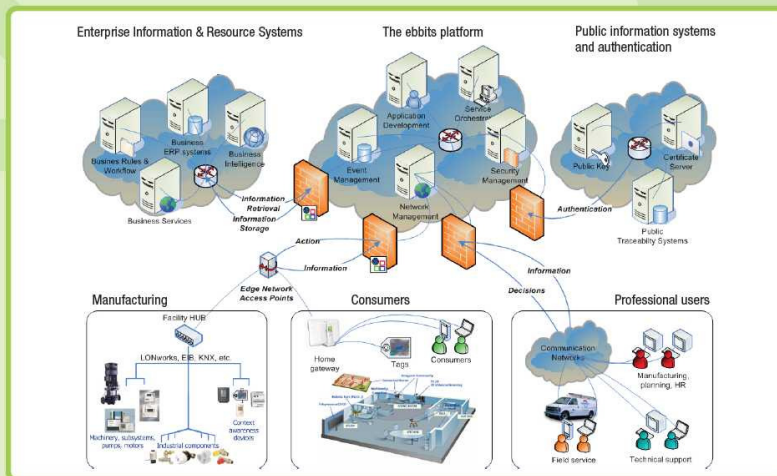


An interoperability platform bridging enterprise applications and the physical world

The ebbits project does research and development that enables businesses to integrate the Internet of Things into mainstream enterprise systems and support online life cycle management.

The ebbits platform is based on open architecture. It combines information from users, data repositories, devices, and sensors and transforms it into intelligent web services.

The services provide value-added information about products and processes, which can help optimise manufacturing practices and meet regulatory and consumer demands for traceability.



The ebbits project is a four-year European research project which started in 2010. It is co-funded by the European Commission within the 7th Framework Programme in the area of Internet of Things and Enterprise environments under Grant Agreement no. 257852.

For more information, contact the project coordinator
Dr. Markus Eisenhauer from Fraunhofer FIT:
markus.eisenhauer@fit.fraunhofer.de

Visit us at:
www.ebbits-project.eu

10. Appendix 3 - Press Coverage

ebbts on Wikipedia: http://en.wikipedia.org/wiki/Ebbts_project

The screenshot shows the Wikipedia article for 'Ebbts project'. At the top, there are navigation links for 'Article' and 'Discussion', and a search bar. The article title is 'Ebbts project' with the subtitle 'From Wikipedia, the free encyclopedia'. Below the title, there are two warning boxes: one stating 'This may require cleanup to meet Wikipedia's quality standards' and another stating 'This article does not cite any references or sources'. The main text of the article begins with 'The ebbts project is a 4-year project started in 2010. It is partly funded by the European Commission under the 7th Framework Programme in the area of Internet of Things and Enterprise environments under Grant Agreement no. 257852. The project is part of the Cluster of European projects on the Internet of Things. The Cluster aims to promote a common vision of the Internet of Things. Ebbts is leading the taskforce on semantic interoperability.' Below the text is a section titled 'Project partners' which contains a table with two columns: 'Partners' and 'Description'. The table lists several partners including Fraunhofer Society for the Advancement of Applied Research, CNet Svenska AB, SAP AG, Comau SpA, Technical University of Kosice, and TNM Consult ApS. The browser's address bar shows 'Internet | Beskyttet tilstand: Til' and the page is viewed at 100% zoom.

Mention on FIT website: http://www.fit.fraunhofer.de/projects/mobiles-wissen/ebbts_en.html

The screenshot shows the Fraunhofer FIT website page for the 'ebbts' project. The page has a green header with the 'ebbts' logo and the text 'Fraunhofer-Institut für Angewandte Informationstechnik FIT'. Below the header, there is a main heading 'Enabling Business-based Internet of Things and Services'. The main content area contains several paragraphs of text describing the project's goals and the role of Fraunhofer FIT. On the left side, there is a navigation menu with categories like 'Profile', 'Business Areas', 'Projects', 'Mobile Knowledge', 'Publications', 'Events / Fairs', 'Press', and 'Jobs and Career'. The 'Mobile Knowledge' section is currently selected. The browser's address bar shows 'Projects > Mobile Knowledge > ebbts' and the page is viewed at 100% zoom.

Mention on TNM website:

tnm IT | Consult

EBBITTS
Internetbaseret system til fuld sporbarhed i den europæiske fødevareresektor.

tnm consult FORSIDE KOMPETENCER CASES KONTAKT

TNM CONSULT » Cases » EU teknologiprojekt
Ebbitts

EU TEKNOLOGIPROJEKT

CASES

- Infarm NH4+
- Simulerings Simherd
- EU teknologiprojekt**

TNM Consult deltager i et europæisk forskningsprojekt, der vil give virksomheder mulighed for at bygge bro mellem forretnings- og IT-systemer, produkter og mennesker ved hjælp af Internettet. Formålet er at opnå viden om et produkt fra start til slut til gavn for såvel producent som forbruger.

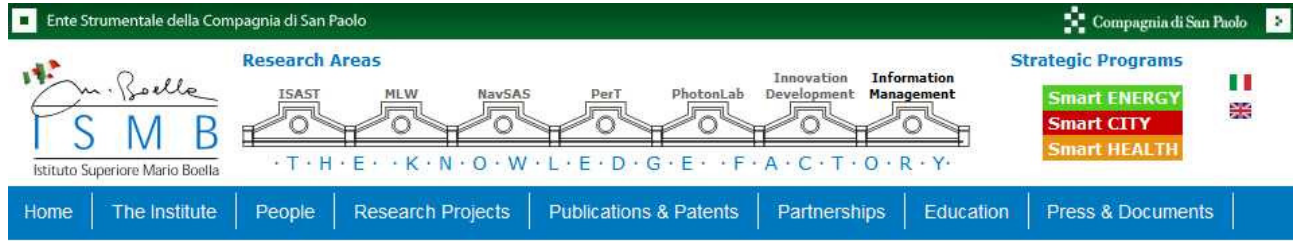
Sådan køber du køber, og se, hvor det kommer fra, hvornår det blev slået, og om det nu også er økologisk. Overvåg din fabriks maskiner via nettet, så det kommer frem, hvordan din virksomhed kan spare ressourcer og energi. Eller aftes, hvor meget CO₂ det har kostet at producere din cykel.

Forskningsprojektet ebbitts (Enabling business-based Internet of Things and Services) har til formål at følge et produkt online fra start til slut. Herved kan de involverede virksomheder opnå en vigtig viden, der dels kan bidrage til forbedring af produktionsprocessen, dels kan benyttes til kvalitetskontrol af produktet over for forbrugeren. Projektet udvikler en teknologisk platform, der forbinder sensorer og udstyr i den fysiske verden med virksomhedernes egne forretningsystemer og tilknyttede elastiske informationssystemer. Informationen transformeres til web-baserede services for producenter og forbrugere. Det IT-teknologiske udgangspunkt er en serviceorienteret Cloud arkitektur med Sone protokoller og Open Source middleware.

Spør kødet fra gård til gaffel
En af de cases, projektet omgør, er dansk kødproduktion. Her står TNM Consult - som leverandør af IT-teknologi til den danske landbrugssektor - for at udvikle og afprøve den teknologiske platform. Et andet område, projektet arbejder med, er bilproduktion. Her hentes og behandles ebbitts data fra produktionsystemer og gør dem tilgængelige for virksomhedens IT-systemer. Derved kan man holde øje med forbruget af fx energi og vand, ligesom det bliver muligt at gribe ind med forebyggende vedligeholdelse af produktionsudstyr.

Fem lande deltager i projektet
Projektet er et firdigt europæisk forskningsprojekt, der er støttet med midler fra EU's forskningsprogram FP7 inden for emnet Pervasive and Trusted Network and Service Infrastructures, under temaet Internet of Things and

Mention on ISMB website:



EBBITTS



The **EBBITTS project** (Enabling business-based Internet of Things and Services – An Interoperability platform for a real-world populated Internet of Things domain) aims to develop architecture, technologies and processes, which allow businesses to semantically integrate the Internet of Things into mainstream enterprise systems and support interoperable real-world, on-line end-to-end business applications.

It will provide semantic resolution to the **Internet of Things** and hence present a new bridge between backend enterprise applications, people, services and the physical world, using information generated by tags, sensors, and other devices and performing actions on the real-world.

The PerT Lab is involved in most of the technical activities of the project, leading work package (WP) 8 "**Physical World Sensors and Networks**" which aims at developing a secure network and communication infrastructure and semantic integration of physical world objects into the ebbitts platform. Key contributions to WP8 are:

- Integration of the Physical World into the ebbitts platform through Physical World adaptation layer;
- Opportunistic communication and information propagation paradigms in the P2P-based network;
- Contribution to design and development of the ebbitts Network Management and distributed security framework.

Additionally, the PerT Lab contributes significantly to WP5 "**Centralised and Distributed Intelligence**" with activities in the area of Multi-sensory fusion in sensor networks and to WP10 "**End-to-end Business Applications**" designing and setting up the networking infrastructure.

11. November 2011: The Danish magazine "Elektronik & Data" carried a website article on ebbitts (in Danish): <http://elek-data.dk/branche-og-teknologi/spaendende-forskning-inden-for-internet-of-things>

15/11/11

Spændende forskning inden for 'Internet of Things' | Ugens Erhverv



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- » Abonnement på Elektronik & Data
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11-11-2011 [UgensErhverv.dk: Redaktionen]

Spændende forskning inden for 'Internet of Things'

Der er to danske partnere i EU forskningsprojekt, der skal gøre det nemmere at bygge bro mellem forretnings- og IT systemer, produkter og mennesker via internettet.

Skan kødet, før du køber og se, hvor det kommer fra, hvornår det blev slægtet, og om det nu også er økologisk. Følg data fra maskiner og robotter på fabrikken via nettet, så din virksomhed kan spare ressourcer og energi. Eller aflæs hvor meget CO2 det har kostet at producere din cykel.

Med udgangspunkt i en serviceorienteret Cloud arkitektur med åbne protokoller og Open Source middleware er forskningsprojektet ebbitts, der står for Enabling business-based Internet of Things and Services, i gang med at udvikle en teknologisk platform, der forbinder sensorer og udstyr i den fysiske verden med virksomheders egne forretningssystemer og tilknyttede eksterne informationssystemer og transformerer dem til web-baserede services for producenter og forbrugere. Formålet er, at virksomheder ved at følge et produkt online fra start til slut kan opnå vigtig viden, der kan være med til at forbedre produktionsprocessen og bruges til at kvalitetssikre produktet over for forbrugeren.

- Med den nye Cloud arkitektur i ebbitts kan produkterne følges i hele deres livscyklus. Er man fx cykelproducent og gerne vil dokumentere, at man producerer energirigtige cykler, kan man aftale med sine underleverandører, at alle cyklens forskellige dele mærkes med energiforbrug under produktionen. Data gemmes med elektroniske strekkoder, RFID-tags, som kan læses af kunden i forretningen og derhjemme. Her kan også stå oplysninger om skadelige stoffer, og hvordan cyklen bortskaffes efter endt brug, forklarer Jesper Thestrup, direktør i teknologi- og forskningsvirksomheden In-JeT ApS, der er en af de to danske partnere i projektet.

Spør svinekødet fra gård til gaffel og spar resurser i bilindustrien

Projektet bruger to scenarier til at udvikle og demonstrere platformen i; svineproduktion og bilproduktion. I svineproduktionen er det meningen at opnå et niveau af data-gennemsigtighed igennem hele produktkæden, fra gård til gaffel, der gør det lettere at få viden om produktet og spore det.

- Kødprodukterne vil blive forsynet med RFID-tags, så forbrugeren kan hente viden om fx produktets oprindelsessted, opbevaringstemperaturer under transport og sidste brugsdato, og den viden er med til at skabe tillid til producenten, fortæller Jesper Thestrup.

På bilfabrikken henter og behandler ebbitts data fra produktionssystemer og gør dem tilgængelige for virksomhedens IT systemer. Derved kan man holde øje med og optimere forbrug af fx energi og vand, ligesom det bliver muligt at gribe ind med forebyggende vedligeholdelse af produktionsudstyr.

Fem lande deltager i projektet

Projektet er et fireårigt europæisk forskningsprojekt, der er støttet med midler fra EU's forskningsprogram FP7 inden for emnet Pervasive and Trusted Network and Service Infrastructures, under temaet Internet of Things and Enterprise Environments. Ni partnere fra fem lande deltager i projektet som foruden Danmark involverer Tyskland, Sverige, Italien og Slovakiet.

Fra Danmark deltager teknologi- og forskningsvirksomheden In-JeT ApS sammen med TNM A/S, leverandør af IT-teknologi til landbrugssektoren og ansvarlig for at afprøve den teknologiske platform i dansk svineproduktion. In-JeT ApS' rolle er bl.a. at styre den iterative kravspecifikationsproces og at sikre, at de tekniske løsninger hele tiden er i tråd med projektets vision. www.ebbitts-project.eu

01-11-2011

Blev energihåndværker og øgede omsætningen

Carsten Schmidt har fået øget både medarbejderstab, omsætning og kundekreds, efter at han kan skrive energihåndværker på visitkortet

» [læs mere...](#)

Virksomhedslogin

Brugernavn

Password



Elektronikkomponenter til store og små produktioner













Ebbbits was mentioned in the December 2011 newsletter issue from the RFID Europe Network. The newsletter can be found here:

<http://www.rfidineurope.eu/files/pdf/RFIDinEurope-Newsletter-December-2011.pdf>

RELATED PROJECTS

PROJECT PRESENTATION: ebbbits, when the internet of things meets the business
Authors: Paolo Brizzi (ISMB), Louise Birch Riley (IN-JET), Thomas Madsen (TNM)



Enabling the Business-Based Internet of Things and Services

ebbbits endeavours to bridge the gap between enterprise systems and real world people, sensors and products. The aim is to create a platform which transforms devices and subsystems into web services, thus feeding information generated by RFID tags or sensors directly into enterprise systems.

About the project
 The ebbbits project is a four-year European research project, partly funded by the EC under the 7th Framework Programme, in the area of Internet of Things and Enterprise environments.
 The ebbbits consortium consists of nine organisations from five European countries, representing a wide taste of Europe in terms of population, culture and economic strength. The consortium unifies a number of research groups that have a world-leading position in their respective fields:

FIT, Fraunhofer Institute for Applied Information Technology
 CNET, CNet Svenska AB
 SAP AG, SAP Research
 COMAU, COMAU S.p.A
 TUK, Technical University of Kosice
 ISMB, Istituto Superiore Mario Boella
 TNM, TNM A/S
 IN-JET, in-JeT ApS
 INTERSOFT, Intersoft AS

The ebbbits platform creates a communication infrastructure that automatically and dynamically connects to sensors and devices in the physical world. It further connects to mainstream backend information systems, public authentication systems and regulatory information sources using semantic web services. It finally provides access for users whether professional users in technical support or consumers.

Thereby the ebbbits platform enables the convergence of the Internet of People, the Internet of Things and the Internet of Services into the "Internet of People, Things and Services" for business purposes.

Following the life cycle of products
 The platform will be demonstrated in end-to-end business applications that locate, connect to and monitor a product during its entire life cycle. Focus is on two applications: **Food Traceability** and **Automotive Manufacturing**.
 In the first case the platform makes it possible, for the consumer, to trace the life cycle of the product and receive related information by the use of **RFID tags**: the ebbbits platform will be deployed over a pigs breeding and slaughtering field trial, seamlessly collecting and presenting to the user integrated information from farms, processing plants, logistic chain and public databases. In the automotive case the ebbbits framework will support interoperability and interconnectivity between various subsystems and demonstrate real-time optimisation metrics, including energy savings.

Follow the project at
<http://www.ebbbits-project.eu>



ebbits is co-exhibiting at CeBIT 2012.

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ebbits



<h3 style="border-bottom: 1px solid #ccc; margin: 0;">Contact Data</h3> <p>Enabling the Business-Based IoT and IoS FIT - Fraunhofer Institut for applied IT Fraunhofer Institut für Angewandte Informationstechnik FIT Schloß Birlinghoven Sankt Augustin Germany</p> <p>Send E-Mail go to company website</p>	<h3 style="border-bottom: 1px solid #ccc; margin: 0;">Contact(s)</h3> <p>Mr. Jesper Thestrup</p> <p>Send E-Mail</p> <p>Additional Contacts +</p>	<h3 style="border-bottom: 1px solid #ccc; margin: 0;">Exhibition stand</h3> <p>Hall 26, Stand J13 </p> <p>Co-exhibitor with: Platte Consult</p> <p>Topic: ebbits ↳ Enabling the Business-Based Internet of Things and Services</p>
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Company Profile

The ebbits project is researching architecture, technologies and processes which allow businesses to integrate the Internet of Things and Services into mainstream enterprise systems, supporting interoperable end-to-end business applications.

Based on an open architecture, information from data repositories, devices and sensors is collected and transformed into intelligent web services which enable users to gain value-added information about products and processes.

The platform is developed and tested in two scenarios; Automotive Manufacturing and Food Traceability where prototype applications will be created.

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