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1. Executive summary

This deliverable presents the dissemination activities carried out during the second half of the IMPreSS project (M16 - M31). These activities spread widely and include the following:

- Maintaining the project website with news on project activities and results
- Marketing and dissemination materials (poster, postcards, newsletters, videos)
- Scientific and conference papers
- Participating in conferences, exhibitions, workshops and other events
- Innovation transfer activities and contacts to other relevant research projects
- Making IMPreSS open source by opening the code repository to the public
- Making public deliverables available for download via the website
- Press releases.

The dissemination targets that were identified for the project have been met and statistics from the website indicate that the publication of newsletters and participation in large events have generated an increased number of visitors to the project website.

The table below gives an overview of the targets and results from M01-M31:

Type of activity	Target M01-M15	Actual M01-M15	Target Year M15-M31	Actual M15-M31
Number of EU and Brazilian projects that have been established contact to	4	4	4	4
Number of conference papers and presentations produced	5	6	5	23
Number of accepted conference papers	2	5	9 ¹	10
Number of domain exhibitions attended	1	2	2	4
Number of external workshops etc. attended	5	5	7	7
Number of Smart Society events attended	1	1	4	4
Number of downloads of material from the	300	281 ²	300	4.547

¹ This target was originally 3 in Year 2 (so 5 in total), but the consortium decided to aim higher and changed the target from 5 to 10 accepted papers.

² It should be noted that public deliverables are only made available for download after official approval. The target for downloads in year 1 did not consider this fact and is therefore quite high as deliverables were only made available after M15 (in M18).

website

Number of press releases issued	1	1	3	3
Project brochure	1	1	--	-- (post cards and a poster produced)
Newsletter	1	1	3	3

Table 1: Dissemination Targets and Achievements M01-M31

2. Introduction

This deliverable presents the dissemination activities carried out during the second half of the IMPReSS project (M16 - M31) in line with the dissemination strategy and plan that was defined in *D9.2.1 Initial Dissemination Report*. The aim of the dissemination strategy is to carry out a set of dissemination activities at project level and to facilitate the successful exploitation of the results after the project ends. By creating awareness of and interest in the project through dissemination activities ensures that a solid foundation for the future exploitation is established.

2.1 Purpose, context and scope of this deliverable

The main purpose of this deliverable is to report on the various activities that have been carried out in order to effectively disseminate the project's progress and results using a number of different channels. This deliverable also reports on the targets that were set for specific dissemination activities. Finally, it represents an update of the initial dissemination report D9.2.1 which was submitted in M15.

2.2 Background

This deliverable is part of task T9.2 Dissemination which is concerned with coordinating the dissemination of the project results. It sets up the framework for implementing and executing the dissemination strategy and plans by e.g.:

- Publishing papers in high-ranked international conferences and journals
- Participating in national and international workshops, exhibitions and other events
- Disseminating information about the project outcomes on the project website and in the project newsletters.

3. Completed Activities M16-M30

A number of different dissemination activities using various channels have been carried out in order to make the relevant audiences aware of the project and its progress and achievements. This chapter describes those activities.

3.1 Poster

A poster was created which was used by project partners in connection with participation in exhibitions.



Figure 1: IMPReSS Poster

3.2 Postcard

A postcard was designed for the ICT 2015 in Lisbon, October 2015. The postcards were more inviting to visitors to take away and around 150 were distributed. The postcard was printed front and back and it was a good supplement to the project brochure.



Figure 2: The IMPReSS Postcard

3.3 Project website

The project website has been continuously updated with short news stories on the progress and achievements of the project. Deliverables, papers and newsletters can be downloaded (when released) and contact details are available.

Google Analytics were applied to the website from September 2014 in order to gain information about visitor statistics. The information has mainly been used to verify that the website reached an international audience and to compare visitor numbers and hits with the project’s representation in events, i.e. to see if visitor numbers and length of visit increased in the weeks after an event where the project was (re)presented.

From September 2014 to March 2016, the following figures were extracted from Google Analytics:

- Sessions: 2,523
 - 70.75% were new visitors
 - 29.25% were returning visitors
- Users: 1,785
- Page Views: 6,871
- Page Sessions: 2.78
- Avg. Session Duration: 00:02:32
 - For new visitors the avg. session duration was 00:01:15
 - For returning visitors the avg. session duration was 00:05:39
- Bounce Rate: 63.46%
- % New Sessions: 70.75%

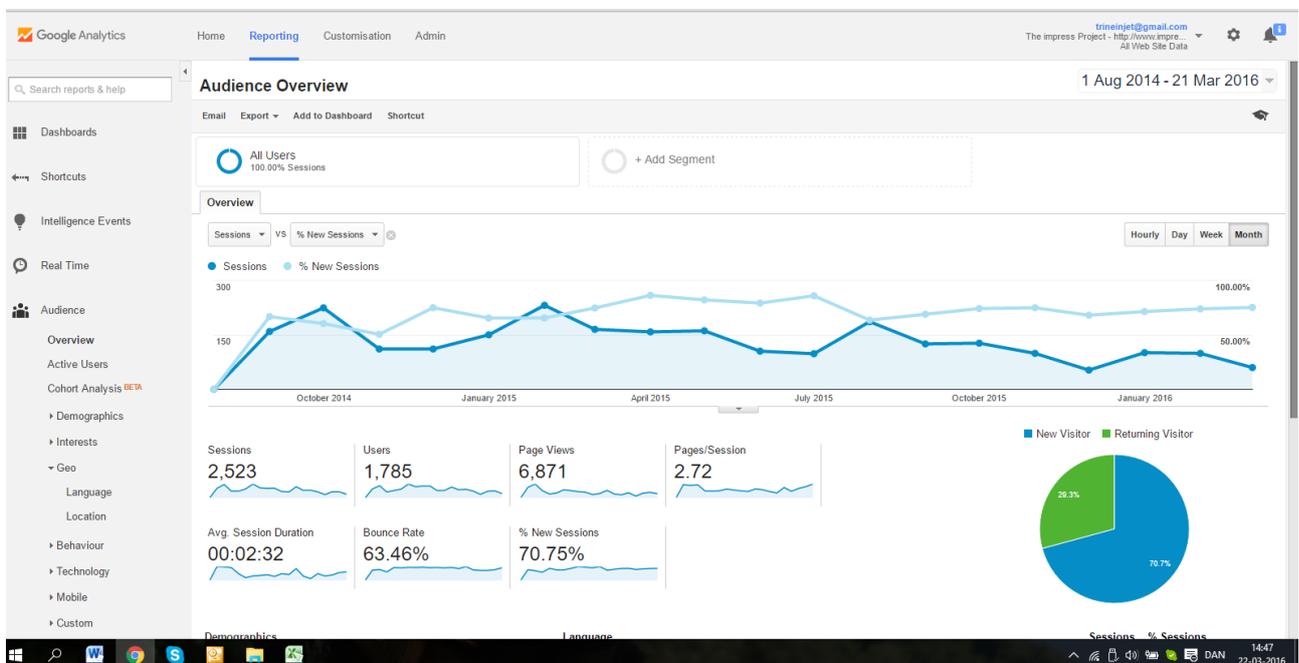


Figure 3: Audience Overview from Google Analytics (22 March 2016)

There was a clear increase in number of sessions and users in the weeks after large events. For example, in June 2015 IMPReSS was presented at three exhibitions and this month the number of users was 87 compared to 4 in May and the number of sessions was 105 compared to 5 in May. A similar pattern is observed throughout the year with peaks in the week following events. A similar

pattern is observed for the weeks after the release of the project newsletter which may indicate that the newsletter does inspire readers to visit the project website.

With respect to the demographics, Brazil was clearly in the top with 28.38% of the sessions:

	Country	Sessions	% Sessions
1.	Brazil	716	28.38%
2.	Denmark	265	10.50%
3.	Germany	194	7.69%
4.	Italy	194	7.69%
5.	United States	143	5.67%
6.	France	70	2.77%
7.	Finland	64	2.54%
8.	Sweden	62	2.46%
9.	United Kingdom	59	2.34%
10.	India	50	1.98%

Table 2: Demographic data for visitors to the project website

3.4 Social Media

A facebook profile page was created in the beginning of the project and later a LinkedIn profile was created too. However, in line with comments from the first review, the consortium decided that the amount of efforts needed to continuously update and make this profile interesting would be too high compared to the perceived real return value. It was thus deemed more beneficial use more efforts on the project website and newsletters. The LinkedIn profile currently has 43 connections and facebook has 36 likes which shows that so people have visited the profiles, but the number is still too low to be of significant value.

3.5 Videos

The consortium has produced two videos that demonstrate the IMPReSS project pilots. One video demonstrates the IMPReSS Context Manager; it demonstrates a prototype deployment in a university classroom with two scenarios where the system automatically controls lighting, temperature and shows consumption data for the users. The other video is a showcase for the Teatro Amazonas pilot. It will be published on the project website after the final review (April/May 2016).

A video presentation of the project's aims and visions was also produced in connection with ICT 2015 in Lisbon.

3.6 Contact to EU and Brazilian projects

Through participation in relevant events, project partners have made several contacts with representatives from other projects. More specifically, the activities in task T9.3 Innovation Transfer were aimed directly at relevant projects with the purpose to exchange knowledge and experience. The outcome and how and with other projects were involved in described in detail in *D9.3 Innovation Transfer Report*. The 16 research projects where solid contact has been established and knowledge exchanged are simply listed here below:

- ebbits
- BEMO-COFRA
- ALMANAC
- GreenCom
- Flex4Grid
- Pro-IoT
- IoT-A
- SEEMPubS
- SEAM4US
- INERTIA
- Adapt4EE
- SMILE-O
- BUTLER
- SEFIN
- SIRCAM
- SatisFactory.

Links to these projects have been provided on the IMPReSS website.

3.7 IMPReSS Open Source

As part of the project commitment to effectively disseminate and share its knowledge and results a number of IMPReSS software components were made Open Source. The project repository was opened for public read-only access in June 2015. The Open Source access was announced on the project website.

3.8 Scientific Papers

The project had 14 papers accepted for publication: No. 1-5 was accepted in the first period (M01-M15) and 6-14 in the second period (M16-M31). The papers are listed in Table 3 below:

NO.	Title	Authors	Title of the periodical or the series	Number, date or frequency	Publisher	Place of publication	Year of publication
1	Extending Semantic Device Discovery with Synonym of Terms	Ferry Pramudianto (FIT)	IEEE International Conference on Embedded and Ubiquitous Computing	26-28 August 2014	IEEE	Milan, Italy	August 26-28, 2014
2	Semantic Interoperability Architecture for Pervasive Computing and Internet of Things	Jussi Kiljander (VTT)	IEEE Access (Volume:2)	18 August 2014	IEEE		2014
3	IoTLink: An Internet of Things Prototyping Toolkit	Ferry Pramudianto (FIT), Carlos Alberto Kamienski (UFABC), Eduardo Souto (UFAM), Fabrizio Borelli (UFABC), Lucas L. Gomes (UFPE), Djamel Sadok (UFPE), Matthias Jarke (FIT)	International Conference on Ubiquitous Intelligence and Computing	9-12 December 2014	IEEE	Bali, Indonesia	Dec 9-12, 2014
4	Architecture for mixed criticality resource management in Internet of Things'	Janne Takalo-Mattila (VTT), Jussi Kiljander (VTT), Ferry Pramudianto (FIT), Enrico Ferrera (ISMB)	2014 TRON symposium	December 2014	IEEE	Tokyo, Japan	10th - 11th of December 2014
5	Rapid Application Development in the Internet of Things: A Model-Based Approach	Ferry Pramudianto (FIT)	Dissertation	December 2014	RWTH Aachen University	Aachen, Germany	February 25, 2015

6	Context-Aware Energy Efficiency Management for Smart Buildings	Carlos Kamienski (UFABC), Fabrizio Borelli (UFABC), Gabriela Biondi, Willian Rosa, Isaac Pinheiro, Ivan Zyrianoff, Djamel Sadok (UFPE), Ferry Pramudianto (FIT)	2015 IEEE 2nd World Forum on Internet of Things (WF-IoT 2015)	14-16 December 2015	IEEE	Milan, Italy	2015
7	XMPP-based Network Management infrastructure for agile IoT application deployment and configuration	Enrico Ferrera (ISMB), Davide Conzon (ISMB), Paolo Brizzi (ISMB), Lucas L. Gomes (UFPE), Marc Jentsch (FIT), Peeter Kool (CNET)	ICIN 2016 conference 'Innovation in Clouds, Internet and Networks'	1-3 March 2016	IEEE	Paris, France	2016
8	User Activity Recognition for Energy Saving in Smart Home Environment	Wesllen Sousa (UFAM), Eduardo Souto (UFAM), Ferry Pramudianto (FIT)	20th IEEE Symposium on Computers and Communications	6-9 July 2015, Larnaca, Cyprus	IEEE	Larnaca/Cyprus	2015
9	Economia de Energia Elétrica em Ambientes Inteligentes Baseada no Reconhecimento de Atividades do Usuário	Wesllen Sousa (UFAM), Eduardo Souto (UFAM)	Dissertation	2015	Programa de Pós-Graduação em Informática - UFAM	Manaus, Brazil	March, 2015
10	Seleção de interfaces de acesso baseada em análise de contexto	Alex Fernando Duarte Monteiro (UFAM), Eduardo Souto (UFAM)	Dissertation	2015	Programa de Pós-Graduação em Informática - UFAM	Manaus, Brazil	March, 2015
11	Abordagem de Atribuição de Canais Baseada em Múltiplos Fatores para Redes Locais sem Fio	Laura Michaela Ribeiro (UFAM), Eduardo Souto (UFAM)	Dissertation	2014	Programa de Pós-Graduação em Informática - UFAM	Manaus, Brazil	March, 2014

12	Gerenciamento de Mobilidade de Fluxos IP em Dispositivos com Múltiplas Interfaces	Flávio Augusto Carvalho Montenegro Filho (UFAM), Eduardo Souto (UFAM)	Dissertation	2015	Programa de Pós-Graduação em Informática - UFAM	Manaus, Brazil	March, 2015
13	IEC 61850 Traffic Analysis in Electrical Automation Networks	Djamel Hadj Sadok and Judith Kelner (UFPE), Ubiratan Carmo (CHESF)	6th IEEE International Conference on Smart Grid Communications (SmartGridComm 2015)	2015	IEEE	Miami, USA	November, 2015
14	Atribuição dinâmica de canais em redes sem fio não coordenadas IEEE 802.11, baseada em fatores de sobreposição e intensidade de sinal	Alex F Monteiro (UFAM), Eduardo Souto (UFAM), Richard Pazzi, Jussi Kiljander (VTT)	XXXIV Simpósio Brasileiro de Redes de Computadores e Sistemas Distribuídos (SBRC)	2016	34th Brazilian Symposium on Computer Networks and Distributed Systems (SBRC)	Bahia, Brazil	30 May - 3 June, 2016

Table 3: Accepted papers

At the time of writing, one additional paper has been submitted (awaiting response) and two papers are in the final preparation stages:

No.	Title	Authors	Date	Status	Submitted to
1	Prediction of Electrical Energy Consumption for Internet of Things in Disaggregated Databases	Wesllen Sousa Lima (UFAM), Thiago Rocha (UFAM), Namedin P. Teles Junior (UFAM), Eduardo Souto (UFAM), Peeter Kool (CNET), Peeter Rosengren (CNET)	27 – 30 June 2016	Submitted	ISCC 2016 – The twenty first IEEE Symposium on Computers and Communications
2	Complex machine learning – Framework for real-time machine learning in the IoT	FIT and UFPE	9-12 October 2016	In final editing	2016 IEEE International Conference on Systems, Man, and Cybernetics (SMC 2016).

3	A Context-Aware Mixed-Critical Systems Development Platform for IoT-based Smart Buildings: the IMPReSS Approach	All project partners	To be confirmed	In final editing	Elsevier Computer Communications
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Table 4: Papers in submission and preparation

3.9 Conferences, Exhibitions, and Workshops

The project consortium has actively participated in a number of relevant conferences, workshops, meetings, and exhibitions. At these events, the IMPReSS project has either been formally presented to the audience (presentation of a specific project paper or of the project in general) or presented in an exhibition booth where project dissemination material was distributed (e.g. project brochure, poster and post cards). The events where scientific papers were accepted and presented are not listed here but above in section [3.7](#).

NO.	Type of activities	Main leader	Title	Date/Period	Place	Type of audience	Countries addressed
1	Workshop	FIT, UFPE	EU-Brazil coordinated workshop in Brasilia	Nov 2013	Brasilia, Brazil	Scientific, Industry	EU-Brazil
2	Exhibition (smart city)	FIT	CEBIT 2014 (together with the GreenCom project)	Mar 10-14, 2014	Hannover, Germany	Industry	Worldwide
3	Exhibition (smart city)	FIT	IoT Week (together with ALMANAC project)	June 16-20, 2014	London, UK	Scientific, Industry	EU
4	Workshop	FIT, UFPE	EU-Brazil coordinated workshop in Brasilia	July 2014	Brasilia, Brazil	Scientific, Industry	EU-Brazil
5	Workshop	FIT	EU-Brazil Cooperation Workshop [Call 2]	Nov 10th 2014	Brussels, Belgium	Scientific, Industry	EU-Brazil
6	Exhibition	VTT	H2020-Flex4Grid project meeting demo	June 2nd 2015	Ljubljana, Slovenia	Scientific, Industry	EU
7	Exhibition (smart city)	VTT	ICC 2015 exhibition stand	June 8-10th 2015	London, England	Scientific, Industry	Worldwide
8	Exhibition	VTT	CRITICALS (Finnish national program) program presentation	June 10th 2015	Espoo, Finland	Industry, Civil Society	Finnish
9	Workshop	FIT	Seminario Internacional sobre el Internet de las cosas (IoT) y la eficiencia energética	August 13th 2015	Medellín, Colombia	Scientific, Industry	Colombia
10	Exhibition	ISMB	Researcher's night	25 September 2015	Turin, Italy	Civil Society	Italy

11	Exhibition	ISMB	Supernova – Creative Innovation Festival	26-27 September 2015	Turin, Italy	Scientific, Industry, Civil Society	Italy
12	Exhibition (smart city)	FIT, IN-JET	ICT 2015 booth: "EU-Brazil Together in ICT"	October 20-22, 2015	Lisbon, Portugal	Scientific, Industry	EU
13	Conference	UFPE, CHESF	6th IEEE International Conference on Smart Grid Communications (SmartGridComm 2015)	November 2-5, 2015	Miami, USA	Scientific	Worldwide
14	Workshop	UFPE	EU-Brazil dialogue	November 17, 2015	Brasilia, Brazil	Scientific, Industry	EU-Brazil
15	Workshop	FIT, IN-JET, CHESF, ENG, UFPE	Business opportunities workshop with regard to IMPreSS platform in course of IMPReSS integration meeting	November 23, 2015	Recife, Brazil	Scientific, Industry	EU-Brazil

Table 5: External Events

3.9.1 Other Events

Academic partners, UFAM, UFPE and UFABC, have also been active in creating awareness about the project and its results to students. For example, at the 6th Mobile Application Fair at UFAM students were introduced to IMPReSS concept and IMPReSS tools and knowledge which they used to develop applications.

At UFABC, the IMPReSS SDP and Context Manager component was demonstrated at Arduino Day in March 2015. Arduino Day is a worldwide celebration of Arduino’s birthday. It is a 24 hour-long event – organised directly by the community, or by the Arduino team– where people interested in Arduino get together, share their experiences, and learn more. The IEEE RAS UAFBC in partnership with DCE and Digital Tent held the Arduino Day event on 28 March 2015 at the UFABC.

UFPE students were invited to test the usability of the IMPReSS SDP and tools. They were given specific tasks for the chosen tools and were afterwards asked to carry out an usability evaluation of the tools. The usability workshop and the results are reported in *D8.5 Platform Analysis and Feedback Report*.

Taking advantage of the collaboration between European and Brazilian academic partners, UFPE invited Jose Ángel Carvajal Soto, a research associate at FIT, to work closely with UFPE researchers on the IMPReSS project. The exchange lasted a month and was a period of intense work and cultural experiences.

These events are also described in more detail on the project website.

3.10 Downloads from the Project Website

The project website has a download menu where visitors can download different types of material related to the project, mainly project deliverables and papers (as these are released by the publisher).³

Type of material	Number of downloads M31
Deliverables (nineteen available)	3.055
Scientific papers (five available at time of writing)	1.405
Project brochure in English	321
Project brochure in Portuguese	323
Newsletters ⁴ (three available)	848

Table 6: Downloads from the project website

3.11 Newsletters

A total of four newsletters have been published during the project’s lifetime: October 2014 (M12), February 2015 (M18), August 2015 (M24) and March 2016 (M31). The newsletters has brought more detailed news stories related to the project’s progress (compared to the website) and has also been used to promote public deliverables by bringing extracts.

³ As a general rule, project partners do not download any material via the website; the project repository (BSCW) is used for exchange of all documents amongst partners. Public deliverables are only made available after they have been officially approved by the EC. Thus the deliverables that were submitted between M16 and M31 are not yet available.

⁴ As the final and fourth newsletter will be released at the end of M31 it is not included in the number of downloads here.

3.12 Press Releases

In connection with the end of the project, press releases are being prepared to be issued by the project coordinator FIT and Brazilian coordinator UFPE. In addition, UFAM will have a press release that will focus on the pilot application for Teatro Amazonas.

A story about IMPReSS has also been brought in the Brazilian newspaper, O Estado de S. Paulo, on 7 March 2016. O Estado de S. Paulo is a daily newspaper published in the Metropolitan region of São Paulo. It has the second largest circulation in the City of São Paulo, only behind Folha de S.Paulo, and the fifth largest overall in Brazil. Please see the project website for the news story.

3.13 Overview of dissemination targets and results M01-M31

Specific dissemination activities, such as conference presentations, publications and participation in smart society events, will be carried out as these activities are good channels for disseminating the knowledge created in and by the project to targeted audiences. The following targets and results were achieved:

Type of activity	Target M01-M15	Actual M01-M15	Target Year M15-M31	Actual M15-M31
Number of EU and Brazilian projects that have been established contact to	4	4	4	4
Number of conference papers and presentations produced	5	6	5	23
Number of accepted conference papers	2	4	8 ⁵	10
Number of domain exhibitions attended	1	2	2	4
Number of external workshops etc. attended	5	5	7	7
Number of Smart Society events attended	1	1	4	4
Number of downloads of material from the website	300	281 ⁶	300	4.547
Number of press releases issued	1	1	3	3
Project brochure	1	1	--	-- (post cards and a poster)

⁵ This target was originally 3 in Year 2 (so 5 in total), but the consortium decided to aim higher and changed the target from 5 to 10 accepted papers.

⁶ It should be noted that public deliverables are only made available for download after official approval. The target for downloads in year 1 did not consider this fact and is therefore quite high as deliverables were only made available after M15 (in M18).

				produced)
Newsletter	1	1	3	3

Table 7: Dissemination Targets and Achievements M01-M31

4. References

- (IMPreSS, 2014) IMPreSS Project (2014). D9.2.1 Initial Dissemination Report.
- (IMPreSS, 2016) IMPreSS Project (2016). D9.3 Innovation Transfer Report.
- (IMPreSS, 2016) IMPreSS Project (2016). D8.5 Platform Analysis and Feedback Report.