

[Grant Agreement No: 609206]

**Factory in a Day
D8.12
Periodic reporting on dissemination activities II
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9 October 2015
Version 1.0**



Start date of project:	01102013
Duration:	48 Month
Classification:	PU (public)
File name:	D8.12_Reprot_Diss_Activities_WP8_09102015_V1.0
Project website:	www.factory-in-a-day.eu

Disclaimer:

The work leading to these results has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under grant agreement n° 609206. The opinions expressed in the document are of the authors only and no way reflect the European Commission's opinions. The European Union is not liable for any use that may be made of the information.

Change Control

Version #	Date	Author	Organisation
1.0	01092015	Wibke Borngesser	TUM

Release Approval

Name	Role	Date
Martijn Wisse	Coordinator	09-10-2015

Change History

Describe here briefly the reason and type of changes made since previous version.

1.0 = first draft

2.0 =

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1. Executive summary

The present document provides a detailed presentation of the dissemination activities during the 2nd year of the project (March until September 2015) and reports on the dissemination plan for the next period.

Factory in a day carried out a number of dissemination activities, nevertheless compared with other phases of the project's runtime this period can be described as "business as usual". No new kind of outreach or dissemination activity was started or introduced; the focus was rather on well-established activities and well-known events/activities with the aim of further increasing the project's visibility. With our first live demonstrations more or less around the corner, the next report will focus on newly introduced ideas and activities, which will also be discussed and decided upon at the next project meeting at the end of September 2015.

2. Events and trade fairs

In the period which this deliverable is reporting about, Factory in a day participated in a number of events. The largest event among them was for sure Hannover Messe – the world's largest industrial trade fair, where TU Delft had a booth displaying Factory in a day results.

Hannover Messe 2015 brought a number of prominent visitors to the booth, among them Mr. Jyrki Katainen, European Commission Vice-president for Jobs, Growth, Investment and Competitiveness (see figure 1).



Figure 1: Jyrki Katainen (left), EC Vice-president at the Factory booth at Hannover Messe with Dr. van der Linde.

Even though the presentation of Factory in a day can be described as successful, the consortium decided after the trade fair in Hannover – against prior decision at the last project meeting – not to have our own booth at the Hannover Messe 2016. The reason for this is simply that the visibility at such a big trade fair is hard to gain, as there are too many exhibitors with more budgets to draw the visitors' attention to them. The amount of money spent on a competitive presentation would be too high to justify.

In order to get in touch with SMEs across Europe, we are currently setting up a new strategy for the second half of the project's runtime. The consortium will put more effort in social media activities and try to get in touch with SMEs via this channel. The detailed plan and first results will be shown in the upcoming deliverables as details will also be discussed at the next project meeting.



Figure 2: Factory in a day presentation at ERF 2015 by Prof. Gordon Cheng.

The Factory in a day project selected several events, such as international conferences, in order to present project results, and get feedback from the scientific community about the on-going research activities. A summary of events is at the end of this chapter (Figure 4). The content of the presentations has been adapted to the state of the project and the expertise of the presenters accordingly.

Furthermore, we would like to highlight the following events: At the EU Robotics Forum 2015, the EU funded projects Factory in a day, LIAA and RoboPartner organized their second joint workshop on “Hybrid Production Systems” (www.robotics-forum.eu). This was the follow-up workshop of the first one carried out at ERF 2014 and strengthened the dialogue between the three projects as well as the newly funded projects of H2020. Possible synergies within them and other on-going research projects are still explored. In Vienna, there was also a booth organized by TUM, which presented the work of Factory in a day.

Dr. Martijn Wisse gave a talk at the GreenTech Summit on horticulture which took place in Amsterdam/Netherlands at the beginning of June 2015. 250 international guests were invited to participate in the first-ever international summit on horticulture technology. This sector is also an interesting segment for Factory in a day.



Figure 3: Prof. Wisse at his GreenTech talk 2015 © GreenTech

Partner	Name	Date	Location
TU München	European Robotics Forum	March 10, 2015	Vienna/Austria
LAAS	Journée découverte: Robotique industrielle & PME	May 21, 2015	Toulouse/France
Fraunhofer IPA	3rd ROS-Industrial conference	June 9, 2015	Stuttgart/Germany
TU Delft	GreenTech Summit	June 9, 2015	Amsterdam/Netherlands
TU München	French-Japanese-German Robotics Workshop on Human Centric Robotics	June 9-10, 2015	Munich/Germany
TU München	APAC Innovation Summit, Hongkong Science Park	June 24-25, 2015	Hongkong/China
TU Delft	AIM 2015 - IEEE/ASME International Conference on Advanced Intelligent Mechatronic	July 8, 2015	Busan/Korea
TU München	Siemens-TU München Sommergespräch	July 16, 2015	Munich/Germany
PAL	Movelt! Community Meeting	September 3, 2015	Online

Figure 4: Summary of events.

The next big presentation of our research work will take place around the deadline of this deliverable: a booth at the exhibition of the IEEE conference IROS - International Conference on Intelligent Robots and Systems. The conference is among the most important robotic

conferences and is hosted in Hamburg/Germany from September 29 until October 2, 2015. Factory in a day will be presented on a booth organized by TU München. Furthermore, a number of scientific presentations will be held at the different workshops and sessions by several members of the consortium. More details will be reported in the upcoming deliverable.

3. Online media

As already reported in other deliverables the website www.factory-in-a-day.eu is still constantly updated and information is added with regard to relevant decisions of and new developments in the consortium. So far, there have been no reasons to change any major aspect of the website like the content of the pages generally informing about the project or the structure. The response to the website is far very positive, as there is a constant growth in numbers of visitors.

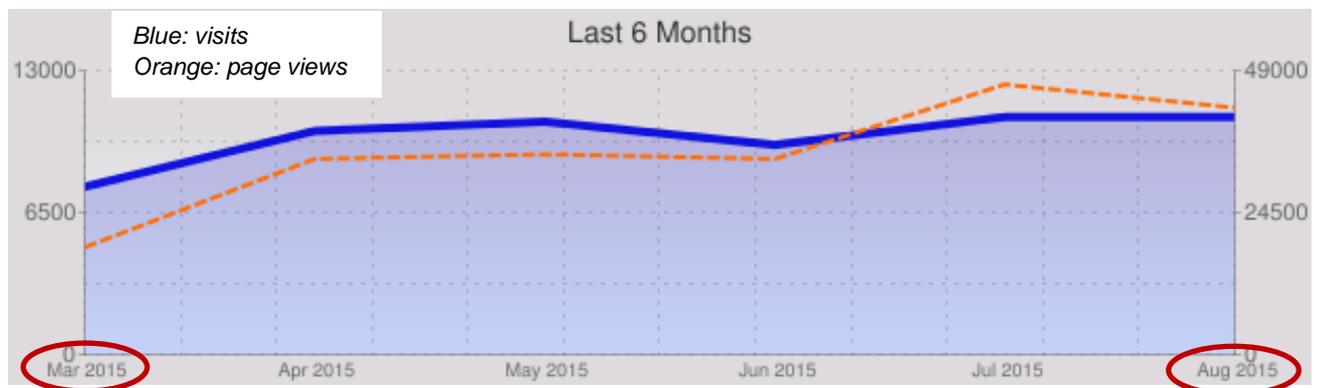


Figure 5: Number of visitors of Factory in a day project website (March to August 2015).

In the last six months, we had 60648 visitors on our website with 213,000 page views, that means that the visitors on average visited 3,4 pages (with a spam rate of 1,9%, date: 8/31/2015). Compared to other projects funded by the EU – as far as we had access to get comparable numbers - this is quite a satisfying number. Since the start of the website in November 2013, we have had 113,327 visitors altogether with 342,848 page views, and in general they visited three pages on the website.

There is no peak to identify in the last six months, so we can conclude that the visitors are generally interested in the project and our participation in the events listed earlier did not cause an increase in numbers of visitors. This can also support our idea of not attending Hannover Messe in 2016, as the event did not cause a rise in visitors and thus more visibility of the project.

With a new statistics tool (Wordpress Statistics 9.1.3) added to the website in spring 2015 we can now also analyse the origin of the visitors. Factory in a day has visitors from all around the globe with these countries being the top 5: China, United States, Ukraine, Germany, and Netherlands.

With China's growing economy we are surely addressing a topic which does cause a lot of interest. With Germany and the Netherlands being the two countries with most partners in the consortium, the interest in the topic can thus be explained. So far, we don't have an explanation for the high numbers of visitors from the Ukraine.

The pages the visitors view most are the project idea, the project goals followed by the milestones.

With regard to social media, we tried to increase the effort of getting more fans, this process is taking up more time than expected. Nevertheless, the following point also has to be taken into account when judging the number of friends on Facebook and the coverage of the posts: The number of fans may not appear to be too overwhelming, but taken into account that Facebook is only relaying news from the project website, it is indicated from the statistics of the website that the most focus is so far on the website itself. The reason for not only relaying information on social media is simply that we want to prevent users from not having access to developments of the project due to the sheer reason that they do not have a Facebook-account. As stated earlier in the deliverable, the topic is taken into account and measures will be developed to raise the impact of social media.

With regard to our YouTube channel, we will get more visitors with the two video deliverables, which are also due in September and will of course be uploaded to all channels. This should also raise our visitor numbers again.

Nevertheless, in the past six months the videos at our YouTube channel have been watched 579 times, the video of our second workshop was accessed most with 270 viewers. Since the last deliverable, the YouTube channel has been increased by one video on the Robothon on the Philip's shaver case, which was uploaded in April 2015. This video had 99 views. The focus of this Robothon was to achieve more flexibility. This was achieved by concentrating on vision, and so the robot could detect the positions of trays and parts without using a fixed position by using 2D and 3D camera techniques. This allows for shorter installation time and lower costs, since no input device is needed to precisely orientate the parts for the robot to grasp.

Shortly before this deliverable was finished, we added also a video on the "Autonomous motion planning: Flexible handling of large plates". As this video is quite new we had so far only 10 views.

4. Newsletter

The external newsletter is sent out roughly twice a year, unless there is urgent news on developments in-between that the readers need to be informed about. So far 198 people have registered to receive the newsletter on our website. The latest issue #3 has been sent out just before this deliverable.

The topics of this newsletter are the recent developments in the use case by Philips (shaver parts to be put in tampon printing machine) as well as the development of a gripper for this particular case by Materialise.



Figure 6: Newsletter issue #3.

5. Publications

Here is a complete list of publications of the consortium since the start of the project. So far, the most publications are Conference publications. With more results coming up, we will try to publish more Journal papers. All the publications are of course also listed in the Participant portal and on our website and social media sites.

Journal Paper:

Understanding the Intention of Human Activities through Semantic Perception: Observation, Understanding and Execution on a Humanoid Robot. Karinne Ramirez Amaro, Michael Beetz and Gordon Cheng. Advanced Robotics Journal, vol. 29, issue 5, Special Issue on Humanoid Robotics (1), March 2015.

Conference Papers:

Erwin Aertbelien and Joris De Schutter, eTaSL/eTC: A constraint-based Task Specification Language and Robot Controller using Expression Graphs, IEEE/RSJ International Conference on Intelligent Robots and Systems, 2014.
Mukunda Bharatheesha, Wouter Caarls, Wouter Jan Wolfslag, Martijn Wisse, Distance Metric Approximation for State-Space RRTs using Supervised Learning, IROS 2014 (International Conference on Intelligent Robots and Systems), Chicago, USA.
Alexander Bubeck, Florian Weisshardt, Alexander Verl, BRIDE - A tool chain for framework-independent development of industrial service robot applications, Verband Deutscher Elektrotechniker e.V. -VDE-, Berlin: ISR/Robotik 2014, Joint Conference of 45th International Symposium on Robotics and 8th German Conference on Robotics. Proceedings. CD-ROM: 2 -3 June 2014, Munich, Germany, parallel to AUTOMATICA Berlin: VDE-Verlag, 2014.
Qujiang Lei, Martijn Wisse, Fast grasping of unknown objects using force balance optimization, IROS 2014 (International Conference on Intelligent Robots and Systems), Chicago, USA.
Philipp Mittendorfer, Emmanuel Dean and Gordon Cheng, Automatic Robot Kinematic Modeling with a Modular Artificial Skin, IEEE-RAS International Conference on Humanoid Robots. November 18-20th 2014. Madrid, Spain.
Philipp Mittendorfer, Emmanuel Dean and Gordon Cheng, 3D Spatial Self-organization of a Modular Artificial Skin, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 14–18 Sept. 2014. Chicago, Illinois, USA.
Karinne Ramirez Amaro, Michael Beetz and Gordon Cheng, Understanding Human Activities from Observation via Semantic Reasoning for Humanoid Robots, 2014 IROS Workshop on AI and Robotics. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2014), 14-18 Sept. 2014. Chicago, Illinois, USA.
Karinne Ramirez Amaro, Michael Beetz and Gordon Cheng, Automatic Segmentation and Recognition of Human Activities from Observation based on Semantic Reasoning, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2014), 14–18 Sept. 2014. Chicago, Illinois, USA.
Karinne Ramirez Amaro, Tetsunari Inamura, Emmanuel Dean-Leon, Michael Beetz and Gordon Cheng, Bootstrapping Humanoid Robot Skills by Extracting Semantic Representations of Human-like Activities from Virtual Reality, 2014 IEEE-RAS International Conference on Humanoid Robots. November 18-20th 2014. Madrid, Spain.
Florian Weisshardt, Jannik Kett, Thiago de Freitas Oliveira Araujo, Alexander Bubeck, Alexander

Verl, Enhancing Software Portability with a Testing and Evaluation Platform, Verband Deutscher Elektrotechniker e.V. -VDE-, Berlin: ISR/Robotik 2014, Joint Conference of 45th International Symposium on Robotics and 8th German Conference on Robotics. Proceedings. CD-ROM : 2 -3 June 2014, Munich, Germany.

Quijiang Lei, Martijn Wisse Unknown object grasping using force balance exploration on a partial point cloud, AIM 2015 IEEE/ASME International Conference on Advanced Intelligent Mechatronic, July 7-11, Busan, Korea

Argun Cencen, Kanter van Deurzen, Jouke C. Verlinden, J.M.P. Geraedts, Exploring Human Robot co-Production. IEEE Emerging Technology and Factory Automation (ETFA), 2014, September 16-19, 2014.

Upcoming publications include one paper which will be introduced at the IROS conference 2015, taking place at the end of September 2015 by partner TUM.

6. Public engagement

Opportunities for ad-hoc public engagement are taken up – for example local science communication events and festivals – open days at institutions to inform the public of scientific work carried out in their area. The next event in this area is going to be the European Robotics Week, which will take place in November 23-29, 2015. Here a number of partners will organize local events to bring robotics to the local communities, be it children, schools or the public in general.

7. Conclusion and next steps

This document, deliverable 8.12, has presented an overview of the dissemination activities performed in the period March - September 2015 of Factory in a day. All previous activities have been reported in other deliverables. It also pointed out upcoming events and communication measures, which will be discussed at the next project meeting in September 2015. The dissemination manager will plan these measures in detail according to the results of discussion there. One new focus will be on social media. The first demonstrations of results, for instance in the Philip's shaver case, will lead to more attention of our online media. With the first demonstrations of our results, a new phase in the communication strategy will be reached as we can now also address the SMEs with more details, and more convincing demonstrations, which will then also be recorded to provide one part of the content for the social media campaign.

This will also start a new phase in the communication/dissemination activities, in which exploitation is more likely in the focus. So far it has not played a major role in the work package.

The actions and the communication plan will be reviewed accordingly and adjusted to the consortium's decisions. We will also monitor all actions. This ensures that it remains aligned with the overall plan, and thus gets as much impact as possible.