



# Industrial-oriented and scientific-oriented dissemination activities 1

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## EXECUTIVE SUMMARY

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This document summarises the industrial and scientific oriented dissemination activities performed by PASSION in its first year. The activities are broad and outlined in detail in the document. The main objective of the dissemination activities is to promote the project both from the point of view of the obtained results and for the generation of business around them.

This objective is pursued by exploiting the project dissemination tools such as PASSION:

- website
- social media
- webinars
- promotional material e.g. fliers and roll-up banners
- press-releases and newsletters,

D6.2 Section 2 provides the update statistics and related analytics of all these tools.

Section 3 discusses the scientific oriented dissemination activities, which comprise the participation to main conferences and workshops, the presentation of results in proceedings as well as in peer-reviewed journals.

Section 4 is dedicated to industrial-oriented activities including the presence at relevant exhibition fairs, the participation to industry driven workshops, and the publication in industry-related journals and magazines,

Finally, the preliminary activities related to standardization are presented in Section 5.



# 1 INTRODUCTION

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This document illustrates the industrial and scientific oriented dissemination activities performed during PASSION first year in order to accomplish the PASSION dissemination objectives as planned in D6.1.

The goal of the dissemination activities has been to promote the project among the different stakeholder groups, focusing on the ones that are key for the commercialization of the PASSION results, identified at the different levels of the PASSION supply chain: i) suppliers, ii) metro-network developers and iii) end-users of the technology. It includes the organization of industrial EPIC workshops and events in which PASSION has been presented to engage with suppliers, but also general public actions such as the upcoming PASSION webinar. A group of relevant importance is represented by the end-users of the technology, that will be reached at the main exhibitions and invited to the different events. Furthermore, we started monitoring the standardization activities, in order to identify opportunities to promote PASSION technology within standard bodies and associations.

In order to accomplish these objectives, PASSION has created a website, and landing pages at relevant social media, i.e., LinkedIn, Facebook and Twitter. In addition, a promotional video was produced and can be viewed via YouTube (see the link in [Website](#) section) and two video interviews were performed as well and can be viewed in the website and on Vimeo.

PASSION partners participated to workshops, conferences and exhibitions disseminating the project results also thanks to developed promotional materials. These and future activities will continue to be announced at the different social media in order to attract as much attention as possible towards the project.

First steps have been also taken to introduce PASSION technology in standardization bodies.



## 2 DISSEMINATION TOOLS

In this section the updated statistics and related analytics for the dissemination tools exploited to promote the project among the different stakeholder groups and communities will be given.

### 2.1 WEBSITE

[www.passion-project.eu](http://www.passion-project.eu)

The complete description of the PASSION website has been given in Deliverable 6.1.

The most viewed page is the home page, which contains most recent news on the project, a quick overview of the objectives, the link to the project promotional video and the contact information, including social accounts, newsletter and PASSION supply chain interest group subscription links.

Figure 1 presents also the views obtained by the other website pages.

The total number of page views has been 4839 and Figure 2 gives the time domain distribution of them until the beginning of M12. Some peaks can be identified around the release of press release, videos and conference events.

1. /	<b>1,887</b> (39.00%)
2. /partners/	<b>470</b> (9.71%)
3. /private-area-2/	<b>339</b> (7.01%)
4. /publications/	<b>209</b> (4.32%)
5. /project/objectives/	<b>199</b> (4.11%)
6. /news-events/allnews/	<b>192</b> (3.97%)
7. /documents/factsheet-project-presentation/	<b>134</b> (2.77%)
8. /project/technical-approach/	<b>121</b> (2.50%)
9. /documents/multimedia/	<b>106</b> (2.19%)
10. /documents/deliverables/	<b>76</b> (1.57%)
11. /news-events/press/	<b>68</b> (1.41%)
12. /news-events/events/	<b>56</b> (1.16%)

Figure 1 Number of views and related percentage for the first 12 web pages in the ranking.

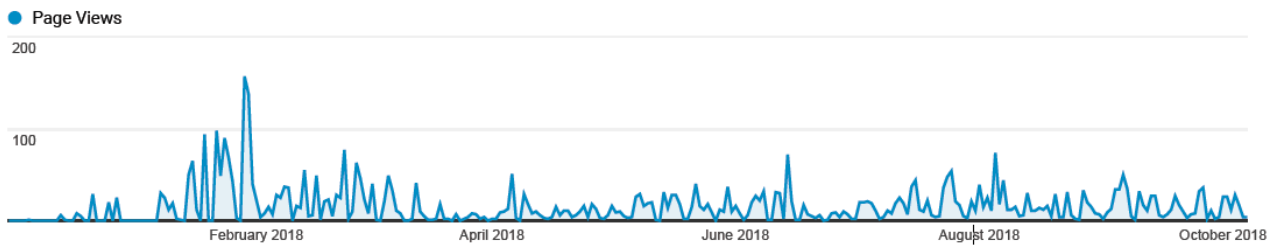


Figure 2 Time distribution of the web page views.

The number of people who accessed our website is 1123, coming from 78 different countries as evidenced in Figure 3 a-b, where also the access time distribution is displayed.

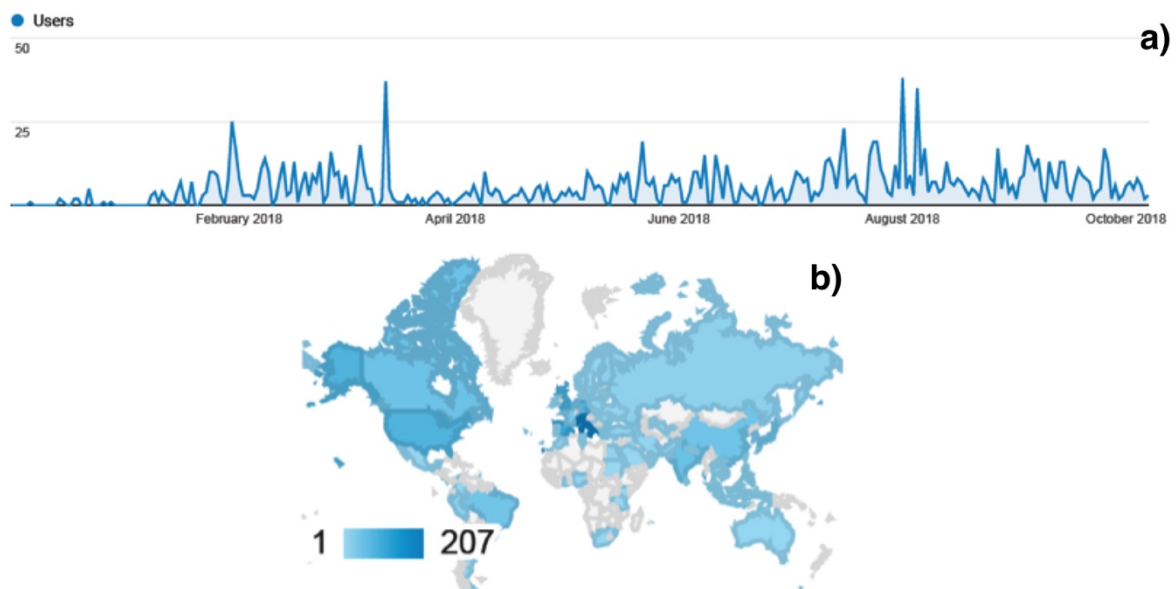


Figure 3 Time distribution of users' accesses and visiting countries location.

### 2.1.1 Videos

The project video of 3-minute duration includes images and animations and can be accessed at the following link: <https://www.youtube.com/watch?v=XmFqzquboYw>.

It received more than 300 visualizations on YouTube. In the multimedia page other 2 videos promote PASSION vision, the “Coordinator perspective” and the video shared on Vimeo “Scientists harness photonics to develop faster, high capacity internet”, which has been played 1067 times. Moreover also 2 radio interviews were given by the Coordinator, prof. Boffi.



Figure 4 PASSION video on YouTube.

### 2.1.2 Newsletter and PASSION supply chain interest group

The website, in the contact section, contains also the subscription to the newsletter, one release promoted the project midterm results; the collection of subscriptions was rearranged in April due to the GDPR 2016/679 taking force.

Suppliers are encouraged to subscribe to the PASSION supply chain interest group through the website link present in the contact page, in this first year 10 companies contacted the project.

## 2.2 SOCIAL MEDIA

In M1 PASSION social network accounts were created; since then all the follower groups grew bigger and bigger and the business, global and scientific communities were informed on PASSION achievements, events and presentations through tweets and posts.

### 2.2.1 Facebook

In this first year 37 Facebook posts were announced obtaining 200 likes and reaching out around 800 persons.



Figure 5 Facebook account.







## 2.2.2 LinkedIn

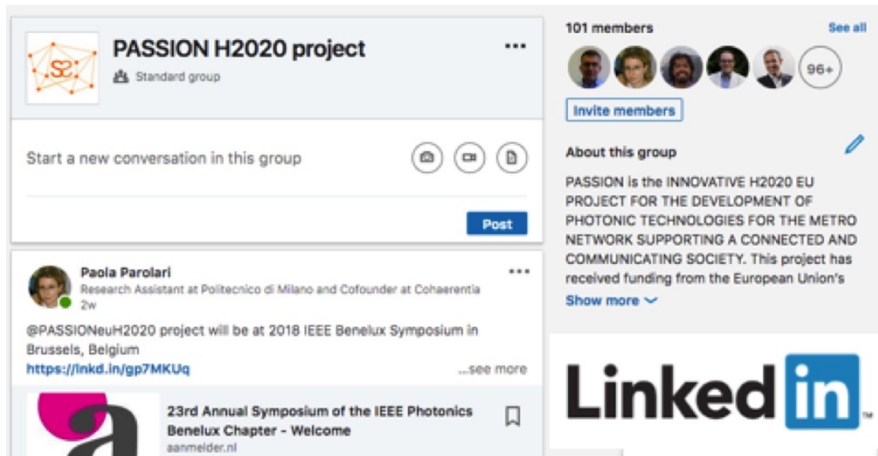


Figure 6 LinkedIn group.

The LinkedIn community has grown to 101 members, and 38 discussions were opened among the group.

## 2.2.3 Twitter



Figure 7 Twitter account

Twitter account reached 107 followers and the 76 tweets received 128 likes.

## 2.3 WEBINARS

The first webinar hosted by PASSION is scheduled for November 30<sup>th</sup> 2018. Prof. Boffi will draw the attention toward the topic “photonics as the key enabling for a super-connected and communicating society”.





Photonics as the key enabling technology for a super-connected and communicating society

Fri, Nov 30, 2018 2:00 PM GMT (3:00 PM CET)



Figure 8 Upcoming webinar.

## 2.4 FLYERS AND ROLLUP

During conferences and exhibitions, the attention was attracted also by flyers and roll-up, used for promotion and to create awareness about the PASSION project. In particular two versions of the flyers were realized and one roll-up (presented in D6.1). Flyers and roll-up banner have been taken for the different events. The material presented here is the most updated version used as promotional material. However, with time and feedback from interested users we will be adapting these to refresh the image of PASSION.



Figure 9 Older a) and updated b) flyers.





## 2.5 PRESS RELEASE

Since the project kick-off meeting there have been 3 press releases, which originated 12 contributions in magazines and news alert. The table below illustrates all the contributions which are also present in the web site section NEWS & EVENTS/ PRESS.

Magazine	Title
Novuslight	PASSION Project: Silicon photonic technology for datacomm
Eletimes	PASSION Transmitters and Receivers: 10-Fold Power-Consumption Reduction
Picmagazine	Photonics Consortium Seeks Low-Cost, High-Speed Metro Data Solutions
Opticalconnectionsnews	Beating the bottleneck: PASSION transmitters and receivers offer 10-fold cut in power-consumption
Laserfocusworld	EU PASSION project to use VCSELs in new silicon photonics architecture
Diariodelweb	<i>La fotonica aiuterà le città a essere più connesse (sprecando di meno)</i>
Tecnologia.libero	'Rivoluzione' luce per città più connesse
Ansa.it	<i>Si prepara 'rivoluzione' della luce per città più connesse e a basso consumo</i>
Ansa.it	<i>La 'rivoluzione della luce' per città sempre più connesse</i>
Novuslight	Harnessing Photonics to Develop Faster, High Capacity Internet Networks
Scitecheuropa	EU Scientists harness photonics to develop faster, high capacity internet connections
Siliconrepublic	Tech found in iPhone X could usher in 'lightspeed' broadband in cities

## 3 SCIENTIFIC-ORIENTED DISSEMINATION

PASSION partners participated to 11 of the main relevant conferences and workshops in the field of optical communications and technologies, presenting the project results among the scientific and industry communities. The participation of PASSION was announced on the website and in social media.

Moreover 9 conference proceedings and 2 journal papers were published so far. Green open access was adopted for the conference proceedings and one gold open access for the journals. Publications can be downloaded also from the webpage related section.



### 3.1 CONFERENCE & WORKSHOPS

Date	Event	Location	Presenter	Talk Topic
31/01/2018	Photonics West	San Francisco, USA	Timo Alto	"Optical interconnects based on VCSELs and low-loss silicon photonics"
12/03/2018	OFC 2018	San Diego, USA	M. S. Moreolo	"Modular SDN-enabled S-BVT Adopting Widely Tunable MEMS VCSEL for Flexible/Elastic Optical Metro Networks"
15/03/2018	OFC 2018	San Diego, USA	P. Parolari	"Beyond 20Gb/s directly modulated widely tunable VCSEL for next generation access network"
09/04/2018	EWOC 2018	Eindhoven, NE	A. Albores Mejia	"Cost effective high speed optical transceivers for short reach IMDD and/or coherent applications"
30/05/2018	ECTC 2018	San Diego, USA	C. Li	"400 Gbps 2-Dimensional optical receiver assembled on wet etched silicon interposer"
15/05/2018	ONDM 2018	Dublin, Ireland	M.S. Moreolo	"Exploring the potential of VCSEL technology for agile and high capacity optical metro networks"
21-22/06/2018	5th Open workshop on Elastic Networks	Valencia, ES	G. Otero	"Comparison of pairwise and hierarchical strategies for edge computing overflow traffic"
03/07/2018	ICTON 2018	Bucharest, Rumania	P. Parolari	"Long wavelength VCSELs exploitation for low-cost and low-power consumption metro and access networks"
04/07/2018	APC 2018	Zurich, CH	M. S. Moreolo	"Programmable optical transmission systems in the hyperconnectivity Era: A synergy of photonic technologies and software-defined networking"
05/07/2018	OECC 2018	Korea	N. Callabretta	"Photonic integrated wdm cross-connects for telecom and datacom networks"
23/09/2018	ECOC2018	Rome, Italy	J. Fernandez-Palacios	"Telefonica optical SDN strategy and use cases"
26/09/2018	ECOC2018	Rome, Italy	P. Boffi	"The PASSION project: a modular approach for 100-Tb/s capacity"
26/09/2018	ECOC2018	Rome, Italy	C. Li	"Silicon Interposer Based QSFP-DD Transceiver Demonstrator with >10 Gbps/mm <sup>2</sup> Bandwidth Density"
27/09/2018	ECOC2018	Rome, Italy	N. Tessema,	"A Novel Modular ROADM Node with Traffic Aggregation/Disaggregation for Ultra-high Capacity SDM Metro Networks"
15-16/09/2018	2018 IEEE Benelux Symposium	Brussels, Belgium	X. Huang	"Automatic measurement platform at EFFECT Photonics: Key enabler for PDK development"
21/09/2018.	1st CTTC Workshop	Sitges, Spain	M. Svaluto Moreolo	Programmable Optical Transmission and Photonic Technologies for Future Metro Networks: the PASSION Approach



### 3.2 CONFERENCE PROCEEDINGS

#	Publication Reference 2018
1	A. Gatto, P. Parolari, C. Neumeyr, and P. Boffi, "Beyond 25 Gb/s Directly-Modulated Widely Tunable VCSEL for Next Generation Access Network," 2018 Optical Fiber Communications Conference and Exposition (OFC), San Diego, CA, 2018, paper Th1E.2.
2	M. S. Moreolo et al., "Modular SDN-enabled S-BVT Adopting Widely Tunable MEMS VCSEL for Flexible/Elastic Optical Metro Networks," 2018 Optical Fiber Communications Conference and Exposition (OFC), San Diego, CA, 2018, paper M1A.7
3	M. S. Moreolo, J. M. Fàbrega, L. Nadal and F. J. Vilchez, "Exploring the potential of VCSEL technology for agile and high capacity optical metro networks," 2018 International Conference on Optical Network Design and Modeling (ONDM), Dublin, 2018, pp. 254-259.
4	C. Li, R. Stabile, F. Kraemer, T. Li and O. Raz, "400 Gbps 2-Dimensional Optical Receiver Assembled on Wet Etched Silicon Interposer," 2018 IEEE 68th Electronic Components and Technology Conference (ECTC), San Diego, CA, 2018, pp. 848-853.
5	M. S. Moreolo, J. M. Fabrega, and L. Nadal, "Programmable Optical Transmission Systems in the Hyperconnectivity Era: A Synergy of Photonic Technologies and Software-Defined Networking," in Advanced Photonics 2018 (BGPP, IPR, NP, NOMA, Sensors, Networks, SPPCom, SOF), OSA Technical Digest (online) (Optical Society of America, 2018), paper NeW3F.2.
6	P. Parolari, A. Gatto and P. Boffi "Long Wavelength VCSELS Exploitation for Low-Cost and Low-Power Consumption Metro and Access Networks," 2018 20th International Conference on Transparent Optical Networks (ICTON), Bucharest, Romania, 2018, paper Tu.D2.4.
7	C. Li, O. Raz, F. Kraemer and R. Stabile "Silicon Interposer Based QSFP-DD Transceiver Demonstrator with >10 Gbps/mm <sup>2</sup> Bandwidth Density" in ECOC Conference 2018, 23-27 September 2018, Roma (IT), paper We2.15
8	N. Tessema, K.Prifti, P. Bitao, R. Stabile, N. Calabretta "A Novel Modular ROADM Node with Traffic Aggregation/Disaggregation for Ultra-high Capacity SDM Metro Networks" in ECOC Conference 2018, 23-27 September 2018, Roma (IT), paper Th2.41N
9	A. Gatto, P. Parolari, P. Martelli, P. Boffi, "VCSEL-based communications for metro and access networks", Photonics in Switching and Computing 2018, Limassol – Cyprus, 19-21 September 2018, paper Th3C.1.

### 3.3 PEER-REVIEWED JOURNAL PAPERS

#	Publication title
<b>2018</b>	
1	C. Rottondi, P. Martelli, P. Boffi, L. Barletta and M. Tornatore, "Crosstalk-Aware Core and Spectrum Assignment in a Multicore Optical Link with Flexible Grid," in IEEE Transactions on Communications, <i>article in press</i> (doi: 10.1109/TCOMM.2018.2881697)
2	M. Rapisarda et al., "Impact of chirp in high-capacity optical metro networks employing directly-modulated VCSELS" Photonics, 2018, 5(4), 51; <a href="https://doi.org/10.3390/photonics5040051">https://doi.org/10.3390/photonics5040051</a>



## 4 INDUSTRIAL-ORIENTED DISSEMINATION

In this first year the main goals of the industrial-oriented dissemination activities were to establish a global PASSION brand and to identify the most adequate entities to build strategic partnerships, targeting the different levels of the supply chain (suppliers, metro-network developers and end-users).

In particular suppliers were engaged in EPIC workshops and EPIC events and companies; metro-network developers and end-users were reached at exhibitions and conferences. In the following the main attended events and the publications in technical and generalist magazines are displayed.

### 4.1 INDUSTRY EVENTS AND WORKSHOPS

Date	Event	Location	Type
13/03/2018	EPIC VIP Party at OFC 2018	San Diego, USA	Event
23-24/08/2018	International Conference on Advanced Laser, Optics and Photonics	Paris, France	Event: "Technology Trends of the European Industry in Lasers and Optics"
5/09/2018	CIOE 2018	Shenzhen, China	Event: "Technology Trends of the European Industry in Devices for Datacom and Sensing"
20/09/2018	Huawei Workshop	Rome, Italy	Workshop: "Photonics landscape in Europe including EU research programs" J. Pozo
26/06/2018	NGON 2018	Nice, France	Talk: "New optical technologies for 5G transport" J. Fernandez-Palacios
28/06/2018	NGON 2018	Nice, France	Talk: "Current and Future Singlemode and Multimode Solutions for Datacom - an Industry Perspective" J.Pozo
12/06/2018	EPIC Workshop Singlemode vs Multimode	CommScope, Kessel-Lo, Belgium	Talk: "Single mode vs. multimode: the PASSION approach" P. Boffi
24/09/2018	EPIC VIP Party at ECOC	Rome, Italy	Event
24-27/09/2018	ECOC 2018	Rome, Italy	Booth
27/09/2018	COBO Meeting at ECOC 2018	Rome, Italy	EPIC presents PASSION in front of the COBO companies
30/11/2018	Photonics as the key enabling technology for a super-connected and communicating society	Electro Optics	Webinar P. Boffi A. Gonzalez



## 4.2 INDUSTRY PUBLICATIONS AND MAGAZINES

Technical and generalist magazines 2018	
1	A. Gonzalez and J. Pozo "The merits of Single-Mode vs. Multimode Fiber Optics", September 2018 <i>Europhotonics</i>
2	A. Gonzalez and J. Pozo "Combining Photonics with modulated VCSELs light sources for the next generation of telecommunication transceivers", July 2018 <i>PIC Magazine</i>

## 5 CONTRIBUTION TO STANDARDISATION

In this first year, efforts have been made to start the participation in international standardisation fora to eventually influence the standardisation activities. A first action has been taken to promote PASSION within Optical Interworking Forum (ONF). Preliminary contact has been established with the ONF-OTCC/TAPI chairperson, with the goal to arrange a liaison meeting.

Initial technical work has been developed to actually map the PASSION technology and related network architecture onto the current standardization activity. In particular, the considered reference SDN model is the Transport API T-API model driven by ONF (GitHub reference: <https://github.com/OpenNetworkingFoundation/TAPI>). Details can be found in D2.1 "Definition of use cases and requirements for network, systems and subsystems", submitted in M10

In the near future the organisation of a formal meeting will follow.

This is a very important step forward, which may help to significantly increase the impact of PASSION in industry.



## 6 CONCLUSIONS

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PASSION started with the promotion of the activities and objectives since the very beginning of the project. The dissemination plan outlined in deliverable D6.1, defined dissemination strategies greatly facilitated partners' participation in the promotion of PASSION-project.

Moreover, the creation of digital contents for the social channels and the organization of specific events has been very successful in creating a group of interest with 187 likes in Facebook, 101 members in LinkedIn and 107 followers in Twitter.

Attention was also attracted by one video on YouTube (309 views) and one on Vimeo (1063 views); 2 radio interviews; 12 press release related articles.

Upcoming activities of PASSION include a webinar scheduled for the 30<sup>th</sup> of November 2018, while contributions and organizations of own workshops are foreseen in the near future. PASSION also foresees continuing with its participation at several different conferences and exhibitions strongly related to PASSION technological developments and to the most interesting stakeholder groups such as end-users of metro-networks.

Up to now partners have participated to 19 industrial-oriented and scientific-oriented dissemination events, namely congresses and workshops, and there have been 13 publications in proceedings, journals and magazines.

Finally, a first contact has been made towards the Optical Interworking Forum (ONF) to promote the PASSION technology and related network architecture.