# Integrated Photonics for the Next Generation of Autonomous Vehicles using InP Technologies

## Deliverable D7.3 (D32)

Overall dissemination strategy including Dissemination and Communication plan (first version)

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|---|---|
| Lead Beneficiary | UNIVERSITY OF VIGO |
| Delivery date | 2020-10-01 |
| Dissemination | Confidential |
| Status | Approved |
| Version | 1.0 |
| Keywords | Dissemination, Key Messages, Target audience, Website, Open Access, Media, Events |

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Marie Skłodowska-Curie grant agreement No 860763

**Document Information**

| | |
|---|---|
| **Grant Agreement Number** | 860763 |
| **Project Acronym** | DRIVE-In |
| **Work Package** | WP7 |
| **Deliverable** | D7.3 |
| **Title** | Overall dissemination strategy including Dissemination and Communication Plan |
| **Author(s)** | Francisco Javier Diaz Otero |
| **File Name** | DRIVE-In_D7.3_ Overall dissemination strategy _UVIGO_20201001_v1.0.docx |

**Abstract**
This document contains detailed dissemination plan and review of activities done in the first year of the project execution. Dissemination plan of the DRIVE-In project is realized in accordance with the guidelines on Exploitation and Dissemination of Results in Horizon 2020.

**Keywords:** Dissemination plan, Dissemination report, Outreach

**Change Record**

| Revision | Date | Description | Reviewer |
|---|---|---|---|
| 0.1 | 1-03-2020 | Outline proposal | Francisco J. Diaz Otero |
| 0.5 | 15-03-2020 | Partial contents taken from technical description | WP7 partners |
| 0.7 | 15-05-2020 | Version for peer review | Anxo Moreira (UVIGO) |
| 0.9 | 30-07-2020 | Reviewed | Braulio Gómez Saavedra (VPI) |
| 1.0 | 01-10-2020 | Final deliverable for the EC | EC |

## EXECUTIVE SUMMARY

The present Plan for Dissemination and Communication (D7.3) introduces the DRIVE-In project dissemination and communication strategy and its implementation plan to be used by the Consortium (Beneficiaries and Partners) in order to ensure the high visibility, accessibility and promotion of the project and its results.

This document will be a reference framework for evaluating the impact of communication and dissemination activities and will be updated and adjusted as the project progresses. The ultimate success of the DRIVE-In project is strongly dependent on well-coordinated dissemination and exploitation activities.

The **main purpose** of the DRIVE-In's Plan for Dissemination and Communication is to ensure that the project research and practical outcomes are widely disseminated to the appropriate target audiences, at appropriate times along the project lifecycle, and particularly at key milestones, via appropriate methods, and that those who can contribute to the development, evaluation, uptake and exploitation of the DRIVE-In outcomes can be identified and encouraged to interact with the project on a regular and systematic basis.

The project **key message** is as follows: **"To ensure successful dissemination and exploitation of results and scientific advancements, as well as increasing awareness in the general public of the benefit and need for new researchers provided with cutting-edge training in InP integrated photonics technologies. Specifically: 1) Promote two-way knowledge and data share and transfer between academic and non-academic partners; 2) Maximize industrial uptake of knowledge, to ensure value creation and commercial exploitation of R&D results; 3) Disseminate the project concepts, ideas and results to the general public through the Outreach activities planned; 4) Identify, assess and protect all relevant project results"**.

All the information used for dissemination and communication purposes will be tailored to the specific dissemination channel. The **project website** will be the primary information source for the target audiences. **Open access** to scientific publications and research data is also important for the Consortium, and in particular for the applied research organizations and academia. **Mass media** (i.e. radio, television, newspapers, specialist and technical publications and Internet) shall be devised as additional avenues for the promotion of the project objectives and results. Finally, Consortium partners will actively participate in external **events** and the organization of project workshops.

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# ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| Dx.y | Deliverable numbered, for example D7.3 |
| EC | European Commission |
| EC-GA | Grant Agreement |
| ESR | Early Stage Researcher |
| EU | European Union |
| IPR | Intellectual Property Rights |
| Mx | Month, for example M12 refers to month 12 |
| PIC | Photonic Integrated Circuit |
| WP | Work Package |

# 1. INTRODUCTION

Integrated Photonics for the Next Generation of Autonomous Vehicles using InP Technologies (DRIVE-In) aims to provide cutting-edge training to young researchers in the emerging field of integrated photonics, fostering its application in the automotive industry through the development of novel generic Indium-Phosphide (InP) Process Design Kits (PDKs) as well as the creation of disruptive simulation tools and modelling procedures for use in optoelectronic (combined integrated photonics and microelectronics) systems. The DRIVE-In network will train four ESRs at two leading European academic institutions and three companies, thus forming a strong interdisciplinary network between industry and technical sciences. Together the ESRs will combine academic research and industrial knowledge to overcome specific challenges of the integrated photonics sector, related to hybridisation of integrated photonics and microelectronics, increasing Photonic Integrated Circuit (PIC) complexity, availability of PIC design tools, need for high-performance Free Space Optic (FSO) links and need for software simulation and fast-generation layout models. DRIVE-In is implemented through secondments of the ESRs between both the academic and industrial participants.

Owing to these benefits, and mainly fueled by the demand for higher data volumes and speeds by the very competitive fields using Information and Technology (IT) technologies (e.g. medical a, space, automotive and aeronautical) the global Photonic Integrated Circuits (PICs) market is emerging at an exceptional rate. However, full exploitation of PIC based technologies still presents formidable challenges, in particular for the development of compact models and new automated and standardized processes of fabrication. In this context, the sector is facing an increased need of well-trained multidisciplinary scientists with specific scientific and technical skills which are needed to tackle the development of high performing InP PICs.

DRIVE-In will train the four ESRs at two beneficiaries: University of Vigo (UVigo), a leading European academic institution – and at VPI Photonics (VPIP), an innovative company; as well as at three partners: Fraunhofer Heinrich-Hertz-Institute (HHIF), a leading European academic institution – and at Automotive Technology Centre of Galicia (CTAG) and Bright Photonics (BP), both innovative companies. As such, DRIVE-In forms a strong interdisciplinary network between industry and technical sciences to overcome specific challenges of the integrated photonics sector, where implementation takes place through inter-sectoral secondments of the ESRs between these academic and industrial participants.

The ultimate success of DRIVE-IN project is strongly dependent on well-coordinated dissemination and exploitation activities. Therefore, the beneficiaries and partners of the DRIVE-In project have decided to include a specific work package that also includes exploitation activities for this purpose: WP7. Special focus will be on disseminating project findings to the Integrated Photonics sector, which will be the main beneficiary of the novel technologies, data and knowledge.

Dissemination activities will address raising awareness and getting the necessary feedback, as well as building understanding and facilitating adoption of project results by the different stakeholder groups who can directly benefit from the project. Dissemination activities will be performed at different geographical levels (i.e. local, regional and European).

In the case of the DRIVE-In project, the main dissemination and communication **objectives and goals** are as follows:

- To identify the main target groups of the project.
- To raise awareness of the target audiences, particularly the relevant application market segments, about the objectives of the project, its results, its benefits, use and applicability.
- To share DRIVE-In experience and objectives within the network and target groups.
- To get the necessary feedback from them to focus on the innovation needs of the sector.
- To seek the support of the general public, authorities, lobbies and policy makers.

The **target groups** for DRIVE-IN cover the whole integrated photonics´ ecosystem and potential users of results. The dedicated work package and implementation measures have been defined to ensure efficient dissemination of project results to the wider **scientific and industrial communities** as well as effective knowledge transfer among **the network**. Moreover, the partners will undertake several initiatives focused on broader communication and outreach to the **general public**. Between them, **high-schools** as focus of potential future researchers; **young women** as they are underrepresented in natural sciences and engineering and in particular in photonics; **citizens** in a broad sense, as future users of the technology; **policy makers** and different application sectors. The communication activities will address the public policy perspective of EU research and innovation funding.

The communication material and visual identity of the project will be developed to support the implementation of the plan and made available on a dedicated website. Press releases, audiovisual content, events posters, brochures and banners, posts in social media, and technical documents will be developed according to this visual identity. All the information used for dissemination and communication purposes will be tailored to the specific **dissemination channel**.

The dissemination of the project's achievements should never be in conflict with the potential protection of generated intellectual property (e.g. patent, product design) and further industrial application. The DRIVE-In project is expected to generate concrete impact for the beneficiaries in terms of generation of new knowledge and development of new tools/products/services. Due to this reason the beneficiaries will agree and formalize an Exploitation Plan, to be drafted and maintained throughout the project by the Coordinator, based on input from the beneficiaries. The plan will schedule and coordinate innovation related activities within respective work packages and the beneficiaries will seek patent protection when applicable.

This document first describes the overall strategy for dissemination and communication, that is to say, the plan purpose, key messages, target audience, tools and channels, and management. Then it devotes an individual section to the five main dissemination tools and channels, namely the project website, open access repositories, social media, mass media and events. In this sections are described the specific goals for the different disseminations channels along with the target audience, communication material, basic schedule and impact tracking.

# 2. STRATEGY FOR DISSEMINATION AND COMMUNICATION

## 2.1 PURPOSE

The main **purpose** of the DRIVE-In Plan for Dissemination and Communication is to ensure that those who can contribute to the development, evaluation and exploitation of the project can be identified and encouraged to interact with the Consortium on a regular basis. For this purpose, the Plan for Dissemination and Communication will ensure that the project outcomes are widely disseminated to the appropriate target audiences, at appropriate times along the project lifecycle, via appropriate methods. The **objectives** of the dissemination and communication activities will be distributed in different phases along the project lifetime. Apart from the main objectives described in the Introduction, our general objectives are these ones:

- **Phase 1 (M1-M12): Raising awareness** of project's activities.
- **Phase 2 (M12-M24): Promoting the understanding** about what DRIVE-In project can offer.
- **Phase 3 (M24-M30): Engaging with target groups** to make use of project results.
- **Phase 4 (M30-M42): Influencing decision-making.**

## 2.2 KEY MESSAGES

The **message** component of the dissemination and communication strategy is the set of arguments and facts to convince the targeted audiences of the value in using DRIVE-In results. The DRIVE-In project has several key messages:

- *Research is an important career choice.*
- *For development of future applications, such as autonomous vehicle, quantum, space or sensing, InP integrated photonics will be a leading technology.*
- *Academic education with hands-on experience leads to deeper understanding, which is only possible with academia-industry cooperation.*
- *European research programmes are one of the leading programmes worldwide.*
- *DRIVE-IN project enables development of ESRs with a unique set of capabilities that will extend their career possibilities across the value chain.*

In a similar way as with the objectives of the dissemination plan, the key messages will be disseminated along the project lifetime:

- **Phase 1 (M1-M12):** *The project exists …; The objectives of the project are …; The potential impact of the project is ...*
- **Phase 2 (M12-M24):** *Beneficiaries, partners and ESRs are working on the development of …*
- **Phase 3 (M24-M30):** *Preliminary results are …*
- **Phase 4 (M30-M42):** *The achievements are …; The impact of this developments is ...: Lessons-learned and future research are …*

## 2.3 TARGET AUDIENCE

The target audiences for DRIVE-IN project dissemination have been grouped into five different categories, namely the **scientific community, private sector, policy makers, public bodies and general public.**

Concerning **scientific and academic groups**, the scientific results and the technological advancements obtained from the research projects described in sections will be either published in high profile, high impact, peer-reviewed journals, continuing the practice from the groups involved or will be IP protected with patent applications. To ensure the access to the project results, **all scientific publications will be open-access** – i.e. free of charge online access for the user.

Overall, the measures proposed for dissemination of project results increase the impact of DRIVE-In in the following ways: i) attract the interest of potential partners and public or private investors; ii) draw the attention of national governments and regional authorities; iii) strengthen ESRs reputation and career perspectives at national and international level; and iv) generate market demand for the project results. The activities for dissemination of results for scientific and industrial communities as well as within the network are described in next table.

| Activity description | Success Indicator |
|---|---|
| Organization of the final DRIVE-IN meeting at the end of the project | Number of attendees above 100 |
| Scientific paper publication in journals with high impact factor (JOSA B, Optics Letters). | At least 12 scientific papers in total (3 per ESR) |
| Oral and poster presentations in international conferences and trade-shows (ECOC, CLEO; OFC, ECIO) | Minimum 8 presentations at key international events (2 per ESR) |
| Press releases for the local and international media | At least 4 press releases |
| Dialogue with industry and trade organisations (EPIC, JePPIX, Photon Delta, Brainport) | More than 12 visits to industry and trade organisations. |
| Creation of the DRIVE-IN website and LinkedIn group | Size of LinkedIn group > 150 |
| Development of factsheet, poster and brochure describing the project | 10 events where factsheet, poster and/or brochure are used |
| Dissemination via partners' involvement in different scientific and industrial networks and the several outlined secondments (see section 1.4–"quality of interaction" for more details) | At least 4 of these dissemination interactions per ESR |

**TABLE 1: ACTIVITIES FOR DISSEMINATION OF DRIVE-IN RESULTS FOR SCIENTIFIC AND INDUSTRIAL COMMUNITIES AND WITHIN THE NETWORK.**

Accordingly, talking about the **private sector, policy makers, public bodies and general public, targeted messages, means and languages will be tailored for each specific audience** – providing targeted project related information to multiple audiences in a strategic and effective manner and engaging in one- and two-way exchange. In particular, **outreach activities**, entailing communication initiatives directed more broadly to the general public, rather than specifically to the research community or other stakeholders**, will be emphasized** with the overall goal of creating awareness among the general public about the research performed by DRIVE-In and its implications for Europe and its citizens. The communication strategy will also envisage ways of measuring communication efforts and impact at different

stages of the project. For each activity, proper indicators will be used to assess the impact, as outlined under Table 2.

| Activity description and Audience | Impact assessment |
|---|---|
| The ESRs will give **interviews** to the popular press and/or university/science popular papers on their work and ambitions as a researcher. The goal is to educate the general public about the benefit of their work and to interest young students in following career paths as a scientist. | Nº of interviews, reach of the publications and feedback |
| The ESRs will write articles for the **popular press** describing their joint work and benefit from participating in the EU-funded network. This will show the public and science community the benefits of private-public network collaborations and the possible impact that their work will have on the quality of life for European citizens. | Nº of articles, feedback through comments on webpages and communication with the author(s)) |
| The ESRs will **visit schools**, giving talks either to larger or to more restricted audiences, have discussions with students or participate in events such as a school's career fair. The ESRs will present results of their work, promote the benefits of a career in European research and help raise awareness of science, technology and research to young audiences. | Number of visits, feedback through short questionnaire to students, references/invitations for further visits to the same/other schools |
| Within the scope of the project's workshops and seminars, the ESRs will organize and lead visits to UVigo, and VPIP facilities, where the external participants/visitors can view the scientists and technicians working environment, the laboratory facilities and experimental equipment used – while receiving information from ongoing experiments and projects from the ESRs and other staff. These visits will also be open to the participation of the general public and/or groups from local schools. This will have an impact on the general perception of the researchers work and the importance of scientific and technological advances. | Number of requests for visits, number and type of participants per visit, feedback through short questionnaire to participants |
| DRIVE-In will maintain a public website with a mix of articles for the general public, a place for posting vacancies, eTraining material, publication lists, movies and contact information - for all researchers involved. The ESRs will introduce the description of their project and will post relevant information for non-experts and potential business partners. In addition, a Twitter account will be set up that will enable to easily communicate new results not only between the partners of DRIVE-In but also to the big public. | Number of visits/followers |

## 2.4 TOOLS & CHANNELS

Figure 1 presents an overview of DRIVE-In tools and channels for dissemination, which are described in detail in the following sections.


**FIGURE 1: OVERVIEW OF DISSEMINATION CHANNELS**

## 2.5 MANAGEMENT

All Consortium partners and beneficiaries are contributors to the dissemination and communication activities under the overall management of WP7 Leader, the University of Vigo. The management responsibilities for the dissemination activities are to be shared between the Coordinator and the Supervisory Board of DRIVE-In to ensure an active involvement of all partners (beneficiaries and partner organisations) in the dissemination of

the project results. Senior researchers are actively involved in dissemination activities, strongly encouraging and mentoring ESRs to publish papers and participate in international conferences.

Beneficiaries and partners will contribute particularly to:

- Identifying and informing about dissemination opportunities (e.g. events, publications, etc.).
- Providing relevant information and documentation to enrich the project website.
- Posting news and project results in social media.
- Presenting the project at relevant national and international conferences, workshops and other events.
- Supporting the promotion and organization of DRIVE-In workshops, in particular engaging key stakeholders to act as multipliers and to motivate participants.

The plan will be updated during the project execution on annual basis to consider the results obtained and the exploitation remarks. This will give the opportunity to focus the dissemination and communication on the most relevant activities in order to achieve an effective and proactive dissemination aligned with the exploitation plan.

# 3. PROJECT WEBSITE

The website (www.driveinphotonics.com) will be the main information source for all DRIVE-In project target groups. As a primary communication tool, the website address will appear in all project's communication material.

The purpose of the website will be to promote the project and its final results by providing targeted information to various audiences within and beyond the project's own community.

The website is addressed to the five main target groups of the DRIVE-In project as shown in the following table.

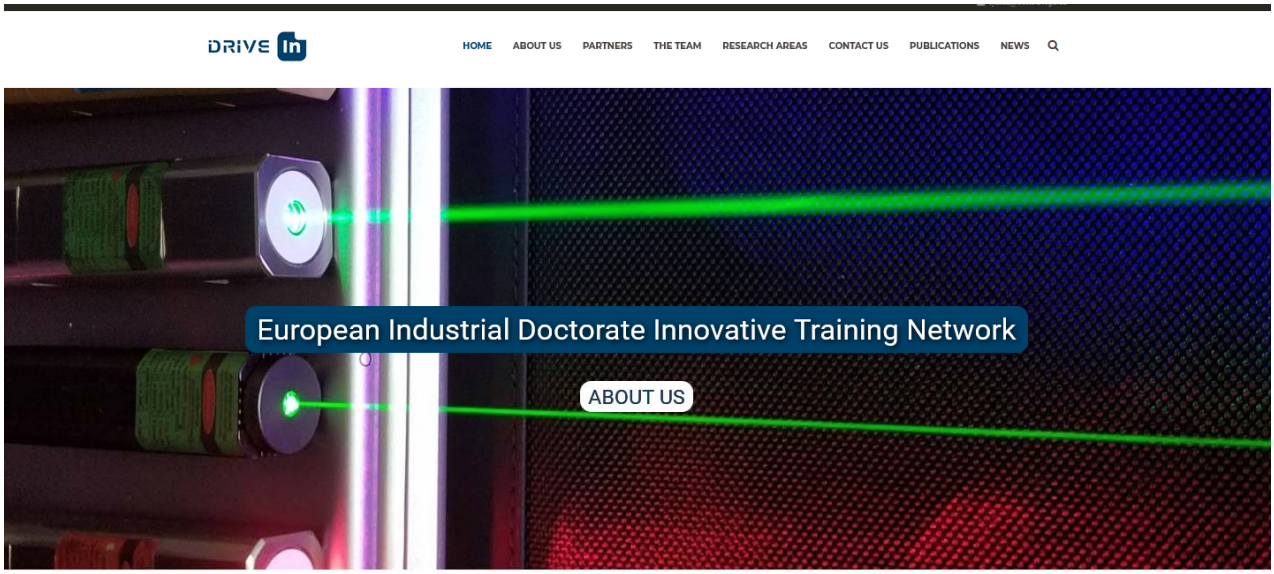
| Communication tools & channels | Main target groups | | | | | |
|---|---|---|---|---|---|---|
| | Policy makers | Infrastructure & Service providers | Research & Education community | Private Sector | Related projects and initiatives | General public |
| Visual identity | ■ | ■ | ■ | ■ | ■ | ■ |
| Factsheet | | ■ | ■ | ■ | ■ | |
| Poster | | ■ | ■ | ■ | ■ | |
| Brochure | | ■ | ■ | ■ | ■ | |
| Website | ■ | ■ | ■ | ■ | ■ | ■ |
| Social Networks | ■ | ■ | ■ | ■ | ■ | ■ |
| Videos | ■ | ■ | ■ | ■ | ■ | ■ |
| Newsletter | ■ | ■ | ■ | ■ | ■ | |
| Press releases | ■ | ■ | | | | ■ |

**TABLE 3: COMMUNICATION TOOLS, CHANNELS AND TARGET GROUPS**

As it was explained above, the website will be the primary communication tool for dissemination and communication. For this reason, it will be a repository for a wide type of information and communication material. Between them we can cite project leaflets, deliverables and summaries, scientific articles, news and press releases, newsletters, project presentations, videos, interviews in radio/TV, events with DRIVE-In participation. Below are some captures of the website that is now in its first version, up and running.

The website will be regularly updated (on average, bimonthly updates are foreseen). Moreover, the effectiveness of the website will be periodically analyed by means of the Google Analytics tool. This will allow reports to be run on the website, giving a very clear picture of information such as:

- Users count visiting the website and visit time,
- Languages and locations of visitors,
- Devices used for browsing the website.

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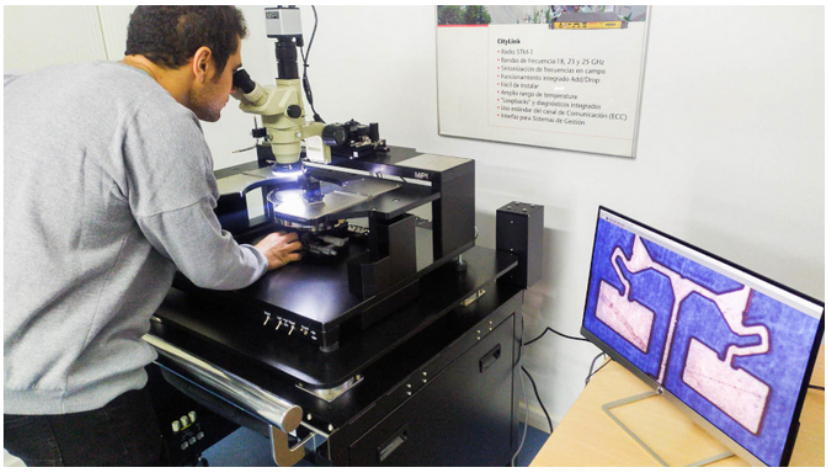
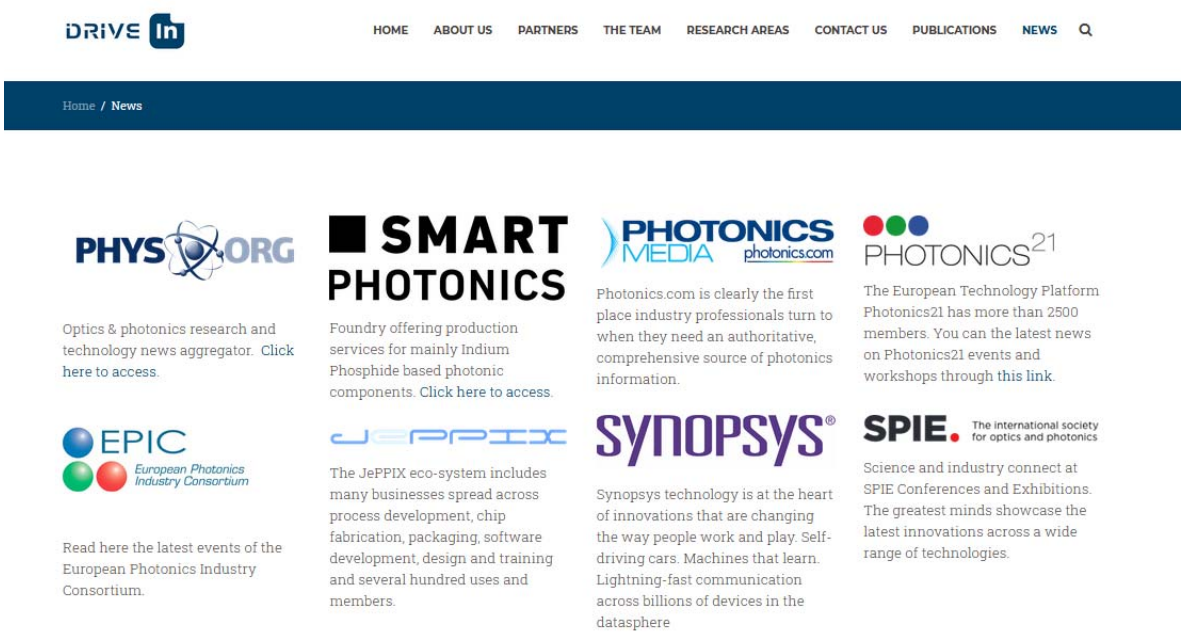


### Working Packages

**WP 2: Development of compact models and simulation methods for hybrid photonic/electronic systems**

This WP will focus on the generation of compact models of components for ADAS and safety applications for large-scale fabrication in InP foundries. It will start with a complete and detailed plan and workflow to develop new compact models of the building blocks used in InP generic integration platform following autonomous driving standards. These compact models are fundamental for the basic BBs, which will be used for quality control of the fabrication process and constitute the basis for the advanced solid-state LIDAR and FSO circuit simulations needed in ADAS. This WP will provide valuable data for the generation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EPIC
European Photonics Industry Consortium
Read here the latest events of the European Photonics Industry Consortium.
JePPIX
The JePPIX eco-system includes many businesses spread across process development, chip fabrication, packaging, software development, design and training and several hundred uses and members.
SYNOPSYS
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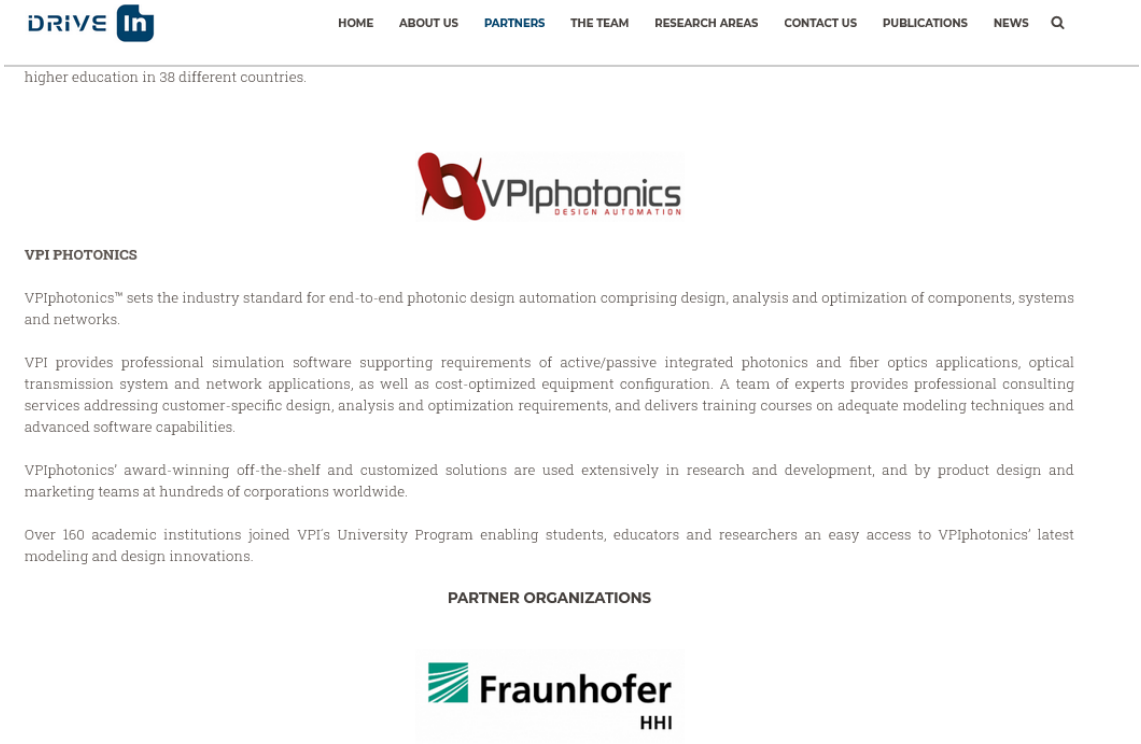
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Together with international partners from research and industry, Fraunhofer HHI works in the whole spectrum of digital infrastructure – from fundamental research to the development of prototypes and solutions. The institute participates in the standardization of information and communication technologies

# 4. OPEN ACCESS REPOSITORIES

Scientific publishing is important for the Consortium, in particular for the academia. In order to make the best use out of research results, a clear strategy for knowledge management and protection, as well as for scientific publishing will be implemented in DRIVE-In. Basically, dissemination of project achievements should never block the potential IPR protection.

All charges related to open-access fees from publications resulting from DRIVE-In training program, will be fully supported by the consortium beneficiaries. Both open access publishing and self-archiving options will be considered (also called ‚gold' or ‚green' open access model, respectively). DRIVE-In is thus aligned with the H2020 principles of Open Science, through which we expect to provide significant new opportunities for researchers to disseminate, share, explore and collaborate with other researchers.

Project partners are responsible for the publication of relevant results to scientific community by scientific publications. Whenever possible, a scientific publication, as soon as possible and at the latest six months after the publication time, will be deposited in an electronic copy of the published version or final peer-reviewed manuscript accepted for publication in a repository for scientific publications.

Adequate indicators to measure the impact of the dissemination carried out through open access repositories have been defined. Next table presents the minimum objectives to be achieved and the indicators for measurement of success.

**TABLE 4. IMPACT OF DISSEMINATION (OPEN ACCESS REPOSITORIES)**

| Activity description | Success Indicator |
|---|---|
| Scientific paper publication in journals with high impact factor (JOSA B, Optics Letters). | At least 12 scientific papers in total (3 per ESR) |
| Oral and poster presentations in international conferences and trade-shows (ECOC, CLEO; OFC, ECIO) | Minimum 8 presentations at key international events (2 per ESR) |
| Dissemination via partners' involvement in different scientific and industrial networks and the several outlined secondments (see section 1.4–"quality of interaction" for more details) | At least 4 of these dissemination interactions per ESR |

# 5. SOCIAL MEDIA

Social media are nowadays the best dissemination channel intended for a general audience for the project. The DRIVE-In Consortium believes this is a good means of outreach to the public, and the presence of the project on major social networking platforms has been established from the early stages of the project.

Social media are addressed to the five main target groups of the DRIVE-In project and between the objectives of this action are:

- To update on new technical results, publications, research data and events that might be of interest for the Scientific community and the Private sector.
- To raise awareness of the project, its results, its benefits, their use and applicability, as well as seek support of Policy makers and Public bodies.
- To raise interest of the general public.

The DRIVE-In Consortium will use a **LinkedIn** account (https://www.linkedin.com/in/xxxxx). This LinkedIn profile should be defined in two months. Among the information to be collected are the number of members/followers, its country and sector distribution, number of visits, likes, shares and comments. The indicators for impact tracking in this dissemination channel are shown in the following table.

**TABLE 5. IMPACT OF DISSEMINATION (SOCIAL MEDIA)**

| Activity description | Success Indicator |
|---|---|
| Creation of the DRIVE-In website and LinkedIn group | Size of LinkedIn group > 50 |
| Development of factsheet, poster and brochure describing the project | 5 events where factsheet, poster and/or brochure are used |

# 6. MASS MEDIA

Radio, television, newspapers… are other means for the promotion of the project objectives and results. Different scientific and social announcements resulting from the various project activities will be selected for press releases and submission to professional newspapers as well as sector magazines. Also a digital newsletter will be issued regularly as a very efficient communication tool to inform about relevant milestones or events of the project. The mass media is addressed to the five main target groups of the DRIVE-In project.

Publication material will be sent to regional, national and European media. Moreover, press releases, radio interviews and television broadcasts, pictures and photos will be distributed to media and uploaded in the website. News will be periodically published in the project website, communicating the most relevant project outcomes. And a newsletter will be regularly distributed across the network and to other members of the integrated photonics ecosystem.

Adequate indicators to measure the impact of the dissemination carried out through mass media have been defined and are displayed in the table below.

**TABLE 6. IMPACT OF DISSEMINATION (MASS MEDIA)**

| Activity description | Success Indicator |
|---|---|
| Press releases for the local and international media | At least 4 press releases |
| Development of factsheet, poster and brochure describing the project | 5 events where factsheet, poster and/or brochure are used |
| ESRs will give **interviews** to the popular press and/or university/science popular papers on their work and ambitions as a researcher. The goal is to educate the general public about the benefit of their work and to interest young students in following career paths as a scientist. | Number of interviews, reach of the publications and feedback |

# 7. EVENTS

Consortium beneficiaries and partners will actively participate in events such as technical conferences, industrial congresses, exhibitions, general public events and meetings. Events will ensure the involvement of target groups of stakeholders. The organization of workshops to share the knowledge acquired and discuss DRIVE-In results is a way of developing national and international connections with industrial, governmental, opinion leaders, and engaging in a direct, face-to-face communications and discourse. The dissemination events are also addressed to the five main target groups of the DRIVE-In project.

International conferences will be addressed to the scientific community and the private sector. Industrial exhibitions and trade fairs will be mainly addressed to the integrated photonics ecosystem. Workshops will be addressed to the scientific community, private sector, policy makers and public bodies.

Indicators for this dissemination shall track the number and type of attended events, number of presentations, registered people at organized workshops and distribution of dissemination material, as shown in the table below.

**TABLE 7. IMPACT OF DISSEMINATION (EVENTS)**

| Activity description | Success Indicator |
|---|---|
| Organization of the final DRIVE-In meeting at the end of the project | Number of attendees above 50 |
| Dialogue with industry and trade organisations (EPIC, JePPIX, Photon Delta, Brainport) | More than 5 visits to industry and trade organisations. |
| Dissemination via partners' involvement in different scientific and industrial networks and the several outlined secondments (see section 1.4–"quality of interaction" for more details) | At least 4 of these dissemination interactions per ESR |
| ESRs to **visit** schools, giving talks either to larger or to more restricted audiences, have discussions with students, or participate in events such as a school's career fair. ESRs will present results of their work, promote the benefits of a career in European research and help raise awareness of science, technology and research to young audiences. The first target will be schools close to the beneficiaries UVigo and VPI | Number of visits, feedback through short questionnaire to students, references/invitations for further visits to the same/other schools |
| Within the scope of the project's workshops and seminars, the ESRs will organize and lead visits to UVigo and VPI facilities, where the external participants/visitors can view the scientists and technicians working environment, the laboratory facilities and experimental equipment used – while receiving information from ongoing experiments and projects from the ESRs and other staff. These visits will also be open to the participation of the general public and/or groups from local schools. This will have an impact on the general perception of the researchers work and the importance of scientific and technological advances. | Number of requests for visits, number and type of participants per visit, feedback through short questionnaire to participants |

## 7.1 SPECIAL EVENT: RAISING AWARENESS OF WOMEN IN INTEGRATED PHOTONICS

The European economy needs more entrepreneurs and more leaders to create businesses based on exciting advances in technology. An education in science, technology, engineering or math, collectively known as STEM, is one of the most effective tools for launching new businesses. It is from this foundation that new products and services evolve, and innovative enterprises are born.

To leverage the widest possible range of ideas and creativity, we must tap into the entire population in all its diversity. To achieve this economic imperative, we need to encourage more young people to pursue a STEM education. This is particularly true for women, who make up an ever-growing percentage of STEM programs, but are not yet at parity with their male counterparts in many fields. Yet as we see increasing numbers of women in STEM field more broadly, women still comprise less than ~10% of the overall photonics workforce in many parts of Europe. And there is a complete lack of knowledge about how many women are involved in integrated photonics and the percentage related to their male colleagues.

There are several barriers affecting women's interest in and pursuit of STEM careers, including conscious and unconscious biases; lack of awareness regarding STEM programs, opportunities and the great progress made in many areas; and limited access to female STEM role models and professional mentors.

Being aware of the value of attracting young people to STEM disciplines and also to disseminate the technology and scientific activities to female researchers, we have developed an extra activity, out of the proposal. These are a series of events that first will try to disseminate to young people, women focused, the broad range of applications and career possibilities in this field of research; to develop a database of women in integrated photonics; to create a group of women related to integrated photonics for mutual interaction; to engage companies to provide opportunities for women in integrated photonics disciplines; and finally to counteract the circumstance that in our team there are no female ESRs.

The activities we have designed to fulfill these goals are:

- To create a panel with senior women leaders in photonics that will share career experiences, perspectives on the current state of diversity in our industry, and offer ideas to young women on steps that they can all take to build a career in the integrated photonics ecosystem. This panel will be recorded as a series of videos to be distributed through social media and organizations to academic institutions (high-schools and universities), as well as in companies (using EPIC distribution channels).

- To create a database of women in the integrated photonics ecosystem. This database will allow them to create their own social media groups related to their different interests (technical, job search, etc, …).
- To foster collaborations and conversations amongst women in academia and industry and to encourage and retain women in the field of photonics and optics: Industry lab tours for grad students.
- To create a mentorship and co-coaching program to connect women across industry and academia, at different levels of seniority and age groups.

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Once the bases of communication and dissemination activities have been established, in the next months we will move forward in several directions:

- We will consolidate the tools already created: website, Linkedin, newsletter and the realization of an online Info Day on integrated photonics to raise awareness of DRIVE-In.
- We will carry out a kick off presentation of the program in Berlin, aimed at companies in the sector, which will show the characteristics of the program and the benefits of technology.
- The ESRs will participate in the annual integrated photonics design course organized by Jeppix, Joint European Platform for Photonic Integration of Components and Circuits (http://www.jeppix.eu/) and with a duration of 15 days.
- We will distribute press releases for the local and international media describing different aspects of DRIVE-In: how the ESRs are working in VPI Photonics or Bright Photonics, advances in their academic or professional careers, cultural or social aspects of the program, including team work,…
- In addition, a flyer describing benefits and applications of the technology will be designed to be sent by mail and in newsletter format to all sectors with interest in photonics: automotive, textile, health. Through Epic and the University of Vigo, news about the project will be sent to companies, clusters and business groups targeted for this program.

## ANNEX. DRIVE-In IMAGE


DRIVE In
DRIVE In