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LIGHTJUMPS

"An efficient and effective platform for the cooperation of photonics clusters and the exploitation of European SMEs potential."

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PUBLISHABLE SUMMARY

Project Context and Main Objectives

Photonics is a key innovation driver in many research and application areas like telecommunications, lighting, entertainment, laser-assisted manufacturing and sensors. Europe is a leading actor in the photonics sector and it is paramount to create a solid framework and virtual infrastructure, foster the competitiveness and global leadership of the EU photonic industry and contribute to the creation of growth and jobs in Europe, whilst raising, at the same time, the awareness of the importance of photonics by all stakeholders, including industry, academiaand wider public.

However, EU photonics clusters and organisations still encounter several difficulties and barrriers to their development, in particular:

i) academia and industry face difficulties in networking efficiently;
ii) there is inability and a lack of ambition in extending targets and cooperation;
iii) important actors are missing in the value chain;
iv) clusters' roles and activities are still non-uniform and are fragmented at the regional and national levels.

The LightJumps project stemmed from the strategic goal to overcome heterogeneity and fragmentation in the European photonics sector at national, regional and cluster levels as well as the desire to aid the establishment of a coherent European framework for supporting industry in tapping into and exploiting the vast opportunities of photonic technologies in wide range of application areas.

The LightJumps project strived to promote the strengthening of photonics cluster and sector development organisations by building good business development and entrepreneurship practices among those organisations and among their SME members.

The LightJumps mission has been to:

a) Bring more SMEs into the photonics business irrespective of their technology, application or business focus in order to stimulate innovation and growth for Europe. LightJumps has been a marketing effort to promote the photonics sector to entrepreneurs assuring more of them get involved and grow within the sector.
b) Accelerate 30 SMEs in the sector by giving them the hands-on support of six influential European clusters in the Netherlands, France, Germany and Italy.
c) Support the new photonics public private platform, the national photonics platforms and the projects partners themselves by advancing the photonics SME cluster community in Europe.

Work Performed

During the whole duration of the project, partners have fruitfully collaborated to achieve the foreseen results and being able to reach the defined objectives and KPI. The first year of the project was dedicated to the setting up of the foundations of the project activities; partners gathered and elaborated relevant information on the photonics landscape and applications, identified promising technologies and key-sectors, elaborated a classification scheme to harmonize information coming from different existing databases of Photonics organizations,

analyzed the development scenarios, needs of photonics networks and organizations as well as the relevant factors that hamper a seamless and efficient full innovation chain. The LightJumps Knowledge Base Platform (www.lightjumps.eu) was developed integrating existing photonics database (such as Photonics21, EPIC and SPIE) as well as the photonics platform developed by COBRA/JEPPIX (www.jeppix.eu with 180 organisation) and the database of Alta Brillanza (n° 61 entities). Besides representing the LightJumps website, the platform also hosts a Knowledge Base section, an EU accelerator section accessible by users registered to the LightJumps community. The EU accelerator gives registered users the possibilities to make advanced search on a set of qualified contents considered pivotal for innovation and for the photonics sector (such as patents, papers, ideas and applications, key enabling technologies, funded projects, grants). The Community is currently populated by 5.218 Photonics organizations all over the world.
During the second year of the project, partners organised several activities to support Photonics SMEs and to enhance the clusters collaboration, such as:

- Mentoring to SMEs. A common methodology was discussed, agreed and adopted by each cluster on how a mentoring process should be conducted and what could have been the main interesting topics for the mentored companies. A total of 33 companies received mentoring from 11 expert mentors on several topics, spanning from public funding, to networking and business development
- Support SMEs in the elaboration of business cases aiming to attract interests of potential partners for the development of their project/ideas and aiming and also to represent "calls to action" for potential entrepreneurs, stimulating interest and action.
- Organisation of coaching and master classes to 29 SMEs selected by clusters and focused on the use of the H2020 SME Instrument. In fact the evaluation criteria of this popular EU grant mirrors completely traditional Business plan criteria of investors and therefore represented a very useful tool to attract interest from SMEs
- Elaboration of showcases on the most inspiring of SME members, showing the richness, diversity and vibrancy of the Photonics sector
- Organisation of the 1st edition of the European Photonics Venture Forum with a total of 105 participants from all over Europe.
- Participation of the partners to several EU conferences and workshops and organisation of events (such as Alta Brillanza 2015 in Milan, September 2015) where information about LightJumps project have been disseminated
- Wide and targeted dissemination campaign on the available funding opportunities at regional, national and European level towards the members of the LightJumps communities and clusters.

Final results and impacts

Partners have fruitfully collaborated to achieve the foreseen results and being able to reach the defined objectives and KPI. The main results achieved in the two years project were:

- The elaboration of a classification scheme to accommodate data import from several photonics databases including Photonics21, EPIC and SPIE. This classification scheme allows

additional unstructured information to be associated with instances in future photonics databases and includes a much wider range of organisation types than the previously existing databases;

- A comprehensive gathering of information and analyses of the development scenarios and needs of European photonics networks and clusters was conducted in order to identify the industrial and market needs of the photonics organisations, the relevant factors that hamper a seamless and efficient full innovation chain and integration of clusters in the European photonics stakeholders' community and the available existing opportunities;
- The realization of the on-line knowledge management and European matching platform (www.lightjumps.eu)

  At the end of the project, the platform counted 5.218 organisations as members of the Community, 18 millions of papers, 5 million of patents and more than 98.200 projects.
- Selection of 26 photonics ideas and applications making use of key enabling technologies that can be implemented in different sectors ranging from industrial manufacturing to health care, and have also started selecting business cases.
- Support to SMEs business development through several activities, such as:
    - Mentoring: 33 SMEs received mentoring from the clusters
    - Coaching and Master Class organisations: 29 companies participated to the Master Classes organised by the cluster and where the popular EU grant Horizon 2020 SME Instrument, of which the evaluation criteria mirrors completely traditional Business plan criteria of investors, was used as a tool to attract interest.
    - Elaboration of Business Cases and Show Cases: clusters helped companies in elaborating business cases (aiming to attract interests of potential partners for the development of the project/ideas and aiming and also to represent "calls to action" for potential entrepreneurs, stimulating interest and action) and show cases showing the richness, diversity and vibrancy of the Photonics sector
    - Targeted dissemination campaign on the available funding opportunities at regional, national and European level towards the members of the LightJumps communities and clusters.
- Strenghening of inter-clusters collaboration: the major advantage obtained by LightJumps clusters was the exchange of information, best practices and experience and the elaboration of common methodologies and guidelines on how to realise the different activities.
- Organisation of the 1st edition of the European Photonics Venture Forum and participation of the partners to several EU conferences and workshops and organisation of events (such as Alta Brillanza 2015 in Milan, September 2015) where information about LightJumps project have been disseminated.

The project tangible results for SMEs are:

- 33 SMEs received executive mentoring
- 29 SMEs received coaching on H2020 SME Instrument

- 10 SMEs applied for, or are about to apply for, either H2020 SME Instrument Phase 1 or Phase 2.Of these 10, 1 Italian SME won the SME Instrument Phase 1 call on the Space sector
- 9 Organisations (2 Irish, 3 Italian, 2 Ducth, 2 Germans) received a detailed European and National grant scan as well as suggestions on how to apply for suitable grants.
- 6 SMEs are about to apply to regional grants.
- 24 SMEs were selected for pitching Present themselves in front of VCs, corporate leaders, policy makers and other industry experts. 6 of them will be invited to present once more at the European Venture Summit in Düsseldorf.
- One SME was able to attract two investors
- One partnership was established between a Dutch Company dedicated to working on skin autofluorescence in human tissue with an Italian University, they are currently evaluating the possibility to apply for a H2020 SME instrument