



Press Release

Innovation hub secures €10 million to create 750 new hi-tech jobs

An innovation hub designed to help SMEs become intelligent digital businesses by taking advantage of photonics-based technologies looks set to create 750 new hi-tech jobs over the next 4 years, having secured €10 million from the EU's H2020 programme.

Aiming to support over 100 new product innovations based on photonics over the next 4 years, ACTPHAST 4.0 will leverage the R&I spend of the companies involved by 2.8 times, generate over €700 million in increased company revenues and create 750 new jobs all across Europe.

The 'one-stop-shop' for photonics innovation support, [ACTPHAST 4.0](#), centrally coordinated by the [Vrije Universiteit Brussel](#) (University of Brussels), has secured €10 million to help drive the digitization of European industry following the success of its predecessor ACTPHAST.

Short for '**Accelerating photonics innovation for SME's: a one stop-shop-incubator**', ACTPHAST 4.0 provides companies that are first-time users who would not normally use optics or photonics in their products, as well as those that are already established within the photonics industry, with bespoke prototyping solutions, tailoring their new product innovation to be fit for purpose in the modern digital economy.

While photonics technologies are essential to new Industry 4.0 applications like the Internet of Things (IoT), Factories of the Future (FoF), Smart Cities, Autonomous Vehicles, and with the need for sensors, optical fibers, special lenses, LEDs, and quantum technology, ACTPHAST 4.0 can deliver these highly specialized technologies and the critical expertise for their deployment that are often out of reach to a small to medium sized business.

ACTPHAST 4.0 will continue the work of its predecessor which supported more than 100 companies and created over 700 new jobs since 2013 by providing advanced light-based solutions to knowledge-intensive companies such as [HoloXica](#), (medical hologram imaging), [LazerSport](#) (Augmented Reality bike helmets) and [TOMRA](#) (food sorting machines).

Looking to go further by creating 750 jobs over the next four years as a direct result of their intervention, ACTPHAST 4.0 will make the transition from its current state as an access center for photonics technologies, to a full-service photonics innovation incubator for European SMEs.

Game Changer

ACTPHAST 4.0 differs from its predecessor in that it is an incubator for rapid prototyping of an already developed product concept that offers parallel progression of financing and

business go-to-market planning. Project coordinator and managing director of the Brussels Photonics Team (**BPHOT**) at VUB, Professor Hugo Thienpont explains:

“ACTPHAST 4.0 is a game-changer in revitalizing European manufacturing, and as one of the vital catalysts to the digitization of European industry. ACTPHAST 4.0 offers new opportunities to boost photonics innovation in Europe at a scale and with a leveraging factor that is unprecedented.”

With its partners and its close ties to the European Pilot Lines, the innovation hub can provide potential SME clients with access to fibre or micro optics, and integrated photonic platforms with customized services ranging from design to full system prototyping as well as sustained business, technology and financial coaching.

“The coaching support services for SMEs we offer are a vital complementary action running alongside the deep innovation interventions. We make sure that the companies are fully “primed” before, during and after they engage with ACTPHAST 4.0 on innovation projects related to their product so they can accelerate on all fronts towards commercial success,” Professor Thienpont said.

Breaking Down Barriers

The ACTPHAST 4.0 model is unique in a European context in that it is set up to provide a single entry point into a fully integrated prototyping supply chain across the broad spectrum of photonics technology platforms.

In order to develop photonic-enhanced products, a complex process requiring one or more expensive technology supply chains, including design, prototyping, characterization, manufacturing and testing, packaging and integration needs to be followed. Access to scaling-up facilities such as pilot lines, or companies who will take up the low-cost mass manufacturing of the new product can be difficult to find.

“The majority of SMEs today,” central outreach coordinator, Peter Doyle said, “do not have access to experts in the business and technical aspects of innovating with photonics that can work continuously with them to incubate their particular innovation.”

“The highly-skilled people that support the execution of the innovation with the most advanced photonics technology platforms are often out of reach to a small business. SMEs may not be able to take the financial risk to recruit these experts or invest in diverse technological facilities that are crucial in photonics-driven innovation processes,” said Doyle.

ACTPHAST makes this cutting-edge technology and expertise available in a subsidized format to any European company – with a particular emphasis on SMEs – for the purposes of collaborating on photonics innovation projects which will have a substantial impact on the companies’ business growth in terms of new revenues and job creation.

A successful SME having gone through the ACTPHAST process is HOLOXICA, a hi-tech company specializing in holographic 3D static images and video displays. CEO Dr Javid Khan explains:

“ACTPHAST provided us with expertise in the development of our key component which is a holographic optical element. We needed support and ways to develop our next gen display. ACTPHAST enabled us through their network to access this technology.”

“The major benefits are partnerships: I would recommend it to high tech SMEs who need to solve very specific problems in optics and photonics,” Dr Khan said.

About ACTPHAST 4.0

ACTPHAST 4.0 supports and accelerates the innovation capacity of European companies by providing them with [direct access to the expertise and state-of-the-art facilities of Europe's leading photonics research centres \(the ACTPHAST 4.0 Partners\)](#), enabling companies to exploit the tremendous commercial potential of applied photonics. There are 24 research institutes who together make up the ACTPHAST 4.0 Partners.

Together the ACTPHAST 4.0 Partners provide a full spectrum of photonics [technology platforms ranging from fibre optics and micro optics, to highly integrated photonic platforms](#) (7 technology platforms in all), with capabilities extending from design through to full system prototyping.

ACTPHAST 4.0 operates as an open call to all European companies (big and small, but particularly targeted at SMEs) so they can avail of timely, cost-effective, and low risk photonics innovation support, and that the extensive range of capabilities within the consortium can impact across a wide [range of industrial sectors and application domains](#), from communications to consumer-related products, and life sciences to industrial manufacturing.

The access to top-level experts and leading photonics technology platforms provided by the ACTPHAST 4.0 consortium is realized through [focused innovation projects executed in relatively short timeframes](#) (typically 6-9 months) with a critical mass of suitably qualified companies with high potential product concepts. The technical innovation support is supplemented by expert business and financial coaching supports to help ensure that the innovation activities are also commercially focused and primed for market success.

ACTPHAST 4.0 is closely aligned with the Photonics Pilot Lines and Mass Manufacturing in Europe to seamlessly progress successful prototypes developed through the ACTPHAST 4.0 incubator all the way to large-scale production and market-ready products. In addition, ACTPHAST 4.0 includes Europe Unlimited as a 25th partner in the consortium who run the highly successful TechTour program around Europe each year to match venture capital with high potential start-ups and scale-ups in key technology areas. Together with this partner and in close collaboration with Photonics21 and the Photonics PPP, ACTPHAST 4.0 will deliver the European Photonics Venture Forum (EPVF) once a year at key locations around Europe to help boost the level of new financial investment sources for photonics innovation by European companies.

As a result of its innovation support activities, ACTPHAST 4.0 is expected to deliver a substantial increase in the revenues and employment numbers of the supported companies by enabling faster time-to-market of new product opportunities and addressing emerging markets where photonics is a key enabling technology. Furthermore, through its [extensive outreach activities](#), ACTPHAST 4.0 will ensure there is an increased level of awareness and understanding across European industries of the technical and commercial potential of photonics, especially amongst first users and "non-photonics" end user industries.

ACTPHAST 4.0 is [particularly suited to the needs of small to medium-sized enterprises \(SMEs\)](#) who do not have the financial resources to invest in in-house R&D expertise and state-of-the-art technologies, nor to undertake risky innovation projects. ACTPHAST 4.0

support is heavily subsidized for projects undertaken with SMEs (100% subsidy for the first 30K€ of costs for an innovation project and 75% subsidy for all project costs over 30K€ including follow-on projects with the same company. For large-scale companies, the subsidy is 50% on all project costs).

ACTPHAST 4.0 is designed to provide open access to photonics innovation support for all European companies who meet the eligibility criteria, and we have [strict governance structures and systems in place around the key persons responsible for running the program](#) to ensure that ACTPHAST 4.0 remains true to its mission and mandate, and that all decisions are open, transparent and properly accounted for.

Contact for Further Information

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