

UNDER EMBARGO UNTIL 24 FEBRUARY 2017

NUI Galway is First in Ireland to Join PHABLABS 4.0 - Bringing the Power of Photonics to Galway

PHABLABS 4.0 aims to inspire young minds, future generations of entrepreneurs, technicians and engineers in photonics, building bridges between science and research to support the next revolution in digitisation

Friday, 24 February, 2017: NUI Galway has been selected as one of 11 European top-level photonics institutes, and the first in Ireland, to join forces with PHABLABS 4.0, a European-wide project making photonics – the technology of light – accessible to citizens through a new hub in Galway.

The ambitious project will provide a suite of 33 Photonics Workshops, 11 Photonics Challenger Projects, and Photonics Toolkits customised for three specific user groups: Young minds (10-14 years), students (15-18 years) and young professionals, entrepreneurs and technicians (+18 years). Located at the Maker Space in the James Hardiman Library at NUI Galway, the PHABLABS centre will provide access and academic support to entrepreneurs who wish to prototype their ideas and avail in the use of novel 3D printing facilities and materials.

Commenting on the announcement of the PHABLABS 4.0 hub, Professor Martin Leahy, Chair of Applied Physics at NUI Galway said: “We are delighted to be selected among the best Photonics centres in Europe to harness and combine the world of photonics with the growing creative ecosystem of PHABLABS. Photonics is one of the key enabling technologies driving the internet, cinema, medical diagnostics and device manufacture, art, intelligent robotics and ultimately the economy. PHABLABS 4.0 is a global, collaborative, knowledge sharing network that provides a platform for learners, educators, technologists, researchers, makers and innovators, providing stimulus for local entrepreneurship. We hope the Galway hub will be used regularly and that the technologies you have dreamed about can be brought to life.”

Led by Professor Leahy, the Centre for Photonics and Imaging at the School of Physics in NUI Galway, will promote photonics and encourage the next generation of innovators at the Galway hub. Photonics, using photons or particles of light in many applications, can provide game-changing solutions to future societal challenges in a wide scale of domains such as energy, aerospace, mobility, food safety, healthcare, bio-photonics, ICT and manufacturing for industry. For now, photonics' huge potential is still a great unknown to many people, even though it is all around us and commonly used in everyday life through; smartphones, TV and large screens, 3D applications, smart driving cars, even healthy vegetables involve light technology.

By integrating photonics and its many applications PHABLABS 4.0 will allow young people to put seemingly unattainable ideas into practice with laser equipment, LED, lenses, optical fibre and programmable electronic chips in a way that is both fun and inspiring. The project aims to spark ideas and pave the road to innovative concepts that become a starting point for a bright future as a technician, engineer or researcher.

The Photonics Workshops, Photonics Challenger Projects and Photonics Toolkits will stimulate hands-on design, fabrication, experiments, and the building of innovative systems with photonics components. Next to personal development, teamwork and co-creation, the PHABLABS 4.0 modules will nurture the 21st Century skills of the participants.

After the creation and design of modules in the first development phase, PHABLABS Galway will test all Workshops and Challenger Projects with the necessary components for hands-on design, fabrication and experiments (from June 2017-March 2018). From June 2017, different user groups such as schools will be invited to the PHABLAB on campus to participate in test panels and give their feedback.

Hugo Thienpont, coordinator of the project and director of VUB B-PHOT Brussels Photonics, explains: “There is a huge opportunity to inspire real interest in science among young people by engaging them in real-life experiments. Getting acquainted with new technologies to create concrete projects can speed up the learning curve fundamentally. The challenge is to excite them in an attractive and inspiring way to achieve meaningful impact. PHABLABS 4.0 builds bridges between science and research to support the next revolution in digitisation.”

For more details on PHABLABS 4.0 visit www.phablabs.eu.

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Notes to Editors

About the Centre for Photonics and Imaging, NUI Galway

The Centre for Photonics and Imaging at NUI Galway has identified integrated activities spanning fundamental science, education, applied research and technology transfer. The key objective of NUI Galway Photonics’ activities is the discovery of new science and the development of core intellectual property, carefully managed by the University, in close collaboration with indigenous and multinational industries.

The objectives of NUI Galway’s Centre for Photonics and Imaging are to:

Advance the reputation of NUI-Galway in optics, imaging and laser science, by promoting excellence in fundamental research and through international collaboration.

Underpin existing research activities in industrial R&D in Ireland.

Create new collaborations with other academic researchers, and with specific companies, in the field of application of lasers, optics, and imaging, to biotech and ICT.

Stimulate new spin-off companies, especially in the Biotechnology and ICT sectors, based on proprietary advances in optics and laser technologies.

Provide skilled technical expertise and state-of-the-art facilities with regional, national and international relevance.

<https://www.nuigalway.ie/science/schoolofphysics/research/centreforphotonic sandimaging/>

PHABLABS 4.0 puts young talent in the spotlight

Photonics Workshops will cover in total 11 different topics that help to understand the wide variety of applications in photonics. Through the tailored modules for each target group, participants will work towards a specific objective or result.

Photonics Challenger Projects will start from a well-defined challenge that needs research and creativity to design. Participants will elaborate and test new ideas with a link to other Key Enabling Technologies. A final ‘Photonics Challenger Project Contest’ will raise the bar to develop game-changing projects.

Photonics Toolkits for Workshops or Challenger Projects are low-cost boxes that will provide the Fab Labs with a core set of photonics components to facilitate ongoing innovation and stimulate curiosity. Tools, such as optical fibres, optical design software and 3D printer with transparent material that are not yet available in Fab Labs will be provided.

About PHABLABS 4.0

PHABLABS 4.0 aims to inspire young minds, future generations of technicians, engineers and entrepreneurs by making photonics accessible through the ecosystem of Fab Labs in Europe. For this European project, a Photonics Public Private Partnership supported by Photonics21 and Horizon2020, 11 partners and institutes in photonics join forces with 14 pilot Fab Labs. The Vrije Universiteit Brussel (VUB) takes up the role as coordinator of PHABLABS 4.0, represented by B-PHOT Brussels Photonics Team. VUB B-PHOT is an international center of excellence in optics and photonics that is internationally recognized for its basic, strategic, applied and industrial research in these fields.

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Direct links through to:

- Photonics partners: <http://phablabs.eu/photonics-partners>

- Pilot Fab Labs: <http://phablabs.eu/pilot-fab-labs>

- A sneak preview of the workshop Photonics Cuddly Toy (Theme: Photonics meets textiles): <http://phablabs.eu/workshop/photonics-cuddly-toy>

About NUI Galway

The University was established in the heart of Galway City, on the west coast of Ireland, in 1845. Since then it has advanced knowledge teaching and learning, through research and innovation, and community engagement.

Over 18,000 students study at NUI Galway, where 2,600 staff provide the very best in research-led education.

NUI Galway's teaching and research is recognised through its consistent rise in international rankings. The University is placed in the Top 250 of both the Times Higher Education (THE) World University Rankings 2016/2017 and the QS World University Rankings 2016/17.

With an extensive network of industry, community and academic collaborators around the world, NUI Galway researchers are tackling some of the most pressing issues of our times. Internationally renowned research centres based here include CÚRAM Centre for Research in Medical Devices, Insight Centre for Data Analytics, Moore Institute, Institute for Life course and Society and The Ryan Institute for Environmental, Marine and Energy.

NUI Galway has been listed as one of the most beautiful universities in Europe according to Business Insider. For more information visit www.nuigalway.ie or view all NUI Galway news here.

*The University's official title is National University of Ireland Galway. Please note that the only official abbreviation is NUI Galway.