Pixel Photonics, a Quantum technology spin-off from WWU Münster, raised 1.45 million euros in seed-funding from HTGF, Quantonation and business angels

Münster, 29th of March 2022 - Pixel Photonics, a start-up out of the physics department of WWU Münster founded in 2020, has raised 1.45 million euros in a seed-round from German VC fund High-Tech Gründerfonds (HTGF), French quantum-focused VC fund Quantonation as well as the photonic industry veteran Dr. Hendrik Sabert. Pixel Photonics develops highly scalable integrated-optical single-photon detectors that enable scaling of solutions in quantum computing, QKD and imaging among others. The underlying waveguide based SNSPD approach could be used to boost performance of photonic quantum computing, quantum key distribution, microscopy, or other sensing applications, that require highly efficient detection of light at single photon level. During the incorporation, Pixel Photonics was supported by the REACH EUREGIO Start-up Center in Münster as well as an EXIST research transfer grant.

Picture 1: The founding team of Pixel Photonics: Christoph Seidenstücker, Fabian Beutel, Nicolai Walter, Martin Wolff and Dr. Wladick Hartmann (from left). © ESC/REACH Münster / Thomas Mohn.

Gefördert durch:

Bundesministerium für Wirtschaft und Klimaschutz

aufgrund eines Beschlusses des Deutschen Bundestages

EXIST Existenzgründungen aus der Wissenschaft

ESF Europäischer Sozialfonds für Deutschland

EUROPÄISCHE UNION

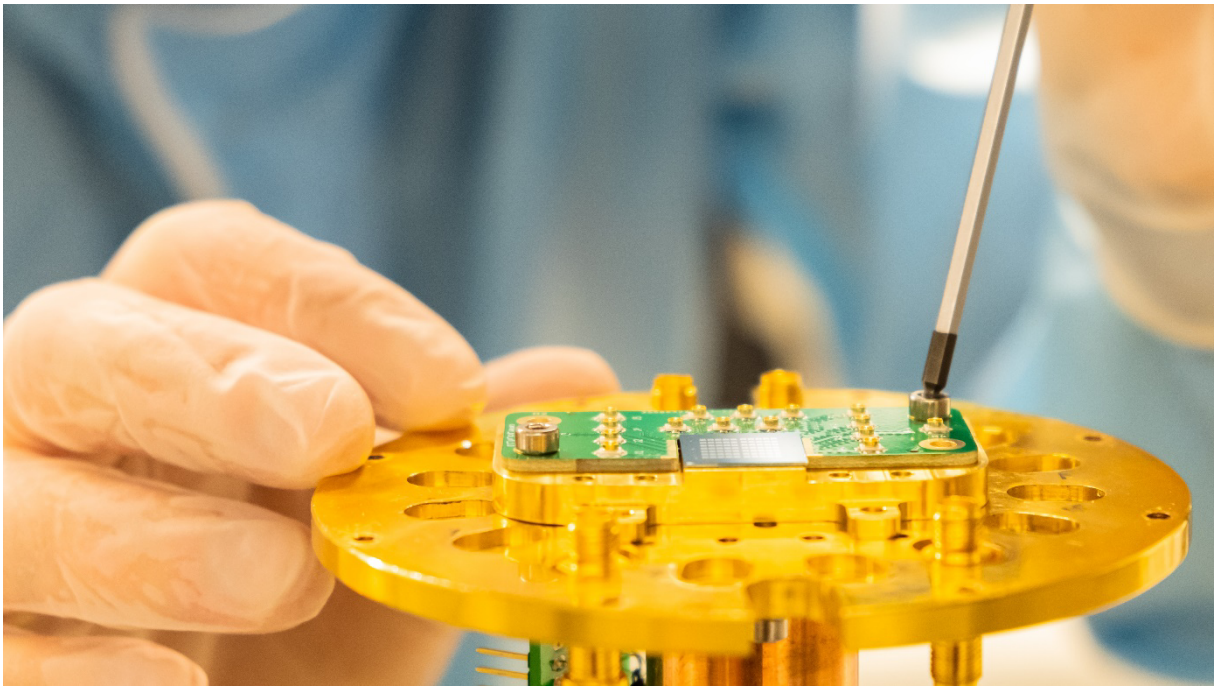
Zusammen. Zukunft. Gestalten.

"The seed-funding provides us with much needed capital to expand our team and to shorten our time-to-market in the rapidly evolving market for single photon detectors. With the financial support and commitment of our investors we can leverage national and international research programs in quantum technologies effectively. We are proud as a team, that such high-profile venture funds as Quantonation and HTGF are sharing our vision." (Nicolai Walter, CEO and co-founder Pixel Photonics GmbH)

Quantonation and HTGF have co-led the seed round together with serial founder, former venture capital manager and photonics industry veteran Dr. Hendrik Sabert. With this funding Pixel Photonics will further expand its international team in Germany and its facilities at the Center for Nanotechnology (CeNTech) in Münster and accelerate the commercialization of its products. In addition, Pixel Photonics will benefit from Quantonation's outstanding international network within the quantum technology community as well as from access to HTGF's extensive industrial technologies portfolio.

"Pixel Photonic's unique technological approach to single photon detection combines scalability with high detection efficiency at very high speed. This makes new applications feasible and helps to scale the number of channels in quantum computing or data rates in quantum cryptography without increasing technical complexity. The team of physicists turned entrepreneurs, which emerged from the groups of Prof. Pernice an Prof. Schuck, persuaded us by its vision and expertise." (Christophe Jurczak, partner at Quantonation)

The idea behind Pixel's detector design was born years ago out of research of Prof. Wolfram Pernice and Prof. Carsten Schuck. Researchers were looking for single photon detectors with multiple channels in combination with additional functionality provided by integrated optics. This resulted in the first sale of a detector with four channels for research purposes early this year. Systems with 32 or more channels will be introduced in the near future.



Picture 2: Impressions from the lab – multi-channel single photon detector from Pixel Photonics GmbH. © Pixel Photonics GmbH / Dr. Wladick Hartmann.

In addition to venture capital funding, Pixel Photonics and the physics department of the Westfälische Wilhelms-Universität (WWU) Münster have been awarded 2.6 million euros in research funding from the Federal Ministry of Education and Research (BMBF) to use quantum physics to improve data security. The so-called QSAMIS project, which is funded by BMBF's "Enabling Start-up" grant for quantum technologies and photonics, aims to develop the first gigabit Q*uantum key distribution (QKD) system* to enable quantum-secure communication for broadband networks.

"Deep-tech start-ups built on outstanding academic research are one of the focus areas for investments of HTGF. Pixel Photonics' single photon detectors offer promising applications in the quantum technologies market and enable innovation in further industrial and biomedical applications. Additionally, we are excited about our third investment with our colleagues from Quantonation." (Dr. Gernot Berger, investment manager at HTGF)

About Pixel Photonics: Pixel Photonics was founded in 2020 as a spin-off from the groups of Prof. Wolfram Pernice and Prof. Carsten Schuck at WWU Münster by Nicolai Walter, Dr. Wladick Hartmann, Fabian Beutel, Martin Wolff and Christoph Seidenstücker with the goal to commercialize highly scalable single-photon detectors based on a waveguide based SNSPD approach. Applications for Pixel Photonics' technology range from optical quantum computing, Quantum key distribution (QKD), microscopy to metrology and sensing. The company consists of an international team with 8 FTEs and has received venture funding from Quantonation and HTGF as well as research funding from the Federal Ministry of Education¬ and Research (BMBF) in addition to the EXIST research transfer grant.

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About Quantonation: Quantonation is the first venture capital fund dedicated to quantum technologies and innovative physics. Areas such as material design, high-performance computing, cybersecurity or ultra-precise detection are now driven by innovation based on these disruptive technologies. Quantonation aims to support their transition to marketable products for the industry. Quantonation is headquartered in Paris, France, and invests worldwide. Learn more: https://www.quantonation.com

About High-Tech Gründerfonds: High-Tech Gründerfonds (HTGF) is a seed investor that finances high-potential, tech-driven start-ups. With around EUR 900 million in total investment volume across three funds and an international network of partners, HTGF has already helped forge more than 650 start-ups since 2005. Driven by their expertise, entrepreneurial spirit and passion, its team of experienced investment managers and startup experts help guide the development of young companies. HTGF's focus is on high-tech start-ups in the fields of digital tech, industrial technology, life sciences, chemistry and related business areas. To date, external investors have injected more than EUR 4 billion into the HTGF portfolio via more than 1,800 follow-on financing rounds. HTGF has also successfully sold interests in more than 150 companies. Investors in this public-private partnership include the Federal Ministry for Economic Affairs and Climate Action, KfW Capital, and Fraunhofer-Gesellschaft e.V., as well as the companies ALTANA, BASF, BAYER, B.Braun, Boehringer Ingelheim, Robert Bosch, BÜFA, CEWE, Deutsche Bank, Deutsche Post DHL, Dräger, 1+1 AG, EVONIK, EWE AG, FOND OF, Haniel, Hettich, Knauf, Körber, LANXESS, media + more venture Beteiligungs GmbH & Co. KG, PHOENIX CONTACT, QIAGEN, RWE Generation SE, SAP, Schufa, Schwarz Gruppe, STIHL, Thüga, Vector Informatik, WACKER and Wilh. Werhahn KG. Learn more: https://www.htgf.de/en

About REACH: The North Rhine-Westphalian Ministry for Economic Affairs, Innovation, Digitalization and Energy has been funding the establishment and work of a start-up center under the leadership of the WWU with a total of around 20 million euros since 2019. This has resulted in the REACH EUREGIO Start-up Center with the participation of the cooperation partners Münster University of Applied Sciences, Digital Hub münsterLAND and the University of Twente. The Start-up Center provides the necessary infrastructure and resources to support those interested in founding their own start-ups in the universities. As a university start-up center, REACH is committed to the transfer of scientific knowledge into start-up practice. Learn more: https://www.reach-euregio.de