**Sentea raises 2.3 million Euros to support the growth of its fiber optic sensing business**

**Ghent (Belgium) – October 7th, 2021 – Sentea, a leading supplier of read-out systems for fiber optic sensor, today announced to have successfully raised 2.3 million Euros to further expand its business. The investment round is supported by its current investors Finindus, PMV, QBIC II and Fidimec. Sentea’s photonic integrated technology enables large-scale deployment of fiber optic sensing for a wide array of monitoring applications, in civil engineering, oil & gas, renewable energy, industry, and medical instrumentation.**

Earlier this year the company launched its suite of fiber Bragg grating (FBG) read-out systems, also referred to as interrogators, recognized for offering high performance with unprecedented cost-effectiveness. For more than a decade, fiber optic sensing has been considered a technically superior technology for monitoring large infrastructure, oil & gas installations, and mission-critical industrial assets. With Sentea’s interrogators, fiber optic sensors can be deployed economically in a much wider range of applications, bringing the benefits of very precise defect detection and prediction, lifetime extension and superior process control to buildings, motors, bearings, drive trains, electrical vehicles, chirurgical instruments, and more. The scalability of Sentea’s interrogators, combined with the spatial distribution feature of fiber optic sensors and their seamless integration with existing fiber networks, makes fiber optic sensing the ideal technology to implement smart city and smart grid monitoring services.

The proceeds of this investment round will finance the growth of Sentea’s commercial activities and scale-up the production capacity of its suite of FBG interrogators. Sentea will continue to invest in next-gen fiber optic sensing products and IoT developments, leveraging the benefits of its advanced silicon photonics platform optimized for sensing applications.

“Our cost-effective FBG interrogators are accelerating the adoption of fiber optic sensing both in the traditional civil engineering and oil & gas applications, and in the growing renewable energy, industrial and medical applications”, commented Karsten Verhaegen, CEO of Sentea. “Customers especially appreciate our high-speed and robust measurements as well as the edge computing capabilities and seamless integration with their systems.”

“Aged infrastructure and new, as well as more demanding engineering applications accelerate the demand for advanced structural health monitoring solutions and smart-sensing solutions”, says Dirk De Boever, Head of Investments at Finindus. “We are convinced that Sentea’s fiber sensing products will contribute to lifetime extension of mission-critical industrial assets and infrastructure and play a key role in increasing the performance and functionality of engineering applications.”

“We have been impressed with Sentea’s team and what they have accomplished. They built on the world-renowned expertise of UGent and imec in silicon photonics and nanoelectronics to bring to market world leading, highly scalable fiber sensing products. We are delighted to support the further growth of the company with this investment”, says Cédric Van Nevel, Junior Partner at Qbic II.

“Based on the most advanced silicon photonics technology, Sentea has succeeded in marketing affordable readout devices that can be applied in a wide range of market segments. This combination of a commercially interesting positioning and international scalability underpins Sentea's growth potential and, at the same time, the innovative top position that Flanders occupies in the field of photonics. PMV is proud that as a first-time investor it is helping to support this story.”, says Roald Borré, Group Manager Venture Capital at PMV.

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**About fiber optic sensing**

Fiber optic sensors use a specialty fiber designed to measure strain and temperature at multiple points distributed along the length of a fiber of up to several kilometers. A read-out system, also referred to as an interrogator, captures the optical signal from the sensing fiber and correlates it to strain, temperature, and derived parameters such as pressure, tilt, displacement, vibration and even current and the presence of certain chemicals. The inherent advantages of fiber optic sensors, such as light weight, small size, passive, low attenuation, immunity to electromagnetic interference, wide bandwidth and environmental ruggedness offset their major disadvantages of high cost of the interrogator. A step-change reduction in cost of fiber optic sensor interrogators will boost the utility and demand of fiber optic sensing in monitoring and process control even further.

**About Structural Health Monitoring**

Structural Health Monitoring (SHM) is a process in which engineering structures are continuously monitored throughout their lifetime for early signs of defects or damages that over time could lead to catastrophic failure. By detecting any damage early on, and repairing or replacing the damaged part, catastrophic failure and the resulting downtime and significant repair costs can be avoided. Furthermore, the data gathered from SHM increases knowledge about the structures being monitored and allows for better designs for such structures in the future. A range of SHM solutions, such as fiber optic sensing, have found their way into engineering structures such as wind turbines, nuclear power plants, ships, trains, airplanes, buildings, bridges, dams, tunnels, heavy machinery and blast furnaces.

**About Silicon Photonics**

Silicon photonics is a technology whereby the functionality of optical components such as light sources, detectors, switches, wavelength (de-)multiplexers and filters can be integrated on a single chip. Having silicon as a base material, just like electronic chips, allows for using the well-established standard CMOS processes and manufacturing lines for production of these photonic chips. Decades of experience in the fabrication of electronic chips as well as a large installed base of semiconductor manufacturing capacity worldwide can be leveraged to scale up the production of low-cost optical chips. The sub-micron precision of microelectronic CMOS processes allows for silicon photonics chips to integrate a large variety of complex optical functions in a very small chip, enabling a wide variety of new applications and thereby driving a rapid expansion of the photonics industry.

**About Sentea**

The company was incorporated in 2018 as a spin-off of the world-renowned Photonics Research Group of Ghent University and imec to commercialize more than a decade of research in silicon photonics and fiber optic sensing. Sentea’s mission is to make civil infrastructure safer and industrial assets more efficient by enabling widespread adoption of fiber optic sensors. Benefitting from the advantages of silicon photonics, Sentea offers fiber optic sensing interrogators that offer high accuracy, compactness and advanced functionality, positioned for deployment in a wide range of applications and markets, hence enabling continuous monitoring of structural integrity to become the standard. Sentea is privately held by a consortium of investors including Fidimec, Finindus, PMV and QBIC II.

More information on Sentea can be found at  [www.senteatech.com](http://www.senteatech.com)

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**About imec**

Imec is a world-leading research and innovation center in nanoelectronics and digital technologies. Imec leverages its state-of-the-art R&D infrastructure and its team of more than 5,000 employees and top researchers, for R&D in advanced semiconductor and system scaling, silicon photonics, artificial intelligence, beyond 5G communications and sensing technologies, and in application domains such as health and life sciences, mobility, industry 4.0, agrofood, smart cities, sustainable energy, education, … Imec unites world-industry leaders across the semiconductor value chain, Flanders-based and international tech, pharma, medical and ICT companies, start-ups, and academia and knowledge centers. Imec is headquartered in Leuven (Belgium), and has research sites across Belgium, in the Netherlands, Taiwan and the USA, and offices in China, India and Japan. In 2020, imec's revenue (P&L) totaled 680 million euro.

Further information on imec can be found at [www.imec-int.com](http://www.imec-int.com/).

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**About Fidimec**

Imec supports, via its subsidiary FIDIMEC NV, the creation of spin-off companies, through direct investments, as well as via imec.xpand.

**About Finindus**

Finindus is an investment company backed by ArcelorMittal and Flanders and linked to OCAS, a world class metal research center with campuses in Zelzate and Zwijnaarde (Belgium). Finindus provides early stage and growth financing and management support to innovative companies active in materials, materials processing, sustainable manufacturing and industry 4.0. [www.finindus.be](http://www.finindus.be)

**About Ghent University**

Ghent University was founded in 1817 and is one of Europe’s leading institutions of higher education and research in the Dutch-speaking region today. It comprises eleven faculties offering education driven by its innovative research in the many scientific disciplines. Located in Flanders, Belgium, the cultural, political, and economic heart of Europe, Ghent University is an active partner in many national and international educational, scientific and industrial collaboration projects. Ghent University (UGent) is a top 100 university in the Shanghai Ranking and one of the largest Belgian universities. Located in Flanders, Belgium, the cultural, political, and economic heart of Europe, Ghent University is an active partner in national and international educational, scientific and industrial collaboration projects. Our organization is committed to research and innovation with more than 5,500 researchers active in a wide range of the life, physical and sociale sciences. UGent TechTransfer and UGent Business Development Centers, such as NB-Photonics, support researchers in developing groundbreaking science to bring innovations to the market.

The Photonics Research Group in the Faculty of Engineering and Architecture is one of Europe’s leading groups in the field of photonic integration and silicon photonics. It is associated with imec and hosts 80 researchers including six ERC-grantees. The Photonics Research Group is part of the Center for Nano and Biophotonics – NB-Photonics – a multidisciplinary research and technology transfer platform clustering the resources and knowhow of 23 professors across four different faculties.

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**About PMV**

PMV is a Flemish investment company that shapes the future of the Flemish economy. It finances promising companies from the very start, taking them to growth and globalization. PMV provides tailored financial solutions to all entrepreneurs with a business plan and a strong management team through capital, loans and guarantees. An experienced, highly motivated team of professional investment managers endeavors day in and day out to create prosperity and well-being in Flanders. PMV manages a portfolio of €1.35 billion.

For more information, please go to [www.pmv.eu](http://www.pmv.eu)

**About QBIC II**

Qbic is an early-stage and sector-agnostic, inter-university fund that invests in spin-offs and in young innovative ventures with a technology link to the Qbic associated universities and knowledge centres. Qbic is managed by an independent team of experts in investments and management. With around € 100 million in resources, Qbic is one of the largest spin-off funds in Europe. Qbic I started in 2012 and allocated all its resources to 18 ventures. Qbic II is now in its final investment year and has so far built a portfolio of 17 investments.

For more information, please go to [www.qbic.be](http://www.qbic.be)