

Brilliance secures seed investment from PhotonVentures and Oost NL to develop laser engines for Augmented Reality glasses.

Enschede, the Netherlands - 29 November 2023

Enschede-based Brilliance builds and develops chips for laser projection applications in Augmented Reality (AR) and Virtual Reality (VR) glasses. Brilliance has developed a laser technology that offers a breakthrough for the current limitations of low resolution and high energy consumption by projecting very sharp, colorful images onto glass surfaces such as eyeglass lenses and car windows. The €2 million investment from Oost NL and PhotonVentures underscores the confidence in Brilliance's innovative approach and enables the company to develop further.

Brilliance uses patented photonic integrated circuit (PIC) technology, to create the smallest possible RGB laser module. Tim Tiek, CEO of Brilliance, explains: "Miniaturization is the key to success in the development of AR glasses, because for ultimate wearing comfort, the devices must be as small as possible and preferably barely visible. In addition, extremely clear images are necessary, especially for outdoor applications, while at the same time energy consumption must be kept to an absolute minimum. We are now able to overcome these dilemmas by producing the smallest and most efficient chip solution." Douwe Geuzebroek, CTO of Brilliance, adds: "By using methods from the semiconductor and photonics industries, our module is also scalable into the volumes required for these markets."

Investment for scale-up

Recently, Brilliance succeeded in demonstrating technical feasibility in the prototype chips. For that, the Enschede start-up uses a new 'flip chip' technology, where the laser chip is placed on its back against other advanced components. The features of Brilliance offer precise control over optical output properties, ensure compatibility with advanced eye-tracking systems, and guarantee durability through a hermetically sealed design with strategically placed electrical connections. Worldwide, several producers of AR applications are now testing our prototypes.

Soon, Brilliance plans to further develop the current generation of proof-of-concept chips into customer-specific prototypes. In addition, we are taking necessary steps in the industrialization phase of our production process, anticipating future demand. The investment from Oost NL and PhotonVentures helps with this: "With this investment we can scale up the silicon-nitride-based photonic integrated chip technology to the industrial volumes needed for the AR market. We are therefore delighted that the confidence of our new shareholders makes this next step in our development possible", said Tiek.

"PhotonVentures is proud to support Brilliance's vision to shape the future of AR technology," said partner Pieter Klinkert, "Our expertise within the integrated photonics sector, allows us to recognize and foster the potential of innovations like Brilliance's laser chip."

Jordy Schaufeli, senior investment manager Tech of Oost NL, "AR and VR are increasingly going to play a role in our daily lives. Also, beyond the entertainment industry. We have great confidence in the team at Brilliance and think they have a unique product on their hands to enhance the experience of AR and VR. We can play an important role as an investor in Photonics, which is a growth market for the Eastern Netherlands."

Photonics ecosystem

The investment also strengthens the powerful photonics ecosystem in the province of Overijssel. Not only do over a hundred researchers at the University of Twente work on photonics, but the region also has strong players such as LioniX International, QuiX, Superlight Photonics and PHIX Photonics Assembly that focuses on automated assembly of photonic chips.

END Press release

Notes to editor

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About Brilliance

Brilliance manufactures the ultimate laser light engines for projection applications such as augmented reality (AR) glasses. By integrating red, green, and blue laser lights into the smallest, most efficient and easiest to integrate light engine module. Based on a patented silicon-nitride based platform, laser integration and more than 20 years of integrated photonics experience, Brilliance offers technical superiority and allow high-quality low-cost volume production. For more information:

www.brilliancergb.com

About PhotonVentures

PhotonVentures is a venture capital firm with a focus on integrated photonics technologies. Integrated photonics technology enables a sustainable digital future by facilitating more compact, high-speed, and energy-efficient transport of data and systems. The diverse sectors harnessing these technologies include Data & Telecom, Medical & Healthcare, Engineering & Transport, and Quantum Computing, with many more cutting-edge applications on the horizon. At PhotonVentures, we create impact by investing in companies active in these fields, that can rapidly address a large global market, impact society, and maintain a strong, unique, and defensible technology position in integrated photonics.

PhotonVentures is a spin-off and strategic partner of PhotonDelta. For more information:

www.photonventures.vc

About Oost NL

Oost NL (East Netherlands Development Agency) is an agency that focuses its activities and projects on strengthening and stimulating the economy of the provinces of Gelderland and Overijssel, the Netherlands. With their investments, they support starting and growth-phase SMEs. They do this partly with risk capital from various revolving innovation funds, and partly through their knowledge, networks, and personal contacts. Through the revolving funds, they provide for direct as well as indirect investment and take care of the fund management. In addition, they stimulate and support public and private investors. The result: growth through financing. For more information: www.oostnl.nl