

Delivery start of new solid-state LiDAR

## **New sensor from Ibeo Automotive Systems detects environment in four dimensions**

**Hamburg, 20.8.2020 - The Hamburg-based LiDAR sensor specialist Ibeo Automotive Systems GmbH will begin worldwide delivery of its new ibeoNEXT LiDAR sensor to partners and customers starting in October 2020. The sensor is based on a completely new type of photon laser measurement technology and works completely without moving parts (real solid-state). It generates an additional black-and-white image, like a camera. Developed in-house by Ibeo and manufactured in accordance with automotive series production standards, the compact sensor is suitable for driver assistance systems as well as for automated driving at levels 3 and 4. Additionally, Ibeo will offer new software for environmental perception and classification of objects for the ibeoNEXT.**

There's no automated driving without sensors. Furthermore, many car manufacturers are increasingly relying on LiDAR as a key technology for advanced driver assistance systems. Ibeo is now announcing that it will begin to take orders and make deliveries of its ibeoNEXT solid-state LiDAR. The new sensor from the Hamburg-based LiDAR developer generates a high-resolution 3D point cloud for reliable object detection.

A unique feature of ibeoNEXT is the additionally generated intensity image, which also allows it to function as a kind of black-and-white camera. This is why Ibeo calls this the fourth dimension (or simply 4D). The intensity image is particularly advantageous for lane recognition while driving. Ibeo is the only developer with LiDAR technology in automotive

series production to date. The compact and modular design of the new ibeoNEXT sensor allows different setups for specific customer use cases.

### **LiDAR ensures reliable automation**

The solid-state technology of the ibeoNEXT solid-state LiDAR also has a long range and high spatial resolution when scanning the environment. This allows for exact modeling of the environment. Accordingly, changes in the course of the road are detected faster and more accurately – which is particularly important for lane recognition, for example.

Dr. Ulrich Lages, CEO of Ibeo Automotive Systems, explains: "LiDAR is the perfect, key technology to ensure maximum security in the automation of processes. Our new ibeoNEXT solid-state LiDAR meets these requirements with flying colors and can be used in a wide range of applications. We've already seen great demand in the market and are proud to now be delivering the first products. My special thanks go to Ibeo's employees, who, with their passion and pioneering spirit, have created an innovative and very promising product."

### **About LiDAR technology**

LiDAR systems emit laser pulses and evaluate the light reflected from different objects. Software calculates the distance to the surrounding objects by using what is termed the "light travel time," i.e. the time the reflected laser pulse needs until it reaches the sensor again. In conventional LiDAR systems, a rotating mirror covers the field of view. With the new ibeoNEXT-LiDAR, this moving part no longer exists because semiconductor technology is used instead. The new ibeoNEXT can process many laser pulses in parallel. The result is a 3D model of the environment that recognizes crash barriers and road markings as well as cars, cyclists and pedestrians, as well as their respective position and direction of movement. Where cameras only produce a two-dimensional

image that needs to be spatially interpreted by appropriate software, LiDAR systems already provide a very accurate 3D image. In conjunction with a long range and high spatial resolution, this combination is a key advantage of Ibeo-LiDAR technology.

#### **Data on the ibeoNEXT-LiDAR**

- Modular design with various fields of view in the range
- Compact design
- Plug-and-play: ECU and display software available
- Processing of over 1 million distance values per second
- Applicable to a wide range of applications and markets

## **About Ibeo**

Ibeo Automotive Systems GmbH has established itself as a global technology leader for LiDAR sensors (English acronym for Light Detection And Ranging) and the associated products and software tools. This technology is used as an assistance system in cars and in the field of autonomous driving. It is Ibeo's goal to reinvent mobility by enabling cars to become cooperative partners in the driving process, thus making transportation safer. Ibeo employs a total of over 400 people at its Hamburg, Eindhoven (Netherlands), and Detroit (USA) sites. Since 2016, the automotive supplier ZF Friedrichshafen AG has held a 40 percent share in Ibeo: initially via Zukunft Ventures GmbH, and since 2019 via ZF Automotive Germany GmbH, a wholly owned subsidiary of ZF. Ibeo celebrated its 20th anniversary in 2018.

For further information, visit [www.ibeo-as.com](http://www.ibeo-as.com).

## **Ibeo press contact:**

### **DEDERICHS REINECKE & PARTNER**

Agency for Public Relations

Manuel Krieg

Schulterblatt 58

Werkhalle

20357 Hamburg

Tel.: + 49 40 20 91 98 278

Fax: + 49 40 20 91 98 299

E-mail [manuel.krieg@dr-p.de](mailto:manuel.krieg@dr-p.de)

<http://www.dr-p.de>

**Ibeo Automotive Systems GmbH**

Katharina Krimmer, PR and Marketing

Merkurring 60–62

22143 Hamburg

Tel.: + 49 40 298 676 – 0

E-mail [katharina.krimmer@ibeo-as.com](mailto:katharina.krimmer@ibeo-as.com)