

Validation of LiDAR sensors for series production

## **Ibeo Automotive Systems tests LiDAR systems for autonomous driving in Berlin and Beijing**

**Hamburg, 02/25/2021 – The LiDAR sensor specialist from Hamburg Ibeo Automotive Systems GmbH gets underway with the validation of their real solid state ibeoNEXT sensors for China’s largest SUV manufacturer, Great Wall Motor (GWM). The aim is to reach series production for automated driving at L3 and potentially L4 levels, and to define standards which should make autonomous driving possible in the near future. Ibeo commissioned German-Chinese testing and validation provider LiangDao for series testing. The test tracks are located in Germany (Berlin) and China (Beijing). Ibeo itself has already been testing automated and networked driving on public roads since 2017, and is also working together with TÜV SÜD to improve the safety of components and systems used in autonomous vehicles.**

Ibeo reaches an important milestone in preparing for mass production of its ibeoNEXT sensor, as validation begins for L3 automated driving features for the Chinese market. This comes against the background of Ibeo’s contract as the world’s first series supplier of solid-state LiDAR for China’s largest SUV and pick-up truck manufacturer, Great Wall Motor Company. The newly developed ibeoNEXT solid state LiDAR is used in the SUV model Wey. Ibeo has commissioned ZF Friedrichshafen AG to produce the sensors and the control unit.

“A Proof of Concept in the respective markets—in this case, China—is important so that we can complete data compliance with the support of our Chinese partner, obtain abstracted driving behavior data and optimize test validation tools that is being used for processing according to the Chinese

guidelines,” explains Dr. Dietmar Fiehn, Project Manager of “Silk Road” at Ibeo. “The POC is an important milestone on the way to series production of the ibeoNEXT. We have also established a long and close partnership with LiangDao, which means we are very familiar with the Chinese market and its requirements.”

Peiyi Liao, Project Manager Validation POC at LiangDao Germany: “Moreover, the POC is a perfect showcase of Sino-German communication and cooperation. Both LiangDao and Ibeo have contributed knowledge, diligence and perseverance. We are thrilled to make this new chapter of history together with Ibeo.”

### **No autonomous driving without validation**

Ibeo has been working with LiangDao Intelligence for the Chinese market since 2018. The company offers validation solutions for autonomous driving. Before vehicle sensors can be put into automotive series production, a whole range of tests are performed to see whether the environment is captured correctly by the sensor. The aim of the test procedure is to avoid any undesired driving behavior which may occur as a result of faulty measurement data. A safety driver is always on board for the so-called “open loop” journeys. The sensor signal is not used for vehicle regulation, rather it is recorded in order to test the LiDAR system. The sensor is checked to see whether it adheres to the legal and client-specific requirements. For example, the client specifies for certain distances the level of reliability with which other road users should be recognized and classified. This has to be tested under real conditions. Here, complicating factors in environmental perception could include the weather or the light conditions, for example. LiangDao is managing the entire testing procedure for Ibeo and Great Wall Motor.

## **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, so 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).**

## **About LiangDao**

LiangDao Intelligence is a testing and validation service provider for series testing of autonomous vehicles, with core competencies in LIDAR system and multi-sensor fusion applications. LiangDao Intelligence is a Sino-German technology company headquartered in Beijing with a data center and an engineering workshop, an R&D center in Berlin and business offices in Munich and Shanghai.

**For more information, visit [www.liangdao.de](http://www.liangdao.de).**

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