Continental Reaches 200 Million Radar Milestone for Greater Safety and the Mobility of Tomorrow

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Radar production anniversary. Sensor technology from Continental has been helping to save lives and enhance driving comfort for more than 25 years

- Order intake from vehicle manufacturers amounting to around €1.5 billion in the first quarter of 2025

- Precise detection of objects: radars are a key component of many advanced driver assistance systems and are paving the way for autonomous driving

- Ismail Dagli, head of the Autonomous Mobility business area:

> The mark of 200 million sensors produced – and the major series orders – emphasize that Continental stands for high-tech engineering, pioneering spirit, and customized technology solutions for every application in the automotive market

Frankfurt am Main, Germany, May 8, 2025. Continental has set a milestone and is celebrating the production of 200 million radar sensors. This impressive number of produced radars reflects the company's leading position with more than 20 percent market share in essential safety technology components for the automotive sector. It also highlights an important mobility trend: the accelerated development of advanced driver assistance systems (ADAS) toward automated and future autonomous driving. Between 1999, when the first generation of Continental's long-range radar was integrated in the Mercedes S-Class, and 2021, the company supplied 100 million radar systems. Four years later, a new milestone was reached: 200 million radar sensors. This impressive pace of development is a testament to the significant technological advancements in development and

performance, as well as demand for vehicle safety features. Additionally, the technology company announced it received major series orders for radar sensors from different vehicle manufacturers worth around €1.5 billion in the first quarter of the year. Production starts are planned for 2026 and 2027, depending on the manufacturer.

> The mark of 200 million sensors produced – and the major series orders – emphasize that Continental stands for high-tech engineering, pioneering spirit, and customized technology solutions for every application in the automotive market," said Ismail Dagli, head of the Autonomous Mobility business area at Continental. "Radar sensors are a key component for the mobility of today and tomorrow. Without a differentiated portfolio of various radar systems, such as those from Continental, autonomous driving would not be possible.

Greater comfort and safety: radar sensors are essential in driver assistance systems

The rapid increase in sales is due to the growing number of radar sensors in modern vehicles. Advanced driver assistance systems offer greater safety and comfort in the vehicle and on the road, thanks to radar sensor technology. Continental has a vast portfolio of powerful radar systems that are customized for each application and each market requirement. While in the past, a single radar sensor for regulating distance was installed in the front of a vehicle, today nine or more radar sensors are used in some cases. Besides the "classic" adaptive cruise control, assistance systems for emergency braking, blind spot detection, lane departure warning, cross-traffic alerts and parking also require the support of radars, usually as an intelligent combination with other sensors such as camera, ultrasonic and LiDAR systems. Radar systems are also crucial for highly automated or autonomous vehicles, which rely on precise and redundant 360 degree vehicle surroundings monitoring.

Radar revolution: from a pioneering product to high-tech components with a microchip

The radar technology used in vehicles has undergone a complete transformation over the last few years. Continental played a major role in the development of the world's first radar system for cars: in 1999, Daimler offered an adaptive cruise control feature in its S-Class model. This system was the first to work with a long-range radar with a

range of 150 meters, which was remarkable at the time. The system was limited and – compared with today's solutions – very large and heavy. It consisted of two components: a radar head that was installed behind the radiator grille and a control unit. The two components weighed a total of 1.3 kilograms and were roughly the size of a shoebox. However, even back then, both Mercedes and Continental favored this sophisticated technology. Unlike infrared sensors, for example, radar sensors function independently of light and visibility conditions – including in fog and darkness.

Today's radar systems no longer have much in common with the first generation.

> Smart radar sensors, for example, are already equipped with powerful microchips, which directly process the signals received from the sensor and – usually in combination with data from other sensor systems such as cameras – make it available in real time,

explains Norbert Hammerschmidt, head of Components Business in the Autonomous Mobility business area. Continental leads the way in the development of highly efficient radar systems, which today cost only a fraction of the first pioneering system and require very little space – the size of two matchboxes. The latest radar sensors are used either for short-range functions, such as in parking assistance systems or lane departure warning systems on the highway, or for traditional long-range operation with ranges of up to 300 meters. In addition, modern systems are so precise that they can even clearly identify objects at great distances in situations that are unclear to the human eye. For instance, when changing lanes on a highway, they can detect a motorbike approaching from behind with a significant speed difference or partially hidden pedestrians in urban traffic situations.

Platform approach: radar sensors for use in passenger cars, trucks, and two-wheelers

Today, Continental develops and trains these systems using artificial intelligence for every application and every market: for highly automated premium vehicles as well as mass-produced passenger car models, for semi-autonomous trucks as well as the global two-wheeler markets. In doing so, Continental offers a portfolio that is perfectly tuned to the needs of customers around the globe. This includes, for

example, premium models such as the new, high-performance 4D long-range imaging radar, which will replace the previous generation over the coming year and will be capable of supporting fully autonomous vehicle systems. However, the majority of production consists of mass-produced models such as front and corner radars, which offer high performance at an affordable price for a variety of functions.

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