

Press release:

## **Bosch and Karlsruhe-based measuring technology specialist Palas team up for better air quality**

- ▶ The partnership brings together long-term experience in sensor technology, internet of things (IoT), and certified air quality measurement.
- ▶ Bosch and Palas offer compatible products and services—from simulation to continuous monitoring of air quality.
- ▶ Innovative solutions can improve air quality in thousands of cities and regions worldwide.

**Karlsruhe, 21. September 2023 – Bosch and the Karlsruhe-based measuring technology specialist Palas GmbH want to work together to improve air quality. To this end, the two companies have now agreed to collaborate, each bringing their long-term expertise to the table.**

Palas will supply comprehensive know-how and technology for measuring a wide variety of gases and airborne particles. In the course of the partnership, Palas will also add the Environmental Connected Box (ECoB) measurement device developed by Bosch to its own portfolio and expand its product range. Bosch is to contribute cloud-based services such as device management and a software model that generates traffic emission data in real-time. In addition, dispersion models help locate pollution hot spots, so that pinpointed countermeasures can be defined. The benefit of this alliance will be a comprehensive portfolio for environmentally sensitive urban traffic management, as well as for fence-line monitoring of the concentration of substances in air at companies' property lines.

Working together with specialized integrators that coordinate all the partners involved in a project, Bosch and Palas will support city authorities and the operators of large industrial complexes. Their compatible products and services will create the basis for reliably and sustainably improving air quality. "With its analyses and simulations, Bosch technology complements Palas's measuring technology," says Christoph Kern, head of the Connected Powertrain Solution business unit at Bosch. This allows the actual number and placement of measurement devices required in the long term to be determined and put into cost-efficient operation in cities and at industrial sites. "The combination of Palas measurement devices and Bosch cloud services can help satisfy air pollution limits now and in the future," says Palas CEO Dr. Maximilian Weiß. First projects with integrators both inside and outside Germany are already in preparation and are slated to start shortly.

### **Two strong companies joining forces**

Palas air quality measurement devices are already in use worldwide in official air-quality measurement networks. A range of certified measurement devices is available for various requirements, including EN particulate matter measurements. Now being expanded with the ECob measurement device, it means that customers are no longer dependent on official measuring stations in many cases. It will be possible to carry out reliable measurements exactly where appropriate.

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Bosch's focus within the partnership will be on cloud connectivity and device management, including firmware over-the-air (FOTA) updates, remote diagnostics, and software recalibrations on an as-required basis. These services shall be gradually rolled out to the existing Palas hardware. Additional Bosch services will process readings and allow both air quality and the contributory sources of emission to be assessed. This includes fine-tuned evaluations of traffic emissions and their expected dispersion in the environment in real-time. Based on real traffic emission data, Bosch's high-resolution 3D dispersion simulation can simulate the effects of different traffic control measures and thus identify the best strategies for reducing air pollution.

### **Strong market growth expected**

On September 13, 2023, the EU Parliament voted to significantly tighten pollution limits, including those for particulate matter. Compliance with daily mean and annual limits will require further action. And it is precisely in this context that the solutions offered by Bosch and Palas can assist cities, regions, and companies in Europe and beyond.

### **More information:**

<https://count.palas.de/ecob/>

<https://www.palas.de/en>

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### **About Palas**

Palas GmbH is a leading developer and manufacturer of high-precision instruments for the generation, measurement and characterization of particles in the air. With numerous active patents, Palas® develops technologically leading and certified fine dust and nanoparticle measuring instruments, aerosol spectrometers, generators and sensors as well as associated systems and software solutions. Palas® was founded in 1983 and employs about 100 people at its headquarters in Karlsruhe.

**Press photos:**

Picture 1: **Air quality monitors for ambient air**



Measuring devices from Palas like the ECoB provide reliable, exact information about the air quality and can be used for a variety of applications for the ambient air.

Picture 2: Dispersion simulation as a decision-supporting tool



Based on real traffic emission data, Bosch's high-resolution 3D dispersion simulation can simulate the effects of different traffic control measures and thus help to identify the best strategies for reducing air pollution.

Picture 3: **Cooperation for better air**



Dr. Maximilian Weiß, CEO Palas GmbH, and Dr. Marko Babic, heading the Bosch product area Air Quality Solutions (from right), with a newly installed measurement device ECoB (Environmental Connected Box).