

Press release

September 21, 2023

PI 11719 BBM ak/af

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.

Stuttgart, Germany – 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 the 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.

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.

Press photos: #dc24e2d1, #c2cdf3e0, #80d079ac

Contact person for press inquiries:

Athanassios Kaliudis

Phone: +49 711 811-7497

Twitter: @Sakis_JD

Mobility is the largest Bosch Group business sector. It generated sales of 52.6 billion euros in 2022, and thus contributed almost 60 percent of total sales. This makes the Bosch Group one of the leading automotive suppliers. The Mobility business sector pursues a vision of mobility that is safe, sustainable, and exciting. For its customers, the outcome is integrated mobility solutions. The business sector's main areas of activity are injection technology and powertrain peripherals for internal-combustion engines, diverse solutions for powertrain electrification, vehicle safety systems, driver-assistance and automated functions, technology for user-friendly infotainment as well as vehicle-to-vehicle and vehicle-to-infrastructure communication, repair-shop concepts, and technology and services for the automotive aftermarket. Bosch is synonymous with important automotive innovations, such as electronic engine management, the ESP anti-skid system, and common-rail diesel technology.

The Bosch Group is a leading global supplier of technology and services. It employs roughly 421,000 associates worldwide (as of December 31, 2022). The company generated sales of 88.2 billion euros in 2022. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. As a leading IoT provider, Bosch offers innovative solutions for smart homes, Industry 4.0, and connected mobility. Bosch is pursuing a vision of mobility that is sustainable, safe, and exciting. It uses its expertise in sensor technology, software, and services, as well as its own IoT cloud, to offer its customers connected, cross-domain solutions from a single source. The Bosch Group's strategic objective is to facilitate connected living with products and solutions that either contain artificial intelligence (AI) or have been developed or manufactured with its help. Bosch improves quality of life worldwide with products and services that are innovative and spark enthusiasm. In short, Bosch creates technology that is "Invented for life." The Bosch Group comprises Robert Bosch GmbH and its roughly 470 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. With its more than 400 locations worldwide, the Bosch Group has been carbon neutral since the first quarter of 2020. The basis for the company's future growth is its innovative strength. At 136 locations across the globe, Bosch employs some 85,500 associates in research and development, of which nearly 44,000 are software engineers.

Additional information is available online at www.bosch.com, www.iot.bosch.com, www.bosch-press.com, [www.twitter.com/BoschPress](https://twitter.com/BoschPress)