

## Press Release

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# ENVIRONMENTAL MONITORING: AIT AND CHRISTOF INDUSTRIES JOIN FORCES

The goal is to develop sensor networks and environmental solutions for cities in Asia

Around the world, levels of air pollution and greenhouse gas emissions are both continuing to increase – the impact of the COVID-19 pandemic on this long-term trend is merely minor and temporary. It is therefore all the more important that air pollution globally is monitored accurately and reliably, enabling targeted measures to be implemented. The AIT Austrian Institute of Technology and environmental technologies specialist Christof Industries are combining their expertise for this purpose. Their shared goal is to bring technologically-mature solutions for recording and evaluating environmental pollutant levels to the global market.

“Our partnership with the prestigious AIT Austrian Institute of Technology aims to make a significant contribution to reducing CO<sub>2</sub> emissions and air pollution through environmental monitoring at municipal level,” explains Wolfgang Nestler, Managing Director of Christof Systems, a subsidiary of the Graz-based family-run company Christof Industries. The company successfully develops, builds and markets integrated waste management and environmental concepts for cities and regions. Examples include municipal waste management concepts in South East Asia, plants for the sustainable recycling of organic waste using insect larvae in South Africa, innovative technologies for rapid, safe and cost-efficient disinfection and sterilisation of infectious, contaminated medical waste or recycling processes for biogenic waste waters to reduce nitrogen oxide emissions and nitrate loads in the soil.

“Modern and sustainable environmental management systems depend on digital communication solutions and extremely secure IT systems, like those developed as part of our high-tech research at AIT over the past years. Working in a model partnership with environmental technologies specialist Christof Industries, we can jointly position leading, Austrian-made digital solutions in the global market,” says Helmut Leopold, Head of the AIT Center for Digital Safety & Security.

### Solutions for environmental management

UWEDAT is a complete environmental monitoring system which integrates data gathered by sensor networks to measure parameters relating to air, water, meteorology and electromagnetic fields. UWEDAT is designed to be robust and extremely flexible, and can combine stationary sensor networks with other sensors, such as temporary monitoring stations at construction sites or drones, and with areal data. UWEDAT is being deployed in a variety of air quality measurement networks, for monitoring water quality, and in monitoring centres both in Austria (e.g. Environment Agency Austria) and abroad (e.g. in Bulgaria or Indonesia).

EMIKAT is a data management system for emissions data which applies advanced models and freely definable scenarios to very large quantities of input data in order to perform highly specific evaluations. It can be used to calculate emissions by polluter group, for example, or to follow target trajectories for emissions reduction measures over time. EMIKAT users include six Austrian provinces who draw up their emissions and air quality inventories with the system, allowing them to derive indicators for future land use, urban and transport planning.

### Austrian technology export

AIT and Christof Industries will now jointly develop sustainable sensor networks and environmental solutions for use in urban regions with significant levels of air pollution, and see Asia in particular as a target market. Christof Industries operates a subsidiary in South East Asia which is equipped for large-scale production to Western quality standards.

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