



Cleaning London's air with Proventia

Proventia believe everyone has the right to clean air. They are using retrofit exhaust systems, made in Finland to make old heavily polluting vehicles fit for the future. Their NOxBUSTER® solution enables organisations like Go Ahead London to reduce the emissions of their old city buses and old diesel engines. Fujitsu provide the Event Processing IoT Platform (EPP) that lets emissions data be seen in real-time.


About the customer

Proventia is a technology company that provides solutions and services for the engine, machine and vehicle industries to help fight climate change. The company produces exhaust aftertreatment systems for diesel engines, work machines and heavy vehicles to designed to reduce the nitrogen oxide and particulate emissions of heavy-duty diesel engines. Proventia's systems are already in use in Clean Air projects in London, Germany, Seoul, Sweden and Finland. Today, Proventia employs 150 professionals and specialists in Finland and the Czech Republic.

 Industry: **Engineering**

 Location: **Finland**

 People: **150+ employees**

 Web: **proventia.com**

Challenge

Proventia needed real-time analysis of emissions from vehicles so they could see then impact their solution was having in complex city environments.

Solution

- Fujitsu Event Processing IoT platform
- Microsoft Azure Cloud

“Fujitsu is helping Proventia fight climate change.”

Jesse Salmi, Retrofit Sales and Project Manager, Proventia

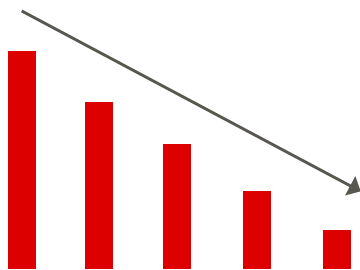


A zero emission world

Good outdoor air quality is fundamental to our health. The average person inhales about 14,000 litres of air every day, and the presence of pollution in this air can adversely affect people’s health. One of the main sources of urban air pollution are combustion products from motor vehicles.

Proventia are a global tech company helping to solve the world’s air pollution problem. As Jesse Salmi, Retrofit Sales and Project Manager at Proventia explains: Our vision is zero emissions and we have the intermediate solution before we get there. The solutions is NOxBUSTER® city which enables us to clean the emissions of our old city buses and our old diesel engines.”

Proventia develop, design and manufacture exhaust after-treatment systems for diesel engines, work machines and heavy vehicles. For instance, their retrofit solutions help lower emissions on London’s iconic red buses by attaching NOxBUSTER® City DPF + SCR systems to exhausts, so even heavy diesel engines can meet new European regulatory standards. But as Jesse Salmi explains, having the right technology to support this is challenging: “The emission data coming from the city buses and vehicles is enormous. To handle that and to process that you need a capable system. Fujitsu is an expert in information technology. We are experts in emissions. We basically gave Fujitsu the opportunity to choose the right platform for us that would work cost effectively and effectively with our data.



Real time emissions are decreasing

Turning data into knowledge

Fujitsu provides Proventia with a cloud service solution for collecting production data on the use of public transport vehicles from different sources. As the gathered data will be utilised more efficiently, it can be used to create new value-added solutions and services. The new solution will contribute in fighting climate change and global pollution, using digitalization as a positive weapon. The new Proventia PROCARE™ Drive solution was a replacement and an upgrade of Proventia’s previous production data platform. The solution has been built on Fujitsu’s Event Processing IoT Platform (EPP), and it is run in a Microsoft Azure Cloud platform. The Fujitsu EPP is a high-performance real-time monitoring and rule processing engine, which reads different data flows and reacts to their values.

Cleaning London’s air

Jesse Salmi explains the benefits Proventia’s clients are seeing: “Fujitsu is helping Proventia fight climate change. For us, it is important that our client can rely on our technology to live up to the promises we give. With the new cloud service, our customers will also be able to verify in real time that emissions are decreasing as promised. Of course, we also wanted a clear user interface, high performance, and a scalable solution. Now we can meet the tighter air quality requirements in an agile manner and develop better solutions.”

One of Proventia’s customers who are seeing an instant impact is Go Ahead London. Chris McKeown, Chief Engineer Go Ahead London says: “At Go Ahead London we operate approximately a quarter of the London bus network. Euro6 is an emissions standard set by the EU, which all new vehicles have to comply with. There are contractual obligations with TfL to deliver vehicles up to that Euro6 standard. Proventia help us do that, and their EuroDrive Telemetry system helps us monitor system performance remotely on a web based system, while the vehicle is actually out in service so we see the real world emissions improvements. That means cleaner air for everyone.”

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