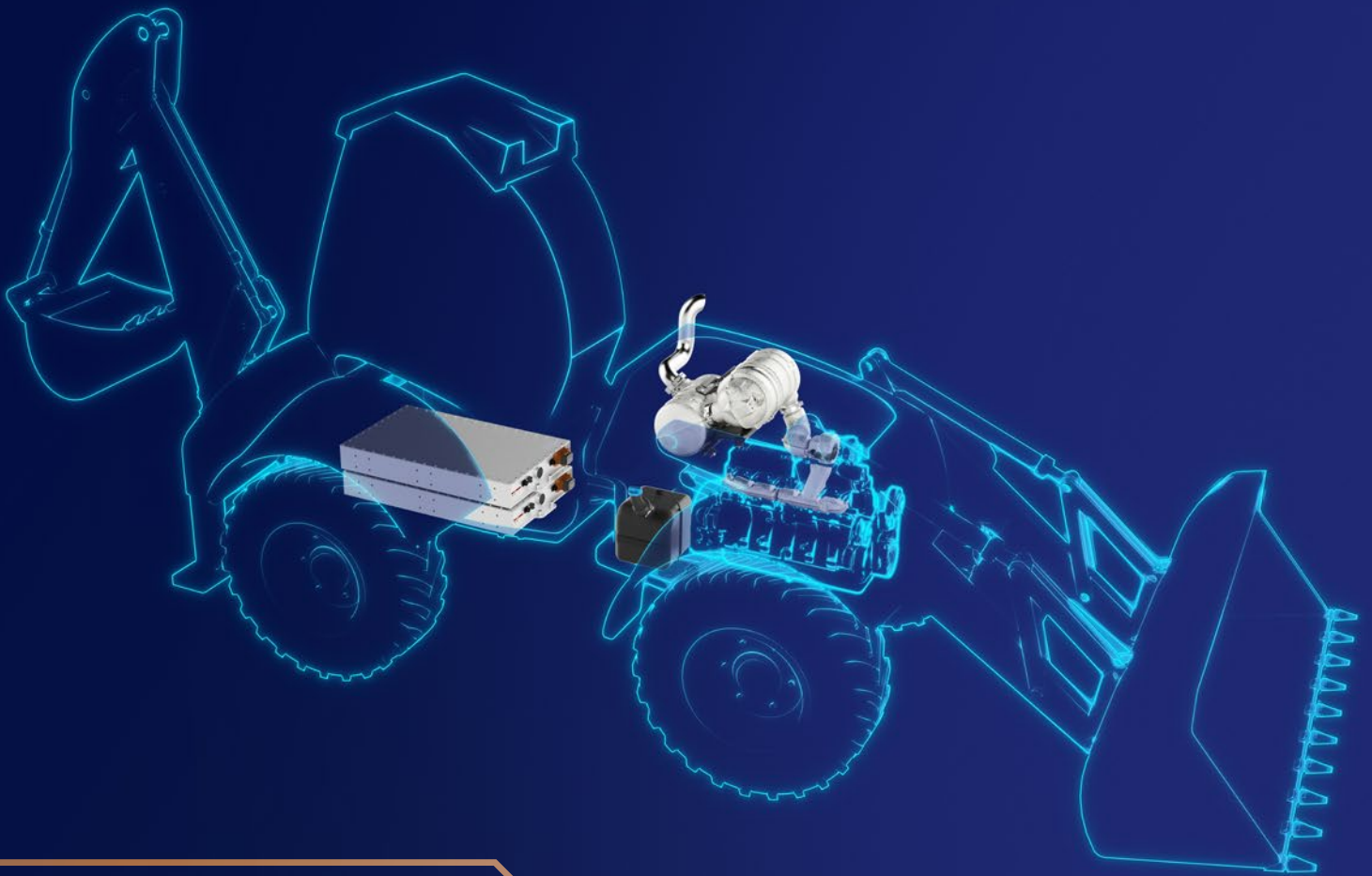
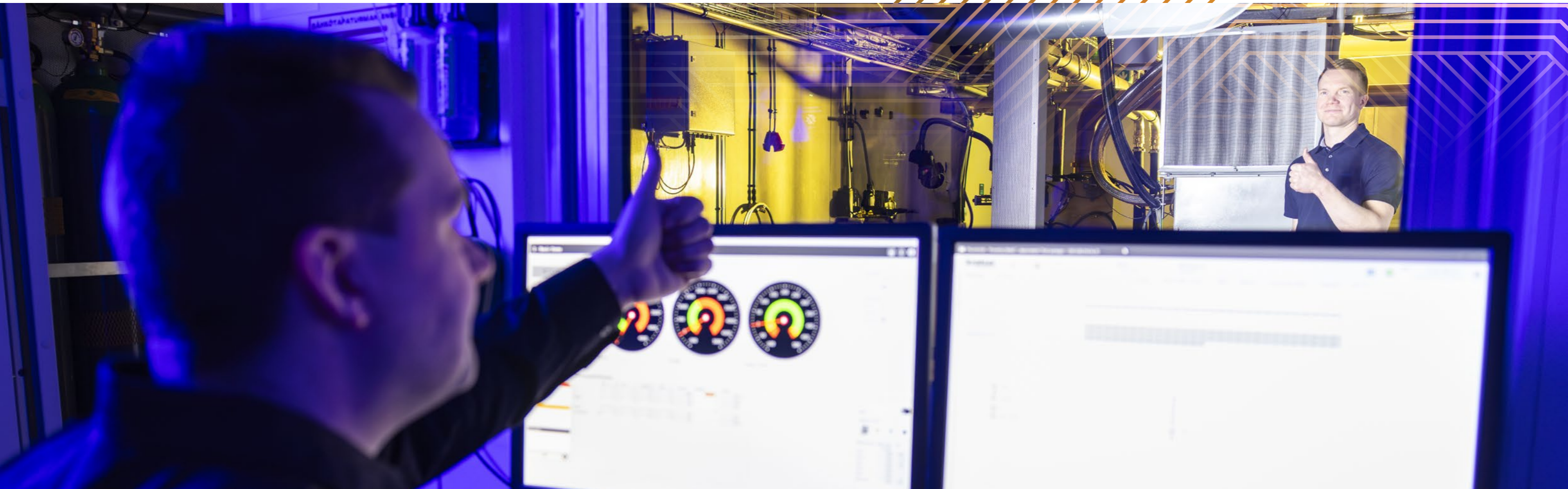


CLEANER POWER

EMISSION CONTROL | THERMAL MANAGEMENT | BATTERIES




PROVENTIA



PROVENTIA – DEVELOPING CLEANER POWER

We develop and manufacture products that help our global customers, engine, machine and equipment manufacturers, design and manufacture cleaner, more energy-efficient machines, vehicles, and equipment.

Proventia is a leading innovator and supplier of emission control systems, thermal components, and batteries. Partner with Proventia to achieve low-emission, energy-efficient machines that meet future clean mobility standards. Our combined expertise in emission control, insulation, and batteries ensures compliance with current and future standards – no matter,

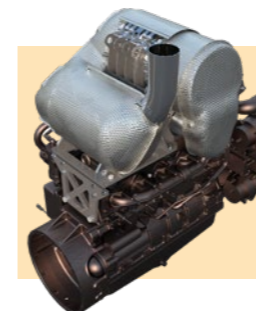
which technology you use to produce the power.

Cleaner future with Proventia

Proventia is known as a developer and provider of the world's most advanced and reliable emission control systems. We design and manufacture insulation components for exhaust aftertreatment systems and other temperature-critical components and systems. Our battery

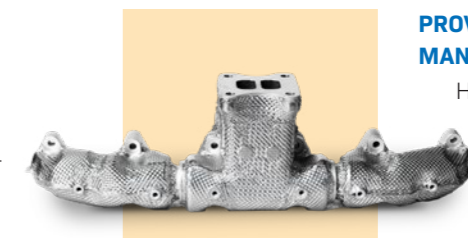
solutions enable the electrification of off-road machinery.

Our strength in the off-road machine industry stems from our extensive experience with machines, their technologies, and various operating environments. We leverage this experience and our flexible and proactive approach to developing the most innovative products for the off-road sector.



PROVENTIA EMISSION CONTROL

State-of-the-art emission control systems with comprehensive engineering and testing services.



PROVENTIA THERMAL MANAGEMENT

High-performance insulation solutions for temperature-critical applications.



PROVENTIA BATTERIES

Safe lithium-ion battery packs tailored for the off-road machine industry and other sectors with similar needs.



WHERE THE POWER GETS CLEANER

A quick visit to our headquarters and Technology Center in Finland and the factory in Czechia.



The right track for reducing emissions

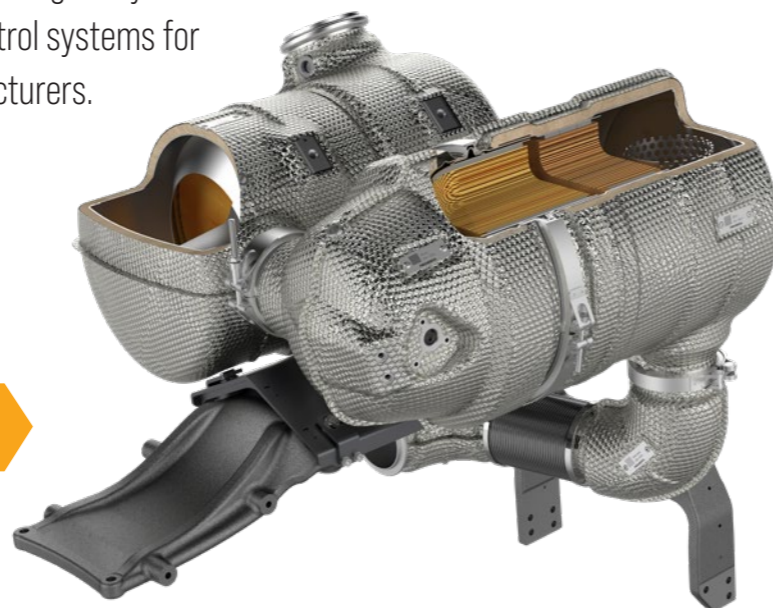
PROVENTIA EMISSION CONTROL

Staying compliant in the ever-evolving regulatory landscape requires the highest level of engine and emission expertise. Even when using renewable fuels or hybrid systems, your internal combustion engine requires exhaust aftertreatment (EAT) systems. When an EAT performs well, it complies with emission regulations and reduces fuel consumption and thereby lowers CO₂ emissions.

Proventia is known for developing and manufacturing many of the world's most advanced and reliable emission control systems for leading engine, machine, and equipment manufacturers.



Platform EAT designs support various installations, helping customers potentially meet Tier 5 standards with the same technology.



Leading the way in emission control

Our reputation as the go-to problem solver for emissions reduction challenges is why industry-leading OEMs trust us. Our customers include global engine, agricultural, forest, material handling, construction, and mining machine manufacturers.

Our expertise in emission control is rooted in our extensive experience in engine and machine technologies and their operating environments. We don't just respond to your needs; we anticipate them, fostering a proactive and flexible partnership.

As you prepare for next-generation engines and stricter emissions standards, our emission reduction technologies and compact design knowledge will give you a competitive edge. Our product development team is well prepared to meet future demands.

Innovative EATs with competitive advantage

Our systems use standard validated components that can be used in a wide range of system layouts. This modular approach allows for quick customization to accommodate diverse applications and fit within tight spaces.

Reasons to partner with Proventia

- Over 30 years of experience in emission control technologies and system integration
- Strong technical expertise in engine and machine applications
- An innovative, agile, and proactive partner
- World-leading AdBlue® mixing expertise
- State-of-the-art technology center equipped with advanced testing and engineering capabilities
- High-quality and sustainable manufacturing at Proventia's factory



Proventia reduces the emissions for example from Fendt Vario Gen 7 tractor, the Farm Machine 2023 & Tractor of the Year 2023 using AGCO Power Core75, Engine of the Year 2023.



Keeping temperatures under control

PROVENTIA THERMAL MANAGEMENT

High-temperature insulation is essential for making safe, energy-efficient, and environmentally friendly machines and vehicles. It is a game-changing asset that facilitates creative designs for technologically complex machines. It reduces thermal radiation and enables the most effective use of today's confined engine compartments. High-quality insulation also increases people's safety.



3D-shaped heat shields can be shaped into any complex form.

Performance, safety, and comfort in use

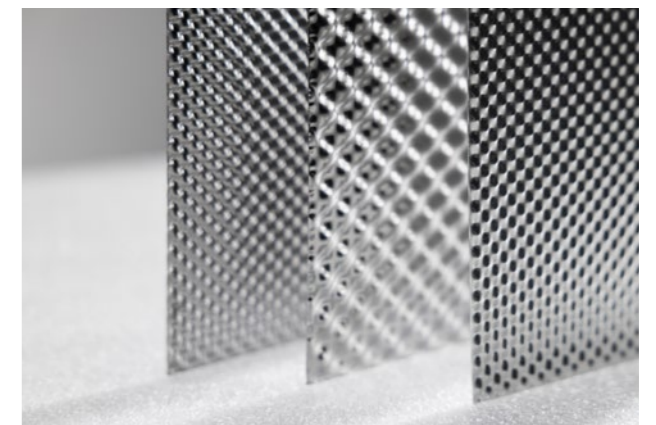
With thermal management, we retain the temperature where needed, such as in exhaust systems, or protect components from heat. Our success in thermal management stems from our understanding of the critical role it plays in EAT system performance.

Flexibility and listening to the customer describe not only our engineering but also our manufacturing. We can produce limited runs of a few hundred parts up to large-scale production.

We can take care of the whole insulation process for the customer – and even more. When assembling the insulation, we can install other third-party components, making customers' processes quicker and easier in their factory.

Reasons to partner with Proventia

- Deep understanding of thermal management's role in EAT performance
- High-quality, visually eye-catching insulation solutions
- Strong expertise and experience in machine and vehicle technology
- Rapid prototyping and validation
- Fast process from prototypes to serial products
- Flexible, cost-effective manufacturing





Power to sustain and boost

PROVENTIA BATTERIES

Electrification of off-road machinery enables operational cost savings and increases productivity, leading to CO₂ savings. It is a major step towards a zero-emissions future. We specialize in developing and manufacturing modular, customizable lithium-ion battery packs tailored for the off-road machine industry and other industries with similar needs. Our batteries offer an exceptionally low CO₂ footprint thanks to advanced battery enclosures and cells.



Robust, flexible battery systems for heavy machinery and equipment

When it comes to heavy-duty machinery, there is a vast variety of operating environments, conditions, and duty cycles depending on the application and how it performs its tasks. This means there is no single solution for electrifying all machinery.

Depending on electrification needs, Proventia provides both power and energy battery systems. Our batteries are built on flexible, scalable modules, ensuring the best fit for various applications.

We engineer and manufacture robust battery systems from these modules, which are perfectly suited for various electrification requirements.

Reasons to partner with Proventia

- Battery modules developed and manufactured in-house
- Advanced simulation and engineering support
- Comprehensive battery testing and validation capabilities
- Collaborative, proactive approach in all operations

POWER BATTERIES

Proventia Power batteries are based on LTO technology and designed to deliver high bursts of power quickly.

ENERGY BATTERIES

Proventia Energy batteries are based on European LFP technology and designed for long-term energy storage and sustained power output.



Proventia Technology Center, Oulu, Finland

Our technology center offers a wide range of engineering and testing services and supports customers in achieving lower emissions.

At our technology center in Oulu, Finland, we engineer, design, simulate, test and validate our products. We utilize the industry's top design software, along with a premier testing environment featuring engine, emission, battery and hybrid testing capabilities.

ENGINEERING

- Design and development of components, platforms and systems
- Simulation (CFD and FEA) for EAT system analysis and durability
- Battery sizing, thermal, aging and mechanical durability simulations

PROTOTYPE MANUFACTURING

- Rapid modifications during the product development phase
- High-quality prototypes

IN-HOUSE TESTING AND VALIDATION SERVICES

- Performance, aging and durability testing for engines, exhaust after-treatment systems, insulation components and batteries.



Agile product development process leading to efficient serial manufacturing

ENGINEERING SERVICES

- R&D
- Design services
- Simulations

PROTOTYPE MANUFACTURING

- In-house prototype manufacturing
- Early-stage manufacturability review

TESTING & VALIDATION SERVICES

- Performance
- Aging
- Durability

HIGH-QUALITY EATS, INSULATION, BATTERIES

- Own OE standard manufacturing site
- First-rate subcontracting



Proventia Factory, Brno, Czech Republic

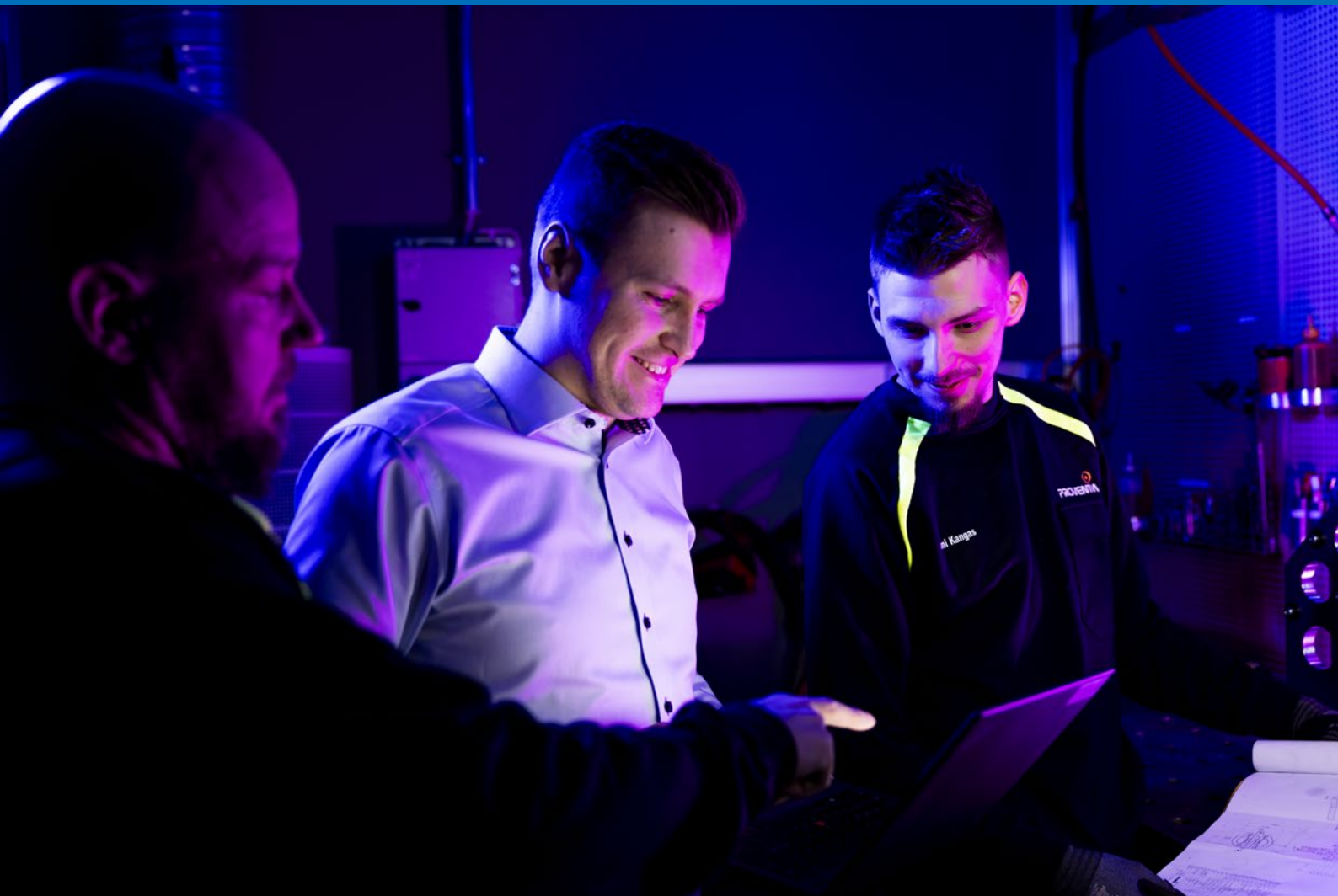
The 7,000 m² production space is equipped with the latest manufacturing technologies.

Our skilled and experienced manufacturing team operates modern production tools, equipment and robots. At our factory, we manufacture exhaust aftertreatment systems and thermal insulation components. Our main objective is to be a reliable, flexible and sustainable manufacturing partner to our customers.

Audited suppliers and subcontracting chain

We manage and control the entire supply chain, from order placement to procurement of parts and components, and from production to delivery to your facilities. Our audited, top-tier subcontracting network and carefully selected suppliers support and complement our production.





Your partner for developing cleaner power

Proventia makes your engines, machines, and equipment cleaner and future-compliant, regardless of which technology you use to produce power.



Proventia Group Oyj | Proventia Oy
Tietotie 1, 90460 Oulunsalo, Finland | Tel. +358 20 781 0200
sales@proventia.com | info@proventia.com | proventia.com