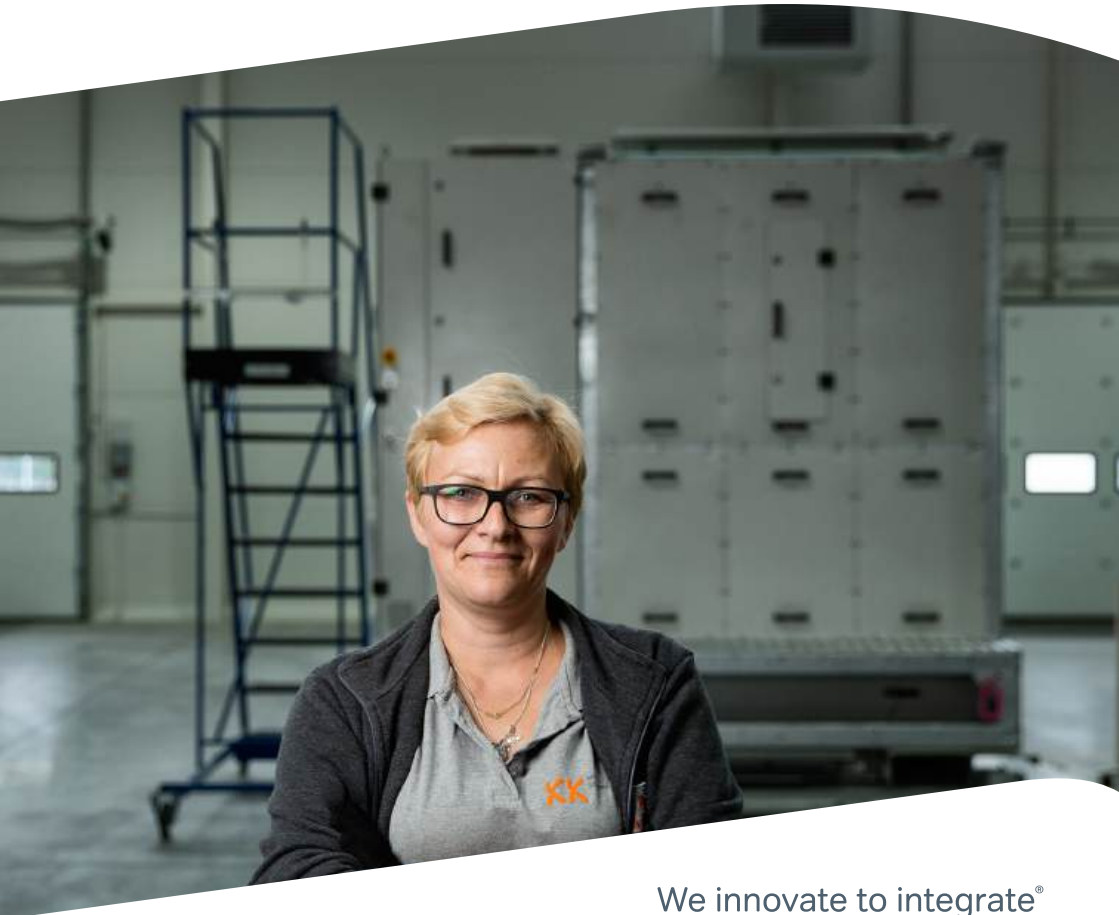




A leading partner in electro-mechanical systems



We innovate to integrate®

We specialise in electrical systems for renewables and offer our customers solutions that lower costs and maximise performance.

We innovate to integrate[®]

KK Wind Solutions has been a leader in the wind industry since its infancy in the 1970s. In fact, 70 percent of the world's installed offshore capacity is operating with our solutions.

Decades of experience delivering electrical solutions for wind turbines and renewables has taught us all about the complexities of these dynamic industries – but also about a both constant and simple demand: the need to reduce the total cost of ownership to improve the competitiveness of green energy.

Simply optimising

This remains our guiding principle when partnering with our customers. We use our profound understanding of technology, supply chain management, manufacturing and service to deliver solutions that reduce cost at every step of the value chain and optimise system performance through innovative and reliable technology.

Always integrating

We create strong collaborative relationships with our customers.

We listen and respond to their business needs and deliver electrical solutions that integrate with their renewable asset and support their business in the most effective ways. Moreover, we apply an integrated approach to creating high-quality and effective supply chains, both internally and with our suppliers and customers. We innovate to integrate.

Today, KK Wind Solutions is a part of the A.P. Moller Group as we continue to lead the green energy transition.



A·P·MOLLER

Our solutions circle

Building on more than 40 years of experience in electrical systems for renewables the capabilities of KK Wind Solutions span development of state-of-the-art technologies, high quality lean manufacturing, flexible aftermarket solutions and advanced monitoring services.

Our global field presence gives us the hands-on experience to provide solutions that improve our customers' business and contribute to the goal shared across the energy industry: Lowering the Cost of Energy.

KK Wind Solutions partners with customers at every stage of the product life cycle – from development of technology to service and retrofit.



System development


With more than 43,000 solutions installed globally, we draw on an extensive track record when developing electrical systems tailored to customer requirements. Our knowledge and experience across platforms translates into solutions that ensure seamless integration and optimal system performance.

Supply chain management

Combining our deep understanding of the industry with a high production volume in our manufacturing and testing facilities, we deliver high-quality and cost-effective solutions.

Service

As specialist providers of aftermarket solutions and advanced monitoring services, we take a proactive approach to operations and maintenance. Quick access to spare parts, technical documentation and expert knowledge means faster response times and increased availability.



More than 40 years of
experience in electrical
systems for renewables

+40

System development

Ensuring seamless integration and performance

We draw on an extensive track record and industry-leading domain knowledge when developing electrical systems, tailored to customer requirements.

Tailored partnerships

We have a proven track record in supporting customers at all stages in the development of hardware and software solutions, either through development consultancy from our experts, a joint product development effort or KK Wind Solutions handling the entire process based on customer specifications.

Flexible and fast development

Based on our modular approach to product development, we ensure fast and cost-efficient development and flexible solutions. And before serial production in either our own or our customers' production facilities, the reliability of products is ensured through systematic preparation in our state-of-the-art prototyping and testing facilities.

Key benefits of working with us:

- High level of expertise across electrical systems to ensuring seamless integration
- Flexible setup to match individual customer requirements for collaboration
- Extensive track record across turbine manufacturers and platforms
- Modular approach to development ensuring tailored solutions based on proven technology
- Industry-leading test and prototyping facilities

Supply chain solutions

Reducing cost and complexity in your supply chain

KK Wind Solutions has extensive experience in reducing cost and complexity in our customers' supply chain, mainly through supply chain management, strategic sourcing and lean production.

Continuous optimisation through close collaboration

Our in-depth understanding of the industry means we can collaborate closely with our customers to find and fulfill the potential for cost reductions in sourcing, manufacturing and logistics, acting as a trusted, dedicated and agile supplier. We take pride in continuous optimisation – both in daily operations and with a long-term strategic focus.

Cost-efficient solutions

Unique capabilities within robotic manufacturing lower cost and increase quality. Combined with our high production volume in state-of-the-art manufacturing and test facilities and vast experience, this translates into cost-effective, high-quality solutions.

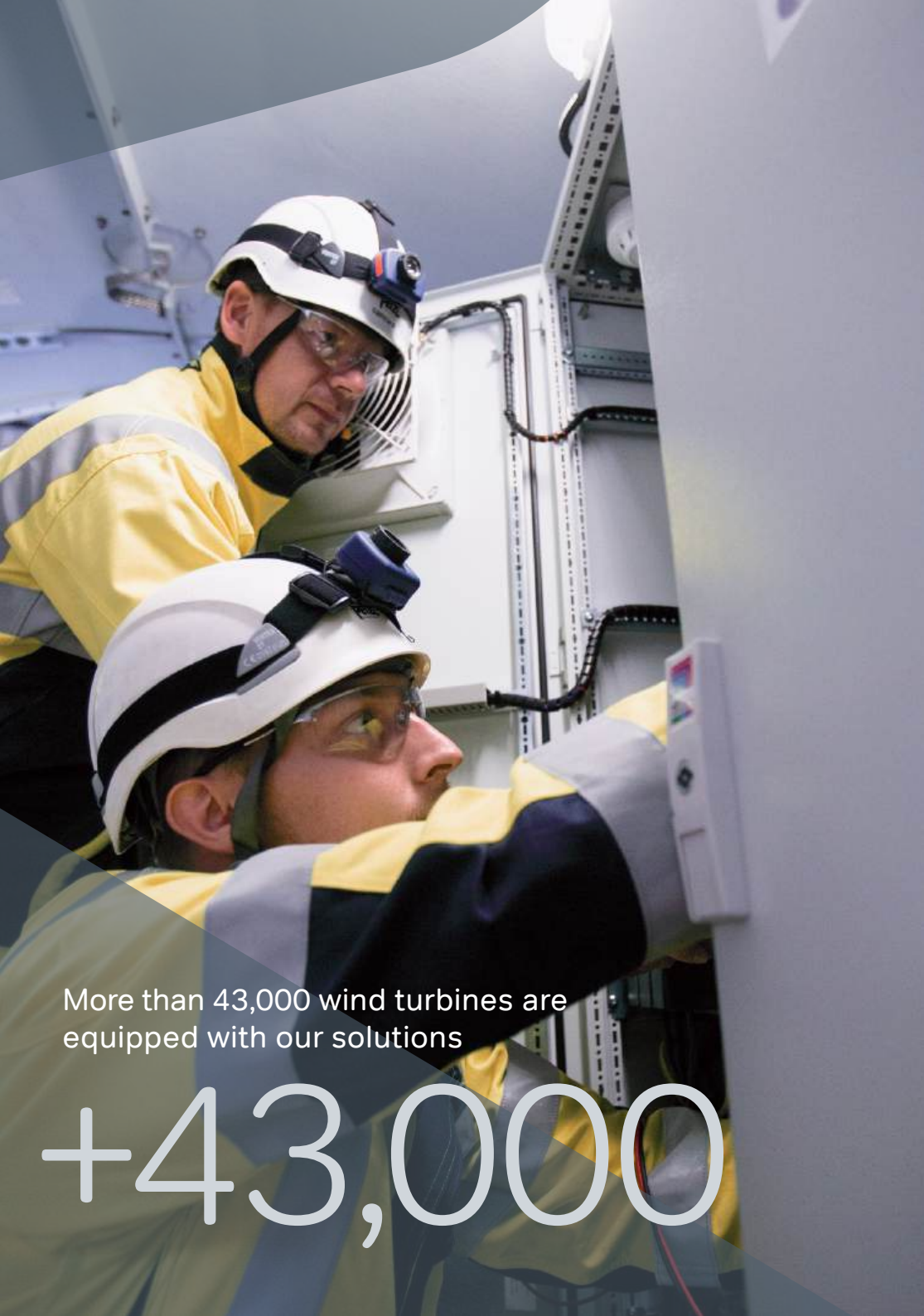
Key benefits of working with us:

- Cost-efficient manufacturing solutions
- Highly skilled and experienced staff from operators to engineers
- Agile and fast introduction of new products
- Flexibility in handling customer product mix and variations in demand
- High standards in quality, health and safety according to ISO 9001/14001/45001

70% of the entire installed offshore capacity is equipped with our solutions*

*Source: Wood Mackenzie





More than 43,000 wind turbines are equipped with our solutions

+43,000

Service

Improving turbine performance through knowhow and flexibility

Highly specialised in electrical systems, our service organisation can support throughout the entire turbine lifetime: From prototype testing, pre-commissioning and High Voltage services for installation, to predictive maintenance, supply and repair of spare parts, retrofit and upgrade solutions to improve turbine performance.

Proactive approach to problem solving

We take pride in our ability to respond and adapt to customer needs. As a global leader within advanced condition monitoring solutions and services, we take a proactive approach O&M. In all of our operations we take a preventative approach to safety and maintain the highest quality standards.

Fast responses and high availability

As part of an agile and connected organisation, our technicians can quickly access spare parts, technical documentation and expert knowledge, from within our company, resulting in faster response times and higher availability.

As with all of our solutions, our service offerings can be customised to meet your unique challenges and requirements and can include training, technical support and project management.

Key benefits of working with us:

- Experienced workforce highly specialised in electrical systems and with a proactive approach to optimising turbine performance
- Access to leading experts within turbine condition monitoring
- Global distribution network ensuring fast response times
- Excellent safety track record and compliance with highest safety and quality standards
- Agile organisation ensuring easy access to spare parts, technical documentation and expert knowledge

Solutions to match any customer need in electrical systems



Controls Systems

Advanced control systems and software for reliable control and seamless integration.

We develop and manufacture advanced control systems and tailored control panels engineered for low operational costs and maximum performance, reliability and safety.

Our solutions include:

- Control Panels
- Control Software
- Controllers
- Control Sensors



Monitoring & Prognostics

Powerful condition monitoring that helps to protect your assets and reduce downtime.

To establish an efficient and cost-effective operations and maintenance schedule, monitoring and prognostic solutions play a vital role in preventing unexpected component failures.

Our solutions include:

- TCM® (Turbine Condition Monitoring)
- Vibration Monitors
- Vibration Sensors
- Monitoring services



Energy Storage Systems

Scalable energy storage systems that ensure reliable and stable power supply.

During a power outage, it is crucial to have a reliable backup power source for the control and security systems. Our solutions are flexible and scalable in terms of power, energy and voltage ratings.

Our solutions include:

- Auxiliary Systems
- Power Backup Systems
- Yaw Backup
- Controller Backup
- Light Backup



Power Conversion

Efficient power converters based on proven technology and modular design.

We develop and manufacture tailor-made converter solutions that offer improved power density, efficiency, modularity and optimal performance while lowering costs.

Our solutions include:

- Converters
- Rectifiers
- Electrolyser Power Supply



Integrated Systems

Large-scale, customised platforms combining electrical systems and mechanical structures.

The industry calls for enhanced electro-mechanical system integration deliveries to streamline and simplify wind turbine and renewable energy system production.

Our solutions include:

- Tower Rack Systems
- Power Platforms
- Nacelle Modules
- Electrolyser Power Supply Systems



Service & Aftermarket

We deliver high-quality services to help you improve performance and extend the asset lifetime.

As a global service company, our specialised service engineers and technicians are ready to support you anywhere in the world and help prevent downtime through world-class service solutions.

Our solutions include:

- Retrofit & Upgrades
- Spare Parts
- Repairs & Refurbishments
- Non-standard Production
- Field Services
- Training & Support

Creating value through collaboration

At KK Wind Solutions, we do business based on dialogue and collaboration with customers. We listen to understand and improve our customers' business and provide unique solutions to their needs.

We are an agile and connected organisation with a flat hierarchical structure which means we get things done swiftly and effectively, creating maximum value for our customers.

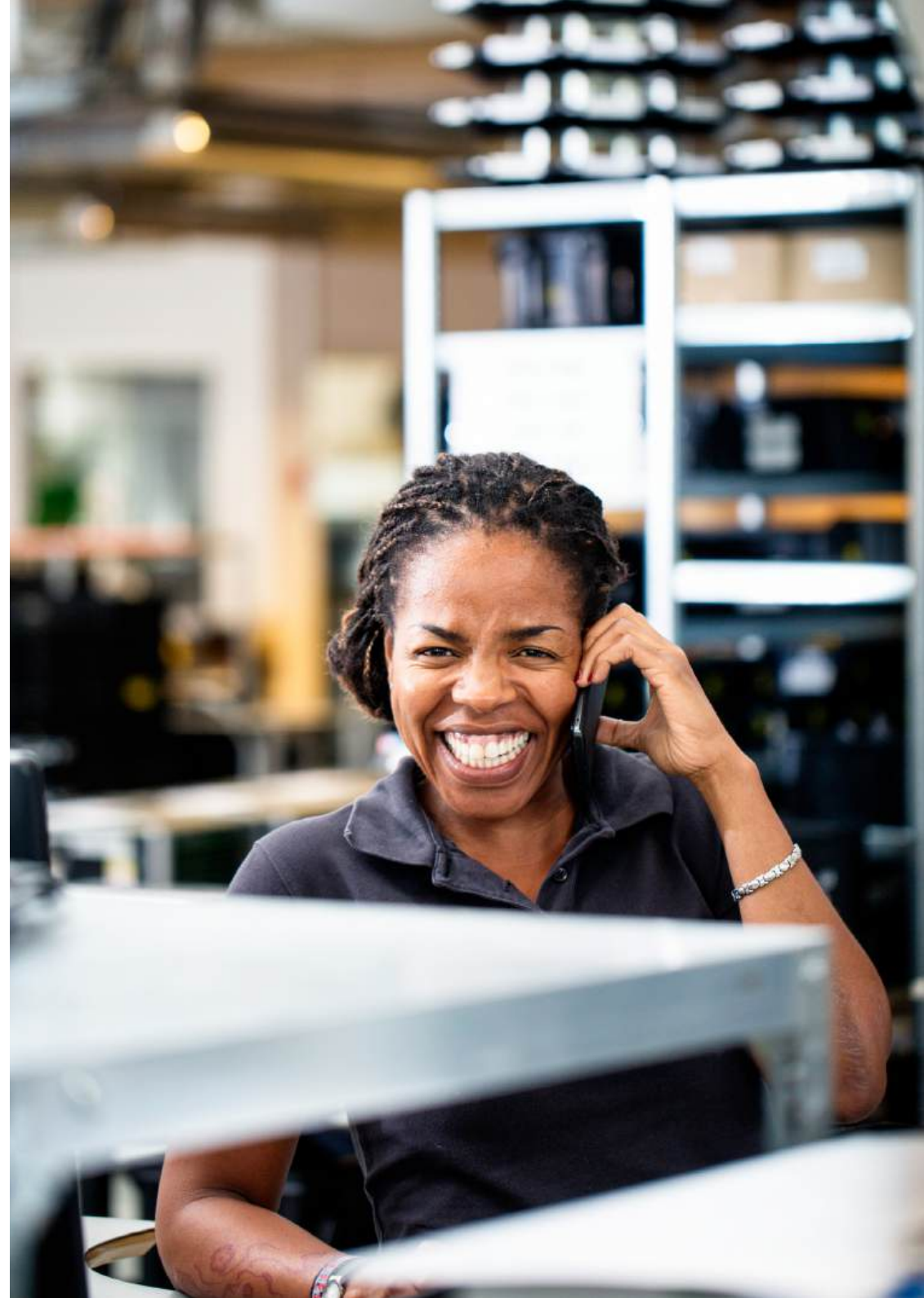
Breaking boundaries to exceed expectations

We are experts in combining technical knowledge and insights from our extensive experience in the field to create new and improved solutions. With our strong focus on innovation and integration we are constantly breaking boundaries by improving on what we have done before to deliver solutions optimised for cost and quality.

We innovate to integrate

Our expertise with system integration and our ability to provide integrated supply chain solutions sets us apart from others. In every aspect of our business we strive for not only satisfying but also exceeding our customers' expectations.

We work in collaboration with our customers to achieve the greatest possible impacts: a more competitive renewables industry and a meaningful contribution to global sustainability.





HQ KK Wind Solutions A/S
Bøgildvej 3
DK-7430 Ikast

Phone +45 96 92 43 00

E-mail main@kkwindsolutions.com
Web www.kkwindsolutions.com