

# ARNON.

MAGAZINE

MEGATRENDS  
by Ezio Basso

SOLVING  
WATER

HEALTHTECH

ENERGY  
**efficiency**

ART OF  
AUTOMATION

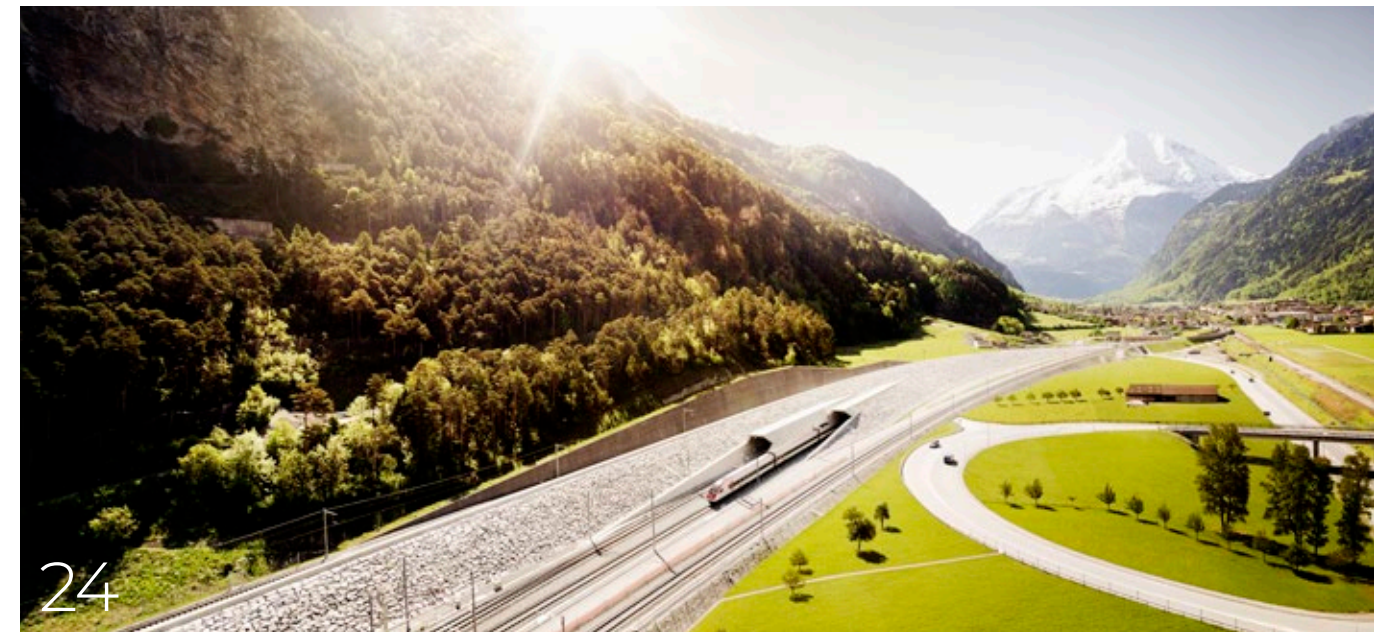


# TARGETING ZERO EMISSIONS

Our whole business is about improving productivity, saving costs and reducing emissions – all at the same time. We serve energy consuming businesses and our joint objective is to build a low-carbon society. Contact us to learn what we can do for you.



**ARNON.**



- 4 Editorials
- 6 Xylem – 70 years together
- 10 Prima Power – Top 5 megatrends for laser machine industry
- 14 Sandvik – Solid as a rock
- 18 Technology Industries of Finland – Organisational wellbeing enables environmentally-friendly solutions
- 20 Ginolis – Methods used in the electronics industry boost health care technology
- 24 ABB – Sustainable success through cooperation
- 28 TKF – Arnon and TKF form a unique electrifying team
- 32 Arnon – Purpose-driven and methodical ways of working
- 36 ARNON SKY – New level of IIoT
- 38 Pro at work – Trevor Garvey, Johanna Nieminen & Agnieszka Ostrowska
- 42 Arnon in a nutshell



#### ARNON MAGAZINE

At Arnon, we believe business relationships thrive in open communication and close collaboration. As the intelligent partner for the future, we want to spark new ideas and share knowledge within our valued community of industry professionals. We hope you enjoy this issue of Arnon Magazine.

**ARNON.**  
Art of Automation.

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# Working for the future



HARRI LAMMINEN  
CEO  
ARNON

For decades, we at Arnon have had the privilege to work with the pioneers of engineering, both as colleagues and as clients. We have been able to develop with the best in their field, strengthen our expertise and provide our partners with cutting-edge technology. In this business, nobody survives alone. Success is built in cooperation, partnership, and joint development. Needless to say, we are extremely happy to be part of a thriving ecosystem.

We know that our partners expect the best quality. After all, our clients' strategies aim to enable sustainable societies with smart technology, build a healthier world, or enable sustainable modern life. These are fundamental goals from the perspective of the future of our whole planet. We take the needs of our clients seriously and want to do our part.

At the beginning of 2021, we fine-tuned our strategy. We want to be the first-choice provider for intelligent automation, electrification, and digital services to our selected customers. Our mission is to be the intelligent integration partner for your future.

**Based on our values, winning, personnel and partners, we will work hard to make our mission happen – and enjoy every step of the way.**

## ACID TEST FOR BUSINESS CONTINUITY

After the coronavirus year 2020, everything finally seemed to be taking a turn for the better. Then, the recovery of the global economy and investments, the complexities of power politics, and the winding-down of production capacity and inventories around the world during the pandemic suddenly began to have a radical impact on material availability.

It was an aftershock, the repercussions of which we will have to live with for a long time to come

before the supply chain operations will be back to normal. Ultimately, this seems to be an even tougher acid test for manufacturing business like us than the pandemic.

Until now, business continuity planning has mainly concentrated on preparing for the common but unexpected situations like strikes or fires. But this new situation has caught every manufacturing company by surprise. For example, when leading global component suppliers have to go as far as cancel their deliveries and confirm delivery times of 20 to 40 weeks instead of the normal 2 to 6 weeks, there is only so much a small Nordic company can do to compensate.

In addition to a hard-working and adaptable staff, our close, trust-based partnerships in our own supplier networks have become a key coping mechanism in the situation. Open and goal-oriented supplier collaboration is one of the most important keys to profit, the real value of which is eventually seized in our own customer interface.



JOUNI MÄKI  
CHIEF PRODUCT OFFICER  
ARNON



# 70 YEARS TOGETHER

## – AND OUR BOND IS STRONGER THAN EVER

In 2022, Arnon and Xylem will celebrate 70 years together. A partnership that is now entering a new and more intense phase.

TEXT **BJÖRN BERLING** | PHOTOS **XYLEM & ARNON**



Xylem is one of the world's leading water technology companies. The company has approximately 19 000 employees and is represented in over 350 locations around the world. Xylem does business in more than 150 countries on six continents. In 2019 sales were \$ 5.25 billion.

“We agree on how to make a long-term partnership work,” says **Axel Patrikson**, Nordic Purchasing Manager at Xylem. “Our bond has been strengthened and we are ready to grow together in Sweden and the other Nordic countries.”

It is very appropriate to liken the almost 70-year partnership between Arnon and Xylem to a diamond anniversary. In 1952, B.O. Park (acquired by Arnon in 2020) and Flygt, which joined the Xylem Group in 2011, started a collaboration that, by today's standards, could be seen as somewhat modest.

– Throughout my professional career, I have learned that everything is constantly changing and that flexibility and the ability to adapt to customers is an absolute requirement. Because of innovation, quality, and early automation of processes, the symbiosis between

the companies has lasted for almost 70 years. It is a pleasure to continue to develop this relationship with the entire Arnon Group's combined competence and strength, says Leif Thalberg, CEO of Arnon in Sweden.

Thalberg took over as CEO for family-owned B.O. Park in 1992.

– I think that working together for 60 years is quite unique. It places very high demands on us as a supplier. Knowledge, quality and ability to deliver are important ingredients to gain renewed confidence year after year. I'm really looking forward to taking the next step and continuing our development.



Axel Patrikson





## MORE THAN 100 YEARS OF HISTORY

- 1901** Blacksmith and mold maker Peter Alfred Stenberg moved to Lindås and started the company P. A. Stenberg to develop his production of molds and equipment for the many glassworks in the area.
- 1928** A collaboration began between the brothers Stenberg and Hilding Flygt, who were looking for a partner to start manufacturing pumps.
- 1947** The first submersible drainage pump was invented and a few years later also the first submersible sewage pump by Sixten Engelsson at Flygt.
- 1956** Sixten Engelsson developed the submersible drainage pump, also called the C-pump with a coupling foot and level switch.
- 1966** Flygt completed the acquisition of Kristenson & Grähs, which became Grindex.
- 1968** Stenberg-Flygt was acquired by the American large group ITT.
- 2008** ITT Flygt AB became ITT Water & Wastewater AB.
- 2011** Xylem was founded.

In connection with Arnon acquiring B.O. Park, Jörgen Hedström was appointed Director of Sales. One of his main duties is to ensure that the new skills gained are utilized.

– Until now, commitment and responsibility areas have focused on the design, construction and assembly of various electrical and automation solutions intended for both the domestic and foreign markets, explains Hedström.

– With Arnon’s collective arsenal of skills and expertise, we are stronger and can deliver much more, and thereby grow together. As I see it, our partnership is heading toward a fresh start.

Xylem is a world-leading water technology company that works to safeguard water security by creating innovative and smart technology solutions that meet the world’s needs in water, wastewater and energy.

As the world struggles with intensifying challenges such as climate change, urbanization and stricter requirements for energy efficiency, Xylem provides innovative water technology solutions throughout the water lifecycle. The company has around 1,600 employees in Sweden, of which 1,150 work in production in Emmaboda. The U.S. is the largest market, but there is great potential for continued growth in Sweden and the Nordic countries.

– Stronger collaboration where we jointly develop customized solutions is beneficial to both parties, says Patriksson.

– To remain competitive in these times, it is of utmost importance to work closely and engage in dialogue to ensure high-quality, on-time deliveries. We must always keep up-to-date and guarantee the highest possible quality, and there is a reason we have maintained our partnership for such a long time.

“Stronger  
collaboration where  
we jointly develop  
customized solutions  
is beneficial to both  
parties.”

Long-term perspective and sustainability are two recurring themes when Xylem and Arnon describe their partnership – along with the fact that they want to increase the degree of innovation together. ●



Leif Thalberg



Jörgen Hedström





Ezio Basso

# TOP 5 MEGATRENDS FOR LASER MACHINE INDUSTRY

TEXT **SARI HOSIO** | PHOTOS **PRIMA POWER**

What are the most important megatrends that shape the business environment for Prima Industrie? The company is a world-class manufacturer of laser and sheet metal working machinery, industrial laser sources and electronics, and additive manufacturing systems.

**C**EO **Ezio Basso** has been leading the 45-year-old Prima Industrie for 16 years. During that time, the revenues of the company have quadrupled from 111 million euros to approximately 450 million euros (2019 data).

Lately, Prima Industrie has invested in many new manufacturing plants. In 2015, a new factory was opened in Suzhou, China. Seinäjoki, Finland welcomed Finn-Power in the form of a modern manufacturing plant in 2019. In Minneapolis, the US, a larger and more efficient Lasergyne plant was opened in June 2020. The latest addition, a modern and sustainable manufacturing plant in Collegno, Italy, was completed in June 2021.





“Instead of flying to another country, we are now creating applications and methods for the installation and aftersales to be handled remotely.”

– As we move from an old plant to a new one, efficiency will increase. Not only because it is designed and

“Megatrend most likely to influence Prima Industrie is the green and circular economy.”

built with a special attention to energy efficiency and sustainability, and located in the same area of our Head-

quarters, Tech Center, and Advanced Laser Center, but also because people are happy to work in an environment that is more modern and sustainable, Basso says.

#### SUSTAINABILITY MEANS NEW BUSINESS

Sustainability is an important value to Prima Industrie, its employees, and customers alike. Green and circular economy are one of the megatrends that are most likely to influence Prima Industrie business. The circular economy aims at combining development with the saving of natural resources.

– Good examples of circular economy in our products include repairing parts such as aerospace turbine vanes and the manufacturing of spare parts

using additive manufacturing, Basso lists.

– With additive manufacturing, there are no scraps, so you are free of the lengthy and costly process of disposing of the extra materials.

While circular economy deals with the challenges of the present, space economy is a geopolitical megatrend of the future.

– We are a market leader in the aerospace sector, there is no discussion about that. The aerospace industry is buying approximately 30 laser machines for drilling applications per year, and we deliver 25 of those. But still, currently, it is a niche market, Basso states.

– The space economy is gaining ground and our technologies are used for the manufacturing of components for space rockets and satellite launchers.

#### NEW NORMAL: LESS TRAVELING

As cities are already home to more than half of the world’s population, and the number is continuously growing, smart cities megatrend is bound to have a strong effect on businesses. The pandemic confirmed that cities must be more resilient. Smart technology proved its importance.

– We learned to do things without travelling. Instead of flying to another country, we are now creating applica-

tions and methods for the installation and aftersales to be handled remotely, via augmented reality, Basso shares an example of the company’s new normal.

The Urbanization megatrend will manifest itself mainly in the sectors of elevators and escalators, steel doors, white goods, HVAC, and many other products.

E-mobility makes cleaner and more efficient transportation systems more common. There will be demand for Prima Industrie products in 3D laser cutting of hot-stamped parts and mak-

ing battery housings.

And finally, health and wellbeing are a megatrend that is based on the aging of the world’s population. From metal walls in hospitals to refrigerators storing vaccines, many applications need laser machines.

The range of needs created by these megatrends is wide. Basso has confidence in the future of Prima Industrie.

– Whatever the industry needs, we have the right product, he concludes. ●



# SOLID AS A ROCK

TEXT **SARI HOSIO** | PHOTOS **SANDVIK**

A third-generation mining OEM employee, **David Hallett's** life revolves around the element of rock. His position as vice president, automation at Sandvik Mining and Rock Solutions takes him underground regularly. In his free time, he rock climbs.







“Mining is a necessary piece of our world nowadays. We need the minerals to have devices and products we are used to, but we also need to collect the mineral responsibly.”

**D**avid Hallett has visited too many mines to remember – his best guess is “over a hundred at this point.” His first assignment as a field service technician was to repair machines at a tunneling project underneath Manhattan in New York City.

– As I had studied mechanical engineering, I never thought I would find myself in mining like my other family members. My grandfather worked for Cat for almost 40 years, and my father worked for Tamrock for nearly 30 years, and he is still working for a Finnish company in the mining industry. The most important advice they have passed down to me is staying humble, working hard and doing your best to understand all aspects of the business, Hallett says.

Hallett certainly has taken this advice to heart. During his years at Sandvik, he has accrued experience, for example,

as a technical specialist, service supervisor, business line manager, and vice president, automation.

– I have gotten my hands dirty and worked my way through the organization, and I think it’s been beneficial.

**“We have an excellent research and development team.”**

Sandvik is a dynamic organization, and there is never a lack of opportunity here. I am a good example of that.

Now, Hallett is in charge of automation globally at Sandvik.

– As the mining industry continues to evolve, digital technologies, automation, and electrification are the key topics that really are going to find a critical role in the overall digital shift within the industry.

#### **CONTINUOUSLY DEVELOPING AUTOMINE®**

Sandvik AutoMine® is a product group for autonomous and remotely operated mobile equipment. It includes AutoMine® Underground and AutoMine® Surface Drilling products, continuously increasing with intelligent functionalities and support for different types of machinery. The AutoMine® product group allows customers to scale up automation at their own pace.

Sandvik introduced the AutoMine® products in 2004.

– What we have today versus what we started with is night and day. We have an excellent research and development team that really enjoys and loves developing these cutting-edge technologies. The great network in our sales areas go and deploy these solutions at our customer’s sites and live and breathe the day to day with the operations where the end-users derive the value from the products into their operations.

#### **COMMITTED TO REDUCING EMISSIONS**

Sandvik is committed to using engineering and innovation to make the shift towards a more sustainable business.

– Mining is a necessary piece of our world nowadays. We need the minerals

to have devices and products we are used to, but we also need to collect the mineral responsibly. All the customers I talk to agree with this.

Examples of how Sandvik can help mining sites to reduce emissions include battery electric vehicles, remote connections that reduce the need for fly-in-fly-out operations, and automation that reduces excessive travel to and from the remote mining sites.

#### **TOGETHER AS A TEAM**

Sandvik Mining and Rock Solutions and Arnon have a long history together. Arnon supplies mining automation systems and oversees their assembly, manufacturing, and distribution.

– The flexibility of the business model with Arnon has been quite good for us. It has given us the ability to work



David Hallett

together with a partner we trust and with whom we can scale up our business together as a team, Hallett says. ●





"In the best case,  
low-carbon  
measures will  
achieve a  
triple win."

Helena Soimakallio

# ORGANIZATIONAL WELLBEING

## ENABLES ENVIRONMENTALLY-FRIENDLY SOLUTIONS

To bring about real and lasting change, climate change mitigation must be good for business. So says Executive Director for Sustainable Development at Technology Industries of Finland, **Helena Soimakallio**.

TEXT **SARI HOSIO** | PHOTO **HELENA SOIMAKALLIO**

**W**hile the importance of mitigating climate change, preserving biodiversity, and managing consumerism are recognized, the business landscape has not yet adapted. Enterprises cannot, however, live by responsible business alone.

According to Helena Soimakallio, tackling climate change must be good business – and it is.

– In the best case, low-carbon measures will achieve a triple win. Industrial automation and improving energy efficiency are great examples of how one measure can improve productivity, save costs, and reduce emissions from, for example, energy use, Soimakallio notes.

### TOWARDS CARBON NEUTRALITY

In the summer of 2020, Technology Industries of Finland published a low-carbon roadmap, intended to play its part in Finland meeting its 2035 carbon-neutral targets, as well as those of the EU by 2050. Finnish technology companies have also made their own commitments in this area, leading to the roadmap being rolled out faster than expected.

– Granted, a lot of Finnish companies have not yet changed their operations in any way and do not even have a change plan yet. The apparent inactivity is because changes in technologies, solutions, and business models that curb climate emissions take place in investment cycles, not linearly, Soimakallio explains.

– Every business follows its own path, with reductions in emissions usually following on from a response to the need for the next upgrade, expansion or investment in production technology, for example. Depending on the lifecycle of the technology in question, this might take a year, five years or even decades.

### COMPETITIVENESS AS A PREREQUISITE FOR DEVELOPMENT

Organizational and environmental wellbeing go hand in hand.

– Only economically viable businesses can innovate and invest, which makes it important to take care of their ability to compete, Soimakallio stresses.

Energy efficiency, material efficiency, and incorporating services into a product or solution can lead to

increased wellbeing without ramping up environmental concerns.

– I'm not immune to environmental anxiety myself. I constantly feel the frustration of progress not happening quickly enough. But as a qualified engineer, I typically trust that we have both the desire and ability to develop technological solutions. The messages coming from society at large are the fuel that awakens businesses, customers, and decision-makers alike. We need both the right amount of concern to promote action and the knowledge that we are all part of the solution. ●

Helena Soimakallio's long career spans the energy industry and the real estate and construction sectors. She is the Executive Director for Sustainable Development and a member of the executive group at Technology Industries of Finland (Teknologiateollisuus ry) and the Managing Director of the Finnish Association of Consulting Firms (SKOL).



# METHODS USED IN THE ELECTRONICS INDUSTRY BOOST HEALTH CARE TECHNOLOGY

Diagnostic tests have been in high demand recently. The production facilities of many test manufacturers contain efficient automation lines manufactured by the Finnish company Ginolis.

TEXT **SARI HOSIO** | PHOTOS **GINOLIS & ARNON**



**H**ealth care technology is a strongly growing industry and its importance is constantly increasing.

The product spectrum is broad, ranging from rings that track sleep and recovery to medicine dispenser robots, and from hospital and care equipment to remote medical services. The total exports of the Finnish health care technology sector are growing continuously and amounted to EUR 2.43 billion in 2020.

Founded in Oulu in 2010, Ginolis forms a part of the Finnish health care industry. The company designs and delivers automation lines for its customers that manufacture diagnostic rapid tests and medical equipment.

## SCALING UP WITH AUTOMATION

The company's founder and CEO **Teijo Fabritius** has spent the whole of his long career working in robotics, automation and business development at Nokia Robotics and JOT Automation, for example. In 2010, the time was ripe to found his own company.

– I had been following the development of health care and wellbeing technology for a long time. When I became acquainted with companies that manufactured diagnostic tests, I discovered that the production was manual – nothing like what I was used to in the electronics industry. I expressed my thoughts about scaling production

with the help of automation, and the idea caught on immediately. We started developing the product and introduced an entirely new kind of operator to the industry. Even today we still don't really have any competitors, Teijo Fabritius says.

Demand was certainly strong: Ginolis has doubled its net sales annually. The greatest volume is from abroad, and sales within Finland are also mainly focused on international players.

Ginolis's products help companies in the industry to implement solutions that speed up diagnosis. As reliability improves, many basic samples can be taken with rapid tests at health care centers or at home without the need





Teijo Fabritius

“Our success is founded on our resolute belief in our vision, and on a network that enables this vision to be made into a reality.”



for separate laboratory visits. The test results are obtained quickly, in a matter of a few days or even minutes. As a result of the pandemic, the speed of testing has become an increasingly important factor.

In addition to rapid diagnosis, Ginolis manufactures health care technology products such as insulin pump assembly automation solutions and more complicated tests that require measurement of liquids.

The company's automation lines employ high technology that is used in the electronics industry's assembly processes. The lines are tailor-made from cost-effective modules that can easily be expanded while also increasing production capacity.

In addition to efficiency, Ginolis has focused on recognizability.

– From the beginning, we paid attention to the visual appearance of the

equipment and the entire company. We have customers who have placed the Ginolis line behind a glass wall at their production facility so visitors can see how smart the production facility looks, Fabritius says.

### **BUILDING NETWORKS AND DISCOVERING PARTNERSHIPS**

In the spring of 2020, Ginolis became part of the Swedish BICO Group.

– Our previous main shareholder was no longer able to sufficiently invest in and support our growth, so we started to look for other solutions. Luckily, we found a stronger owner base, and we are now better prepared to react to our customers' needs. Through the Group, our know-how is also reinforced, Fabritius says.

One of the factors restricting Gi-

nolis's growth has been production capacity.

– Our strategy is to outsource the production of standard products to a partner when the product is at a sufficiently high level of completion. The product in question is a technically challenging product that includes control technology and precision mechanics. Its assembly requires careful work and diverse know-how. Arnon has internalized our needs quickly and is able to produce complete solutions for us, which can be delivered directly from Arnon to the customer, Fabritius says contentedly.

Building networks and discovering partnerships is indeed one of Fabritius's strengths.

– Our success is founded on our resolute belief in our vision, and on a network that enables this vision to be made into a reality. ●



# SUSTAINABLE SUCCESS THROUGH COOPERATION

In addition to providing keys for sustainable development as a technology leader, ABB is strongly building a better tomorrow in its own operations. Arnon joined ABB's official partnership programme in autumn 2019. According to **Pekka Tiitinen**, Country Managing Director Finland at ABB, the cooperation has created added value for all the parties also in the form of sustainable solutions.

TEXT **LEENA RAHKO** | PHOTOS **ABB**

For ABB, which operates in more than one hundred countries, participating in the development of a more sustainable society is in the company's DNA. The company wants to lead by example and encourage others to do business in a more ecologically, economically and socially sustainable way. The Group's objectives for transitioning to sustainable electricity and the electrification of the company's vehicle fleet by 2030 have already been reached in Finland. Gender-neutral parental leaves are being introduced in


the entire Group at the end of this year.

The biggest actions for sustainable development are, however, implemented through ABB's customers.

– Curbing climate change without major cuts in standards of living require a global electrification. Since the consumption of electricity continues to increase, smarter, more energy efficient and cost efficient solutions are needed. Saving energy often simply means doing things more rationally, says Tiitinen.

“Development work done in cooperation with our customers plays a very important role in the creation of new solutions.”



A portrait of Pekka Tiitinen, a middle-aged man with short grey hair and glasses, wearing a dark blue suit jacket over a white shirt. He is standing in front of a large window with a grid pattern, looking directly at the camera. His right hand is resting on a wooden railing.

“Saving energy  
often simply means  
doing things more  
rationally.”

Pekka Tiitinen

### **SAVINGS FROM THE DRIVES OF ELECTRIC MOTORS**

According to Tiitinen, the biggest energy savings in Finland can be obtained in the industry, which is responsible for more than half of the electricity consumption in Finland.

– Finland is the Silicon Valley of heavy industry. Half of the electricity is used in electric motors, making the energy efficiency of motors highly significant. In some applications, large energy savings can be made by simply introducing an electric motor with better frequency converter, Tiitinen explains.

– In Finland, smart drive of the motor has long been normal, but in large parts of the world motors continue to run at full capacity all the time, with valves controlling the current. This is like running a car at full throttle all the time and controlling the speed by pressing the brakes: the result is heavy energy consumption, Tiitinen says.

In addition to electric motors, ABB has been supplying a range of energy-saving solutions around the world for companies of various sizes and operating in different industries.

– The solution may be as simple as regulating the pressure of water supplied to the water network by the customer. To improve energy efficiency, pumps are used at lower capacity during the night when the demand for water is lower and a lower pressure is therefore sufficient. The ventilation of buildings can also be adjusted according to use.

Interesting new opportunities can be found in mining, for instance. We are supplying trolley lines to mines, allowing the mine trucks to run on emission-free electricity instead of trundling uphill on big diesel engines, Tiitinen says by way of some examples.

– Robotics also play a role in sustainable solutions. Robots can, for example, take care of tasks that are too heavy or too dangerous for people. ABB developed the world's first electric robot in 1974, and by now, ABB's robots have participated in the development of a COVID-19 vaccine, for example.

### **ELECTRICITY ON THE GROUND, AT SEA AND IN THE AIR**

According to Tiitinen, in addition to energy efficiency, future sustainable development megatrends include carbon-free processes, heat pumps, temporal optimisation of electric propulsion as well as electric traffic.

– Traffic will become electric; the only question is how long that will take. The required technology already exists for a lot of changes, and we are actively involved in this development. For example, ABB has already transformed a ferry running between Denmark and Sweden into an electric ferry. When the ferry docks, a robot attaches a cable and the ferry is charged during unloading and loading. The same can be done for the ferries running between Helsinki and Tallinn. In spite of the numerous sceps-

tics, short-distance air traffic will also turn electric. Many found the idea of electric cars just as questionable thirty years ago, Tiitinen points out.

### **INVESTING IN SUCCESS**

ABB did not become a leader in sustainable development solutions by accident. In Finland, approximately one thousand ABB employees work in research and product development.

– We are one of the biggest R&D investors in Finland, continuously investing big on research and collaborating with university research centres. Development work done in cooperation with our customers also plays a very important role in the creation of new solutions. We must understand what the customer needs to be able to do the right things, Tiitinen emphasizes.

In addition to customers, ABB also works in close cooperation with its Value Provider partners.

– No one can be the best in everything alone. Specialising and finding a partner that is the best in something else brings better results than just doing many things with mediocre success. Arnon's particular competence lies in original OEM manufacturing, whereas we support Arnon with our product portfolio and by supplying components to our shared end customers. We understand each other's needs in terms of customers and applications. We achieve significantly more by working together, Tiitinen says. ●





# ARNON AND TKF FORM A UNIQUE ELECTRIFYING TEAM

TKF, an expert in power factor correction and power quality, supplements Arnon's selection with 20 years of experience.

TEXT **SARI HOSIO** | PHOTOS **ARNON & JACQUELINE FRÜH**

**K**nown at the time as Tampereen Kondensaattoritehdas, TKF was founded in 2000 to meet its customers' capacitor needs. In 2017, TKF was merged with Arnon. In recent years, TKF's selection has expanded to cover other power quality solutions.

– The power quality field is constantly evolving. The key developments in the big picture are a reduced need for power factor correction and the diversification of power quality challenges. These have been influenced by a number of factors, including the transition from fluorescent tube lighting to LEDs, and direct drive motors being controlled by frequency converters.

The change is continuous and, in close cooperation with our customers, we contribute to this change every day, says **Teemu Lindgren**, Sales Director at TKF.

TKF's solutions are used at thousands of sites from properties to industry, hospitals to the defense forces, and power companies to airports. The secret behind the impressive customer base is profound application know-how and a broad understanding of power quality solutions.

– Our experience allows us to apply the solutions correctly to the situation at hand, Lindgren says.

– Power quality is relevant on a broad

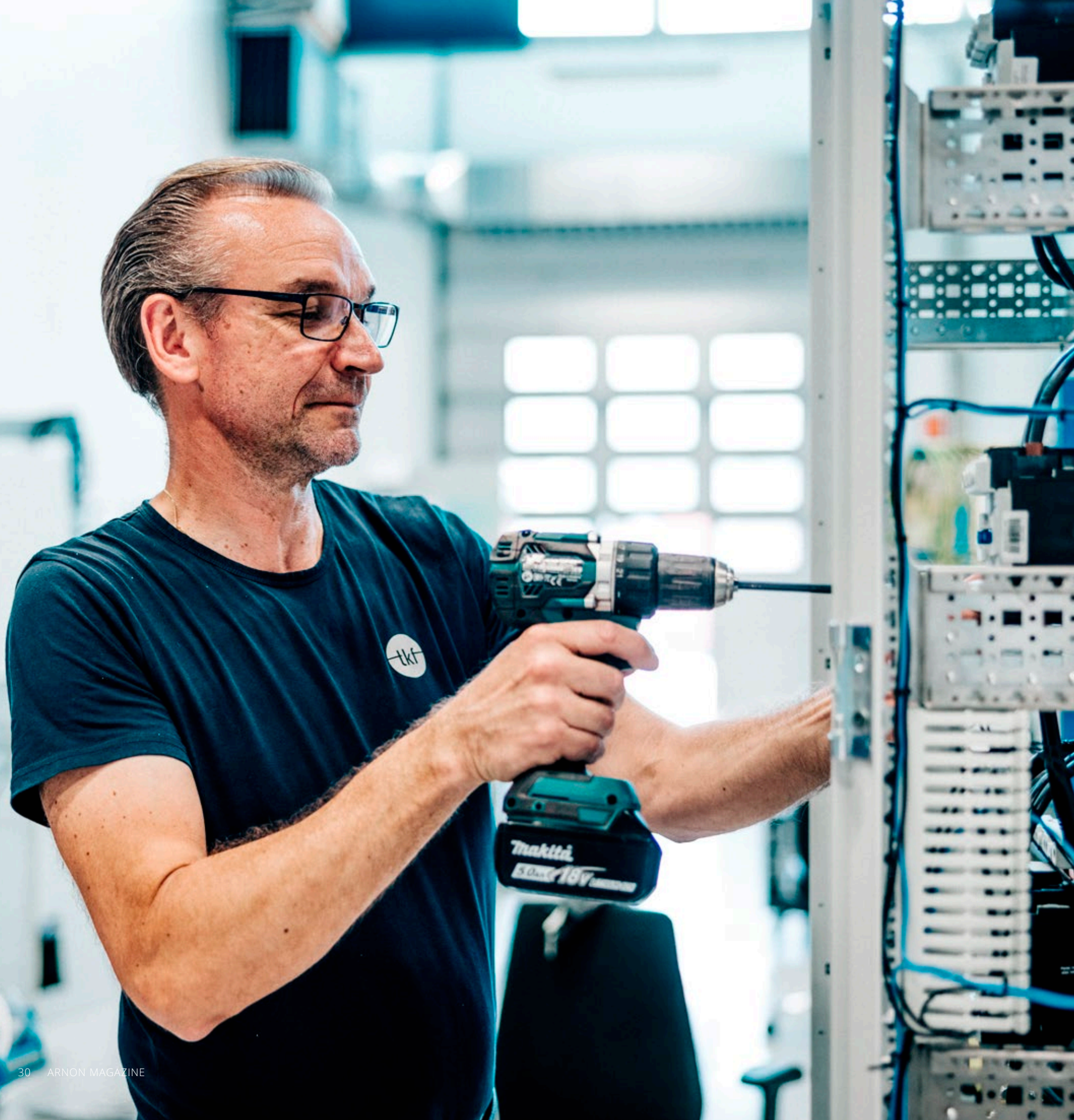
scale in very interesting customer applications. Knowledge can be applied and brought to other technological areas, for example from one industrial sector to another.

## CONTINUOUS DEVELOPMENT

The benefits and cost impacts of the local production of reactive power required by electrical motors are clear to professionals in the sector. TKF's selection includes power factor correction equipment for small, medium and high voltages.

"Power quality is relevant on a broad scale in very interesting customer applications."





– We are happy to investigate together with plants' electrical experts in order to determine what kind of solution is the most energy-efficient and appropriate at any given time. The solutions are developing constantly. Several power quality phenomena often come into play simultaneously, and that is when our expertise is put to the best use, says Lindgren.

For OEM manufacturers, TKF's services provide a convenient way of integrating partial solutions that improve energy efficiency and power quality as part of the product.

### HARMONICS ACCUMULATE COSTS

The costs caused by low power quality are not directly visible on the electricity bill. Harmonics and other phenomena that reduce power quality become apparent, for example, as a power grid failure when an industrial plant with low power quality joins a grid and disrupts the operators that are already connected to the grid. The more delicate electrical devices in the plant's own network could also break down and wear out: computers in the same electricity network, the logic within a production process or a coffee machine, for example,

might need to be replaced. Low power quality can also cause equipment malfunctions.

– Low power quality affects the average life span of electrical equipment and hence costs. You shouldn't just accept that equipment breaks, but rather determine the power quality by measuring, and then implement the necessary corrective measures. The right moment is when there are symptoms, and always after installing or removing a set of equipment, Lindgren recommends.

### REMOTE FEATURES INCLUDED IN POWER QUALITY SERVICES

TKF combines its power quality expertise with Arnon's Advanced Knowledge Services.

– When remote diagnostics are added to traditional power factor correction equipment, and especially to newer solutions that improve power quality, this produces the greatest value for customers. Remote diagnostics, remote monitoring, power quality analysis and a constantly available situational picture – these are the things that genuinely make the customer's life easier, and this unique offering is available under one roof, Lindgren says. •

### TKF'S KEY PRODUCTS

- Capacitors
- Detuned filter capacitor banks
- Inductive compensation banks
- Active harmonic filters
- Passive harmonic filters
- Medium voltage solutions





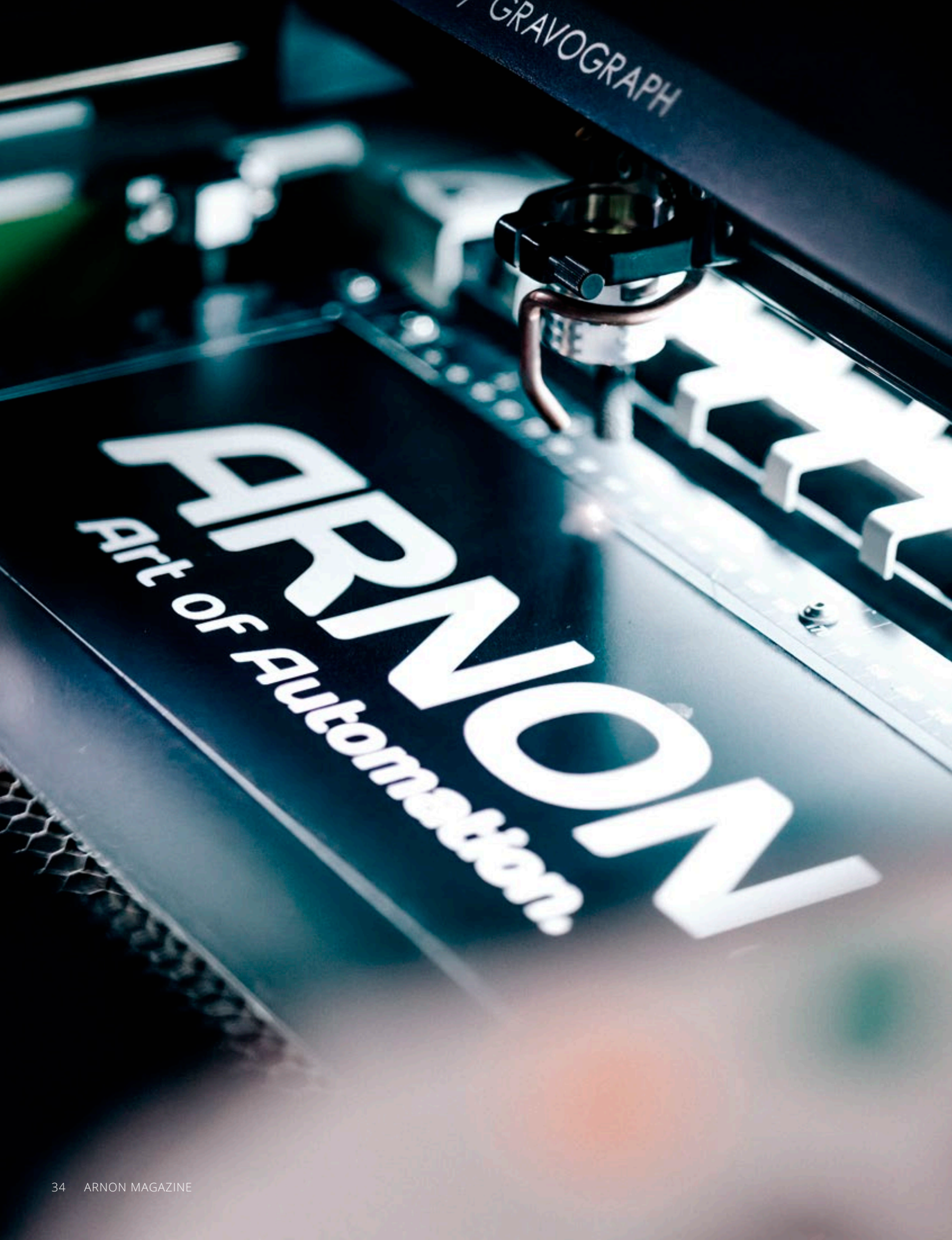
A portrait of Kari Lehto, a man with short brown hair and blue eyes, wearing a black suit jacket over a light blue button-down shirt. He is standing with his arms crossed and a slight smile, looking towards the camera. The background is a soft, out-of-focus light blue and white.

# PURPOSE- DRIVEN AND METHODICAL WAYS OF WORKING

TEXT **SARI HOSIO** | PHOTOS **ARNON & JACQUELINE FRÜH**

When chief commercial officer **Kari Lehto** started working at Arnon in the fall of 2020, he listed his goals: to bring more purpose-driven and methodical ways of working to Arnon and to create growth in solution sales for selected customers. How have these goals been achieved?





“Arnon’s strength has long been a mutual partnership with our clients.”

A lot has happened in Arnon during the last year. Acquired in the spring of 2020, the Swedish company B.O. Park, acquired in the spring of 2020, has merged with Arnon, and the two have found shared working methods.

– Knowledge and know-how move across the Gulf of Bothnia in both directions seamlessly. Working together, we develop a broader and stronger understanding, which is reflected in practice, for example, as new approaches to customer work. Arnon’s strength has long been a mutual partnership with our clients. In a relationship of shared trust, the client account can be grown systematically and extensively. The customer, in turn, benefits from Arnon’s expertise in the best possible way. We have brought this thinking to Arnon’s Swedish partnerships, Lehto says.

**INTELLIGENT SOLUTIONS FOR EVERY SECTOR**

Arnon’s customers in many sectors

struggle with similar challenges: reducing emissions, saving costs, digitalization, information security. As a provider of automation, electrification, and digital services, Arnon can offer intelligent solutions regardless of industry.

– By utilizing customer-specific action plans, we have a shared understanding of which things and goals are most important, and we achieve the best possible results together with the customer, Lehto says.

Arnon’s different locations in Finland, Sweden, and Poland support each other as and when needed.

– We have already completed the first project in which we utilized the capacity of each of our operating countries, Lehto rejoices.

**COLLABORATING WITH CUSTOMERS TO DRIVE CHANGE**

Arnon refined its strategy in early 2021. The purpose of the company’s existence remains the same: Arnon is an intelli-

gent integration partner for your future.

Arnon had already achieved some of the must-win battles the company had previously set. In the case of some objectives, it was time for refining. The changes have been implemented in practice for example by redistributing process responsibilities and specifying interfaces.

– When we have approached customers with our new perspective, our ideas have been enthusiastically received. We are a partner who succeeds in this changing world - innovative and reliable. Together with the customer, we make change possible, Lehto says.

Lehto, who feels his role at work is that of a starter, praises the ability of the entire organization to cooperate.

– My strength is to question the working methods to which we’ve gotten accustomed to. I encourage the team to expand their thinking beyond the usual boundaries. My role is to motivate and inspire, and to bring in the market and sales perspective. To my delight, this works well at Arnon, Lehto says. ●



# NEW LEVEL OF IIOT

Arnon Advanced Knowledge Services take your overall digitalization to a new level. Our cloud platform ARNON SKY collects, stores, refines, and shares your assets with high capability but with a small expense.

**AS A SUPPLIER INDEPENDENT PLATFORM, ARNON SKY CAN BE EASILY COMBINED WITH YOUR CURRENT SETUP. IT PREDICTS MAINTENANCE NEEDS AND THUS, SAVES TIME AND COSTS.**

**AUTOMATION,  
REMOTE  
MONITORING,  
SUPERVISION,  
DATA COLLECTION,  
AND ANALYTICS.**

**PREDICTING YOUR  
MAINTENANCE  
NEEDS  
IN ADVANCE.**

**COLLECTING,  
STORING, REFINING,  
AND SHARING YOUR  
ASSETS WITH HIGH  
CAPACITY.**



**ARNON SKY**

[WWW.ARNONSKY.COM](http://WWW.ARNONSKY.COM)

## FULL SERVICE

ARNON SKY is more than a cloud platform. It includes the whole package from sensors to data analytics, and everything in between. ARNON SKY makes IIoT smooth and hassle-free.

### VERSATILE

ARNON SKY includes data collector and communication hardware, software drivers and services, cloud storage, and HMI's and API's.

### EFFICIENT

ARNON SKY has the capacity of connecting a practically unlimited amount of devices to the cloud, with a reasonable cost.

### AFFORDABLE

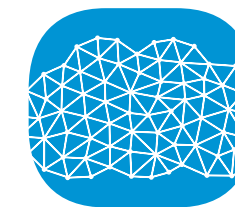
As ARNON SKY is optimized for the core requirements of industrial customers, it is efficient, trustworthy and affordable.

### FLEXIBLE

ARNON Sky can handle ready made plug & play "retrofit" solutions to the cloud.



**HIGH  
QUALITY FIELD  
DEVICES**



**SCALE YOUR  
INFORMATION  
(DATA) AVAILABILITY**



**DATA FOCUS**



**10 000+ IIOT  
DEVICES**



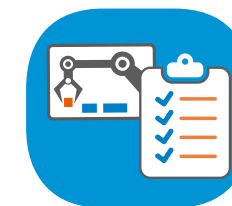
**EDGE TO  
CLOUD**



**REMOTE MONITORING  
AND MANAGEMENT**



**PREDICTIVE  
MAINTENANCE**



**MACHINE  
LEARNING &  
AI FEATURES**





# PRO AT WORK

Arnon has over 200 experts working in six different locations in three countries: Finland, Sweden and Poland. Our headquarters is in Tampere Finland, where we do business worldwide.

"I see myself being an important player in the development of Arnon, enabling us to extend our offer into more advanced solutions to serve our customers' future needs."



## TREVOR GARVEY

CHIEF SOLUTION ENGINEER, SWEDEN

TEXT & PHOTO ARNON

**Trevor Garvey** is one of Arnon's newest recruits. He brings a vast amount of knowledge and experience to the whole team. Trevor is originally from Dundalk, Ireland but has lived in Sweden for a number of years. His base is in Arnon's Swedish office near Stockholm, the Swedish capital.

**T**revor has a Bachelor of Engineering in Electronic Engineering from Limerick Institute of Technology. His strong IT and technical skills and experience are a huge asset to both Arnon and all of our current and future clients. Trevor has been working in the field of Automation and Controls for over 17 years across a range of sectors such as mining, pharmaceuticals, life sciences, water treatment, and food processing. He has also traveled all over the globe for the start-up and commissioning of mining processes. His work has often taken him to different climates and multiple continents. Some of the countries he has been able to tick off his list are Australia, India, China, Peru, Kazakhstan, and Eritrea.

– I see myself being an important player in the development of Arnon, and more specifically Arnon AB, enabling us to extend our offer into more advanced solutions to serve our customers' future needs.

Trevor started his journey at Arnon in August 2021 and has already brought invaluable insights and perspective to his team in Stockholm and company-wide. He has had multiple introductions to Arnon key accounts during important customer meetings. As time goes by, he will get to meet more of Arnon's selected customers.

– We are just starting our journey with Xylem and Alfa Laval here in Stockholm, and we will be able to extend our services in building services

together with our customers. That is something I am thoroughly looking forward to, and I can't wait to get things started, Trevor says.

During his free time, Trevor likes to get outside, whether it is in the form of running, cycling, or hiking. Luckily, the Stockholm area offers many options, from national parks and nature reserves to parks and hiking trails. Trevor is also an avid reader and enjoys both fact and fiction in written form. As you can expect, his adventurous nature has taken him to multiple countries all around the world, and he loves learning about different cultures. He has searched Sweden far and wide and is still on a mission to find a decent pint of Guinness! ●





## JOHANNA NIEMINEN

HR & COMMUNICATIONS  
SPECIALIST, FINLAND

TEXT **ARNON** | PHOTO **JACQUELINE FRÜH**

**Johanna Nieminen** works as an HR & Communications Specialist at Arnon Headquarters in Tampere, Finland. She first got introduced to Arnon years ago, and after she finished her studies at Laurea University of Applied Sciences, she made a comeback and joined Arnon's Human Resources team.

Johanna Nieminen was born and raised in Toijala, Finland. She has an interesting educational background, which gives her the ability to assist multiple different functions within Arnon. Johanna has found her calling in HR & internal communication and has the competence to help in administration, procurement, and marketing, as well. She completed an associate vocational qualification in management in 2012 and vocational qualification in Sales in 2015. She wanted to learn more and grow her expertise, and in 2020 she graduated with a Bachelor of Business Administration. As a lifelong learner, Johanna is about to embark on another journey and is starting her studies in work and organizational psychology in an open university.

– As a part of the HR team, my main goal is to create a well-developed culture around internal communications. I aim to develop the internal communication in a way that best serves the needs of each of us here at Arnon.

One of Johanna's strongest areas of expertise is promoting the well-being of Arnon personnel and supporting managers in their day-to-day. One of her special skills is bringing joy, smiles, and positivity to the workplace and her co-workers' lives. This truly shows, because one barely ever sees Johanna without a smile on her face. She believes that by leading by her own example and having a positive attitude she can make a difference. Her approachability, good situational awareness, and emotional intelligence make her an HR superstar.

– I am passionate about developing both myself and organizational processes because I believe that people are at their best when they work on tasks they care about and for an organization they believe in.

At Arnon, every day feels like a new project because no day is the same, Johanna says. She mentions that it is wonderful to have so much variety in one's workday. It keeps things fresh and interesting. One of Johanna's favorite

projects has been organizing personnel events. They are extremely meaningful and fascinating projects for me, she concludes.

In her free time, Johanna is fond of playing golf and enjoying the outdoors. Unfortunately, old sports injuries interfere with Johanna's participation in most team sports, but this has made her an avid fan and spectator of many different sports, from ice hockey and floorball to futsal and volleyball. Johanna is not the biggest soccer fan but follows the Finnish National Team Eagle-Owls (or Huuhkajat in Finnish) and, of course, her 15-year-old godson's career in the sport. To keep things in balance she is also a passionate cake baker and card decorator.

The always smiling, joyous personality that is Johanna Nieminen also hides a more competitive side. She has won Finnish Championship Bronze in Rink bandy and competed in a go-kart tournament. ●

“Each new project is challenging in its own way, and I look forward to new challenges”



## AGNIESZKA OSTROWSKA

JUNIOR TESTER, POLAND

TEXT & PHOTO **ARNON**

**Agnieszka Ostrowska** works at Arnon's Polish factory in Wejherowo, near Gdynia. She has been working at Arnon since 2018 and is currently working as a Junior Tester.

Agnieszka is originally from the south of Poland but has called the Eastern Pomerania area home since 2012 when she moved to the area to study. She has had extensive education in engineering and graduated from the Naval Academy in Gdynia with a specialization in mechanics and machine construction. Agnieszka is eager to develop her skills further and is very motivated to climb the career ladder within Arnon.

In addition to her main title of a Junior Tester, Agnieszka is capable of working in many other positions. When she is not working in testing, she works as a Wire Set Machine Operator, and sometimes as an Assembler. You could say she has a knack for most things mechanical! ●

– Each new project is challenging in its own way, and I look forward to new challenges. There are lessons to learn and knowledge to gain in every project I've been able to be part of. I am happy to improve my skills along with every new project.

In her spare time, Agnieszka enjoys traveling and being creative. She loves photography and she is learning how to tattoo, as well. Spending time with her loved ones is also extremely important to her. In addition to her interest in body modification and the art behind it, she likes to learn about social psychology. When Agnieszka is not at work or enjoying one of her hobbies, you are most likely to find her at the sea. She is an avid sailor and has devoted a big part of her life to sailing. ●





## OUR WAY OF WORKING

Our slogan Art of Automation tells that we are passionate and professional in what we do.

When automation is used cleverly and innovatively as a tool to solve real problems and tasks, and it is implemented professionally, it can be great, like art. We are proud of what we do, and our customer can gain the best possible results from what automation can offer.

This is the standard guiding our activities, and it is our promise to our customers.



## WHAT WE DO

We provide intelligent automation, industrial electrification and digital services to our selected customers. Our mission is to be the intelligent integration partner for your future.



## OUR HISTORY

- 1978** The company was founded under the name Tampereen Keskustekniikka
- 2007** Arnon Poland established
- 2008** Arnon Kauhava acquired
- 2012** Arnon Turku and Arnon Vaasa acquired
- 2013** New factory in Kauhava
- 2017** Tampereen Keskustekniikka became Arnon
- 2020** Arnon Sweden acquired
- 2020** New premises in Tampere



## OUR PARTNERS

Longest partnership **70** years  
Products delivered to more than **100** countries



## OUR PEOPLE

Average time of service **5,96** years  
Average age **37,5** years  
Youngest **19** years old  
Eldest **61** years old  
More than **10** different nationalities

- 2003** 50 employees
- 2021** 250 employees
- 2022** 300 employees (estimate)



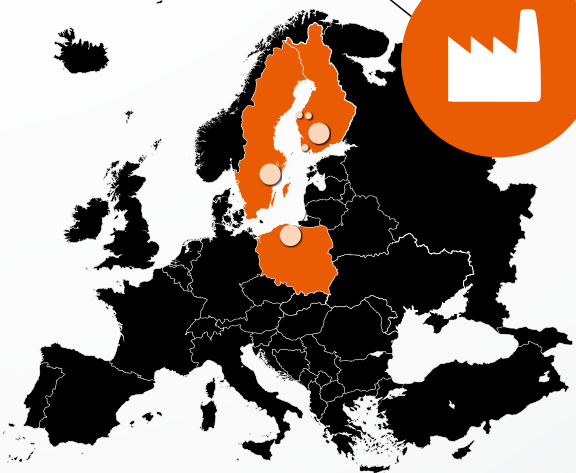
## OUR VALUES

**WINNING**  
**PERSONNEL**  
**PARTNERS**



## OUR LOCATIONS

**3 COUNTRIES** Finland, Sweden & Poland  
**6 CITIES** Tampere (HQ), Turku, Kauhava, Vaasa, Österhaninge & Wejherowo



## OUR SERVICES

### INDUSTRIAL ELECTRIFICATION AND AUTOMATION

- Product development
- Engineering
- Manufacturing, production
- Electric cabinets & switchgear

### ADVANCED KNOWLEDGE

- ARNON SKY
- ARNON EDGE
- Connectivity
- PackAware



## OUR CERTIFICATIONS

- ISO 9001**
- ISO 14001**
- ISO 45001**
- UL**



**ARNON.**  
*Art of Automation.*