



50
MAKRON

50 YEARS

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An aerial photograph of a city, likely Helsinki, showing a large stadium in the foreground and a dense urban area with many buildings and trees in the background. The image is overlaid with a semi-transparent blue filter.

**”I am so proud of Makron staff.
Through various phases and
challenges, we have succeeded
in growing Makron to
this scale.”**

Johanna Vuopala, CEO

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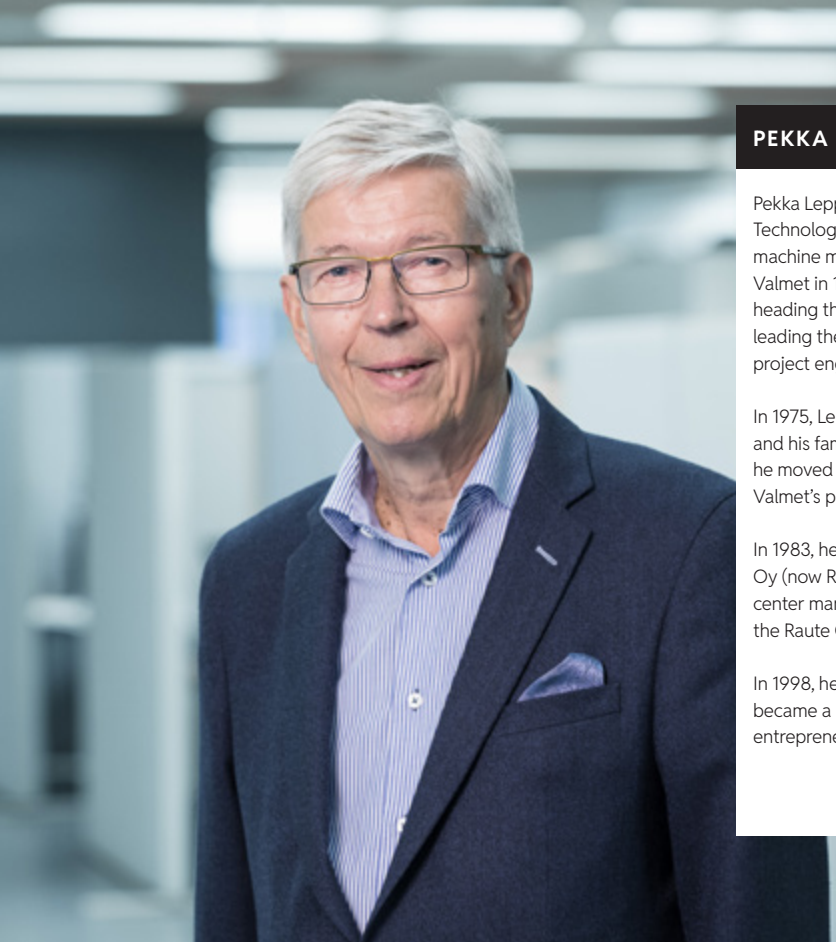
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WHEN PEKKA LEPPÄNEN BOUGHT MAKRON

When Pekka Leppänen, Master of Science in Technology, purchased Bofo Oy, an unprofitable business, from a tennis buddy, few could have imagined that just over a year later, he would not only have quadrupled the company's net sales, but also be preparing to acquire Makron, a company owned by industrialist Jalo Paananen. The new machine manufacturing company combined Makron's customer-oriented approach, cutting-edge technology, and Leppänen's vision for transforming the machine manufacturing industry.



PEKKA LEPPÄNEN (1943–2023)

Pekka Leppänen, Master of Science in Technology, began his career in the machine manufacturing industry at Valmet in 1968. He progressed from heading the process department to leading the roller group and working as a project engineer in sales.

In 1975, Leppänen's career took him and his family to Canada. From there, he moved to Brazil in 1979 to work at Valmet's paper machine factory.

In 1983, he joined Lahden Rautateollisuus Oy (now Raute Corporation) as a profit center manager. He served as the CEO of the Raute Group from 1985 to 1991.

In 1998, he acquired Bofo Oy and became a machine manufacturing entrepreneur.

"I bought an unprofitable company from a tennis buddy for one mark," Pekka Leppänen told a friend, referring to *markka*, the Finnish currency at the time. In January 1998, he had purchased Bofo, a company specializing in lifting equipment and grabs, from Antti Paaanen.

A year later, Bofo Oy's net sales of a few million marks had nearly quadrupled, and Leppänen was setting his sights on larger markets. At the same time, Eimo—a Lahti-based company owned by industrialist Jalo Paananen, which manufactured phone cases, lenses, and plastic antenna components for Nokia—was growing exponentially. In 1998, Eimo's net sales nearly tripled, reaching 354 million marks, with a profit of more than 90 million marks. In addition to Eimo, the Paananen family's business group included more than ten companies. However, they decided to divest all of them—except for Teräspeikko, which Jalo Paananen had founded back in 1965—since Eimo required all their available facilities and resources for manufacturing casing components for mobile phones.

"My father told me that Jalo had called him one day and said, 'You have the kind of expertise Makron needs.'"

The responsibility for selling the companies was left to Jalo Paananen.

"My father told me that Jalo had called him one day and said, 'You have the kind of expertise Makron needs.' Jalo wanted to focus on Eimo," Leppänen's daughter Johanna Vuopala says. She assumed leadership of the Makron Group in 2017.

By "expertise", Paananen was referring to Leppänen's extensive career in the machine manufacturing industry. Before becoming an entrepreneur, Leppänen had worked for a long time at Valmet, followed by eleven years at the machine manufacturing company Raute—first as the head of its wood processing unit, and later as its CEO. Among other achievements, he succeeded in shifting Raute's business focus from the Soviet Union to Western markets by acquiring operations in North America.

The recession in the early 1990s and the collapse of trade with the Soviet Union also hit Makron hard. The Soviet Union had been Makron's largest market throughout the 1980s, and when it collapsed, a large part of the company's net sales disappeared with it. The recession forced Makron to seek out new customer segments, and the company had succeeded in strengthening its expertise as a partner manufacturer. Despite these measures, Makron needed a change of direction similar to what Raute had undergone.

Leppänen saw complementary opportunities between the two companies. Bofo manufactured lifting equipment and logistics systems for the process industry and ports. Makron manufactured stone processing machines and equipment for

log house construction, among other products. By combining these areas of expertise, the new company would have both in-house production and contract manufacturing. With the addition of Helondor OÜ, a company founded by Leppänen in Estonia in 1998 that manufactured simple steel structures, the company would be well-positioned to pursue customers in need of turnkey delivery solutions.

“You must take on new challenges. I believe that the modern and efficient medium- and heavy-duty machine manufacturing industry in southern Finland has strong growth potential. After all, it serves major export companies,” Leppänen explained his motivation for the acquisition in an interview published in the financial newspaper *Kauppalehti*.

A FACTORY OF 70 PEOPLE

Juhani Valtari, who started as a lead designer at Makron in 1989, recalls the day Leppänen suddenly appeared beside his desk and told him he was planning to buy Makron. Valtari knew the machine manufacturing like the back of his hand, and his task was to go through Makron’s machinery and equipment with Leppänen.

“We *ventilated*, as Pekka liked to call going through things.”

And the more concrete the acquisition became, the more the two men ventilated.

“I made a list of the machines and equipment that, in my opinion, should be included in the deal and transferred to the new factory.”

This meant all the heavy bridge cranes, large boring machines, and other machining tools.

Once the details of the deal had been finalized, Jalo Paananen and Pekka Leppänen shook hands, and Makron changed owners in the spring of 1999. With the acquisition, the business name Makron and the majority of shares in Makron were transferred to Leppänen. Engineering services related to some of Makron’s product sectors remained with the engineering firm owned by the Paananen family.

Jalo Paananen’s investment company, Nostera Oy, retained an 18% holding in Makron, and he became chair of the board of the new factory. SFK Finance Oy, a private equity investor, came on board with a stake of slightly less than one-third. The investment was carried out through a directed share issue by



Makron factory in Okeroinen, Lahti.

Bofo Oy to funds managed by SFK 99’s Forenvia Venture I Ky. The company had two private shareholders: Leppänen and engineer Leo Dragon.

One of the most important investment criteria for a private equity firm, alongside the credibility of the business plan, are the people leading the company and their ability to execute plans “We trusted Pekka and his vision,” says Ere Kariola, representative of the investment firms Forenvia Venture I and SFK. He was an investor and board member at Makron from 1999 to 2008.

After the merger, the factory employed around 70 people, with net sales of around 50 million Finnish marks.

A NEW FACTORY IN OKEROINEN

The new company needed a new factory, as Jalo Paananen needed Makron’s facilities on Norokatu for Eimo. In Okeroinen, Lahti, there was a plot designated for the construction of a 5,000-square-meter hall.

A five-meter-high fill embankment was waiting on the site for the construction of the factory to begin. Its purpose was to compress the clay-rich soil to prevent water from penetrating the soil. Thanks to this, the factory did not require piling, which accelerated the construction process. Only the beds, or foundations, for the heavy machining tools were strengthened with piles.

A real estate company was established for the construction of the hall, with the City of Lahti owning 51%, and Jalo Paananen's investment company Nostera 49%. The city administration's involvement was necessary for the real estate company to qualify for construction support from the EU.

"Support from the EU was subject to the condition that the hall could only be built for rental use if the city administration owned the majority of the company. I served as a guarantor in the project," Jalo Paananen says.

The construction of the new factory started in the fall of 1999, and its inauguration took place in April 2000.

The factory and its equipment ended up costing nearly 30 million Finnish marks. The factory was designed to match the span of the bridge cranes included in the acquisition.

FLOOR REINFORCED FOR VALMET MACHINES

The construction of the new factory started in the fall of 1999, and its inauguration took place in April 2000. Juhani Valtari played a key role in designing the new hall, and its track widths were determined based on the old cranes that were relocated from Norokatu.


Experience from Norokatu had also shown that the floor needed to be sufficiently strong. Makron manufactured unwinders, edge trimmers, and winders for Valmet. The customer relationship had already begun at Norokatu, where the floors gave way under heavy loads.

"Installing the vertical posts for the winder required precise leveling—that is, careful measuring and adjustment—to ensure that each post was at the same height. In the morning, we noticed that the 15-centimeter-thick floor had given way. We had to weld 60-millimeter-thick steel plates to the floor, onto which the posts were mounted. The steel plate connected the posts into a unified structure that didn't shift even if one spot gave way," recalls Eero Kilpeläinen, who worked at Makron for four decades.

With this in mind, a thick concrete floor was cast in advance at the Okeroinen factory.

Kilpeläinen explains that the floor was cast so that the autoreel tracks rested on a single steel plate. If the plate failed, the entire plate sank, unlike before, when only part of the floor gave way.

"The same principle was applied years later when casting the



“One of the suppliers didn’t believe we could afford such a major investment.”



While other metal industry companies were suffering from labor shortages, Makron had no difficulty hiring more workers.

floor of the new assembly hall in Estonia, which was also designed to bear heavy loads,” Kilpeläinen continues.

Since the floor of the Okeroinen factory was specifically designed for Valmet’s heavy autoreels, their assembly became easier and faster. The exceptionally robust floor ensured installation precision, and with the setup parameters provided by Valmet, support frames could be fixed to the floor for the assembly of reels. On a standard hall floor, assembling the autoreels would have been considerably more difficult and less precise, as any floor deflection or unevenness would have caused problems.

“It was essential to ensure that all the legs were perfectly level. Even differences of just a few millimeters affected the performance of the machine.”

In 1998, Valmet selected Makron as its Subcontractor of the Year in recognition of its flawless and timely deliveries.

LIGHT AND SPACIOUS FACILITIES

In addition to the floor, the design of the factory paid special attention to light, lighting, and colors in the workplace, and to effective ventilation at workstations. Leppänen wanted to change the reputation of the machine manufacturing industry as a dark, dirty, and physically taxing workplace.

The improvement in reputation was not limited to a tidy working environment. Much more than just working conditions were improved at the factory.

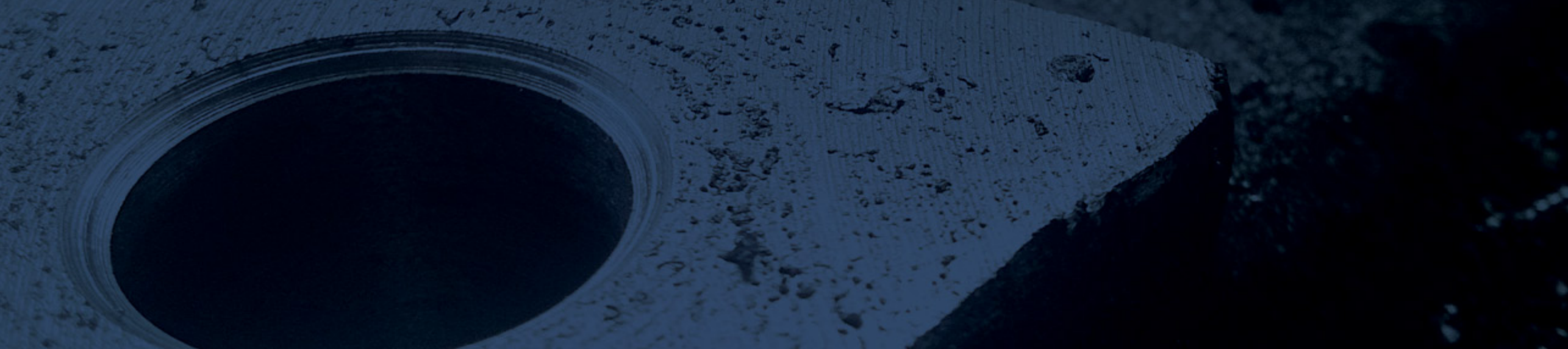
“In fact, this is the first place where cooperation has reached a level where employees truly feel heard. Employees are represented in both the management team and the development group. When something is agreed upon, persons in charge are assigned to ensure that monitoring is more than just talk,” said Hannu Tolmunen in an interview published in 2000. He had worked as a chief shop steward in factories since the late 1960.

Leppänen also broke down barriers in the manufacturing of products. Previously, work and responsibility were divided between design, production, and administration. Now, a dedicated team took charge of the entire process.

The investment paid off.

While other metal industry companies were suffering from labor shortages, Makron had no difficulty hiring more workers.

“Good working conditions are clearly appreciated. Whenever we have announced job openings, we have received dozens of



excellent applications,” Leppänen said in an interview in *Etelä-Suomen Sanomat* in September 2000.

Makron’s good employer image contributed to its success: the order backlog and capacity utilization of the new factory reached record levels immediately after its completion. Its order backlog doubled or even tripled, and new employees were hired.

FINLAND’S MOST ACCURATE BORING MACHINE

As the new factory was intended to manufacture production lines and machinery for leading Finnish export companies, Leppänen also invested heavily in technology. Around 12 million Finnish marks were invested in equipment for the new factory. Perhaps the most significant of these was the investment in a PAMA multipurpose machining center designed for processing long, large, and heavy pieces. It was so large and heavy that its bed required special reinforcement. The machining length of the PAMA was up to 12 meters horizontally and four meters vertically.

It was up to Juhani Valtari to find the best boring machine available on the market. Machines suited to Makron’s requirements were available in Italy and Spain. Valtari requested quotes from all the four suppliers capable of delivering such machines. Three of them responded.

“One of the suppliers didn’t believe we could afford such a major investment,” Juhani Valtari says with a laugh. He visited all the three suppliers to evaluate the machines. Of these, the PAMA

machine met all the technical requirements and criteria set by Makron. The machine was ordered, the floor was reinforced, and the investment of more than 10 million Finnish marks was ready to serve customers in September 2000.

When the PAMA arrived in Lahti, it was one of the most accurate boring machines in Finland. According to measurements carried out by Tampere University of Technology, the machine’s deviation during test operation was only 0.02 millimeters over a distance of 12 meters. Few other small or mid-sized enterprises had similar machinery.

The PAMA machine served its purpose well for almost ten years. It was sold back to the supplier in Italy during the financial crisis in 2009. The reason was that the basic needs of Makron’s in-house production were no longer sufficient for the full capacity of the machine. The decision was sealed by the transfer of machine manufacturing operations from the Okeroinen factory to the Hollola factory.

“There was no place for the PAMA in Hollola, and moving it there would have been extremely expensive and difficult. The foundations of the factory would have needed to be reinforced,” Valtari explains.

“The PAMA was accurate and large, but its economical use would have required serial production, which we didn’t have. In addition, four people were required to operate the machine,” says production director Matti Kangasmäki, who retired in 2018.

The Okeroinen factory, which Pekka Leppänen had acquired from Nostera Oy and the City of Lahti for Makron in 2012, was leased out. ■

The story of our name

Teräspeikko, founded by Jalo Paananen, started export operations in 1975. As Teräspeikko was a difficult word for international audiences, the sales company needed a short and impactful name.

Paananen was fond of the name Roxon, an industrial company based in Lahti.

“A couple of friends and I came up with six name variations inspired by Roxon. We listed two-syllable words with punchy consonants. We submitted the first three of them to the Trade Register, but they were rejected. Of the next three, Makron was accepted. Looking back, it was the best of the names, although I didn’t think so at the time,” Paananen says.

When customers asked about the origin of the name, Paananen explained that it stemmed from the fact that Makron specializes exclusively in larger, macro-level machines.

The company logo was designed to feature the Lahti ski-jumping hills.

Makron’s blue color was chosen to stand out from the competition. In the 1970s, most machines were green. The color even had its own name: machine green.

“We wanted to break away from machine green. Blue felt like a suitable color,” Paananen says.

The logo consists of a stylized white icon of a ski jump hill on a dark blue background, followed by the word "MAKRON" in a bold, white, sans-serif typeface.

TIMELINE

1975

Jalo Paananen founds Makron. Makron is originally established as a sales company for Teräspeikko Oy's machinery.

1978

Makron begins to operate as an independent company on February 2, 1978.

1998

Pekka Leppänen acquires Bofo Oy. Bofo Oy and MP-Group Oy establish the machine manufacturing company Helondor OÜ (now Makron Estonia OÜ).

1999

Pekka Leppänen acquires Makron's machine manufacturing business.

2004

Leppänen acquires Andritz's machine manufacturing operations in Hollola.

Makron's lifting equipment business and the Bofo name are sold to Rannikon Konetekniikka Oy.

2006

Makron acquires a minority stake in Elmont Oy (now Makron Automation Oy).

2007

Pekka Leppänen returns as CEO of Makron (2010–2010).

Makron repays the Nostera loan. Paananen steps down from Makron's board of directors.

2008

Pekka Leppänen, Metalliset Oy, and Oy MP-Group Ltd establish Makmet Oy.

Makmet Oy acquires 3i's shareholding in Makron Oy.

2010

Makron Oy acquires a minority stake in the installation company Solmex Oy.

Makron Oy acquires a minority stake in Mekateam Oy (now Makron Engineering Oy). Pekka Purho continues as the CEO of Mekateam.

Kari Rehn becomes the CEO of Makron (2010–2011).

2011

Kimmo Kiviniemi becomes the CEO of Makron (2011–2013).

Makron Grodno FLLC is established.

2012

Makron Oy redeems Kiinteistö Oy Ala-Okeroistentie 23 from Nostera Oy and the City of Lahti.

2013

Makron Oy acquires the remaining shares in Mekateam Oy. Kari Rehn becomes the CEO of Mekateam.

Pekka Leppänen returns as CEO of Makron, and Matti Kangasmäki becomes Deputy CEO.

2014

Makron Oy acquires the business operations and product rights of Makron Engineering from Jalo Paananen.

Makron Oy acquires a majority stake in Elmont Oy.

2015

Mika Parviainen becomes the CEO of the Makron Group (2015–2017).

2016

A Promise to Complete brand renewal: Makron Oy, Makron Automation Oy, Makron Engineering Oy, Makron Estonia OÜ

2016–2017 2017

Makron Oy acquires the remaining shares in Elmont.

Johanna Vuopala becomes the CEO of the Makron Group, Makron Automation, and Makron Engineering.

2019

Makron Oy divests its shares in Solmex Oy.

2020

Log house technologies are sold to Pinomatic Oy.

The operations of the Hollola machine manufacturing are phased out.

2021

The new strategy is launched.

2023

Makron Estonia's net sales exceed EUR 10 million.

2024

The new Makron's strongest year was driven by industrial modernization with a focus on automation.

2025

The *Completely Industrial* brand renewal highlights industrial equipment solutions and modernization.

FROM MULTI- SECTOR SUPPLIER TO CONTRACT MANUFACTURER

In the 1980s, Makron expanded its operations, which consisted of manufacturing machines and production lines, to also include subcontracting for the Finnish machine manufacturing industry. This saved Makron when trade with the Soviet Union collapsed.



The recession of the 1990s, along with the collapse of the Soviet Union, came close to ending Makron's operations, as the Soviet Union had been its largest market throughout the 1980s. Back then, when Jalo Paananen, the founder of the company, was asked how much of Makron's business came from the Soviet Union, he jokingly replied that the exact percentage wasn't known—but the company's budget was prepared in rubles. Makron exported ski press machines, pre-fabricated house element production lines, and polyurethane equipment, among other products, to the Soviet Union.

Makron left behind 26 ski press machines, a polyurethane machine, and more than EUR 14 million in receivables in the Soviet Union. Fortunately, the receivables were eventually recovered almost in full, but many years later.

"It was a disaster. We lost our largest market area overnight. This led to a deep recession and temporary and permanent layoffs," says Juhani Valtari, reflecting on the aftermath of the collapse of the Soviet Union.

After the company had recovered from the initial shock, the recession and the sudden end of work forced it to reassess its operations from a new perspective. As there was no way to replace the lost market, the company needed to come up with new approaches.

The company also had a new owner, which was another major turning point.

Pekka Leppänen knew that Finland had no shortage of subcontractors, but well-functioning partnerships were scarce. Makron set out to address this gap in the market. Leppänen

also believed that rather than acquiring new customers, it was more profitable to deepen collaboration with existing customers such as Valmet, Sandvik, and Acotec.

"Makron was an extraordinary machine manufacturer. It had, under one roof, all the expertise needed to market, design, manufacture, and deliver the product to the customer," says Valtari.

Offering turnkey deliveries was exceptional at the time. For the customer, it meant ease—and one less thing to worry about. Makron introduced the concepts of partnership manufacturing and partnership deliveries.

"In practice, this meant that when a customer placed an order, we received the information immediately, and knowing the delivery dates in advance allowed us to allocate the right amount of resources," Valtari explains.

The business model was adjusted to meet the changing demand. Operations were divided into two sectors: the manufacturing of lifting and transfer equipment for ports and process industries, and partnership manufacturing. The machine manufacturing company Helondor OÜ was established in Estonia to reduce manufacturing costs and improve Makron's competitiveness.

"It was difficult to find enough welders in Finland, so Pekka decided to invest in the Estonian machine manufacturing company Helondor OÜ," says Ere Kariola, who served as an investor and board member at Makron between 1999 and 2008.

Another reason was the cost of labor, which in Estonia was only a fraction of what it was in Finland. The company



Employees of Helondor OÜ in 2007: Valdo Sepp (left), Marko Vesilind, Sergei Medvedev, Pauli Pöllänen, Priit Meier, Aivar Keldu, Rivo Raaga, Kalli Sillamaa, Kalvi Kanarbik.

“Even a one-day delay in starting up a paper machine can result in penalty fees of up to ten million Finnish marks.”

transferred labor-intensive production to its Estonian machine manufacturing, including component manufacturing and the assembly of lighter equipment. The production of main machines and heavy equipment remained in Finland.

A SUPERIOR PARTNER

Partnership manufacturing differed from subcontracting in that subcontracting typically involved companies reviewing offers, selecting the best, or cheapest, and signing a delivery agreement. In partnership manufacturing, agreements were signed with customers for a year, or preferably for several years, during which time the customer and Makron collaborated closely.

“It’s not just about buying and selling—it’s fundamentally about collaboration,” Leppänen said in an old interview, describing this way of working.

Major export companies in particular wanted to focus on their core competencies: conquering international markets and developing their products. They lacked both the resources and the willingness to develop their own factories. Makron was in charge of that.

Makron focused on manufacturing heavy components for its customers and sourced the necessary smaller parts from its extensive network of subcontractors and component suppliers.

Networking with subcontractors reduced delivery times by up to half, as products could be manufactured simultaneously. Investments also decreased as components and raw materials were

The collapse of the Soviet Union led to a deep recession

Finland engaged in bilateral trade with the Soviet Union for four decades before it came to an end on New Year’s Eve 1990–1991. Barter trade had been beneficial for Finland: Finland received crude oil from the Soviet Union and paid for it with goods. The sudden end of bilateral trade on New Year’s Eve 1990–1991 hit Finland’s export-driven industry hard and was one of the factors that drove the country into a severe recession. Unemployment rose dramatically, and the banking sector spiraled into a crisis.

The Finnish markka lost its status as a stable currency after it was first devalued and eventually allowed to float in the fall of 1992. The situation was devastating, especially for those Finnish companies that had taken out foreign currency loans. When the value of the Finnish markka declined, the amounts of loans taken out in foreign currencies multiplied overnight. This drove many businesses into bankruptcy and further deepened the recession.

In terms of foreign policy, the collapse of the Soviet Union freed Finland from the cautious approach it had applied during the Cold War. The Agreement of Friendship, Cooperation, and Mutual Assistance, which had guided Finland’s foreign policy for decades, came to an end. This enabled a new kind of international orientation, and Finland immediately began to move closer to Western countries.

Finland joined the European Union on January 1, 1995.



The change in strategy helped Makron recover from the recession of the 1990s.

Cooperation with Valmet has been a significant part of Makron's business operations. After 2004, some of the work subcontracted by Valmet was transferred to Estonia, and Valmet has been one of Makron Estonia's best customers in recent years.

purchased at shared prices.

"Makron is a superior partner. As our customer, you don't need to make extensive investments in equipment. Investment in cooperation is enough," stated a brochure promoting the partnership approach.

For example, Makron's long-term partner Valmet benefited from having a small number of reliable partners, and it did not carry out competitive bidding based on price. Quality and reliability were more important.

"Even a one-day delay in starting up a paper machine can result in penalty fees of up to ten million Finnish marks," explained Martti Karttunen, head of Valmet's Paper Finishing Systems unit, in an old interview about the partnership. Makron manufactured unwinders, rewinders, and edge trimmers for the paper machines at Valmet's Järvenpää mill.

Makron signed the first partnership agreement in its history with Valmet's Järvenpää mill. The agreement specified the products to be delivered and strict quality criteria.

"Valmet stated that this was their first partnership agreement, and that it had to succeed. There was no other option," Juhani Valtari recalls.

It succeeded. The collaboration grew stronger, and a couple of years later, in 1998, Valmet selected Makron as its subcontractor of the year. The selection was based on flawless and timely deliveries.

This is how a multi-sector supplier evolved into a contract manufacturer and a trusted partner to its customers. The change in strategy helped Makron recover from the recession of the 1990s.

As the new millennium began, Makron was back on the growth track. ■

Scandinavia's leading manufacturer of plastic ski presses

Rarely has a single day meant as much to a whole industry as the men's 30-kilometer cross-country ski world championship event in Falun in 1974 meant to the Finnish ski manufacturing sector. That was the day when plastic skis displaced traditional wooden skis.

The race culminated in a head-to-head between Juha Mieto and Thomas Magnusson. It should have been Mieto's day, as the race took place in the Finnish ski legend's favorite conditions: wet snow. But Thomas Magnusson of Sweden raced on modern fiberglass skis and won the event.

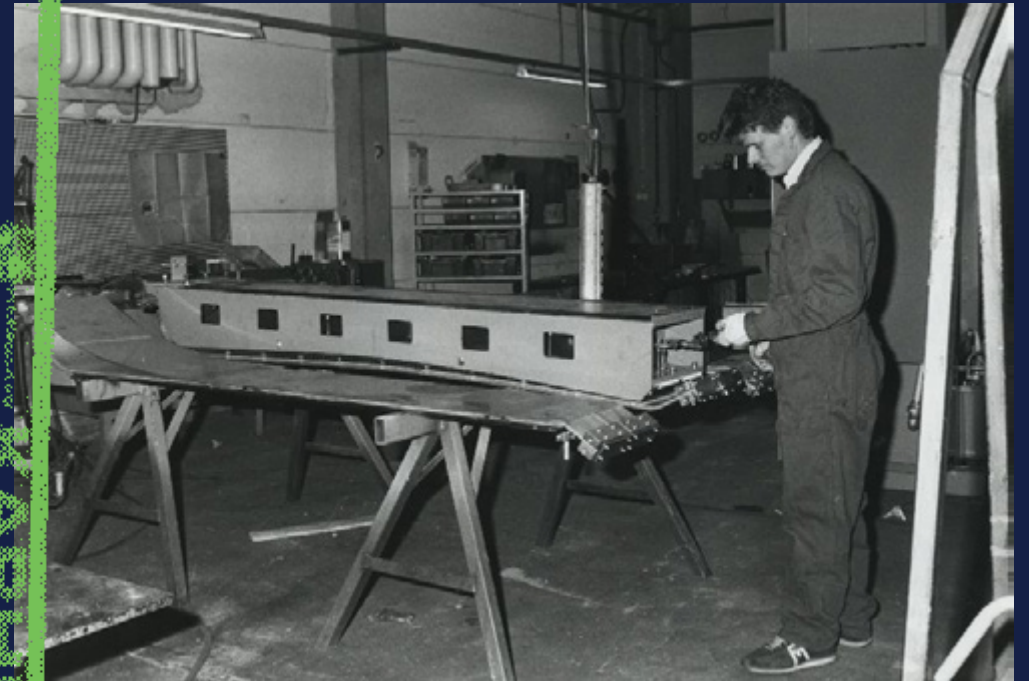
Jalo Paananen had anticipated the rise of plastic skis even before the Falun event. He had noticed that no machines suitable for pressing plastic skis were available, so he began developing the first prototype. An external designer drafted a glue press for cross-country skis for him. The first prototype was completed around a month after the Falun world championships, and then things started happening.

Within a year, Makron had become Scandinavia's most prominent manufacturer of plastic ski presses.

Around the time of the Falun event, Finland's three largest ski factories had just built new production equipment and expanded their operations. Unfortunately, these were based on using wood.

Fortunately, the manufacturers responded quickly, and within a year, all the major factories were offering plastic skis, most of them produced using Makron's glue presses.

Once the domestic market had been saturated, Jalo Paananen,



Makron's director at the time, set his sights on the Soviet Union.

While Finland had only half a dozen notable ski manufacturers, the Soviet Union had close to forty.

Helsingin Sanomat reported in April 1978, "The first deals at the Sport-87 exhibition in Moscow were secured by Makron Oy of Lahti, whose ski press machines have dominated the domestic market in recent years."

Makron had built a complete family of ski press machines for the exhibition. The company closed a ski press deal worth 1.6 million Finnish marks with V/O Prommashimport at the trade fair, and sold every machine it had showcased at the exhibition.

Ski press machines opened the door for Makron to enter the Soviet market. ■

MAKRON'S WAY OF WORKING

Before Makron became a contract manufacturer, it developed equipment and methods for all interested parties in all industries.

03





Between 1975 and 1990, Makron carried out subcontracting deliveries for other principals, but the largest volume came from its own products, and there were many of them. Machine manufacturing technology was developed in close collaboration with domestic customers for applications such as the manufacturing of cross-country skis and ice hockey sticks, the production of polyurethane insulation panels, the construction of prefabricated and log houses, and the production of recycled cellulose insulation. Machines were also delivered abroad: to the Soviet Union, the Nordic countries, the rest of Europe, and North America.

Jalo Paananen had created a customer-oriented corporate culture in Makron. This meant, for example, that the responsibility for customer satisfaction lay with every Makron employee. Tasks and decisions were always examined from the customer's perspective: did they provide added value, and if not, was it even necessary to carry them out?

“Jalo always emphasized that it was a misconception to

think that Makron paid the employees' salaries. It's the customer who pays those salaries, and that's why we always strived to serve them as well as possible,” says Juhani Valtari, who was hired in 1989 as the lead engineer for Makron's RTC line. He retired as a key account manager in 2018.

Providing the best possible customer service meant that once a deal was made, the goal was to fulfill all the customer's wishes, and preferably to exceed them. This meant that the salesperson was always happy to sell the customer a little more. And it was up to the engineers, like Juhani Valtari, to design that “little more.”

MAKRON'S QUALITY SYSTEM

Makron has always been committed to continuous quality improvement in management, day-to-day operations, and products and services. At Makron, quality isn't just about the end result—it's about doing things right from the beginning,



and always a little better. That's the customer-oriented approach launched by Jalo.

Makron received its first official quality certificates in 2004, in connection with the acquisition of the Andritz machine manufacturing, but quality was being monitored closely and carefully long before any formal certificates.

"We followed Makron's ways of working," Valtari explains.

Everyone shared the same goals and clear operating models, while still having enough freedom to do things their own way.

Quality and processes were everyone's responsibility—regardless of position or job description. If someone spotted a problem that they knew was affecting quality or workflow, it was their obligation to push the button and stop production.

When a mistake occurred, it was reviewed to understand why it happened and how to prevent it in the future. The goal was learning, not finding someone to blame.

"Mistakes are an unavoidable part of technical machine manufacturing operations. That's why it was important to learn from mistakes. You were allowed to make mistakes, but not the same mistake twice," says Valtari.

Today, Makron holds a wide array of certificates. The company is an ISO 9001-certified partner, and its automation center manufacturing holds UL 508A certification. Makron Estonia OÜ's certified quality management system complies with standards such as ISO 9001:2015, ISO 14001:2015, and ISO 45001:2023. Makron Automation Oy has an ISO 9001-certified quality management system.


VALUES THEN AND NOW

In addition to quality control and customer orientation, Makron's way of working was guided by a clearly defined set of values, and those values were upheld without compromise.

Key values included a results-driven approach and continuous improvement. These were accompanied by softer values such as openness, honesty, and respect for the individual.

Openness meant that nothing was kept hidden. You were allowed and expected to debate, but once a decision was made, everyone stood by it. And the final word always came from the owner.

For both Paananen and Leppänen as owners, honesty



Makron's operations are strongly guided by the values of a family business and a long-term commitment to people, the environment, and reliable cooperation.

meant, among other aspects, being transparent with the staff, even in difficult times, and explaining the reasons behind those situations. Continuous improvement meant that the processes had to evolve all the time. What was good enough today wouldn't be enough the following year. Respect for the individual was viewed through practice: everyone is equally valuable, but expectations may vary in accordance with competence, education, and responsibility. This was also reflected in salary structures and job difficulty levels. Everyone was equally valuable, but everyone was expected to give their best in line with their role.

The world has changed since Jalo Paananen founded Makron as a marketing company for Teräspeikko in 1975. Customers' expectations, employees' wishes, societal demands, and concern for the future have also shaped Makron's values, but less than one might think.

In 2025, Makron's operations are strongly guided by the values of a family business and a long-term commitment to people, the environment, and reliable cooperation. Its operations are based on the well-being of employees—it's seen as the starting point for all sustainable growth and development.

Makron also bears responsibility for the environment. The company is working to lower its own carbon footprint and helping its customers do the same. A concrete example is the modernization of old production lines: instead of replacing old lines, their lifespan is extended, reducing environmental impacts and improving resource efficiency.

The company's values can be summed up in three words: together, renewal, and reliability.

"Together" emphasizes the importance of staff and a sense of community. Makron is proudly a Lahti-based family business, but its strength also lies in international cooperation: experts from various fields are building the future together across borders.

"Renewal" means continuous development, new solutions, and openness to change.

"Reliability" is evident in everyday actions: promises are kept, quality can be trusted, and cooperation is honest and long-term. ■

GROWTH LEAP

04

Pekka Leppänen saw a growth opportunity when Andritz, an Austrian listed company, wanted to sell its Hollola machine manufacturing business, which was twice the size of Makron. The deal was closed in 2004.

In the early 2000s, many companies began seeking lower production costs and transferred their manufacturing operations to Asia. So did the Austrian company Andritz.

A few years earlier, Andritz, a manufacturer of paper and pulp machinery, had acquired a factory in Hollola formerly owned by KONE Corporation. Its 109 employees manufactured equipment for the wood yards of pulp mills, such as chippers, screens, and components for debarking drums.

The situation changed in 2003 when Andritz decided to discontinue its own manufacturing operations in Finland. The reason for this was the shift in the market toward lower-cost countries such as China. Manufacturing at facilities such as the Hollola factory required increasingly larger volumes to remain profitable.

The Hollola factory and the Päivärinne factory in Varkaus were put up for sale. The Savonlinna factory was kept because of its special expertise. It mainly manufactured stainless steel equipment, the subcontracting of which would have been both technically and economically challenging.

“Andritz was unable to provide a steady workload for the Hollola machine manufacturing, and subcontracting was not part of the company’s strategy,” says Jari Ålgars, who served as the CFO of Andritz Oy and the pulp division.

The Hollola factory manufactured strategically important products for Andritz. These operations involved significant in-house design and manufacturing expertise. Transferring the manufacturing of these products to China was not feasible because of concerns over information security and intellectual property rights. To keep the expertise in Finland, a reliable buyer was sought for the Hollola machine manufacturing, one that would continue manufacturing products for Andritz.

Andritz put together a team of experts for the sale. Matti Kangasmäki, who had served as the factory manager of the Hollola factory, was one of these experts. He says it was by no means a given that Andritz would sell the business to Pekka Leppänen. The business had many prospective buyers, and several rounds of negotiations were held. One by one, potential buyers dropped out—except for Leppänen. For one prospective buyer, the operations were too small-scale; for another, the line of business was too far removed from their own. Leppänen saw only opportunities in the deal.

The first purchase offer that Leppänen presented to Andritz was not considered financially viable by the Group. Despite this,

The acquisition of the Hollola machine manufacturing business significantly increased Makron’s net sales. It also provided larger facilities and readiness for heavier production.

Of the factory’s work, 75% came from project deliveries, and 25% from spare parts manufacturing.

After the transaction, the combined area of Makron’s factories in Lahti and Hollola was around 19,000 square meters.

“We believe we have found a good buyer”

negotiations continued. Jari Ålgars, who served as the lead negotiator in the sales process, describes Leppänen as a gentleman and a skilled negotiator.

Eventually, the right price was found, and the deal was closed. The parties agreed on a three-year supply contract.

RISING TO THE NEXT LEVEL

“Makron buys Andritz’s machine manufacturing in Hollola. The staff will transfer as existing employees to a new company to be established,” the local newspaper, *Etelä-Suomen Sanomat*, headlined in a news article about the upcoming merger of two factories on Friday, December 12, 2003. The final agreement was to be signed in February of the following year.

Although the sale of the business operations to Makron didn’t mean major changes for the employees of the Hollola machine manufacturing, it required countless hours of work, sleepless nights, and various reports from Matti Kangasmäki before he completed all the documents that supported Leppänen during the contract negotiations.

“Pekka and the owners of Andritz believed that involving key personnel in the deal would be beneficial,” Kangasmäki explains, justifying the unusual situation. In addition to him, Ari Turtinen, who worked as a production business controller at Andritz, transitioned to helping Leppänen with the preparations for the transaction. Officially, the men still worked for Andritz.

“We believe we have found a good buyer,” stated Kaj Lindh, Head of Manufacturing at Andritz Oy, in an interview published by *Etelä-Suomen Sanomat* in 2003. He added that one of Makron’s strengths from the seller’s perspective was its local presence. Like Leppänen, Andritz also saw the collaboration between the two factories as an opportunity.





Drum frame welding at the Hollola machine manufacturing in 2019

“The net sales of Andritz’s machine manufacturing operations were two and a half times higher than Makron’s net sales at the time.”

“It’s a major advantage that we operate close to each other,” Leppänen stated in the same interview. He was referring to the fact that, with the new factory, Makron would be able to take on larger orders than before.

The relocation of production to low-cost countries was not the only reason why Andritz wanted to divest the Hollola machine manufacturing. Another reason was its sensitivity to economic cycles.

“Makron’s customers included major companies such as Valmet, for which it manufactured production equipment for the paper-making business, and Dieffenbacher. One idea behind the sale was to find new customers for the factory. That way, it wouldn’t be too dependent on a single principal,” Kangasmäki explains.

This never happened.

The machinery, processes, and expertise of the machine manufacturing were largely optimized for the manufacture of heavy wood yard equipment such as barking drums and pulpers. Although the final agreement did not prohibit the manufacture of products for companies such as Valmet, Andritz did not approve of it. It feared that if the same equipment were manufactured at the same factory, expertise and technical solutions could leak to competitors. Makron tried to dispel the fear. It undertook to protect competitors’ equipment during the production process and to ensure that information security would remain at a high level. Nevertheless, Andritz was unwilling to take the risk, and the factory’s operations became almost entirely dependent on Andritz.

This was one of the factors that contributed to the closure of the Hollola machine manufacturing in 2020, but back in 2004, when the deal was closed, the future looked bright.

BROADER SHOULDERS AND STABILITY FOR OPERATIONS

Aarre Savolainen—who had long served as Pekka Leppänen’s advisor, Makron’s auditor, and the evaluator of the company’s value—describes Makron’s acquisition of the Hollola machine manufacturing from Andritz as the most memorable corporate transaction of his years with Makron.

“The net sales of Andritz’s machine manufacturing operations were two and a half times higher than Makron’s net sales at the time. Despite that, Pekka decided to pursue the deal. That was a bold decision and a significant deal,” Savolainen recalls.

The acquisition from Andritz was a risk, but it was also an opportunity, and Leppänen was known for not being afraid to take risks. Savolainen had prepared calculations and forecasts for Leppänen to support the deal, but that alone wasn’t enough. Leppänen also needed to secure financing for the deal.

Fortunately, there were parties who, like Leppänen, saw the opportunities it presented. Among other parties, Nordea, Finnvera, and Jalo Paananen’s investment company Nostera supported the deal by granting loans to Leppänen.

“It was exceptional that Jalo stepped in to help my father,” Johanna Vuopala says.

“Father was looking for further growth and more net sales at that point.”

The deal did indeed bring more net sales to Makron. Net sales jumped from EUR 4.8 million to around EUR 15 million. With the acquisition, Makron immediately became one of the ten or so major contract manufacturers in Finland. The acquisition also brought Makron significant new opportunities for expansion and strengthened its expertise in machining, welding, and quality. In addition, it reduced Makron’s dependence on Valmet.

“The acquisition of Andritz’s machine manufacturing business saved Makron. We were too dependent on work from Valmet. We produced around forty unwinders annually, and they accounted for 70 to 80 percent of our net sales. Financially, the other customers were relatively minor,” says Eero Kilpeläinen, who served as the manager and pricing specialist responsible for the Valmet account at Makron at the time.

However, the most important aspect in terms of Makron’s future was the partnership with the multi-technology company Andritz.

The Hollola factory manufactured chippers, chip screening



units, roller conveyors, debarking drums, bark presses, a variety of screw-type dischargers, and other products for Andritz’s global project deliveries.

This work accounted for the majority of Makron’s net sales.

“One of the conditions of the deal was that Makron would manufacture a predetermined quantity of products for Andritz each year. This brought stability to operations,” says Matti Kangasmäki.

Makron also now had a more diverse customer base, and the addition of Andritz’s products further strengthened its market position. ■

A NEW ACCOUNTING SYSTEM BROUGHT CLARITY TO OPERATIONS

The acquisition of the Hollola machine manufacturing from Andritz brought Makron not only increased staff and net sales, but also a complete system overhaul. The new Baan ERP system provided significantly better tools for financial monitoring and reporting.

“We shifted from gross margin pricing to cost-based profit pricing. This calculates the actual cost of the product. Both fixed and variable costs are taken into account in the calculation,” says Ari Turtinen, who served as a production business controller at Andritz. When he joined Makron, he took charge of building the company’s information system architecture.

Thanks to cost-based pricing, the actual profitability of each project can be monitored by customer and project on a monthly basis.

The transition from gross margin pricing to profit-based pricing was not straightforward.

“I had several discussions with Pekka about why the gross margin pricing wasn’t working. I prepared numerous sample calculations to illustrate how profitability varies depending on whether production is more material-intensive or labor-intensive. “Once Pekka understood the concept, he became a strong advocate of the current approach,” Turtinen recalls.

“This has been a major insight for a project-based

business like ours, where the customers’ operations are also project-based. We can continuously monitor the actual profitability of each customer, quickly identify pricing errors, and determine the direction in which a specific customer or project should be taken to ensure it makes sense for us,” says Johanna Vuopala. She adds that through the implementation of the accounting and ERP systems, Turtinen has introduced a highly systematic working culture at Makron, which is a major advantage.

“This structured approach has helped us manage complex operations more efficiently, and has improved transparency throughout the organization.”

Thanks to accurate figures, the management receives a clear real-time picture of the company’s financial situation every month, enabling decisions based on data, and not just a gut feeling.” ■





Elmont personnel in 2006.

ELMONT BECOMES PART OF MAKRON

“The Lahti-based company Elmont and its subsidiary Elmplant have been declared bankrupt by the District Court of Lahti. The companies employ around 50 people, who were laid off today.”

MTV News, March 2006.

Just a few years earlier, Elmont, a supplier of industrial automation systems, had experienced strong growth. At the turn of the millennium, the company had a workforce of 150 employees and generated more than EUR 20 million in annual net sales. Despite the bright outlook, growth came to a halt. The burst of the IT bubble hit the Finnish technology industry hard, and its impacts were also reflected at Elmont. The simultaneous implementation of the Aurajoki and Abloy coating line projects proved too extensive, and the financial strain caused by them led Elmont to file for corporate restructuring in 2003.

“The restructuring process was nearing completion, and everything looked good—until the attorney overseeing the process tragically died in the Boxing Day tsunami of 2004. At that point, the then CEO asked if I would be willing to take over as CEO. He felt that completing the restructuring program required a different set of strengths,” says Jarmo Piipponen, who took over leadership of the company during the restructuring period.

The situation was challenging. Elmont’s bank accounts were empty, and under the terms of the restructuring program, the company was not allowed to take on debt.

“The company was supposed to purchase materials with cash, but that wasn’t feasible because customers refused to pay for the work in advance. The worst part was that repayments on the restructuring debt began immediately,” Piipponen recalls.

“At the same time, we had a huge number of new customer contacts, a great team, and plenty to offer, but I couldn’t figure out how to get things moving.”

Piipponen contacted Pekka Leppänen.

Since 2004, Elmont had been responsible for the electrical and automation equipment for the machines and production lines manufactured by Makron, as well as their installation, and the cooperation had run seamlessly.

Elmont was an excellent fit with Leppänen’s vision of expanding the range of services. Makron’s machine manufacturing operations were heavily based on subcontracting, but Leppänen aimed to increase the company’s in-house expertise and move toward turnkey



deliveries. By acquiring a stake in the company, Makron would gain strong electrical and automation expertise. It would become a machine manufacturer with in-house design capabilities.

OWN CUSTOMER BASE AND FULL ACCOUNTABILITY FOR PERFORMANCE

Leppänen acquired Elmont's business operations from the bankruptcy estate with Jarmo Piipponen, Kari Koski, and a few other key Elmont personnel. The new Elmont Oy, established after the bankruptcy, also had new shareholders, such as Aarre Savolainen. Makron owned 23% of the company.

"The automation and electrical designers at the time were committed to the company through small, evenly distributed shareholdings," Piipponen explains.

The company remained in its old premises under a lease, and with the exception of one employee, everyone continued working for the new owners.

"Pekka brought credibility, valuable contacts, and a professional approach to board work to Elmont. The rest of us owners were eager, but young in terms of experience," Piipponen notes.

Although Makron owned a stake in Elmont, it was one among many of Makron's subcontractors.

"Pekka was always very particular about ensuring that Elmont had its own goals. It was crucial that Elmont didn't rely solely on Makron's projects; it had to have its own customer base and sales budgets," says Petri Kalliokoski, who served on Makron's board of directors from 2010 to 2019.

Board professional Jorma Wiitakorpi, who has served on Makron's board for nearly a decade, shares Leppänen's views.

"The number of companies owned by Makron has grown over the years. I consider it extremely important that each unit is independently profitable. The companies must be in such a shape

that if someone expresses interest in buying one of them, it can be sold, and Makron will still remain competitive."

The owners must not become too attached to any of them.

BUILDING A CUSTOMER BASE FROM SCRATCH

Before Elmont's bankruptcy, employees who left the company took with them a significant share of its customer contacts. This meant that the new company had to build its business from scratch, including the customer base.

"Kari did an enormous job in acquiring new customers," Piipponen praises.

Like Piipponen, Kari Koski was one of Elmont's key people and shareholders. Koski ended up joining the company as a logic programmer in 1998 after reading in the local newspaper, *Etelä-Suomen Sanomat*, that Elmont's CEO, Seppo Kempinen, had proudly promised to hire any qualified person who walked through the door. Koski decided to see if the news was true.

It was.

"I was hired, and I left my job with UPM," he recalls.

At the time, Elmont had a workforce of around 100 people, with separate departments for chemical engineers, mechanics experts, and automation specialists.

Even back then, the automation engineers spent the majority of their working hours out in the field, commissioning customer projects.

"I traveled a lot and saw the world in the early years, but that was also the best way for a young guy to grow his skills," Koski recalls.

Although projects and time zones changed frequently, one thing remained the same.

"I noticed that *The Bold and the Beautiful* progressed at the same pace in different countries. For example, when I was in the United States commissioning a wet-end forming machine at IP's board mill, the series was at exactly the same point as it was in Finland. This was also the case in Indonesia during the commissioning of Raute's LVL line," he says with a laugh.

Kari Koski became the CEO, and Jarmo Piipponen took on the role of Chief Technology Officer when Makron Oy acquired a majority stake in Elmont in late 2014. At the same time, the company was renamed Makron Automation. The new name reflected the new ownership structure and strategy. ■

STRONGER COMPETENCE

05

Following a huge growth leap, Makron was in urgent need of new tools to improve its operational efficiency and competitiveness. The situation was further complicated by the recovery of the global economy from the recession and the bursting of the IT bubble at the turn of the millennium, and especially by the rapid economic growth of China.

“It was a catastrophic time. The principals had more orders than before, and they transferred a large share of them to us. At some point, we ran out of capacity, and had to purchase a major portion of the manufacturing from subcontractors,” Valtari continues.

But it didn’t help. Even the subcontractors had reached their limits, and subcontracting was no longer an option. Threats or persuasion didn’t work, not even money. This inevitably led to delays in deliveries and a decline in productivity. The principals had to be prioritized, even though this couldn’t be openly admitted.

“There were certain customers, like Andritz, whose deliveries simply couldn’t be late.”

WORKING DAY AND NIGHT

Sandvik was another customer whose deliveries absolutely could not be late. The cooperation between Sandvik Mining and Construction and Makron began in 2006, when Sandvik ordered the first frames for machines intended for serial production from Lahti. The cooperation expanded, and soon Makron was manufacturing and assembling mining machine frames and drilling equipment for Sandvik.

“Key aspects of the cooperation include reliable deliveries, quality, cost-efficiency, and continuous improvement,” said Sandvik engineers Jouko Kuisma and Perttu Pitkäniitty in *Makron News* in 2006.

Sandvik selected Makron because it saw potential for long-term, high-quality cooperation. It also wanted to ensure the availability of critical components at all times. For Makron, the partnership marked a significant step toward serial production. That’s why daily deliveries to the Sandvik factories in Tampere and Turku could not be compromised, despite the pressure, labor shortages, and impossible schedules.

Fortunately, Makron had a partner in Turku who served it exceptionally well, even though the partner was also swamped with orders.

“They called me every day to tell me what time the shipment to Hollola was leaving, and made sure that we had someone on our end to receive it,” recalls Juhani Valtari, who served as the account manager for Sandvik.

When the shipment arrived, the parts went straight into the paint shop.

“Key aspects of the cooperation include reliable deliveries, quality, cost-efficiency, and continuous improvement.”

As soon as the parts had been painted, they were packed into the next outgoing truck and delivered to the customer.

“The parts were usually blasted and painted at night. I started each day by checking the situation in production for that day.”

WORKMEN FROM POLAND AND RUSSIA

Makron was not the only company overwhelmed by demand. The whole industry was overheated, which was also evident in difficulties hiring new employees. The structural change in the metal industry, accelerated by the retirement of the baby boomer generation, further deepened the labor shortage. The skills, experience, and work input of the baby boomers were no longer available. Interest among young people in factory work had declined, and only around half of the required number of metalworkers were graduating from trade schools.

“We recruited people wherever we could find them.



Pekka Leppänen, Matti Kangasmäki, and Johanna Vuopala at Matti Kangasmäki's retirement coffee event in the spring of 2019.

Fortunately, there was an agent in Finland who arranged for workers to come from Poland and Russia,” Matti Kangasmäki recalls.

Up to 50 foreign welders and machinists at a time were working in Hollola. They worked for two weeks, and when they left for their vacations, a new group of 10 to 15 workers arrived.

In addition to the Polish and Russian workers, every member of the Makron staff pitched in to reduce the workload—even the CEO.

“During the busiest times, Ari spent his evenings moving Sandvik frames with a forklift,” Kangasmäki continues.

Ari Lindholm was Makron's first hired CEO.

BOOSTING THE SERVICE BUSINESS

“Over the past year, Finnish manufacturers have been under extremely high pressure. To keep up, companies have relied heavily on overtime and increased subcontracting. There have been expectations of higher efficiency and better revenue, but the reality has often been the opposite. Workload and capacity haven't been managed effectively, resulting in delivery issues for some customers. Efforts to increase subcontracting have failed, as all suppliers are operating at full capacity. Unfortunately, this has led to confusion and reduced revenues. We have failed to prepare for this challenging situation in time,” Pekka Leppänen wrote in the personnel magazine in 2007.

To address the issue, Makron focused on further developing its service business. In the spring of 2007, Makron started a project with Tekes and VTT to improve its service level and develop new service products in collaboration with customers. This moved Makron closer to the customer in the value chain and transferred tasks with lower added value to subcontractors.

The development project focused on improving work planning, optimizing in-house component manufacturing, and establishing a permanent subcontracting network.

Production was reorganized to better meet the requirements of serial manufacturing. It was divided into component manufacturing and assembly, and the traditional approach to production management was abandoned. The company hired



its first lead designer, Vesa Kataja, to serve as a link between the customer's product development and Makron's production.

In the new approach, assembly was no longer just a passive production unit. It was also responsible for safeguarding the customer's interests. Assembly actively participated in capacity planning and demand management as the customer's representative.

The workload of in-house component manufacturing was broken down from a general level to machine-specific monitoring. The workload in the welding shop was divided by workstation on a weekly basis, and a rolling three-month schedule was created for key machines. This was to prevent overlapping deliveries and ensure sufficient capacity. Maintenance, vacations, and machine breakdowns were also taken into account to prevent uncontrolled overloading. Machine utilization rates were monitored on a weekly and monthly basis.

Makron did everything possible to improve its resource efficiency and delivery capability and restore customer satisfaction to its former level, even among the smaller customers affected by resource shortages.

"Our firm intention is to serve our customers as efficiently as possible in an increasingly challenging market environment and amid the changes it brings," CEO Ari Lindholm stated in the personnel magazine.

Lindholm joined Makron in 2006 from his previous role of the CEO of Konepaja Laaksonen Oy. Lindholm had previous experience in machine production management. As the CEO of Makron, he was responsible for developing production and business operations in line with the new strategy. However, disagreements over the management of the company emerged between Lindholm and Pekka Leppänen, then Chair of the Board, and Lindholm left Makron in 2008. Leppänen returned to the position of the CEO of the company.

"Pekka was quick to make decisions. He was direct and appreciated people with strong and clear opinions. Although he trusted his employees and gave them responsibility, he always had a strong personal vision, which he sometimes defended quite firmly," says Ari Turtinen, who worked alongside Leppänen for many years.



AN ADVENTURE IN RUSSIA

Makron was also actively considering expansion beyond Finland. Makron already had a subsidiary in Estonia, Helondor OÜ, with 50 employees. Its operations had developed rapidly, but that wasn't enough: the subsidiary had also reached its limits. And so, Makron set its sights even further east.

"Russia was targeted for expansion because of its low manufacturing costs. Many customers thought that we should have manufacturing in Russia as well, and Pekka and I visited Russia several times," recalls Matti Kangasmäki, who served as Makron's Deputy CEO. He adds that Makron already had a company established in Russia. All that remained was to find a location where production could begin. That was easier said than done.

A suitable property was eventually found near the Estonian border, in Ivangorod. but its electrical connection turned out to be a problem.

"The Russian negotiation culture was a bit different. For example, the cost of connecting electricity to the site increased week by week. The first time it was 10,000 euros, the following week the price had already increased to 25,000 euros, and the final offer from a director of the City of St. Petersburg was 50,000 euros."

Matti Kangasmäki also vividly remembers a hall that was promoted to the men as being of a particularly high quality. The reality, however, was a bit different.

"We walked into the hall and noticed that there was a huge hole in the roof. A pond had formed on the floor, and there was oil floating on the surface," Kangasmäki says with a laugh. The men gave up the search.

Ultimately, Makron came to the conclusion that entering the Russian market presented more challenges than benefits.

The company established in Russia was dissolved in 2014. ■



GROWTH AND ADDITIONAL CAPACITY THROUGH COOPERATION

“Together, we are stronger in global markets,” said Pekka Leppänen in a 2008 issue of Finvera’s magazine, describing the newly formed partnership between Makron and Metalliset Oy.

Makron sought growth and additional capacity by joining forces with Metalliset Oy, a company based in Heinävesi. Metalliset was a leading sheet metal specialist, manufacturing products for companies such as Kemppe, Konecranes, and Planmeca.

Matti Hirvonen, the founder of Metalliset Oy, had known Leppänen since the Bofon era. The two men had considered cooperation back then, but the time wasn’t right.

Now they were eager to expand operations and increasingly shift production to countries with lower cost levels. Both companies already had manufacturing operations in Estonia, and Metalliset also had production operations in the Czech Republic.

“We were in the middle of implementing our growth strategy, and were actively seeking collaboration partners when Pekka reached out to us. He had strong expertise in international operations in particular, and that was one of the key reasons why we decided to enter into the partnership,” Hirvonen explains.

AMBITIOUS GOALS

To conquer new markets, a joint venture called Makmet Oy was established, with Makron and Metalliset Oy joined by MP-Group as a shareholder. The joint venture also acquired private equity investment firm 3i’s stake in Makron.

The goals for the new company were boldly ambitious. The combined net sales of Makron and Metalliset were EUR 90 million at the start of their cooperation. The two men shared a vision of growing the new company’s net sales to EUR 150–200 million over the next three to five years.

“Makron and Metalliset are ready to invest in the capacity required for growth, particularly in nearby regions, but also in distant markets if necessary. Several projects are already in preparation, and some will be implemented during the fall of 2008,” Leppänen wrote about the cooperation in the company’s customer magazine. The projects he referred to were aimed at expanding operations in Estonia, and Makmet OÜ was established for this

purpose. A 2,500-square-meter factory was under construction in Narva, designed to meet the needs of the medium-heavy machine manufacturing industry. Once it was completed, the manufacturing of Sandvik's upper and lower frames was transferred there, among other operations.

The labor shortage also played a role in the expansion into new countries. Skilled metalworkers were hard to find. The situation was expected to worsen as the baby boomers were about to retire in the coming years. The problem concerned not only Finland, but also Estonia. The situation was somewhat easier in Narva, which is located close to the Russian border. That's why the joint venture's first factory was established there.

In addition to labor availability, international production was driven by cost levels and logistical efficiencies.

"The latter can be a significant factor in some cases, as the customer may very well be located in the Baltic countries or near the Czech Republic," Hirvonen stated in an interview published in 2008.

The intention was to transfer the production of larger series outside Finland. Finland would retain strong expertise in areas such as customer service and assembly, as well as design, procurement, and logistics. Leppänen believed that the growing significance of these areas would help maintain high value-added work and employment in Finland.

From Narva, the journey continued to Grodno in Belarus. From there, it would be easy to expand eastward, particularly into the Russian market.

The companies went to Grodno together, but separately. Makron and Metalliset reserved adjacent sites in the free trade zone. The intention was for each company to build its own factory on its site. However, Metalliset withdrew from the project because it wanted to focus on China. They also felt that training employees in Belarus was challenging. Makron left Grodno in November 2015.

COOPERATION PROVED CHALLENGING

The collaboration between Makron and Metalliset also proved challenging.

Although Leppänen had believed that it would give both companies more muscle for international expansion, the partnership was eventually short-lived. Despite the shared goals, a common strategic direction could not be found.

According to Petri Kalliokoski, who served on Makron's board



from 2010 to 2019, the collaboration faced two major challenges: First, it involved two strong entrepreneurial personalities, which made working together difficult. Second, Metalliset's production was relatively light, primarily sheet metal production, while Makron represented the opposite end of the production chain.

"We held several strategy sessions and explored ways to improve the collaboration, but we were unable to find a sufficiently clear common direction. We also considered whether it would be possible to build a more comprehensive production concept by combining the expertise and resources of the Estonian unit, Makron, and the sheet metal operations, so that machinery could be manufactured from start to finish," reflects Kalliokoski.

"In terms of the collaboration, Pekka had an idea of harmonizing administration and growing the company. He believed that a larger and more unified organization would enable expansion more efficiently and with stronger resources," says Matti Kangasmäki, who served as Makron's Deputy CEO.

He adds that sudden growth also introduced new issues. The number of employees in the joint venture exceeded the threshold for SMEs, meaning that it was no longer eligible for grants intended for small and medium-sized enterprises.

"The balance sheet total grew so large that we lost the opportunity to benefit from Tekes investment subsidies. This caused significant changes in our financing opportunities."

Makmet Oy was dissolved at the end of 2023, and the Estonian unit, Makmet OÜ, became fully owned by Metalliset Oy. ■



Pekka Leppänen and Matti Hirvonen. Photo: Juha Tanhua

An aerial photograph of a large industrial facility, likely a paper mill, situated on a wooded area. The facility consists of several large, interconnected buildings with grey roofs and some brickwork. A parking lot with several cars is visible in the foreground. In the background, a large body of water, possibly a lake or bay, stretches across the horizon under a clear sky. The text "DESIGN SERVICES BECOME PART OF MAKRON" is overlaid in large, white, sans-serif capital letters on the left side of the image.

DESIGN SERVICES BECOME PART OF MAKRON

Makron had expertise in machine manufacturing and in areas such as automation, but the company lacked design services. Leppänen wanted to correct the situation and assigned Kari Rehn to identify suitable companies. Rehn found Mekateam Oy, a company based in Savonlinna.

In 2010, Pekka Leppänen contacted Mekateam's founder, Pekka Purho, and proposed a partnership. Purho was familiar with the name Makron, but he didn't know Leppänen.

"I had been thinking about expansion, and Pekka called at exactly the right time," he says.

The two companies shared a customer, Andritz, which made it easier to find common ground. Makron manufactured equipment for Andritz's wood yard processes, while Mekateam carried out mechanical design and strength calculations for processes such as Andritz's white liquor plant.

At their first meeting, Purho and Leppänen exchanged ideas and got to know one another. The deal was closed at the second meeting. Makron joined as a minority shareholder, but with a relatively significant stake.

"The agreement included a clause for redeeming the remaining share within three years or so," Purho explains.

Mekateam's strengths lay in its versatile design expertise, mastery of complex calculations, and strong customer references.

"Our special expertise covered demanding strength calculations, flow dynamics calculations, and the design of pressure equipment and heat exchangers," Purho lists.

"Following the transaction, this expertise was also available to Makron's customers."



NEW CUSTOMERS AND LOCATIONS

Growth and new customers were sought especially in the Lahti economic region in sectors such as the mechanical wood processing industry, the quarrying and mining industries, and energy and environmental technology. With customer acquisition in mind, Makron established design offices in connection with its factory in Hollola and another in Kotka. The goal of the new locations was to bring services as close to the customer as possible. *Makron News* stated that the experiences gained and the feedback received from customers reinforced the belief that operations were most efficient and cost-effective when communication was smooth and straightforward.

“Kick-off meetings, progress reviews, and project handovers are key phases in the workflow and deliver the best results when conducted face to face. Modern electronic data transfer systems enable assignments to be carried out even from great distances, but lack the interaction that arises in face-to-face meetings,” *Makron News* wrote in 2011.

The new locations got off to a good start. Thanks to development measures, Mekateam Oy nearly doubled its staff. A couple of years later, designers were also hired for Makron Estonia.

The operations in Kotka and Makron Estonia came to an end when customers no longer had any subcontracted design work to offer. The mechanical design business was centralized in Hollola and Savonlinna.

At the beginning of 2013, Pekka Purho sold his remaining shares to Makron Oy. He remained on the board of directors to support CEO Kari Rehn and Antti Janhunen, Regional Manager for Eastern Finland, in their work.

Purho describes his time at Makron as intriguing. “There were more small successes than major breakthroughs, but offices were established and operations were further developed. Minor progress was made continuously.”

When he left the board three years later, in 2016, the company had a team of slightly more than ten employees and generated net sales of just over EUR 1 million. In the same year, the company changed its name to Makron Engineering.

After Kari Rehn retired, the responsibility for operational development was taken over by Business Director Antti



“In the future, our mechanical designers will be expected to have not only technical expertise, but also creativity and the ability to develop the best possible solution from a clean slate”

Janhunen. Verner Väisänen transferred from Savonlinna to lead the design team in Hollola. Synergies with Makron’s production proved effective, and the Hollola location grew rapidly. Several of its customers became customers of Makron Engineering, such as Andritz, Dieffenbacher, and Raute.

In February 2020, Antti Janhunen joined Andritz, and Verner Väisänen became Business Director at Makron Engineering.

FOCUS ON MECHANICAL DESIGN

Makron Engineering’s operations have more than doubled since the early days. And this is just the beginning. Makron works to be a trusted partner for industry in equipment solutions, modernization projects, and product development, all of which highlight the importance of mechanical design.

“In the future, our mechanical designers will be expected to have not only technical expertise, but also creativity and the ability to develop the best possible solution from a clean slate,” says Johanna Vuopala, CEO of the Makron Group.

In 2025, Makron Engineering has a design team of around 14 people in Lahti and around 10 people in Savonlinna. The Otaniemi office has three designers. In Estonia, design operations are being restarted in connection with equipment manufacturing. ■

EXPANSION INTO BELARUS



After opening a factory in Narva, Makron invested in expansion into Belarus.

The Grodno unit supplemented operations in Finland and Estonia. It took advantage of the benefits of the free trade area and the proximity of Russia.

Large-scale production had long since shifted away from Finland, and Makron needed to follow suit. Gunnar Perker, who worked as Makron's quality inspector and buyer in Estonia, was tasked with exploring nearby markets and their potential.

Lithuania had no significant industrial production, and the country mainly consisted of flat rural terrain. Latvia had industrial activity, but not yet on a large scale.

Belarus, on the other hand, had industry and industrial infrastructure. For example, the Radiovolna factory in Grodno manufactured cable harnesses for Volkswagen. Production at the old Soviet factory was active, with trucks departing daily for Poland. The region also had a low price level and low wage costs.

If finding suitable premises wasn't easy in Russia, it wasn't any easier in Belarus.

"We were shown factory buildings constructed more than 30 years ago, and they had never been fully completed. On top of that, it was not possible to rent them. We would have needed to buy them."

Perker decided to search for suitable facilities on his own. He drove to the highest point in the city and looked out over the horizon for facilities suitable for machine manufacturing.


"I saw one and drove there to ask if the halls were available for rent."

The 1,000-square-meter facilities were renovated. The machines were transported to Belarus from Makron Estonia's factory in Tallinn. Since the area was a customs zone, the machines were formally sold as investments, which allowed them to be transferred duty-free.

"The shipment consisted of an old lathe, welding equipment, a drill, and an old saw," Perker recounts.

FLLC Makron Grodno was established on March 30, 2011.

Once operations started, Grodno produced simpler and lighter welded structures such as roller stands for Roxon and components



The aim was also to export Makron's own products, such as log house machines, to Russia via Belarus.

for surface equipment for Sandvik. Some of the products were welded in Grodno and transported to Estonia for machining.

DUTY-FREE TRADE

FLLC Makron Grodno was granted free trade zone status. This entailed customs and tax concessions, among other aspects. Importing Western materials and components became easier, as did exporting locally manufactured products to Western markets.

Operating within the duty-free zone enabled Makron to serve as a logistics hub for its customers. Equipment manufactured in Grodno could be delivered to Russian customers without incurring customs duties.

“For example, Raute had numerous projects in Russia. The aim was for us to deliver Raute's conveyors from Grodno directly to Russia without customs costs. This would have resulted in cost savings, and Makron would have avoided direct customs duties that would normally have applied.”

The aim was also to export Makron's own products, such as log house machines, to Russia via Belarus. The technology had an excellent reputation in Russia, as Makron had delivered numerous log house machines to the country, particularly during the 1980s and 1990s.

THE LOG HOUSE MACHINE TECHNOLOGY WAS SOLD A DAY BEFORE THE LOCKDOWN

The technology developed for log house component production and machinery was part of Jalo Paananen's original Makron. In 2014, log house, prefabricated house, cellulose insulation, and refrigeration technologies returned to Makron when Makron Oy acquired the technologies and business operations of the Makron Engineering unit from Jalo Paananen.

Despite Makron's strong reputation and extensive experience, the Finnish log house market proved to be too small and saturated to make the business profitable, and momentum never picked up in Russia either. Canada and the United States had long-standing timber construction traditions, but a market study conducted with a local university dashed hopes of expansion across the Atlantic.

The construction methods in the countries were completely different.

In North America, builders used solid log structures almost

exclusively, and the glued laminated log technology, on which Makron's machinery was based, was virtually unknown in the region.

"We didn't have the resources to maintain the log house technology successfully, so we began looking for a new home for it," says Johanna Vuopala.

Pinomatic, a family business based in Kauhajoki, was Vuopala's first choice. The company supplied equipment for producing non-settling logs and glued laminated beams, and Makron's log house production machinery and software would complement Pinomatic's robust range of production lines and equipment for the wood processing industry.

The deal was closed in March 2020. The timing was perfect, as the pandemic shut down Finland the very next day.

"I remember when Ari [Turtinen] and I were driving from Kauhajoki toward Lahti. The radio was flooded with news that Finland was shutting down and everyone would have to start working remotely. It was quite chilling."

A week later, the deal would probably have fallen through.

OPERATIONS WERE SHUT DOWN

Despite the high expectations and significant investments, the plans in Belarus did not progress as hoped. Makron Grodno's operations in the free trade zone were shut down in November 2015. There were several reasons for this, one of the most significant being Gunnar Perker's severe injury in a car accident in 2013. Following the accident, operations in Grodno essentially came to a halt.

Another reason was the changed political situation. Tensions began to rise in 2014, around the time of the annexation of Crimea. Sanctions and the instability arising from political change amplified risks and increased uncertainty.

"The country had its challenges, but there were also many opportunities.

We'll never know how things might have turned out over time," Perker reflects.

The company was sold and officially dissolved in 2019. ■



Pekka Purho from Mekateam, Jarmo Piipponen from Elmont, Pekka Leppänen and Kari Rehn from Makron, Matti Ihalaainen from Solmex, and Timo Sallinen from Makron observe the work of machine fitter Petja Pöyhö. Photo: Katja Luoma, ESS

MAKRON EXPANDED ITS EXPERTISE THROUGH ACQUISITIONS

Between 2006 and 2013, Makron acquired Elmont Oy, Mekateam Oy, and part of Solmex Oy to strengthen its expertise in industrial automation, machine design, and installation and life cycle services.

OVERCOMING RECESSION

06

“There are no signs of an economic slowdown at Makron Oy’s factories in Hollola and Lahti, although the most recent Business Tendency Survey of the Confederation of Finnish Industries (EK) indicates that the hottest phase for SMEs has passed for now,” said Pekka Leppänen at the launch event for the Business Tendency Survey for SMEs at Makron in February 2008. The survey focuses on the economic situation of and outlook for small and medium-sized enterprises in Finland.

Leppänen added that a slight slowdown was noticeable in the forest industry's machinery sector, and subcontractors seemed to have more capacity available than in the previous year, but mining and construction machines were still being produced in massive volumes.

Makron was also engaged in several negotiations with new customers, so the prospects for balancing the workload were good in that respect as well.

Despite the promising outlook at the beginning of the year, the global financial crisis also hit Makron. Before the financial crisis, Makron's net sales were EUR 20 million. In the following years, its net sales decreased significantly: During the 18-month financial period, net sales fell to EUR 15 million, and in 2010 to EUR 14 million. The year 2011 was the hardest, with net sales of only EUR 12 million.

Juhani Valtari, who was responsible for deliveries to Sandvik, remembers the day he realized that everything was about to change. It was July the 7th in 2008.

"I got a call from Sandvik. I was instructed to complete all the upper and lower frames that had already been started. After that, there would be no more deliveries, ever."

Just the week before, Makron had been sending frames daily to Sandvik's factories in Tampere and Turku. They had been used to supply Sandvik's factories worldwide.

"The guy from Sandvik told me over the phone that it would take a year for their inventories to run out. I realized that the situation would be the same for all customers, not just Sandvik. Sandvik was simply the first place where it became visible."

Deliveries to Sandvik ended with that phone call and never started again. That also marked the end of the need for the Okeroinen plant, and operations were centralized at the Hollola factory.

"Both locations carried out nearly identical production, but neither had enough work. Operating in two separate locations didn't feel efficient," says Eero Kilpeläinen.

"We also had a practical problem. Both factories had the same supervisors, and they were always either on their way to Okeroinen or on their way back from there, but never actually present at either location."

FLEXIBILITY AND COLLABORATION

The recession and the end of work led to temporary layoffs and codetermination negotiations. At the time when the operations



Makron's Hollola factory personnel in 2018

“We were able to overcome difficulties by working together”

in Okeroinen were transferred to Hollola, staff were also laid off permanently.

“During the toughest period, Makron held codetermination negotiations on a monthly basis. This was because order volumes in the industry fluctuated rapidly,” says Matti Kangasmäki, who was Makron’s deputy CEO at the time.

Although codetermination negotiations were ongoing and uncertainty prevailed, major layoffs were largely avoided thanks to the staff’s flexibility and local agreements. Instead of the standard 30-day notice period for temporary layoffs, Makron had decided on just 14 days, and even fewer at times.

The employees agreed to cooperate, even though they were initially skeptical about the flexibility measures. The short notice period for temporary layoffs raised particular concern, but it ultimately proved to be effective. Another positive aspect was that a rotation system for temporary layoffs was successfully agreed upon. This meant that no one was laid off for long uninterrupted periods—people took turns. This way, everyone was able to maintain their skills throughout the recession.

“We were able to overcome the difficulties through mutual agreements,” Kangasmäki said in the local newspaper, *Etelä-Suomen Sanomat*, thanking the staff in 2016. By then, the recession had passed, and work had picked up again.

Agreements were also made jointly on flexible working hours, performance bonuses, the scheduling of holiday pay, and compensatory leave for reduced working time.

According to Kangasmäki, pulling together as a team is a long-standing tradition that spans decades.

“The first local agreements were made during the recession in the 1990s. Work was scarce, and we were about to switch to

a four-day workweek. The staff had already received notices of temporary layoffs when an urgent order suddenly came in. I asked the crew, ‘Will you come to work tomorrow?’ They did, and that’s how it all began.”

The tradition of local agreements has not been broken, even though the owner has changed since those years.

Local agreements are built not only on trust and openness, but also on a codetermination management team made up of the company’s management and employee representatives. Each month, the group discusses matters such as the company’s order backlog, incoming orders, financial performance, and personnel topics, including jobs, sickness absences, and compensation. Information is passed on to the staff from the codetermination management team through shop meetings. This ensures that everyone knows how the company is doing.

Transparency also means that people in the company know how it ranks as a payer compared with the industry standard.

A POSITIVE RESULT DESPITE THE RECESSION

The recession hit technology companies hard and affected the lives of all Makron employees, but this time the recovery was more rapid than in the 1990s.

Although manufacturing and procurement were increasingly being transferred from Finland to lower-cost countries and China, there were still companies that wanted to keep production in Finland. One such company was Heinola Sawmill Machinery.

“Heinola Sawmill Machinery wasn’t willing to send their machines abroad to be copied. They wanted to keep their expertise and knowledge in Finland and transferred manufacturing operations to Makron,” Valtari recalls. Another customer that helped ease the situation was ABB, for which Makron produced starter frames.

“A positive result despite the recession,” Makron proudly announced in a news article in 2010.

Costs had been cut, the production process had been further developed, and productivity had been improved. Makron had been able to achieve a positive result despite the challenging times.

“The result was made possible by excellent cooperation among all personnel,” the news article stated.

Hollola’s largest machine manufacturer entered a new period of growth in 2012, thanks largely to the much-needed work brought by the Äänekoski bioproduct mill. ■



MAKRON
A Promise to Complete.

FROM CRISIS TO THE MOST PROFITABLE UNIT

For Makron's first subsidiary, Makron Estonia (formerly Helondor OÜ), the years 2008 to 2015 were particularly challenging. At the time, the management was hiding financial losses, and operations were on the verge of shutting down.

Pekka Leppänen and Pauli Pöllänen, MP-Group's owner, founded Helondor OÜ in Aruküla, Estonia in 1998. Their first business idea was to use gas cutting technology to cut machining blanks in the factory. The production facility had previously served as a collective farm's auto repair shop, and the property was in desperate need of repair. Juhani Valtari recalls his first visit to the factory: a yellow lamp hung from the ceiling in the lobby. Its beam barely reached the surface of the table at which the meeting was held. The rest of the room was pitch-dark.

"That was the starting point for development and growth."

In the early years in Estonia, the company produced roller conveyors, safety railings, pallets, sensor racks, and slat conveyors. In customer acquisition, Leppänen relied on the

extensive networks he had established as the CEO of Raute, and the first customers came from the Lahti region.

The operations were run by a small group. The subsidiary was headed by Pauli Pöllänen, and Priit Meier was hired as the plant manager. There were around 15 welders. Kalli Sillamaa joined the company as an accountant in 2000 and continues to work there, now as a controller.

In the early years, operations were divided between two locations. The administrative staff were based in Tallinn's Old Town, while production operations were located in Aruküla, but the division of responsibilities soon became problematic, and the administrative staff eventually relocated to Aruküla. This was because information didn't flow properly between the two locations. For example, complaints were often sent to the Old Town office instead of Aruküla.

"This caused problems, as I wasn't always informed about complaints," recalls Meier, who retired in 2014 and speaks fluent Finnish. When he started at Makron, he had an interpreter with him during the job interview.

HIGH EMPLOYEE TURNOVER

The shortage of welders in Finland was one of the reasons why a company was established in Estonia. Workers were more readily available in Estonia, but this brought about new types of issues. As a result of the shortage of skilled professionals in Finland, employee turnover was high in the early years.

"We taught the employees how to weld. As soon as they learned the skill, they headed to Finland to work in the shipyards," says Ere Kariola, who served as an investor and board member at Makron from 1999 to 2008.

They left even though the salary paid by Makron to welders was higher than the national average.

Makron Estonia also experimented with a subcontracting network, but the idea was abandoned rather quickly. According to plant manager Meier, work was even outsourced to the metal department of the Tallinn prison. However, the quality did not meet the requirements set for subcontractors, nor did it align with what Makron's customers expected. The parts were of such poor quality that they needed to be fixed at the factory.

Makron Estonia was also fulfilling a social mandate. Like



“The company’s operations have developed well, and we’ve learned to operate successfully in both the Estonian market and the Baltic markets as a whole.”

many other industrial companies, Makron faced pressure in the early 2000s to relocate production and sourcing to low-cost countries. Leppänen was not enthusiastic about moving production to China. In the early years, production quality was poor, and a Finnish organization would have needed to be established in China to oversee operations. The regions near Finland were much easier and more efficient to manage.

“Buyers were given strict guidelines by the principals, requiring that a specific portion of purchases should be made from low-cost countries. Back then, there was no mention of partnerships or anything else. Price was the deciding factor,” says Juhani Valtari.

Estonia gradually received more orders.

HIGHER ADDED VALUE

The operations in Estonia supplemented Makron’s operations. The Hollola factory was designed for heavier manufacturing, while Estonia was seen as a location for developing lighter production. The subsidiary’s operations developed rapidly. In 2008, as Makron Estonia celebrated its tenth anniversary, the company had a workforce of 40 metal industry professionals. The factory’s main product group consisted of various conveyors and conveyor systems. The company also handled the electrification and test runs of the equipment.

“The company’s operations have developed well, and we’ve



Under the leadership of Ari Turtinen, the construction of a new type of subsidiary in Estonia began in 2014.

Priit Meier served as a plant manager from 1999 to 2014.

Kalli Sillamaa joined the company as an accountant in 2000. Still with the company, she now works as a controller.

Raul Uhs, Director, Accounts & Projects, has been a member of the management team since 2016. He has built customer trust and driven significant growth.

learned to operate successfully in both the Estonian market and the Baltic markets as a whole. The skilled personnel at Makron Estonia are able to deliver significant cost benefits to customers,” Makron’s customer magazine wrote about the ten-year-old subsidiary.

The global financial crisis was also hard on Estonia. On top of troubled projects, there was misconduct within the management at the time. They concealed losses from the parent company by manipulating financial results, for example. This ultimately drained the company’s cash reserves.

The management were fired in 2014. Ari Turtinen was appointed Chair of the Board of Makron Estonia, and Raul Uhs was hired as Sales and Project Director.

Johanna Vuopala emphasizes Ari Turtinen’s role in the reconstruction of Makron Estonia.

“At times, the situation was extremely challenging. Ari was the person everyone could rely on,” says Johanna Vuopala, CEO.

BACK ON TRACK

A new type of subsidiary began to take shape in Estonia under Ari Turtinen’s leadership.

When Raul Uhs joined the company, its net sales were relatively low, and its customer base was modest.

“However, I was able to revive some previous customer relationships, and we actively started to seek new customers,” he explains.

As customer relationships had deteriorated under the previous management, Uhs rebuilt trust by outperforming the company’s competitors.

To create a winning formula, this was combined with ease of purchasing.

“We have an inside joke that, as our customer, the buyer can sit by the pool and enjoy their vacation. We make sure everything runs on schedule,” Uhs explains.

Problems are inevitable, but success is about resolving them more quickly than the competition.

The strongest indication of customers’ trust emerged during the pandemic. Many companies saw a decline in orders because customers or their inspectors were unable to inspect deliveries on-site.

“For us, this wasn’t a problem. Our customers trusted us and knew that deliveries would arrive on time.”

There was enough work in Estonia throughout the pandemic to compensate for the downturn Makron experienced in Finland.

EXCELLENCE UNDER PRESSURE

The subsidiary has evolved from a rudimentary factory into an equipment manufacturer specializing in technologically demanding products. The company manufactures highly advanced machines and equipment, from technical drawings all the way to FAT testing.

“Our strengths lie in complex and technologically demanding equipment. The more complex it is, the more suitable it is for us,” says Uhs.

The adoption of a Lean ERP system in 2015 and 2016 marked a major change in the company’s operations. It has helped the company manage the whole process and its order backlog, and optimize the workload, even during the pandemic. Through the system, it’s possible to monitor in real time whether customers’ components have arrived.

Uhs adds that the Estonian unit’s competitive advantage is not based solely on technical expertise, but also on a desire to genuinely understand the customer’s operations and improve them accordingly. When challenges emerge, they are quickly resolved. Practical experience has shown that even seemingly minor errors—such as the wrong bolt on an installation site or a delivery delay—can lead to significant financial losses for the customer.

“Makron Estonia ranks among the top three companies in the country in terms of quality. We have found our strengths, managed to retain our staff through all the upheavals, and succeeded in reinventing ourselves along the way.”

When Uhs joined Makron Estonia in 2016, the company’s net sales were around EUR 2.6 million. From there, its net sales have grown to EUR 10 million.

Now that Makron Estonia has not only survived, but is thriving, the feeling of success is deeply rewarding.

“It’s all thanks to the team at Makron Estonia,” Vuopala points out. ■





NEW ERA

07

“Johanna Vuopala, Director of Marketing and Communications, has been appointed CEO of the Makron Group as of November 1, 2017.”
Etelä-Suomen Sanomat, November 18, 2017



Johanna Vuopala
and Pekka Leppänen.

Johanna Vuopala, the eldest daughter of Pekka Leppänen, became an entrepreneur and the head of the family business in 2017. Before taking over the leadership, she spent three years learning Makron's way of working by serving on the board and being responsible for the Group's marketing.

Taking over the family business was never a given for Vuopala. Quite the opposite—there was a time when she firmly believed the family business wasn't for her.

“During my studies, my father and I had a conversation about whether I would want to work at Makron. Since I was studying business, not engineering, my father believed I was best suited for financial management. I replied that financial management wasn't for me. I thrive in sales and marketing.”

Twenty years passed before the topic was revisited. Vuopala had gained valuable experience in network and mobile operations at Nokia, as well as in UPM's plywood business. Makron had also changed. Twenty years earlier, it had been a machine manufacturing company.

“A friend once asked what my family planned to do with Makron when Pekka retired. That made me pause and think. If something were to happen to my father, the company would be my responsibility, as my sister was working as a classroom teacher in Helsinki.”

Vuopala decided to invite her father to lunch, show him her CV, and ask whether her skills could be useful to the family business. However, Leppänen was one step ahead and set up a meeting.

“Father brought along a bunch of newspaper articles. He had underlined the parts in the articles that described the kinds of skills needed in SMEs. At the end of the meeting, he asked me to join Makron's board.”

Vuopala joined the board in 2014 and started as the Group's marketing director in January 2015. At the same time, a new CEO, Mika Parviainen, started at the company.

A CLUSTER OF COMPANIES

The first task of the new marketing director was to bring the companies under one brand. Makron had grown from a machine manufacturing company into a cluster of companies with different names. There was the parent company Makron Oy, the automation company Elmont, the engineering firm Mekateam, and Makron Estonia OÜ. Makron had a wealth of expertise, but customers mainly knew the company as a machine manufacturing company.

“We had great services such as automation and design that customers could have benefited from, but they weren't aware of these services.”

This was largely because the companies didn't have a consistent brand. Vuopala started a major brand renewal within the company. She brought the companies under one brand and revamped the Group's website. The workload was immense, but the results made it worthwhile. The new brand has carried Makron a long way.

“This was the first time Makron truly invested in marketing. The previous website had been created by a summer worker,” Vuopala says with a laugh.

A PROMISE TO COMPLETE

The aim of the brand renewal was to strengthen the service concept introduced by Leppänen between 2010 and 2013. The idea was to position Makron as a versatile partner for the customer by shifting from engineering-driven thinking to a customer-oriented approach that is easy to understand.

The chosen slogan was *A Promise to Complete*. It assures customers that every solution will be carried through to the finish, or that Makron promises, with its services, to supplement and complete

MORI SEIKI
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160



solutions that meet the customer's needs.

"Through the brand renewal, we were able to communicate our versatility to customers more clearly," Vuopala says.

The message worked, and it got through.

"For example, our long-time customer Evac, for which we had provided automation services for years, didn't even know we had a machine manufacturing company. After the brand renewal, we also started to provide them with design and equipment manufacturing services," Vuopala says.

The same phenomenon also occurred in reverse: Makron began offering design and automation services to its machine manufacturing customers.

"We've had the opportunity to participate in many customers' product development and help them improve the manufacturability of their products. Our partnerships with customers have grown," says Vuopala.

With the brand renewal, Makron began to bring Pekka Leppänen's long-standing vision to life. Makron was now seen as a comprehensive industrial supplier, with automation at the core of its solutions.

WIND-DOWN OF THE HOLLOLA MACHINE

"A new generation takes the lead at Makron," headlined *Etelä-Suomen Sanomat* in its report on Johanna Vuopala's appointment as the CEO of the Makron Group on November 1, 2017.

"Now is the right time for a generational change, as trustworthy successors have been found," Leppänen stated in the same news article. He became the vice chair of the board, and Petri Kalliokoski was appointed chair of the board. Mika Parviainen, who had served as the CEO of Makron prior to Vuopala, went on to pursue other roles.

Vuopala's first years as the CEO were challenging. The pandemic paralyzed the world and contributed to the wind-down of the Hollola machine manufacturing.

The Hollola machine manufacturing was dependent on Andritz. Makron had been aware of this for years, and the matter had been discussed countless times by the board, but the company was too slow to respond. When Andritz relocated most of its production to China, it was already too late. The long-feared risks materialized.

"No single customer should account for more than 30% of net sales. I told Pekka this many times," says board member Jorma Wiitakorpi.



MIKA PARVIAINEN

CEO of Makron from 2015 to 2017

Mika Parviainen started as Makron's CEO in January 2015. He had previously worked as the CEO of Jartek, one of Makron's customers, and had a deep understanding of customers in the mechanical wood processing sector.

At Makron, he was responsible for growing the company. The owners and the board of the company aspired to seek growth through acquisitions as well. Parviainen led several acquisition negotiations, but none of them resulted in a deal. Because of misconduct by Makron Estonia's previous management, the focus was largely on a turnaround in the Estonian operations.

Parviainen succeeded in winning Heinola Sawmill Machinery, a sawmill machine company, as a customer for the Hollola machine manufacturing. The factory manufactured profiling units, log rotators, and cant turners for Heinola Sawmill Machinery.

Makron was aware of the risks, but Andritz was Leppänen's favorite until the end. It had been the company's lifeline for nearly two decades. Although Andritz had been relocating its production to China for several years, the factory was not allowed to take on Andritz's competitors as customers.

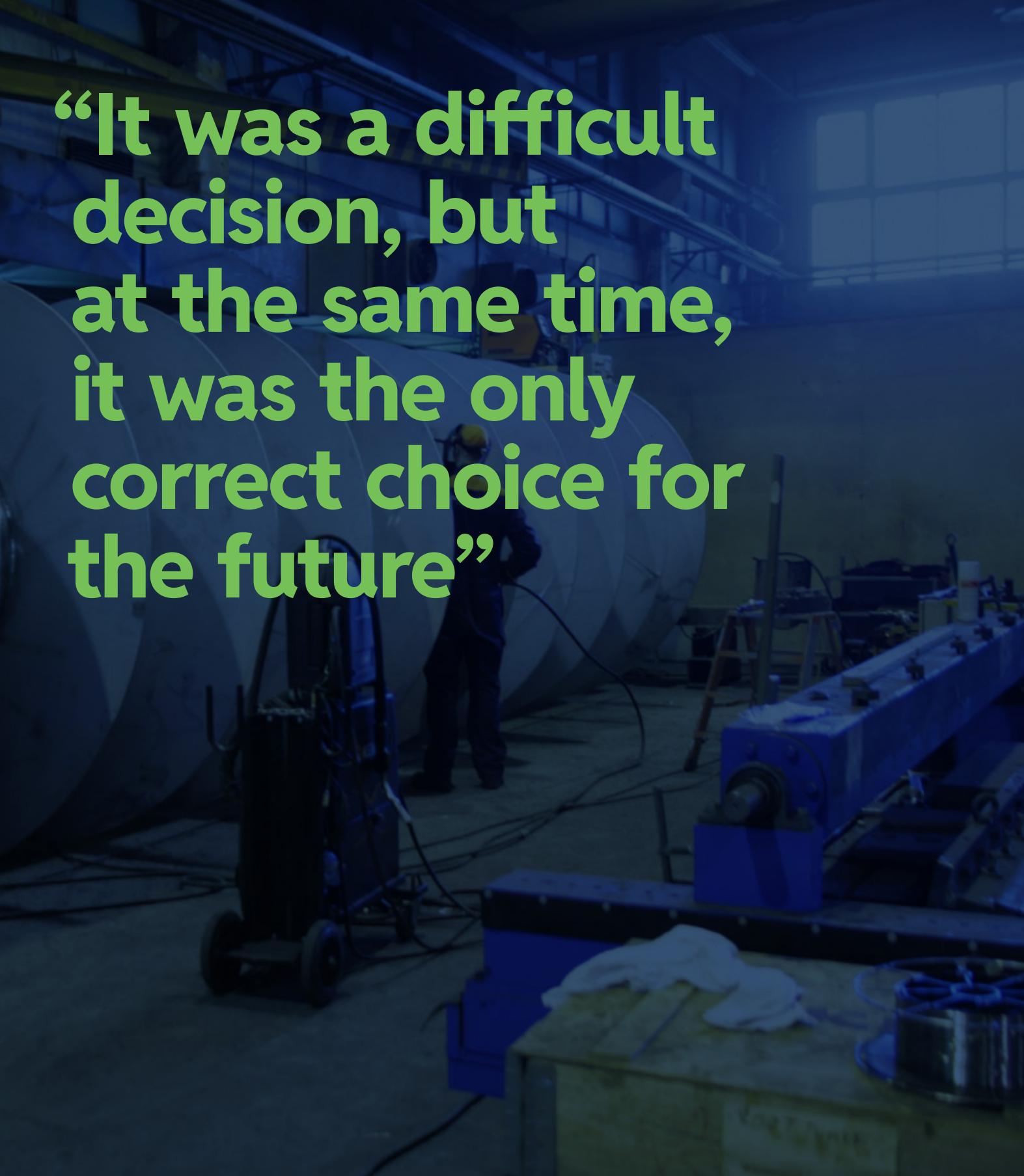
"The board frequently discussed how things would play out. I wanted us to have some kind of plan in case Andritz's orders stopped coming in," Wiitakorpi continues.

There was no plan, as Leppänen had faith in Andritz and his good personal relationships with the company's management at the time.

Makron tried to delay Andritz's inevitable move to China by providing exceptionally good service. However, no matter how well things were done in Finland, it didn't matter in the bigger picture.

ORDER BOOKS DRIED UP

When the pandemic began in 2020, the Hollola machine manufacturing was working on several large orders for Russia, and on spare



“It was a difficult decision, but at the same time, it was the only correct choice for the future”

part deliveries to the United States, Sweden, and Austria. Work at the machine manufacturing continued within the limits allowed by the pandemic. "Then the second wave of the pandemic hit, and the factory's order books dried up. Investments were put on hold, and orders were pushed far into the future—ending up without any work became a real threat.

Ari and I sat alone in the office, trying to figure out how to survive the crisis."

The answer was tough, but clear to both: without work, the factory simply couldn't function or sustain the jobs of 80 employees.

The bankruptcy filing was submitted in the fall of 2020. The company was placed into controlled bankruptcy without any impacts on the rest of the Group. In fact, the other companies in the Group had strong order books and excellent growth prospects.

"It was a difficult decision, but at the same time, it was the only correct choice for the future," says Vuopala.

A WELL-MANAGED BANKRUPTCY

At one point during the process, the bankruptcy administrator told Johanna Vuopala and Ari Turtinen that, in his entire career, he had never overseen a bankruptcy as well-managed as the wind-down of the machine manufacturing company.

"I remember standing in the factory, masks on, when Ari and I proposed to the bankruptcy administrator that we form a select team of employees to complete the equipment we had under production for Andritz. This would secure solid net sales for the bankruptcy estate, and we would keep the customer happy," Vuopala continues.

Had the bankruptcy administrator not granted permission, Andritz would have faced significant delay penalties. Andritz later thanked Makron for completing the work at the machine manufacturing. The design collaboration between Makron and Andritz has remained strong to this day.

Andritz held a special place in Pekka Leppänen's heart. Makron's growth began with the acquisition of the machine manufacturing and the partnership with Andritz. That's why Andritz was served particularly well until the very end.

Following the wind-down of the machine manufacturing, Makron moved its operations back to its own property in Ala-Okeroinen. ■



MAKRON
A Promise to Complete.

The image shows a woman with short blonde hair, wearing a beige and brown patterned sweater, smiling and looking towards a man. The man is seen from the back, wearing a dark blue jacket with the 'MAKRON' logo and 'A Promise to Complete.' slogan. He is also wearing a blue headset and bright yellow-green safety pants. They are in a laboratory or workshop setting with various electronic equipment and circuit boards visible in the background.

GROWTH FROM AUTOMATION

A significant portion of Makron's net sales disappeared with the closure of the Hollola factory. New sources of growth needed to be found.

08



In the spring of 2020, when the majority of Makron's employees were working remotely from home because of the pandemic, the management team was stationed in the Ala-Okeroinen factory, refining the company's strategy. A new source of revenue had to be found to replace the net sales lost with the machine manufacturing.

Makron found a new direction by bringing together all its expertise.

"We put all our efforts into automation, industrial modernization, and machine manufacturing in Estonia," says Johanna Vuopala. In addition to Vuopala, the management team included Ari Turtinen, director of finance and operations, Kari Koski, head of automation sales, Raul Uhs, head of accounts and projects in Estonia, and Verner Väisänen, business director, mechanical design.

Automation and industrial modernization projects became the focus of the new strategy, as they allowed Makron to operate as a partner, not just a subcontractor. In addition, automation made it possible to improve data collection and

processing and lay the foundation for the effective use of AI.

These were good strategic choices. In particular, operations in Estonia grew significantly during the year of the pandemic. Makron Estonia's strong expertise and high level of service brought in machine manufacturing projects that previously would have gone to Asia. Estonia delivered a record-breaking result, with the company's net sales rising to EUR 6.5 million.

BEST YEAR IN HISTORY

The new strategy has delivered results even after the pandemic. Net sales totaled EUR 19 million in 2024, and the operating result was excellent.

"We've caught up and brought net sales back to nearly the same level as during the Hollola machine manufacturing era. This lays a strong foundation for the future," says Vuopala.

"We've managed to reinvent ourselves in a situation in which many other companies of this size might have gone under. We've succeeded in communicating clearly to our customers how they benefit from the comprehensive solutions we provide. I believe this will bring us new opportunities and strengthen our position as a partner," says Jorma Wiitakorpi, a longtime board professional who has served on Makron's board of directors for seven years. He emphasizes that, at the same time, it's important to remember that each unit must also be profitable on its own. The operations as a whole cannot rely solely on one strong pillar or a single customer.

Johanna Vuopala agrees. She points out that Andritz had too much control over Makron. "We've learned to manage our customer portfolio so that no single customer can steer the direction of our business any longer."

In addition, the fact that Estonia has a solid and diverse customer base brings a new kind of stability to the business.

"The economic cycles in different industries vary at different rates: when one industry is slowing down, another may be on the rise," Vuopala explains.

A NEW STRATEGY FOR THE NEXT THREE YEARS

At the beginning of this year, the management set new growth targets for the Group. By 2028, Makron aims to become a

strategic partner for its customers in industrial machine solutions and modernization. This will be achieved by increasingly shifting towards data collection, analysis, and the integration of AI into equipment solutions.

“We’ve sought expertise in these areas through partnerships and looked into a few potential acquisitions, but it’s not necessary to own everything. It’s more important to find reliable partners,” says Jorma Wiitakorpi.

When Wiitakorpi joins a new board, he asks the management what makes the company unique.

“I ask that because I’m an idealist. I believe a company can only succeed if it can stand out from the competition.”

Wiitakorpi admits that defining what makes a company unique is challenging, but only after that uniqueness has been identified can a story be built around it, one that both employees and customers recognize and embrace.

“Hesburger is the only company I know that has succeeded by copying a business idea. All others must find their own angle and believe in it.”

Makron has succeeded in discovering its uniqueness. Focusing on automation and design services improved profitability and set the company on the right path. The next step was for Makron to position itself as a provider of comprehensive solutions.

“Our own manufacturing unit in Estonia strengthens our credibility as a comprehensive supplier. We’ve also succeeded in selecting specific technology areas to focus on in our new strategy. This helps us stand out in the market and build an operating model that guides the operations of the whole company,” says Wiitakorpi.

And profitability is ensured by product cost calculation that accounts for actual expenses. The system helps us monitor profitability on a monthly basis and quickly identify any pricing errors.

In our size category, it’s rare to find design, automation, and machine manufacturing all under one roof. “We’re smaller than our largest competitors, yet more flexible, and that’s the foundation of our success,” Johanna Vuopala sums up.

HOME FOR THE BEST TALENT

Growth doesn’t come from investing in technology alone. Talent is needed, but the competition for talent is tough. For example, Makron spent a year looking for the right project sales professional.

One of the strategic targets set for 2028 is related to resources:

Makron aims to be home for the best talent.

Makron works to be a home for engineering professionals, offering diverse and engaging projects that support professional growth.

“We’ve gained important new customers, and we’ve been discovered. We’re driving our strategy forward and selling projects, confident that we’ll find the right talent to make them happen,” says Vuopala.

In 2021, Makron opened an office in Otaniemi to attract talent directly from Aalto University.

NEW MARKETS IN GERMANY AND SWEDEN

Under its new strategy, Makron aims to increase its net sales to EUR 30 million by 2028. According to Vuopala, this will be achieved by increasing the share of modernization solutions to 30% of net sales, diversifying the customer base, expanding the range of services, productizing expertise, and seeking growth in both the domestic and international markets.

“For more than 20 years, we’ve been developing automation and control systems for electrochemical surface treatment plants for customers such as Leden Group, Mecapinta, K. Hartwall, Suomen Elektropinta, Oras, and Aurajoki. This is a clearly defined niche in which our in-depth expertise is internationally competitive,” Vuopala says.

In the future, systems developed by Makron will be able to anticipate production line operations and maintenance needs.

“This will be based on the data we collect from production and analyze using AI,” she adds.

Makron plans to leverage this expertise in conquering international markets, first Germany, then Sweden.

According to Vuopala, Germany was chosen as a target market because the company already had customer relationships there from the Elmont era.

“Our goal is to start operations in Germany during the first half of 2026. We’ve hired a consultant to rekindle old customer relationships.”

In Sweden, Makron is particularly interested in the modernization of vertical lift storage systems.

“The country has numerous logistics centers and warehouses whose vertical lift systems need modernization. In addition, there is less competition in this area so far than in other markets, which offers us good opportunities.”

Makron's international expansion efforts are partly supported by EU development funding.

CONTINUOUS ADAPTATION

Developing a family business is a long-term process. It's not about quarterly results, but about shaping the company's future. This continuity is also reflected in the renewed ownership strategy.

"The company must be in good shape five years from now, but it must also remain vibrant well beyond that. We need to maintain flexibility in our operations so that the family entrepreneurship can remain strong in a changing world," says Wiitakorpi.

When Vuopala started as the CEO of Makron, she had to carve her path out of her father's shadow.

"My father was strong-willed, and it was difficult for him to let me do things my own way. In the early years, we had several clashes over the fact that he was undermining my authority as CEO," Vuopala says. For example, when a way of working or a process was changed, people would complain to Leppänen about it. He might respond by saying, "Just do it the old way."

Now the story makes her smile, but back then, finding her role was sometimes hard. The situation began to change after the father and daughter had a serious conversation. Vuopala was given the space she needed to lead the company.

"For many, I was still Pekka's daughter, but I decided not to worry about what other people were thinking. What mattered most was getting the company to truly take off, and I focused on that."

The past fifty years have witnessed bold and sometimes risky acquisitions and lessons learned in international expansion, as well as overcoming recessions and determining new strategic directions. Finding a balance between vision and its practical implementation has been a continuous effort.

Perhaps the greatest insight has been that vision alone isn't enough. Success calls for the ability and the courage to change, and Vuopala is steering Makron in that direction.

"From the very beginning, my father had a strong vision that Makron is not just a traditional machine manufacturing company, but also a company that combines design and the provision of comprehensive solutions. We have only succeeded in this in recent years. We're increasingly being approached by major listed companies that have heard or read about us. Our expertise is finally being recognized."

Last year was the best year in Makron's history. ■





CREATIVITY AND RESILIENCE UNDER PRESSURE

What is automation? Automation designer Jussi Kortelainen says automation is about using code to move and control the physical world. It enables machines to start, valves to open, and wheels to turn.

“The work of an automation designer requires technical expertise, creative problem-solving skills, and the ability to perform under pressure,” Kortelainen explains.

Jussi Kortelainen is one of Makron’s automation experts. He has been designing and implementing automation systems tailored to customers’ needs for more than ten years.

According to Kortelainen, Makron’s strengths lie in customer orientation and flexibility—every project has a face.

“Projects and the expertise they require vary depending on the customer and the industry. For example, surface treatment plants and the shipbuilding industry require very different types of expertise and approaches. That’s why it’s more practical for the same people to work with certain types of projects and customers,” he adds.

This approach deepens designers’ expertise in customer projects and makes communication smoother.

FREEDOM AND RESPONSIBILITY

Flexibility is one of the best aspects of the work. Every designer understands their responsibility within the project. Working hours are flexible—as long as the work gets done.

During the commissioning phase, workdays can stretch up to 12 hours. Installation work is often carried out over the weekend, and the equipment must be fully operational by Monday when production starts.

“The installation phase requires resilience under pressure. Not all equipment can be tested in advance at the office, and there will always be surprises. Sometimes a component is missing, or the equipment doesn’t work as planned,” says Kortelainen.

When that happens, Kortelainen puts his gray cells to work and tries to solve the problem. The most challenging project in his career so far was updating a log house production line that didn’t function as expected.



"Nothing beats the feeling of bringing a complex system to life."

After a long investigation, it turned out that the problem wasn't with the automation itself, but with the interface between the old system and the new one.

"We weren't allowed to touch the external system, but we still had to make the machine work."

Kortelainen came up with a way for the new system to trick the old one, and the machine started working.

"Nothing beats the feeling of finding a way to bring a complex system to life."

Makron is increasingly taking on projects to modernize high-bay storage elevator systems. These often involve modernizing an elevator from the 1980s or 1990s: the original frame is preserved, but the automation is completely replaced. There are many similarities between projects that allow for the use of previously gained experience, but each project also involves unique solutions and challenges. And this is exactly what an automation designer enjoys: learning something new, solving challenges, and occasionally pushing their problem-solving skills to the limit. The result is code that gets the machine working exactly as it should.

WHAT ABOUT AI?

Artificial intelligence hasn't yet made a significant impact on the day-to-day work of Makron's automation designers. For example, Kortelainen uses AI much like an advanced search engine.


It helps him troubleshoot error codes or analyze massive log data.

Kortelainen has also experimented with programming, but the benefits have been limited so far.

"Automation design affects the operation of equipment. As a designer, I must make sure that the equipment is safe and functions as it should, which is why design cannot be left solely to AI." ■



FROM PAYROLL CLERK TO PRODUCTION SUPERVISOR



When business student Kati Seppälä was looking for an internship in 2014, a friend pointed her toward Makron. Eija Pajunen, a payroll clerk at the time, did not usually hire interns, but she saw something special in Seppälä and decided to make an exception.

After completing her internship, Seppälä returned to Makron as a summer worker to continue learning under Pajunen's guidance.

"I had my first child during my studies, in the winter of 2015. I didn't return to school, but instead completed my studies through apprenticeship training. Eija reviewed and evaluated my demonstration assignments," says Seppälä. She completed her remaining studies in just six months.

When Pajunen retired shortly after Seppälä's graduation, Seppälä took over payroll duties for hourly employees. She also became a system expert for the new ERP system, Lean. Seppälä focused on testing the timestamping functionality in particular, and once the ERP was completed, she trained the rest of the factory staff to use the new system.

"Lean had already been adopted at the Estonian plant and within Makron Automation. Its implementation made it easier to share information and collaborate across locations," says Seppälä.

A NEW CAREER DIRECTION

Seppälä's career took a completely new turn when Makron outsourced its payroll operations. Support was needed to improve operational quality in electrical cabinet manufacturing at Makron Automation, and supervisor Ari Turtinen offered the position to Seppälä.

"I came here to take stock of inventories, but I soon found myself as the production supervisor," she says with a laugh.

"Kati has always been eager to learn and take on more responsibility. I quickly realized that, in addition to driving quality improvements, Kati was ready to step into a supervisory role in production," says Turtinen.

Seppälä learned through hands-on experience, but it wouldn't have been possible without a supportive workplace community.

"I wouldn't be where I am today without the support and trust of my colleagues and especially Ari. Ari has always

Makron invests heavily in training and cooperation with educational institutions. The company has supported initiatives such as establishing a professorship in mechatronics at LUT University and launching an electrical automation program at LAB University of Applied Sciences in Lahti, ensuring that technology companies in the region have access to young talent for summer jobs, internships, and, eventually, long-term employment.



Kati Seppälä started as a payroll clerk. She now works as a production supervisor.

believed in my abilities, which has allowed me to develop and try new things. A lack of formal education has never been an obstacle.”

Seppälä’s boundless enthusiasm and eagerness to learn continue to be reflected in her current roles. In addition to her supervisory work, Seppälä serves as a system expert and the main user of the ERP and HR systems. She also takes care of financial management tasks such as the purchase and payroll ledgers.

Many might find such a broad job description overwhelming, but for Seppälä, versatility is an asset. She is constantly juggling multiple tasks, but with the employer’s support, she makes it work. ■

FIBER LABORATORY: DEVELOPING THE SOLUTIONS OF THE FUTURE



At South-Eastern Finland University of Applied Sciences' FiberLaboratory, the future of sustainable business is taking shape with research equipment designed by Makron Engineering. "We have had the pleasure of partnering with the FiberLaboratory since its establishment," says Johanna Vuopala.

The FiberLaboratory is part of the biotechnology research center at South-Eastern Finland University of Applied Sciences (XAMK). It offers industry the opportunity to develop and test technologies that save energy and water and reduce emissions.

Two years ago, the laboratory received significant funding from Business Finland to develop the research infrastructure in Savonlinna for the digital and green transition. This project of around EUR 2 million is developing a research environment for the industrial washing of fibrous pulp in particular.

The project will run until the end of 2025, and will create new opportunities for business collaboration in fiber solutions of the future.

"Lasse Pulkkinen, XAMK's Research Director, is the driving force behind the development of new technologies in Savonlinna. He is skilled at engaging companies in XAMK's research projects in a meaningful way," says Vuopala.

CAREFUL PLANNING

The FiberLaboratory's advanced projects and research are made possible by its state-of-the-art equipment.

At the heart of the laboratory is the pilot hall, where factory-scale test runs are carried out using wet pulp mass, water, and other test materials. The equipment to be tested is brought into the hall and connected to one of the circulation systems, or loops, so that its performance can be assessed in practice.

Tuija Rissanen, Master of Science in Technology, knows



firsthand that this requires meticulous planning. An experienced designer at Makron Engineering, she has been involved in the design of the FiberLaboratory since its establishment. She continues to be responsible for modification work related to the plant's expansions, which have been numerous over the years. The changes have been significant, as new insights and discoveries have emerged as the research has progressed.

Currently, the laboratory is undergoing an expansion.

"I know the history of the laboratory, and I know its customers, facilities, and needs. This allows me to anticipate what needs to be taken into account when developing the next phase," says Rissanen, who joined the FiberLaboratory's design team in 2005.

"Our customers' needs change over the years, which is why we need to evolve as well. Makron has been an excellent partner for the laboratory's researchers, and continuous dialogue helps us adapt to changes," said Tapio Tirri, Director of the FiberLaboratory, in an earlier interview.

Makron's role in the cooperation with the FiberLaboratory has evolved from serving as a design unit to being a full-service delivery partner. The long-standing cooperation has strengthened Makron's expertise in demanding equipment placement and overall project coordination. At the same time, it has strengthened the company's position as a technical partner in industrial research and development. ■



PEKKA LEPPÄNEN (1943–2023)

“The desire to build and develop something new, to grow and expand, has been my *driving force*.”

A BOLD VISIONARY

Deeply dedicated. These two words perfectly describe Pekka Leppänen. According to his spouse, Maija Liisa Leppänen, he was deeply dedicated to his work, family, grandchildren, and sports.

“Pekka was an entrepreneur at heart. He was deeply committed to his work and to the company, whether it was Makron or any of his previous employers. His thoughts were constantly revolving around work. Constant reflection was his way of getting results,” says Maija Liisa Leppänen.

Before starting a business, Leppänen had a long career in industry, first at Valmet, and later as the CEO of the Raute Group from 1985 to 1991.

Leppänen was also a visionary who was easily inspired by new ideas. Johanna Vuopala says that the weekly Rotary lunches on Fridays were a constant source of inspiration for him.

“When he returned to work after lunch, he would immediately gather the team and start brainstorming. These Friday meetings were quite long, so when Pekka headed out for his Rotary lunch, we at the office hoped that he wouldn’t get inspired this time,” she says with a laugh.

The Technology Industries of Finland’s Entrepreneur

Photo: Juha Peurala, ESS



"Pekka was an intense and multifaceted individual and a devoted father. He was enchanted by his five grandchildren," Maija Liisa Leppänen sums up.

Committee was another source of inspiration for him. The committee meetings, discussions with other business owners, and company visits gave him new ideas every time.

A MAN OF ACTION

Ari Turtinen, CFO and longtime Makron employee, recalls that Leppänen spoke his mind directly and valued people with strong, clear opinions. Instead of options, he expected to hear one clear solution.

“Pekka was a man of action. When you presented something to him, it had to be thoroughly thought out. He simply gave his approval and said: ‘This is what we’ll do.’ Anything else was a sign of weakness.

“Father had a strong vision of his own. Having worked for large companies such as Valmet and Raute, he was used to deciding on major policies independently. He didn’t always realize how important it would have been to get others on board with his decisions,” says Vuopala.

“If someone dared to question Pekka’s ideas or suggest that something needed fine-tuning, he could get very angry,” adds Turtinen.

“He respected Ari. If they disagreed on something, Pekka might react strongly at first, but he would come back later and hear Ari out,” Vuopala says.

On the other hand, that confidence and strong vision fueled bold decisions that helped Makron grow from a machine manufacturing company into a provider of comprehensive solutions.

ALL OR NOTHING

His all-or-nothing attitude was also evident in sports. As a young man, Pekka was a national-level slalom skier, and later he became a passionate tennis and golf player.

“Sports were a big part of Pekka’s identity. During tough times such as the recession in the 1990s or the global financial crisis, Pekka appeared to dive even deeper into sports. It was his way of managing and relieving stress,” says Maija Liisa Leppänen. When their daughters grew up, the couple traveled to explore various golf destinations.

The company was part of everyday life, but didn’t dominate it. Work was discussed, but there was much more to life.

Pekka Leppänen, MSc (Tech), became a machine manufacturing business owner in 1998.

In 1975, Leppänen moved with his family to Canada to work for the Kruger Paper Company.

In 1979, he moved to Brazil to serve as the product manager for a joint project between Valmet, Tampella, and Wärtsilä.

He served as the head of a profit center at Lahden Rautateollisuus Oy (now Raute Corporation), and later as the CEO of the Raute Group from 1985 to 1991.

“Family and home were absolutely important to Pekka. “They were the foundation that gave him the strength to keep going,” says Maija Liisa Leppänen. In addition to her work, she took care of the children and the home so that he could focus on growing Makron.

Major decisions were always made together, such as the decision to move to Lahti from Brazil.

Leppänen’s work took the family to Brazil for a couple of years in the 1970s. Before that, the couple had spent a few years in Canada.

When daughters Johanna and Pauliina had children of their own, the grandchildren became the center of Grandpa’s world. The family spent many Easter holidays in Ylläs, where Pekka ran “Grandpa’s Ski School” and taught his grandchildren how to ski, just as he had once taught his own daughters.

“When my father was diagnosed with cancer, he told me that my taking over Makron as the CEO meant a great deal to him. He thanked me for having the courage to take responsibility for the company, even though it hadn’t always been easy. He found it wonderful to watch me find my place. His words meant the world to me,” says Johanna Vuopala.

Today, Johanna’s sister, Pauliina Leppänen, is involved with Makron as a board member and owner. ■

Additional expertise for Makron's board



Makron's board of directors was strengthened in line with the company's new strategy in December 2024, when Licentiate of Technology Petri Lakka from Jyväskylä joined as a new member. He brought to the board experience in developing industrial service business operations and international operations. Lakka has previously worked for Valmet, Metso, Ramboll, and Raute. He currently leads the technology unit at JAMK University of Applied Sciences in Jyväskylä.

Seasoned board professional Jorma Wiitakorpi has been closely involved in the company's strategic and operational changes for seven years.

Pauliina Leppänen serves on the board in her role as an owner and family entrepreneur. The board is chaired by CEO and owner Johanna Vuopala.

In the photo: Pauliina Leppänen, Petri Lakka, Jorma Wiitakorpi, and Johanna Vuopala (Chair).

A woman in a white hard hat and safety glasses, wearing a high-visibility vest, is shown in profile, looking to the right. She is holding a clipboard. The background is a blurred industrial setting with other workers. The image has a blue tint and a large white curved shape in the top left corner. The text "Completely industrial" is overlaid in a bold, green, sans-serif font.

Completely industrial

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