

MEET #2-2022 SANDVIK

Fårbo Mekaniska is part of a Lighthouse program, enabling new technologies in manufacturing. PAGE 10

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ROUND TOOLS – SHAPING THE FUTURE Interview: Kitty Yu

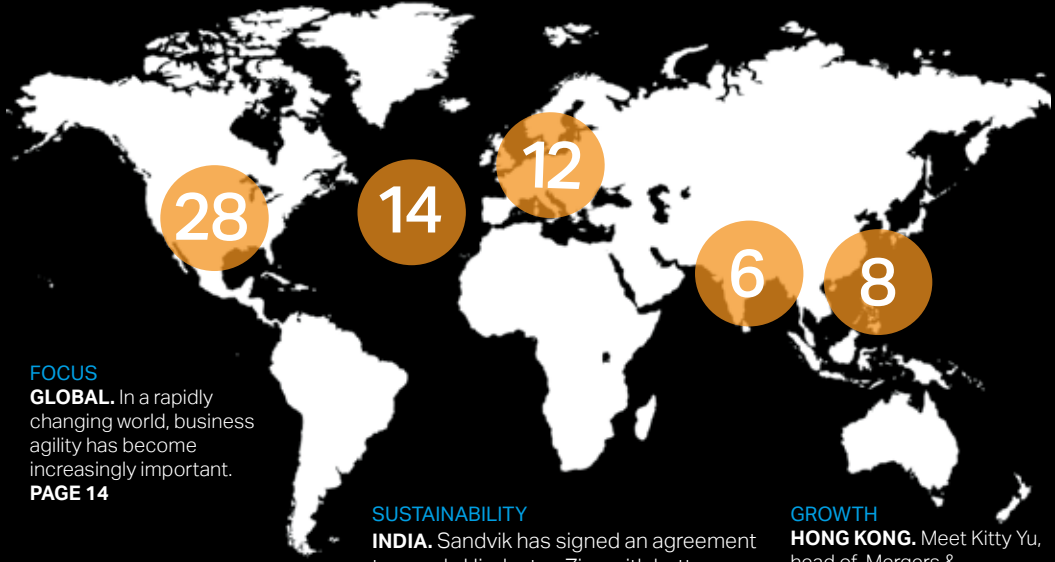
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MEET SANDVIK: A Sandvik Group magazine

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FOCUS ON FLEXIBILITY

Sandvik is operating on a market where an agile way of working is key. We need to efficiently handle fluctuating factors, such as rapid rises in demand, capacity increases or the effects of a pandemic, inflation or high energy costs. Whether or not these affect us in a positive way or present us with new challenges, they will require adjustments as well as new solutions.

One of our strategic goals is “flexibility through the business cycle,” which we are continuously working on. This is about actively looking at adaptations, like improving fixed or variable costs. Effective logistical solutions and outsourced production are examples of measures aiming for increased agility. We also have a great advantage, considering the fact that we are market leaders able to offer solutions our customers appreciate and demand. This helps us secure profitability over time.

An agile way of working includes cost efficiency but may also include swift development of new products and solutions that not only meet but also exceed customer expectations. Our new battery-electric, autonomous concept underground drill rig, featured on the following pages, is a perfect example of our innovation power, driving the technology shift for the mines of tomorrow.

This past June, we announced the cancellation of all our operations in Russia, after initially pausing operations in February, once Russia invaded Ukraine. It is a saddening decision, given our long history of doing business in the country and the employees being affected. However, given the circumstances, in the end the decision was obvious.

Stefan Widing,
President and CEO





A MINING VEHICLE OF THE FUTURE

In September, Sandvik unveiled an AI-enabled, fully autonomous Automine[®] concept underground drill, known internally by the name "Amelia". The battery-electric drill has no operator cabin, creating space for onboard water and battery storage. The drill only needs to know which tunnel and face it should tram to and can plan the rest of its mission autonomously, using data from the preferred mine planning software. During drilling, the drill rig uses an AI-guided automatic drill bit changer to identify when bits are worn and changes them automatically. ■



SANDVIK FACILITY WINS AWARD

Sandvik Coromant has earned the 2022 IndustryWeek Best Plants Award for its Westminster, South Carolina, production site in the United States. The award is given to North American manufacturing plants that lead their industries in outstanding operational excellence, customer service and employee engagement. ■



A vibrating screen from SP Mining.

ACQUISITION OF SP MINING

Sandvik has agreed to acquire the mining parts of Schenck Process Group (SP Mining), a market leader in screening, feeding and screening media solutions in the industry. SP Mining's offering is

highly complementary to the offering of Sandvik, and the company has a strong aftermarket business. Its major R&D and production sites are located in Australia. ■

RECORD ORDER FOR ELECTRIC VEHICLES

Sandvik has won an order to supply a fleet of 20 battery-electric trucks, loaders, drills and on-site service support for Foran Mining's McIlvenna Bay project in Canada, which is designed to be the world's first carbon-neutral copper development project. The order, valued at SEK 330 million, is Sandvik's largest to date for battery-electric equipment.

Sandvik has also signed an agreement to supply Hindustan Zinc, one of the world's largest integrated producers of zinc, with battery-electric underground equipment to help the Sindesar Khurd Mine become carbon neutral. The order includes one loader, one drill rig and three trucks, and it will be the first BEV fleet in India. Sandvik will also provide batteries, charging systems and service. ■

Interest in battery-electric mining vehicles is growing.





Åke Östlund, Jan Engqvist, Carl-Johan Maderud and Anders Stenberg from Sandvik Coromant were awarded the 2022 Wilhelm Haglund medal.

TWO FOR ONE

The combination of two groundbreaking technologies resulted not only in new successful products with superior properties but also, for the team behind the innovation, the 2022 Wilhelm Haglund Medal for the Product Developer of the Year. The winners, Jan Engqvist, Carl-Johan Maderud, Anders Stenberg and Åke Östlund, were presented with their medals by Sandvik CEO Stefan Widing.

The solution combines a new milling technology for the manufacture of hard metal powders with Inveio®, a coating concept for excellent wear resistance.

“The innovation is a result of a technical development with investments in production technology and a core team that has worked together for almost 10 years,” says Åke Östlund, R&D expert at Sandvik Coromant. ■

NEW PRESIDENT OF SANDVIK MINING AND ROCK SOLUTIONS

Mats Eriksson is the new President of business area Sandvik Mining and Rock Solutions, and a new member of the Sandvik Group Executive Management, effective October 1, 2022. Mats Eriksson was previously President of Load and Haul, a division within Sandvik. ■



AKKURATE⁺ ACQUISITION WITHIN BATTERY DIAGNOSTIC

Sandvik has acquired the Finland-based company Akkurate, a front-runner in remote battery diagnostic and prognostic platforms. With the acquisition of Akkurate, Sandvik strengthens its leading position in electrification competence and know-how in battery analytics. ■



Richard Harris

NEW BUSINESS AREA PRESIDENT

As of October 1, Richard Harris is President of Sandvik Rock Processing Solutions and a member of the Sandvik Group Executive Management. Harris was previously President of Walter, a Sandvik division and precision tool brand. He has held a number of senior positions since joining the Sandvik Group in 2002. ■

KITTY YU:

AT THE HEART OF M&A

Sandvik has had a high activity in mergers and acquisitions (M&A) during the past couple of years. As Head of Group M&A, Kitty Yu has the important task of supporting the business areas in getting the best possible deal done while keeping everyone involved aligned.

What does your job entail?

First and foremost, my job is about aligning interests and goals among different streams of internal stakeholders within Sandvik. The primary goal is to streamline and facilitate communication and act as the overall M&A process owner and facilitator.

At Group M&A we also help to ensure that key issues and priority areas of the acquisitions are addressed without sacrificing speed. At times we serve as an escalation point to enable well-informed decisions and remove barriers in decision-making.

How do you go about ensuring the best possible deal as well as securing a successful integration?

My team supports and acts as a sounding board for major deals in deal structuring, due-diligence scoping, integration-approach planning and communication with various Group functions. Once the acquisition is done, the important post-transaction integration starts.

We support and facilitate the integration with the help of checklists of various subject matters and review the integration approach with the business areas. Often integration is misunderstood as func-

tional/administrative but the business integration is equally important.

How do you learn from past deals and share your lessons?

We serve as a knowledge hub to share experiences and lessons learnt from past transactions, in order to improve efficiency in future deals. My team organizes knowledge-sharing forums and conferences to facilitate communication of experiences and best-practice sharing across business areas and Group functions. Sharing both good and bad stories is equally crucial.

What are the critical success factors in M&A?

It is difficult to generalize, since no two deals are identical. Many times, there are twists and turns that you need to be agile in mastering, in terms of finding solutions to suit both sides of the transaction table.

Having a robust process to plan ahead and to expect the unexpected is very important. I am a big believer in checklists to ensure that key items are covered.

In your eyes, what matters most to a successful integration?

Much effort usually goes into the transaction phase of an acquisition, but what happens



afterward is equally, if not more, important. For instance, for a family-owned organization to become part of a big corporation can be a bit of a culture shock. It's important that we listen and get to know what they need to grow their business.

Although we often say we are buying the company or the business, we are actually in most cases acquiring the talent behind the business, the winning team, and not really the machines and inventory per se. The people element is quite often overlooked in M&A.

In my view, identifying the people – the human capital – in the acquired business and retaining and developing them in the process of the post-deal integration is key to the success of most

FACTS KITTY YU

Title: Head of Group M&A at Sandvik.

Based: In Hong Kong but in the process of relocating to Stockholm.

Education: Law degree from the University of Southern California Law School in Los Angeles in the U.S.

Family: Husband (a lawyer), a 7-year-old boy, a 12-year-old girl and a cat.

FACTS YLK

YLK Organization was a Hong Kong Cantopop duo comprising Kitty Yu and Chan Fai Young. They recorded under Hong Kong label People Mountain People Sea, releasing two albums: YLK Organization (1997) and Happiness (2000). The duo received awards in both Hong Kong and Canada.

integrations.

You joined Sandvik in January 2022 and it's your third Swedish employer. What do you like about Swedish companies?

To me, the difference boils down to two things: they really trust you to get the work done, and at the same time they are really committed and driven. It seems to be embedded into Swedish corporate culture. As a working mother with two kids, I feel there are not many companies still in this age that fully understand the challenges in juggling family and career. I tend to work many hours in all my jobs, but Swedish companies in general seem to care more about employee well-being and recognize that employees have a life outside work. The company is trusting that its employees will have the self-discipline to get the work done.

In the early 2000s, you had sights on a career in music as part of the Cantopop duo YLK Organization. What did you learn from that time that you can use today?

Music is a people business. It taught me how to be creative and how to stand in front of an audience. I am very comfortable presenting edgy ideas in a corporate setting, too. ■



Fårbo Mekaniska has reached the goal of increased machine utilization.

GUIDING LIGHT

To address modern challenges throughout manufacturing, Sandvik has created the Lighthouse program. Leveraging technology, this digital initiative engages customers and supports their pursuit of increased machine utilization, resulting in improved efficiency.

SANDVIK HAS CREATED the Lighthouse program to help customers connect various types of technology, including metrology, robotics and digital tool management. In its emerging stage, Sandvik has the ambition to provide solutions that are easier to learn and use, more automated and more tightly integrated

than ever before to create complete modular packages to be combined – and to be compatible – in diverse industrial landscapes. Sandvik desires to operate in an open and agnostic ecosystem where its products interact well with complementary products in the industry, so that all the pieces work together. This is what a



Fredrik Svensson, Business Developer at Sandvik, left, and Fårbo Mekaniska CEO Mikael Wetterskog.

lighthouse represents, and results to date have been as expected: improved efficiency, enhanced quality and reduced waste for customers.

“Through this journey, we have a customer centric approach, inspiring innovation, addressing needs and providing solutions to a range of pain points,” says Fredrik Svensson, Business Developer at Sandvik.

Top priorities include cost and time savings, improved production and equipment effectiveness and better control from the shop floor. All of these contribute to reducing waste, establishing sustainability and increasing profitability. “And we are learning from – and teaching to – one another as we go forward with frequent engagement, installation and analysis,” he says.

At the same time, joint development and refinement efforts build awareness of future technologies in manufacturing.

Fårbo Mekaniska is a job shop in Sweden that focuses on low-mix, high-volume production. Fårbo Mekaniska is also a Lighthouse partner of Sandvik. “Ensuring that we have all machining parameters identified and set exactly to meet our customers’ specifications is critical, since we run high volumes around the clock on several different dedicated cells,”

says Mikael Wetterskog, CEO, Fårbo Mekaniska.

This collaboration benefits both the Lighthouse partner and Sandvik. Partners benefit from continual learning and solutions targeted for their needs. They see the power of digitalization and get their hands on multiple integrated solutions for a more automated manufacturing flow.

Notable benefits include improved machine utilization rates, improved component quality, quickly resolved problems and operators that benefit from the results of automation, alleviating some of their responsibilities. ■

LIGHTHOUSE BENEFITS

For Sandvik, customers provide invaluable feedback from real-world installations, addressing additional needs and pain points and improving in-house efficiency. How Lighthouse customers respond to a solution is a good indication of how it will be perceived in the market. This enables Sandvik to identify improvements in the solution and new areas for development or integration of existing solutions to create an added value for the customer.



After the tungsten drill bits have been removed, left, they are transported to Wolfram Bergbau und Hütten in Austria.

AWARDED BITS AND PIECES

A unique circular mining bits solution that not only turns waste into new products, but also creates job opportunities and reduces supply chain risks? It's no wonder that the team behind the innovation won the 2022 Sandvik Sustainability Award, presented in memory of Sigrid Göransson.

MODERN DRILL BITS are produced of steel and tungsten inserts. A lot of tungsten remains after the drill bit is worn out, but the historical process of handling recycling of the material has been both unsafe and expensive, leaving customers with considerable waste.

In a joint cooperation between Sandvik Mining and Rock Solutions and Sandvik Machining Solutions, a team has developed a safe and cost-efficient process to separate tungsten inserts from the steel body. The team, comprising Petter Nilsen,

Dean Kangleas, Gary Tully, Annegret Bicherl and Thomas Zimmerl, has won this year's Sandvik Sustainability Award for their innovation.

"We realized that if we could locally separate the carbide and the steel body and then transport that into our facility in Austria for recycling, that would be a much more efficient method," says Gary Tully, Supply Chain Director at Wolfram.

Petter Nilsen, Global Carbide Buy-Back Program Manager at Sandvik Rock Tools, came up with a new way of separating

the bits. "Most suppliers use induction heating and then put the inserts inside," he explains. "I was thinking, why not turn that upside down? And that was the start of the development where we introduced a way of heating the bit, hanging with the inserts down and vibrating."

The steel parts are heated to more than 850°C, and with vibration the tungsten inserts drop out.

Sandvik buys back the used drills from the customer for separation and recycling. The tungsten inserts are transported to its recycling facility, Wolfram Bergbau und Hütten, where they are processed through a unique method developed by Wolfram.

THE RECYCLED MATERIAL is as good as new and can be used for a full range of products.

The advantages of the innovative process are clear. Not only do customers get paid for their used drills, but also less virgin material is required for new products. In

addition, the tungsten inserts weigh a fraction of the entire drill, reducing CO₂ transportation emissions, and the separation process can be done locally, creating job opportunities.

"You get the benefits of recycling and lower carbon emissions, and you get full traceability of the raw materials," says Tully.

Petter Nilsen adds, "We support our customers by taking care of the used products, and since Sandvik has internal carbide manufacturing we can reutilize the recycled product, the carbide, in a very efficient way."

The circular material flow is positive for both the environment and local commu-

nities and reduces the business risk of outside dependencies in the almost self-sustaining Sandvik supply chain.

"Now we have a material flow that we can recycle fully," says Tully. "It's a service for our customers and it's value for our customers. It's all about being as efficient as possible. ■"



Watch a film about the solution by scanning the code.

THE SANDVIK SUSTAINABILITY AWARD IN MEMORY OF SIGRID GÖRANSSON

Sigrid Göransson, 1872–1963, was the granddaughter of Göran Fredrik Göransson, founder of Sandvik, and the daughter of Anders Henrik Göransson, CEO of Sandvik. Sigrid promoted a company focus on

social responsibility and improved working conditions at a time when that was rare.

In her name, Sandvik has launched an annual sustainability award to celebrate the best innovations within the company.



Read more about the Sigrid Göransson award.



AGILITY IS THE NEW COMPETITIVE EDGE

The pandemic helped change the face of business agility, and it is now more important than ever to be adaptable through the market ups and downs. Being “agile through cycle” is a strategic objective in the Sandvik “Make the Shift” strategy.



FOCUS | Business agility



IN HIS LANDMARK BOOK *On the Origin of Species*, Charles Darwin wrote that it's not the strongest or most intelligent species that survive, but rather the ones that are the most adaptable to change. In our turbulent world, such agility may well be the key to why some companies persevere and even prosper in times of challenge.

Rising inflation, recession worries and geopolitical jitters are currently combining to create a difficult environment for business across the globe. And with this difficult environment has come a new focus on business agility, not only to cope with recurring cyclical swings but also to adapt to unprecedented events such as the COVID-19 pandemic and the ensuing market upheaval and supply chain disruptions.

"The pandemic helped change the perception of business agility," wrote *Forbes* magazine earlier this year. "No longer is being adaptable, quick and forward-looking just about gaining a competitive advantage in one's industry. Business agility is now tied to resiliency in the face of drastic external changes."

The ability to adapt and foresee future opportunities has driven businesses to create new

technologies and solutions that meet the unique needs of a digital workforce. Agility is no longer an internal business differentiator, according to the *Forbes* article. It's an essential capability to endure and prevail against large external forces such as global pandemics, climate change and international supply chain shortages. Agility has become a must-have for business survival and success, enabling companies to emerge smarter and savvier on the other side.

EVEN IF AGILITY MEANS different things to different companies, it is generally agreed that increased flexibility is a benefit across an organization. And the rapid rate of digitalization certainly supports an agile approach. *IndustryWeek Magazine*, in its January 2022 issue, wrote that agility is the new competitive edge. "In today's digital era, organizations must be willing and equipped to adapt to rapid changes in almost everything – which products they make, who is on their teams, locations, supply chains, quantities, shortages, costs and more. To do so, they must have the right technologies and processes in place to collaborate and innovate in real time."

For manufacturing companies, Industry 4.0 in

"Many engineers adopted modern design platforms and evolved their product design process to be what might be called 'agile everything.'"

itself is a catalyst for increased agility. Engineering companies of all sizes are harnessing the power of digital to increase their agility and adapt to the needs of employees who learned to like hybrid ways of working during the pandemic. "Many engineers adopted modern design platforms and evolved their product design process to be what might be called 'agile everything,'" writes *IndustryWeek* and describes how Dixie Iron Works, a manufacturer of flow control equipment, provided a 3D printer at the home of every engineer so they could use collaborative design software to print tangible items, quickly vet ideas and ultimately get products to market faster.

To deal with the chip shortage, engineers at Tesla developed new firmware that allowed them to source new chips from different suppliers.

"The quest to attain business agility is nothing new for organizations, but the pandemic has meant that the ability to rapidly adapt to market and environmental upheaval in a productive and cost-efficient manner has become business critical," notes analyst firm Capgemini in its report "Business Agility – how it's not yet another buzzword" (2022). It warns that a majority of companies still have a long way to go: "Prior to the pandemic we analyzed organizations' maturity in their agile transformation and saw a clear need

to accelerate transformation – only 20.4 percent stated they had truly established agile ways of working across the organization. Now, with the catalyzing urgency COVID-19 has provided, organizations that had not taken their agile transformation seriously enough are finding themselves under pressure."

Organization-wide agility is not a destination; rather it is an ongoing commitment to deliver customer value faster and adapt better to changing conditions, says Capgemini. "There is no 'one size fits all' blueprint for agile transformation, no standardized framework to apply," the report states. "A much more flexible approach is needed." ■

Sandvik incorporated agility into its strategic agenda long before it became a buzzword. Read more about how and why in the following article.



RESILIENCE THROUGH AGILITY

Navigating the ups and down of a fluctuating economy is essential to drive growth and ensure profitability.

TO BE “agile through cycle” is one strategic objective in the “Make the Shift” strategy of Sandvik. In a rapidly changing world, agility is becoming more important than ever, says Cecilia Felton, Group CFO. “The goal is to achieve margin resilience,” she says. “To reach that goal, we need a business model and an organization that is both flexible and agile in managing changing market conditions.”

What does it mean to be agile through a business cycle? For Sandvik, it is about being flexible and managing both the upturns and downturns effectively in line with macroeconomic changes. The key measurement for success is the new margin goal, announced in May 2022, of an adjusted EBITA* margin ranging between 20–22 percent through a business cycle.

Previously, the goal was for the EBIT* margin to be at least 16 percent. Felton explains how the new goal was defined. “The new financial target states what we think is a good performance for Sandvik through a business cycle,” she says. “The EBITA corridor is to be seen as a guidance for when additional corrective measures may be necessary and what may not be seen as long-term sustainable margins. In some quarters we may have an EBITA margin below 20 percent, and we will then take action to get back on track. We may also go above 22 percent in certain quarters, but it will be difficult for us to maintain over a longer period of time in the markets where we are present.”

Sandvik has been able to achieve strong agility for quite some time. What is the secret? Felton points to three major factors. The power of a decentralized organization means that we keep our ears close to the ground and quickly act on market intelligence gathered in the field. “We also have a rigid performance management system where we are on top of our numbers. And we always have contingency plans in our back pocket if things should take a turn for the worse.”

Agility at Sandvik started with focusing on increasing the share of variable costs through, for instance, increasing third-party personnel and satellite production. “However, agility means so much more. It all starts with building a resilient top line through, for example, recurring revenue streams like aftermarket services and subscription contracts for software and digital services.”

DURING THE COVID-19 pandemic, agility meant being flexible in operations and logistics to navigate around the various restrictions and lockdowns. Now, in times of high inflation, agility means proactive price management.

“Agility is relevant in all phases of a business cycle and we need to be able to handle upturns as well as downturns in the best way possible,” says Felton. “Ramping up production requires smart decisions on how, when and where a capacity increase should be implemented.”

Sandvik is unique in being able to combine hardware, such as mining equipment or metal-



Agility is relevant in all phases of a business cycle, to manage both upturns and downturns.

from product development to vehicle painting or inventory and factory logistics, can be handled by external contractors. In building an optimally lean organization, the key is to focus on the minimum requirement, not the maximum, says Eriksson: "In times of rock bottom, what is the minimum capacity required to keep customers happy and avoid a margin erosion?"

OTHER WAYS TO build operational flexibility include cultivating alternative supply chains and trying out new logistical solutions. In an uncertain world, where supply chain disruptions and component shortages have become increasingly common, agility requires fallback options. "We are witnessing a global geopolitical shift at the moment toward more regionalization," says Felton. "We need to evaluate what this means for Sandvik going forward."

Predicting the future is an uncertain art form, and Sandvik practices contingency planning to stay agile and be prepared for any event. "We plan for several scenarios in each of the divisions and at Group level," she says and comments: "Even if the outlook of the general economic situation may appear bleak, we should also remember that every downturn also brings opportunities. You may just have to look a bit harder to find them." ■

cutting tools, and software solutions like mine planning or tool logistics. This combined offering and the benefits for the customers it brings strengthens the position of Sandvik as a supplier of choice both in upturns and downturns. However, a majority of its businesses are exposed to cyclical markets, and therefore agility is key.

"Mining is among the first to be affected in an economic downturn when metal prices and demand drop," says Mats A. Eriksson, until recently President of the Load and Haul division and since October 1 President business area Sandvik Mining and Rock Solutions. "Then operators must adjust to the new situation. Conversely, rapid economic growth often leads to a shortage in commodities."

To stay on top of things, Load and Haul builds agility to counter cyclicity through a host of preemptive measures. "One basic cornerstone is to build an operation that is both agile and flexible," says Eriksson. "When adding new capacity, for example, we make sure to include third-party contractors and other outside sources in the mix. We define what core competencies we need to own and what can be done by others." Many areas,

EBIT

Earnings before interest and taxes (EBIT) is used to analyze the performance of a company's core operations without tax expenses and the costs of the capital structure influencing profit.

EBITA

Earnings before interest, taxes and amortization (EBITA) is another widely used indicator to measure a company's financial performance and project earnings potential. It takes depreciation costs (goodwill) into account when calculating operating profitability.

DELIVERING ON THE SHIFT TO GROWTH

Sandvik has an ambitious growth agenda and can look back at a period of strong growth that has occurred both organically and through acquisitions in strategic areas. Earlier this year, the company raised the bar with a 7 percent growth target over a business cycle.

IN THE PAST YEAR, Sandvik has delivered on its growth agenda. In 2021 the acquisitions of 14 companies added SEK 10 billion to the company's revenue, and this year the trend has continued with seven company acquisitions.

"The acquisitions have been hand-picked and strategic, to ensure they either strengthen the core business or expand our offering to adjacent value chains that we believe will strengthen the overall business," says Stefan Widing, President and CEO.

In its core business, Sandvik has a strategic priority to become the market leader in round tools. Solid round tools is a fast-growing segment in which the demand is driven by the transition toward lighter materials and requirements for high-precision tools. The 2021 acquisitions of GWS Tool Group in the United States, 67 percent of Chuzhou Yongpu Carbide Tools in China and Fanar in Poland improved the geographical presence within round tools in important markets. They were followed by acquisitions of Frezite, Sphinx Tools and Preziss in 2022. In just a few years, SEK 2 billion in round tool sales have been added.

A key ambition is to drive the digital shift

and expand the digital offering. In 2021, annualized sales from software and digital solutions amounted to SEK 3.3 billion, up from SEK 1 billion only a year ago. The 2025 target is sales of SEK 6.5 billion across the Group.

SANDVIK HAS MADE several acquisitions connected to software solutions for the manufacturing industry, aiming to create an end-to-end machining process that includes all stages of design, machining and analysis/control. The acquisitions of U.S.-based companies CNC Software and Cambrio and Canadian ICAM Technologies Corporation give Sandvik a leading global position in computer-aided manufacturing (CAM). CNC Software is the creator of Mastercam®, the most widely used CAM brand in the industry. The acquisitions of U.S.-based DWFritz Automation and Dimensional Control Systems enable Sandvik to offer its customers full metrology solutions that will reduce costs and improve quality.

"Sandvik is in a unique position to take specific positions in software and digital offerings in the industries in which we operate," Widing says. "We have a

world-leading footprint in hardware solutions, and if we leverage on them we can make the software assets grow faster than on their own. We can create joint software solutions and our software offering will help drive the hardware, since it is earlier in the value chain, at control points where hardware selections are made or can be influenced."

THE ACQUISITIONS of DSI Underground and Deswik are other examples of expansion across the value chains. Deswik is a market leader in digital mine planning solutions, an area where Sandvik had no previous presence. DSI Underground, a world-leading supplier of ground support for underground mining, is 100 percent aftermarket consumables.

In May, Sandvik announced its intention to acquire the mining part of Schenck Process Group, a market leader in screening, feeding and screening media solutions.

"It is a big milestone," Widing says. "Schenck Process Mining is a SEK 2 billion business with 70 percent aftermarket, and it will make a step change in our aftermarket business within rock processing."

The acquisition of Akkurat is much smaller, but of strategic significance, with its competence within remote battery diagnostic and prognostic platforms.

Sandvik will continue to push its shift to growth strategy. In May the company raised its growth target from 5 percent to 7 percent over a business cycle. The growth will partly come from acquisitions, but equally important is organic growth. Sandvik invests about 4 percent of sales in R&D annually and has a strong innovative product portfolio. Market leadership is crucial, particularly in a turbulent economic situation, to maintain pricing power and



DSI Underground is a world-leading supplier of ground support for underground mining, and one of the largest acquisitions in Sandvik history.

market shares across a business cycle.


"We are executing on our shift to growth strategy and we have raised our ambition to 7 percent," Widing says. "We are continuing to transform and have a strong platform on which to build." ■

NEW FINANCIAL TARGETS

At its Capital Markets Day in Stockholm in May, Sandvik presented new financial targets. Apart from raising its growth target from 5 to 7 percent, the margin target was updated. It states an EBITA (Earnings Before Interest, Tax and Amortization) of 20–22 percent across a business cycle, compared to the previous trough EBIT margin of 16 percent. Switching to EBITA will better reflect the operational performance, particularly at a time of many acquisitions.

SHAPING THE FUTURE

Developments in machining technology, materials and market needs are making round tools an increasingly attractive choice for machining solutions. Having produced round tools for decades, Sandvik is today well placed to take advantage of the market growth and provide customers with the best tools available.



Round tools are used mainly to manufacture components in the automotive, aerospace, medical, power generation, general engineering and oil and gas industries.



Round tools can be broadly classified into three main groups: drilling, end milling and threading.

SANDVIK PRODUCES thousands of round tools in a wide variety of sizes, primarily for industry.

The round tools it makes can be broadly classified into three main groups: drilling, end milling and threading. They are used mainly to manufacture components in the automotive, aerospace, medical, power generation, general engineering and oil and gas industries.

Round tools are made from solid bars that are ground to make a geometry that can then, for example, be used to drill a hole or make a thread for a bolt to join parts together. They use the same material technology as indexable tools, which are small inserts with cutting edges that are fixed to cutting machines. And while indexable inserts have traditionally been the bigger market for Sandvik, the round tool market is now growing rapidly.

Anders Fältenhag is Business Devel-



Anders Fältenhag

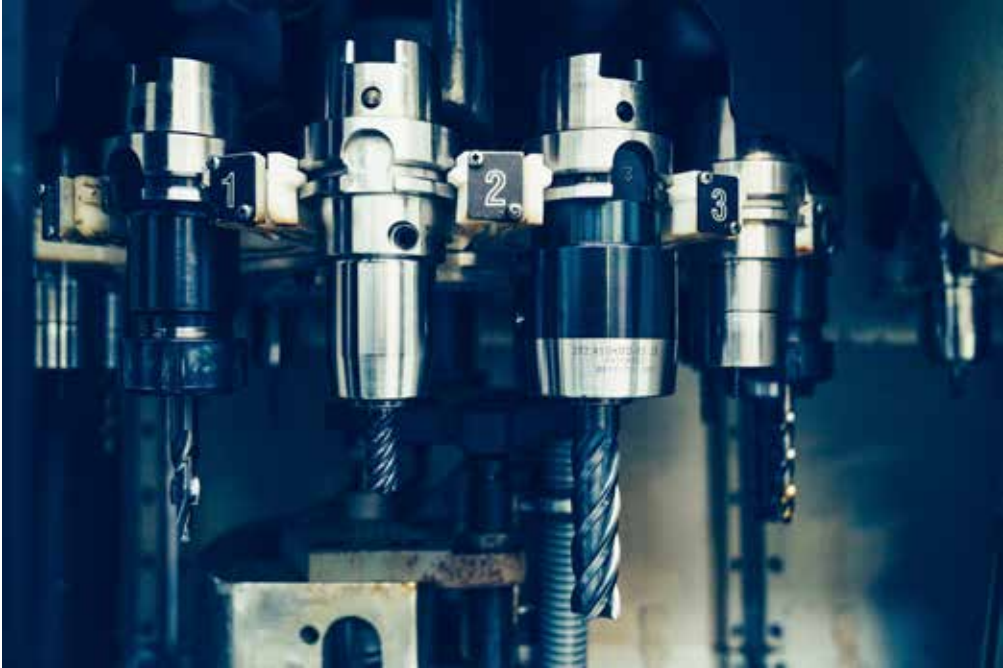
opment Manager at Sandvik Machining Solutions. Together with the business divisions, he is developing the product strategy for Sandvik round and indexable tools. "The

round tool market is now growing faster than the indexable tool market," he says, "and there are a number of trends driving this."

The first main trend relates to materials. "These days we can make round tools with solid carbide tougher, making them much more productive and therefore more attractive," Fältenhag says.

ANOTHER IMPORTANT trend relates to the size of components. "Components in all kinds of applications, such as those in electric motors, are becoming much smaller," says Fältenhag. "You cannot use an indexable tool in some cases. There is no way to design an indexable drill with a three-millimeter diameter, for example. For





Sandvik produces thousands of round tools in a wide variety of sizes.

that you need a round tool.”

The smallest round tool that Sandvik produces is a mere fraction of a millimeter in diameter. These small tools are known as micro tools and are used to make items such as watches and circuit boards, a huge area of manufacturing today and one that requires lots of extremely small holes.

ANOTHER TREND that is driving the use of small round tools is the rise of additive manufacturing. “With traditional manufacturing methods you start with a big chunk of material,” says Fältenhag. “You have to cut it all away before you have your final part. But today, with additive manufacturing, you can start with what are almost the final dimensions, which we call finishing, and in many cases round tools are ideal for this.”

As well as size and uses, there are many other overlaps between round tools and

indexable ones. The types of materials used and the production methods are almost the same for both types of tools, as are the customers.

“In some segments, though, you can see that round tools are starting to become the dominant choice – with medical and dental products, for example, which have lots of small components,” says Fältenhag. “The increased use of CAM programming is also driving the use of solid end mills and enabling the use of one tool for multiple operations, such as roughing and finishing. Overall, we can see that because of the trends I have talked about, the round tools area is growing faster.”

This growth of the round tools market is something that Sandvik very much wants to take advantage of, says Fältenhag. “We are currently the third-biggest global player within round tools,” he says. “But we want to be No. 1.” ■

FAVORABLE FINANCING THROUGH SUSTAINABILITY EXCELLENCE

When Sandvik renewed and upsized its revolving credit facility, sustainability came to play a significant role. The facility is linked to the company's targets and sustainability initiatives for carbon emissions and waste circularity.

IN JUNE 2022, Sandvik renewed and upsized its revolving credit facility from SEK 9 billion to SEK 11 billion, bringing sustainability to the forefront in the process. By linking the credit to its sustainability targets, the company can reduce its commitment fee. "It proves that the banks believe we are a sustainable company," says Mats W. Lundberg, Head of Sustainability at Sandvik.

The credit facility works as a backup for the financing of Sandvik and can be used for general corporate purposes. The previous credit facility, from 2016, was about to end when Sandvik initiated its renewal and upsizing from SEK 9 billion to SEK 11 billion.

"We invited a total of 14 banks to participate and all of them accepted," says Ola Svensson, Corporate Finance Manager at Sandvik.

What differentiates this credit facility from the previous one is the link to the Sandvik sustainability targets for 2030. In 2016 that was unusual, but today it is a growing trend that financial institutions put demands on their customers.

"The banks want to ensure that their lending is sustainable," Svensson says. "In this process, it was a great strength to have our ambitious, quantified sustainability targets."

The credit facility is linked to the



sustainability targets to reduce carbon emissions by 50 percent and increase waste circularity to 90 percent. The safety targets, which Sandvik has been working with for a long time, were not included, since there is more work to be done in the areas of climate and circularity. The annual KPIs are aligned with the goals, and the interest margin on the facility is affected positively or negatively depending on whether the KPI levels are met.

"It clearly demonstrates the link between sustainability and earnings to different stakeholders," Lundberg says. "It also puts pressure on us to deliver on our sustainability targets."

Sandvik recently committed to the Science Based Targets initiative, meaning that its climate targets will be validated by a third party. When the targets have been validated, the KPIs related to the credit facility will be updated. ■



On August 31, Alleima was listed on the Nasdaq Stockholm Stock Exchange. CEO Göran Björkman rang the bell at the listing ceremony.

A STAR IS BORN

Sandvik Materials Technology has become an independent listed company named Alleima. Several megatrends combine to paint a bright future for the new company.

ON AUGUST 31, Sandvik Materials Technology was reborn as the independent listed company Alleima when trading commenced on the Nasdaq Stockholm Stock Exchange. The name is a combination of the words “alloy” and “material” – two core strengths of Alleima.

“Alleima has now become a listed company,” says Stefan Widing, President and CEO of Sandvik, “and it is with great

energy and excitement for the future that Sandvik and Alleima move forward as two independent world-leading companies. We will always cherish our joint history and the many great things we have achieved together, and I am convinced that we will now be able to create even more value long-term as separate companies.”

For the remaining Sandvik Group, the change will enable stronger focus on

“The sharpened focus has the potential to improve long-term value for shareholders in both companies.”

profitable growth in the remaining areas: solutions for mining and rock excavation, rock processing, metal cutting and digital manufacturing, says Louise Tjeder, Head of Investor Relations at Sandvik. “The sharpened focus has the potential to improve long-term value for shareholders in both companies,” she says.

The separation from Sandvik is expected to provide Alleima with a clearer mandate to execute its strategy to drive growth, materials innovation, operational and commercial excellence and sustainability. Alleima as an independent listed company will be able to further strengthen its position as a world-leading manufacturer of advanced stainless steels, special alloys and heating systems for the most demanding industries.

Steelmaking and development using metallurgy skills and a fully integrated value chain have been at the core of Alleima for more than a century. It is a unique combination that has never been as sought after as it is today, says Göran Björkman, CEO and President of Alleima. “We’re here to advance industries through materials technology,” he says. “Our expertise enables more efficient, more profitable and more sustainable processes, products and applications for our customers.”

Several megatrends combine to fuel the growth journey. The transition to a zero-carbon world, for example, requires renewable energy production and non-



Work already in progress at the Alleima tube mill.

fossil fuels for transportation, as well as a shift from hydrocarbons to electricity in the manufacturing sector.

Registered shareholders of Sandvik were entitled to receive one share in Alleima for every five shares held in Sandvik. The distribution of the shares in Alleima is expected to fulfill the requirements set out in the Lex Asea rules under Swedish tax law and will therefore not be immediately taxable for individuals or limited liability companies that are Swedish tax residents. ■

TOOLING ACQUISITIONS

Sandvik has made several acquisitions lately:

Sphinx Tools Ltd.: A Switzerland-based company that primarily offers precision solid round tools and surgical cutting tools. "With Sphinx Tools we will have the opportunity to take a global leading position in micro tools," says Nadine Crauwels, President of Sandvik Machining Solutions.

Frezite: A Portugal-based company with an offering that primarily consists of made-to-order polycrystalline diamond tools for metal and wood applications, with exposure to the automotive, general engineering and aerospace segments.

Preziss: A Spain-based company providing cutting tools and solutions within high-precision drilling, reaming, milling and tooling systems

Balax: A U.S.-based company and leading supplier of carbide and HSS cut taps and roll forming taps.

Peterson Tool Company, Inc.: A U.S.-based company and leading supplier of machine-specific custom insert tooling solutions. ■



3.6 Million SEK

A team at Sandvik Mining and Rock Solutions has, in partnership with metal company Boliden and KTH Royal Institute of Technology, received a grant from Sweden's innovation agency Vinnova to develop cobalt-free drill bits.

WIND-DOWN IN RUSSIA

Sandvik paused its business activities in Russia on February 28 due to Russia's war in Ukraine. Since then, the company has continuously been assessing and adjusting to the situation, and has taken the decision to wind down operations in Russia. As a consequence Sandvik will record a nonrecurring charge of about SEK 1 billion in the second-quarter operating results. In 2021, about 3.6 percent of Sandvik Group revenue was from Russian customers. ■

CONTINUED STRONG DEMAND

3 QUESTIONS to Cecilia Felton, Chief Financial Officer, Sandvik.

What are your key takeaways from our third-quarter performance?

We executed well on our strategy, demand was strong in most segments and regions, and we managed logistics challenges and the supply chain in a good way. It was the seventh consecutive quarter of double-digit organic order growth. We saw a strong development within Sandvik Manufacturing and Machining Solutions (SMM), and the mining business remained at high levels. The aerospace and energy segments showed the strongest growth within SMM, while the aftermarket business grew particularly well in the mining operations. It was encouraging to see us back within our margin target corridor of 20 to 22 percent, despite the uncertain macro environment. It is also great to see the progress in our targeted areas, with our win of the mining industry's biggest order ever for battery-electric vehicles in the quarter a perfect example.



What is your view on the acquisitions given the uncertain global environment?

We keep having an active acquisition agenda and look for companies that can support the implementation of our Shift to Growth strategy. The third quarter was a good example, where we closed five acquisitions on the machining solutions side, strengthening our exposure toward important strategic areas such as round tools and lightweight materials machining.

As we have said before, one shouldn't expect us to keep up the same rate of acquisitions that we have had for the past 18 months. We still have some room for acquisitions in the balance sheet compared with our financial targets, but in general you should view the cash flow we generate as the main headroom for acquisitions.

How are you managing cost inflation and supply chain issues?

When it comes to cost inflation, it's at very high levels; that is well known at this point. To mitigate this situation, we have put a lot of focus on our own pricing for the better part of 2022, and it is good to see that these efforts are bringing positive results. We are not yet compensating fully for the cost inflation, but we took another good step toward that ambition in the third quarter. We will continue to be active on pricing where it is needed.

With regard to the strained supply chain, it was pleasing to see it easing somewhat during the quarter, which helped our strong delivery performance and our double-digit revenue growth.

In the current uncertain global environment, it's very important that we have well-prepared contingency plans and are ready to respond quickly depending on how our markets develop. I think we again showcased the improved resilience and agility in the business during the third quarter. ■

SANDVIK AT A GLANCE

Sandvik is a high-tech global engineering group offering products and services that enhance customer productivity, profitability and safety. In 2021, the Group had approximately 39,000 employees and sales of SEK 86 billion in about 150 countries.

BUSINESS AREAS



SANDVIK MINING AND ROCK SOLUTIONS

A global leading supplier of equipment and tools, parts, service, digital solutions and sustainability-driving technologies for the mining and infrastructure industries.

SHARE OF REVENUE

48%

SHARE OF ADJUSTED EBIT

48%



SANDVIK ROCK PROCESSING SOLUTIONS

A leading supplier of equipment, service and technical solutions for processing rock and minerals in the mining and construction industries.

SHARE OF REVENUE

9%

SHARE OF ADJUSTED EBIT

7%



SANDVIK MANUFACTURING AND MACHINING SOLUTIONS

A market-leading manufacturer of tools and tooling systems for advanced metal cutting, expanding into digital and additive manufacturing.

SHARE OF REVENUE

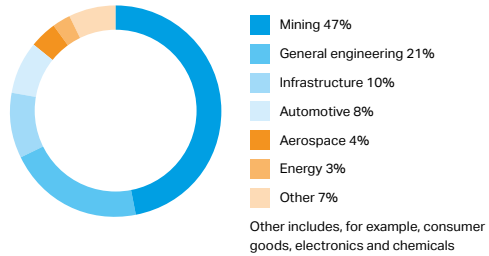
43%

SHARE OF ADJUSTED EBIT

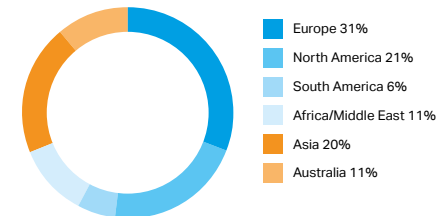
45%

THE GROUP

REVENUE BY CUSTOMER SEGMENTS 2021



REVENUE BY GEOGRAPHIC REGION 2021



INDICES AND MEMBERSHIPS



FTSE4Good



WE SUPPORT



MAIN CUSTOMER SEGMENTS



MINING

We deliver drill rigs, rock-drilling tools and systems, mobile and stationary crushers and screens, load and haul machines, tunneling equipment, continuous mining and mechanical cutting equipment, service and digital solutions, and sustainability-driving technologies to increase digitalization, automation, safety and customer productivity.

SHARE OF REVENUE 47%



ENGINEERING

Our tools and tooling systems for metal cutting and manufacturing software, as well as advanced materials and components, are used in engineering industries worldwide, improving productivity, profitability, quality and safety as well as reducing environmental impact. We are also a global leader in high-alloy metal powder.

SHARE OF REVENUE 21%



INFRASTRUCTURE

We offer products and services that increase safety and customer productivity in breaking, drilling, crushing and screening within the infrastructure industry. Application areas include tunneling, quarrying, civil engineering, demolition and recycling.

SHARE OF REVENUE 10%



AUTOMOTIVE

Our software solutions, tools and tooling systems for turning, milling and drilling in metals increase productivity when manufacturing, for example, engines and transmissions.

SHARE OF REVENUE 8%



AEROSPACE

We work closely with the world's aerospace companies. As they apply new materials to manufacture airplanes that are lighter, safer and more fuel efficient, advanced tooling solutions, end-to-end optimization and lightweight materials are critical.

SHARE OF REVENUE 4%



ENERGY

We offer solutions for all forms of energy production, including clean and renewable energy. We supply tools and tooling systems to satisfy the industry's metal-cutting needs.

SHARE OF REVENUE 3%



THE OBJECT | 3D-printed cemented carbide

Since the 1930s, Sandvik has been working with cemented carbide – one of the hardest materials available today. The material offers a superior combination of hardness and toughness, meaning cemented carbide components last 10 times longer on average, compared with any other steel or metal alloy.

Historically, the properties that make cemented carbide superiorly wear resistant simultaneously make it a challenge to adapt. In conventional manufacturing, design options have been limited and only fairly simple shapes have been possible to attain.

Now, Sandvik has leveraged 160 years of materials expertise to launch 3D-printed cemented carbide, enabled by a unique and tailor-made powder attained through a proprietary and patented process. We're now able to offer cemented carbide components in virtually any shape – breaking free from design restrictions. The results include reduced lead times, optimized performance, and components lasting up to 20 times longer: a door-opener to many, if not most, application areas.