

# SUS TAIN ABLE SOLU TIONS

ANNUAL REPORT  
2021

**ANDRITZ**

ENGINEERED SUCCESS

# ANDRITZ GROUP

	Unit	2021	2020	2019	2018	2017
Order intake	MEUR	7,879.7	6,108.0	7,282.0	6,646.2	5,579.5
Order backlog (as of end of period)	MEUR	8,165.8	6,774.0	7,777.6	7,084.3	6,383.0
Revenue	MEUR	6,463.0	6,699.6	6,673.9	6,031.5	5,889.1
EBITDA <sup>1</sup>	MEUR	718.3	571.1	537.6	498.0	541.7
EBITDA margin	%	11.1	8.5	8.1	8.3	9.2
EBITA <sup>2</sup>	MEUR	546.5	391.7	343.2	394.3	444.0
EBITA margin	%	8.5	5.8	5.1	6.5	7.5
Earnings Before Interest and Taxes (EBIT)	MEUR	479.6	315.0	237.9	321.6	399.3
EBIT margin	%	7.4	4.7	3.6	5.3	6.8
Earnings Before Taxes (EBT)	MEUR	439.6	280.9	180.9	304.2	400.6
Net income (including non-controlling interests)	MEUR	321.7	203.7	122.8	219.7	265.6
Non-current assets	MEUR	2,585.2	2,497.5	2,705.5	2,629.5	1,860.8
Current assets	MEUR	5,087.6	4,559.2	4,528.6	4,289.1	4,404.5
Total shareholders' equity <sup>3</sup>	MEUR	1,567.3	1,255.7	1,219.6	1,330.8	1,325.4
Provisions	MEUR	1,622.3	1,144.9	1,083.1	1,017.7	1,066.1
Liabilities	MEUR	4,483.2	4,656.1	4,931.4	4,570.1	3,873.8
Total assets	MEUR	7,672.8	7,056.7	7,234.1	6,918.6	6,265.3
Equity ratio <sup>4</sup>	%	20.4	17.8	16.9	19.2	21.2
Liquid funds <sup>5</sup>	MEUR	1,837.9	1,719.3	1,609.8	1,279.7	1,772.3
Net liquidity <sup>6</sup>	MEUR	703.3	420.9	244.9	-99.6	908.0
Cash flow from operating activities	MEUR	529.6	461.5	821.6	7.8	246.5
Capital expenditure <sup>7</sup>	MEUR	160.1	131.8	157.1	137.0	116.8
Employees (as of end of period; without apprentices)	-	26,804	27,232	29,513	29,096	25,566

International technology group ANDRITZ offers a broad portfolio of innovative plants, equipment, systems, services and digital solutions for a wide range of industries and end markets. ANDRITZ is a global market leader in all four of its business areas – Pulp & Paper, Metals, Hydro, and Separation. Technological leadership, global presence and sustainability are the cornerstones of the group's strategy, which is focused on long-term profitable growth. The publicly listed group has around 26,800 employees and over 280 locations in more than 40 countries.

1 Earnings Before Interest, Taxes, Depreciation, and Amortization

2 Earnings Before Interest, Taxes, Amortization and impairment of identifiable assets acquired in a business combination and recognized separately from goodwill amounting to 62.1 MEUR (2020: 72.0 MEUR), and impairment of goodwill in the amount of 4.8 MEUR (2020: 4.7 MEUR)

3 Total shareholders' equity including non-controlling interests

4 Total shareholders' equity/total assets

5 Cash and cash equivalents plus investments plus Schuldscheindarlehen

6 Liquid funds minus financial liabilities

7 Additions to intangible assets and property, plant, and equipment

All figures according to IFRS. Due to the utilization of automatic calculation programs, differences can arise in the addition of rounded totals and percentages. MEUR = million euros, TEUR = thousand euros.

# PULP & PAPER

	Unit	2021	2020	2019	2018	2017
Order intake	MEUR	3,774.7	2,961.1	3,632.5	2,571.9	2,033.4
Order backlog (as of end of period)	MEUR	3,377.2	2,591.0	3,164.3	2,421.1	1,787.0
Revenue	MEUR	3,070.6	3,339.0	2,869.5	2,233.2	2,059.7
EBITDA	MEUR	423.4	399.6	351.4	258.4	221.5
EBITDA margin	%	13.8	12.0	12.2	11.6	10.8
EBITA	MEUR	346.0	322.7	271.0	222.1	194.9
EBITA margin	%	11.3	9.7	9.4	9.9	9.5
Capital expenditure	MEUR	90.6	64.1	63.3	33.8	42.1
Employees (as of end of period; without apprentices)	-	11,668	11,127	11,984	11,435	8,002

ANDRITZ Pulp & Paper provides sustainable technology, automation, and service solutions for the production of all types of pulp, paper, board and tissue. The technologies and services focus on maximum utilization of raw materials, increased production efficiency, lower overall operating costs as well as innovative decarbonization strategies and autonomous plant operation. Boilers for power generation, flue gas cleaning systems, various nonwoven technologies, panelboard (MDF) production systems, as well as recycling and shredding solutions for numerous waste materials also form a part of this business area. State-of-the-art IIoT technologies as part of Metris digitalization solutions complete the comprehensive product offering.

# METALS

	Unit	2021	2020	2019	2018	2017
Order intake	MEUR	1,778.8	1,143.6	1,582.2	1,931.8	1,606.5
Order backlog (as of end of period)	MEUR	1,541.7	1,181.6	1,532.7	1,591.6	1,309.7
Revenue	MEUR	1,366.1	1,420.5	1,636.9	1,635.1	1,643.5
EBITDA	MEUR	81.7	5.5	-1.5	57.8	129.7
EBITDA margin	%	6.0	0.4	-0.1	3.5	7.9
EBITA	MEUR	38.4	-46.7	-73.8	27.3	98.6
EBITA margin	%	2.8	-3.3	-4.5	1.7	6.0
Capital expenditure	MEUR	25.5	26.5	30.8	36.1	29.7
Employees (as of end of period; without apprentices)	-	5,930	6,513	7,485	7,818	7,573

ANDRITZ Metals is – via the Schuler Group – one of the world’s leading suppliers of technologies, plants and digital solutions in metal forming. The product portfolio also includes automation and software solutions, process know-how, and service. In the metals processing segment, the business area offers innovative and market-leading solutions for the production and processing of flat products, for welding systems and furnaces, as well as services for the metals processing industry.

# HYDRO

	Unit	2021	2020	2019	2018	2017
Order intake	MEUR	1,565.2	1,335.4	1,350.2	1,445.8	1,317.2
Order backlog (as of end of period)	MEUR	2,747.8	2,587.9	2,661.0	2,667.9	2,921.8
Revenue	MEUR	1,345.1	1,296.0	1,470.7	1,517.5	1,583.1
EBITDA	MEUR	133.0	98.5	134.1	142.4	154.1
EBITDA margin	%	9.9	7.6	9.1	9.4	9.7
EBITA	MEUR	95.4	62.0	105.9	113.8	123.0
EBITA margin	%	7.1	4.8	7.2	7.5	7.8
Capital expenditure	MEUR	28.7	29.7	51.8	57.9	36.3
Employees (as of end of period; without apprentices)	-	6,628	6,941	7,202	7,002	7,237

ANDRITZ Hydro is one of the globally leading suppliers of electromechanical equipment and services for hydropower plants. With over 180 years of experience and an installed fleet of more than 470 GW output, the business area provides complete solutions for hydropower plants of all sizes as well as services for plant diagnosis, refurbishment, modernization and upgrade of existing hydropower assets. Pumps for irrigation, water supply and flood control as well as turbo generators are also part of this business area's portfolio.

# SEPARATION

	Unit	2021	2020	2019	2018	2017
Order intake	MEUR	761.0	667.9	717.1	696.7	622.4
Order backlog (as of end of period)	MEUR	499.1	413.5	419.6	403.7	364.5
Revenue	MEUR	681.2	644.1	696.8	645.7	602.8
EBITDA	MEUR	80.2	67.5	53.6	39.4	36.4
EBITDA margin	%	11.8	10.5	7.7	6.1	6.0
EBITA	MEUR	66.7	53.7	40.1	31.1	27.5
EBITA margin	%	9.8	8.3	5.8	4.8	4.6
Capital expenditure	MEUR	15.3	11.5	11.2	9.2	8.7
Employees (as of end of period; without apprentices)	-	2,578	2,651	2,842	2,841	2,754

ANDRITZ Separation provides mechanical and thermal technologies as well as services and the related automation solutions for solid/liquid separation, serving the chemical, environmental, food, and the mining and minerals industries. The customized, innovative solutions focus on minimizing the use of resources and achieving highest process efficiency, thus making a substantial contribution towards sustainable environmental protection. In addition, the business area offers technologies and services for the production of animal feed and biomass pellets.

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With help from ANDRITZ, the Brazilian mining company ITAMINAS has installed an innovative filter system to put an end to tailings ponds and recover 90% of the water they contain.

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# EDITORIAL

At ANDRITZ, the topic of sustainability is reflected in the day-to-day work of each and every employee and in all business relationships. Economic, ecological and social sustainability are important components of our business strategy and corporate culture.

For our customers around the world, sustainability is also imperative and an important prerequisite for long-term success. ANDRITZ provides key support to its customers by offering innovative products and smart solutions that make a substantial contribution towards protecting our climate and mitigating climate change.

With our numerous green products and solutions, our customer industries can greatly reduce their consumption of water and other resources for example, make more productive use of chemical loops, cut emissions significantly or prevent them entirely. Moreover, we are contributing towards the necessary transition to renewable energy sources with our electromechanical equipment in the hydropower sector.

With sustainable solutions, we help our customers achieve their sustainability goals. We report on these Sustainable Solutions on the next few pages.

# LETTER TO THE SHARE- HOLDERS



**Dear Ladies and Gentlemen,  
dear Shareholders, dear Colleagues,**

We can look back with pride on the business results achieved by the ANDRITZ GROUP in 2021. Despite the challenges of the Covid-19 pandemic during the reporting period, we succeeded in reaching all-time highs in order intake and net income. All four of our business areas were able to increase their business results compared to the previous year – some quite substantially. There are two main reasons for this: On



the one hand, we made some cautious assumptions concerning the economic development of our company in the medium term at a very early stage of the pandemic, when it was difficult to estimate its impact on the global economy. These assumptions resulted in moderate adjustment measures that are also reasonable in the medium term, but in some individual cases, more extensive adjustments were unavoidable, for example at Schuler in Germany. In addition, we have proactively extended the means of digital communication also accepted by our customers and suppliers – including online support during start-up of complex systems – in the course of the pandemic. All these measures have reduced our cost base substantially. On this note, I would like, on behalf of the Executive Board, to thank all of our employees for the understanding they have shown for the measures taken and for their great commitment in spite of the very difficult and demanding circumstances prevailing on our job sites in particular.

The second main reason for our success, which was reflected in the record order intake in the past financial year, is undoubtedly the fact that we are in a strong competitive position in all business segments due to our broad product portfolio and range of advanced technologies. And this applies to both the capital goods and also our rapidly growing service business sector. With our innovative products and service offerings, incorporating both on-site services and remote digital support, we help our customers achieve their individual goals in the best way possible.

In the sustainability sector in particular, I see great opportunities and potential for ANDRITZ. With our sustainability program “We Care” launched in June 2021, we have not only set very ambitious ESG goals for ourselves, like a significant reduction of CO<sub>2</sub> emissions as well as decreases in waste and consumption of water, but also defined areas of focus in which we can make a significant contribution towards sustainable development and environmental protection. We have a variety of products in all four business areas that help our

customers achieve their sustainability goals – whether they involve reducing CO<sub>2</sub> emissions, making use of renewable energy sources, minimizing the consumption of resources, or recycling waste products and textiles. In recycling, our acquisition of Laroche, the world market leader in textile recycling, has put us in an excellent position to meet the rising demand in the nonwovens and textile industry for sustainable solutions to reduce waste, increase the recycling quota and improve the CO<sub>2</sub> balance by using natural fibers. In the future, we intend to continue pushing the development of green, sustainable products forward and thus tap into new markets.

From today's perspective, we expect a continuing recovery of the global economy in the 2022 business year and a favorable market environment in all four of our business areas. Although the further development of the pandemic as well as the conflict in Ukraine and their potential impact on the global economy remain the main instability factors, we are entering the new year with a solid order backlog thanks to our extremely high order intake, so we also expect very positive development for ANDRITZ in 2022. At the same time, we will be expanding our investments in research and development of new products and in becoming more competitive, and our four business areas will remain on the lookout for potential company acquisitions and promising startups. Due to our good financial standing, with gross liquidity in the region of 1.8 billion euros, we are not only in a position to make use of opportunities to acquire other companies at any time, but also to make internal company investments for the future and thus strengthen our market position.

2022 will also bring personnel changes in the Executive Board. After 35 years, 28 of which were spent as CEO, I will end my functions on the Executive Board of ANDRITZ AG at the Annual General Meeting in April 2022. We have planned the related changes in the long term and with great care. The Supervisory Board and I are confident that our Group will be in a strong position with the internal successors appointed to the Executive Board. The future Austrian-German-Swiss

Executive Board combines decades of extensive experience in industry and management – an excellent basis for the continuing success of ANDRITZ in the long term.

I have been proposed for election to the Supervisory Board at the upcoming Annual General Meeting in April 2022 by holders of more than 25% of the share capital, in keeping with the Austrian law on joint stock companies.

I would like to express my warmest personal thanks to all employees, shareholders and customers for the trust they have placed in me and ask them to stay with ANDRITZ on its road to success in the future.

Sincerely,

A handwritten signature in black ink, appearing to read 'W. Leitner', positioned above the printed name.

**WOLFGANG LEITNER**

President and CEO

# CHALLENGE

CHALLENGE

**CO<sub>2</sub> IS  
PRODUCED  
WHEN FOSSIL  
FUELS  
ARE  
BURNED.**

This accelerates  
climate change and  
causes enormous  
environmental pollution.

PULP &amp; PAPER

# SOLUTION

# 6.3 MILLION LITERS OF BIO- METHANOL

Swedish company Södra has the capacity to produce up to 6.3 million liters of commercial-quality biomethanol a year with help from ANDRITZ. This biomethanol is used to make biodiesel, which can be used as an alternative fuel source for motor vehicles.

# STEP BY

# STEP



→ [andritz.com/ar21/soedra](https://andritz.com/ar21/soedra)

Up to 750,000 tons of pulp and 6.3 million liters of biomethanol are produced annually at the Södra mill in Mönsterås.

Paper and board are much in demand – around 400 million tons of different grades are produced worldwide every year from mechanical and chemical pulp. In order to meet the demand and still conserve resources, many companies are searching for efficient technologies and strategies. In view of this, ANDRITZ has launched the “CircleToZero” initiative.

“We take a holistic look at all of the chemical loops in pulp production within a mill to see where we can use, recycle or refine side streams to make new products,” says Lauri Pehu-Lehtonen, director of the research and development team in the ANDRITZ Recovery and Power division. “With the technical approach of the CircleToZero initiative, we would like to help our customers reduce chemical consumption, produce less waste and emissions, and tap new sources of income.”



ANDRITZ expert Lauri Pehu-Lehtonen and his team are aiming to improve the efficiency and climate balance of pulp mills.

Södra’s pulp mill in Mönsterås is a case in point. The ultra-modern mill produces up to 750,000 tons of pulp a year from softwood and hardwood in addition to district heating and also tall oil that is converted into biodiesel. Furthermore, the mill

Many years of successful work together unite ANDRITZ and Södra.



has been producing raw methanol here and then refining and selling it as high-end biomethanol since 2020 – and this is unique worldwide so far.

The plant designed, supplied and built by ANDRITZ has the capacity to produce 6.3 million liters of biomethanol annually, which Södra sells to biofuel producers. It is used there as a CO<sub>2</sub>-neutral substitute for fossil methanol in the production of biodiesel, which can be used in turn as fuel for maritime vessels, a use that EU legislation promotes and supports financially in order to achieve the ambitious emission-reducing targets in the transport sector in coming decades.

## CERTIFIED SUSTAINABILITY

Södra's biomethanol provides uniquely high greenhouse gas savings. From a life-cycle perspective, the product can lower emissions by well above 95% compared to fossil alternatives. The product is certified according to the ISCC process. This means that its production process is ecologically, socially and economically sustainable. Around 70% of Södra's members have FSC® and/or PEFC™ certification. Both certificates make extensive demands on sustainability, environmental compatibility of forest management, the quality of work, and the social competency of the forestry companies.





“CircleToZero” means analyzing all the chemical loops in pulp production to see whether side streams can be used, recycled or refined to make new products.

“The raw material for our bio-methanol comes from the sustainably managed forests of our members – more than 50,000 Swedish forest owners,” reports Catrin Gustavsson, who is business area manager for innovation at Södra. “We are convinced that the most efficient and most successful projects pop up when sustainability and economy are attached equal importance.” Making use of side streams and by-products in pulp production is a very promising strategy. For, ultimately, Södra wants to extract as much as possible from the precious commodity that is wood – in the interests of the environment and of all stakeholders. “It is important to define this as the objective and then start to optimize plant and production operations step by step. For this, you need the right spirit, support from the top management, know-how, and perseverance.”



FOR THIS, YOU  
NEED THE RIGHT  
SPIRIT, SUPPORT  
FROM THE TOP  
MANAGEMENT,  
KNOW-HOW, AND  
PERSEVERANCE.

Catrin Gustavsson,  
Business Area Manager for  
Innovation at Södra



# THE KEY: TEAMWORK



WE WERE BREAKING  
NEW GROUND.

Christer Thörn, Director of the  
Södra mill in Mönsterås



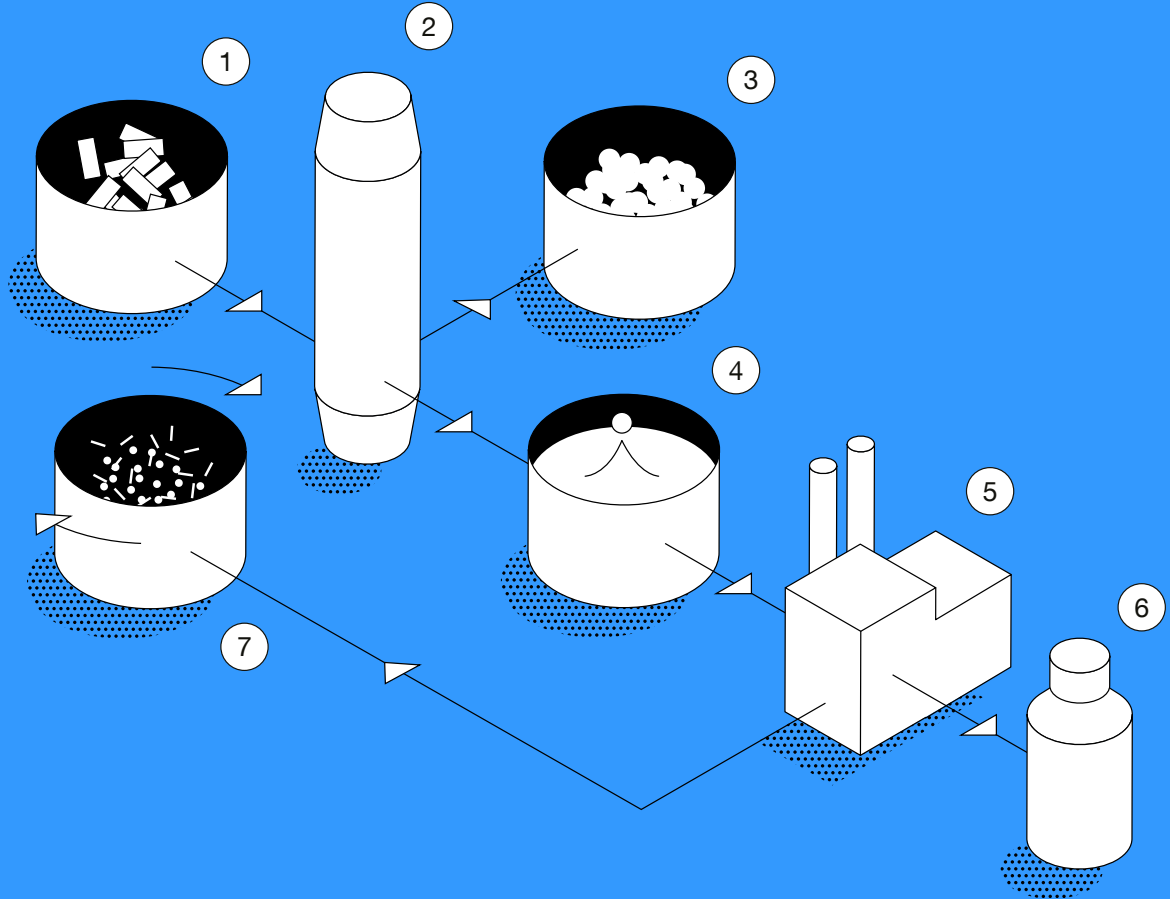
Christer Thörn, director of the state-of-the-art mill in Mönsterås, confirms this and underlines that there are constant technical and operating challenges to be tackled. “Different products are produced in the pulp mill, and if there are delays or stoppages there, we have to adjust the production of biomethanol accordingly,” he says. His staff of over 400 had to be willing to learn something new every day when it came to improving volume, quality and performance. As technology supplier and adviser in production operations, ANDRITZ played an important role. “By scaling the process up to industrial level, we were breaking new ground. To do this, you need a diversified team with a wide range of skills. You only find the right solutions if you work together,” says Thörn.

One of Södra's advantages is that the biomethanol is categorized and certified as "a product made from forest residues" – an attractive description when you are looking to be climate-neutral. "This doesn't just apply to the transport sector," says Catrin Gustavsson. "We will also offer our biomethanol as a base material for the chemical industry." There are many sales opportunities. After all, around 100 million tons of methanol are traded worldwide every year. The demand for "green products" is rising in many sectors, the sustainability expert underlines, and Södra will take part in this trend: "We will continue to optimize production in Mönsterås, investigate use of the process in other mills and, at the same time, sound out any new commercial opportunities."

This is an approach that coincides with ANDRITZ's goals and plans. "In addition to biomethanol, we can also produce first-class, commercial-grade lignin and sulfuric acid with our CircleToZero solutions," says ANDRITZ expert Pehu-Lehtonen. The Brazilian paper and board producer Klabin, for example, has started doing exactly this. At its mill in Ortigueira, southern Brazil, sulfurous gases that are normally burned in the boilers or lime kiln are used to produce sulfuric acid. The results are substantial savings on chemicals, including sulfuric acid, and much lower consumption of sodium make-up chemicals. In Pehu-Lehtonen's view, this is by no means the end of the story. "We have a few more ideas on how to improve the efficiency and climate balance of pulp mills within the scope of the CircleToZero initiative in the future."

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# TALKING TECH: PRODUCTION OF BIOMETHANOL



- |   |  |   |                    |
|---|--|---|--------------------|
| 1 | Wood chips                               | 4 | Raw methanol       |
| 2 | Digester                                 | 5 | Purification plant |
| 3 | Pulp to washing,<br>bleaching and drying | 6 | Biomethanol        |
| 7 | Chemical recovery cycle                  |   |                    |

Wood chips are cooked together with chemicals to break the wood down into its component parts, i.e. cellulose and hemi-cellulose (pulp), and lignin. Next, the chemicals, lignin and other residues are washed out of the pulp. They form a black liquor whose water content is then reduced by means of evaporation. What remains is a condensate of methanol, turpentine and sulfur compounds.

This condensate is purified so that it can be reused in the mill. Raw methanol is formed – a mixture of combustible residues. Normally, the raw methanol is burned to generate heat and energy. Thanks to a patented extraction process, Södra can produce commercial-quality biomethanol. For every ton of pulp that leaves the mill, some 10 kilograms of biomethanol are produced.

# CHALLENGE

## WATER IS A PRECIOUS COMMODITY

that is consumed by more and more people worldwide. In terms of sustainability, however, it is not only direct water consumption that is important. The water needed for the production of food and industrial goods is also playing an increasingly important role.

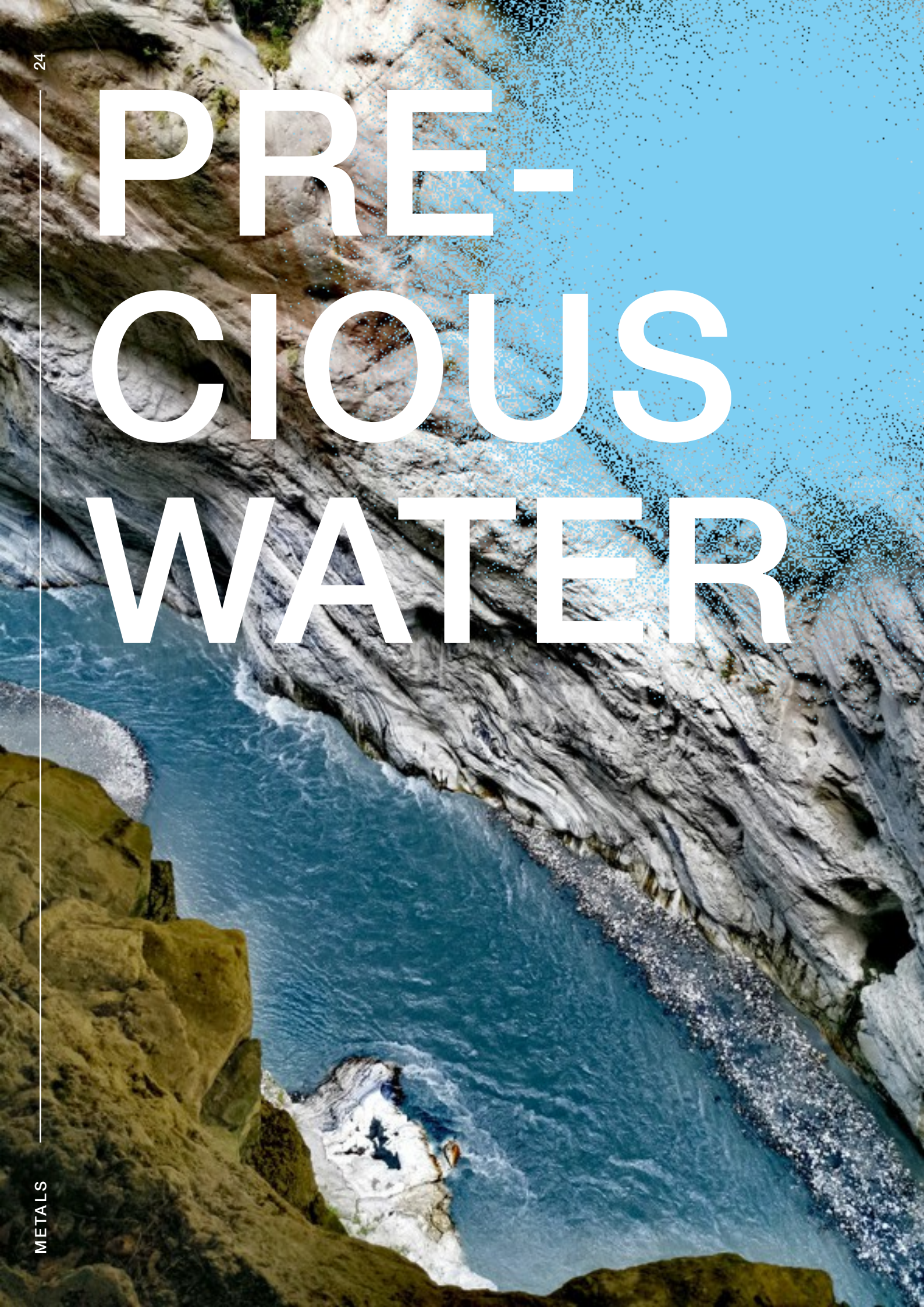
# SOLUTION TION

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## LESS NITRATE

The Taiwanese company Walsin Lihwa uses ANDRITZ technology to set new standards in dealing with acids and water in the production of stainless steel. The waste pickling acid from the production process is treated, and up to 99% of the nitrate can be filtered out of the water. A closed loop is formed, and water consumption drops significantly.

# PRE- CIOUS WATER





Anyone who has ever visited Taiwan knows what a humid climate this island in the Pacific has. There can be heavy rain there quite often. Nevertheless, the country has been struggling for years against a water shortage caused by the lack of reservoirs and the inadequate pipe-work system. This is why the government has set up several funding programs, running into billions, to modernize the infrastructure and promote the use of service water and treated water in the industrial sector.



ENVIRONMENTAL PROTECTION  
AND SUSTAINABLE DEVELOPMENT  
ALWAYS PLAY AN IMPORTANT ROLE  
IN OUR PRODUCTION.

Yu-Lon Chiao,  
Chairman of  
Walsin Lihwa

Water is also an important topic for Walsin Lihwa. The Taiwanese Group established in 1966 is one of Greater China's leading producers of wire and cables, stainless steel, and commodities, and is also active in real estate. Its products are used in many infrastructure projects. Walsin Lihwa's annual revenue is over 130 billion New Taiwan dollars (around 4.17 billion euros), and the company has around 5,000 employees.

“Environmental protection and sustainable development always play an important role in our production operations,” says Chairman Yu-Lon Chiao. “In order to combat climate change and the increasing shortage of natural resources, we have invested heavily in saving energy, reducing CO<sub>2</sub> emissions and recycling valuable resources in recent years.”

## **WANTED: WATER**

According to the World Resources Institute, the amount of ground water extracted worldwide since the 1960s has more than doubled. 44 countries are suffering from a precarious water supply. Many countries are threatened with acute shortages and a permanently short supply if there is too little precipitation or a long heat wave.

# CONSERVING RESOURCES

Two ANDRITZ systems – PYROMARS and ZEMAP – that the company uses in central process stages of its steel production plant are examples of these activities. After the steel has been hot-rolled and annealed, any residues must be removed from the surface. A mixture of nitric and hydrofluoric acid is used as the pickling agent, which is rinsed off afterwards. “PYROMARS regenerates the hydrofluoric acid and thus completely closes this loop, substantially reducing the amount of nitrate in the wastewater and the sludge volume after wastewater treatment. What remains is the mixed acid pollutant in the rinsing water,” says Arthur Stingl, Senior Vice President of ANDRITZ Metals. “Thanks to ZEMAP, this contaminant can also be treated.”

The outcome: Water consumption is reduced, overall consumption of fresh hydrofluoric acid is close to zero, and the sludge volume remaining after treating the mixed acid wastewater – and which has to be disposed of – is falling rapidly. “Pickling, rinsing, and also recovery of the acids and the water become one closed loop thanks to these two plants,” Arthur Stingl adds. An innovation that aroused the experts’ attention: In 2018, ANDRITZ received the prestigious Energy Globe Award for developing PYROMARS and ZEMAP.



Two plants with one goal:  
acids and water in a closed loop

In practice, the plants have several advantages for Walsin Lihwa, including less sewage sludge, less fresh acid added to the pickling process, and more wastewater recycling. “For Walsin, the investment in environmental protection is not only necessary but also worthwhile in many respects. Walsin Lihwa will be concentrating on several topics in the future as well, for example reducing greenhouse gas and nitrogen oxide emissions or increasing the waste recycling quota,” adds Yu-Lon Chiao.

## KEYWORD “STEEL”

Steel is a pillar of the modern world. Without this material, architecture, car manufacturing, mechanical engineering, or the production of household goods and appliances would barely be conceivable. In 2020, around 50.9 million tons of stainless and heat-resistant raw steel were produced worldwide.

(Source: International Stainless Steel Forum)

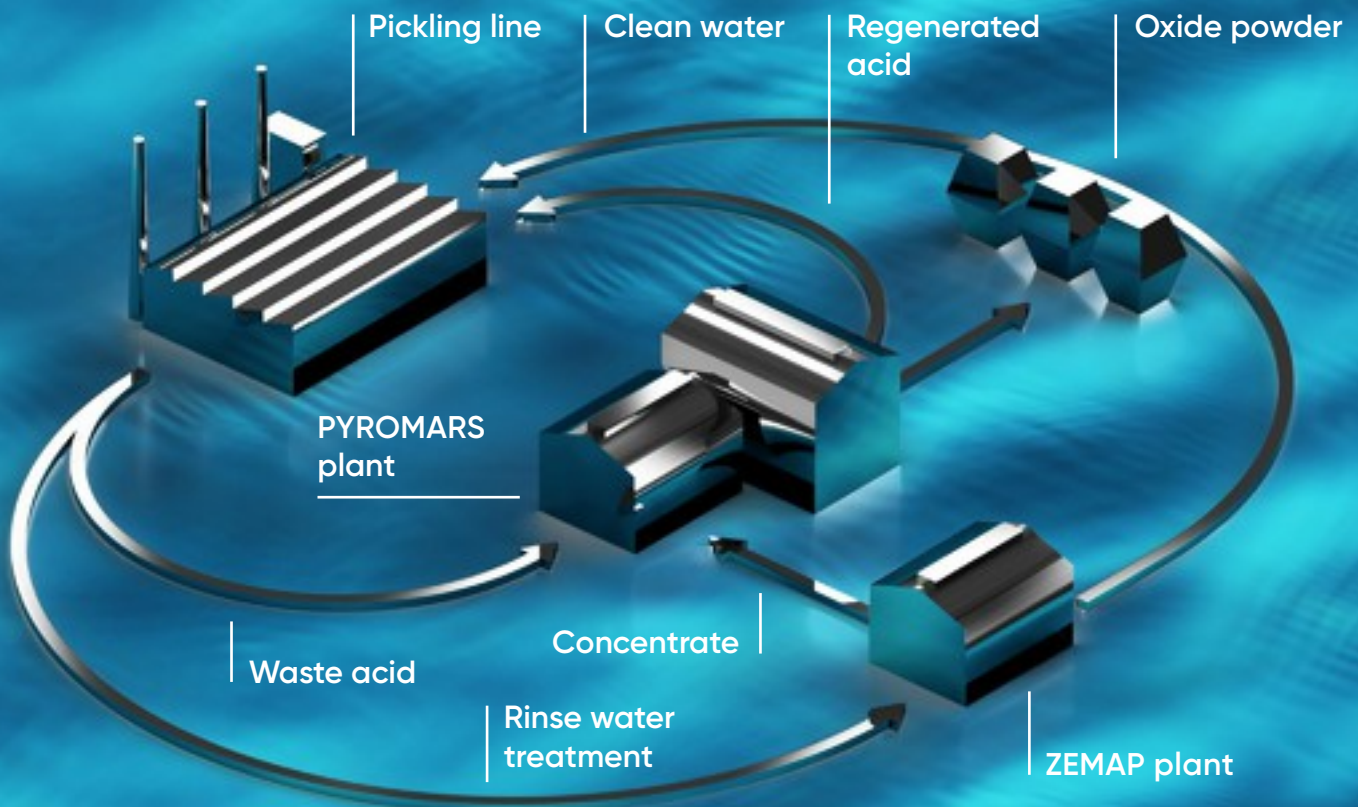
# TALKING TECH: ON THE WAY TO A CIRCULAR ECONOMY

With the aid of the PYROMARS technology, the hydrofluoric and nitric acids used in stainless steel production are recovered and used again in the same production process. With the ZEMAP technology, the wastewater from the rinsing section can be treated and subsequently regenerated. Then the acidic concentrate from the ZEMAP plant is treated in the PYROMARS plant, and the cleaned water is used once again to rinse the steel.

## RINSE WATER

**99%** nitrates reduction

**99%** regeneration of hydrofluoric acid



# CHALLENGE

## GLOBAL CLIMATE TARGETS WILL ONLY BE ACHIEVED

if CO<sub>2</sub>-neutral drive technologies become firmly established. That is why fuel cells powered by green hydrogen are a very attractive option. However, fuel cell systems are still expensive today because there is no serial production on an industrial scale.

# SOLUTION TION

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SOLUTION

## FUEL CELLS A YEAR

Schuler, ANDRITZ Soutec and thyssenkrupp Automation Engineering have developed a production line that can produce up to 50,000 fuel cells a year. This reduces the product costs substantially due to economies of scale.

METALS

# A PERFECT FIT

Hermann Uchtmann, responsible for business development on e-mobility topics at Schuler, and Thomas Kuschel, Head of Fuel Cell Solutions at thyssenkrupp Automation Engineering, are the driving forces behind this collaboration. In the following interview, they explain how this alliance came about, what is so special about their production line and what they expect from the technology in the future.



→ [andritz.com/ar21/thyssenkrupp](https://andritz.com/ar21/thyssenkrupp)





Hermann Uchtmann is responsible for business development on e-mobility topics at Schuler.

Fuel cells provided the electricity for the Apollo missions to the moon back in the 1960s. Today, they are seen as an essential future energy supplier because the invention is simple, ingenious and environmentally friendly: A fuel – for example hydrogen – reacts in a cell with an oxidizing agent, such as oxygen. The process produces nothing but water, heat, and, of

course, electricity, which can be utilized.

Fuel cells are already being used for stationary or mobile power generation. The numbers produced are still low because the manufacturing costs are high. This, in turn, curbs the demand. Schuler and ANDRITZ Soutec together with thyssenkrupp Automation Engineering sought a solution to this problem – and they found one.

### **Mr. Uchtmann, how did you come to embark on this project?**

HU I attended a fascinating presentation by Thomas Kuschel at a special event and approached him there. I had the feeling that it would be worthwhile working together on this topic because our companies each specialize in certain steps in the fuel cell production process and might just complement each other ideally. We got talking, found we were on the same wavelength, and quickly saw that it could actually work.

## And what, exactly, could work, Mr. Kuschel?

TK We pool our know-how in order to cover the entire value chain in a single plant. By producing the metallic bipolar plates on a large scale, assembling the fuel cell stacks and systems, and continuously testing the quality, we can offer customers everything from a single source. At the moment, we are in contact with potential customers for pilot plants who are interested in integrating the production line into their operations.

## What is “a large scale” in figures?

TK A fuel cell contains between 300 and 400 bipolar plates that are layered into so-called stacks. They form the heart – so to speak – of a fuel cell. We can produce up to 50,000 fuel cell stacks a year because our production line manufactures one bipolar plate per second and is thus up to ten times faster than other solutions available on the market, and it includes quality testing into the bargain.



Thomas Kuschel is responsible for all activities relating to the topic of fuel cells at thyssenkrupp Automation Engineering.



OUR PLANT  
MANUFACTURES ONE  
BIPOLEAR PLATE PER  
SECOND. THIS MAKES  
IT UP TO TEN TIMES  
FASTER THAN OTHER  
SOLUTIONS AVAILABLE  
ON THE MARKET.

Thomas Kuschel

## Why is your production line so much faster than others?

HU Because we defined our interfaces clearly right from the start – in the design and planning phases. If you don't do this, but simply piece different plants and components together, there are almost always friction losses and difficulties in operation. Our entire system fits together perfectly and thus is very efficient.

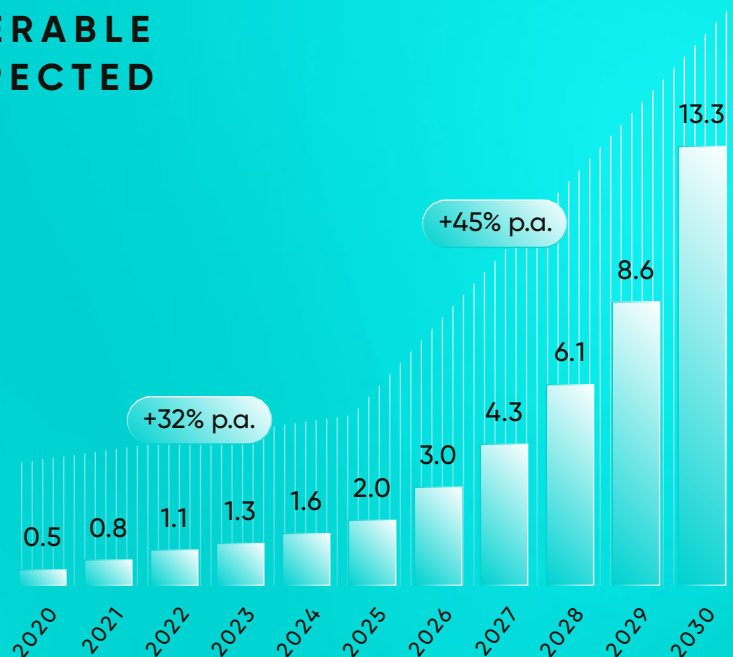
## Can you describe in more detail how tasks have been divided?

HU Schuler is responsible for high-precision forming of the stainless steel sheets, which, by the way, are only 70 to 100 microns thick, roughly the thickness of a human hair. Both halves of the bipolar plates are produced in one press stroke. Then they are welded together with a precise, gas-tight weld in an ANDRITZ Soutec system using laser technology.

### FUEL CELLS: CONSIDERABLE MARKET GROWTH EXPECTED

The management consulting company McKinsey expects that the international market volume for fuel cells in the mobility sector will be around 13 billion US dollars in 2030. The main reason for the forecast annual increase of 32-45%: more trucks being produced in China and Europe as well as announcements by Asian vehicle manufacturers that they will be offering almost 40 new fuel cell vehicles on the Japanese and South Korean markets as from 2025.

Source: McKinsey team analysis;  
Hydrogen Council  
Graph: in billion US dollars





"On the same wavelength":  
This is not just an empty phrase for Thomas  
Kuschel and Hermann Uchtmann – it is  
the very basis of their collaboration.

TK In one of our process steps, seals are then applied to either side of the bipolar plates, dried and subjected to a visual quality check. In addition, we provide production line components for manufacturing membrane electrode assemblies (MEA) and building the final fuel cell power stacks. There is also a final, automatic quality check here by an optical system.

### **How do you think the market will develop?**

#### **Will there be more demand for fuel cells?**

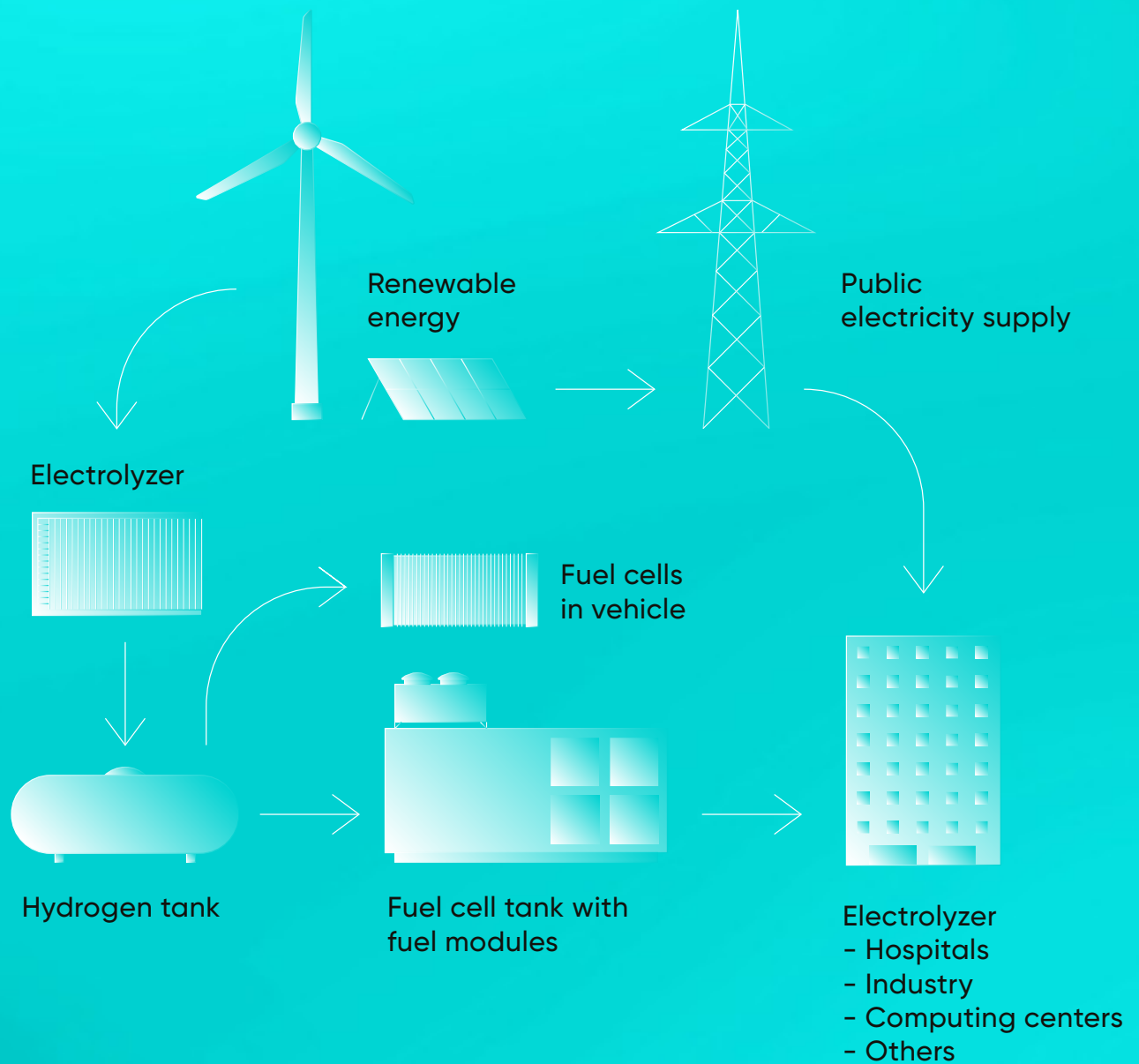
TK We have already built smaller production lines or production line sections for a number of customers. And the global trend is clear in my view: There is enormous interest in hydrogen technology, for trucks, buses and trains, shipping, aircraft, and for combined heat and power systems for buildings for example, because it focuses on covering energy needs while at the same time reducing CO<sub>2</sub> emissions sustainably.

HU Fuel cells are one of the pillars of the future energy supply – many surveys and market analyses have confirmed this. It is very likely that this technology will become more widespread in the medium to long term. In Asia, for example, there are already a number of vehicles powered by fuel cells, and European OEMs have also announced serial vehicle production. With our new production line, we are proving that serial production is possible on a large scale at the highest quality level. An effective signal that it is worthwhile investing more in this technology.

TK We are also investigating the next step: Our production lines should be able to produce up to 500,000 fuel cells a year in just a few years' time. Let the future begin!



# TALKING TECH: CLIMATE-NEUTRAL ENERGY SUPPLY



Fuel cell systems are an excellent means of storing surplus green energy generated by wind power, photovoltaics or other renewable energy sources. In the first step, the power is split into hydrogen and oxygen in an electrolyzer. The green hydrogen released is free of CO<sub>2</sub> and can then be used as a sustainable energy supply in fuel cells for trucks, aircraft, cars, and maritime vessels as well as an emergency power supply for hospitals or data centers.

# CHALLENGE

## STORING RENEWABLE ENERGIES

In order to succeed in changing to a sustainable energy supply and also achieve climate protection goals, we have to build hydropower plants and also wind and solar farms all over the world. However, as wind turbines and solar cells don't provide a regular supply of electricity, electrical energy storage devices will be needed on a large scale. Technologies like lithium-ion batteries alone will not suffice.



# SOLUTION

SOLUTION

# HOUSEHOLDS WITH CLEAN ENERGY

As one of the leading suppliers worldwide, ANDRITZ provides electromechanical equipment for pumped storage power stations, which deliver long-term stored energy, cover peaks in demand and stabilize the power grid. In a groundbreaking project in Australia, two huge pits in a former gold mine are being used as reservoirs. As from 2024, the energy park will provide 270,000 Australian households with clean energy.

HYDRO



# SOLAR GOLD

→ [andritz.com/ar21/kidston](https://andritz.com/ar21/kidston)

**There is no shortage of dust and heat in Kidston, north-eastern Australia. At one time, there was gold here as well. The town flourished at the beginning of the last century when the search for precious metal began there. Workmen and gold-diggers came to the largest gold mine in the country at the time. The mine finally closed down in 2001, and Kidston became a ghost town. But now it's coming back to life – with the energy supply of the future.**

A project by the listed company Genex Power in Sydney, specialized in developing projects to generate and store renewable energy, is looking into new uses for the site, which is the size of around 1,000 football fields. With help from ANDRITZ, an energy park is being built that will supply 270,000 Australian households with clean electricity as from 2024. The first stage is already complete – a 50-MW solar power plant has been generating electricity since 2017. Simon Kidston, co-founder of Genex Power, and the company's CEO James Harding explain how this unusual project came about and why it is a game-changer for the reliable use of renewable energy sources.

**Simon, your last name is Kidston – also the name of the former gold-mining town where the energy park planned by your company, Genex Power, is being built. Just a coincidence?**

**SK** No, Kidston was named after my great-great-grandfather William Kidston, who was Premier of Queensland when the gold rush began in 1907. I am proud that we are able to breathe new life into the town and that it has such an innovative project as the Kidston Clean Energy Hub.

**What is this exactly?**

**SK** The two disused pits that were the old gold mine will be transformed into a pumped storage hydropower project that is unique worldwide. The Kidston Pumped Storage Hydro Project is the first of its kind in Australia. This is a very large project, with a total investment volume of 800 million Australian dollars.



”

AUSTRALIA NEEDS MORE HYDROPOWER  
AND ALSO LARGE, ADDITIONAL QUANTITIES  
OF WIND AND SOLAR ENERGY.

Simon Kidston, co-founder of Genex Power

## Why is it a good idea to use the abandoned mine in this unusual way?

JH The difference in height provided by the pits, which are almost 350 meters deep, and the huge amount of water they can hold guarantee high electrical efficiency. In times of low power demand, the turbine pumps the water from the lower reservoir to the upper one. When demand rises, the water is released into the lower reservoir again in order to generate electricity. And there is also good infrastructure available there, for example a landing strip so that the workmen can get to Kidston, camp accommodation for them, and the necessary building material.

Focusing on the power of Mother Nature and the "green energy" business model: Simon Kidston (I) and James Harding



## **What are the biggest challenges in such a project?**

JH Of course, a project of this kind in a remote area is always a challenge in terms of both logistics and manpower. The mine is a long way away from the existing power grid, so we need a long power transmission line to connect to the pumped storage power station. However, the fact that the Queensland government is providing a large part of the funding for the new power transmission line shows how important the project is for the state. Another aspect concerns the water on the site: We have undertaken to manage it with great care.

## **So far, Australia has been known more for its coal industry. Is there now a wind of change?**

SK Essentially, Australia embarked upon changing its energy sources several years ago. Individual states, particularly New South Wales, South Australia and Queensland, are working very hard to promote renewable energy sources. Our project, for example, will help Queensland achieve its goal of 50% renewable energy by 2030. That's why the state government is providing 150 million Australian dollars for extension of the transmission line. At the COP26 climate summit in Glasgow, the Australian government also announced that it intends being climate-neutral by 2050. On the whole, we need more hydro-power in addition to large quantities of wind and solar energy.

## **So we will also need storage devices for all this energy?**

JH Exactly. In addition to technologies like lithium-ion batteries for short-term storage, a pumped storage power station like the one being built in Kidston is a very important way of providing large amounts of energy for longer periods as well, covering peaks in electricity demand, and stabilizing the grid. What is more, it contributes towards



ANDRITZ WILL HANDLE COMPLETE OPERATION AND MAINTENANCE OF THE POWER STATION FOR A PERIOD OF TWELVE YEARS AND PROVIDE A GUARANTEED MINIMUM LEVEL OF PLANT AVAILABILITY.

James Harding,  
CEO of Genex Power



creating 900 direct and up to 3,000 indirect jobs. It is sustainable in terms of ecology, economy and society.

**What made you decide in favor of ANDRITZ as supplier of the pump turbines and the complete electromechanical equipment for the hydroelectric power station?**

JH ANDRITZ is world-class from the technological point of view. And its local presence in Australia was another important consideration. Right from the beginning, we wanted our partners to be involved in every stage of the project so that we could develop and optimize the plant design step by step and keep the investment and operating costs as low as possible.

## How will you organize service and maintenance work after completion of the plant?

JH ANDRITZ will handle the complete operation and maintenance of the power station for a period of twelve years and provide a guaranteed minimum level of plant availability. This was a very important risk mitigant when it came to financing the project. Several ANDRITZ experts will take charge of this work on site, assisted online by ANDRITZ specialists in Austria and Italy: a complete package that has convinced us and our investors.



Moving on: Simon Kidston and James Harding have already set their sights on the next project.



# TALKING TECH: GREEN BATTERY

1

A solar energy plant is the first part of the energy park that is to be completed in Kidston by 2024. It has been generating electricity and supplying energy for the ANDRITZ pumped storage power plant since 2017.

2

When the power demand or the price of electricity is low, the water is pumped from the lower reservoir to the upper one in the former gold mine.

3

When demand rises, the water is released into the lower reservoir again in order to generate electricity.

# CHALLENGE

## THE GLOBAL DEMAND FOR RAW MATERIALS IS GROWING CONSTANTLY

and with it the challenge of depositing production residue from mining operations safely and sustainably. This may involve considerable risks. For example, production residue from the mining industry, normally in the form of liquid slurry, is usually collected in huge settling ponds. This carries the inherent risk of the dams collapsing, which in the past has caused environmental disasters.

# SOLUTION TIONS

51

SOLUTION

%

## MOISTURE REMOVAL

With help from ANDRITZ, the Brazilian mining company ITAMINAS has installed an innovative filter system to remove more than 80% of the moisture in the slurry and finally dispose of it by environmentally compatible means. The process offers big ecological, social and economic advantages.

SEPARATION

# SAFE DIS- POSAL

**In the mining industry, dealing with production residue – so-called tailings – is challenging. Storing the often toxic mineral slurry in large ponds secured by dams is a dangerous business. Dams that collapsed in Brazil and Hungary have caused huge disasters in the past.**

**ITAMINAS**, with headquarters in Minas Gerais, Brazil, mines and processes iron ore and is one of the first mining companies in the country to implement an innovative strategy for safely storing the tailings. The company deliberately avoids using dams for this purpose and has achieved considerable ecological, economic and social success with the ecological restoration of those areas where ponds and dams had previously been used in mining operations.

The company has concentrated on implementing a custom-tailored filtration system followed by safe stacking of dry tailings. It uses special filter presses from ANDRITZ, equipped with a Metris addIQ control system. ITAMINAS currently has four filter presses, which were manufactured in Brazil. More machines are to follow in 2022.



ITAMINAS has been mining iron ore since 1959. The company has its headquarters in the Brazilian state of Minas Gerais.

**Clacione de Oliveira is Superintendent Director of the mine in Minas Gerais. She explains why the mine has chosen to collaborate with ANDRITZ and what advantages the new process offers:**

“Using ANDRITZ filter presses gave ITAMINAS the motivation and energy to operate in a safe, innovative and sustainable manner.

“Eliminating the deposition of tailings in the containment dams was my biggest dream, and in February 2021, this dream came true.

“Furthermore, we were able to recover more than 90% of all the water in the system, contributing towards conscious use of this asset, which has become increasingly scarce.

“Currently, we are starting operation of filter press number 4 and in the process of de-characterizing the existing tailings dams. This is a commitment we have signed with the community and regulatory authorities and which is also part of the values of ITAMINAS, namely respect for the environment, excellence and transparency,” says Tuca, as she is known throughout the mining community.



# SAFE AND EFFICIENT

Stacking of dried tailings has several advantages: It not only reduces the risk to the environment, the neighboring population and the workforce. The recovered water can also be reused in the production process, so less fresh water is needed overall. This prevents production from slowing down or grinding to a halt during the dry season.



**8,800 m<sup>3</sup>**

of water  
recovered daily

**10,500 tons**

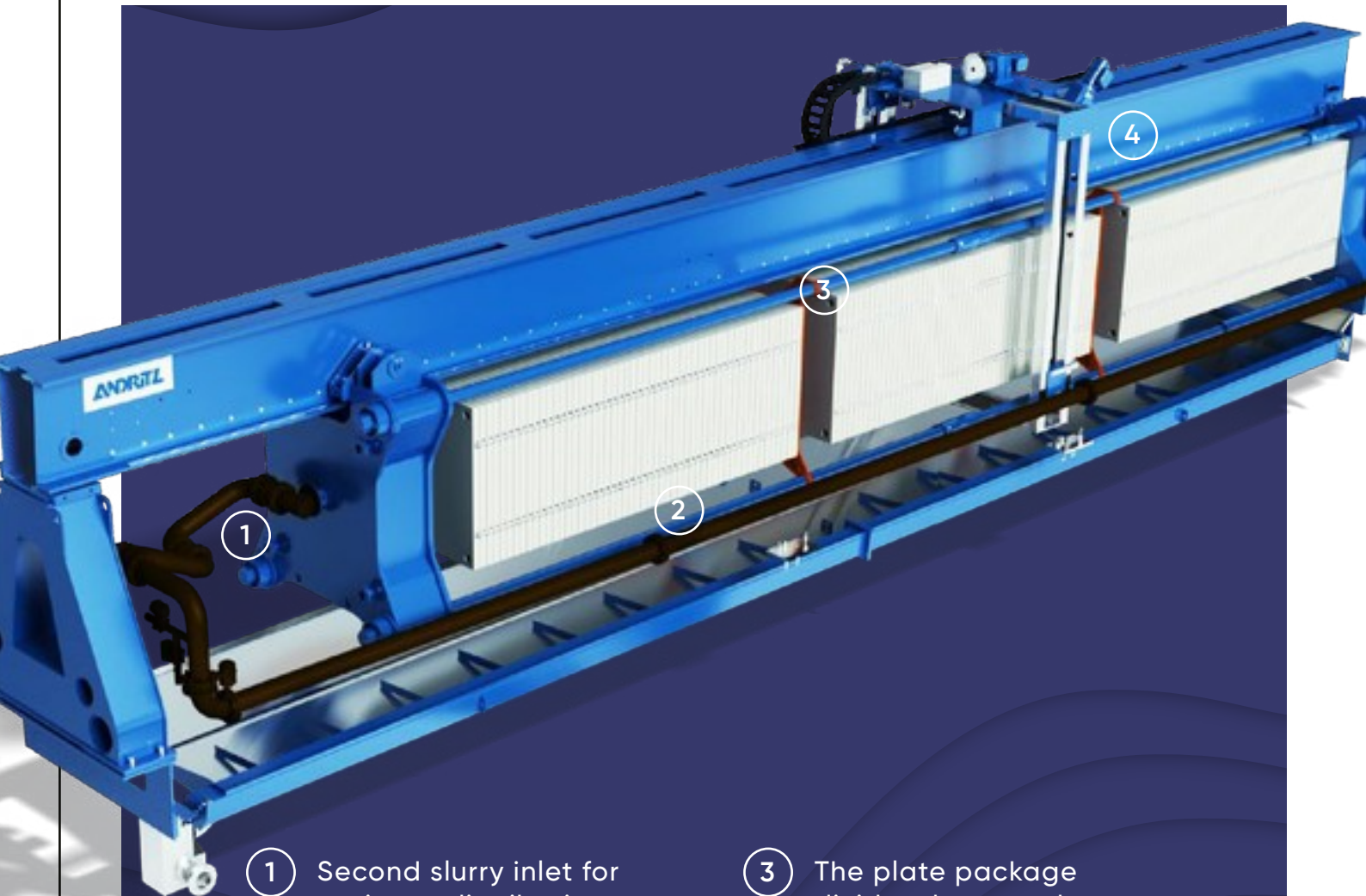
of dry tailings received  
daily after full project  
implementation

**17%**

residual moisture in  
iron ore tailings

# TALKING TECH: FILTER PRESSES

ITAMINAS uses the largest ANDRITZ overhead filter presses (L = 29.4 m, W = 6.0 m, H = 5.1 m). Equipped with 200 filter plates, each measuring 2.5 × 2.5 meters, and with a total machine weight of 194 tons, these machines are also amongst the largest filter presses worldwide.



① Second slurry inlet for optimum distribution and shortening the overall batch time.

② Filtration is particularly efficient thanks to some special functions and the Metris addIQ control system.

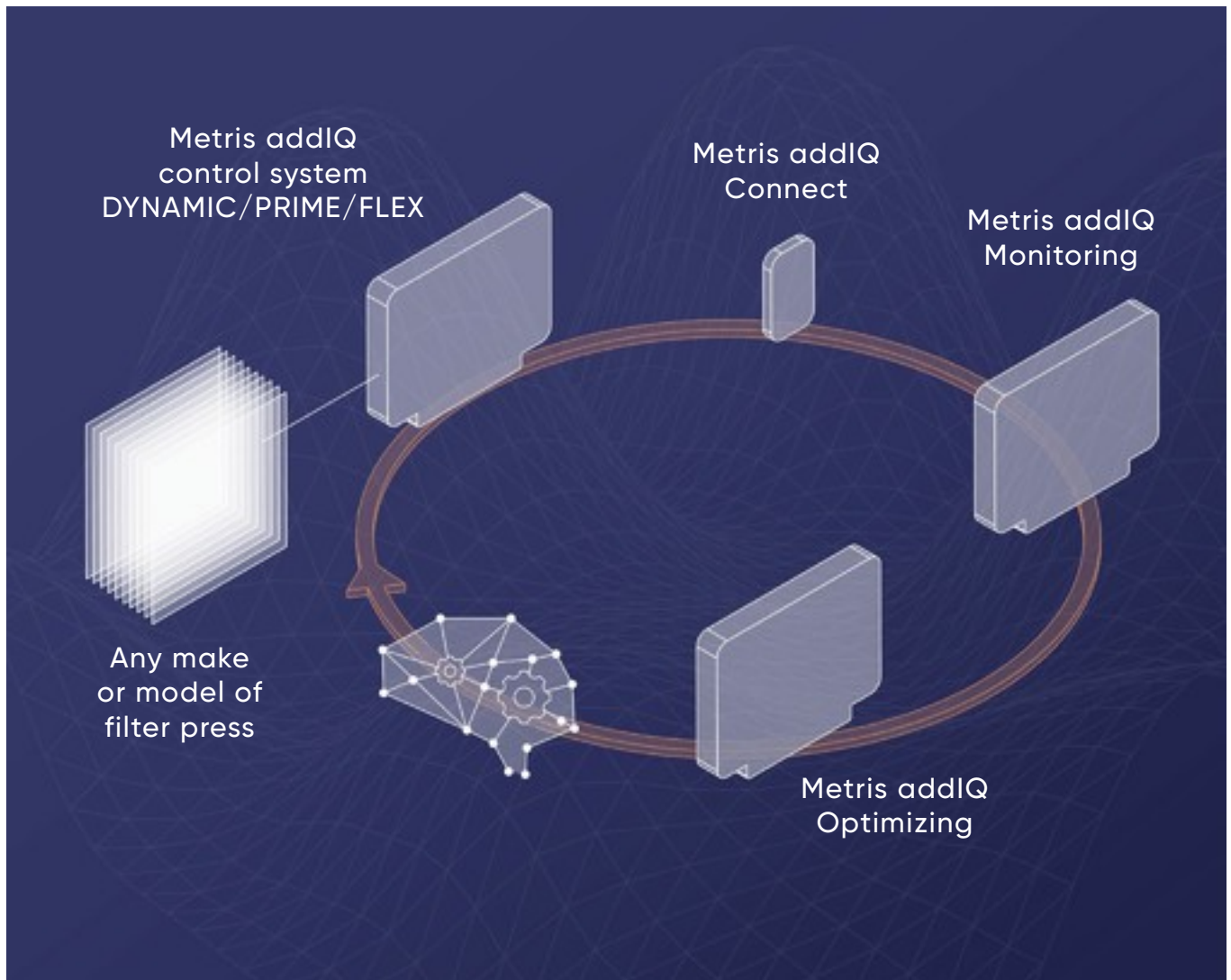
③ The plate package divider shortens the emptying time.

④ Double washing device for efficient and fully automatic filter cloth washing.



# Metris addIQ

The integrated Metris addIQ Prime control system, including the optional Metris addIQ Connect, ensures efficient and smoothest possible operation. It optimizes and maximizes the output of the individual machines and contains numerous diagnostic and automation functions. The control system is operated intuitively thanks to a touchscreen, thus overcoming any language or training barriers. In addition, the system can provide remote monitoring and support online. As a result, ANDRITZ specialists from around the world can communicate securely and quickly with the filter presses on site if necessary and assist the ITAMINAS staff.



THE

**ANDRITZ  
GROUP**

# EXECUTIVE BOARD AND SUPERVISORY BOARD OF ANDRITZ AG

(as of December 31, 2021)

The ANDRITZ AG Executive Board comprises five members, all of whom have many years of experience and specialist know-how in their respective areas of responsibility.

## WOLFGANG LEITNER

President and CEO

Central group functions: Information Technology, Human Resources Management, Corporate Communications, Investor Relations, Internal Auditing, Manufacturing Management and Metals Forming

## HUMBERT KÖFLER

Pulp & Paper (Service & Systems Solutions) and Separation

## NORBERT NETTESHEIM

Central group functions: Controlling, Accounting, Treasury, Order and Project Financing, Legal and Compliance, and Group Procurement Management

## JOACHIM SCHÖNBECK

Pulp & Paper (Capital Systems), Metals Processing, and Group Quality and Safety Management

## WOLFGANG SEMPER

Hydro, Group Automation, and Group Corporate Security

The ANDRITZ AG Supervisory Board consists of six members elected at the Annual General Meeting and three members delegated by the Works Council.

### CHRISTIAN NOWOTNY

Chairman of the Supervisory Board

### ALEXANDER LEEB

Deputy Chairman

### WOLFGANG BERNHARD

### JÜRGEN H. FECHTER

### ALEXANDER ISOLA

### MONIKA KIRCHER

Delegated members:

### GEORG AUER

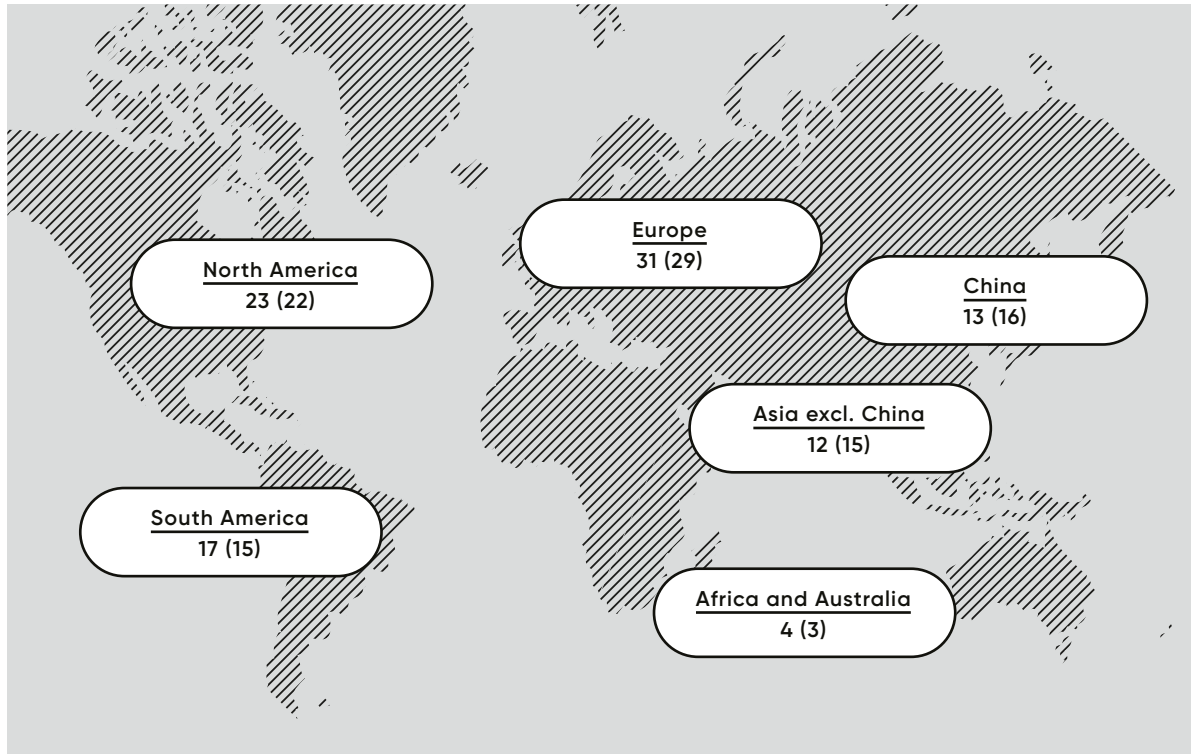
### ANDREAS MARTINER

### ALEXANDER MORI

# THE 2021 BUSINESS YEAR AT A GLANCE

Record figures for order intake, earnings and profitability

Order intake by region for 2021 (2020) in %



**1.8**  
billion euros  
gross liquidity

**7.9**  
billion euros  
order intake

**20.4**  
percent  
equity ratio

## ORDER INTAKE

Order intake of the ANDRITZ GROUP developed very favorably in the 2021 business year and reached a new record level of 7,880 MEUR (+29% compared to 2020: 6,108 MEUR). All four business areas were able to increase their order intake significantly compared to the previous year and secure important reference orders.

	Unit	2021	2020	+/-
Pulp & Paper	MEUR	3,774.7	2,961.1	+27.5%
Metals	MEUR	1,778.8	1,143.6	+55.5%
Hydro	MEUR	1,565.2	1,335.4	+17.2%
Separation	MEUR	761.0	667.9	+13.9%

## REVENUE

Revenue of the Group amounted to 6,463 MEUR and was thus just slightly below the record level of the previous year (-4% compared to 2020: 6,700 MEUR).

This decline is largely attributable to the Pulp & Paper business area, which executed several larger orders with a strong revenue contribution last year. Revenue also declined in the Metals business area due to the lower order intake in the 2020 business year. Revenue in the Hydro and Separation business areas increased slightly compared to the previous year.

	Unit	2021	2020	+/-
Pulp & Paper	MEUR	3,070.6	3,339.0	-8.0%
Metals	MEUR	1,366.1	1,420.5	-3.8%
Hydro	MEUR	1,345.1	1,296.0	+3.8%
Separation	MEUR	681.2	644.1	+5.8%

## ORDER BACKLOG

The order backlog of the ANDRITZ GROUP amounted to 8,166 MEUR as of December 31, 2021, and was thus 21% higher than the reference figure for the previous year (December 31, 2020: 6,774 MEUR). All business areas recorded an increase in order backlog compared to the end of last year.

## EARNINGS

Despite the slightly lower revenue compared to the previous year, the operating result (EBITA) of the Group increased substantially, reaching a new record level of 547 MEUR. It was thus significantly higher than the reference figure for the previous year (2020: 392 MEUR), which included extraordinary effects – particularly provisions for capacity adjustments – totaling around 79 MEUR (especially for Metals Forming and Hydro, and – to a lesser extent – also for the other business areas).

Thus, profitability (EBITA margin) increased significantly to 8.5% (2020: 5.8%). This is largely attributable to the unchanged, very favorable business development in the Pulp & Paper and Separation business areas. Moreover, the cost adjustment measures implemented in 2020 resulted in a considerable improvement in earnings, both in the Metals and Hydro business areas.

## NET WORTH POSITION AND CAPITAL STRUCTURE

Total assets amounted to 7,673 MEUR (December 31, 2020: 7,057 MEUR), while the equity ratio increased to 20.4% (December 31, 2020: 17.8%).

Liquid funds amounted to 1,838 MEUR as of December 31, 2021 (1,719 MEUR as of the end of 2020), while net liquidity increased significantly to 703 MEUR (421 MEUR as of the end of 2020).

# STRATEGY

The ANDRITZ GROUP pursues a business strategy aimed at achieving sustainable, profitable growth. The long-term goal is to obtain annual growth in revenue averaging 5-8% and at the same time increase profitability (EBITA margin) sustainably to between 8-9%. Research and development, acquisition of companies with a complementary product portfolio, technological and cost leadership, and expansion of the company's market position and global presence are the cornerstones of the ANDRITZ strategy.

## GROWTH AND PROFITABILITY

ANDRITZ invests heavily in research and development all over the world and also offers its customers pilot plants to develop and test new products and processes together with ANDRITZ. Including order-related work of this kind, around 3% of revenue is invested annually in innovation, research and development. The ANDRITZ goal is to be able to offer customers the most advanced and efficient technologies and products at all times. ANDRITZ is also pushing ahead with its active ideas and innovation management, which promotes the ideas of its employees. With intelligent technologies that create added value, ANDRITZ supports its customers in the best possible way in their efforts to achieve their business goals and also opens up new sales and growth opportunities for its own business areas.

The acquisition of companies with a complementary product and technology portfolio is also one of the cornerstones of the ANDRITZ business and growth strategy. Integrating these companies into the Group not only creates synergies but also paves the way for the companies acquired to achieve organic growth. It is the Group's primary goal overall to become a full-line supplier with global presence in all business areas by developing its own products and acquiring other companies.

In addition to increasing its revenue, ANDRITZ is focusing on enhancing profitability sustainably to between 8-9% in the coming years. Continuous optimization of cost and organizational structures as well as further expansion of its service business, which is proving very stable, are among the measures implemented to achieve this.

## **TECHNOLOGICAL AND COST LEADERSHIP**

All of the ANDRITZ GROUP's business areas are among the globally leading suppliers of their respective products and technologies. For this to continue, ANDRITZ must offer its customers the very latest technologies at all times and help achieve their goals in terms of productivity, quality, resource and energy efficiency, as well as sustainability. The ambitious claim of being the preferred technology supplier and at the same time maintaining a competitive cost structure requires ANDRITZ to implement constant cost optimizations. It is also essential to have a manufacturing and locations plan that takes account of regional cost and competitive advantages.

## **EXPANSION OF MARKET POSITION AND GLOBAL PRESENCE**

ANDRITZ concentrates on markets with long-term and sustainable growth potential, and again within these markets, on areas showing strong and above-average growth compared to the gross national product. This growth is driven by long-term socio-ecological trends or megatrends such as urbanization, digitalization or e-mobility.

With a balanced mix of global and local presence, ANDRITZ can also support its customers in achieving their goals in terms of productivity, profitability and sustainability. ANDRITZ considers it essential to further expand its worldwide presence in order to utilize growth potential, particularly in the emerging economies of South America and Asia, and be close to its customers to guarantee the best possible and prompt service. By further relocating manufacturing capacities to emerging markets, ANDRITZ can profit from growth in these regions and, at the same time, provide a strong impetus for further economic growth and the labor market there.



# THE ANDRITZ SHARE

## SHARE PRICE DEVELOPMENT

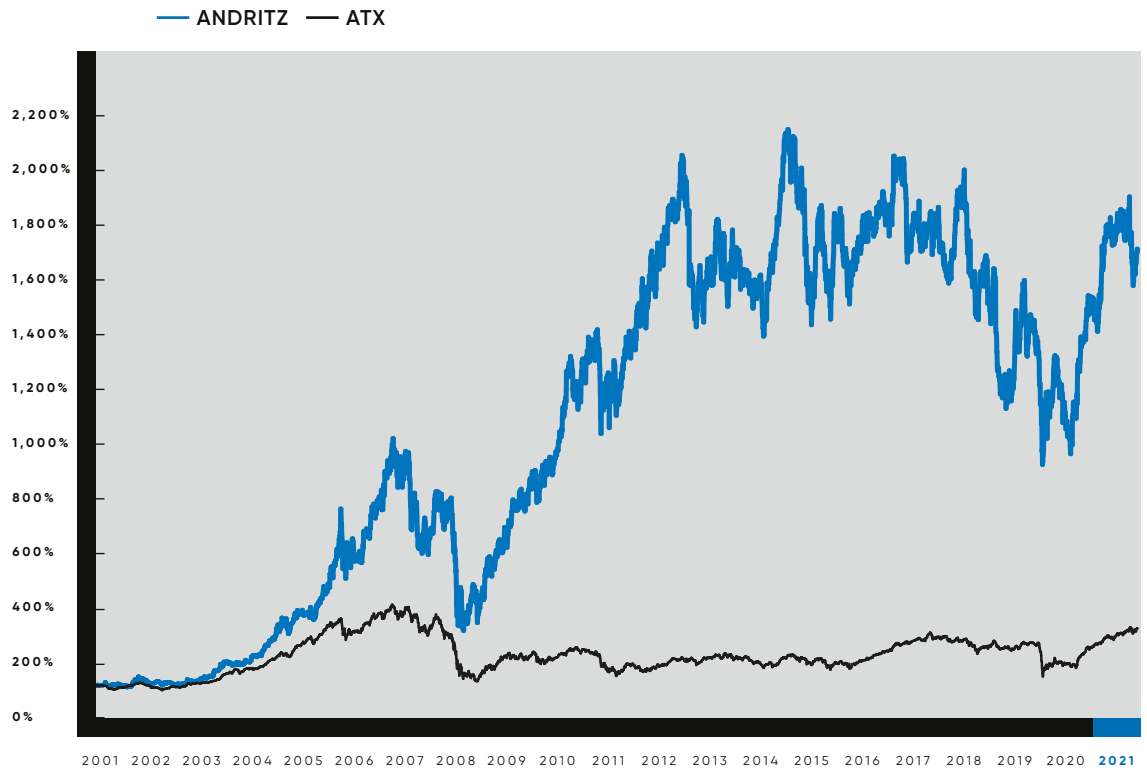
Developments on the international financial markets in 2021 were characterized by the economic recovery in the world's most important economic regions. Almost all of the share indices on the main stock exchanges in Europe, the USA and Asia were able to make up for the sharp decline caused by the Covid-19 pandemic in the previous year and even achieved record levels due to the favorable economic and earnings perspectives for the companies listed.

In this stock exchange environment, the ANDRITZ share price rose by 21.1% in 2021. During the same period, the ATX, the leading share index on the Vienna Stock Exchange, increased by 38.9% due to the strong price performance of the highly weighted banking sector. The highest closing price of the ANDRITZ share was 50.85 EUR (November 4, 2021), while the lowest closing price was 36.66 EUR (January 5, 2021).

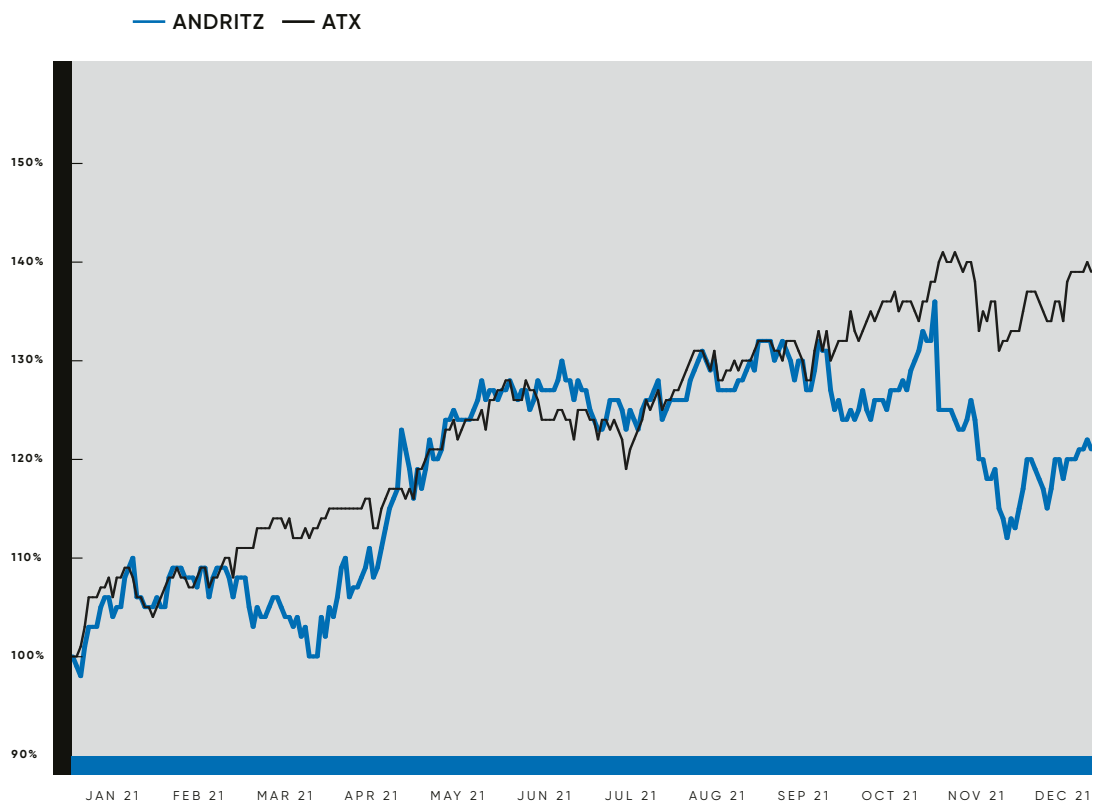
## LONG-TERM DIVIDEND POLICY

ANDRITZ pursues a dividend policy oriented towards continuity. Depending on how business develops and on any large-scale acquisitions, ANDRITZ's goal is to distribute an average of 50-60% of profits earned to the shareholders in the long term.

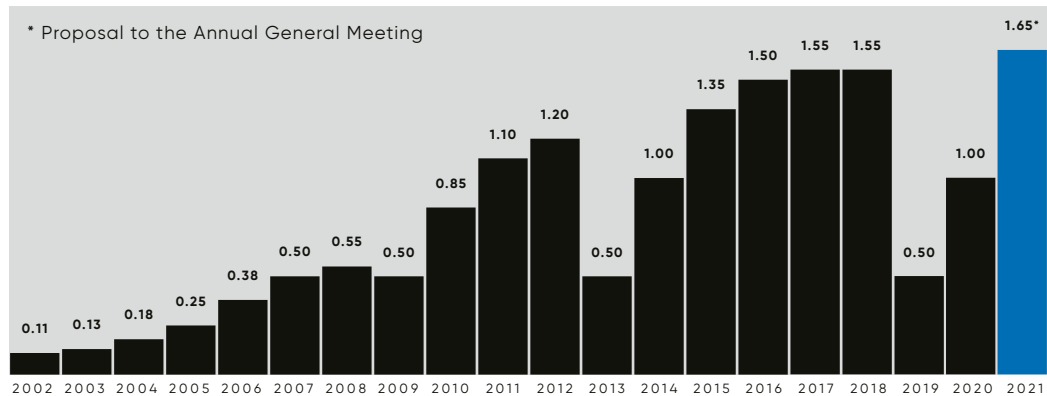
## RELATIVE SHARE PRICE PERFORMANCE OF THE ANDRITZ SHARE VERSUS THE ATX SINCE THE IPO



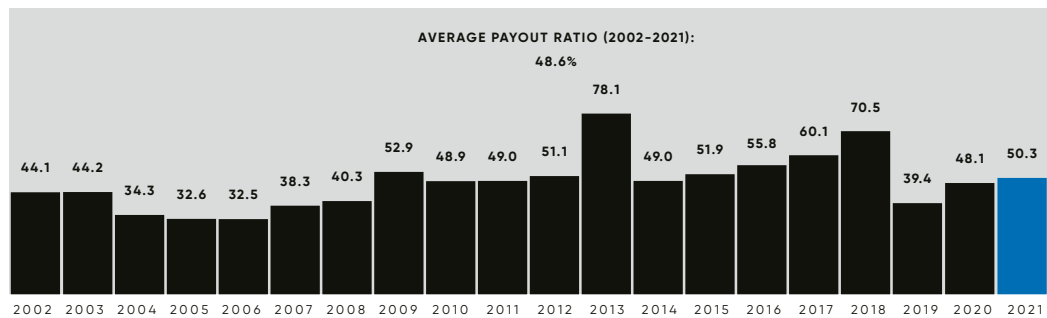
## RELATIVE SHARE PRICE PERFORMANCE OF THE ANDRITZ SHARE VERSUS THE ATX IN 2021



## DEVELOPMENT OF THE DIVIDEND PER SHARE 2002–2021



## DEVELOPMENT OF THE PAYOUT RATIO 2002–2021



## STABLE AND WELL-BALANCED SHAREHOLDER STRUCTURE

ANDRITZ has a stable and well-balanced shareholder structure. Around 31.5% of the ANDRITZ AG share capital was held – some directly and some indirectly – by Wolfgang Leitner, CEO of ANDRITZ AG, on the balance sheet date. A holding of 30.72% is owned by Custos Vermögensverwaltungs GmbH and 0.77% by Cerberus Vermögensverwaltung GmbH. With a free float of just under 70%, national and international institutional investors and private investors make up the majority of the shareholders. Most of the institutional investors come from the UK, Austria, and Germany, while the bulk of the private investors are from Austria and Germany.

## TRANSPARENT COMMUNICATION POLICY

Continuous and transparent communication with institutional and private shareholders has been the focus of investor relations activities since the ANDRITZ IPO in 2001. Due to the Covid-19 pandemic, the resulting travel restrictions and also for safety reasons, roadshows and investor conferences were conducted solely as virtual events in 2021. In addition, numerous video and conference calls were held to report and provide information on the main key figures and on the company's strategic and operative development.

At the virtual ANDRITZ Capital Market Day 2021, the Executive Board provided information on current developments and expectations for the business areas and on the goals of the ANDRITZ GROUP in the medium to long term.

## BROAD RESEARCH COVERAGE

In addition to overall economic and company-specific considerations, the recommendations and share price goals voiced by analysts play an important role in investment decisions by shareholders. The following international banks and investment houses publish analysis reports on ANDRITZ at regular intervals: Baader Bank, Deutsche Bank, ERSTE Bank, Goldman Sachs, Hauck & Aufhäuser, HSBC Trinkaus, J.P. Morgan, Kepler Cheuvreux, Morgan Stanley, Raiffeisen Bank International, UBS, Warburg Research, and Wiener Privatbank.

The latest information on research coverage and consensus estimates is available on the Investor Relations page of the ANDRITZ website: [andritz.com/research-coverage](https://www.andritz.com/research-coverage)

## KEY FIGURES OF THE ANDRITZ SHARE

	Unit	2021	2020	2019	2018	2017
Earnings per share	EUR	3.28	2.08	1.27	2.20	2.58
Dividend per share	EUR	1.65 <sup>1</sup>	1.00	0.50	1.55	1.55
Payout ratio	%	50.3	48.1	39.4	70.5	60.1
Price-earnings-ratio (based on the year-end closing price)	-	13.84	18.02	30.24	18.24	18.25
Equity attributable to shareholders per share	EUR	15.86	12.64	12.05	13.02	12.77
Highest closing price	EUR	50.85	38.82	45.06	53.50	54.87
Lowest closing price	EUR	36.66	24.36	29.88	38.88	44.32
Closing price at year-end	EUR	45.38	37.48	38.40	40.12	47.09
Market capitalization (at year-end)	MEUR	4,719.5	3,897.9	3,993.6	4,172.5	4,896.8
Performance	%	+21.1	-2.4	-4.3	-14.8	-1.3
ATX weighting (at year-end)	%	5.3766	6.1243	5.6622	7.1045	6.2680
Average trading volume <sup>2</sup>	Shares	313,879	628,900	511,221	354,084	306,296

Source: Vienna Stock Exchange

1 Proposal to the Annual General Meeting

2 Double counting – as published by the Vienna Stock Exchange

## FINANCIAL CALENDAR 2022

March 8, 2022	Results for the 2021 business year
March 28, 2022	Record date of Annual General Meeting
April 7, 2022	Annual General Meeting
April 11, 2022	Ex-dividend
April 12, 2022	Dividend record date
April 13, 2022	Dividend payment
April 29, 2022	Results for the first quarter of 2022
July 29, 2022	Results for the first half of 2022
November 4, 2022	Results for the first three quarters of 2022

The financial calendar with updates and information on the ANDRITZ share can be found on the Investor Relations page at the ANDRITZ website: [andritz.com/share](https://andritz.com/share)

# SUSTAINABILITY AND COMPLIANCE

For the ANDRITZ GROUP, sustainability and compliance are among the cornerstones of responsible company management. Together with the company's core values – passion, partnership, perspectives and versatility – these cornerstones define what ANDRITZ stands for as a company and form the basis of its entrepreneurial activities, which are intended to satisfy the needs of all stakeholders.

## SUSTAINABILITY (ESG)

Sustainability has been an important part of the ANDRITZ business strategy and company culture for many years now. The ANDRITZ group-wide sustainability program “We Care” was launched in 2021, bringing together all of the activities, measures, goals and plans in this field.

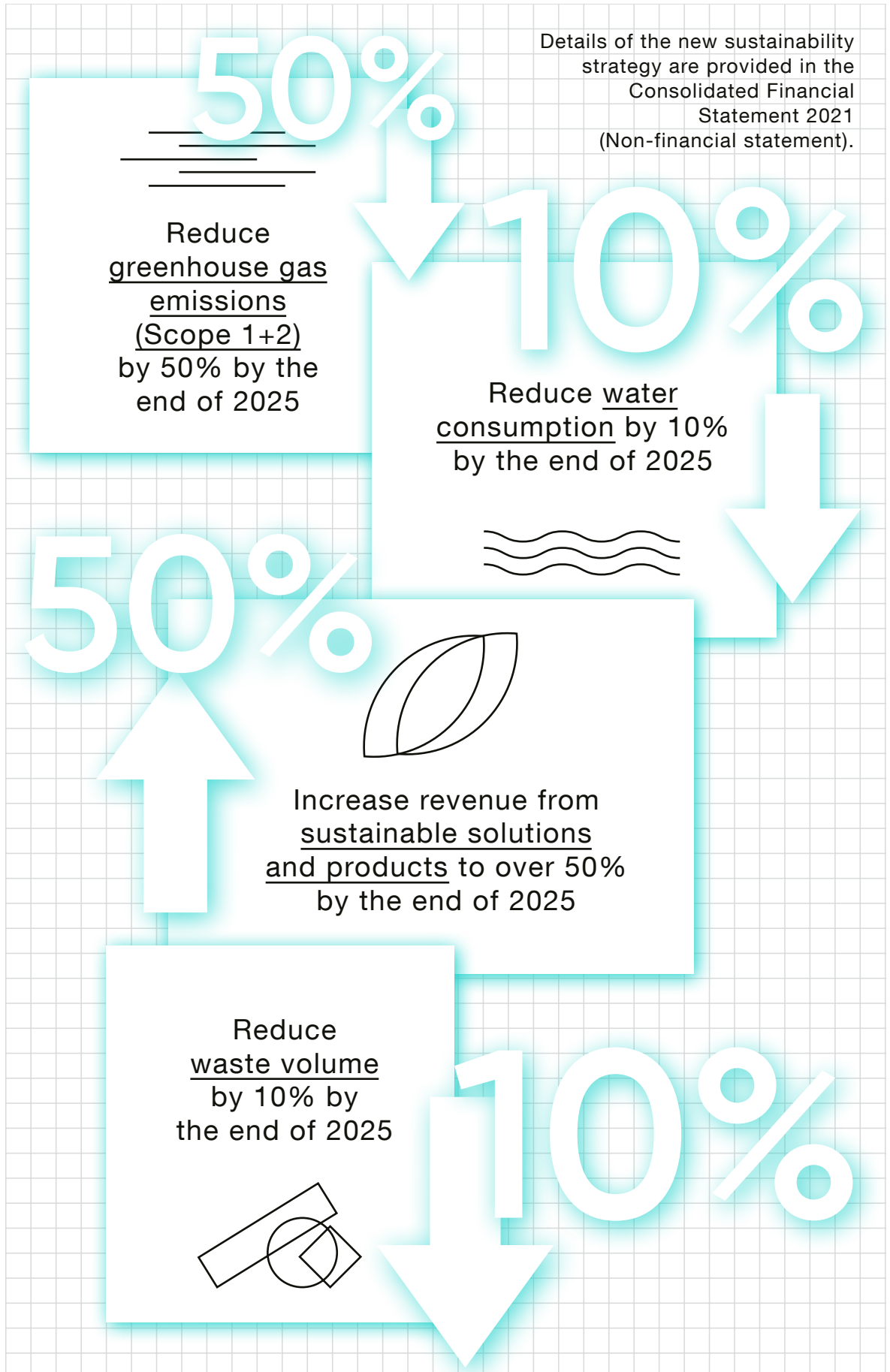
“We Care” takes a comprehensive, multi-dimensional and practice-oriented approach to sustainability. The Executive Board and Supervisory Board have set ambitious goals in each of the three focus areas – Environment (environmental protection with main focus on climate protection and conservation of resources), Social (with main focus on employees and occupational health and safety) and Governance (focusing on responsible company management and anti-corruption) – in order to make the largest possible contribution towards a sustainable future.

Focus area – Environment: ANDRITZ is concentrating on developing and marketing sustainable technologies and products that further decarbonization and reduce customers' consumption of limited resources, thus making a substantial contribution towards climate and environmental protection. ANDRITZ already generates just under 40% of its revenue with products and technologies of this kind, and their share is to be further increased in the next few years. What is more, ANDRITZ has also set itself ambitious climate and environmental protection goals: For example, the company's own CO<sub>2</sub> footprint is to be halved by 2025, while water consumption and the amount of waste produced are also to be reduced significantly.

Focus area – Social: The ESG goals in this sector focus above all on accident prevention and positioning ANDRITZ as an attractive employer, which should be reflected in a lower fluctuation rate as well as in a higher proportion of women and generally greater diversity in the workforce.

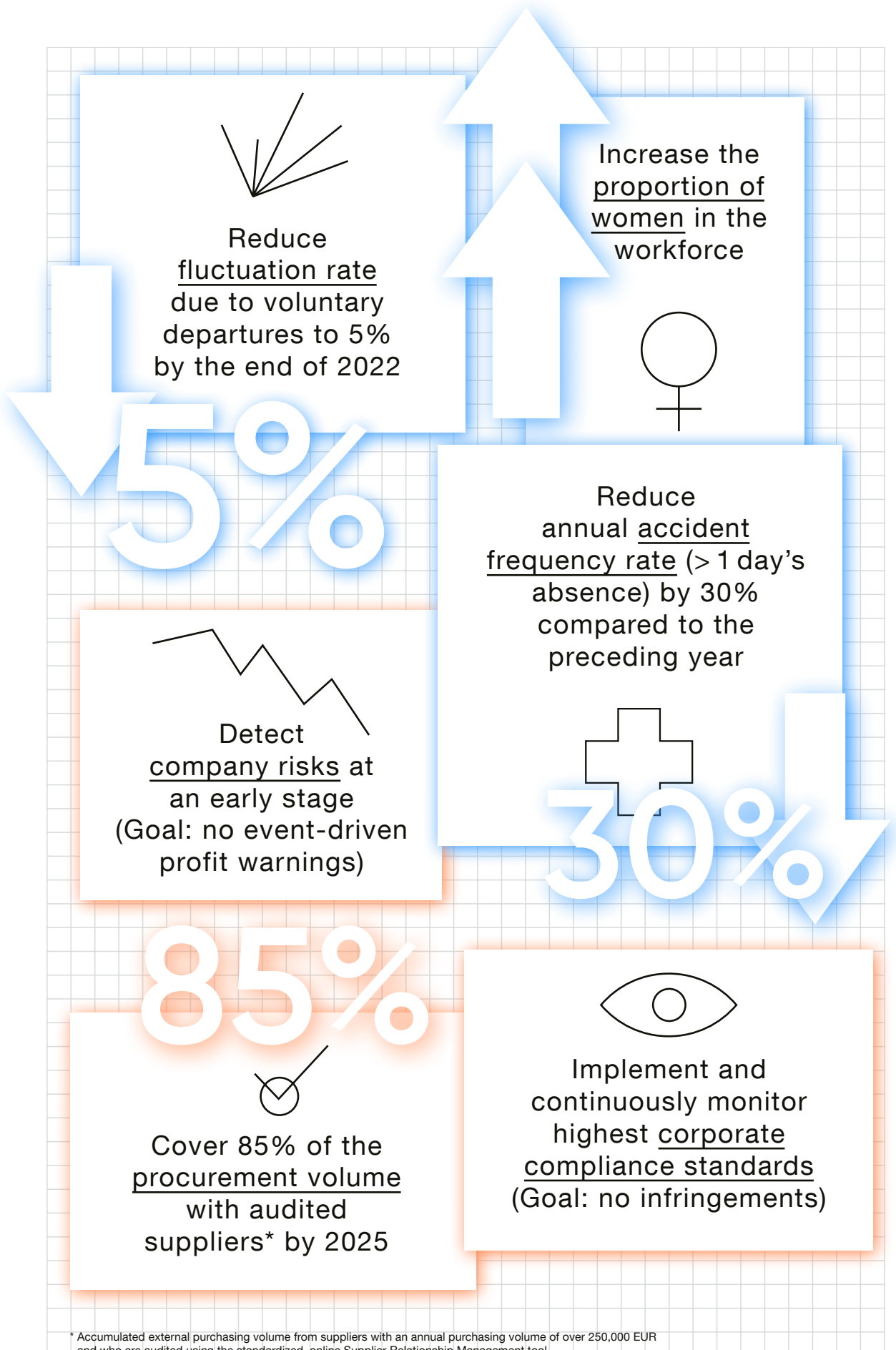
Focus area – Governance: ANDRITZ is concentrating its entrepreneurial activities on minimizing relevant corporate risks and continuously expanding its compliance activities, with special focus on sustainable supply chain management.

## THE ESG GOALS AT A GLANCE 1/2





## THE ESG GOALS AT A GLANCE 2/2



## COMPLIANCE

Compliance and ethical conduct with integrity, respect, reliability and sustainability as their cornerstones form the basis upon which ANDRITZ does business.

In addition to observing the extensive legal requirements, ANDRITZ has laid down internal values, principles and rules in its Code of Conduct and Ethics that apply to all management staff, employees and external stakeholders working for ANDRITZ.

A group-wide compliance committee has the task of regularly updating and adapting the regulations and of monitoring compliance with them. The members of this committee come from different group functions and focus on such topics as corruption prevention, restraint of trade, anti-discrimination, prevention of insider trading, supplier compliance, export controls, and data protection.

Regional compliance officers assist the committee and are there as contacts for employees at their own locations to advise on compliance matters.

In order to verify how effective the compliance management system is and implement further improvements, ANDRITZ has obtained certification according to ISO 19600 for the compliance management system and ISO 37001 for anti-corruption management. The regulations contain requirements for developing, implementing and maintaining a compliance management system as well as measures to help protect against, track down and provide proof of corruption.

ANDRITZ has implemented various measures, above all training on individual compliance topics, to provide and enhance a basic understanding of compliance.

# PUBLISHER'S NOTE

## DISCLAIMER

Certain statements contained in the Annual Report 2021 and in the Annual Financial Report 2021 constitute “forward-looking statements.” These statements, which contain the words “believe,” “intend,” “expect,” and words of similar meaning, only reflect the Executive Board’s beliefs and expectations and are subject to risks that may cause actual results to differ materially. As a result, readers are cautioned not to place undue reliance on such forward-looking statements. The company disclaims any obligation to publicly announce the result of any revisions to the forward-looking statements made herein, except where it would be required to do so under applicable law. The Annual Report 2021 and the Annual Financial Report 2021 contain assumptions and forecasts based on the information available up to the copy deadline on February 25, 2022. If the premises for these assumptions and forecasts do not materialize or risks indicated in the “Risk management” chapter and in the Management Report of the Annual Financial Report 2021 do arise, actual results may vary from the forecasts made in the Annual Report 2021 and the Annual Financial Report 2021. Although the greatest care was exercised in preparing data, all information relating to the future is provided without guarantee.

## NOTE

In this report, ANDRITZ strives to use gender-sensitive language. If this is not possible in places, any personal terms used relate to all genders equally. The Annual Report 2021 is available in digital form only and is also published in German. In the event of any discrepancies, the German version shall prevail.

## ANNUAL FINANCIAL REPORT 2021

Detailed information on the 2021 business year, such as the integrated Management Report and Consolidated Financial Statements for 2021, can be found in the Annual Financial Report 2021, available for download at [andritz.com/downloads](https://andritz.com/downloads).

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