



ANDRITZ CAPITAL MARKETS DAY

# ENVIRONMENT & ENERGY

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**ANDRITZ**

ENGINEERED SUCCESS



# AGENDA



1 | INTRODUCTION

2 | OUR SUSTAINABILITY PRODUCTS

3 | REVIEW CMD 2021

4 | MARKET DEVELOPMENT / FRAME CONDITIONS

5 | STRATEGIC DIRECTION

6 | FINANCIALS

7 | OUTLOOK



# EMPOWERING TOMORROW – TODAY!



Turning challenges into sustainable solutions

## ANDRITZ ENVIRONMENT & ENERGY

- Supports its customers in achieving their goals
- Is dedicated to environmental responsibility
- Works towards a clean and more sustainable world
- Leverages on existing expertise and strengths
- Delivers sustainable process technologies for multiple industries to
  - Expand current markets
  - Serve the evolving needs of environmentally conscious industries and green energy sectors
- Is committed to generating sustainable value for all its stakeholders



# UNMATCHED PROCESS AND ENGINEERING EXPERTISE



We provide an exceptionally broad product portfolio and are well positioned in our markets

## SEPARATION ~EUR 6 bn\*



Mechanical & thermal separation equipment and systems for the environment, chemicals, mining & minerals and food & beverage industries.

## FEED & BIOFUEL ~EUR 2 bn\*



Processing solutions and equipment for feed, pet food and biofuel industries.

## PUMPS ~EUR 5 bn\*



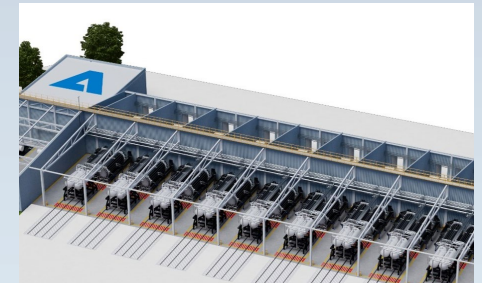
Premium pumping technology for water, pulp & paper, power and general industries.

## CLEAN AIR TECHNOLOGIES ~EUR 2 bn\*



Emission reduction technologies including carbon capture solutions.

## GREEN HYDROGEN ~EUR 3 bn\*

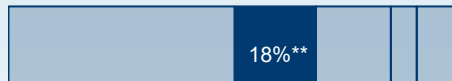


Green hydrogen, renewable fuels and P2X solutions.

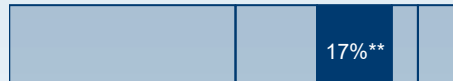
Cutting-edge automation and digitalization + comprehensive and reliable services worldwide.



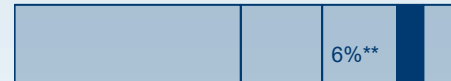
**#1-3** in mechanical/thermal separation (dewatering & drying)



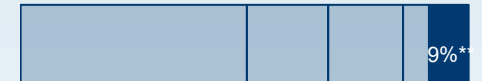
**#1-3** in animal feed and biomass



**#2-3** in pulp & paper and desalination



**#1** in lime-/limestone-based Flue Gas Treatment, globally.  
**#1-3** in dedusting, EMEA

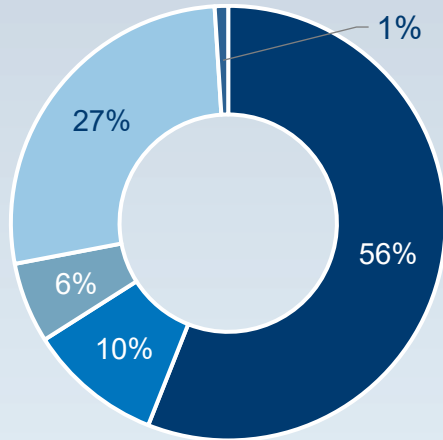


n.a.  
(emerging market)



# RESOURCES AND VOLUME GLOBALLY WELL BALANCED

Regional split of employees



- Europe
- North America
- South America
- Asia
- Rest of World

### EMERGING MARKETS

- Revenue: 52%
- Employees: 42%

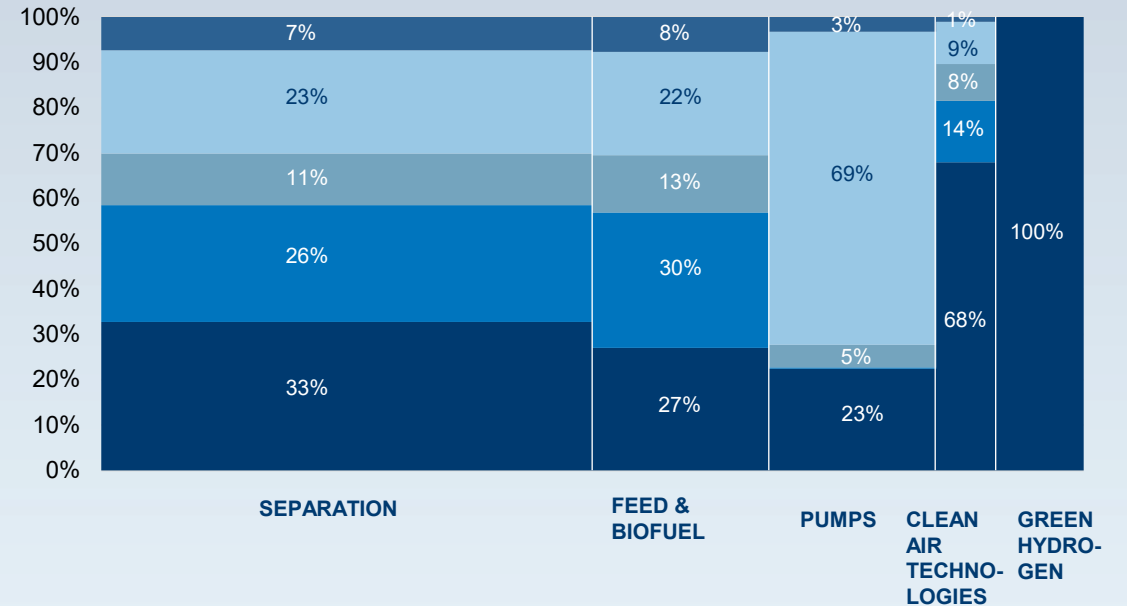
### DEVELOPED MARKETS

- Revenue: 48%
- Employees: 58%

### 4,300 EMPLOYEES:

- 30% Technology, engineering, project management
- 30% Sales and marketing, administration
- 40% Manufacturing

Share of business by region and segment



- Europe
- North America
- South America
- Asia
- Rest of World



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# CREATING SUSTAINABLE VALUE WITH OUR PROCESS TECHNOLOGIES



Meeting the needs of environmentally conscious industries and green energy sectors

## OUR TECHNOLOGIES ARE PAVING THE WAY FOR BREAKTHROUGH SOLUTIONS FOR MULTIPLE INDUSTRIES AND PROCESSES SUCH AS

- Water management
- Desalination
- Irrigation
- Waste/sludge-to-value
- Battery-related mining
- Food and feed valorization
- Biofuel
- Air emissions reduction
- P2X





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# REVIEW CMD 2021



What did we promise / What have we achieved?

TARGET	STATUS
Further establish <b>ANDRITZ as a premium brand</b> in the market and <b>participate in megatrends</b> , e.g. alternative proteins and e-mobility	<ul style="list-style-type: none"> <li>• First orders received</li> <li>• Acquisition of Dedert: Improves our readiness for growing markets such as alternative proteins and lithium processing</li> </ul> <p style="text-align: right;">   <b>Achieved</b> </p>
<b>Grow business volume to EUR 1 bn by becoming technology leader</b> (investment in R&D pilot plant) increased launch of new products and <b>service growth</b> by closing white spots, investment in wear part manufacturing (global footprint), new die shop (China)	<ul style="list-style-type: none"> <li>• New Food Innovation Xperience center opened in the Netherlands</li> <li>• Launch of new products (e.g. Turbex)</li> <li>• Service center in Nevada, USA opened</li> <li>• Die shop in China in operation</li> </ul> <p style="text-align: right;">   <b>Achieved</b> </p>
<b>9-11% EBITA margin goal</b> → continuation of cost control, completion of restructuring of low performing units and continuing transfer of manufacturing & engineering to best cost countries	<ul style="list-style-type: none"> <li>• Initiatives implemented</li> <li>• EBITA goal achieved</li> </ul> <p style="text-align: right;">   <b>Achieved</b> </p>
Shift from machine supplier to <b>process solution provider</b> in capital and from preferred supplier <b>to strategic business partner</b> in service	<ul style="list-style-type: none"> <li>• Acquisition of Dedert: Combined portfolio enables complete solutions from dewatering to drying for the starch, biofuel, and food industry</li> <li>• Service level agreements implemented</li> </ul> <p style="text-align: right;">   <b>Achieved</b> </p>
<b>Gain digital leadership</b> by implementing innovative and integrated solutions	<ul style="list-style-type: none"> <li>• Organizational set-up done</li> <li>• New Metris-based solutions implemented (e.g. Metris addIQ RheoScan)</li> </ul> <p style="text-align: right;">   <b>Ongoing</b> </p>



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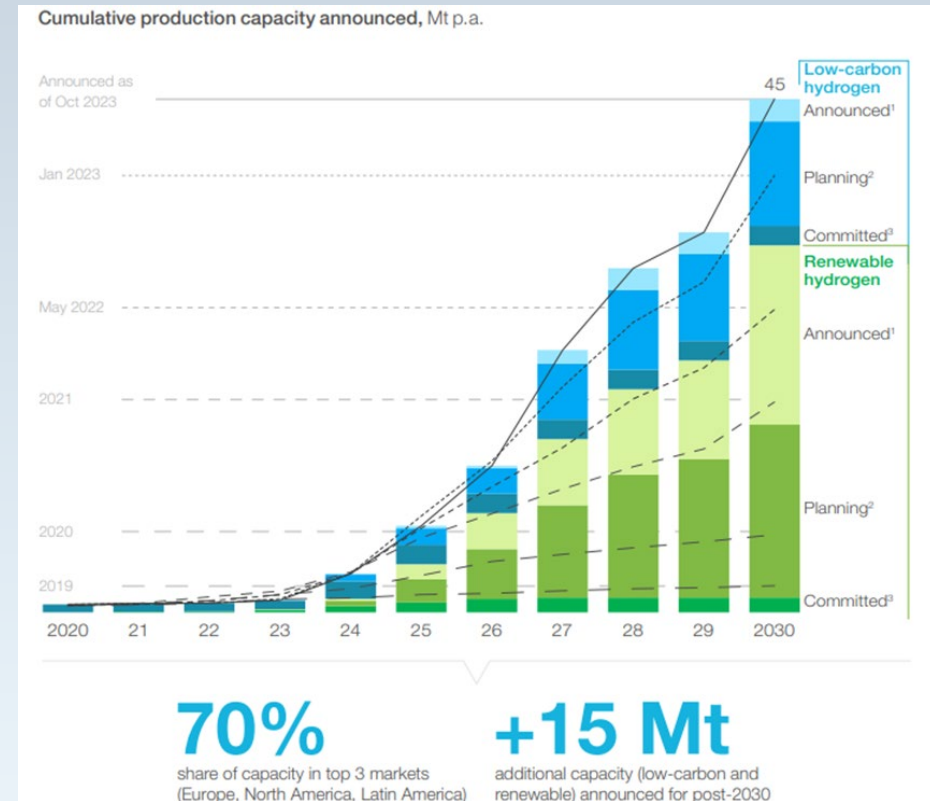
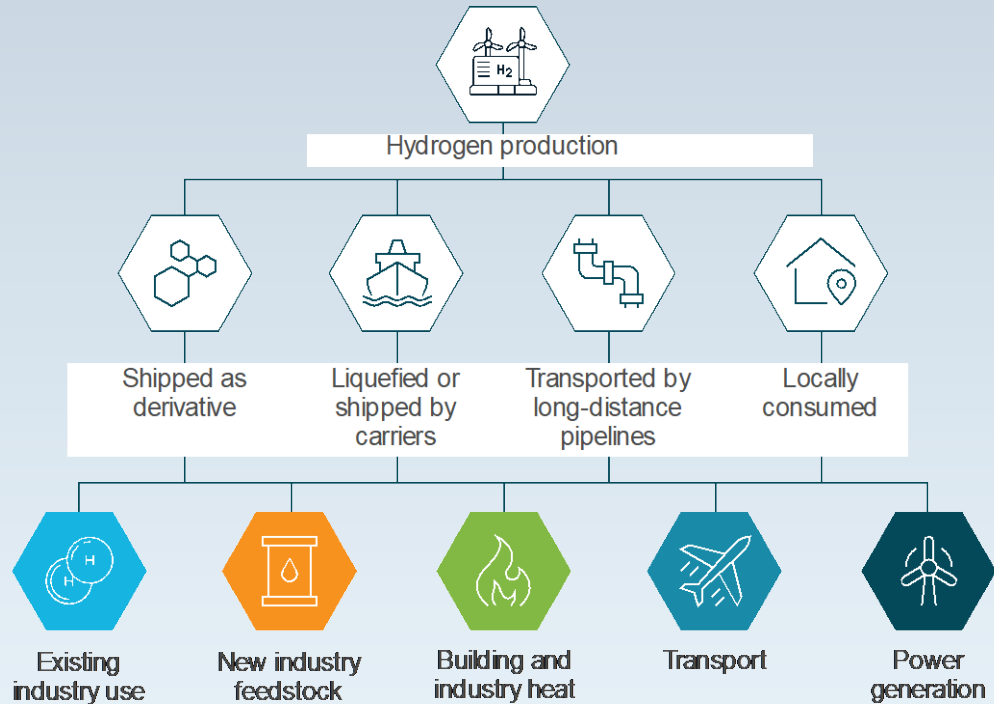
# OUR MARKETS ARE GROWING, AND OVERALL DRIVERS AND TRENDS GRANT ADDITIONAL GROWTH OPPORTUNITIES



	SEPARATION	FEED & BIOFUEL	PUMPS	CLEAN AIR TECHNOLOGIES	GREEN HYDROGEN
					
<b>Underlying mid-term market growth</b>	4.5-5%	3-4%	4%	3-10% (10% incl. carbon capture market with ~15% growth per year)	25-30%
<b>Current strong regional markets</b>	EMEA, North America, Asia (India)	EMEA, APAC	EMEA, Asia	EMEA, North America	EMEA, Asia
<b>Special growth opportunities</b>	Battery minerals, waste to energy, food valorization, desalination, plastic recycling	Plant solutions, automation and digitalization, biomass, alternative proteins	Water management, desalination, efficiency driven pump upgrade, biofuel	Emission regulations, new decarbonized production processes	Renewable energy transition, plant solutions and complete life cycle services



# GREEN HYDROGEN DEMAND IS EXPECTED TO GROW TO >30 MIO. TONS PER ANNUM BY 2030

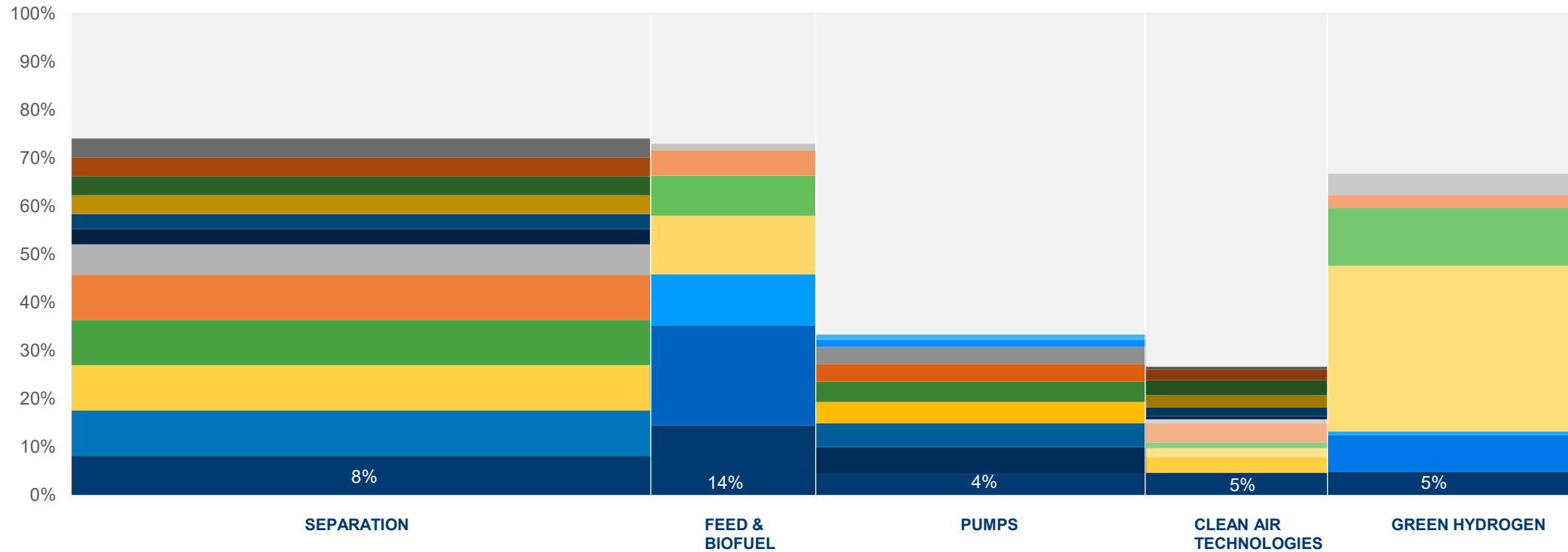




# MARKET SETTING: FRAGMENTED, NOT CONSOLIDATED



Good growth potential



ANDRITZ

Main competitors

Others



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# THE PILLARS OF OUR BUSINESS MODEL



- Market / customer focus
- Solution oriented
- Service driven
- Automation and digitalization
- R&D and innovation
- Operational excellence





# MARKET / CUSTOMER FOCUS



## Green hydrogen

- PROJECT** Salzgitter Flachstahl, Germany. One of Europe's largest green hydrogen plants.
- SCOPE** 100 MW green hydrogen plant on an EPC basis, incorporating pressurized alkaline electrolyzers from HydrogenPro
- ENERGY** 9,000 tons of green hydrogen per year



# MARKET / CUSTOMER FOCUS



## Carbon capture for industrial processes

- PROJECT** Rohrdorfer, Germany.  
CO<sub>2</sub> capture plant in Germany based on amines in the cement industry.
- SCOPE** CO<sub>2</sub> absorption / desorption process
- OUTPUT** Cement kiln producing approx. 1 Mton clinker/year
- CO<sub>2</sub>** >2 tons captured per day,  
purified and compressed for further industrial use



© Rohrdorfer plant, © myzikundjarisch tower



# MARKET / CUSTOMER FOCUS



## Municipal wastewater treatment

- PROJECT** Wastewater treatment plant in southwest France. An innovative treatment process making the plant an energy-positive biofactory, with low carbon footprint.
- SCOPE** 2 screw presses (C-Press C-10050) to pre-dewater the sludge upstream of the hydrothermal treatment
- ENERGY** 13,000 MWh of energy produced (recovered from biogas)
- CO<sub>2</sub>** up to 5,000 tons of CO<sub>2</sub> emissions avoided each year



(c) Photo Eric Labruyère pour Suez

# MARKET / CUSTOMER FOCUS

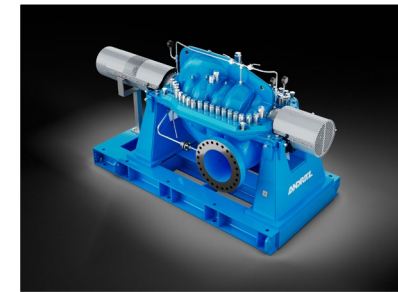


## Desalination

**PROJECT** Tseung Kwan O, Hong Kong.  
Desalination plant.

**SCOPE** The plant has 61 pumps and is based on reverse osmosis. Capacity 135,000 m<sup>3</sup>/day.  
Two filter presses for sludge dehydration.

**WATER** Production ~135 million liters per day  
of potable water.





# R&D AND INNOVATION: GUARANTEEING SUCCESS IN OUR BUSINESS MODEL



New products / automation and digitalization / plant solutions / service

## Novel solutions **Turbex**

This patented technology provides a disruptive extraction process for optimized valorization of functional nutrients.



## Smart operation **Metris addIQ RheoScan**

This AI-powered technology detects the actual sludge viscosity during thickening and dewatering processes and accurately adjust the needed polymer dose to match changing flow rates and sludge conditions.



## End-to-end value optimization **Modular plant solution**

This solution maintains top-notch quality and achieves cost-effectiveness in the entire 'farm to fork' process chain.



## Customer care improvement **Intelligent service solutions**

Establishment of intelligent service offerings such as remote services, leasing options or service level agreements to even better support our customers worldwide for increased productivity.



# TARGETS & AMBITIONS



## TARGETS & AMBITIONS

Grow business ~10% p.a.

EBITA target of 10%-13%

Establish ANDRITZ as a premium brand in environment and energy sectors

## STRATEGIC INITIATIVES

- Increase market share in focus industries
- Participate in megatrends such as green hydrogen
- Partner with our customers to achieve common strategic targets
- Further extend scope from single equipment to plant solutions
- Provide automation and digital solutions
- Expand product portfolio through R&D and innovation

- Grow service business with improved customer proximity
- Value based pricing
- Continue transfer of manufacturing & engineering to best cost countries
- Improve project execution

- Further expand our product portfolio for sustainable solutions
- Offer integrated solutions like P2X in various industries
- Targeted complementary M&A



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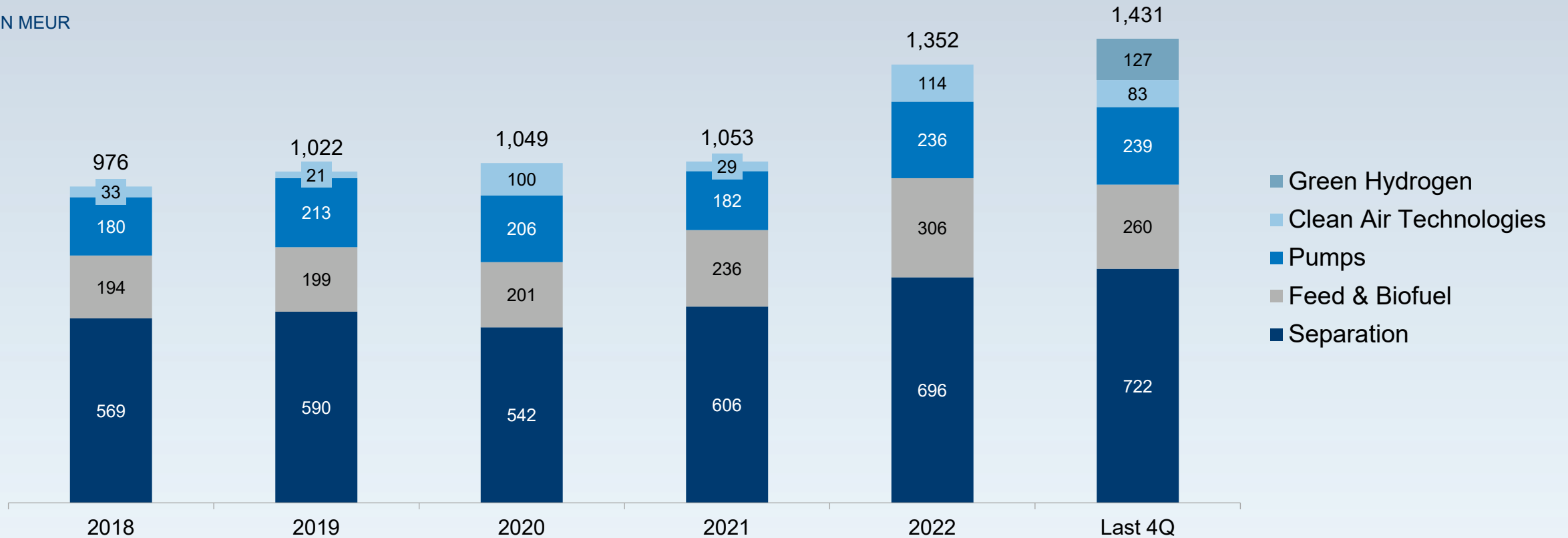
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# ORDER INTAKE



IN MEUR



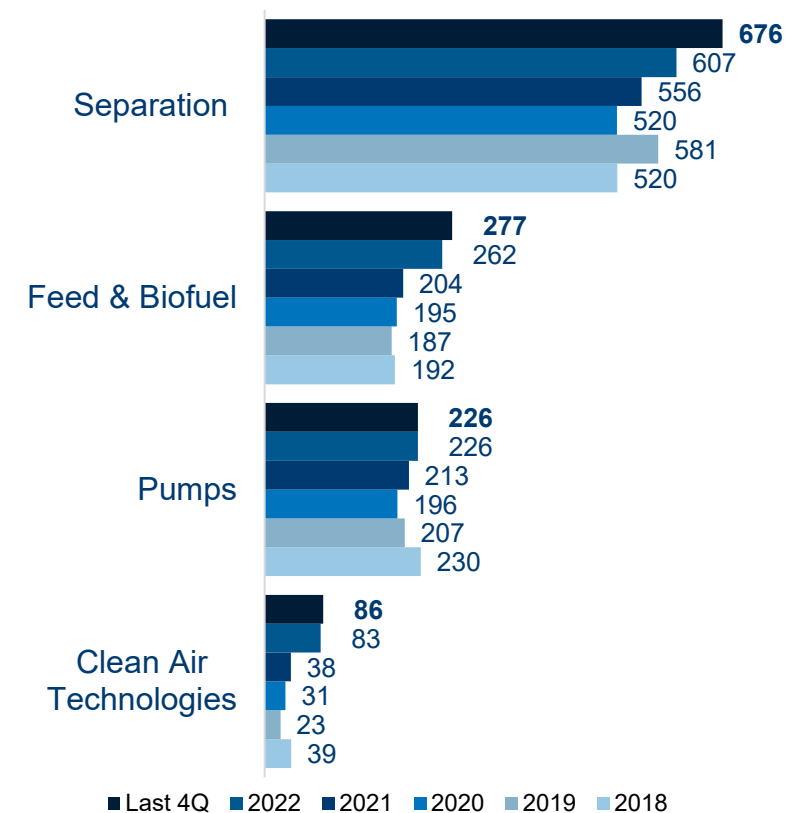


# FINANCIAL DEVELOPMENT



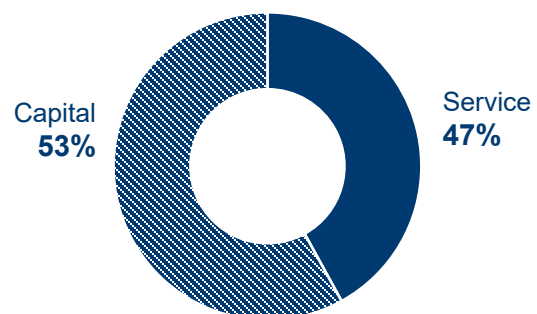
FINANCIAL OVERVIEW						
in MEUR	2018	2019	2020	2021	2022	last 4Q
Order Intake	976	1,022	1,049	1,053	1,352	1,431
Order backlog (as of end of period)	791	784	854	909	1,077	1,248
Revenue	982	998	941	1,011	1,177	1,265
EBITA	53	69	90	109	139	147
EBITA margin in %	5.4%	6.9%	9.5%	10.8%	11.8%	11.6%

## REVENUE BY SEGMENT



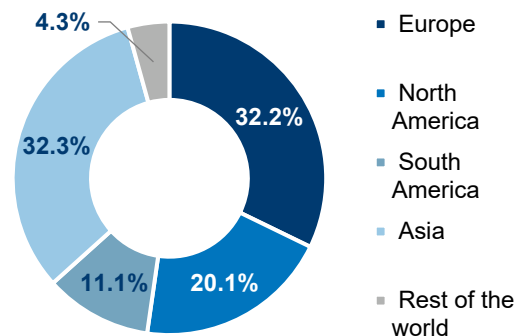
## REVENUE SPLIT CAPITAL / SERVICE

LAST 4Q (Q4-Q3)



## REVENUE BY REGION

LAST 4Q (Q4-Q3)

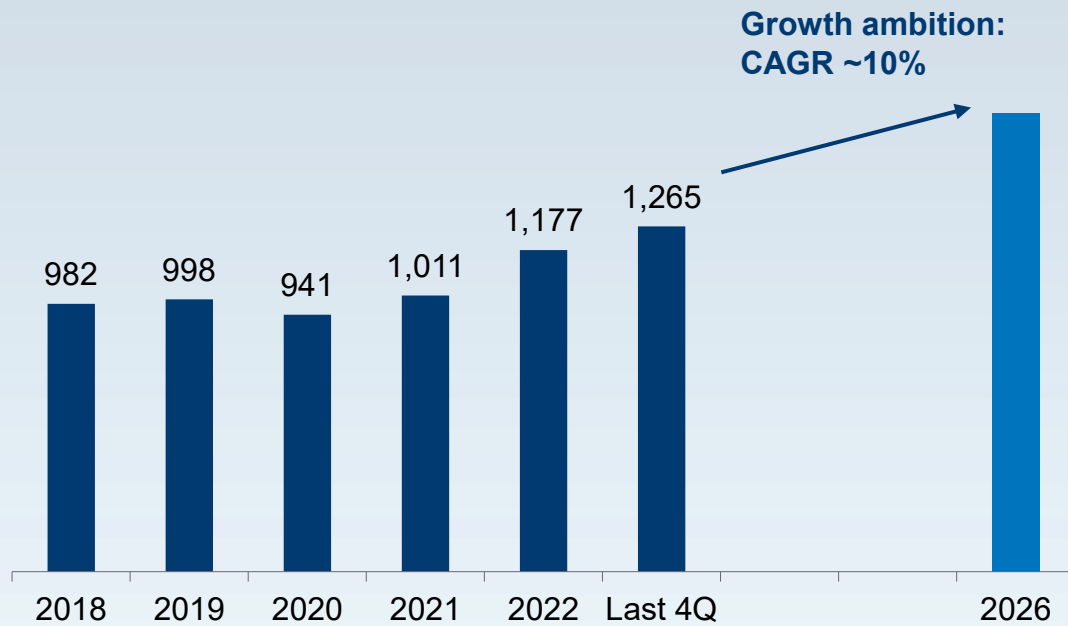


Note: Green Hydrogen OI >100 Mio Euro; no revenue recognition yet

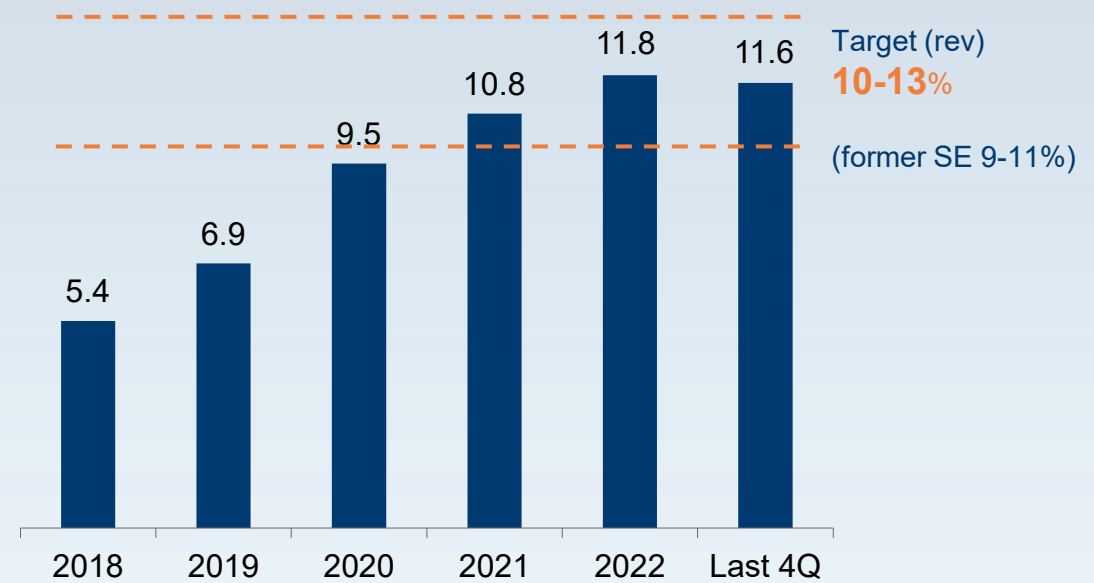
# FINANCIAL TARGETS & AMBITIONS



Revenue (in MEUR)



EBITA margin (in %)





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# WELL POSITIONED FOR PROFITABLE BUSINESS DEVELOPMENT



- Global presence including service network
- Proven track record and good growth potential in core segments and megatrends
- Strong positioning in emerging markets and promising market segments with high demand
- Well-balanced portfolio, combining stable established businesses with a focus on future businesses with new technologies
- Technological leadership
- Broad product portfolio to serve growing environmental and energy sectors
- Financial strength of the ANDRITZ Group







QUESTIONS?

**ANDRITZ**

ENGINEERED SUCCESS



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