

Aurubis AG

Metals for Progress

Roadshow Aurubis
New York



Executive summary of first 3 months 2022/23

Operating EBT
3M 2022/23 of
€ 125 million
(PY: € 164 million)¹

ROCE
16.3 %
(PY: 17.9 %) ¹

Stable market conditions and solid operative performance led to good three-month figures for FY 2022/23, despite higher energy prices and general cost inflation

Input-material-related decreased metal result. Metal result remains a significant earnings contribution for Group's earnings

Lower sulfuric acid revenues – with ongoing strong pricing for sulfuric acid products

Very good operating performance at our primary smelter in Pirdop

Net cash flow
€ -64 million
(PY: € -85 million)

Confirmed forecast
range for FY 2022/23
€ 400–500 million
op. EBT

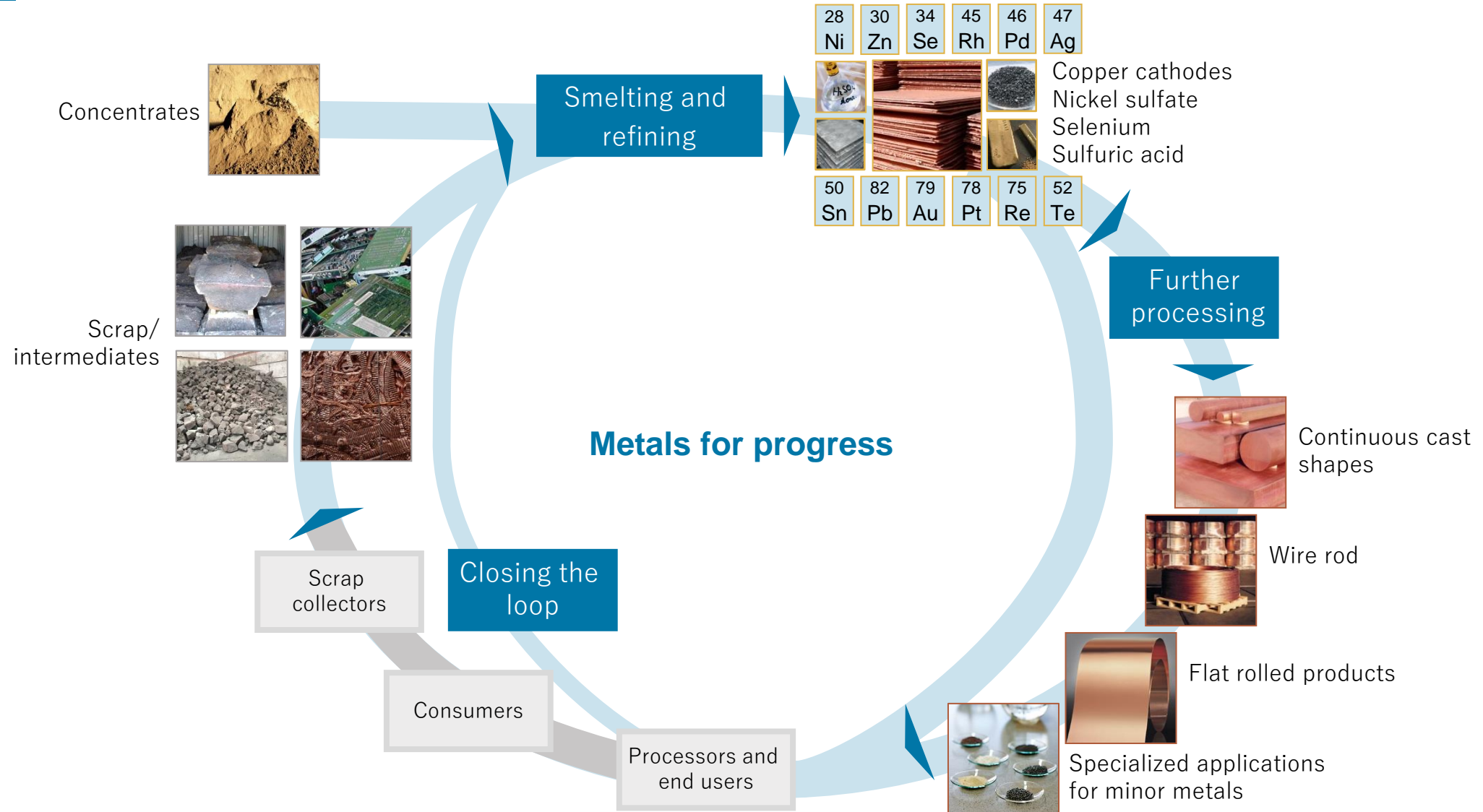
Net cash flow low due to temporarily high working capital

Op. EBT for FY 2022/23 expected at the upper end of the € 400–500 million forecast corridor




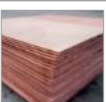




¹ Prior-year figures adjusted


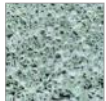


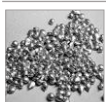



» Stable operating performance and stabilizing markets lead to a guidance at the upper end of the corridor

Closing the loop is part of Aurubis' integrated business model



Increased concentrate throughput and strong product demand

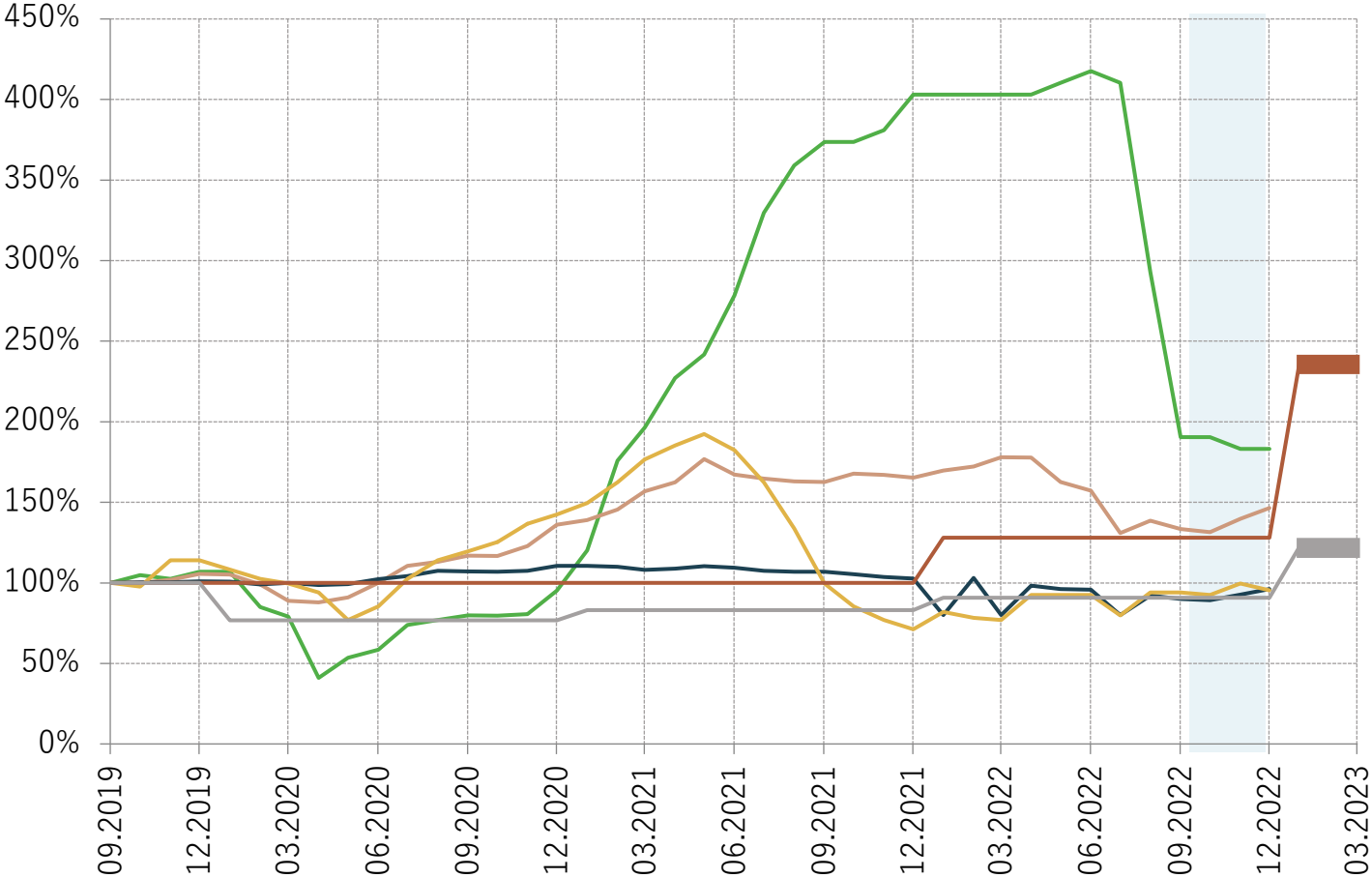
	FY 2021/22	Change vs. prior year
 Concentrate processing ¹	2,429,000 t	+8 %
 Copper scrap/blister copper input ²	540,000 t	-1 %
 Other recycling materials ²	524,000 t	-3 %
 Cathode output	1,111,000 t	+0 %
 Continuous cast wire rod output	880,000 t	+1 %
 Copper shapes output	218,000 t	+17 %
 Flat rolled products + specialty wire output	176,000 t	-8 %
 Sulfuric acid output	2,296,000 t	+9 %

	FY 2021/22	Change vs. prior year
 Gold	47 t	-8 %
 Silver	911 t	-4 %
 Lead	44,016 t	+8 %
 Nickel	3,863 t	-1 %
 Tin	9,340 t	-7 %
 Zinc	13,917 t	-24 %
 Minor metals	867 t	-11 %
 Platinum group metals (PGMs)	9,514 kg	+9 %

¹ Custom smelter production ² Prior-year figures adjusted

Market conditions stable during Q1 2022/23

Trend in significant market prices and refining charges



100 % = Sept. 2018

- Sulfuric acid price (spot CFR Brazil)
- Copper price (settlement)
- Exchange rate (US\$/€)
- European refining charges for copper scrap no. 2
- Copper premium
- TC/RCs for copper concentrates (contract)

Aurubis achieved strong 3-month results

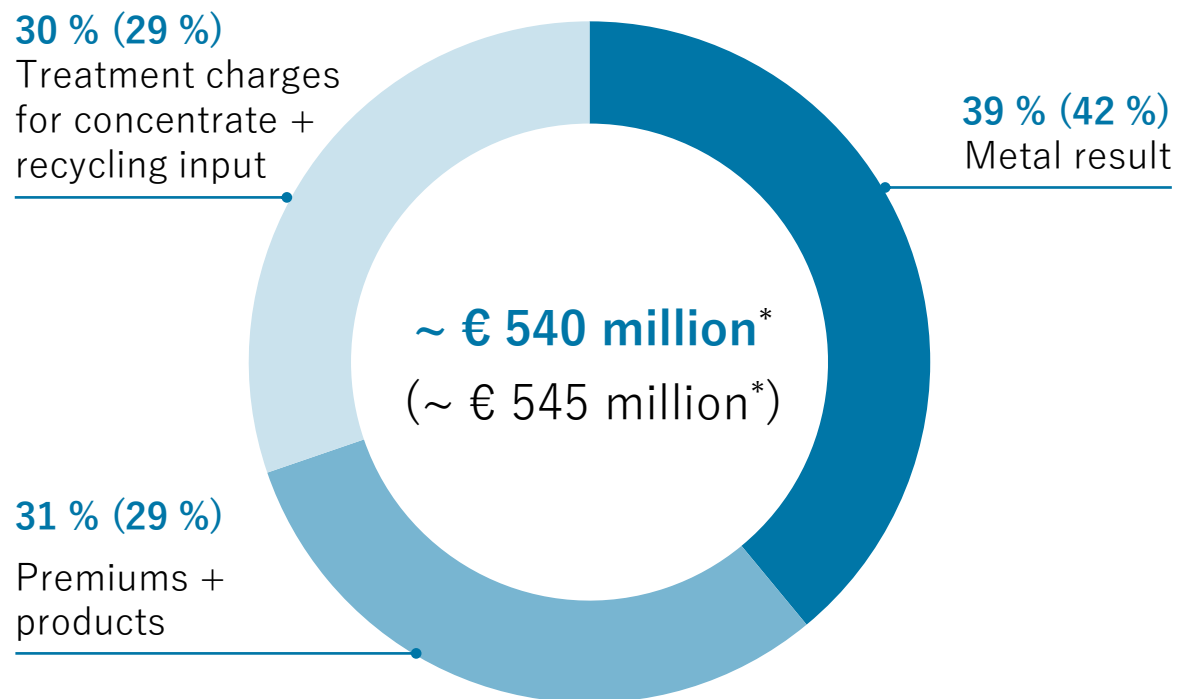
(operating IFRS)		3M 2022/23	3M 2021/22 ¹	Change vs. prior year
Revenues	€m	4,096	4,406	-7 %
Gross profit	€m	393	419	-6 %
EBITDA	€m	172	210	-18 %
EBIT	€m	124	163	-24 %
EBT	€m	125	164	-24 %
Consolidated net income	€m	99	127	-22 %
Operating ROCE (operating EBIT last 4 quarters)	(%)	16.3	17.9	-

¹ Prior-year figures adjusted



Gross margin for the Group in 2022/23 YTD

Breakdown of income components in the Aurubis Group 3M 2022/23 YTD (YTD prior-year figures)

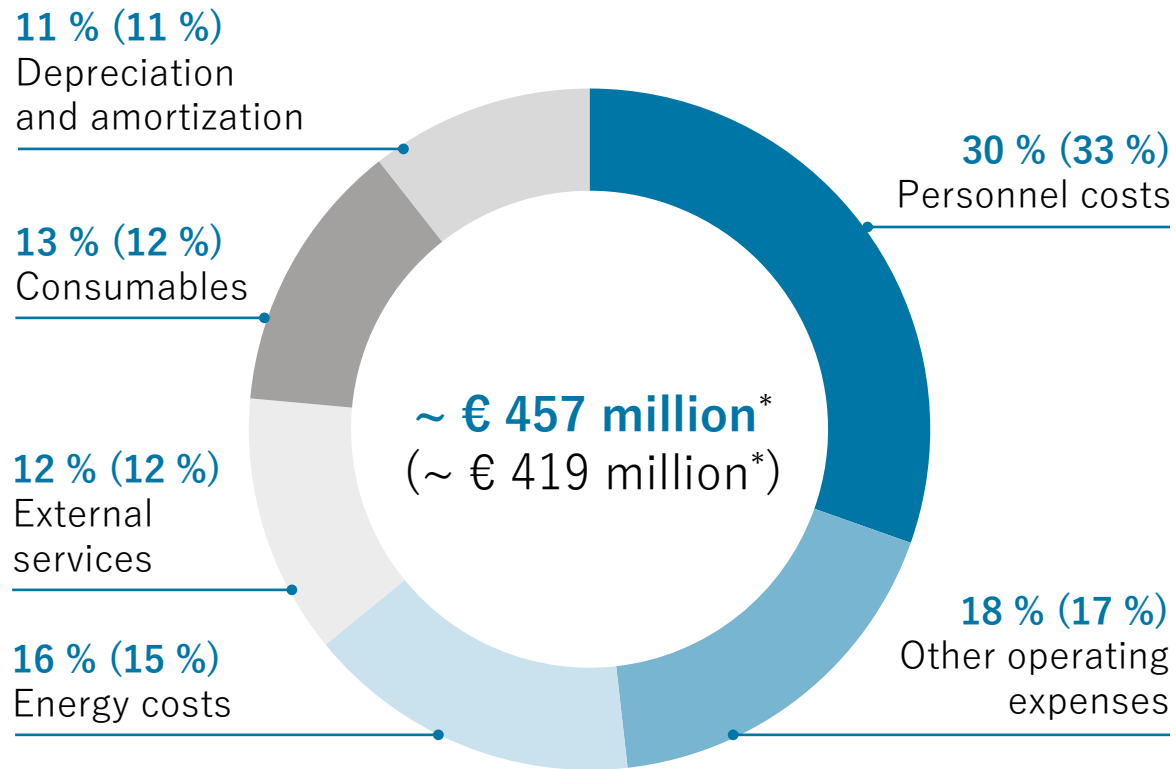


* Gross margin = Total of earnings components metal result, treatment charges for concentrate + recycling input and premiums + products



Increase of overall group costs

Overview of cost/expense positions
3M 2022/23 YTD (YTD prior-year figures)



* Figures adjusted by energy compensations and hedging transactions



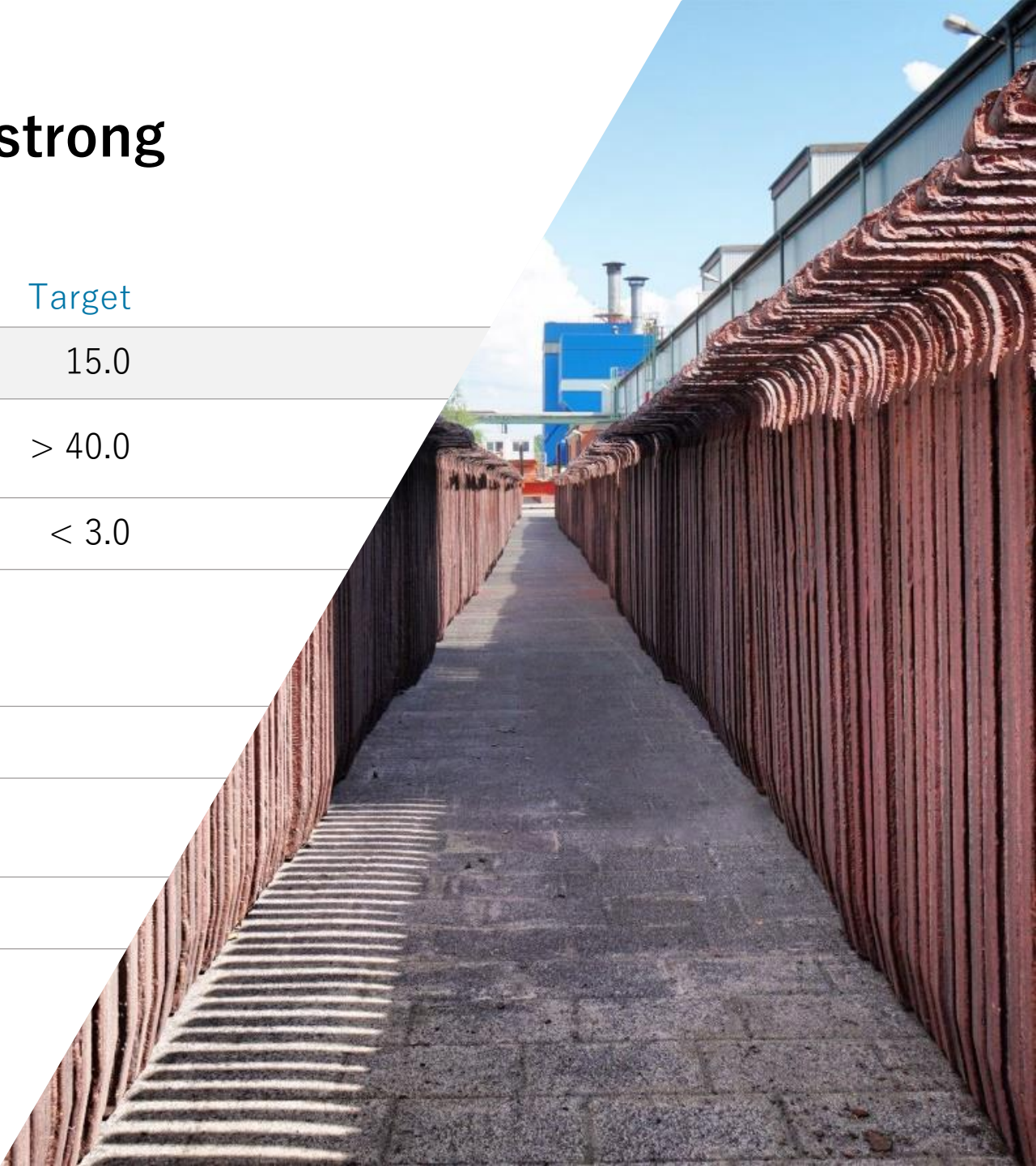
Aurubis' financial position remains strong

		3M 2022/23	3M 2021/22 ³	Target
ROCE ¹	%	16.3	17.9	15.0
Equity ratio (equity / total assets)	%	54.5	54.0	> 40.0
Debt coverage ²		-0.3	-0.4	< 3.0
Additional KPIs				
		3M 2022/23	3M 2021/22	
Capital expenditure	€m	72	59	
Capital employed (balance sheet date)	€m	3.099	2.708	
Net cash flow	€m	-64	-85	

¹ Rolling EBIT last 4 quarters

² Net financial liabilities / rolling EBITDA last 4 quarters

³ Prior-year figures adjusted



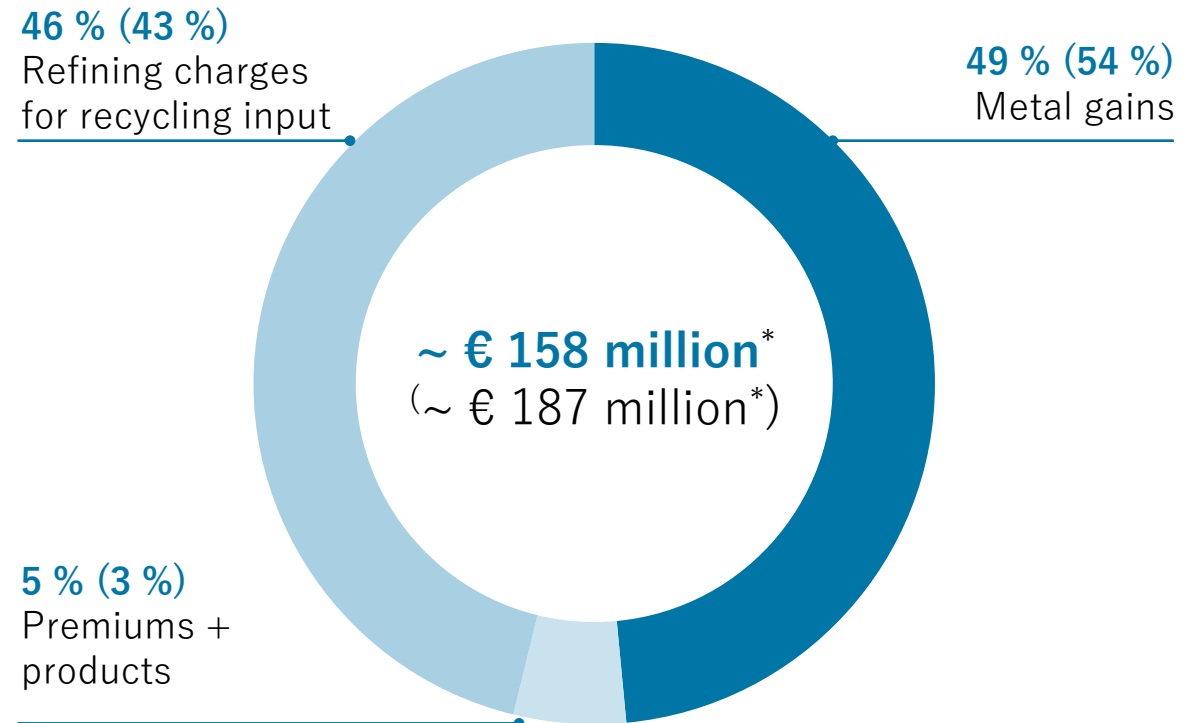
Multimetal Recycling segment

		3M	3M
Operating results		2022/23	2021/22 ²
EBIT	€m	34	83
EBT	€m	35	83
ROCE¹	%	18.7	37.3
Quantities			
Copper scrap / blister copper	mt	84	71
Other recycling materials	mt	119	125
Cathodes	mt	131	130

¹ Rolling EBIT last 4 quarters

² Prior-year figures adjusted

Breakdown of income components in MMR segment
3M 2022/23 YTD (YTD prior-year figures)



* Gross margin = Total of earnings components metal gain, treatment charges for concentrate + recycling input and premiums + products

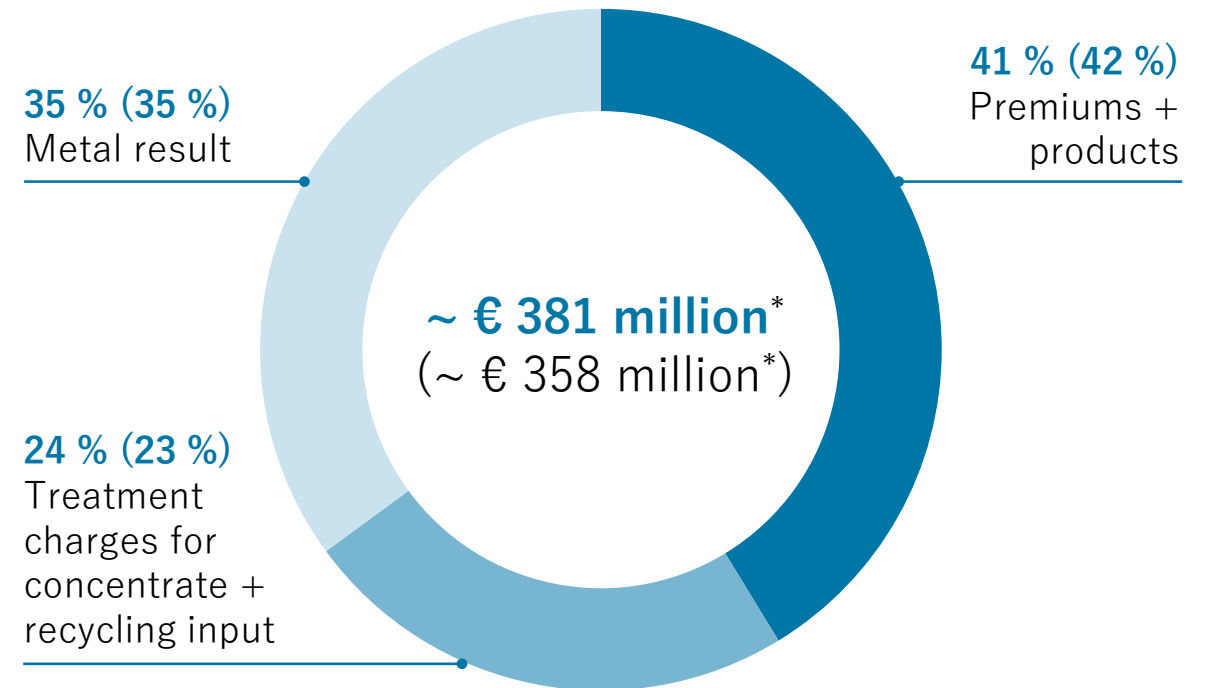
Custom Smelting & Products segment

		3M	3M
Operating results		2022/23	2021/22 ²
EBIT	€m	108	93
EBT	€m	108	94
ROCE¹	%	18.9	12.6
Quantities			
Concentrates	mt	635	679
Copper scrap / blister copper	mt	46	50
Sulfuric acid	mt	586	639
Cathodes	mt	150	149
Rod	mt	195	200
Shapes	mt	49	53
Flat rolled products and specialty wire	mt	32	39

¹ Rolling EBIT last 4 quarters

² Prior-year figures adjusted

Breakdown of income components in CSP segment
3M 2022/23 YTD (YTD prior-year figures)



* Gross margin = Sum of income components combining metal gains, treatment charges for concentrate + recycling input and premiums + products

Market outlook for 2022/23

Copper concentrates

We anticipate an increase in concentrate supply from the mine side, underpinned by new greenfield projects and the expansion of existing mines. Our smelters are already well supplied into Q3 of FY 2022/23.

Recycling input materials

We expect a stable supply of copper scrap and complex recycling materials for FY 2022/23. The smelter network is already supplied with a considerable amount of recycling materials beyond the end of Q2 of FY 2022/23.

Sulfuric acid

Current outlook for FY 2022/23 shows reduced demand from the chemical and fertilizer industry. Both European and overseas markets show lower price levels. We anticipate lower income from sulfuric acid in FY 2022/23.

Aurubis copper premium

Has been set at US\$ 228/t (2022: US\$ 123/t) for 2023.

Other copper products

Outlook for FY 2022/23 remains stable at a high level; we foresee continued strong demand for our products across most customer segments.

FY 2022/23 guidance

Our forecast range

Operating **EBT**
between **€ 400 million**
and **€ 500 million**

Operating **ROCE**
between **11 %**
and **15 %**

	Operating EBT in € million	Operating ROCE in %
Group	400–500	11–15
Multimetal Recycling	100–160	11–15
Custom Smelting & Products	350–410	15–19

Our strategy builds on the sound mission of Aurubis and covers all relevant aspects to drive sustainable growth



Industry Leadership in Sustainability

- Enablers**
- Digitalization, automation, and “Plant of the Future”
 - Strategic resource management, talent and personnel development



» We are consistently implementing the strategy

Growth strategy: CAPEX and EBITDA impact increase significantly

Short term

Currently approved

- **Growth Capex ~€ 1,100 million approved**
- **Key projects** Aurubis Richmond Module 1 & 2, Tankhouse Pirdop, CRH, BOB, ASPA, Industrial-heat II, PV 2&3 Pirdop
- **EBITDA of ~€ 260 million** starting 2026/27, thereof **~€ 170 million** from Aurubis Richmond

Medium term

Medium-term planning (next 4 years)

- **Growth Capex ~€ 280 million** are included in the medium-term planning
- **EBITDA ~€ 70 million** in addition from planned strategic projects
- Additional strategic projects, e.g., **the modular recycling system (€ 250–300 million Capex) / battery recycling**, not yet included, but are actively pursued

Long term

Until 2030

- **Ambition and scale of our long-term growth and project plans** remain at a high level
- All Capex projects are subject to a **sustainability assessment** (especially CO₂- contribution)
- **Battery recycling remains a priority growth area**

Aurubis Richmond, USA - construction work is progressing



Aurubis Richmond



Aurubis Richmond – the leading processor of electric and electronic recycling materials in the US



Pursue Growth Options

Investment
~ € 640 million

EBITDA p.a.

~ € 80 million
(by 2025/26)

~ € 170 million
(by 2026/27)

Aurubis Richmond complements and expands our international integrated smelter network with a highly attractive investment in a promising growth market.

The total investment includes additional infrastructure investments and inflation.

Aurubis Richmond establishes us as the front-runner in the US recycling market – tied directly to our strength, innovative expertise, industry-leading metallurgical processes and flexible applications.

With this, Aurubis will become the leading processor of electrical and electronic scrap in the US, by doubling the throughput capacity and output.

In Total ~200 new jobs.

Start of production
following ramp-up phase

Module 1: **2024**
Module 2: **2026**

~ **180,000 t**
input material

~ **70,000 t**
blister copper output



Project strengthens the circular economy and underlines Aurubis' ambition to strengthen and expand our position as the most efficient integrated smelter network worldwide

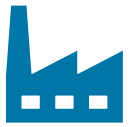
Aurubis Richmond: Expansion of front-runner position in the US recycling market



Augusta, Richmond County, Georgia, USA

Started as greenfield project, Aurubis is currently building the largest **complex recycling smelter** in the United States

Plant designed to recycle **PCBs, shredder**, and other **metal-containing recycling materials**



- 4 Top-blown rotary converters
- 2 Lead-tin alloy furnaces



2022 – 2025

Construction timeframe and plant equipment orders confirmed

Using **proven market technologies**

employed in the Aurubis network

Producing blister copper as a **marketable product**

and processing it within the Aurubis smelter network and for external sales

Further option for **brownfield expansion** on site



> 70,000 t blister copper recovered from recycling materials



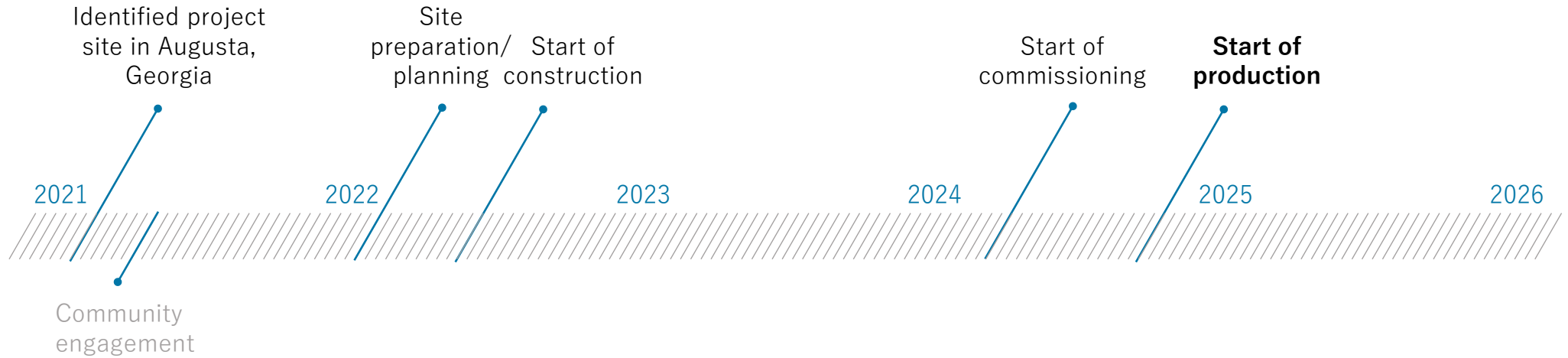
~200 employees and managers planned



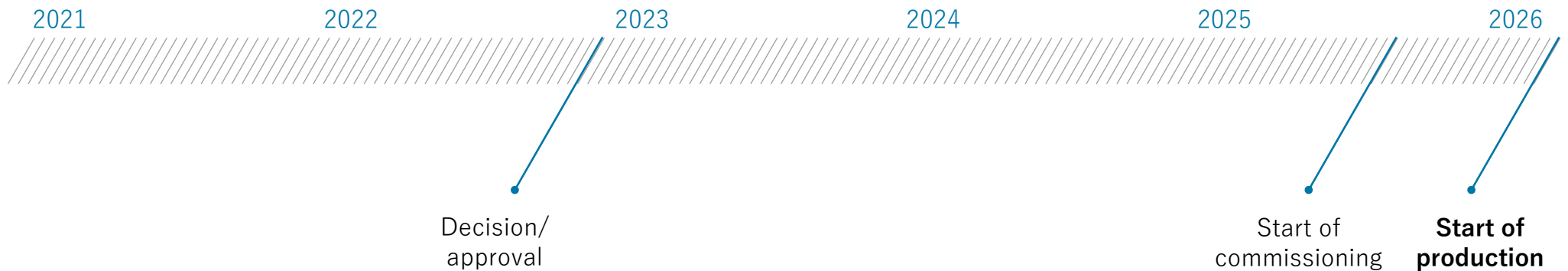
Future improvement of CO₂ footprint

Aurubis Richmond: Project timeline

Module I



Module II



Secure core business: Complex Recycling Hamburg (CRH) – further optimization of smelting process






CRH



Secure & strengthen core business

CRH: Further optimization of the smelting process in Hamburg



<p>Investment ~ € 190 million</p>	<p>EBITDA p.a. ~ € 40 million (at full production)</p>	<p> Secure Core Business</p> <p></p> <p> Strengthen Core Business</p>	
<p>Start of production following ramp-up phase Q4 2025</p>	<p>~ 32,000 t p.a. Input of external material</p>	<p>Aurubis is strengthening its core business and investing € 190 million for further optimization of the smelting process at the Hamburg site.</p> <p>Construction of a new TBRC at the Hamburg site incl. process gas cleaning system based on best available techniques (BAT).</p> <p>Processing internal and external value-added complex intermediates and recycled materials with additional treatment and refining charges and metal recoveries.</p> <p>Increase in metal yield (mainly precious metals) with lower process times.</p> <p>CRH is the prerequisite for further attractive strategic projects (e.g., higher yield of additional industrial and precious metals).</p> <p>Differentiation from competitors through expansion of metallurgical processes and extension of the value chain at the Hamburg site.</p>	

» **Project underscores Aurubis' commitment to its Hamburg site, while increasing capacities for the sustainable recovery of metals from intermediates and complex recycling materials**

Secure & strengthen core business

Expanding the tankhouse in Pirdop



Secure & strengthen core business

Expanding the tankhouse in Pirdop



Secure
Core Business



Strengthen
Core Business

Investment
~ **€ 120 million**

EBITDA p.a.
~ **€ 30 million**
(at full production)

Start of production
following ramp-up
phase

**second half of
2026**

~ **120,000 t** p.a.
additional capacity

Aurubis is **strengthening its core business** and investing € 120 million in expanding the tankhouse at its Bulgarian site in Pirdop.

Processing of around **340,000 tons of copper cathodes** in the future, which corresponds to an increase of around 50 %.

Further optimization of material flows in the smelter network.

Reduction of our logistics costs and the CO₂ footprint associated with them.

Expansion also creates the conditions for additional strategic projects at other Aurubis Group sites.



By expanding production capacity, Aurubis is investing in a growing market and making another contribution to driving innovations and technological advances.

Sustainability: Energy and decarbonization projects




PV Pirdop I-III



Sustainability: Aurubis on its way to carbon-neutral production



<p>Investment</p> <p>+~ € 12 million (for 2024 expansion)</p>	<p>Optimizing electricity consumption p.a.</p> <p>~ 13,500 MWh* (since PV 1)</p> <p>+~ 17,000 MWh (by Q2 2024)</p>	<p> Industry Leadership in Sustainability</p>
<p>Start of production</p> <p>Q2 2024</p>	<p>CO₂ savings p.a.</p> <p>+ ~ 34,000 t</p> <p>compared to coal-fired power generation</p>	<p>Expansion of solar park until 2024 in Pirdop, Bulgaria, with a combined performance of 24 MWp.</p> <p>The solar park will reduce the smelter's external electricity consumption by approx. 30,000 MWh annually, and for the period of 15 years, the total renewable energy production will amount to approx. 450,000 MWh.</p> <p>Further expansions are planned with investments underway.</p> <p>Compared to coal-fired power generation, this will save up to 34,000 t of CO₂ emissions p.a. – or over 500,000 t over the operating period.</p>

* Better performance than anticipated (11,000 MWh)

» Further reduction of our already very small CO₂ footprint within the international sector and expansion of our leading position in environmental protection

Sustainability

Life cycle assessment of our copper cathodes

The CO₂ footprint of Aurubis copper production is less than half the global average
in kg CO₂ eq./t Cu



Global average

2013: 4,027

2019: 3,833



 **Aurubis**

2013: 2,300

2021: 1,460



* Source: International Copper Association 2019, Aurubis LCA 2021

 **Aurubis constantly works on further energy efficiency measures to improve CO₂ footprint**



Thank you for your participation.

For further questions, contact:
IR@aurubis.com

 **Aurubis**



Financial calendar

- Q2 2022/23 May 11, 2023
- Capital Market Day (in London) June 13, 2023
- Q3 2022/23 August 7, 2023
- Annual Report 2022/23 December 6, 2023



Your IR Contacts



Angela Seidler

VP Investor Relations,
Corporate Communications
& Sustainability

+49 40 7883-3178

a.seidler@aurubis.com



Elke Brinkmann

Head of Investor Relations

+49 40 7883-2379

e.brinkmann@aurubis.com



Ferdinand von Oertzen

Specialist Investor Relations

+49 40 7883-3179

f.vonoertzen@aurubis.com

Aurubis at a glance

Based in [Hamburg](#), Aurubis AG develops its leading market position with a [responsible approach](#) to the [environment](#), [people](#), and [resources](#)



The company's main expertise is in optimally [processing concentrates](#) and [recycling raw materials](#) with complex qualities

[Metallurgical know-how](#), [state-of-the-art plant facilities](#), and extraordinarily [high environmental standards](#) for the sector make Aurubis an attractive partner for raw material suppliers



The company, which was founded in 1866 as [Norddeutsche Affinerie AG](#), is listed in the [MDAX](#) and produces more than [1 million t of copper cathodes](#) and various copper products from them with around [6,900 employees](#) worldwide



The Group is [active in more than 20 countries](#) and has production sites concentrated in [Europe](#) and [North America](#)



Aurubis is one of the world's leading producers of cathodes, rod, and flat rolled copper products

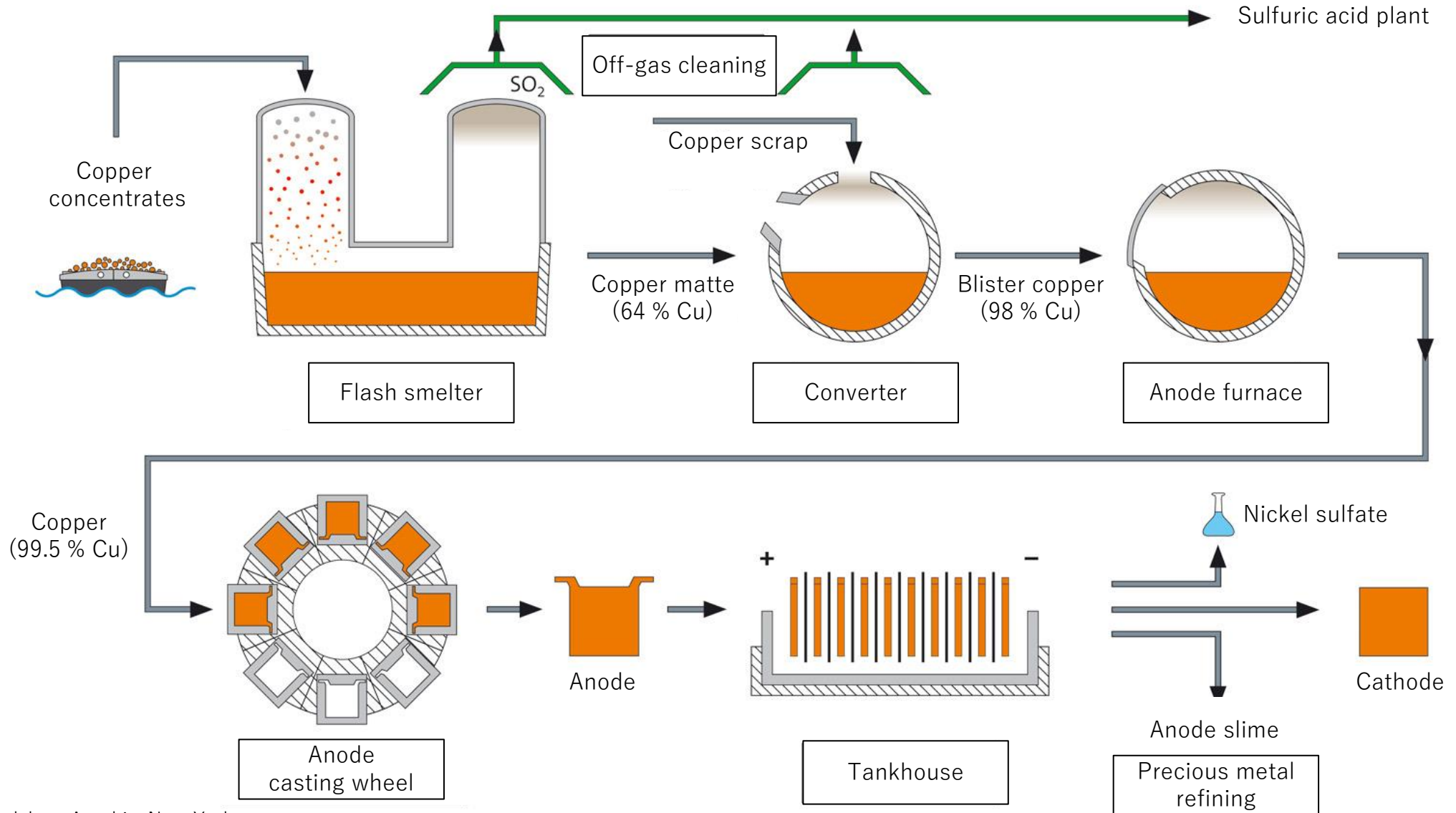
Scheduled shutdowns in the next 3 years



EBT effect from scheduled shutdowns (in € million)
 Status: December 2022

	FY 2022/23		FY 2023/24		FY 2024/25	
Smelter maintenance Hamburg			May/ June 2024	~36		
Smelter maintenance Pirdop	May/ June 2023	~20			May/ July 2025	~35
Anode furnace Lünen	Nov./ Dec. 2022	~7	Nov./ Dec. 2023	~8	Nov./ Dec. 2024	~8
KRS Lünen	May 2023	~9	May 2024	~9	May 2025	~9

Primary copper production process



Secure & strengthen core business

Advanced Sludge Processing by Aurubis (ASPA)






ASPA



Secure & strengthen core business

Advanced Sludge Processing by Aurubis (ASPA)



<p>Investment ~ € 33 million</p>	<p>EBITDA p.a. ~ € 7 million <small>(at full production)</small></p>	<p> Secure Core Business</p> <p></p> <p> Strengthen Core Business</p>	
<p>Start of production following ramp-up phase FY 2024/25</p>	<p>~ 2,500 t p.a. input material in form of anode sludges</p>	<p>Aurubis is strengthening its core business and taking the next step towards becoming the most efficient and sustainable integrated smelter network worldwide.</p> <p>Construction of a state-of-the-art recycling facility at the Beerse site (BE).</p> <p>ASPA, a newly developed hydrometallurgical process, will extract more valuable metals such as Au, Ag, and Sn from anode sludge faster.</p> <p>Prime example of the synergies created by the Metallo acquisition and how the whole company benefits in developing new innovative solutions together.</p>	

» Project capitalizes on synergies from the Metallo acquisition and contributes significantly to a well-functioning circular economy

Secure & strengthen core business Bleed treatment Olen Beerse (BOB) - Increase of nickel capabilities






BOB



Secure & strengthen core business

Bleed treatment Olen Beerse (BOB)



<p>Investment ~ € 70 million</p>	<p>EBITDA p.a. ~ 15 million <small>(at full production)</small></p>	<p> Secure Core Business</p> <p></p> <p> Strengthen Core Business</p>	
<p>Start of production following ramp-up phase Summer 2024</p>	<p>~ 81,000 t p.a. Input metric tons bleed per year</p>	<p>Aurubis is strengthening its core business and investing € 70 million in the Aurubis site in Olen to increase recycling capacity of the important industry metals nickel and copper.</p> <p>BOB is a state-of-the-art energy-efficient process to extract impurities from bleed (also known as electrolyte) and optimize material streams of nickel and copper.</p> <p>Start of construction is planned for September 2022 with a planned start of the plant in July 2024. The facility does provide spare capacity for future expansion of the asset.</p> <p>Expected full EBITDA impact of about € 15 million, once in full operation in FY 2025/26.</p>	

» This project is another prime example of how Aurubis realizes synergies in its smelter network and contributes significantly to the European circular economy.

Pursue growth options

Start of test operation in pilot for battery recycling in Hamburg



Battery recycling



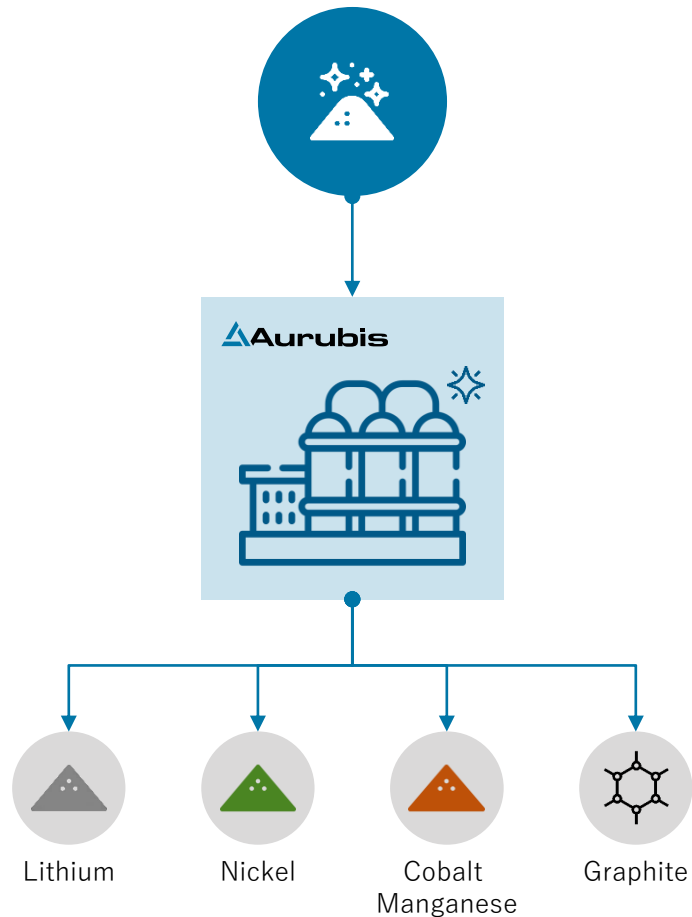
Pursue growth options

Aurubis has developed a novel black mass recycling technology



Battery recycling

Black mass



Sustainably closing
the loop



Integration into
smelter network



Metal recoveries
beyond regulatory
requirements



Battery-grade
products

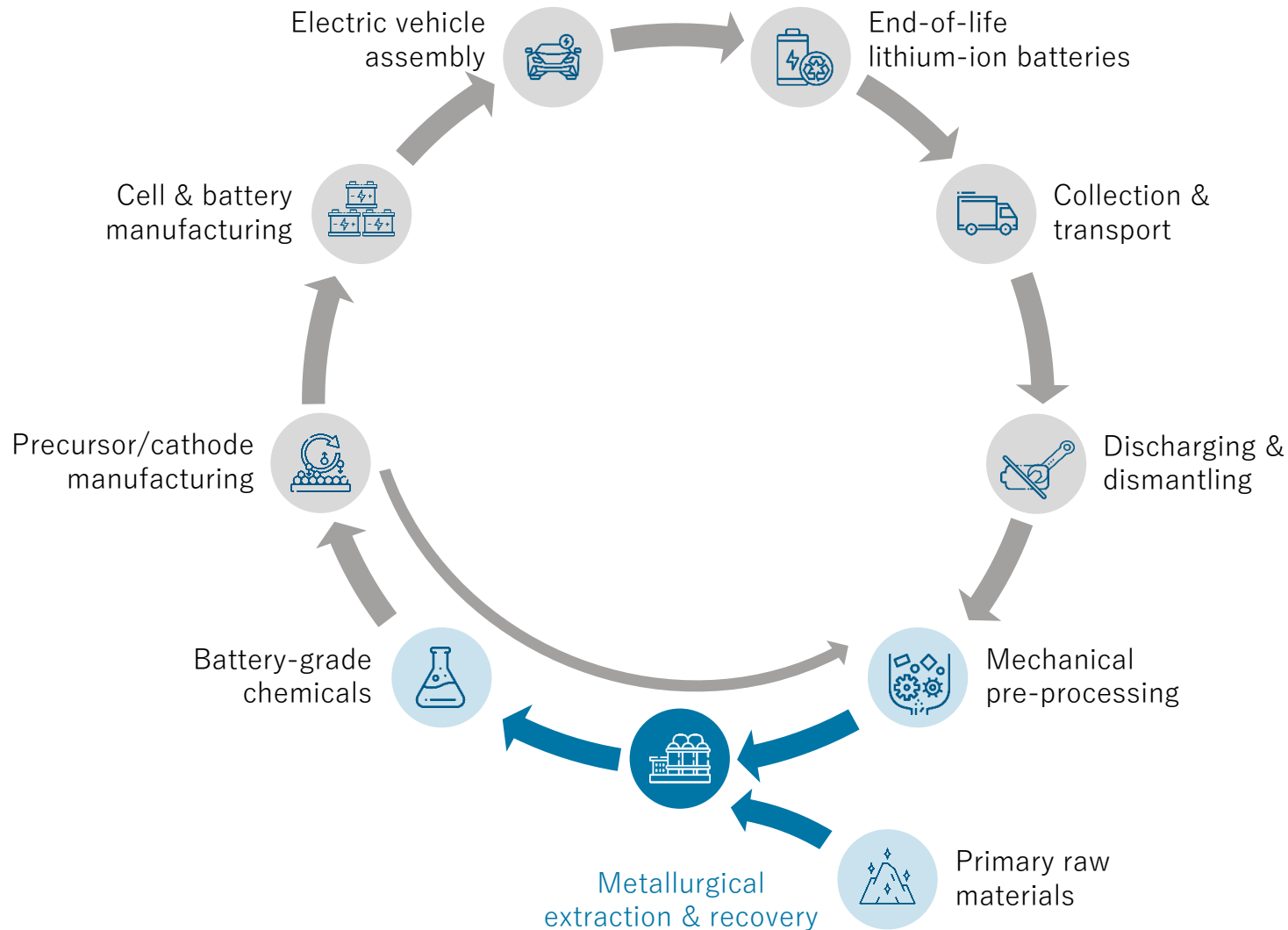


Cost
efficiency



Patent
application

Aurubis contributes to sustainably closing the loop for batteries



We are the experts

Complex raw materials are our daily business.

We are multimetal

Already today, we process a range of 20 different metals.

We are committed

Our financials are sound, and we have the capacity to make the investments.

Disclaimer

Forward-looking statements

This document contains forward-looking statements that involve risks and uncertainties, including statements about Aurubis' plans, objectives, expectations, and intentions. Readers are cautioned that forward-looking statements include known and unknown risks and are subject to significant business, economic, and competitive uncertainties and contingencies, many of which are beyond the control of Aurubis. Should one or more of these risks, uncertainties, or contingencies materialize, or should any underlying assumptions prove incorrect, actual results could vary materially from those anticipated, expected, estimated, or projected.