

Aurubis AG

Metals for Progress

Metzler Roadshow
Aurubis AG

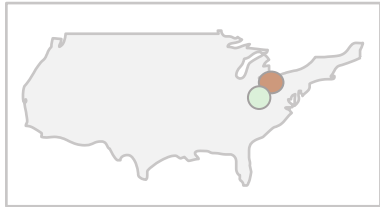
August 27th, 2024
Frankfurt

 **Aurubis**

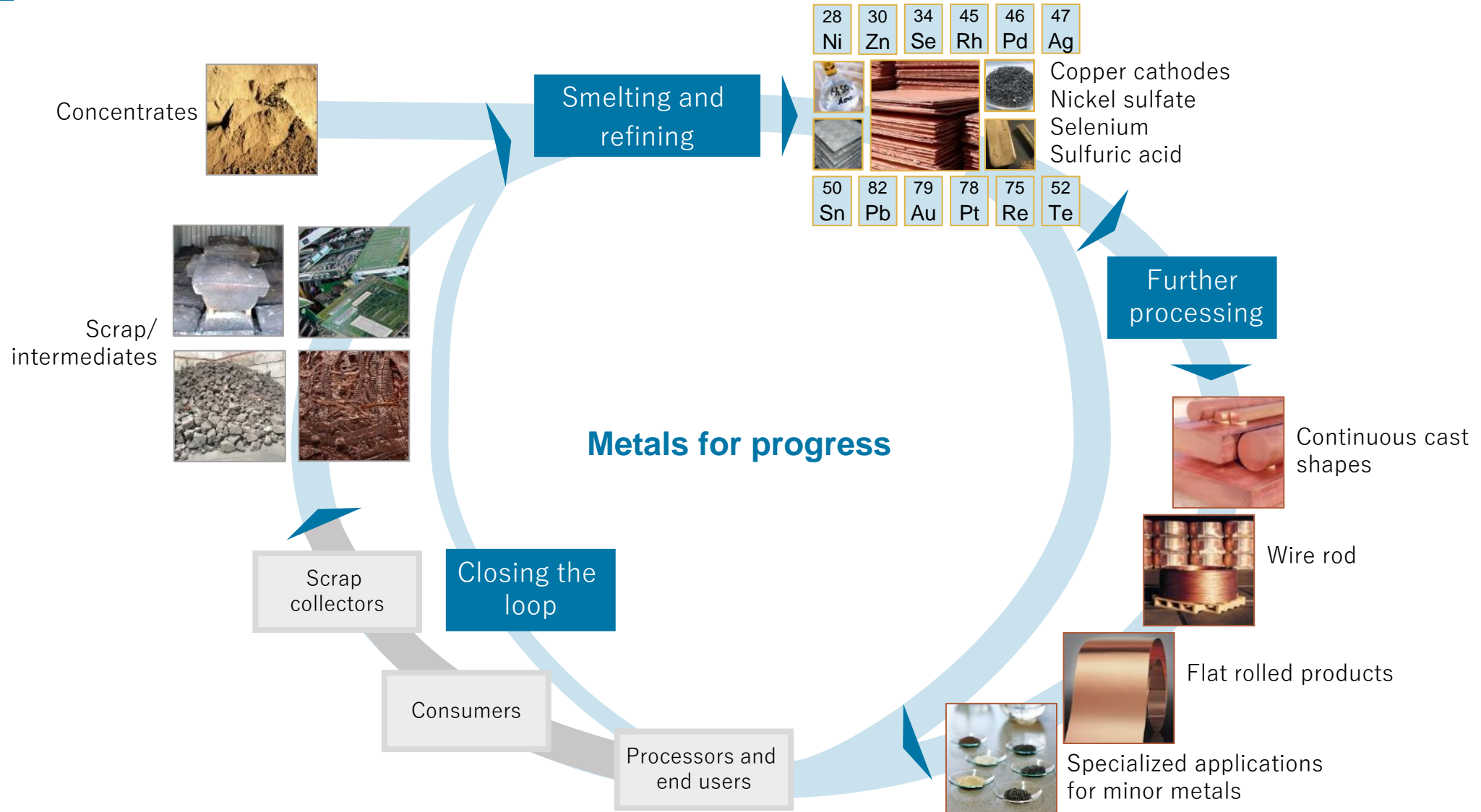


Aurubis production sites

- Headquarters
- Primary Copper
- Recycling/Precious Metals
- Copper Products



Closing the loop is part of Aurubis' integrated business model



Lower concentrate throughput due to shutdown with strong demand for wire rod

	FY 2022/23	Change vs. prior year		FY 2022/23	Change vs. prior year
 Concentrate processing ¹	2,319,000 t	-5 %	 Gold	49 t	+4 %
 Copper scrap/ blister copper input ²	515,000 t	-5 %	 Silver	921 t	+1 %
 Other recycling materials ²	565,000 t	+8 %	 Lead	38,088 t	-13 %
 Cathode output	1,109,000 t	0 %	 Nickel	3,488 t	-10 %
 Continuous cast wire rod output	876,000 t	-1 %	 Tin	7,858 t	-16 %
 Copper shapes output	178,000 t	-18 %	 Zinc	13,791 t	-1 %
 Flat rolled products + specialty wire output ³	133,000 t	-24 %	 Minor metals	875 t	+1 %
 Sulfuric acid output	2,158,000 t	-6 %	 Platinum group metals (PGMs)	9,858 kg	+4 %


¹ Custom smelter production ² Prior-year figures adjusted ³ Prior-year figures include FRP sites that have been sold

We combine 1st class products with high recycling content

By using our smelter network, primary and secondary sources are providing a solid basis for our high-quality products.



Aurubis Copper Cathode

 **44 %**
recycled content



Aurubis SHAPES

 **26 %**
recycled content




Aurubis ROD| RheinROD

 **33 %**
recycled content



Aurubis FOXROD

 **69 %**
recycled content




Aurubis Silver

 **56 %**
recycled content




Aurubis Gold

 **24 %**
recycled content



Aurubis Tin

 **94 %**
recycled content

Sources: Aurubis LCA Assessments; Recycled Content of Aurubis products in 2021/22

Aurubis / Aurubis – Roadshow Metzler in Frankfurt, August 27th 2024

New Executive Board team completed



Toralf Haag

CEO

as of Sept. 1, 2024



Inge Hofkens

**COO Multimetal
Recycling**



Roland Harings

CEO

until Aug. 31, 2024



Steffen Hoffmann

CFO

as of Oct. 1, 2024



Tim Kurth

**COO Custom
Smelting & Refining**

as of Sept. 1, 2024



Markus Kramer

CTO

until Sept. 30, 2024

Resumes his
position on the
Supervisory Board

Executive summary of first 9 months 2023/24

Operating EBT
9M 2023/24 of

€ 333 million
(PY: € 257 million¹)

Operating ROCE

11.1 %
(PY: 11.2 %¹)

Aurubis achieves ongoing **strong operating** result in first 9 months of FY 2023/24

Operating EBT positively influenced by increased TC/RCs for concentrates, a significantly higher metal result, higher earnings from the Aurubis copper premium coupled with ongoing high demand for wire rod, and lower energy costs, counteracted by decreased sulfuric acid revenues, lower income from refining charges, and higher costs.

Prior-year figures restated due to the financial impact of the criminal activities

Net cash flow

€ 52 million
(PY: € 73 million¹)

Forecast
range for FY 2023/24

€ 380–480 million

op. EBT

Most complex and **largest maintenance shutdown** at the Hamburg site completed successfully

ROCE (rolling EBIT last four quarters) on par with previous year. Growth projects increased capital employed; earnings will only start contributing once projects are completed and ramped up.

Net cash flow improved despite continued increase of working capital due to the shutdown in Hamburg

¹ Prior-year figures restated.

» We are confirming our forecast of € 380–480 million operating EBT for 2023/24

Aurubis' financial position enables our growth strategy

		9M 2023/24	9M 2022/23	Target
ROCE ¹	%	11.1	11.2 ³	15.0
Equity ratio (equity/total assets)	%	54.4	56.6	> 40.0
Debt coverage ²		0.5	0.0	< 3.0
Additional KPIs				
		9M 2023/24	9M 2022/23	
Capital expenditure	€m	556	374	
Capital employed (balance sheet date)	€m	3,968	3,340	
Net cash flow	€m	52	73	

¹ Rolling EBIT last 4 quarters.

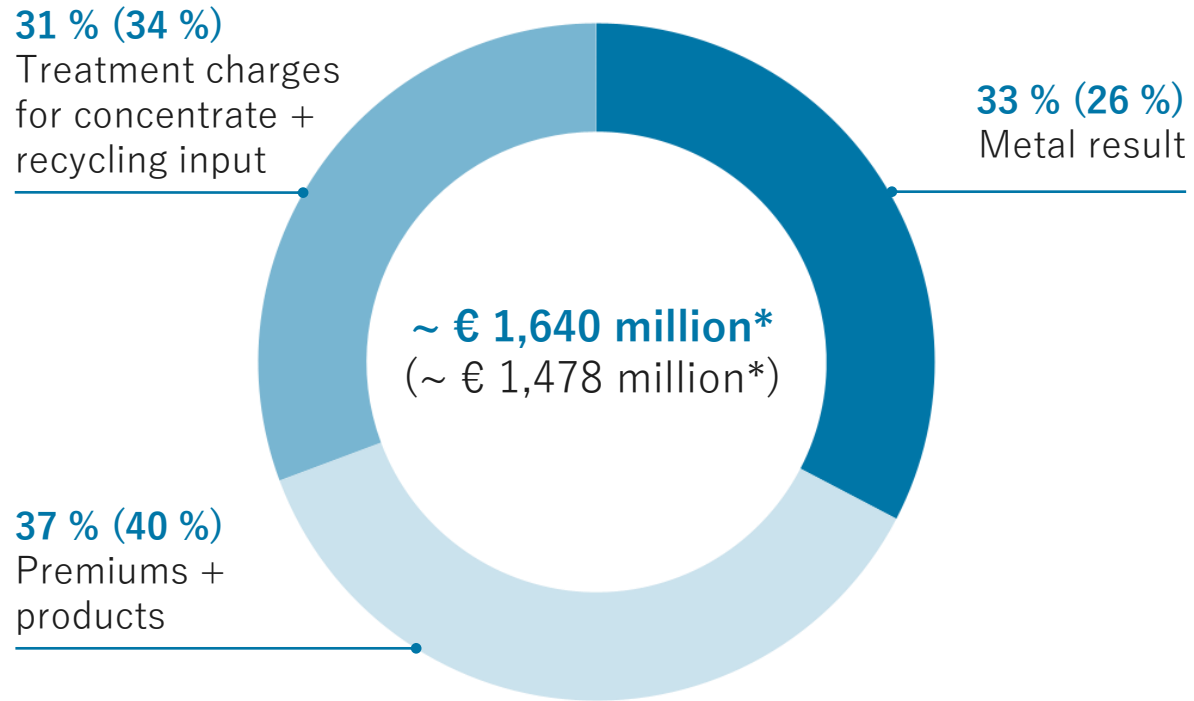
² Net financial liabilities/rolling EBITDA last 4 quarters.

³ Prior-year figures restated.



Gross margin above prior-year level

Breakdown of income components in the Aurubis Group 9M 2023/24 YTD (YTD prior-year figures¹)



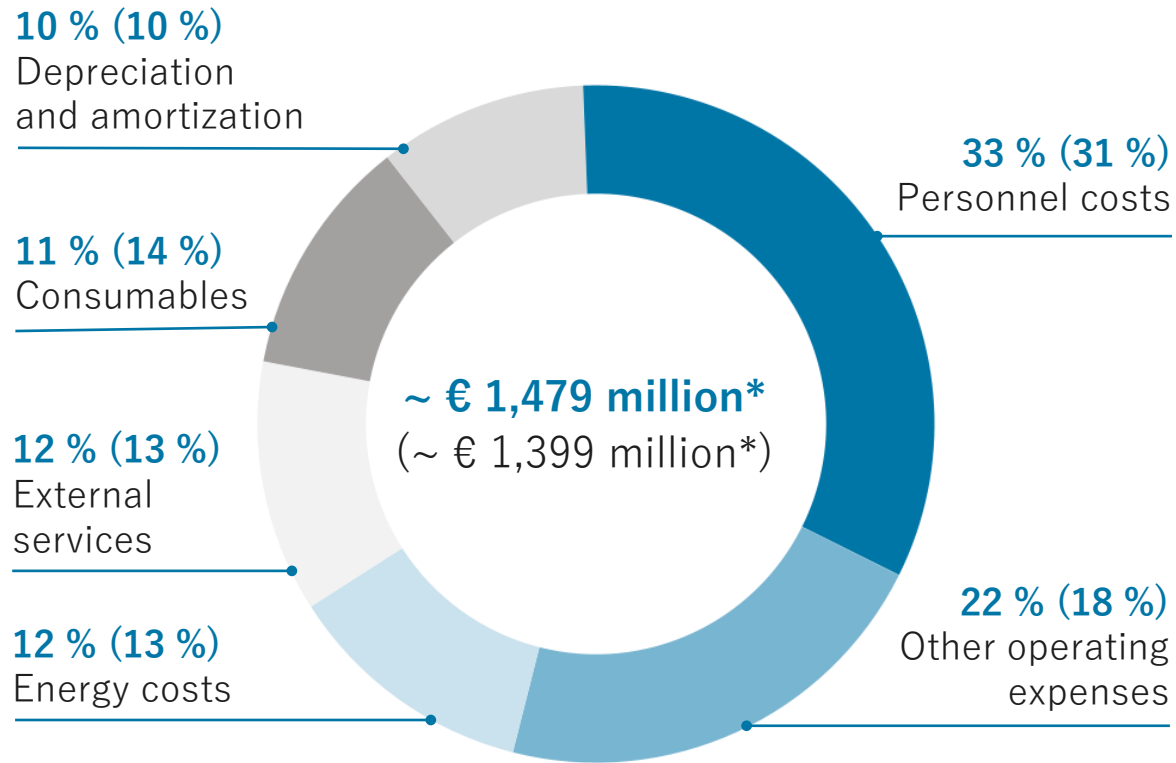
¹ Prior-year figures restated.

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



Overview of Group costs — further decrease in energy costs

Overview of cost/expense positions
9M 2023/24 YTD (YTD prior-year figures¹)



¹ Prior-year figures restated.

* Figures adjusted by energy compensation and hedging transactions

Aurubis / Aurubis – Roadshow Metzler in Frankfurt, August 27th 2024



Multimetal Recycling segment

		9M	9M
Operating results		2023/24	2022/23 ²
EBIT	€m	108	141
EBT	€m	109	143
ROCE ¹	%	10.4	15.8

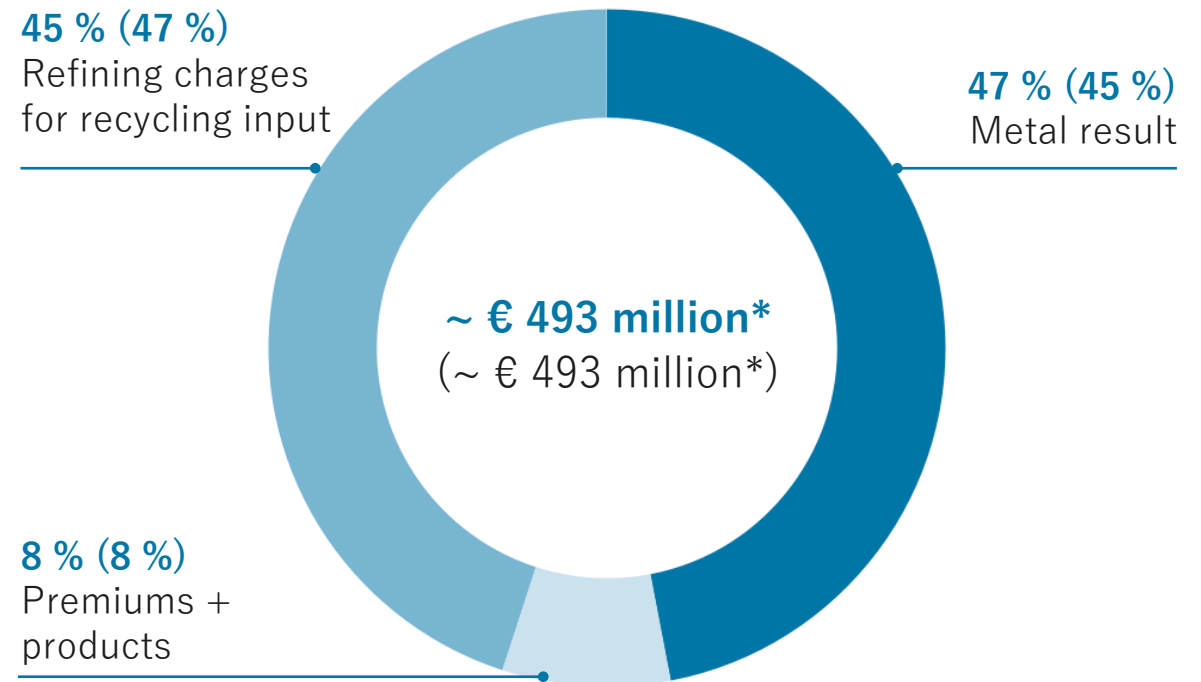
Quantities

Copper scrap/blister copper	mt	230	253
Other recycling materials	mt	390	391
Cathodes	mt	383	389

¹ Rolling EBIT last 4 quarters.

² Prior-year figures restated.

Breakdown of income components in MMR segment
9M 2023/24 YTD (YTD prior-year figures²)



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

Custom Smelting & Products segment

Operating results		9M 2023/24	9M 2022/23 ²
EBIT	€m	314	165
EBT	€m	317	173
ROCE ¹	%	16.1	12.2
Quantities			
Concentrates	mt	1,741	1,705
Copper scrap/blister copper	mt	155	147
Sulfuric acid	mt	1,613	1,577
Cathodes	mt	455	452
Rod	mt	683	693
Shapes	mt	135	143
Flat rolled products and specialty wire	mt	99	101

¹ Rolling EBIT last 4 quarters.

² Prior-year figures restated.

Breakdown of income components in CSP segment
9M 2023/24 YTD (YTD prior-year figures²)

25 % (27 %)

Treatment charges
for concentrate +
recycling input

26 % (17 %)
Metal result

49 % (56 %)

Premiums +
products

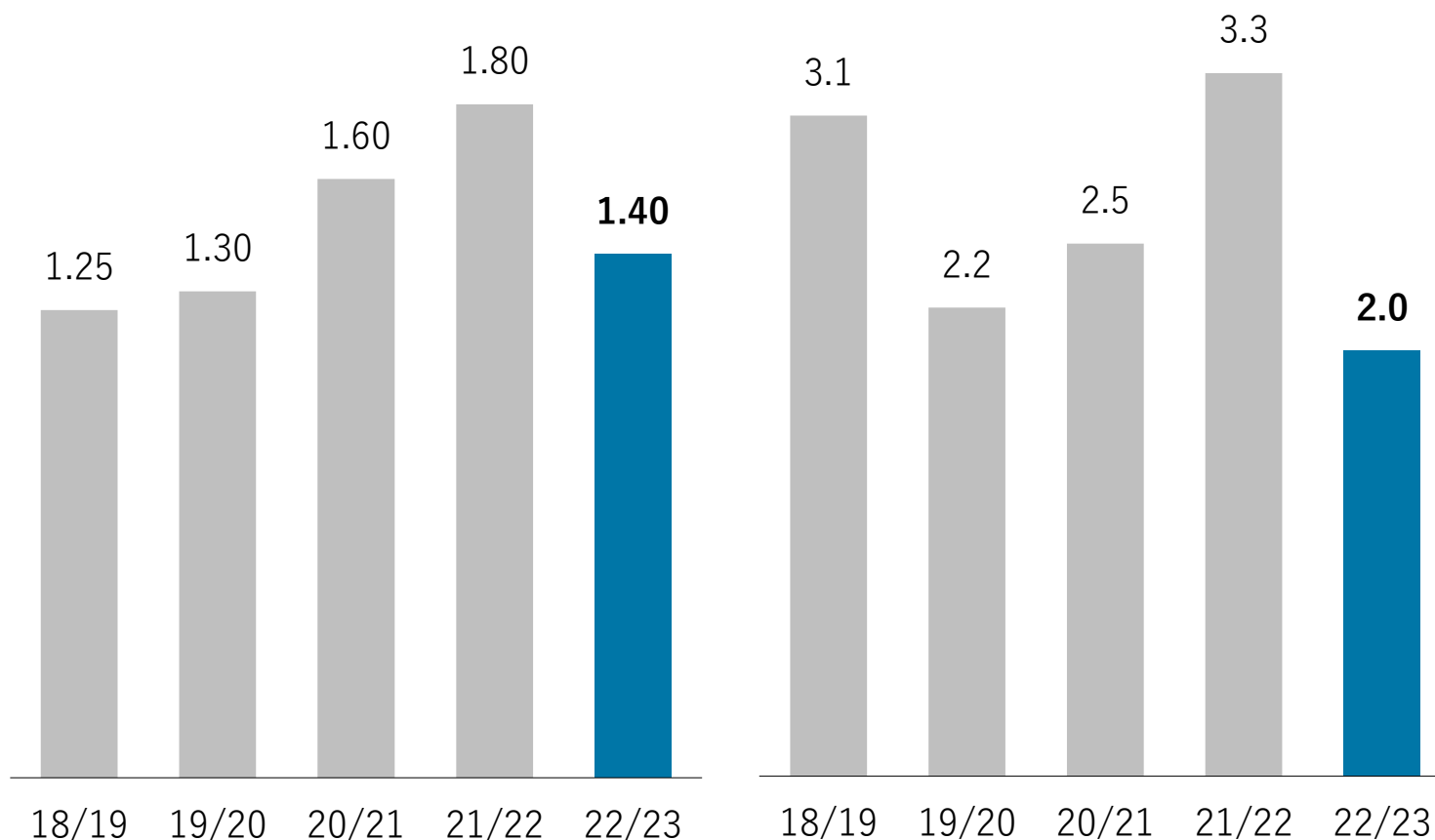
~ € 1,146 million*
(~ € 985 million*)

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

Dividend for fiscal year 2022/23

Aurubis dividend (in € per share)

Dividend yield (in %)



Aurubis' growth strategy requires high investments in the coming years

Strategic projects ensure considerable increase in overall group profitability in the years to come

Market outlook for 2023/24

Copper concentrates

We anticipate a reduced but sufficient concentrate supply for Aurubis from the mining side due to our long-term sourcing strategy with the global mining industry. Our smelters are already supplied until the end of CY 2024.

Recycling input materials

Aurubis expects a good supply of copper scrap and blister copper, while sufficient levels of other recycling materials are expected due to reduced industrial activities. The diversified supplier network buffers potential supply shortages.

Sulfuric acid

Ongoing stable demand and reduced capacities from acid producers are generating positive momentum on the acid markets and sales prices. We now expect the revenue situation to develop just slightly below the previous year's figures in FY 2023/24.

Aurubis copper premium

Has been set at US\$ 228/t (2023: US\$ 228/t) for 2024.

Other copper products

We expect demand for our wire rod to remain at the high level of the previous FY. Demand for shapes and flat rolled products will remain subdued.

FY 2023/24 guidance

Our forecast range

Operating **EBT**
between € **380** million
and € **480** million

Operating **ROCE**
between **10** %
and **14** %

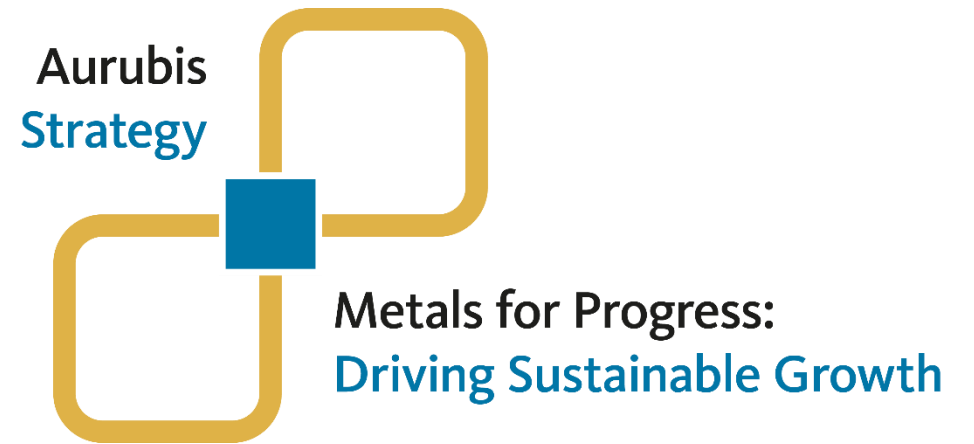
	Operating EBT in € million	Operating ROCE in %
Group	380–480	10–14
Multimetal Recycling	60–120	5–9
Custom Smelting & Products	410–470	19–23

Our strategy builds on Aurubis' sound mission and covers relevant aspects for driving 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

Strategic investments and EBITDA impact to increase substantially

Short term

Currently approved

Strategic capex ~€ 1.7 billion approved

Key projects for the 3 strategic pillars – **Secure & Strengthen Core Business** (i.e., CRH & PM refinery), **Pursue Growth Options** (Aurubis Richmond), and **Sustainability** (i.e., PV park & Industrial Heat)

EBITDA impact over next 3 to 5 years ramping up to ~€ 260 million p.a., of which ~€ 170 million from Aurubis Richmond

Medium term

Medium-term planning

Additional strategic capex is included in the medium-term planning and projects are developed along the project stage gates

Additional EBITDA potential identified mainly in the modular recycling system, battery recycling, and further expansion of Aurubis Richmond

Long term

Until 2030

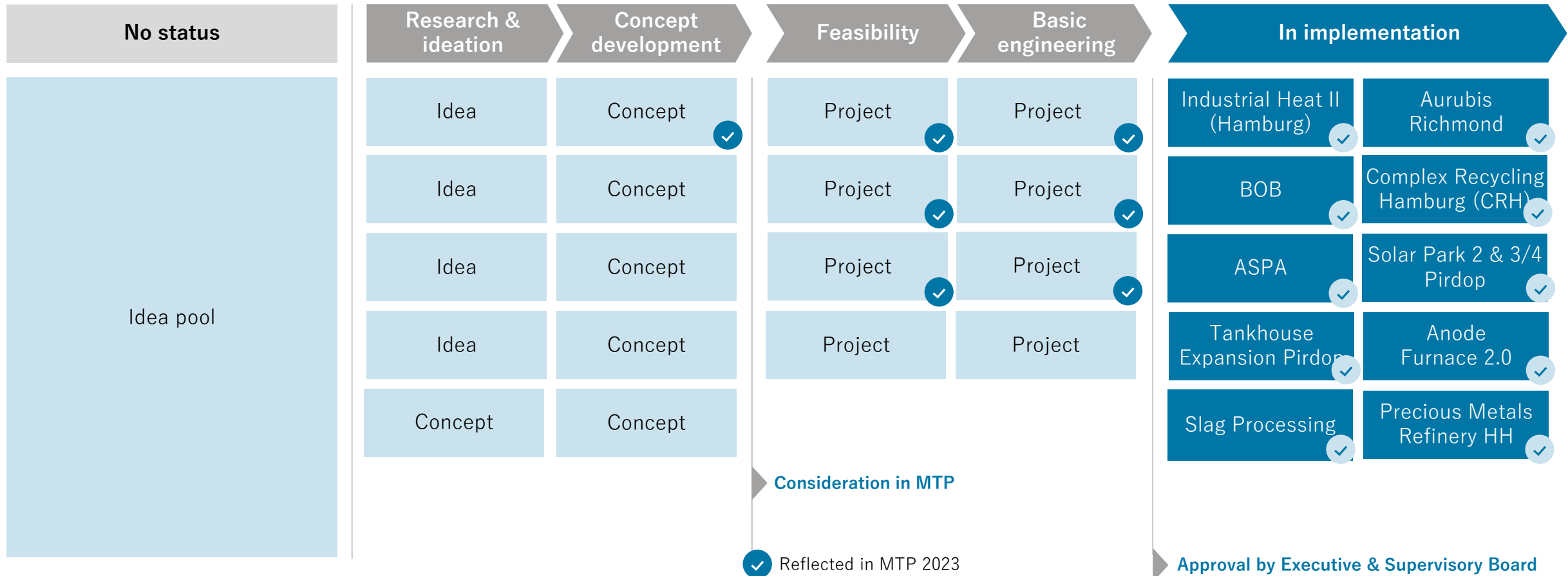
Ambition and scale of our long-term growth and project plans remain at a high level

All capex projects are subject to a sustainability assessment (especially CO₂ contribution)

All strategic investments create valuable synergies with our existing processes and positively impact our op. ROCE target

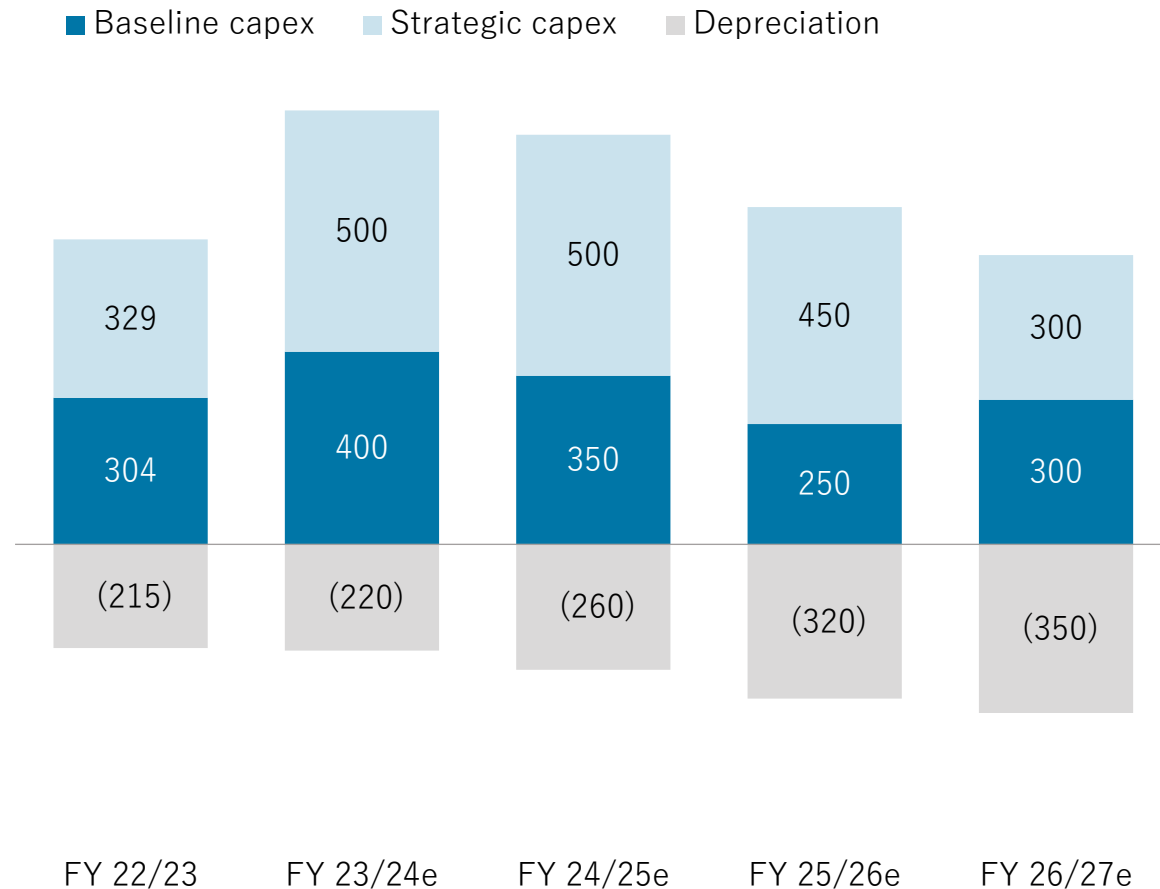
Strong pipeline features advanced projects included in medium-term planning, plus wealth of nascent concepts to drive sustainable growth

Strategic projects from development to implementation



Outflows from current project pipeline expected to peak in 2023/24

Capex planning broken down into baseline and strategic (in € million)



Investment horizon of the Group

- The planned maintenance schedule of the two primary smelters in Hamburg and Pirdop will change from planned maintenance every two years to a three-year cycle from FY 2025/26 onwards
- Depreciation will start substantially impacting the P&L after FY 2025/26
- Baseline capex primarily includes maintenance operations along with investment in environmental protection at all Group sites
- In total, the strategic capex creates valuable synergies to our existing processes and contributes positively to our op. ROCE target

Timeline of strategic projects in implementation

Timeline for the commissioning of our strategic projects

2024

- **Bleed treatment Olen Beerse (BOB)** (BE Olen)
- **Industrial Heat II** (DE Hamburg)
- **Aurubis Richmond Module 1** (US Georgia)
- **Advanced Sludge Processing by Aurubis (ASPA)** (BE Beerse)
- **Solar Park 2&3** (BG Pirdop)
- **Anode Furnace 2.0** (DE Hamburg)

2025

- **Solar Park 4** (BG Pirdop)
- **CRH** (DE Hamburg)
- **Aurubis Richmond Module 2** (US Georgia)

2026

- **Tankhouse Expansion** (BG Pirdop)
- **Precious Metals Refinery** (DE Hamburg)
- **Slag Processing** (BG Pirdop)

Pursue growth options

Aurubis Richmond makes further visible progress



Aurubis Richmond, USA

Visible progress — first important milestones achieved



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



Pursue Growth Options

Investment
~ € 740 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.

~200 new jobs in total.

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

Secure and strengthen core business: Investments in the Hamburg site

Financial impacts

- Timeframe: May–July 2024
- Capex: approx. € 235 million in FY 2023/24
 - Maintenance € 95 million
 - H₂-ready anode furnace around € 40 million
 - Industrial heat system around € 100 million
- EBT effect: approx. € -44 million in Q3 2023/24

Key facts

Description: major maintenance and investments that can only take place during a shutdown include boiler repair, industrial heat expansion, installation of H₂-ready anode furnaces, and brick lining of the furnace; during the project ~250 maintenance and repair activities will take place, projects and optimizations that will allow the primary asset to return to a 3-year maintenance cycle.



Secure
Core Business



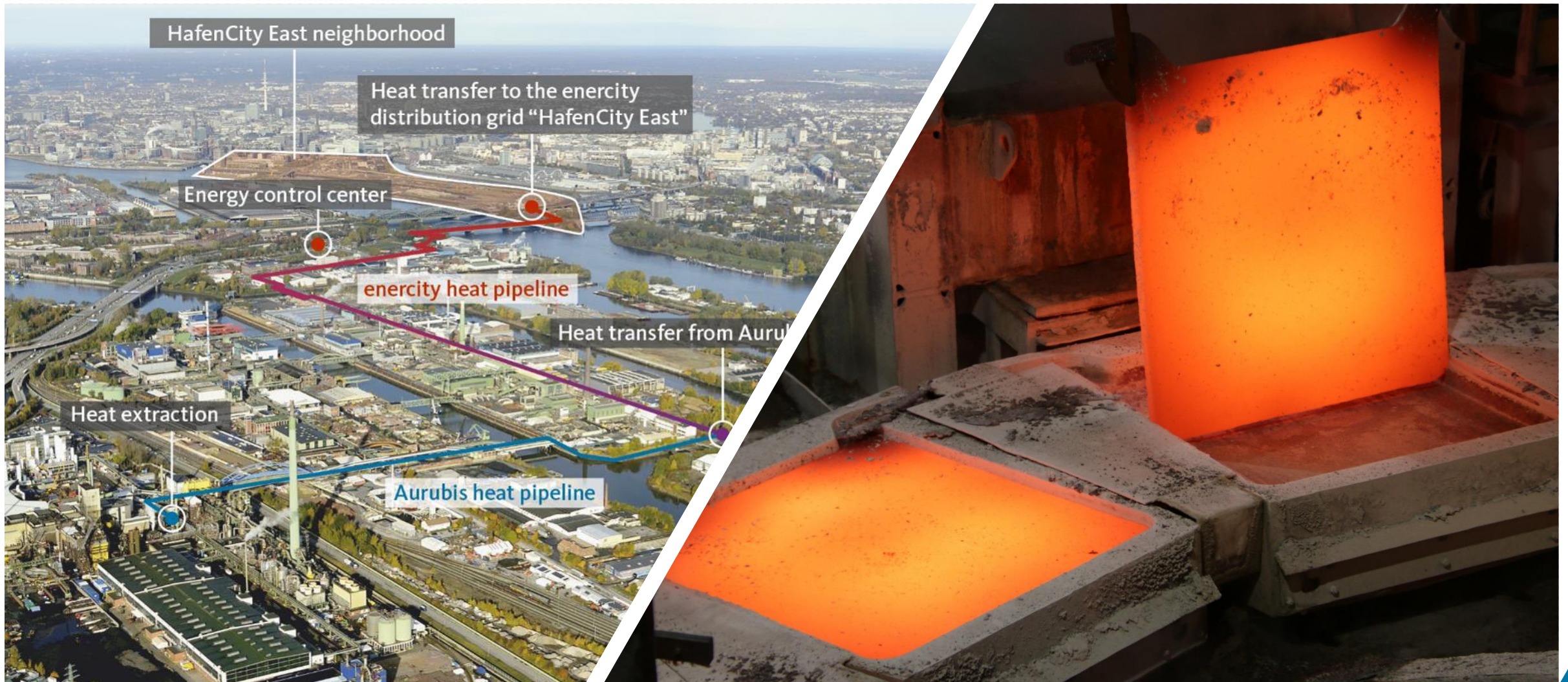
Strengthen
Core Business



Industry Leadership
in Sustainability



Aurubis expands Germany's largest industrial heat system and makes anode furnaces H2-ready



New precious metal processing plant in Hamburg heightens security and enables additional strategic projects

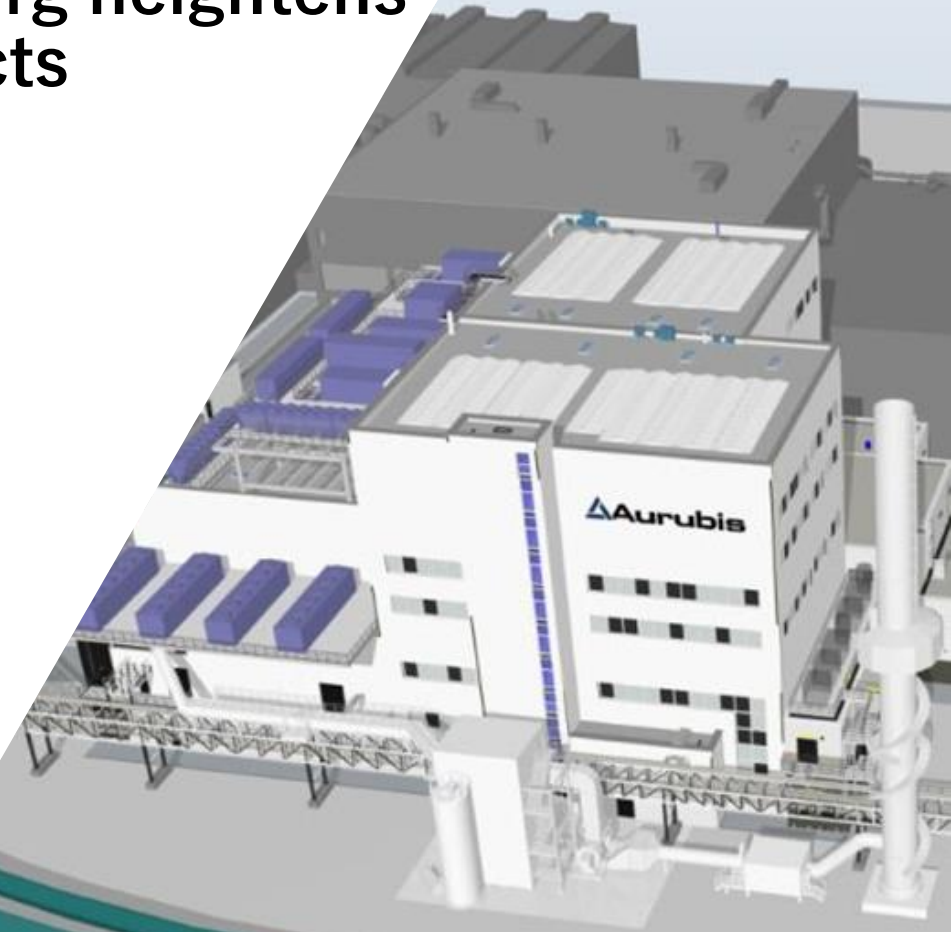
~€ 300 million investment optimizes process chain and includes integrated security concept – multiple security levels for higher physical security

Faster recovery of precious metals optimizes net working capital

Expanding processing capacity enables additional strategic projects by extending precious metal capacity

Setting benchmarks with innovative process and facility technology

15 % reduction of operating costs for precious metal processing



Secure
Core Business



Strengthen
Core Business

Investments in the Pirdop site: Strategic investments and baseline investments

Financial impacts

- Capex: approx. € 400 million in FY 2023/24
 - Tankhouse expansion € 120 million
 - Groundbreaking for PV modules 2 & 3 + expansion announcement for PV module 4
 - Optimization of slag processing at Aurubis Bulgarian site
 - Baseline investments
- Strategic investments: approx. 60 % of € 400 million

Baseline investments

Description: deploying 460 high-efficiency motors in the Bulgarian plant, replacing transformers, and installing state-of-the-art lighting technology. Further investments in a number of infrastructure projects and a company fleet of train cars to transport copper concentrates from the Port of Burgas to Pirdop.



Secure
Core Business



Industry Leadership
in Sustainability



Strengthen
Core Business



Start of tankhouse and solar park expansion



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



Secure
Core Business



Strengthen
Core Business

Investment
~ **€ 190 million**

EBITDA p.a.
~ **€ 40 million**
(at full production)

Aurubis is **strengthening its core business** and investing € 190 million for further optimization of the smelting process at the Hamburg site.

Construction of a new TBRC at the Hamburg site incl. process gas cleaning system based on best available techniques (BAT).

Processing **internal and external value-added complex intermediates and recycled materials** with additional treatment and refining charges and metal recoveries.

Increase in metal yield (mainly precious metals) with lower process times.

CRH is the prerequisite for further attractive strategic projects (e.g., higher yield of additional industrial and precious metals).

Differentiation from competitors through expansion of metallurgical processes and extension of the value chain at the Hamburg site.

Start of production
following ramp-up
phase
Q4 2025

~ **32,000 t** p.a.
Input of external
material

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

Pursue growth options

Test pilot for battery recycling in Hamburg

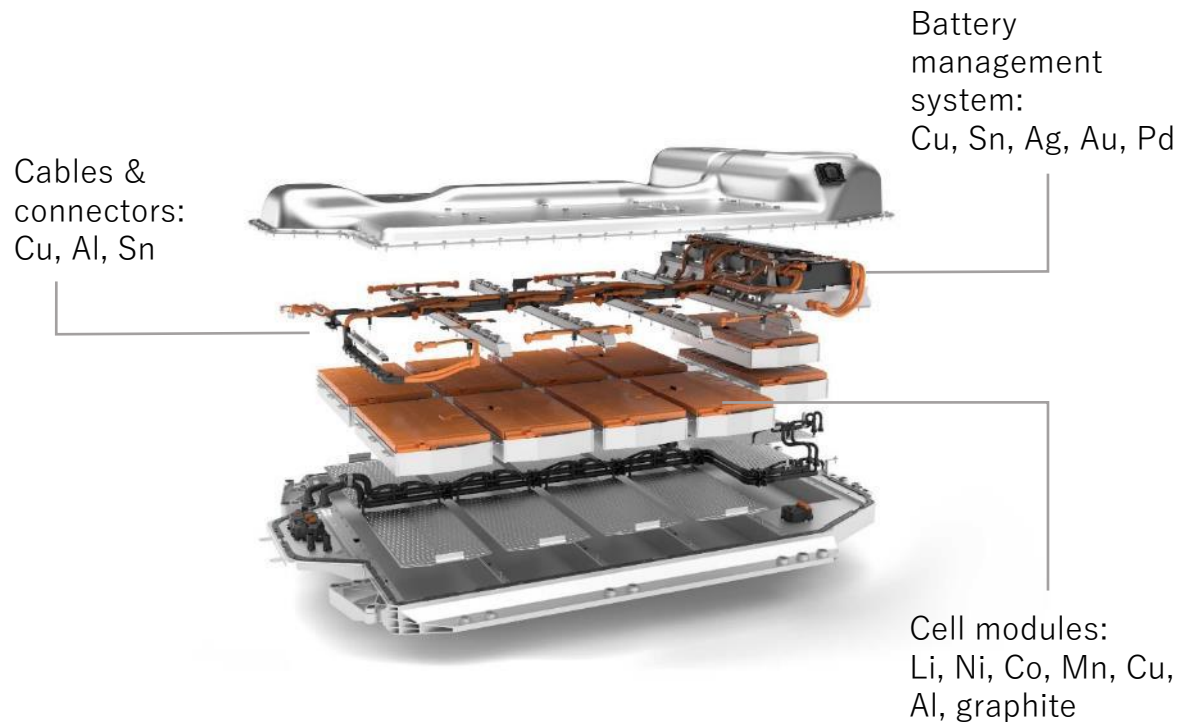


Battery recycling



Lithium-ion batteries – exceptional value hidden in complex products, complex recycling material

Batteries are complex scraps that are of huge value

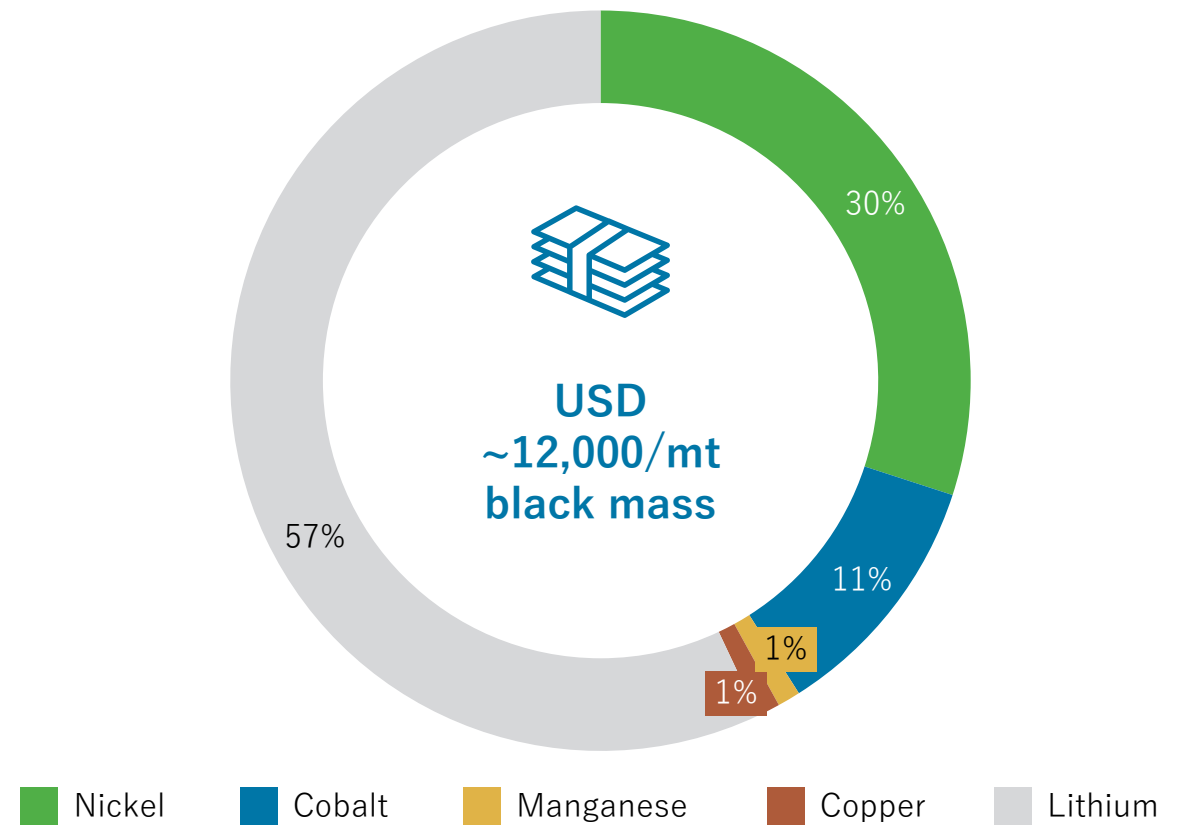


➤ Average black mass content: ~40 %

Source: BMW Group

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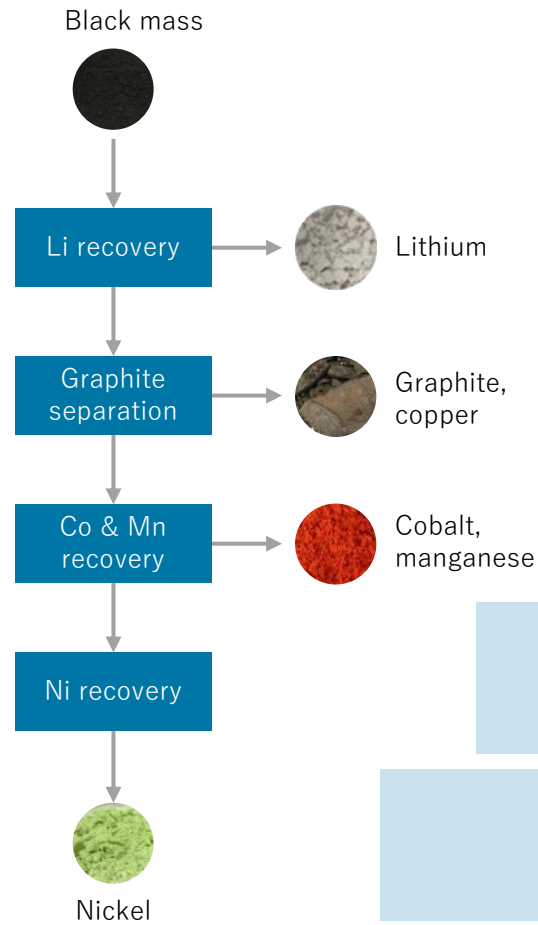
As the metal value in black mass is very high, capabilities to recover the value are essential



Source: Aurubis, Roland Berger, LME

/

Our innovative process for black mass leverages capabilities of our integrated smelter network



Benefits of the unique Aurubis process

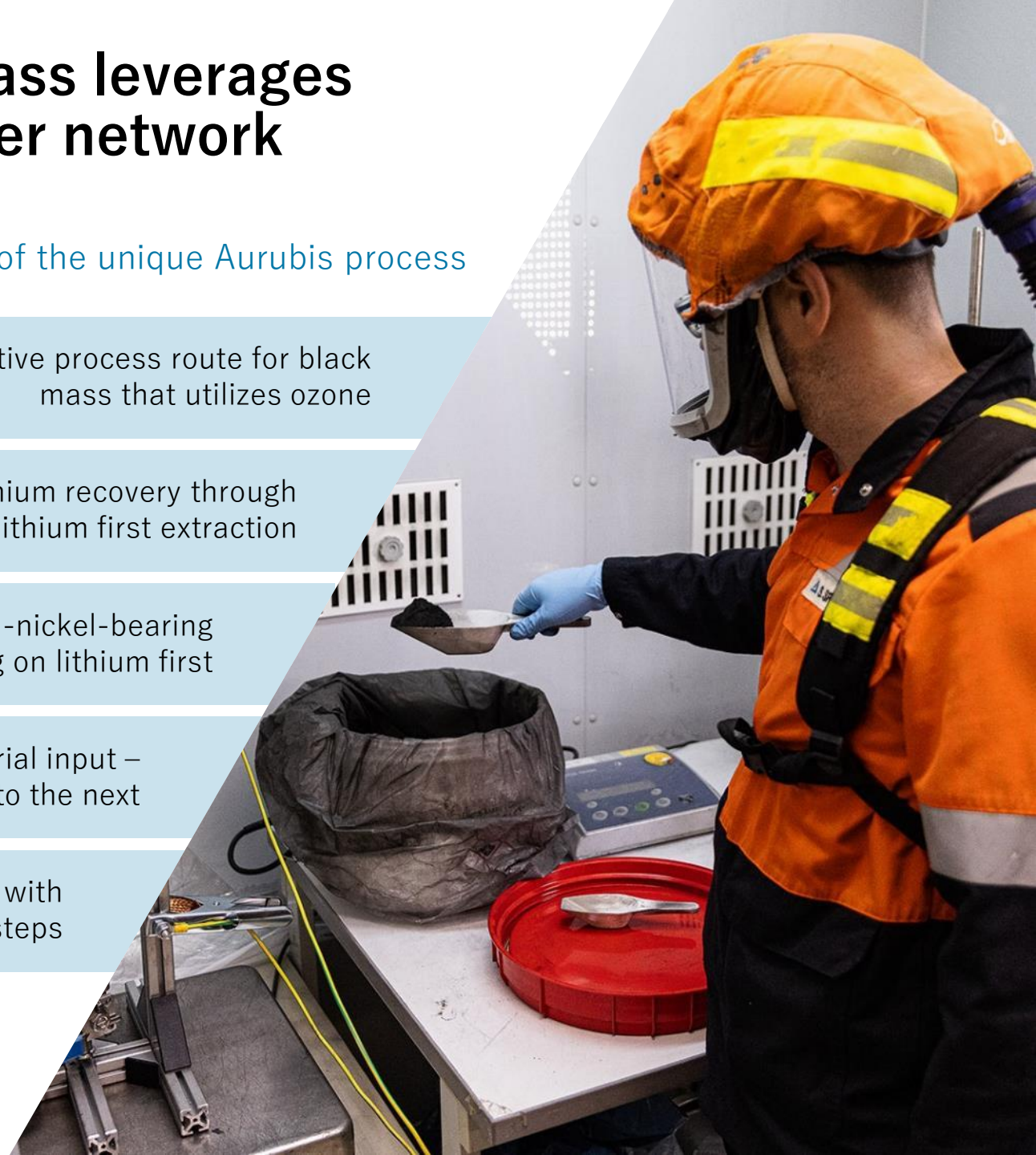
Innovative process route for black mass that utilizes ozone

High lithium recovery through lithium first extraction

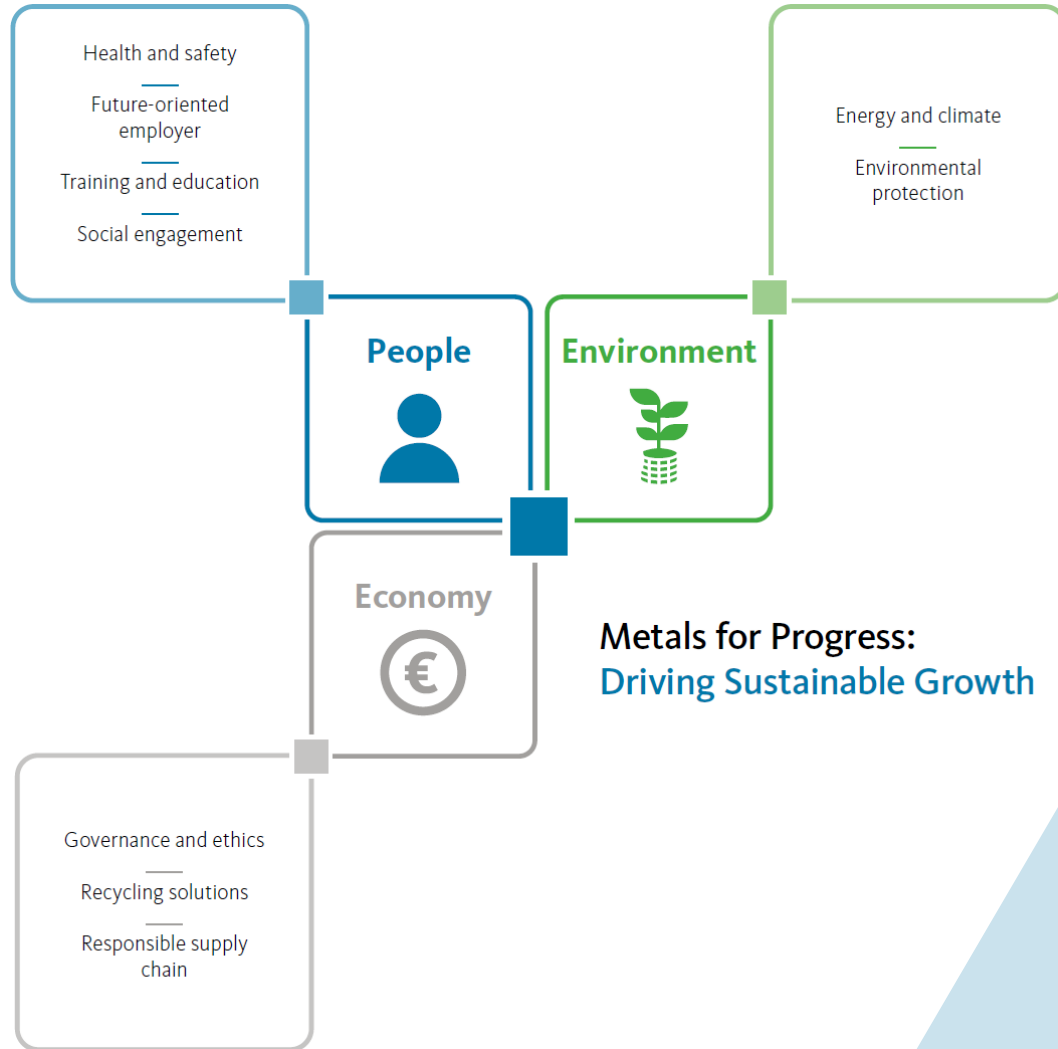
Ability to process non-nickel-bearing black mass by focusing on lithium first

Flexibility regarding raw material input – no recycling material is identical to the next

Modularity – compatible with further refining steps



We continue to lead our industry in sustainability – minimizing emissions and costs, maximizing opportunities in new business areas



We continue to strengthen our position as the most efficient and sustainable multimetal producer worldwide

1

Sustainability is a fundamental part of Aurubis' strategy

2

We strive for **balance** between economy, environment, and people

3

9 action areas, targets and measures across E, S, and G

The Copper Mark certification demonstrates our leadership in sustainable production practices



The Copper Mark launched for copper producers in March 2020



Focus on steady improvement of the sector's production practices



Aurubis Beerse and Solberg certification in 2023 expected



Basis:
UN SDGs & Risk Readiness Assessment



Joint Due Diligence Standard enables effective due diligence



Review of
32 sustainability criteria



Aurubis Bulgaria, Hamburg, Lünen and Olen already certified for meeting The Copper Mark's requirements



The copper value chain can be sustainable – promoting and driving this industry initiative demonstrates our responsibility and growing momentum for a more sustainable product.



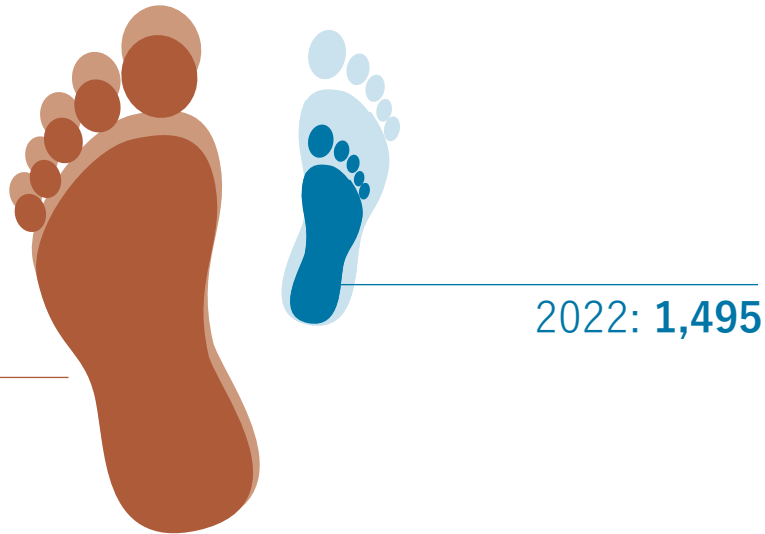
RESPONSIBLY
PRODUCED
COPPER

Leading the way with life cycle assessments – and substantially lower carbon footprints than industry averages

Copper cathodes (in kg CO₂ eq./t Cu)

Global industry average

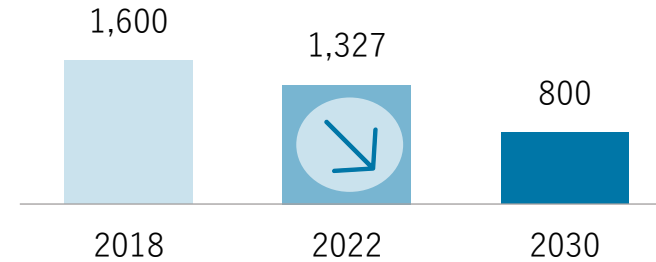
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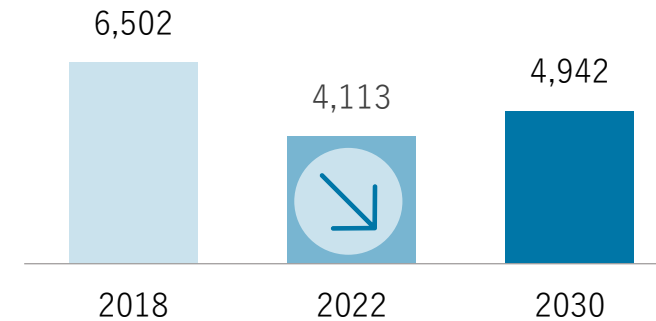
* Please note that ITA data is reported using the CML method of impact assessment, which has limited comparability.

Source: International Copper Association 2019, Aurubis LCA 2022

Absolute Scope 1+2 CO₂ emissions (in kt)



Scope 3 CO₂ emissions (in kt)¹



¹ Assumed steady copper cathode production until target year (physical intensity target). In 2022 we were able to draw on more accurate mine and transport data, so emissions were lower. We now plan to reassess and sharpen our 2030 target in FY 23/24 based on the better data now available.

» Aurubis continuously pursues better energy efficiency: lowering costs and reducing CO₂ emissions

Aurubis AG Metals for Progress



Financial calendar

- Annual Report 2023/24 December 5, 2024
- Q1 2024/25 February 5, 2025
- Annual General Meeting April 3, 2025 (preliminary)
- Q2 2024/25 May 8, 2025
- Q3 2024/25 August 5, 2025
- Annual Report 2024/25 December 4, 2025

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Overview of restated operating EBT Q1–Q4 2022/23 relevant only at Group and CSP level

- New findings have resulted from the investigation into and clarification of the criminal activities against Aurubis.
- We now assume that the negative impact of the criminal acts took effect at the start of the 2023 calendar year specifically.
- As a result, operating and IFRS results from Q2 2022/23 onwards have been restated in keeping with IAS 8.
- Restatement only applies to CSP segment and Group level
- The estimate of the impact is based on the special inventory as at August 31, 2023, the inventory as at the September 30, 2023 reporting date, and the additional analyses that we have carried out to date.
- According to best estimates, it is assumed that the financial impact on operating EBT as at the March 31, 2023 reporting date and the following quarters should have been as follows:

	3M	6M	9M	12M
(operating in €m)	2022/23	2022/23	2022/23	2022/23
Aurubis Group				
EBT before restatement	125	291	406	-
Restatement	0	-52	-149	-169
EBT restated	125	239	257	349
CSP segment				
EBT before restatement	108	223	322	-
Restatement	0	-52	-149	-169
EBT restated	108	171	173	253

Scheduled shutdowns in the next 3 years



EBT effect from scheduled shutdowns (in € million)
 Status: December 2023

	FY 2023/24		FY 2024/25		FY 2025/26	
Smelter maintenance Hamburg	May/July 2024	~44				
Anode furnace Hamburg					May/June 2026	~6
Smelter maintenance Pirdop			Apr/June 2025	~24		
KRS Lünen	May 2024	~10	May 2025	~10	May 2026	~10
Anode furnace Lünen	Nov/Dec 2023	~6	Nov/Dec 2024	~7	Nov/Dec 2025	~7

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 [7,200 employees](#) worldwide

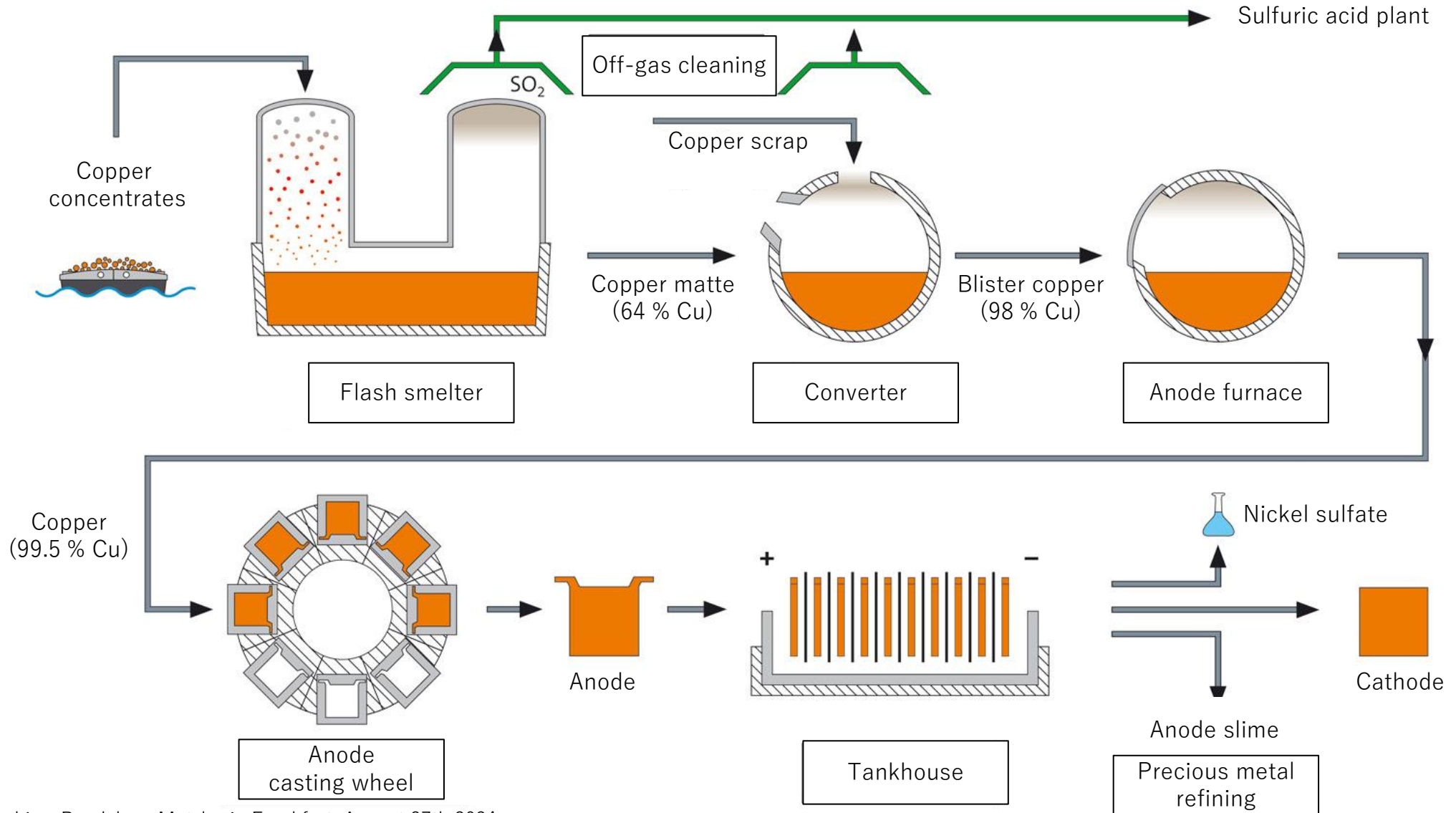


The Group is [active in more than 20 countries](#) and has production sites concentrated in [Europe](#) and [North America](#)



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

Primary copper production process



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.