

Leveraging ferrochrome

Site visit to Kemi mine

Marc-Simon Schaar – CFO

Marti Sassi – President, business area Ferrochrome

September 10, 2024





Site visit to Kemi mine

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Outokumpu's recent financial development

Marc Simon Schaar – CFO

Outokumpu is the global leader in sustainable stainless steel

Year 2023

Sales

7

EUR billion

Stainless steel deliveries

1.9

million tonnes

Adjusted EBITDA

517

EUR million

First in the industry



100% stainless steel.
Up to 93% lower carbon footprint compared to global average.

95%

Record-high recycled material content in production

75%

Up to 75% lower carbon footprint than average global stainless steel

8,469

Personnel

Adjusted EBITDA amounted to EUR 56 million in Q2

- Market environment in Europe remains challenging despite continued gradual recovery since Q3 2023
- Stainless steel deliveries increased from the previous quarter in both business areas
- Temporary operational challenges in business area Americas
- Scrap market remained tight throughout the quarter and impacted negatively profitability
- The recent political strike in Finland had approx. EUR 30 million negative impact in Q2 2024 – same as in Q1 2024



Gradual market recovery in Europe continued in Q2 while the market environment in the Americas softened

We are the market leader in Europe, and accelerate actions to strengthen our position



Challenging market situation in Europe requires accelerated efforts to strengthen cost competitiveness



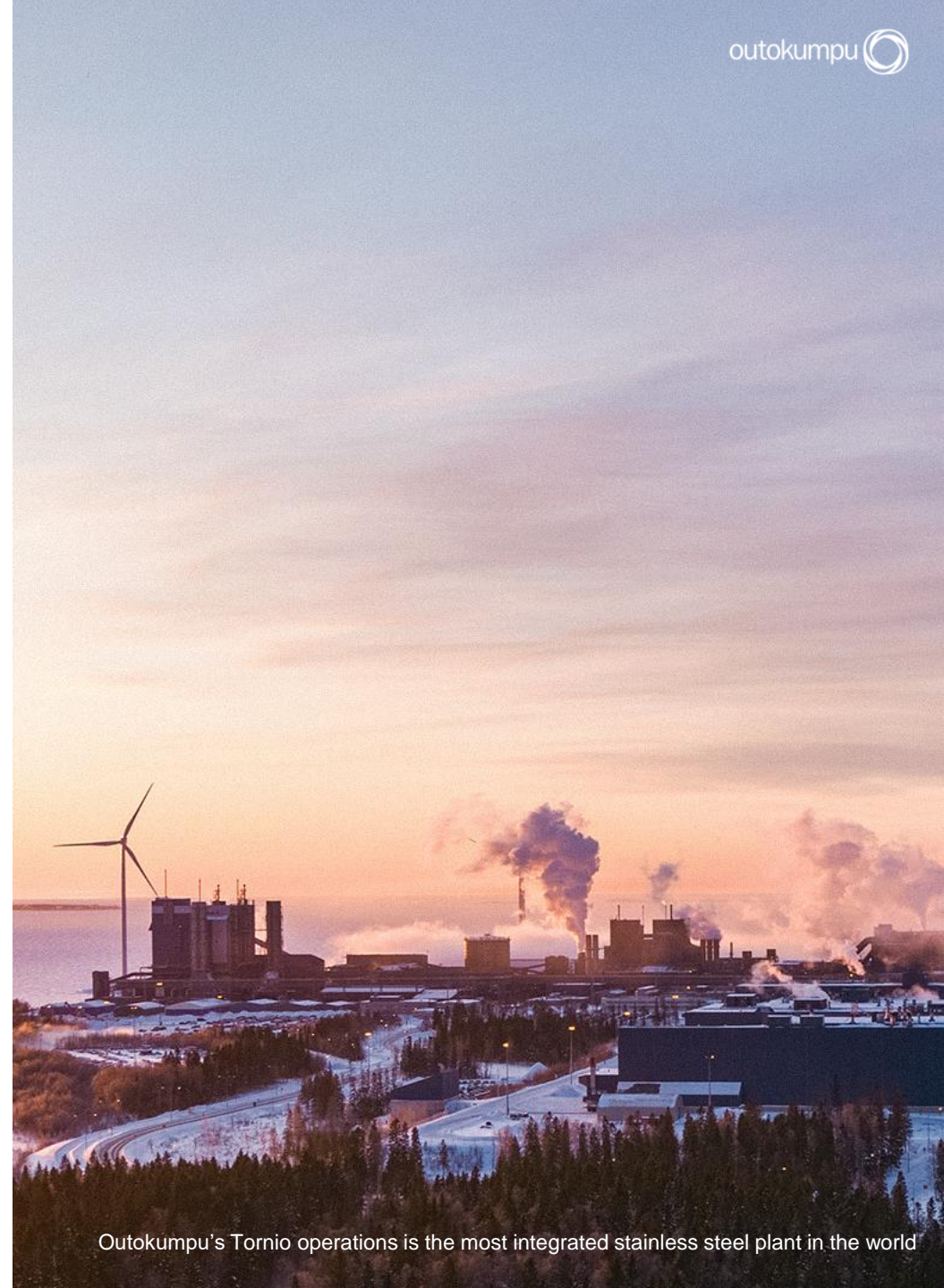
Targeting cost savings and optimization of the commodity stainless steel production in Tornio, Finland and Krefeld, Germany



Tornio mill is the most cost-efficient mill in Europe and designed for high volume production

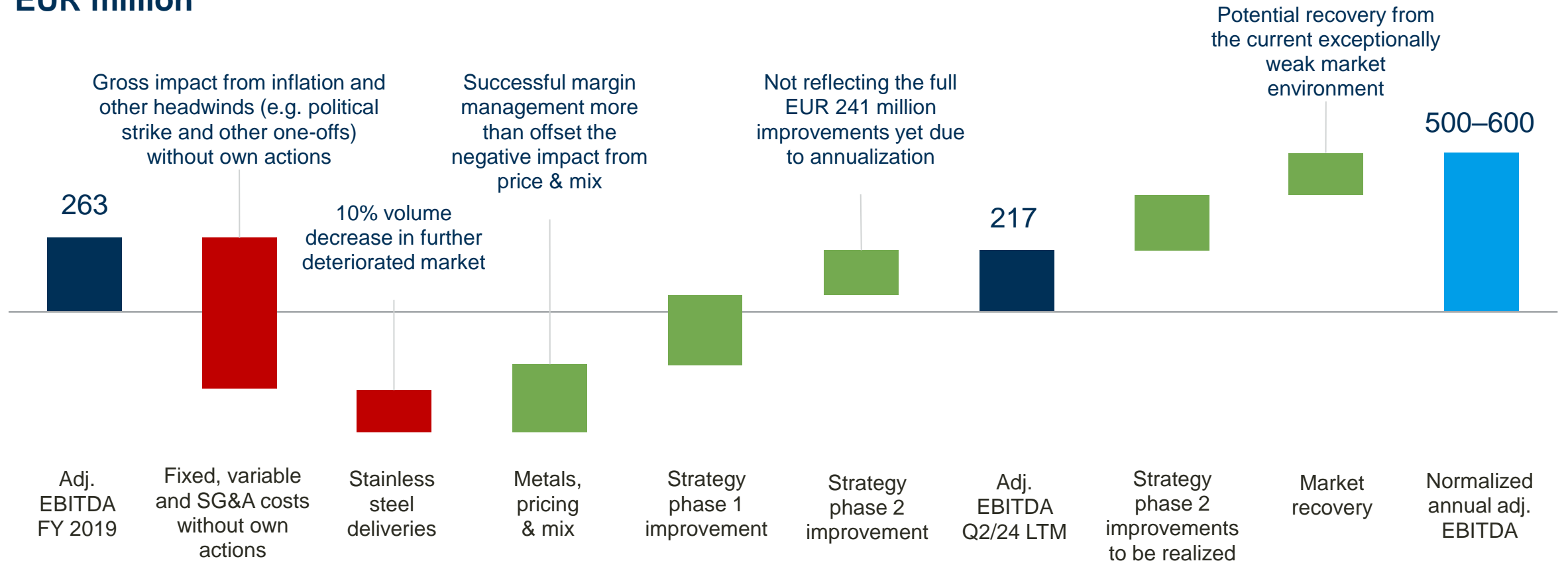


Intention to further leverage our long-term structural advantage of clean and price competitive energy in the Nordics



Normalized adjusted EBITDA level remains at EUR 500–600 million with own profit improvement actions

EUR million



*Indicative columns based on management estimates



Outlook for Q3 2024

- Group stainless steel deliveries in the third quarter are expected to remain stable compared to the second quarter.
- Slow market recovery in Europe is expected to continue while the market environment for business area Americas is expected to remain soft.
- The scrap market is expected to remain tight.
- With the current raw material prices, some raw material-related inventory and metal derivative gains are forecasted to be realized in the third quarter

Guidance for Q3 2024

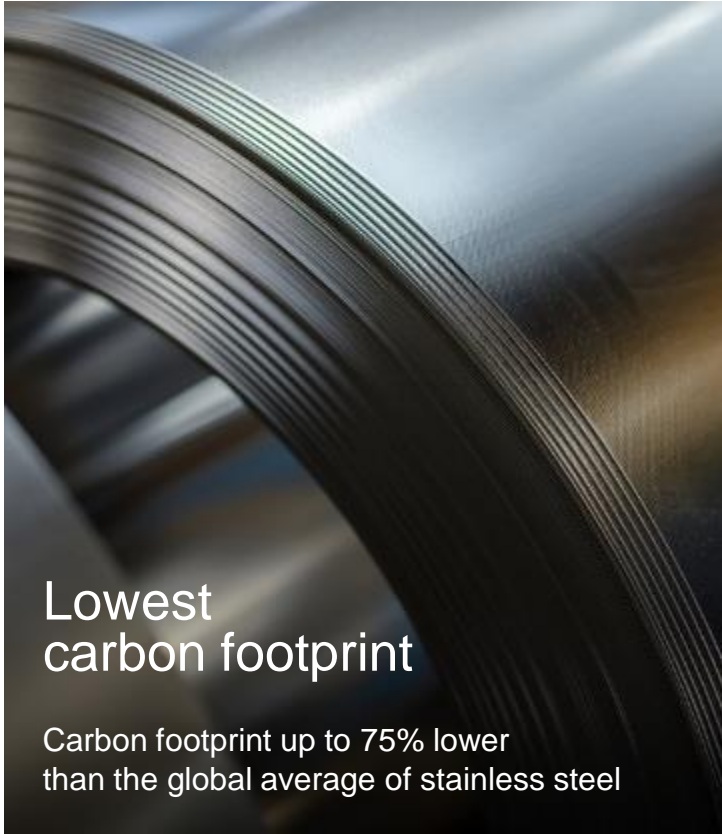
Adjusted EBITDA in the third quarter of 2024 is expected to be at a similar or higher level compared to the second quarter.



Ensuring ferrochrome supply through own integrated production

Marc-Simon Schaar – CFO

The industry leader in low-emission stainless steel – captive ferrochrome production is pivotal



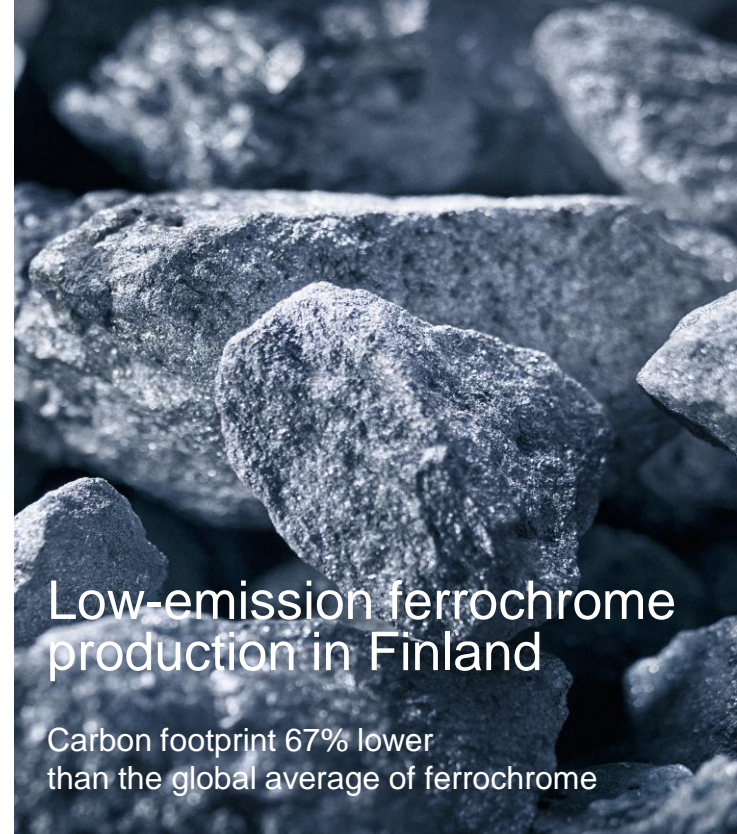
Lowest carbon footprint

Carbon footprint up to 75% lower than the global average of stainless steel



Circular economy at the core of business

Highest-recycled material content rate of 95% in the industry



Low-emission ferrochrome production in Finland

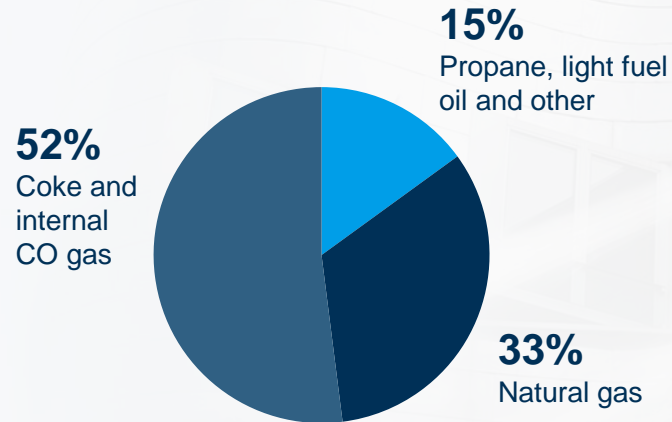
Carbon footprint 67% lower than the global average of ferrochrome



Full transparency to drive change in the industry

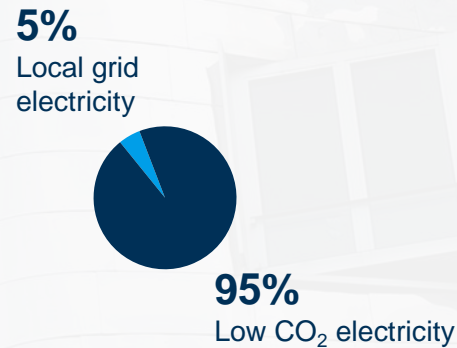
Emissions per scope in 2023

Scope 1 Total: 1,013 ktCO₂



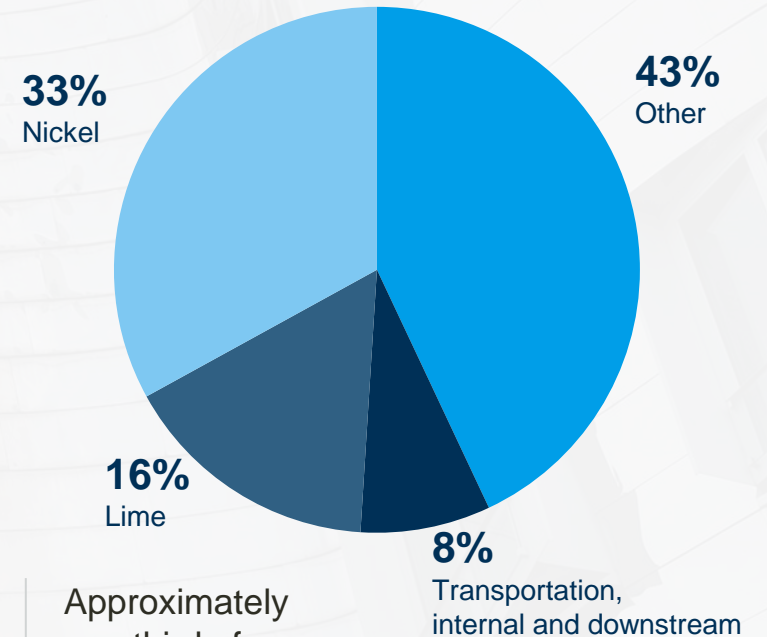
Addressing coke and fuel use has a significant impact on Scope 1 emissions, which constituted 29% of our emissions.

Scope 2 Total: 142 ktCO₂



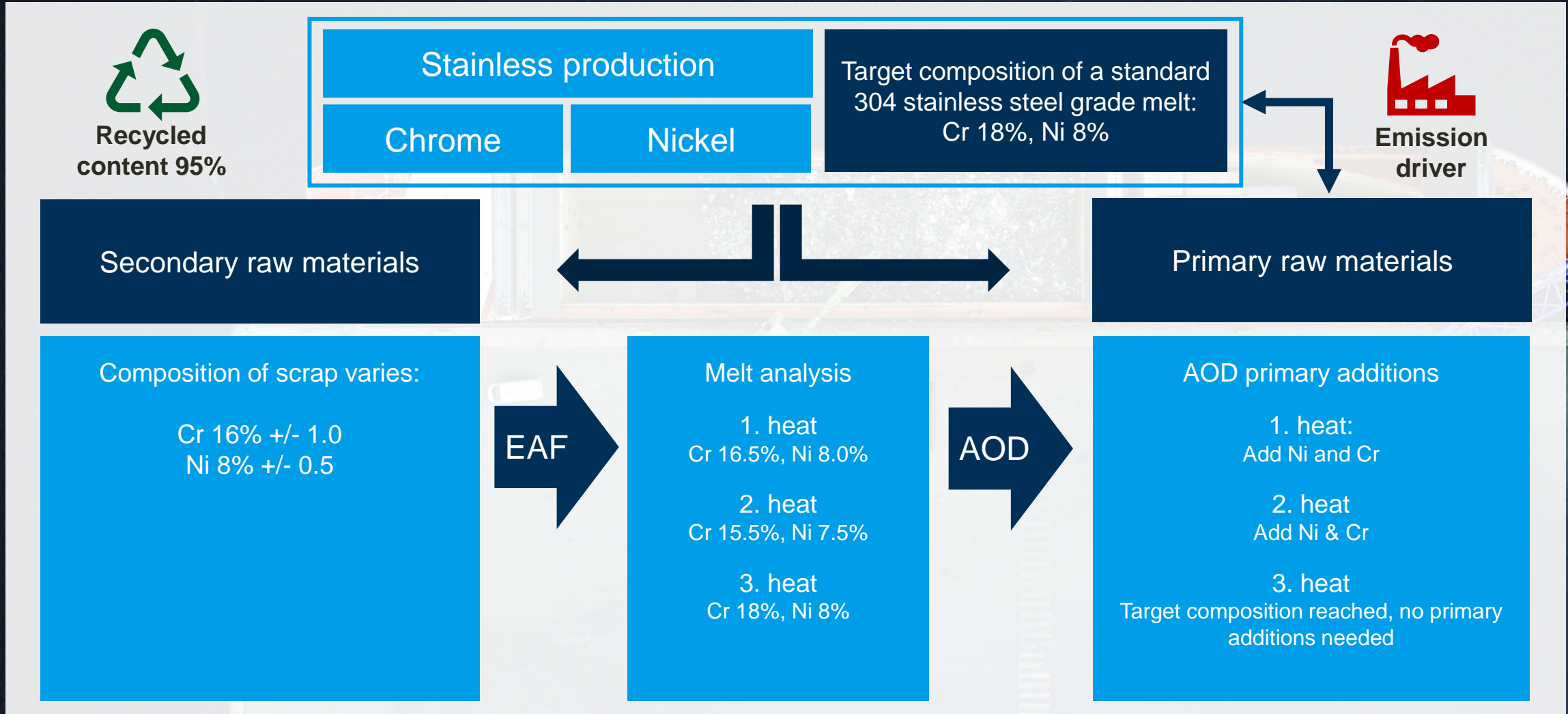
Absolute emissions has been significantly reduced by increasing the share of low-carbon electricity up to 95% of our electricity consumed. Scope 2 emissions constitute 4% of our emissions.

Scope 3 Total: 2,309 ktCO₂



Approximately one third of our value chain emissions come from production of nickel. Scope 3 emissions constitute 67% of our emissions.

Scrap is our main raw material – primaries also important



EAF = Electric Arc Furnace
AOD = Argon Oxygen Decarburization

Cr = Chrome
Ni = Nickel

Actions to ensure supply of critical raw materials with a low carbon footprint

Scrap

10% share acquired of CRONIMET North-East GmbH in Europe to strengthen partnership and accelerate circularity

Wind power

Ownership of Rajakiiri wind farm in Tornio, Finland increased to 19.9% and 9MWh

Molybdenum

Letter of intent signed with Greenland Resources Inc.

Nickel

9.9% share acquired in FPX Nickel junior mine

Biocarbon

20% share acquired of Envigas AB, a leading European producer of biocarbon

Other

Feasibility studies ongoing for emerging nuclear technology and for a biocoke investment

“Approximately 60% of Outokumpu’s costs come from raw materials”

Own low CO₂ ferrochrome production is a competitive advantage



Outokumpu's chrome mine in Kemi and ferrochrome operations in Tornio, Finland.

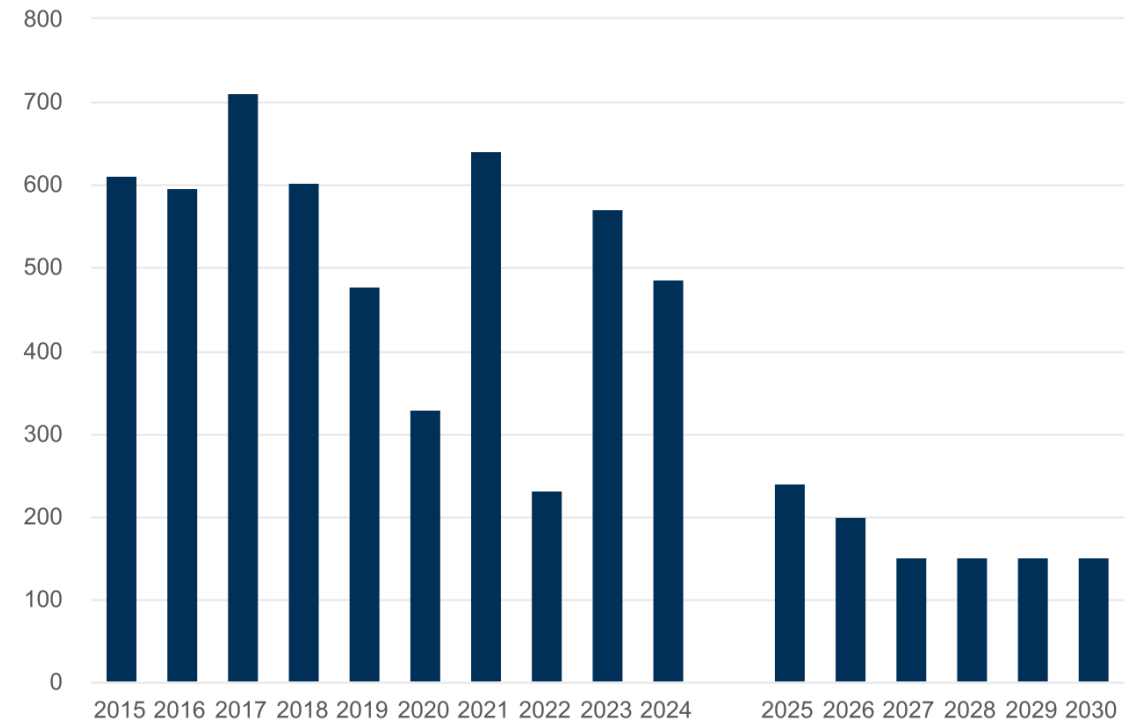
- Ferrochrome makes stainless steel stainless (on average 18% chrome content)
 - The only chrome mine in the EU area, making Outokumpu well positioned with regards to Carbon Border Adjustment Mechanism (CBAM)
 - We are the largest ferrochrome producer in the western world
- Fully integrated ferrochrome and stainless steel operations in Finland provide several cost and operational benefits
 - Ore availability ensured until 2050' with recent investments
 - Kemi mine to become the first carbon-neutral mine in the world by 2025

Outokumpu's position expected to strengthen within ferrochrome

- Imports into Europe expected to decrease due to CBAM and reduced capacity in South-Africa
- Strong position within CBAM is due to our own ferrochrome production with
 - **67% lower carbon footprint compared to the global average**
 - **plans to further reduce scope 1 emissions by replacing fossil coke by biocoke**
- Our production is ~3% of the global production, ~60% of western production capacity*
- South-Africa produces ~60% of the global chrome ore, of which over 90% is exported to China and processed into ferrochrome
- China is the biggest ferrochrome producer globally with ~50% market share

* Based on CRU 2023

South Africa HC FeCr exports to EU 27



Source: ProjectBlue 2024

We are well positioned towards CBAM

As the EU is raising its climate ambition, there is a risk of carbon leakage. Carbon Border Adjustment Mechanism or CBAM is set to prevent that.

Outokumpu forecasts to have an adequate quantity of the EU emission allowances until the end of this decade if the projected carbon emission reduction projects are realized.

Outokumpu is uniquely positioned for two reasons:



Our own ferrochrome production, 67% lower carbon footprint compared to the industry average



Our stainless steel's 75% lower carbon footprint compared to the industry average



Towards a world that lasts forever

Marc-Simon Schaar – CFO

Sustainability at the core of our strategy



Climate

Commitment to reduce emission intensity across Scope 1, 2 and 3 by 42% by 2030*.



Circularity

Target to achieve over 90% recycled material content.



Energy efficiency

Improve energy efficiency by 8% by the end of 2024.



People & safety

Long-term vision of zero accidents. Minimum of 30% of diverse leaders in all international management teams by the end of 2025 and pay equity certification in 2024.

*From the 2016 baseline



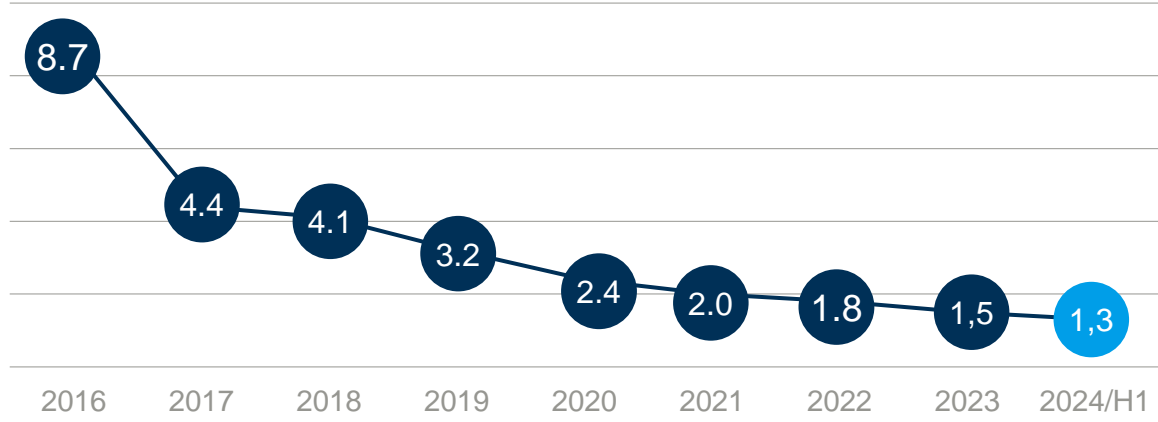
We are committed to the United Nations' Sustainable Development Goals



People are our most valuable asset

World-class safety performance

TRIFR*



Increase in diverse leaders

+26%

from 2022 baseline

Improving pay equity

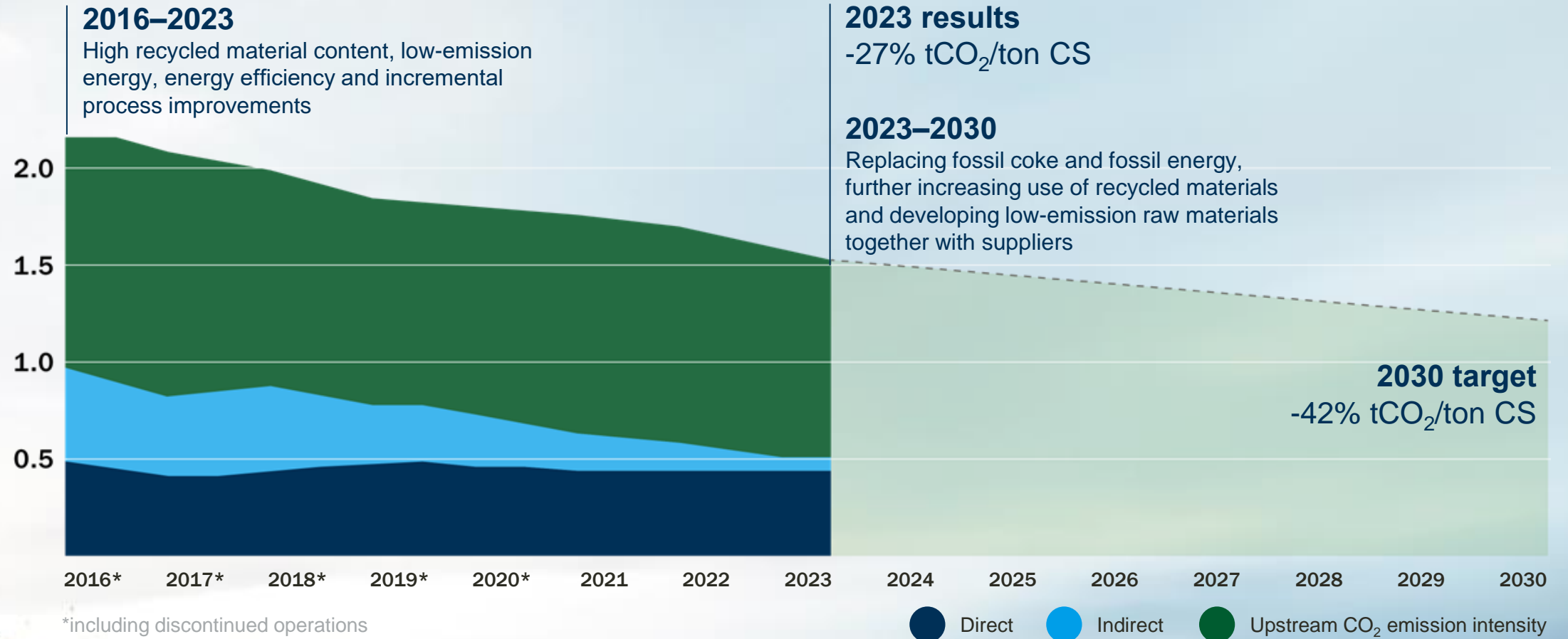
0.99

women's euro with an external verification

*TRIFR = Number of total recordable incidents per million working hours. 2021 and 2022 numbers include only continuing operations.



Continue our climate strategy to further reduce our emissions aligned with 1.5 degrees – circularity and innovation at the core





Global ferrochrome market

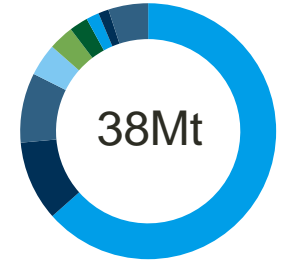
Martti Sassi – President, business area Ferrochrome

The biggest ferrochrome producer in the western world



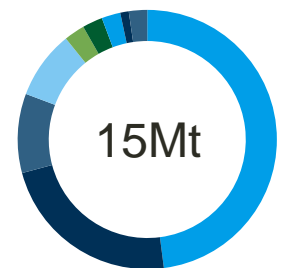
Chrome ore production by country, 2023

South Africa	63%
Kazakhstan	10%
India	9%
Turkey	4%
Zimbabwe	3%
Finland	2%
Brazil	2%
Albania	1%
ROW	5%



FeCr production by country, 2023

China	48%
South Africa	23%
India	10%
Kazakhstan	8%
Finland	3%
Zimbabwe	3%
Indonesia	2%
Brasil	1%
ROW	2%

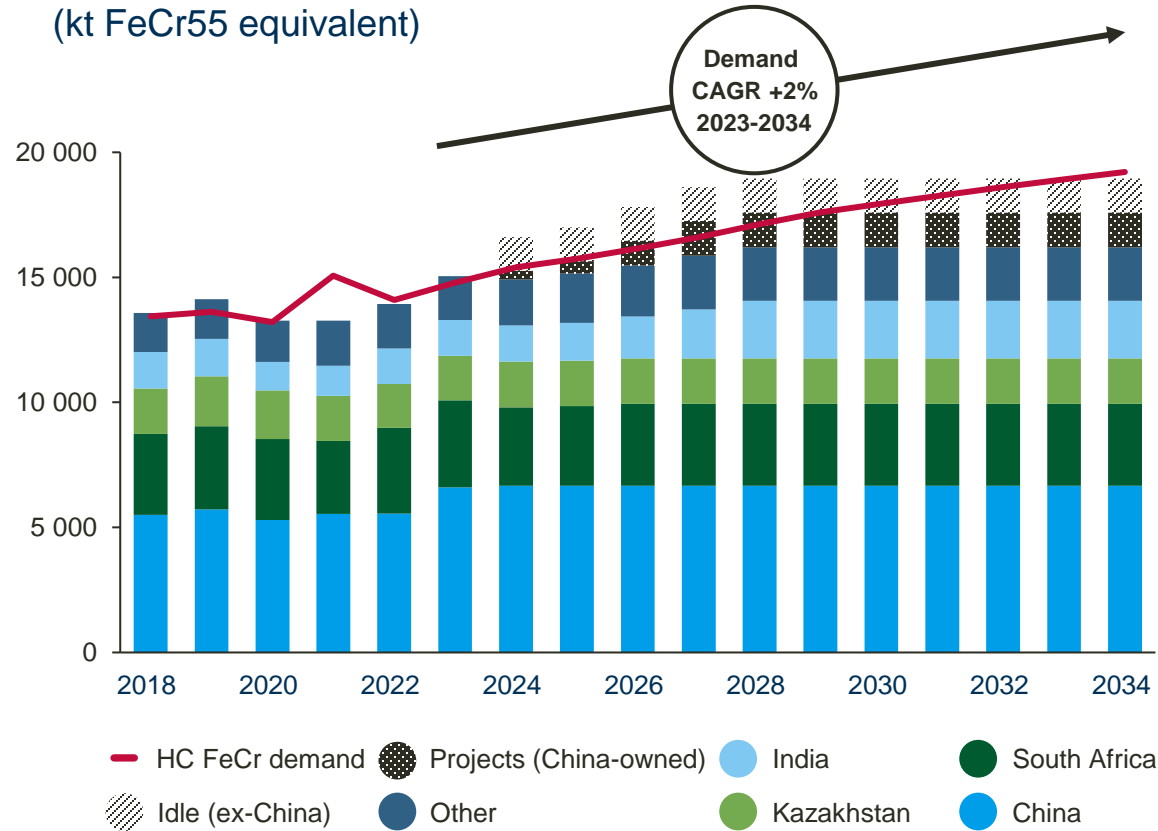


ICDA statistical bulletin 2023

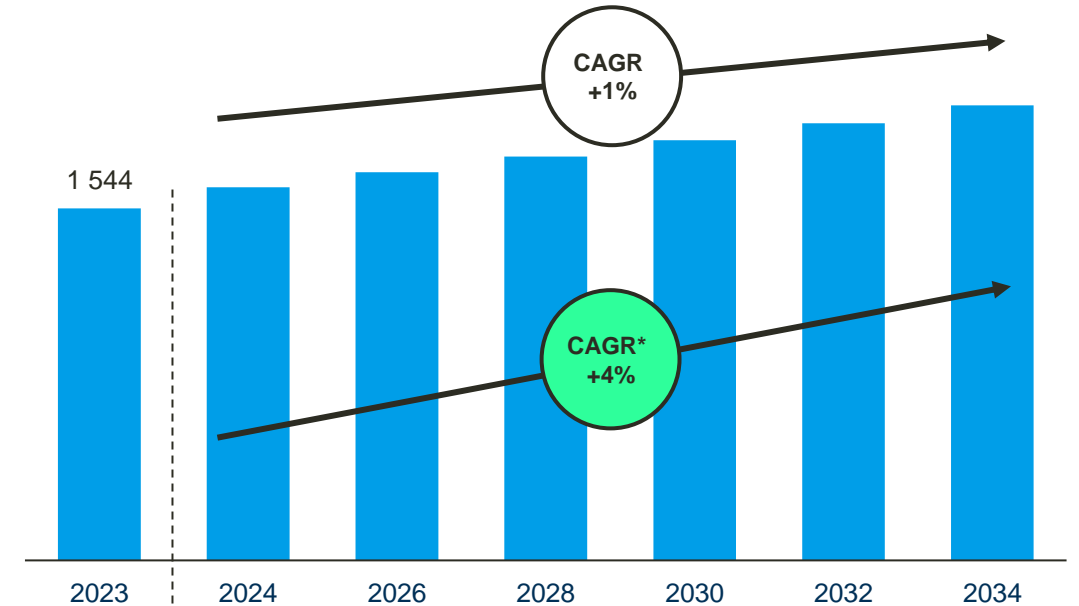
Chrome Ore Mine FeCr production

Global ferrochrome supply-demand balance forecasted to change for Outokumpu's benefit

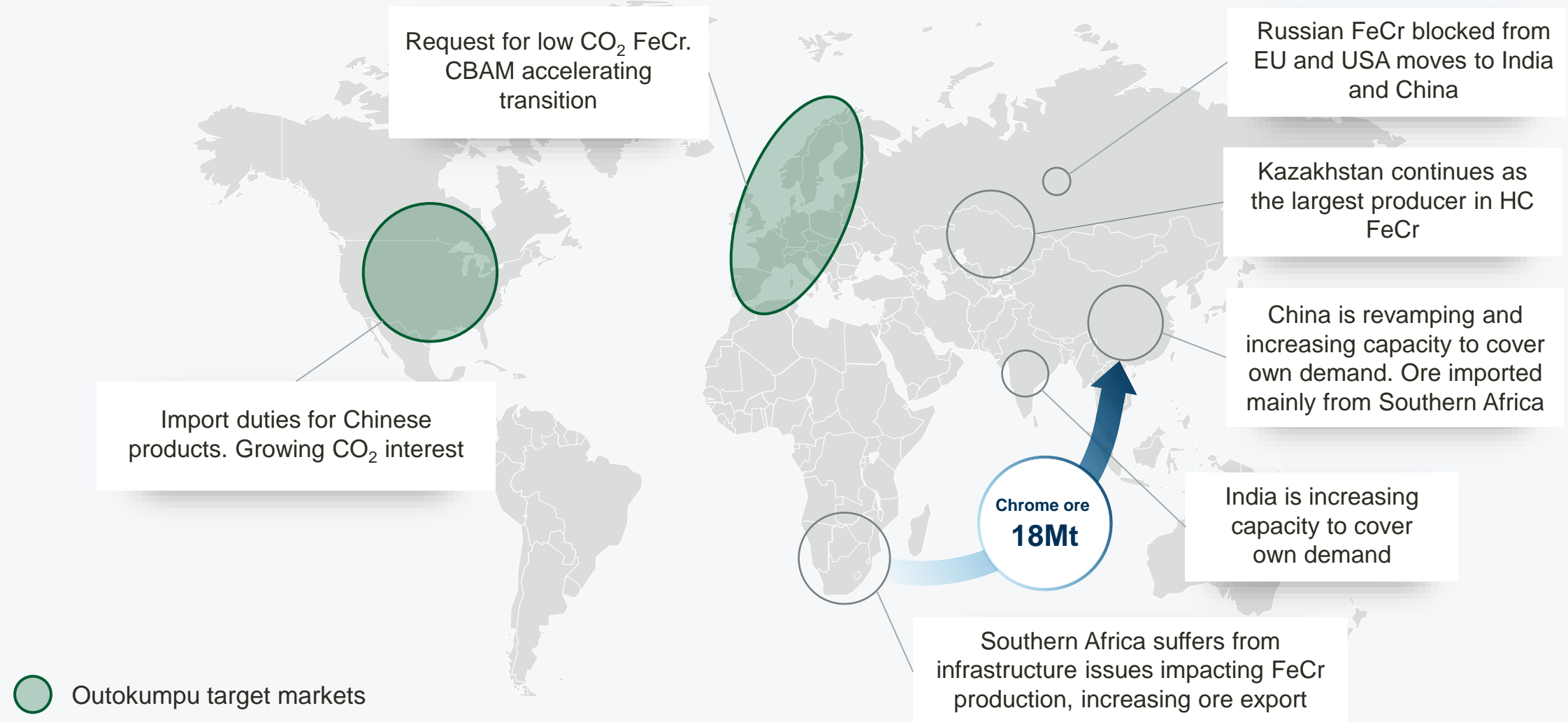
Ferrochrome supply forecast
(kt FeCr55 equivalent)



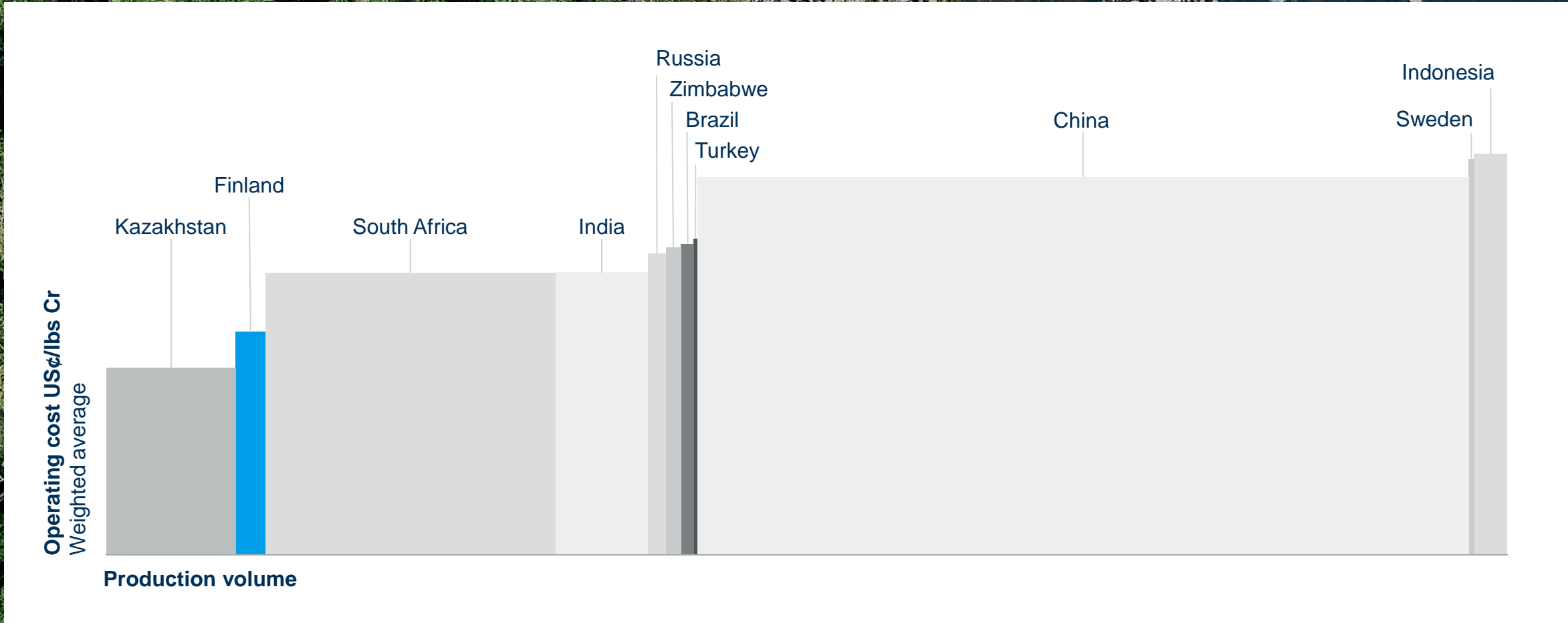
Green (low CO₂) ferrochrome market expected to grow faster than average market in Europe and North America



Growing interest towards low CO₂ ferrochrome in the European and North American markets



Our ferrochrome operating cost in the lowest quartile



Source: Operating Cost US\$/lbs Cr, CRU July 2024. The country-specific average is calculated as a weighted average based on furnace production

A large, dimly lit underground tunnel, likely a mine. The walls are reinforced with a grid of metal mesh. In the center, a large yellow mining truck is parked, illuminated by bright headlights. To the left, another piece of machinery is visible, also lit up. The floor is dark and appears to be covered in dirt or gravel. The overall atmosphere is industrial and somewhat somber due to the low lighting.

Ferrochrome is a core business

Martti Sassi – President, business area Ferrochrome

Business area Ferrochrome

Year 2023

Sales

467

EUR million

Adjusted
EBITDA

96

EUR million

Ferrochrome
deliveries

355

Kilotonnes

Ferrochrome
production

390

Kilotonnes

Personnel

455

Own employees

Safety

0

Total recordable
incidents

Customer
base

Stainless and
alloy-steel
producers

65%

35%

Share between internal
and external customer
deliveries

30km

Distance between
Kemi chrome mine
and FeCr smelters
in Tornio

Kemi mine - The first carbon-neutral mine in the world by 2025

KEMI MINE
1999

The only
chrome
mine in the
EU

Annual ore
production
capacity
2,7
million tonnes

Ore supply
secured to
2050'

Underground
mine with
minimal
environmental
impact

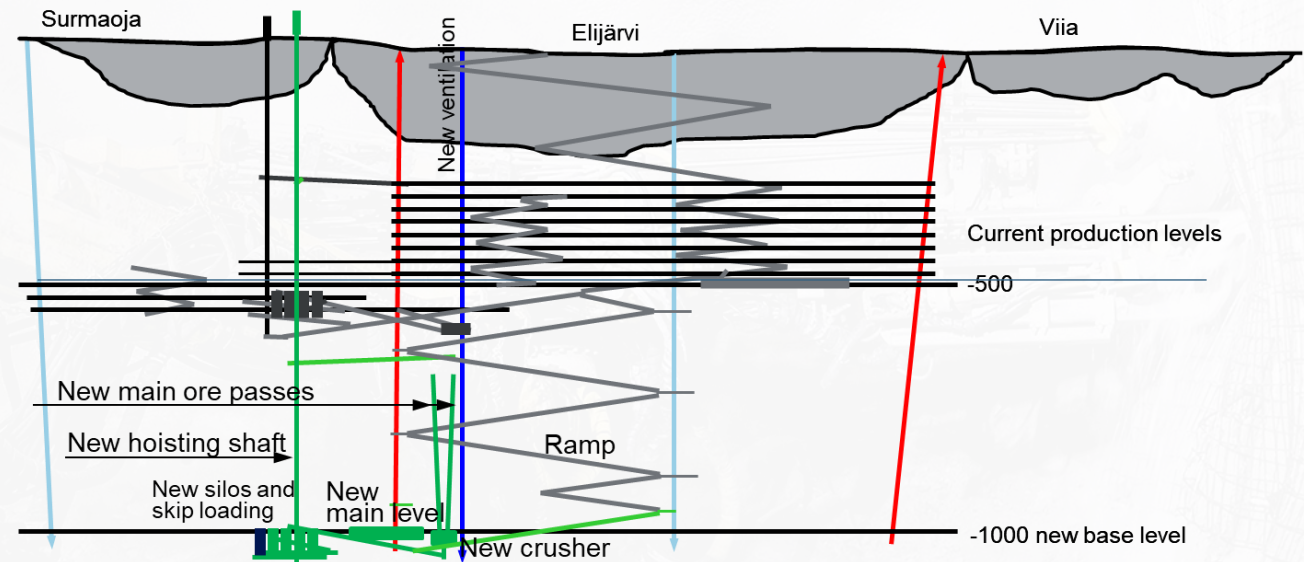
Concentration
process
gravity-based,
not using
chemicals

Committed
to Towards
Sustainable
Mining (TSM)

Expansion of Kemi mine successfully completed

EUR 280 million expansion into new production area 2017-2023

- New main level built at 1,000 meters depth
- New ore handling and hoisting system to enable cost-efficient mining in 500-1000 m depth
- Highly automated with remote operations



Ferrochrome plant in Tornio - Integrated and efficient

3 submerged
arc furnaces
with best
available
technology

Annual
capacity

530 kt

Furnace 3
largest and the
most efficient
furnace globally

Liquid FeCr
deliveries to
own melt shop
saves energy

Carbon
Monoxide gas
utilized

97%

All side streams
CE marked
and utilized

Sustainability in BA Ferrochrome

Martti Sassi – President, business area Ferrochrome

Outokumpu - ESG leader in ferrochrome industry



Environmental performance

According to Environmental Performance Index by Yale University, Finland was found to be an environmental leader compared to other Chrome ore and Ferrochrome production countries.



Social performance

According to The United Nations Development Program, Finland achieved the highest rank "Very High Human Development" among the production countries.



Governance performance

Finland was also found to be an ESG leader concerning Governance performance, with outstanding scores in TI Corruption Perceptions Index, EIU Democracy Index and SolAbility Global Sustainable Index.



Key drivers behind the lowest carbon footprint of our ferrochrome



Low CO₂ electricity



Best available technology

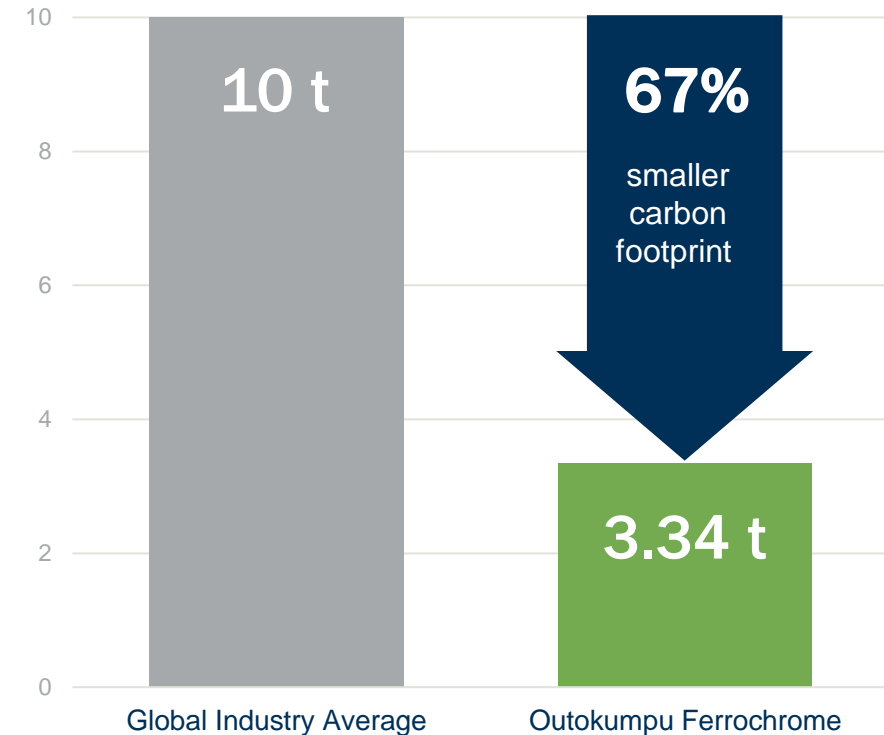


High utilization rate of produced CO gas in the plant



Short distance from the mine to ferrochrome plant

Tonnes of CO₂ equivalent per tonne of chromium



ICDA study 2021: Global Average 10 t CO₂ eq / t Cr

Sustainability development with high ambition



- Target to replace fossil coke with biocoke
- Ongoing ~30 €m investment in Tornio to produce biocoke from biocarbon, in production mid-2025
- Positive results from biocoke production scale trials in smelting



- Low-carbon energy
- Renewable fuels in mining machines and transportation
- Electrifying the underground mine ventilation heating
- Low-carbon cement development
- Reducing value chain emissions as close to zero as possible



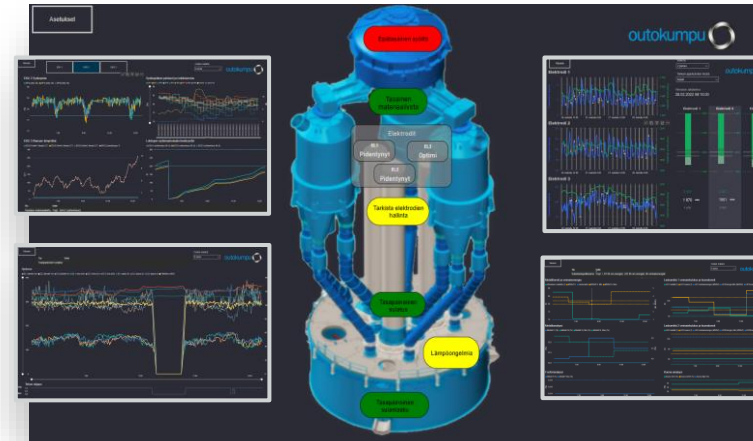
- Higher ore yield by changing mining method from Sub Level Stopping to Sub Level Caving
- Volume target for Sub Level Caving at 50% by 2030

Improved safety and efficiency through innovations



Remote controlled and automated operations at Kemi Mine

- 100% blastings done centralized and remotely
- Over 90% longhole drilling done remotely and automated
- Future remote control from ground level



AI supported decision making and monitoring at FeCr Plant

- AI in electrode management decision support
- ANYmal “Jokkeri” safety robot



Rich biodiversity with 185 different bird species





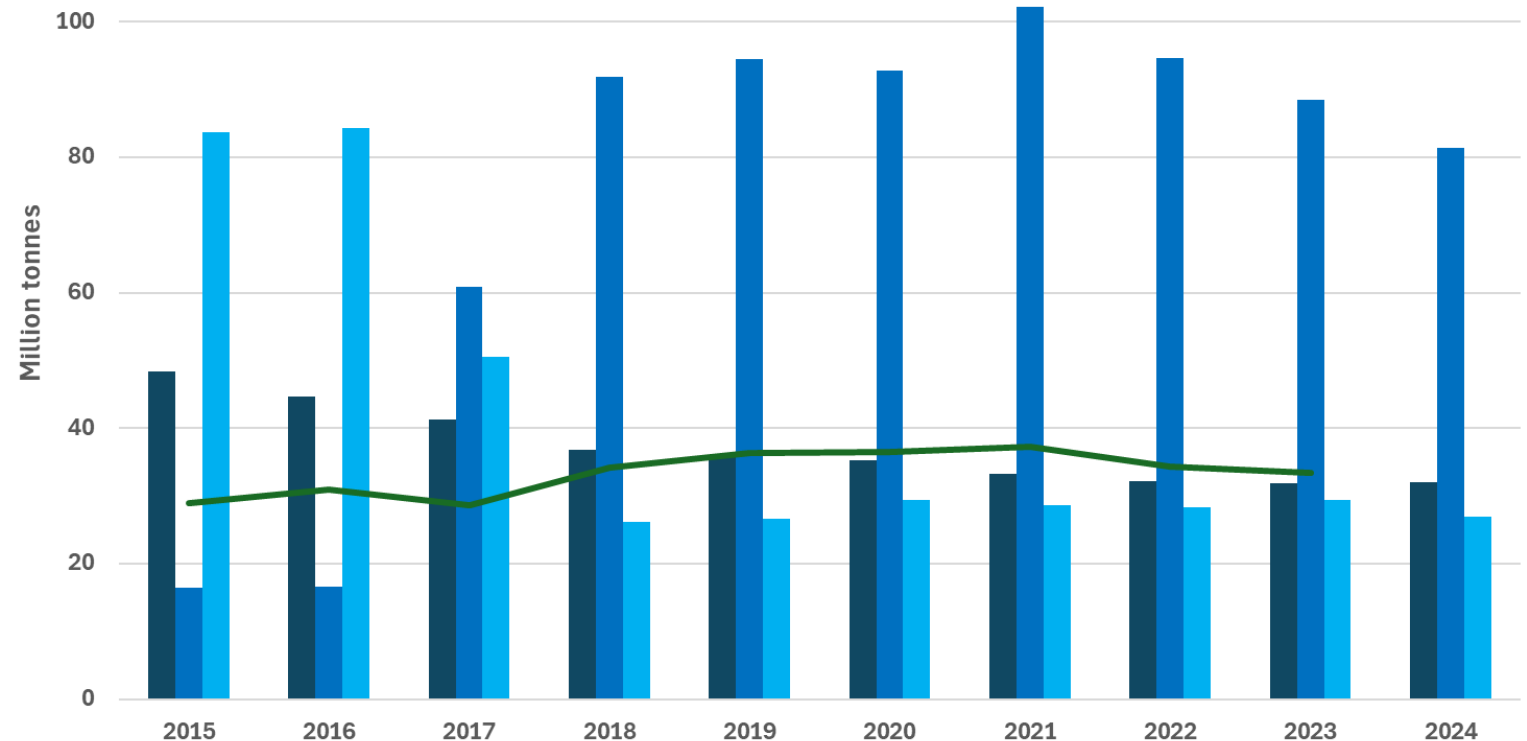
Mineral resources and reserves

Martti Sassi – President, business area Ferrochrome

Stable mineral reserves enable long-term mine planning and secure reliable mining in the future

Kemi Mine mineral reserves and additional mineral resources 2015–2024

- Proven & Probable Mineral Reserves
- Measured/Indicated Mineral Resources
- Inferred Mineral resources
- Production x15

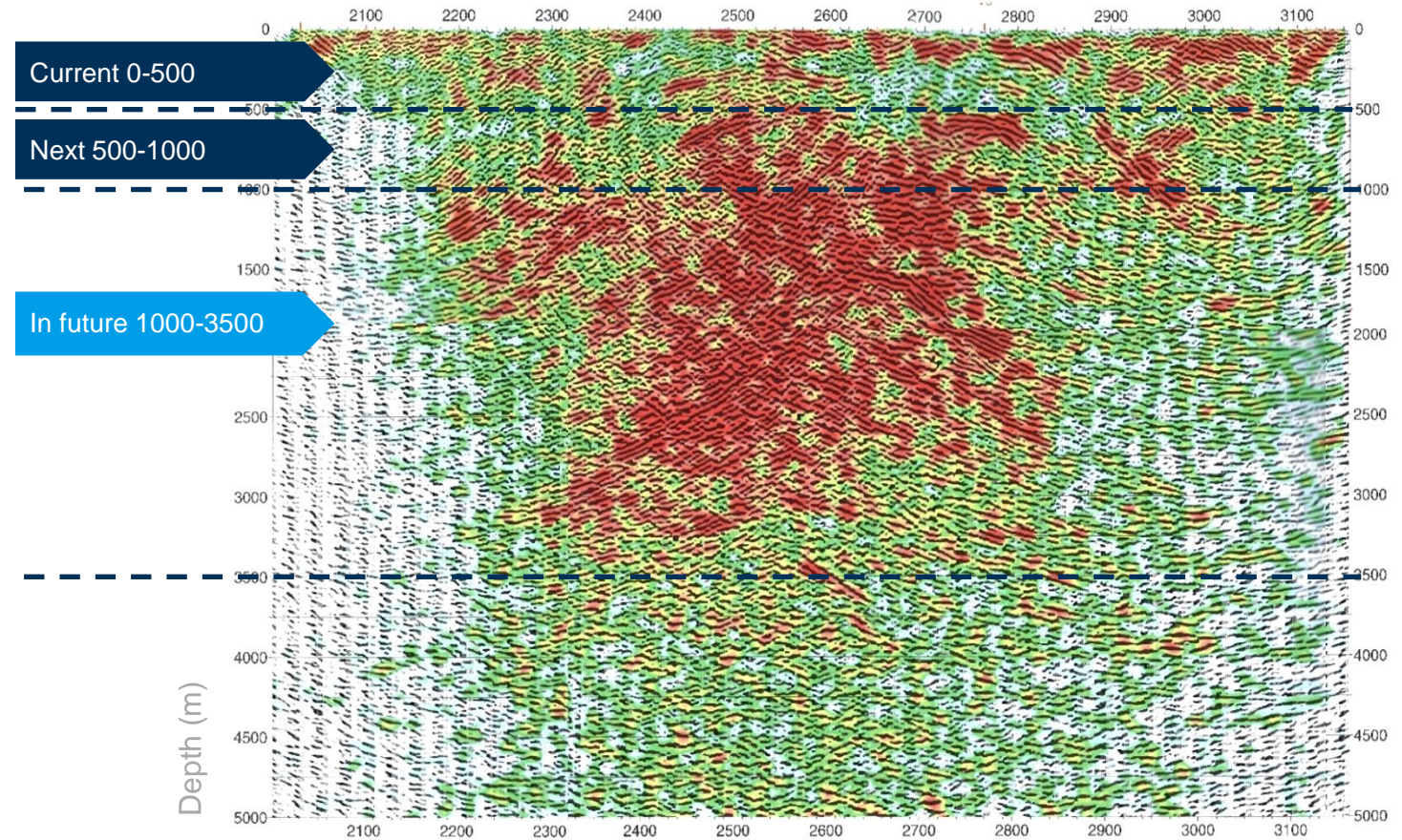


Terms and relationships used in PERC compliant reporting.

Signs of chromite layer extending to 3,5 km depth

Mineral resources of Kemi mine have been estimated down to 1200 meters.

Seismic reflection (red) indicates, that the chromite layer extends down to 3,5 km.





Summary

Leveraging ferrochrome

Ferrochrome market is growing globally

Demand for sustainable and low CO₂ ferrochrome is growing, especially in Western world

Outokumpu is the global leader in sustainable and low CO₂ ferrochrome

Our operating cost level is in the lowest quartile globally

Chrome ore is secured until 2050' with recent investments, indication to much longer

Part of the most integrated stainless steel plant in the world



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This presentation contains, or may be deemed to contain, statements that are not historical facts but forward-looking statements. Such forward-looking statements are based on the current plans, estimates and expectations of Outokumpu's management based on information available to it on the date of this presentation. By their nature, forward-looking statements involve risks and uncertainties, because they relate to events and depend on circumstances that may or may not occur in the future. Future results of Outokumpu may vary from the results expressed in, or implied by, the forward-looking statements, possibly to a material degree. Factors that could cause such differences include, but are not limited to, the risks described in the "Risk factors" section of Outokumpu's latest Annual Report, and the risks detailed in Outokumpu's most recent financial results announcement. Outokumpu undertakes no obligation to update this presentation after the date hereof.

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