


An aerial photograph of a park with winding paths, green lawns, and trees. The image is used as a background for the slide.

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Focus on the mining industry Is paying off

Betolar Financial Statements Review
Helsinki, February 5, 2025

Disclaimer

Certain statements in this presentation may constitute forward-looking statements. These statements relate to future events or Betolar's future financial performance that involve known and unknown risks, uncertainties and other factors that may cause Betolar's or its businesses' actual results, levels of activity, performance or achievements to be materially different from those expressed or implied by any forward-looking statements.

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Agenda

- Main events in Q4
- Financial review
- Customer cases
- R&D and Innovation
- Q&A



Tuija Kalpala
President & CEO



Mikko Wirkkala
CFO



Soila Söderström
SVP & General Council

Main events & after the period

Q4 / 2024

01

Low-carbon shotcrete

Betolar's new low-carbon shotcrete solution into production use at Outokumpu's Kemi mine

02

New partnership in tunneling

Betolar and Balsam Laboratory revolutionize tunnel construction with sustainable circular economy solutions

03

Ready-mix in Saudi Arabia

Saudi Readymix and Betolar cooperated on low-carbon concrete solutions in Saudi Arabia

04

Hollow core slabs production

The world's lowest-emission hollow core slabs developed by Betolar and Consolis Parma enter the production phase

05

Sidestream service launched

Betolar new SidePrime Sidestream analysis service was introduced, and several customer projects were delivered incl. Alva-yhtiöt

Highlights

Q4 / 2024

- Strong market interest in Betolar's low-carbon and waste-free solutions in the mining sector
- The market situation in the construction sector is challenging, with high interest in low-carbon concrete products despite the slow pace of implementation
- Betolar's Q4 2024 sales was at the same level as last year
- Success in our customer projects, with several pilots now in production environments
- Commercial progress in the development of hollow core slabs. These innovative slabs are compliant with EN standards and pave the way for greener construction practices
- Breakthroughs in product development and filing patents for innovative uses of sidestreams as well as innovation for metal separation



Financial review

Mikko Wirkkala
CFO

Financial Review

| Financial indicators (EUR thousand, unless otherwise specified) | Q4 / 2024 | Q4 / 2023 | H2 / 2024 | H2 / 2023 | 2024 | 2023 |
|---|-----------|-----------|-----------|-----------|--------|---------|
| Net sales | 210 | 217 | 486 | 385 | 762 | 515 |
| Gross margin | | | 347 | 304 | 564 | 340 |
| EBITDA | -1,193 | -2,370 | -2,167 | -4,995 | -5,816 | -11,181 |
| Operating profit (loss) | | | -3,299 | -6,185 | -7,964 | -13,260 |
| Earnings before interest and tax | | | -3,228 | -6,126 | -7,798 | -13,177 |
| Profit (loss) for the financial period | | | -3,198 | -6,122 | -7,732 | -13,153 |
| Earnings per share, basic and diluted, EUR | | | -0.15 | -0.31 | -0.36 | -0.67 |
| Cash and cash equivalents and short-term fund investments (at the end of the period) ¹ | 8,987 | 14,315 | 8,987 | 14,315 | 8,987 | 14,315 |
| Operational indicators | | | | | | |
| Order intake (EUR thousand) | 271 | 213 | 508 | 469 | 1,003 | 607 |
| Number of new NRE projects | 5 | 5 | 6 | 8 | 11 | 9 |
| Number of new pilot customers | 1 | 1 | 3 | 6 | 5 | 24 |
| Personnel (average number during the financial period) | 37 | 57 | 40 | 58 | 46 | 60 |

Financial position

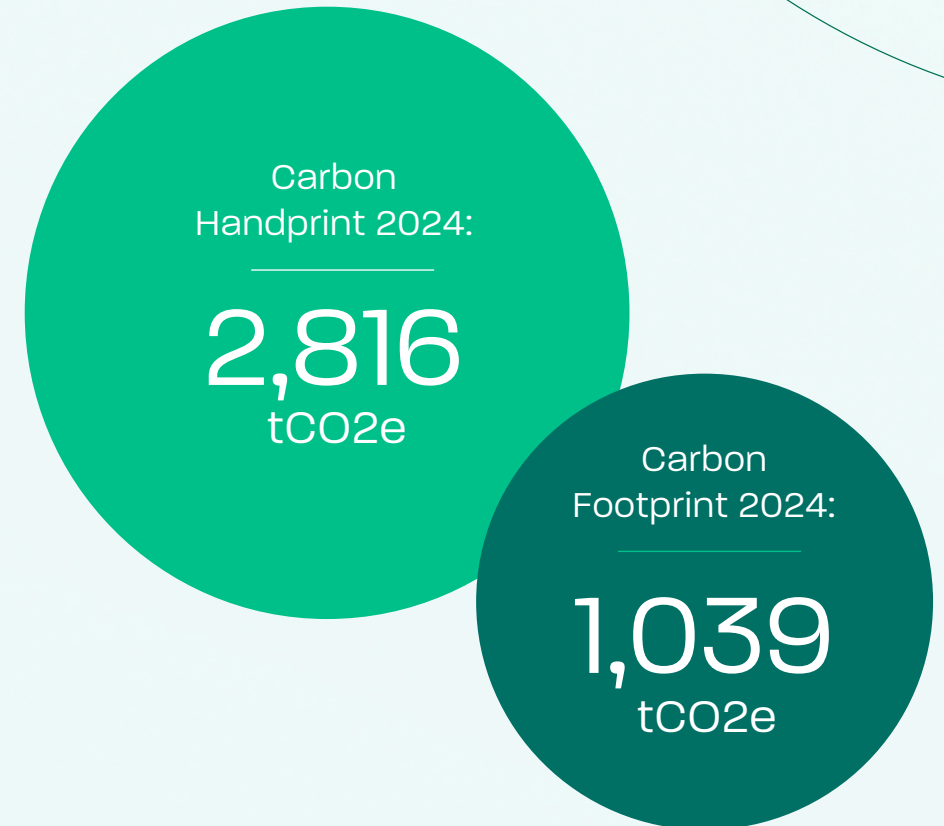
- Cash Balance €9.0 million at year end
- Outstanding €2.5 million loan from Climate Fund raised in January 2025
- €2.6 million remaining of Business Finland's and other grants
- Total liquidity amounts to €14.1, combining cash, outstanding loans and grants
- Targeted €5 million annual cost savings were achieved

Financial Targets and 2025 Guidance

- Betolar's Board of Directors has approved the company's financial targets on 4 February 2025
 - Achieving positive cash flow from operating activities by the end of 2026
 - The long-term financial target to achieve one billion euros in revenue and a 30 percent EBITDA margin by the end of 2033 remains unchanged
- Guidance for year 2025
 - Net sales for 2025 is expected to increase compared to the previous year

Carbon Handprint Exceeded Footprint

- For 2024, the carbon handprint of the Geoprime solution increased significantly to 2,816 tCO₂e. In 2023, the corresponding amount was 685 tCO₂e.
- Betolar's CO₂ emissions for 2024 were 1,039 tCO₂e compared to 2,672 tCO₂e in 2023.





Customer cases

Tuija Kalpala
CEO & President

Case Outokumpu

1st phase: Successful development of CEM III type shotcrete

Betolar has successfully completed the first phase of developing a CEM III type shotcrete for Outokumpu. This partnership aims to create a low-carbon alternative for the Kemi mine, which is set to become the world's first operating carbon-neutral mine by the end of 2025.

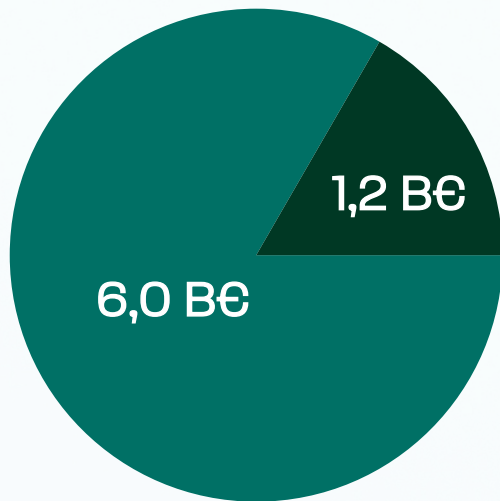
- The initial phase involved developing a shotcrete that meets the CEM III standards, which is a low-cement solution. This phase was successfully piloted at the Kemi mine in 2024, and the product will be taken into production use at the beginning of 2025
- The next phase of the project involves developing a completely cement-free shotcrete solution, which is expected to be completed by the end of September 2025



Global shotcrete market is valued at €7 billion, with UG mines estimated to account for approx. 15-20%

Global shotcrete market 2023

2023 7,2 B€ $\xrightarrow{\text{CAGR 8\%}}$ 2031 ~13,3 B€



Mines

- 509 operating underground mines globally
- Average use of shotcrete is estimated to be ~20,000 m³/a*

Infrastructure

- Tunnels
- Bridges
- Repair & renovation
- Reinforcement of slopes

Shotcrete market in Europe for mines 2023



- 25 operating underground mines in Europe
- Currently the market uses CEM I class cement-based shotcrete
- In the future, Betolar's solutions can replace the use of traditional cement-based shotcrete
- We aim to *transform* the market towards a lower-emission solution

Material sales for Cemented Paste Backfill are expected to double by 2030, reaching €1.7 billion

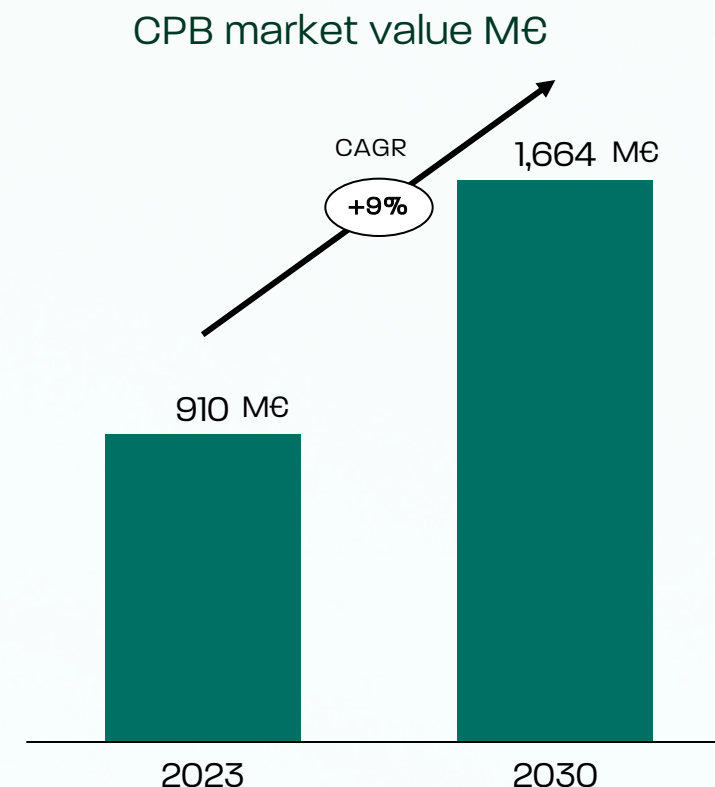
Global cemented paste backfill (CPB) market potential

Growth drivers

- Rising demand for mineral resources to fulfill the critical metals demand of green transition
- Increasing number of underground mines due to new ore deposits found deeper below the surface
- More stringent environmental regulations & more focus on effective mine waste management
- Efforts to improve ground stability in underground mining
- **80+ mines globally in pre-/feasibility study, permitting or construction phase that aim to use cemented paste backfill in their operations**

2023 market value calculation

- ~130 operating underground mines using cemented paste backfill globally based on preliminary estimates. In Europe 11 mines and in Northern Europe 5 mines.
- Average volume of cement or supplementary cementitious materials used for the paste backfill per mine is estimated at 50,000 tons* annually



Sources: Mining Data Online; Verified Market Reports: Mine Backfill Services Market, Nov 2024. *Average consumption assumed based on our interaction with the market participants.

Case Balsam Laboratory Revolutionizing tunnel construction

Betolar and the leading Chinese-Canadian tunnel construction solutions provider, Balsam Laboratory, initiated a joint development project aimed at utilizing fine crusher dust from tunnel drilling in tunnel construction.

- This collaboration focuses on sustainable low-carbon circular economy solutions that enhance resource efficiency and reduce cement consumption
- Betolar conducts research to maximize the use of slurry in mix design for injection fill, improving the sustainability of tunnel construction by effectively utilizing sidestreams from tunnel drilling
- This method reduces waste by recycling materials, minimizing the environmental impact of tunnel construction and significantly reducing CO₂ emissions



Case Saudi Readymix

Cooperation on low-carbon concrete solutions in Saudi Arabia

Betolar and Saudi Readymix (SRMCC), the leading producer and supplier of ready-mixed concrete products in Saudi Arabia, cooperated to achieve a significant milestone in sustainable concrete technology.

- The joint project, running from 2023 to 2024, has successfully developed breakthrough low-carbon concrete recipes tailored to meet the growing demand for sustainable solutions in Saudi Arabia
- The project led to the development of two advanced low-carbon concrete formulations: a fully cement-free mix, offering a significant reduction in carbon emissions and contributing to greener construction practices

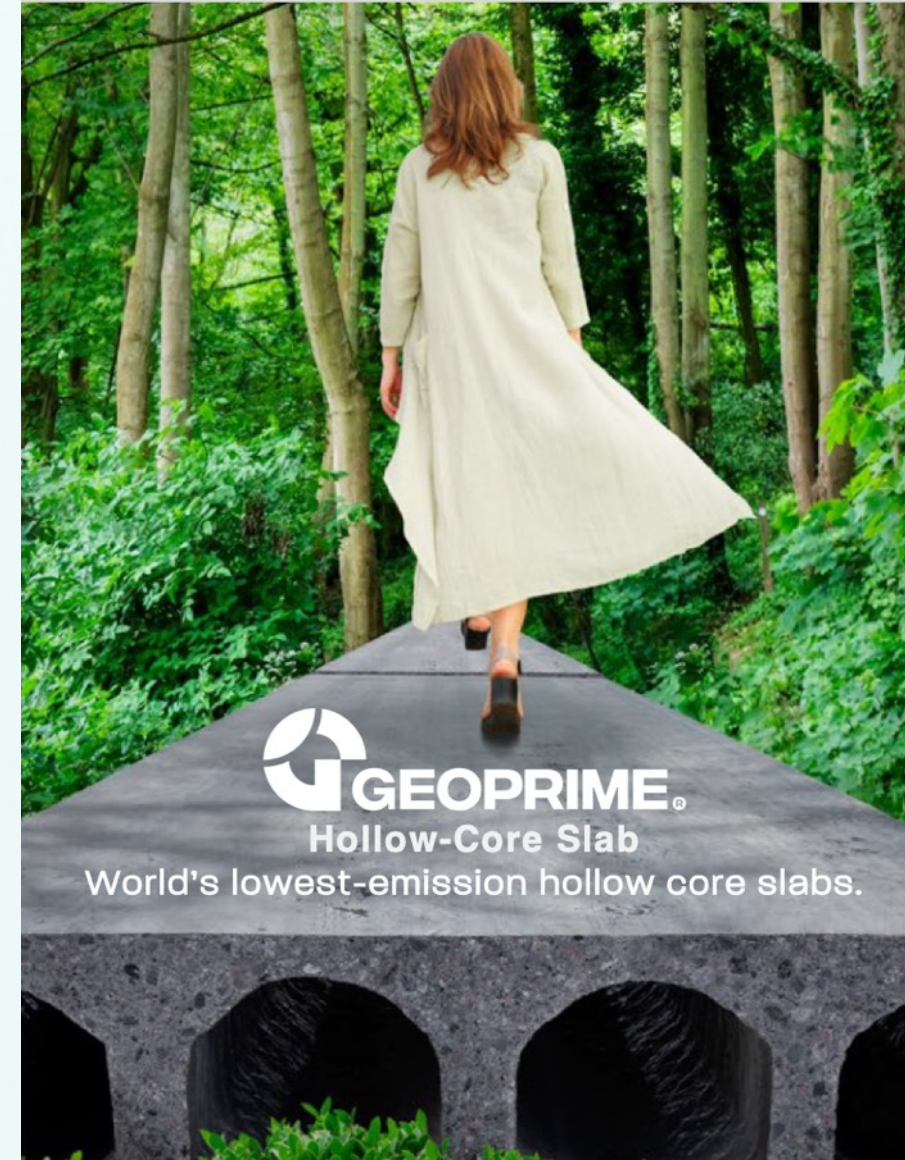


Case Consolis Parma

World's lowest emission hollow core slabs

Betolar and Consolis Parma have developed the world's lowest-emission hollow-core slabs. This innovative solution combines Betolar's proprietary research and development with Consolis Parma's extensive knowledge in precast concrete products.

- The commercial agreement is for three years covering all Consolis countries and are now entering the production phase
- The slabs have received approval according to EN standards and endorsement from the Finnish Concrete Association for the use of activator chemicals as concrete admixtures. This approval enables CE marking in Finland for the new type of low-carbon hollow-core slabs
- The low-carbon hollow-core slabs can achieve up to 75% lower carbon dioxide emissions compared to conventional products



 **GEOPRIME®**

Hollow-Core Slab

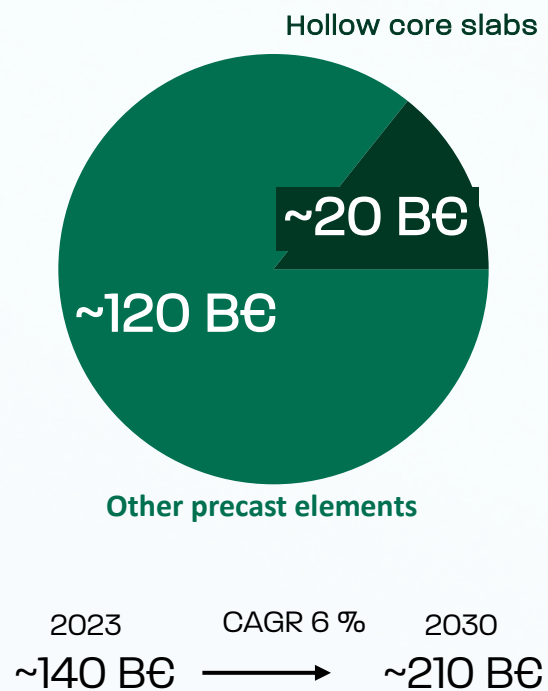
World's lowest-emission hollow core slabs.

CONSOLIS

PARMA

Hollow core slabs market in Europe is estimated to be over EUR 4 Billion

Global precast concrete market in 2023



- Used in**
- Residential buildings
 - Industrial Buildings
 - Commercial Buildings
- Benefits**
- Environmental impact
 - Cost effective
 - High quality and durability
 - Ease of installation & versatility
 - Achieves up to 75% lower CO2 emission compared to conventional product

HCS market in Europe

~4 B€

- Hollow core slab market in Europe is estimated to be over EUR 4 Billion
- The price of hollow core slab is <10% of a total cost of a building
- Cement in hollow core slabs accounts for >30% CO2 emissions of the entire building

CAPEX free
No new nor additional equipment needed in production

Compliant (EN 1168)
Minimum required 5% cement by European Standards

Circular Materials
Slag binders and alternative materials in development

Sources: Betolar Estimate. Reliable market estimates of the hollow core slab market are not available. Hence, the market size is evaluated based on global precast market estimates, and assumption that 20% of the market is for hollow-core slab. Europe's share is estimated to be 20% of the global market.

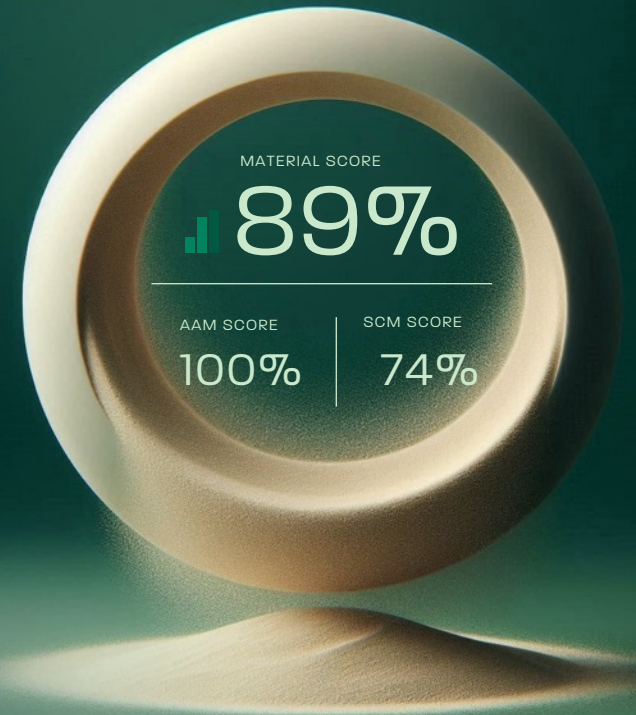
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Betolar Sidestream analysis First step towards zero waste potential for many industries

Betolar's years of development work, uniquely broad expertise and practical experience are combined into a new service. This service analyses the industrial sidestreams and studies the material suitability as an additive for concrete applications. This is an enabler for scaling up Geoprime solutions.

- Based on Betolar's constantly evolving database with more than 100,000 recorded laboratory tests
 - Analyzes the most challenging materials
 - AI enhanced service allows faster analysis and service turnaround compared to traditional methods
- Quick identification of profit potential
- Clear report, recommendations and action plan

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SidePrime™



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Case Alva-yhtiöt

SidePrime analysis of ashes generated by Alva-yhtiöt

Betolar studied the circular economy use of ashes generated from Alva energy production using the SidePrime analysis service.

- The project, in collaboration with Alva, focused on analyzing various types of ashes generated through different combustion processes
- Utilizing Betolar's AI-assisted SidePrime service, the analysis was more efficient and comprehensive compared to traditional methods
- The visualization of the data allowed for an easy comparison of the properties and potential of materials from different processes
- This project enabled the future utilization of Alva's ashes through Betolar's material network

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SidePrime™





R&D and Innovation

Soila Söderström
SVP & General Counsel

R&D and Innovation

- Betolar has been actively focusing its R&D efforts on creating innovative technologies for the sidestream, mining, and metals industries
- By continuously collecting data from research and laboratory tests, we can enhance research efficiency by using our AI solutions
- Our patent portfolio has expanded significantly, with new patents granted for various innovations and we are actively looking at the commercialization of the patents
- Betolar has developed innovative new technology to separate valuable minerals and metals, as well as a technology for creating green cement

Betolar's
Patent Families

18

Betolar's
Issued Patents

47

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Q&A

Thank you for your interest!

Next events

- 27 March 2025: Annual General Meeting (in person)
- 25 April 2025: Q1 2025 Business Review (webcast)
- 14 May 2025: Capital Markets Day (in person & webcast)

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