

# Betolar Plc Business Review

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1 January-31 March 2023





Betolar Plc Business Review 1–3/2023 (unaudited)

## Business Review 1–3/2023: Updated strategy guides towards sustainable growth and the use of new side streams

### January–March 2023 in brief

- Revenue amounted to EUR 43 (13) thousand
- EBITDA<sup>1</sup> was EUR -3,124 (-1,980) thousand
- The number of new pilot customers<sup>1</sup> was 5 (5)
- The average number of employees was 66 (38)
- Cash and cash equivalents and short-term fund investments at the end of the period amounted to EUR 22,604 (36,350) thousand

### Main events during the period

- Continued investments in commercialisation, research and development
- Betolar published its updated strategy to steer towards sustainable growth and a stronger position in the value chain
- The Annual General Meeting was held on 31 March 2023 at two locations in Espoo and remotely in Kannonkoski
- Ilkka Iittiläinen, Chief Operating Officer and member of the Management Team, announced that he will take up new responsibilities outside the company and his employment will end on 2 June 2023 at the latest

### More information about this business review

This is not an interim report under IAS 34. The company complies with the six-monthly reporting requirements of the Securities Markets Act and publishes business reviews for the first three and nine months of the year, which present key information and key figures on the company's strategy and business development. The figures presented in this business review are unaudited. The figures in brackets refer to the corresponding period in the previous year, unless otherwise stated.

## CEO Riku Kytömäki

In the first quarter of the year, general interest in Betolar's Geoprime solution continued to develop in Europe and Asia. Technical and commercial activities progressed, focusing on larger customer size and customer segments.

Betolar's offering and research and product development are currently focused on four product segments: concrete products, building elements, mining, and waste upcycling.

Sales in January-March consisted of licence fees and chemical sales in the concrete products segment. Revenue increased compared to Q1/2022 but was still well below the previous quarter. The seasonal nature of the concrete products segment's customers was partly reflected in Geoprime's production. In Europe, the slowdown was caused by maintenance shutdowns early in the year, while in India, winter conditions affected production schedules. Despite this, Betolar's solutions have continued to gain traction with new customers in selected markets.

In the first quarter of the year, we continued to commercialise the three other product segments (building elements, mining, and waste upcycling) and made progress in related development and collaboration projects. In line with our updated strategy, we will continue to focus not only on concrete products, but also on commercialising new side streams, achieving a stronger value chain position, and providing cement-free solutions for the building elements and mining sector.

Research and development activities progressed during the period, both in-house and with selected partners. During the period, we initiated our research laboratory at our Otaniemi site in Espoo and started the construction of the innovation centre's expansion in Kannonkoski. The expansion will enable larger scale testing and more efficient development of new innovative solutions.

As expected, the result for January-March was negative, as we are investing heavily in growth, commercialisation and research and development in line with our strategy. Our team is now largely assembled and equipped, and the framework is in place. We therefore expect our headcount and other cost growth to level off and start to track the development of the company's business.

In March, we published an update of our strategy after analysing the production potential of Geoprime and the market opportunities after the first year of commercial operation. Betolar's Geoprime concept has been proven to be effective in precast concrete products.

One of the main conclusions from the company's strategy review has been that the availability and price of side streams play a central role in value creation for our business. We are therefore accelerating the development of alternative side streams to replace the use of cement in different customer segments. Taking a stronger position in the industrial side stream value chain will build our competitive advantage and enable better value creation potential in the future.

Betolar's updated strategy supports our goal to be a pioneer in addressing global sustainability challenges related to construction and industrial environments. Our strong research and product development work will be further boosted by the data that is accumulated in different customer and product applications.

Our strategic priorities are reflected by the core competencies and people, which are at the heart of the company. Courage, commitment to responsibility and working together are values we share and are proud of. We are a continuously learning provider of low-carbon solutions, whose core competences are science-based material and side stream know-how combined with in-depth industrial knowledge.

## Key Figures

(EUR thousand, unless otherwise specified)	1–3 2023	1–3 2022	1–12 2022
<b>Financial indicators</b>			
Net sales	43	13	287
EBITDA <sup>1</sup>	-3,124	-1,980	-9,988
Cash and cash equivalents and short-term fund investments <sup>1</sup> (at the end of the period)	22,604	36,350	26,624
<b>Operational indicators</b>			
Personnel (average number during the financial period)	66	38	51
Number of pilot customers <sup>1</sup>	5	5	25

1) Betolar uses certain measures (EBITDA; cash and cash equivalents and short-term fund investments; and number of pilot customers) as indicators of operational profitability and performance. The definitions and calculation formulas of these measures can be found in the appendix to the report.

## Business Review 1–3/2023

Betolar's offering and research and product development are currently focused on four product segments: precast, building elements, mining, and waste upcycling.

### Concrete products

Betolar's first objective is to commercialise the Geoprime solution for concrete products and infrastructure products such as sewer pipes. The seasonal nature of customers in the concrete products segment was partly reflected in Geoprime production. The time from pilot to production ramp up has been longer than expected. In Europe, maintenance shutdowns in the early part of the year slowed production volumes, while in India, winter conditions slowed down the production runs for existing customers.

In terms of new customer acquisition, interest and direct contacts for Betolar solutions have increased compared to the previously and piloting of Geoprime solution continued in different markets. In EMEA, Betolar carried out new customer pilots during the period in the Netherlands, Germany, and Abu Dhabi, among others. In the Middle East in particular, the green transition and sustainable construction markets have grown significantly in recent years, which has been reflected in increased interest in low-carbon concrete solutions.

During the period, Betolar was admitted to the supplier register of the NEOM urban project in Saudi Arabia. NEOM is one of the largest and most ambitious low-carbon urban projects in the world, with a total planned area of around 26 500 km<sup>2</sup>. The project is scheduled for completion by 2025 and has a cost estimate of around USD 500 billion. The project is expected to be one of the key components of Saudi Arabia's Vision 2030 sustainable development programme, which aims to diversify the country's economy and reduce its dependence on oil. The NEOM project will use a supplier register to select building materials.

### Elements

Betolar is developing its Geoprime solution for high-volume application areas in the construction value chain. Ready-mix concrete and large precast elements are particularly important in high-volume building materials. A gradual shift away from cement in these application areas play a key role for developers to significantly reduce their carbon footprint without significant investments.

Betolar is developing Geoprime Hybrid, an accelerator solution to improve the initial strength of concrete made with CEM III cement containing blast furnace slag. The accelerator solution can be used to produce large elements to achieve a fast initial strength and allow a normal product cycle in the factory. During the period, product development of the Geoprime Hybrid solution continued, particularly in relation to the commercialisation of structural concrete products and the verification of long-term durability. In addition, product development was advanced in the academic Loikka project.

## Mining

In the mining industry, cement is used in various phases. In addition, metal extraction and enrichment globally generate significant quantities of metal-containing wastewater, sludge, and fines, which require the need for building extensive ponds for storage and treatment purposes. There is a similar need in mining as in construction to transform traditional practices towards sustainable development. During the period, we continued material research and solution development for the needs of the mining industry.

## Waste upcycling

Globally, there are significant amounts of industrial side streams that are currently not being recycled. Betolar is developing an AI-based data and analytics platform that will enable more efficient research and productization of untapped side streams for different applications.

During the period, the global mapping of the side streams and the assessment of their deployment were accelerated. In addition, Betolar launched commercial projects with international partners to tap into local side streams. The need to find new side streams is highlighted as the market demand is growing for side streams that are already used by the construction industry, such as blast furnace slag (GGBFS).

In the first quarter, material research continued in line with the EU Exceed project plan. A consortium of 15 partners is developing a new waste-free, multi-metal and mineral mining activity to explore cost-effective and sustainable recovery methods for critical metals and industrial metals generated as side streams from European lithium production. Betolar provides building materials expertise and the project proceeded with researching side streams generated from lithium production.

## Strategy for years 2023–2025

Betolar's Board of Directors has confirmed the company's updated strategy for the years 2023-2025. Target of the strategy is to be the most desirable partner in green transition for the construction, concrete, cement, and mining industries. Strategy renewal is part of Betolar's long-term, continuous strategy review process.

## Updated strategy

Betolar will continue to implement its strategy presented during IPO process at the end of 2021 with refined emphasis. During 2022, the company implemented the strategy by launching commercial production of precast concrete products in Europe and Asia with its customers. In 2023, Betolar will move to a new phase in strategy implementation and prepares for scaling its business, driven by larger customer applications and increased demand for green transition. Betolar's previously announced long-term operational and financial targets remain unchanged, for more info see <https://www.betolar.com/targets>

Betolar's updated strategy is based on five key themes that direct the company to

- Focus on identifying, developing and productizing alternative side streams – especially in case of inexpensive waste streams;
- Seek stronger position in the side stream value chain for example through partnerships or investments;

- Accelerate solution development to large-volume and scalable customer segments in construction elements and mining industry;
- Focus sales and marketing in selected key markets by finding best match for green demand, side stream availability, and Betolar's ability to generate added value by productized applications;
- Continue developing data-based business ecosystem where Betolar AI platform's role is central.

The company's core competencies and their development needs reflect updated strategic emphasis. Betolar is a continuously learning provider of low-carbon solutions, whose core competences are science-based material and side stream know-how combined with in-depth industrial knowledge.

The progress of Betolar's strategy will be followed in the future in accordance with the company's reporting practices.

## Financial overview 1–3/2023

Betolar's net sales for January-March 2023 were EUR 43 (13) thousand and most of the net sales consisted of licence and chemical sales of the Geoprime concept.

EBITDA was EUR -3,124 (-1,980) thousand.

Betolar is a company in a growth phase, and its investments in the development and international commercialisation of its Geoprime concept increased strongly during the period. The negative operating margin reflects the increase in personnel and related costs in line with the company's growth strategy, investments in research and product development, and in building other prerequisites and capabilities for the growth strategy. The company expects to achieve positive cash flow from operations by 2026.

Cash and cash equivalents and short-term fund investments amounted to EUR 22,604 (36,350) thousand.

### Investments

During the first quarter, Betolar has invested EUR 303 thousand in the expansion of the Kannonkoski Innovation Centre.

## Research and Development 1–3/2023

Betolar's research and development activities progressed as planned during the period. The activities are divided into five areas; innovation, research, product development, digitalisation and data platform, and laboratory.

The aim of innovation is to create completely new solutions that generate business in the long term. During the first quarter, innovation activities have focused on improving measurement capabilities, exploring new activators, developing new types of side stream treatment methods, and advancing equipment solutions. Following a decision taken at the end of last year, Betolar started the implementation of an innovation centre to increase the capacity of the innovation centre. In addition, several patenting processes were launched around the inventions made.

Betolar continued its extensive research programme on side streams to find viable alternatives to granulated blast furnace slag (GGBFS) and various ash types. In a strategic collaboration with Critical

Metals, Betolar continued its SSM slag research programme, moving from laboratory studies to field trials.

In product development, Betolar is moving from precast concrete products towards structural applications. The development cooperation with Consolis Parma to find low-carbon solutions for the industrial production of hollow core slabs successfully progressed to factory-scale testing. Betolar also launched a product development project for the mining industry to replace cement in certain mining solutions.

The development of the AI-enabled data platform (Betolar Platform Program) progressed in line with the strategy. Data collection on side streams, customer pilots, Geoprime end-product characteristics, etc. continued as planned.

Laboratory activities provide the necessary analyses for research and product development. In response to the increased analytical volumes, Betolar launched an initial laboratory operation focusing on materials research at its Espoo site.

## Staff and management

The number of Betolar's employees increased significantly from the comparison period and averaged 66 (38) in January-March. After an active recruitment phase last year, Betolar shifted its focus during the period to increasing operational productivity.

On 31 March 2023, Betolar's management team consisted of Riku Kytömäki, Chief Executive Officer; Riikka Ylikoski, Chief Financial Officer; Ville Voipio, Chief Commercial Officer; Jarno Poskela, Chief Technology Officer; Janne Rauramo, Executive VP for Strategic Partnerships; Antti Uski, Chief Human Resources Officer; and Ilkka Iittiläinen, Chief Operating Officer.

There will be a change in Betolar's management team. The Chief Operating Officer and member of the management team Ilkka Iittiläinen announced that he will take up his new position outside the company on 2 June 2023, at the latest. The company has started the recruitment process to appoint a new Chief Operating Officer.

## Financial reporting

Betolar Plc will publish the following financial reports in 2023:

- Half-Year financial report for January-June 2023 on Friday 25 August 2023
- Business review January – September 2023 will be published on Friday 3 November 2023.

Betolar's financial reports are available on the company's website at [www.betolar.com/investors](http://www.betolar.com/investors)

Betolar Plc

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## About Betolar

Betolar Plc is a Finnish materials technology company that offers the production of sustainable and low-carbon concrete with the Geoprime solution. The solution converts industrial side streams into a cement substitute.

Betolar's artificial intelligence innovation can significantly reduce CO2 emissions compared to traditional cement-based concrete production by optimizing existing manufacturing processes, supporting solution development with advanced analytics, and creating global markets for side streams. Betolar's mission is to help reduce CO2 emissions and the use of virgin resources.

Betolar was founded in 2016 and is domiciled in Kannonkoski, Finland. Betolar is listed on the Nasdaq First North Growth Market. For more information: [www.betolar.com](http://www.betolar.com)



## APPENDIX

Calculation formulas for certain financial and operative indicators:

Indicator	Definition	Purpose of use
EBITDA	Operating profit (loss) before depreciation, amortisation and impairment	EBITDA is the indicators of the Group's performance.
Cash, cash equivalents and short-term fund investments	Cash and cash equivalents + short-term investments	Cash and short-term fund investments describe the company's liquid assets.
Number of pilot customers	Number of new customers in the plant pilot phase during the financial year.	The indicator illustrates new customers in the plant pilot phase of the Company's sales process during the financial year.