FINNISH MINERALS GROUP
SUOMEN MALMIJALOSTUS

ANNUAL REPORT 2023

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The mission of Finnish Minerals Group is to responsibly maximise the value of Finnish minerals. We manage the State's mining industry shareholdings and strive to develop the Finnish value chain of lithium-ion batteries. Through our work, we contribute to Europe moving towards electric transport and a more sustainable future.

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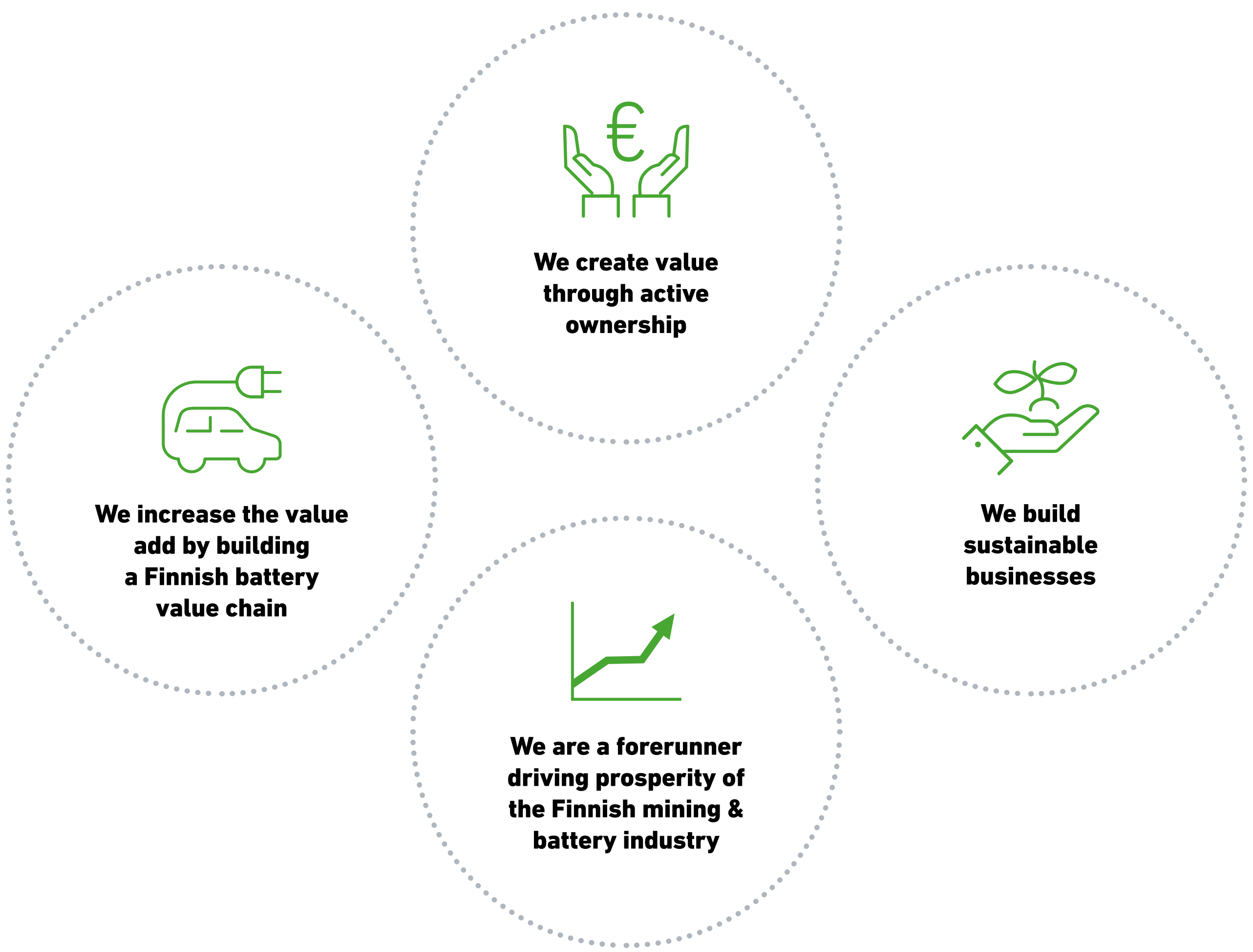
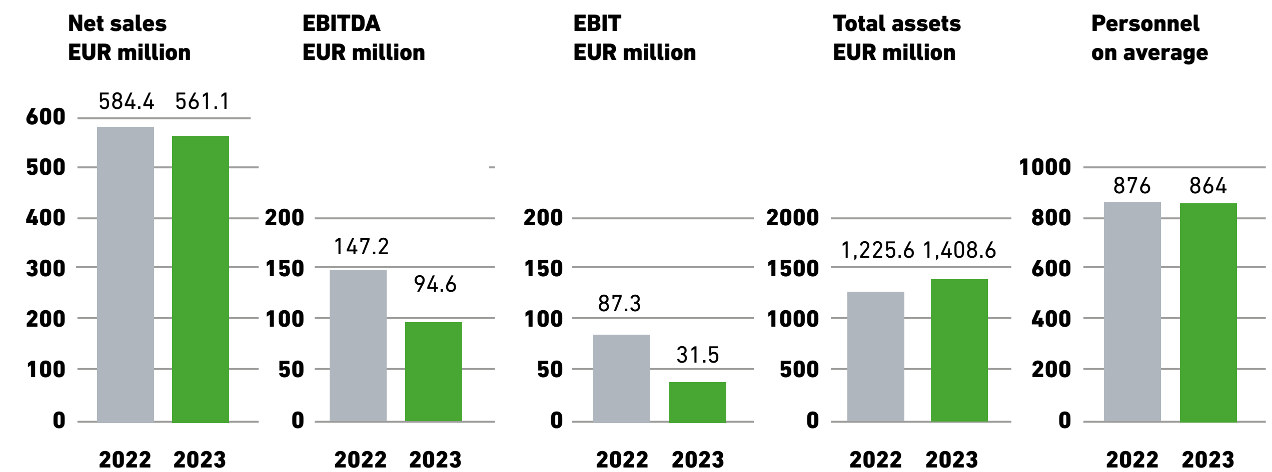


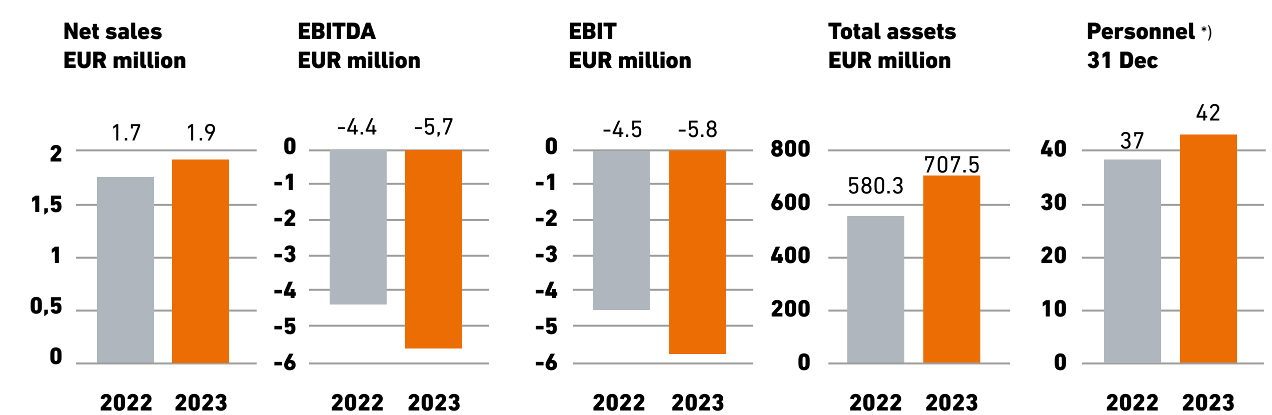
KEY FIGURES 2023

The Group companies comprise Finnish Minerals Group and Terrafame Oy as well as Sokli Oy and Finnish Battery Chemicals and its subsidiaries.

GROUP COMPANIES



FINNISH MINERALS GROUP



*) Including personnel of the wholly owned subsidiaries.

CEO'S REVIEW

MATERIALS FOR THE CLEAN TRANSITION

Battery manufacturing and the related mining technology could be the next leap of growth for Finland. They also strengthen Europe's strategic autonomy.

Three social responsibility goals are supported by Finnish Minerals Group. First are the clean transition materials needed in the battle against the acute hazards of climate change. Second is the EU's capacity to act autonomously without being dependent on import. Third is attracting investments and new industries to Finland.

The Critical Raw Materials Act, which will enter into force in spring 2024, will ensure a secure and sustainable supply of critical raw materials in Europe. These include, for example, the materials needed to manufacture lithium-ion batteries. The EU also aims to streamline the permit processes and facilitate the acquisition of funding for strategic projects. Finland should do the same. I will act as chair for Finnish Battery Industries, a new association representing companies in the battery value chain.

THE BUSINESS AREAS of Finnish Minerals Group are raw materials and battery value chain. Our personnel are fully committed to our vision "Providing materials for climate neutrality". Our highly qualified experts once again did an amazing job of advancing projects and safeguarding assets. Thank you everyone!

2023 was an eventful year. Scoping studies carried out in Savukoski, Lapland showed that Sokli could produce at least 10 per cent of the amount of rare earth elements needed to manufacture permanent magnets in Europe each year. In addition, Sokli could potentially meet more than 20 per cent of Europe's annual demand for phosphate.

In Ostrobothnia, we invested in the Keliber lithium project. Laying the foundation stone of the Keliber lithium refinery in Kokkola was an important milestone. Keliber supports the electrification of transport and the availability of battery-grade lithium hydroxide in Europe, which both contribute to the clean transition.

Our associate company CNGR Finland Oy submitted an environmental permit application concerning a precursor plant located in Hamina to the authorities. The goal is to produce 60,000 tonnes of precursor material a year.

Preparations are ongoing for a CAM plant in Kotka. Its cathode active material production capacity would cover more than 750,000 all-electric cars a year. A joint venture is being established with Beijing Easpring Material Technology.

A battery cell plant is also planned in Kotka. A Memorandum of Understanding was signed with a potential partner. The cell plant's environmental impact assessment procedure was launched at the end of the year.

THE BATTERY INDUSTRY is growing. Finnish Minerals Group is accelerating projects to the implementation phase. We also want Finnish projects to be forerunners in the transition to a low carbon world.

MATTI HIETANEN
CEO
Finnish Minerals Group

KEY EVENTS

JANUARY
- Battery industry companies operating in Finland establish Finnish Battery Industries to represent them, and Matti Hietanen, CEO of Finnish Minerals Group, is elected as chair.
- A register of contractors is opened for future work on the Hamina and Kotka plant projects for contractors and suppliers.
- Our subsidiary Terrafame and Stellantis N.V. sign a 5-year supply agreement for low carbon nickel sulphate for electric car batteries.

FEBRUARY
- We publish the results of the Sokli mining project's scoping study. In addition to phosphate and iron, Sokli could produce rare earth elements. Relocation of functions reduces the environmental impact and carbon footprint.
- We agree on cooperation with FREYR Battery to explore the possibilities of establishing a LFP cathode material production plant in Vaasa.
- Terrafame and Umicore, a circular materials technology group, sign a long-term agreement on the supply of low carbon nickel to Umicore's cathode material production plant.

MARCH
- Our associate company CNGR Finland Oy submits an environmental permit application concerning a precursor plant located in Hamina to the authorities.

APRIL
- The environmental impact assessment procedure for the Vaasa anode material production plant starts with us submitting the EIA programme to the coordinating authority with our partner Epsilon Advanced Materials.
- Together with a potential partner, we start preparing for the EIA procedure for a battery cell plant planned in Kotka.
- We become a member of the Rare Earth Industry Association (REIA). REIA aims to globally advance the responsible development of the rare earth elements value chain.
- We invest EUR 54 million in Keliber's lithium project, increasing our holding in the company to 20%.

MAY
- According to Taloustutkimus survey, most people residing in Savukoski are in favour of opening a mine in Sokli, provided that it operates responsibly with respect to the environment and local livelihoods.
- The foundation stone of the Keliber lithium refinery is laid in Kokkola.
- Our project company, Finnish Battery Chemicals, submits an EIA report on a plant that could recycle sodium sulphate at CNGR Finland's future precursor material plant to the coordinating authority.

INTERVIEW

FIVE QUESTIONS TO THE CHAIR OF THE BOARD

According to Chair of the Board Antti Kummu, real progress has been made in projects related to the Finnish battery value chain.

1. What were the company's main achievements in 2023?

The key events for the company last year were reaching the environmental permit phase in the precursor project of our associated company CNGR Finland Oy, agreeing on the establishment of a joint venture for the Kotka CAM project with Beijing Easpring, and launching the EIA procedure for the Kotka battery cell project. In addition, we finalised a EUR 54 investment in Keliber's lithium mine and refinery project, which reached the construction phase. The results of the scoping study in Sokli confirmed the deposit's potential as a source of rare earth elements.

2. Did the year bring any surprises?

The EU's strong position on reducing Europe's dependency on imported raw materials was somewhat surprising. I am referring to the accelerated drafting of the EU Critical Raw Materials Act. The world market prices of metals fell significantly during the year, which is challenging to many operators.

3. Could you describe the company's responsibility work to us?

We continued our work to develop the industry's responsibility in Finnish and international co-operation forums. Our associated company CNGR Finland Oy's background work for the environmental permit application process was very thorough. The plan for the Sokli mining project is to transport the raw materials through a pipe. This would lower the carbon footprint of logistics by more than 90 percent compared to using trucks. In the Global Battery Alliance, we advanced the transparency of the battery value chain's carbon footprint, which is also useful information to consumers when purchasing a car, for example.

4. As the Chair of the Board, how do you perceive battery value chain development?

We have made real progress in our battery value chain projects during the year. Our raw material projects are creating a solid foundation for the value chain. Various projects related to the production and refining of materials went ahead during the year.

5. What are your expectations for 2024?

Finland needs to be forward-looking. I expect investments in these projects, which bring new jobs, new tax revenue and new know-how to our country, while fuelling innovation in other industries as well. I am also looking forward to seeing our subsidiary Terrafame start uranium recovery as the first operator in Europe.

JUNE

- Terrafame and Fortum agree on cooperation to use metals recycled from the 'black mass' of spent electric car batteries in Terrafame's battery chemicals production.
- We are preparing new safety induction videos for use in onboarding the employees and contractors of the Sokli mining project.
- Sokli commissions surface and groundwater studies as well as nature surveys.

JULY

- Finnish Minerals Group and Beijing Easpring Material Technology agree to establish a joint venture to advance the cathode active material plant in Kotka. Beijing Easpring will own 70% of the joint venture and Finnish Minerals Group 30%.

AUGUST

- CNGR Finland holds a seminar on the battery materials project in Hamina.
- Electric fishing is used to survey fish stocks in Sokli in the waters of Nuortti, and in Kymenlaakso in Suuroja, Nummenoja and Salminlahti areas.

SEPTEMBER

- Geological test drilling starts in Sokli with the aim of comprehensively investigating the application feasibility of potential ore types and raw materials.

OCTOBER

- The second phase of Keliber´s lithium project advances. It includes the construction of a concentrator and the development of the Syväjärvi open mine in Päiväneva.
- A potential partner in the Kotka battery cell project announces that it is considering investing in Finland.
- Two minerals are discovered in Sokli for the first time in Finland. The new minerals, kukharenkoite and cordylite, contain rare earth elements.

NOVEMBER

- Public notice is published again on CNGR Finland's environmental permit application for the Hamina precursor plant due to the changes related to process effluent treatment.

DECEMBER

- The EIA procedure for the Kotka cell plant starts with us submitting the EIA programme to the coordinating authority.
- After careful evaluation, we decide to withdraw from the LFP cathode material production project planned in Vaasa.

MORE ATTENTION TO MANAGERIAL ROLES

Supervisors need feedback from team members and colleagues to improve their management skills.

THE QUALITY OF MANAGERIAL WORK one of the key factors that affect employee well-being and performance at work. We did a 360 review in the spring to identify our supervisors' strengths and targets for development.

On the whole, the employees gave good feedback to the supervisors about fairness, knowledge of own area of responsibility and strategic leadership skills. The employees felt that more attention should be paid to the time spent managing people, work-life balance and the ability to motivate team members on a personal level.

THE NUMBER OF EMPLOYEES grew from 37 to 42. The Sokli mining project attracted a lot of interest during the year, and we received plenty of applications for the project's open positions.

Twice a year, the supervisor and team member have performance review discussions to discuss work-related goals, occupational well-being and personal development ideas and needs.

Occupational well-being is measured in the discussions with a job satisfaction barometer. The positive things raised in the autumn 2023 barometer were being heard at work and mostly feeling happy about coming to work. Our employees also felt that the management of their own work and the appreciation shown by the supervisors are at a good level.

THOROUGH INDUCTION and instructions are an effective way of avoiding near-miss situations and accidents at work. For us, this is especially important in the Sokli mining project, in which we focused on the safety instructions. Our written material is now supported by videos for new hires to watch as part of the induction.

In cooperation with occupational healthcare, we carried out a workplace survey and updated the occupational health action plan for the period 2023–2025. The Occupational Safety and Health Committee summarised the development measures based on the challenges raised.

OUR VALUES

- Courage
- Integrity
- Curiosity
- Care

LATER IN THE YEAR, we carried out an equality survey that will be used to update the equality and non-discrimination plan. Good opportunities for self-improvement, support from colleagues and the atmosphere of the work community were included in the positive feedback given in the survey. On the other hand, the respondents felt that mental strain had increased clearly during the year.

We also launched the company's first intranet. It serves our internal communication, such as informing about current issues and finding common guidelines.

42

At the end of 2023, the company and its wholly owned subsidiaries employed 42 people. (2022: 37).

39

The average age of our employees decreased to 39 (2022: 41).

90/10

At the end of the year, 90% of the employees worked on a permanent contract and 10% on a fixed-term contract. (2022: 89/11).

25/17

The share of women in our personnel increased compared to the previous year. We had 25 men and 17 women (2022: 23/14).

148

The personnel took 148 days of sick leave (2022: 150). There were no absences due to occupational accidents.

4,4

Our employees gave 'I am being heard at work' an average score of 4.4 on a scale of 1 to 5 (2022: 4.4).

First steps of a career in law in a great work community

I STARTED as a legal trainee at Finnish Minerals Group in spring 2022. I was looking forward to seeing environmental and corporate law in practice.

My idea of getting to practice law in versatile tasks in a great work community was confirmed during my interview. I was thrilled to continue working on a fixed-term contract after the traineeship and start in the position of junior lawyer in autumn 2023.

I have had a front row seat to the various phases of battery value chain projects. The legal team is extensively involved in projects. My role has included proofreading and drafting various contracts, reporting on environmental law matters and contributing to administrative work.

Seeing entire projects from shareholder agreements to environmental permit applications has been fascinating. I have gained a broad understanding of administration at the company and group level. I have also been able apply the things I learned at university in practice. This year, the legal team took a great leap forward with the deployment of the archiving system M-Files, which will make finding contracts easier in the future.

I feel that I have been able to take my first steps on the career path of a lawyer in an optimal environment with the right amount of support and responsibility. Thanks to interesting and versatile tasks and nice colleagues, I have liked coming to work every day.

TIIA-REETA TIHINEN
Junior Legal Counsel

BUSINESS

Our mission is to develop a responsible battery value chain and mining in Finland and to responsibly maximize the value of Finnish minerals. Our goal is to be the pacesetter for the Finnish mining and battery industry.

MILESTONES ACHIEVED IN RAW MATERIAL PROJECTS

Our work to meet the raw material needs of the responsible battery value chain is progressing.

The European Critical Raw Materials Act (CRMA) aims to establish a framework for ensuring a secure and sustainable supply of critical raw materials and to identify strategic mining, refining and recycling projects that strengthen security of supply, are technically feasible, meet high sustainability standards and use socially responsible practices. Finnish Minerals Group also complies with these criteria in its raw material projects Terrafame, Keliber and Sokli.

PROGRESS WAS MADE in production and further development at our subsidiary Terrafame and in the uranium plant's commissioning and start-up project. The company will start recovering uranium as the only operator in Europe in summer 2024. Training and job induction of the people recruited to the plant started in late 2023.

Terrafame's ore contains more metals than just nickel, zinc, cobalt and uranium, and the company needs to identify ways of using those that are commercially most promising.

Terrafame's minority shareholders Trafigura Galena Funds and Mandatum exercised their stock options by subscribing new shares in Terrafame totalling approximately EUR 135 million. This amount went towards repaying EUR 142 million in shareholder loans. Finnish Minerals Group arranged a working capital limit of EUR 65 million to Terrafame, while Terrafame agreed on a new loan facility of EUR 250 million with commercial banks.

THE FOUNDATION STONE of our associated company Keliber's upcoming lithium refinery was laid in Kokkola in summer 2023, and construction at the plant site went as planned. We invested EUR 54 million in the lithium project, increasing our holding in the company to 20 percent.

Keliber's investment projects in Kaustinen and Kokkola are significant on a European scale. In addition to the refinery, the project includes several mining sites and the construction of a concentrator in Kaustinen. The goal is to start producing battery-grade lithium, first with imported raw materials in 2025 and with own raw materials in 2026.

IN THE SOKLI MINING PROJECT, we continued studying the deposit comprehensively. In addition to phosphate and iron, the ore in the deposit contains rare earth elements, which are needed in the energy transition and the electrification of transport. In our geological surveys, new minerals containing rare earth elements were discovered for the first time in Finland.

We initiated the process of applying for EU strategic project status for Sokli. Our goal is to launch the project's detailed feasibility study in 2025.

Investigations also continued regarding processes and environmental affairs, and we developed the occupational safety culture and maintained a regular dialogue with local interest groups specifically.

> **Securing the supply of raw materials is important for Europe.**

TERRAFAME OY

Products: nickel; cobalt and ammonium sulphates; nickel-cobalt, zinc and copper sulphides

- Terrafame's net sales was EUR 560.9 million in 2023.
- Car manufacturer Stellantis N.V. and Terrafame signed an agreement on the supply of nickel sulphate for EV batteries, and circular economy material specialist Umicore agreed on nickel deliveries to their cathode materials plant.
- Terrafame and Fortum agreed on testing the use of metals recycled from the 'black mass' of spent electric car batteries in Terrafame's battery chemicals production.

KELIBER OY

Planned product:
lithium hydroxide

- Finnish Minerals Group invested EUR 54 million in Keliber's lithium project, increasing its holding in the company to 20%.
- The foundation stone of the lithium refinery was laid in Kokkola.
- Keliber´s lithium project is progressing into its second phase, involving the construction of a concentrator and the development of the Syväjärvi open mine in Päiväneva.

SOKLI OY

Potential products:
phosphorus, iron, rare earth elements, etc.

- According to the results of our scoping study, Sokli could produce at least 10% of the amount of rare earths needed annually in Europe to make permanent magnets, and more than 20% of Europe's annual demand for phosphate.
- Test drilling started in the mining concession. Surveys on the natural environment and waterways and mineralogical analyses continued as part of preparing for a detailed feasibility study.

BUILDING A FINNISH BATTERY VALUE CHAIN STEP BY STEP

The European Parliament's decision on CO² emission reduction targets for new passenger cars and light commercial vehicles made our work even more necessary.

AFTER 2035, it will practically not be allowed to produce new petrol and diesel cars in Europe. The rapid development of battery industry due to the electrification of transport has opened up a unique opportunity for Finland to maximise the value of domestic raw materials by building an effective and responsible battery value chain.

The number of battery cell projects keeps increasing in Europe. Benchmark Minerals monitors the market and says that already by the end of the decade, there will be 38 battery cell production projects in 14 countries in Europe. The combined production capacity of the projects is 1,300 gigawatt hours.

The largest amount of cell production is planned in Germany – the combined production capacity of nine projects is 325 GWh by the end of the decade. Hungary is the second biggest concentration with six projects and 217 GWh. Four projects with a capacity of 162 GWh are planned in France. These three countries account for about 55 per cent of the capacity planned in Europe.

The new industry will also generate considerable economic growth and employment. The battery material plants under preparation in Kotka and Hamina alone are estimated to increase Finland's GDP by 2 billion euros with their initial phase capacity. The plants are estimated to generate EUR 900 million in new tax revenue annually.

PROGRESS WAS MADE in all the projects in our portfolio during the year: CNGR Finland Oy aiming for precursor material production in Hamina submitted an environmental permit application to the Regional State Administrative Agency, and a decision is expected in early 2024. Adven-FMG Sodium Sulphate Solutions Oy, which aims to process the sodium sulphate produced by the pCAM plant, completed its evaluation of the project's solutions and economic feasibility.

In the cathode active material project planned for Kotka, we signed a shareholders´ agreement to establish a joint venture with our partner Beijing Easpring. A project company will be set up in early 2024. The plot reserved for the project was levelled and technical design is ongoing. At the year end, after careful evaluation, we decided to withdraw from the planned LFP cathode material production project in Vaasa.

In the spring, we launched the EIA procedure with Epsilon Advanced Materials regarding our planned anode material project in Vaasa. Our goal is to complete the procedure by summer 2024.

OUR LATEST PROJECT aims at battery cell production in Kotka. The planned annual production capacity of 60 GWh would be sufficient for more than a million full electric cars. We submitted the project's EIA programme to the coordinating authority at the end of the year. Our project company Finnish Battery Chemicals signed a Letter of Intent with the City of Kotka to reserve a 140-hectare plot for the project.

pCAM =

precursor cathode active material: preliminary stage of the cathode active material used in lithium-ion batteries

CAM =

cathode active material: end product used to manufacture cathodes, the most valuable part of the battery cell

anode =

cathode's counterpart: determines the battery's charging speed and number of charge cycles

VALUE CHAIN OF LITHIUM-ION BATTERIES

1 RAW MATERIAL PRODUCTION

Ore is quarried from mines and the raw materials needed for batteries are extracted from the ore. The metals needed are for example nickel, cobalt, lithium, graphite, manganese, iron and phosphate. These can be found in Finland.

2 MATERIALS PROCESSING

The raw-mined metals are processed into precursor material (pCAM), from which cathode active material (CAM) is processed. Graphite is processed into anode active material (AAM). CAM and AAM are powdery products, which are used as raw materials in battery cell plants.

3 CELL AND PACK MANUFACTURING

In a cell production plant, cathode, anode, electrolyte and separator are assembled to manufacture battery cells. In the next phase of the battery value chain, at the assembly plant, ready-made cells are combined into modules. Subsequently, modules are assembled to create battery systems, which can be very different depending on the final product.

4 DOWNSTREAM APPLICATIONS

Batteries are needed for example in electric vehicles, energy storage and electronic devices.

5 SECOND LIFE USE AND RECYCLING

The aim is recycling and reuse of the metals from spent batteries. More and more efficient recycling solutions are constantly being developed.

OWNERSHIP 40 %

CNGR FINLAND

Planned product:
precursor material (pCAM)

- The company submitted an environmental permit application concerning a precursor plant located in Hamina to the coordinating authority.
- The project was widely exhibited in the Kotka and Hamina region at various neighbourhood and stakeholder events.
- The goal is to achieve a record low carbon footprint for precursor active material production.

OWNERSHIP 30 %

KOTKA CAM PLANT

Planned product:
cathode active material (CAM)

- We signed a shareholders' agreement to establish a joint venture with our partner Beijing Easpring.
- The plot reserved for the project was levelled and technical design is ongoing.
- The plant would initially produce 60,000 tonnes of cathode active material a year, which would meet the need of more than 750,000 full electric vehicles per year.

KOTKA BATTERY CELL PRODUCTION PLANT

Planned product:
battery cells

- We submitted the project's EIA programme to the coordinating authority at the end of the year.
- We signed a Letter of Intent with the City of Kotka to reserve a 140-hectare plot for the project.
- The planned annual production capacity of 60 gigawatt hours would be sufficient for the needs of more than one million fully electric cars.

OWNERSHIP 49 %

ADVEN-FMG SODIUM SULPHATE SOLUTIONS OY

Goal: a facility for the recycling of sodium sulphate in effluent into commodity chemicals for the industry

- The company submitted an environmental impact assessment for a facility that could recycle sodium sulphate at the CNGR Finland's planned precursor material plant.
- The facility's technology is based on bipolar electrodialysis (BPED), which allows the sodium sulfate in industrial discharge water to be recycled into chemical commodities used in industry.
- The plan is to set up a unit for industrial-scale piloting and demonstration.

VAASA ANODE MATERIAL PLANT

Planned product:
anode material

- We submitted an EIA programme with our project partner Epsilon Advanced Materials to the coordinating authority regarding the anode material project in Vaasa.
- The baseline data for the assessment is the annual production capacity of 10,000 tonnes, which corresponds to a battery manufacturing output capacity of approximately 10 GWh and 200,000 electric cars per year. The other option is based on the capacity of 50,000 tonnes, which corresponds to a battery manufacturing output capacity of 50 GWh and approximately one million electric cars per year.

International cooperation is needed to build a battery value chain in Finland

ALMOST ALL FINNS and people in Europe use cell-phones, computers, cars and many other electronic devices on a daily basis. Today, however, most of the goods, or components of them, that we use in our everyday lives are manufactured somewhere else than in Europe.

China dominates most of the battery supply chain. Globally, China holds more than 50 per cent of the supply chain in graphite mining, the processing of lithium, cobalt and graphite, the manufacturing of cathode and anode materials and battery cells*. No surprise then that China has the best technological expertise in the industry.

We have mapped potential partners globally and we regularly review the financial situation and corporate responsibility of our chosen partners. The basis of our operations is to establish joint ventures with partners and provide our expertise on responsibility requirements at the EU and national level. The joint ventures operate under Finnish and EU law.

We believe that through cooperation we can work for the good of Finland so that we enhance Europe's strategic autonomy, slow down climate change and increase our well-being.

*) Source: International Energy Agency: Global Supply Chains of EV Batteries. July 2022.

R&D WORK BRINGS NEW BUSINESS OPPORTUNITIES

Sustainability aspects were the main driving force of strategic priorities.

THE ELECTRIFICATION of the world and society calls for solutions that address the scarcity of raw materials and enable more efficient storage and delivery of energy. By developing new technologies, we can contribute to making battery manufacturing and raw material production environmentally sustainable.

A significant part of our work involves long-term research and development R&D, through which we pursue our strategic goals and new business opportunities. As part of our organizational restructuring, we concentrated R&D activities into a specialized team, which improves the focus of our business areas on larger industrial projects.

IN OUR R&D PORTFOLIO we prioritised rare earth elements (REE), alternative renewable raw materials, and next-generation battery technologies and the raw materials needed for them. Sustainability aspects were the main driving force in the selected focus areas.

We updated our strategy according to industry changes and needs and described the business strategies thoroughly. People all across our organisation participated in the updating process.

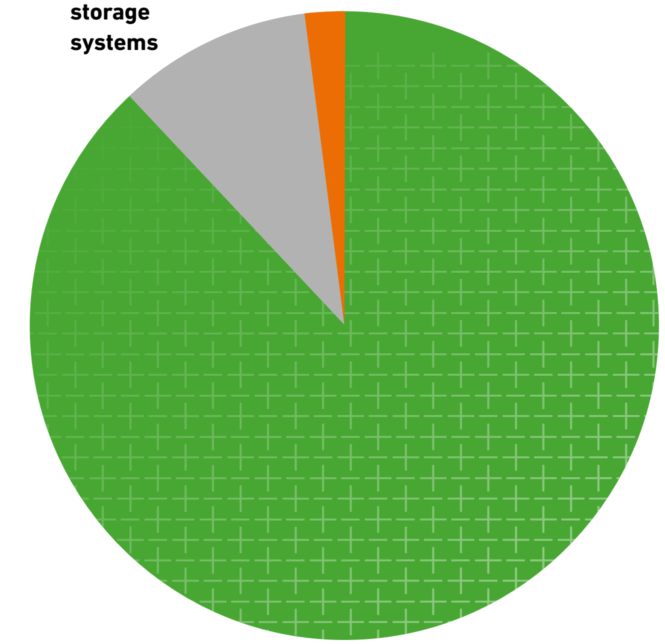
THE RESPONSIBILITIES related to EU relations coordination and systematizing our operational procedures were implemented. Our approach was based on four workflows: monitoring and impact analysis of EU and national level initiatives; monitoring of directives and legislation; monitoring and utilisation of public funding instruments; and, acting through partnerships, networks and organisations.

The key topics that emerged this year included the newly enacted EU Battery Regulation, the revised Finnish Mining Act and the EC Critical Raw Materials Act. Follow-up of public funding opportunities and participating in R&D cooperation and other networks bore fruit – Sokli and Terrafame for example were awarded significant public research funding.

> We find it important to support Finnish research and competence development.

WE FIND IT IMPORTANT to support Finnish research and competence development. During the year, we mapped national research cooperation opportunities; participated in research consortia funded by Business Finland, such as BatCircle2.0, BATTRACE and SecRes; and were active in associations representing companies in the battery and mining industry, such as Global Battery Alliance, Euromines, Finnish Battery Industries and Finnish Mining Association. We were also a member of the national battery cooperation body, which aims to update Finland's battery strategy and share information among its members.

FORECAST OF GLOBAL LI-ION BATTERY MARKET SPLIT BY APPLICATION IN 2030



The growth of the battery market is influenced, for example, by how much car manufacturers sell electric cars and how governments support the electrification of different sectors.

Source: Benchmark Minerals Intelligence

Technological advances diversify the battery industry

BATTERY INDUSTRY growth forecasts have been going up each year. Increased demand and improved manufacturing processes will soon lead to electric cars being more affordable than comparable internal combustion engine cars. This will further accelerate the demand for batteries. At the same time, the need for distributed energy storage increases and new storage solutions find their niche in the energy transition to achieve carbon neutrality.

My work allows me to follow the technological innovation taking place in active materials, new battery technologies, improving efficiency of EV packs and manufacturing methods. Cost structure, sustainability and competitiveness against current technologies will set new solutions apart from current ones.

Getting promising technologies from lab to mass production is a massive challenge, and it is not clear which solutions will be successful ten years from now. The importance of some raw materials may increase, and the growing industry may experience bottlenecks in the production of minerals and materials. New regulatory frameworks in the EU and elsewhere will also have a large impact on this development. One example is EU battery legislation aimed at ensuring the availability of carbon footprint information from battery manufacturing to consumers.

It is interesting to see what kind of future scenarios the battery industry actors predict. In a fast-growing industry, it is important to try to understand how changes can affect different projects.

PYRY HANNULA
Development Manager

CORPORATE RESPONSIBILITY PROGRAMME

The key focus areas of our responsibility work are societal impact, value chain activities and environmental issues.

FOURTH YEAR OF OUR RESPONSIBILITY PROGRAMME

Finnish Minerals Group's responsibility programme for 2020–2024 is based on a stakeholder survey. Our subsidiary Terrafame has its own sustainability programme, the content of which is decided by its Board of Directors.

THEME 1

Social impact

Topic	Objective	Progress in 2023	Indicator 2024
Jobs	New high-tech jobs to Finland	• Terrafame and its partners combined employ approximately 1,500 people. • The value chain employment impact of our mining projects could be around 6,500 person-years in the longer term. Keliber's project is now in the construction phase, employing 70 people. • The planned pCAM, CAM and cell plants in Kymenlaakso value chain employment impact during operation could be as high as 13,400 person-years. Construction could start in 2024.	More than 1,000 new jobs directly and thousands indirectly based on decisions to invest in the battery value chain.
Economic value added	Economic value added from raising the degree of processing raw materials	• The planned plants in Kymenlaakso would generate up to two billion euros of new GDP a year during operation. • Terrafame's GDP impact is about 640 million euros a year. Keliber's impact will be seen after construction and operations have started.	EUR 1.5 billion increase in GDP based on decisions to invest in the battery value chain.
Utilisation of expertise	Channelling expertise to the development of responsibility in the mining and battery industry	• We continued with the Global Battery Alliance (GBA) in its work towards a responsible, global battery value chain. • We were one of the founders of Finnish Battery Industries, an association representing battery industry companies in Finland.	Upward development curve or continuous good feedback in survey results.

pCAM = precursor cathode active material
CAM = cathode active material

THEME 2

Sustainable value chain

Topic	Objective	Progress in 2023	Indicator 2024
Value chain and co-operative relationships	Responsible actions throughout the value chain and in partnerships	• We continued our work towards drafting ESG parameters for the Battery Passport through our GBA partnerships. • We expect our portfolio companies to comply with international standards and rules on human rights. • Our battery projects are aligned with the EU taxonomy criteria.	Sustainable development goals have been set by Finnish Minerals Group, the portfolio companies and main partners, and the companies agree with generally accepted statements.
Acceptability of operations	Structured stakeholder work and dialogue to strengthen acceptability	• We continued our stakeholder dialogue on e.g. the Hamina pCAM project. • We launched the EIA procedure for the Kotka cell plant project and the related stakeholder discussions. • We continued discussions with local stakeholders in the Sokli mining project. • According to Taloustutkimus survey, most people residing in Savukoski are in favour of opening a mine in Sokli, provided that its operations are responsibly organised with respect to the environment and local livelihoods.	Upward development curve or continuous good feedback about expertise in corporate image research results on stakeholder work.

THEME 3

Responsibility for the environment and climate

Topic	Objective	Progress in 2023	Indicator 2024
Environmental impact and the circular economy	Initiatives to minimise environmental impact and promote the circular economy	• Our portfolio companies Terrafame Oy, Sokli Oy, Keliber Oy, CNGR Finland Oy and Adven-FMG Sodium Sulphate Solutions Oy dealt with environmental impact and circular economy aspects also in 2023. Sokli Oy does not yet have a development plan, but the topics have an important role in the planning of the mining project. • CNGR Finland Oy plans to add a battery materials recycling facility to the pCAM plant construction project in Hamina.	The boards of portfolio companies annually approve strategic development plans concerning environmental impact and the circular economy
Carbon dioxide emissions	Support for the Paris agreement and achieving carbon neutral Finland by 2035	• Our portfolio companies dealt with greenhouse gas emissions impact and circular economy aspects in 2023. • Our office in Helsinki only uses carbon-neutral electricity.	The boards of portfolio companies annually approve strategic development plans for the reduction of carbon dioxide emissions.

THEME 1: SOCIAL IMPACT

PROJECTS BRING JOBS, TAX REVENUE AND TALENT

We assess the social impacts of our projects especially from the perspectives of economic value addition and employment impact.

FINNISH MINERALS GROUP aims to responsibly maximise the value of Finnish minerals, and our vision is to produce the materials needed to achieve climate neutrality. We create new jobs, new business and new tax revenue in Finland.

The raw materials of the Finnish mining industry have largely been exported for processing outside Finland. Arranging the processing here would create new jobs, tax revenue and talent development in Finland.

WE CONSTANTLY assess the impact of our projects on society. In Raw Materials, our subsidiary Terrafame's mining and battery chemicals production operations generate more than EUR 640 million in GDP and EUR 230 million in tax revenues per year. Its employment impact is 4,700 to 5,000 person-years.

Our other raw material production and refinement investments are directed at Keliber's lithium hydroxide production and the Sokli mining project. The total employment impact of ongoing raw materials projects could be around 6,500 person-years in the longer term. The impact is mostly felt in Savukoski, Sotkamo and Kaustinen and their surrounding municipalities.

OUR BATTERY VALUE CHAIN projects look to the future. The assessments we have commissioned show that the activities planned in Kotka and Hamina would generate more than two billion euros in GDP and 900 million euros in new tax revenue per year. The employment impact could be as high as 13,400 person-years. Workers are also needed during the construction phase. Early stage preparations are ongoing for projects planned in the Vaasa area.

The economic impacts during the operation of battery material and cell production in Kotka and Hamina could be this magnitude in total, depending on the production capacities.

Direct employment impact

13 400 person-years

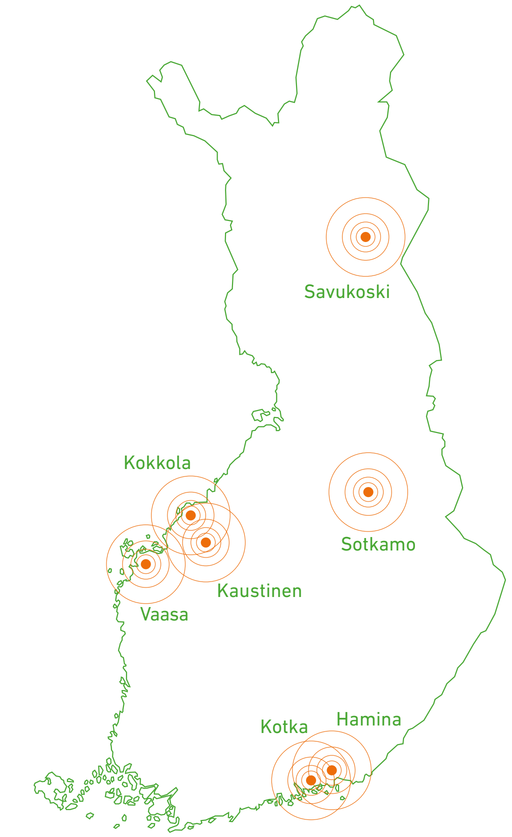
New GDP per year

2 billion euros

New tax revenue per year

900 million euros

ARRANGING THE PROCESSING IN FINLAND WOULD CREATE NEW JOBS, TAX REVENUE AND TALENT DEVELOPMENT HERE



Finnish Minerals Group has projects in several different locations throughout Finland. From the perspective of developing the battery value chain, the major concentrations are in the Kotka and Hamina region, as well as in the Vaasa and Kokkola region.

Industrial ecosystems create jobs and innovations

PROJECTS on battery materials and battery cells are creating a new and unique industrial ecosystem in Kotka and Hamina, which could have a wider impact on the industrial and service structure of the Kymenlaakso region. It will bring new innovations and entrepreneurs to other business sectors as well.

The employment situation and local economy will get a boost while conserving the industrial heritage of the region.

Investing in batteries is estimated to bring thousands of jobs during the construction phase and operation. Both specialists and workers with experience in conventional industrial construction will be needed in the projects. The production capacity targets will most likely be upgraded, so the construction work will proceed in stages.

The commissioning and operation of the facilities require process and work management expertise that Finland does not currently have. This means widening the search to include our global partners.

We are looking to create retraining paths in cooperation with local and national educational institutions. Completely new training programmes have also been created by the institutions, with us for example, to meet the battery sector's future workforce needs.

TIMO STRENGELL
SVP, Battery Value Chain

THEME 2: SUSTAINABLE VALUE CHAIN

CIRCULATING MATERIALS AND PRODUCTS RESPONSIBLY

The EU has revised battery regulations in line with the growing industry. Several regulations on batteries were adopted during 2023.

THE BATTERY VALUE CHAIN is based on minerals extracted from mines and recycled raw materials that are not yet readily available. They are further processed into battery chemicals, such as nickel and cobalt sulphates and lithium hydroxide. The chemicals are used to produce battery materials for making battery components such as anodes and cathodes.

To meet Finnish production needs, the value chain's materials are sourced from Finland and Europe, but also from Asia. This means the supply chains can be however long.

EFFECTIVE FROM AUGUST 2023, the due diligence obligations of the new EU Batteries Regulation apply to economic operators and the supply chain of batteries. As regards the social and environmental risk categories, the due diligence obligations should cover human health, biodiversity, human rights, labour rights and community life.

The Battery Regulation also encourages to respect the principles of internationally recognised treaties and frameworks, such as the conventions of the International Labour Organisation (ILO), the Paris Agreement on climate change and the OECD guidelines on human rights. These ensure that the company's operations, risks assessments and policies comply with the due diligence obligations laid down in the Battery Regulation.

Finnish Minerals Group complies with the above rules and principles, and we expect our subsidiaries and associated companies to do the same. We also play an active role in project implementation. We provide good corporate governance guidance to new companies and help with process implementation as needed. It is essential to find an effective way of putting the Battery Regulation's due diligence policies into practice throughout the value chain.

> **We provide good corporate governance guidance to new companies.**

A RESPONSIBLE BATTERY VALUE CHAIN IS ALL ABOUT TAKING ENVIRONMENTAL AND SOCIAL RESPONSIBILITY

WELLBEING OF LOCAL COMMUNITIES

- Employment and education
- Building entrepreneurial spirit
- Fostering local cultural identity
- Wellbeing of indigenous people

HUMAN AND LABOUR RIGHTS

- Occupational safety and health
- Freedom of association
- Child labour
- Forced labour

THE ENVIRONMENT, CLIMATE AND HUMAN HEALTH

- Air pollution
- Water pollution and water use
- Biodiversity
- Hazardous materials
- Noise and vibration
- Safety of installations
- Energy use
- Waste

We develop our industry's responsibility through collaboration platforms

IN 2023, we continued our work with the Global Battery Alliance (GBA), which aims to build a responsible battery value chain. The GBA published the Battery Passport proof of concept results in early 2023. The Battery Passport is designed to measure, audit, track and develop the progress and ESG performance of the battery value chain globally according to common rules and guidelines. The passport's common ESG parameters for measuring responsibility include greenhouse gases, biodiversity, human rights and child labour.

We are one of the founders of Finnish Battery Industries, a new association chaired by our CEO Matti Hietanen. The association aims to streamline permit processes so as to realise the carbon dioxide emission reductions enabled by investments and the battery industry's support in achieving the maximum temperature increase of 1.5 degrees Celsius in accordance with the Paris Agreement.

Another goal is to change vocational training to better meet the battery industry's needs and to advance the recycling of critical raw materials.

We also joined the Rare Earth Industry Association (REIA). REIA is a global organisation with members from across the rare earth value chain seeking to contribute to a better understanding of rare earth elements. REIA's mission is to gather stakeholders, best practices and life cycle data to state a common vision for developing a rare earth element value chain.

THEME 3: RESPONSIBILITY FOR THE ENVIRONMENT AND CLIMATE

ENVIRONMENTAL RESPONSIBILITY AND SAFETY ARE KEY FACTORS IN SOKLI

Our goal in the Sokli mining project is a responsible and modern way of producing raw materials.

OUR FOCUS AREAS in the Sokli mining project this year were the social acceptability of the project, the reduction of environmental impact and CO^2 emissions and occupational safety. We also initiated the process of applying for EU strategic project status for Sokli. Strategic projects contribute to ensuring a secure and sustainable supply of critical raw materials in Europe.

When we took ownership of the Sokli mining project in 2020, we began to comprehensively study its mineral deposit. We made the results of Sokli's scoping study public in early 2023. In addition to technical changes, responsibility aspects such as environmental impact, social dimensions and material efficiency were assessed.

The discussions especially revolved around balancing current livelihood needs and mining operations. Our aim is for Sokli to be open, honest and transparent locally.

WE MADE CHANGES TO the mining sites so as to avoid causing impact on local water bodies and protected habitats and plant species, for example. We explored the option of relocating part of raw material processing further away from the mining site.

Using an underground transport pipe rather than trucks to transport materials would lower the carbon footprint of logistics by more than 90 percent. Nature surveys and electro-fishing of trout also continued. Surveying before the commencement of mining activities provides us with reliable impact assessment data.

We aim to maximise the use of raw materials and minimise the amount of waste and side streams. Ten kilometres of holes were drilled in areas known to contain rare earth elements (REE). We did a pilot on REE recovery and worked on the production methods.

ALL WORKERS and visitors had to attend safety induction before entering the area. We introduced a registration and processing system for occupational safety notices, and we do root cause analysis on all deviations.

No accidents resulting in absence from work took place in Sokli in 2023 to own personnel or subcontractors. Connecting the Sokli headquarters to the grid improved safety at work and reduced the amount of fossil fuels spent.

Reinventing the 56 year old Sokli. The project has the potential to increase security of supply and create significant employment impact locally. We aim to be a mining industry trailblazer by using the latest technologies and setting responsibility and the balancing of livelihood needs as the cornerstones of our operations.

> **Mining sites were changed to avoid impact on water bodies**

In addition to the geological surveys and test drilling, we continued various nature surveys and monitoring the state of water bodies.

Mapping the current status of water bodies in Kotka

WATER surveys to assess the current status of water bodies as a whole were conducted in Kotka near the location of the planned CAM plant. Water quality and benthic analyses, sediment contamination assessments and fish surveys were carried out in Suuroja and Nummenjoki water bodies and Salminlahti bay.

Due to the stream flow seasonality of Suuroja, it does not offer ideal conditions for salmonid breeding. We will investigate whether the situation in the river could be improved so that it would provide a better habitat for salmonids.

According to research, the fish population of Nummenjoki river consists of perch and pike. The river flows into the northern part of Salminlahti bay, which is very shallow and overgrown with reeds. This affects the river's fish species. Actual river species have not been observed in the lower part of the Nummenjoki river.

Salminlahti bay is a Natura 2000 area. The bay's importance for fishing and fish was surveyed as a whole, as well as identifying the fish species that live and spawn there. Based on the test netting results, roughly two-thirds of Salminlahti bay's fish are perch and roach. Salminlahti bay is also where many fish species go to spawn, and an important recreational area for humans.

TEEMU ELOMAA
Project Development Manager

CORPORATE GOVERNANCE

Finnish Minerals Group is a state-owned special-purpose company, with a mission to responsibly maximise the value of Finnish minerals.

GOOD GOVERNANCE HELPS ACHIEVE STRATEGIC GOALS

Our Board of Directors has three committees: audit, responsibility, and personnel and remuneration.

FINNISH MINERALS GROUP is a wholly state-owned special-purpose company set up to build a battery value chain in Finland and manage the state's shareholdings in the mining sector. Our basic mission is to responsibly maximise the value of Finnish minerals.

Our corporate governance and decision-making models comply with the Articles of Association, the Limited Liability Companies Act and other legislation in force. We are also guided by the Government Resolution on State Ownership Policy and the internal policies and guidelines adopted by the company's Board of Directors. Our ownership steering body was the Prime Minister´s Office, which has issued our corporate governance code.

> Our ownership steering body in 2023 was the Prime Minister´s Office.

THE HIGHEST DECISION-MAKING BODY of the company is the General Meeting of Shareholders. In the year under review, the General Meeting of Shareholders was held on 30 March 2023.

The Board of Directors is responsible for managing the company and for the appropriate organisation of its operations. The composition of the Board of Directors is at least three and at most seven members, who are elected for one year at a time. At the end of 2023, our Board of Directors consisted of seven members. The term of office ends at the close of the next Annual General Meeting following the election of the Board.

The Board of Directors has adopted for itself rules of procedure, in which the main tasks and operating principles of the Board and its committees have been recorded. There were three committees: audit, responsibility, and personnel and remuneration. The committees were convened 3–8 times during the year.

THE CHIEF EXECUTIVE OFFICER (CEO) is responsible for the company's operational management in accordance with the Limited Liability Companies Act and other legal provisions, as well as the guidelines and regulations issued by the Board of Directors. The Board of Directors decides on the appointment and dismissal of the CEO and on the terms of employment for the position.

The Executive Leadership Team's duties include assisting the CEO in the management and development of the business and preparing matters to be discussed by the Board of Directors. The Executive Leadership Team met two times a month on the average.

THE BOARD OF DIRECTORS AND CEO are responsible for the arrangement of internal control, risk management and internal auditing. The Board of Directors has confirmed the principles of risk management and the policy for organising related party governance and dealing with related party transactions that everyone in our company shall adhere to.

The company's auditor was KPMG Oy Ab, on behalf of which APA Antti Kääriäinen was the principal auditor.

THE MANAGEMENT SYSTEM OF FINNISH MINERALS GROUP

GENERAL MEETING

BOARD OF DIRECTORS
- Audit Committee
- Personnel and Remuneration Committee
- Corporate Responsibility Committee

CEO

EXECUTIVE LEADERSHIP TEAM

Risk management is never-ending

FINNISH MINERALS GROUP'S risk management is based on a risk management policy approved annually by its board of directors. The strategic, financial and operational risks of the risk matrix are assessed quarterly by the Executive Leadership Team, and reviewed by the entire personnel once a year. During the past year, we worked to develop our company's risk management process and the related policies and procedures.

We continued to develop cyber security. Our information security policy now includes a section on remote and mobile work, in which we described the related goals, threats, risks and procedures.

Part of our cyber security development work was drafting instructions for the use of AI apps for work.

The company´s administrative work changed significantly with the introduction of an archiving application in which all agreements, policies and instructions can be found in standardised format in one place. The intranet launched in the second half of the year makes common instructions, policies and apps easily available to all our employees on mobile devices.

TAX REPORTING IS BASED ON FINANCIAL STATEMENTS DRAWN UP IN ACCORDANCE WITH THE FINNISH ACCOUNTING ACT

Key tax-related matters are dealt with by Group company boards of directors under the Finnish Limited Liability Companies Act.

TAX CONTRIBUTION reporting and preparing for taxes are corporate responsibility requirements at Finnish Minerals Group. The Group companies are committed to comply with tax legislation, laws and regulations, and the instructions of the parent company's state-owner.

We pay and report taxes in a timely manner. Where necessary, we use the best possible external expertise to supplement our employees' know-how.

KEY TAX-RELATED MATTERS are dealt with by Group company boards of directors under the Finnish Limited Liability Companies Act. Group company CEOs are responsible for the organisation of tax matters in their company. Adhering to the principles of corporate responsibility, the Group and Group companies do not have operations or assets abroad to gain tax benefits.

TAX CONTRIBUTION REPORTING is based on financial statements drawn up in accordance with the Finnish Accounting Act. Excluded from the tax contribution report are mandatory insurance premiums that are included in salary costs. Due to their nature, these insurance premiums are dealt with as direct salary costs. The Group companies also do not report small amounts of value-added tax included in foreign travel and training costs in the tax contribution report.

So far in its years of operation, Finnish Minerals Group and Terrafame have accumulated losses that are deductible for tax purposes. For this reason, the companies do not yet have any taxable income. However, a considerable amount of other tax expenses have been accumulated from the energy and fuel taxes and VAT related to the companies' operations. The companies have also paid the usual taxes related to the acquisition and ownership of assets.

> **Our Group company CEOs are responsible for the organisation of tax matters in their company.**

2023 EUR 1,000	**Suomen Malmijalostus Oy**	**Terrafame Oy**	**Group companies total**
Taxes paid			
Direct taxes paid	**50**	**1,719**	**1,778**
Income taxes	0	0	0
Transfer taxes	0	0	0
Property taxes	0	691	695
Employer's social security contributions	48	985	1,038
Parafiscal charges	2	342	344
Indirect taxes paid	**18**	11,081	11,100
Electricity taxes, net	0	343	343
Electricity taxes	0	343	343
Electricity taxes, return	0	0	0
Insurance premium tax	18	585	604
Fuel taxes, net	0	10,139	10,139
Fuel taxes	0	10,139	10,139
Fuel taxes, return	0	0	0
Waste tax	0	14	14
Taxes collected and accounted for	**906**	-18,545	-18,545
Tax withheld in advance	1,076	10,234	11,390
Value-added tax, net	-170	-28,778	-29,932
Value-added tax, sales	445	85,371	85,887
Value-added tax, purchases	-615	-114,149	-115,819
Total	**974**	**-5,745**	**-5,665**
Ratio of tax payments to net sales	51,30%	-1,02%	-1,01%

2022 EUR 1,000	**Suomen Malmijalostus Oy**	**Terrafame Oy**	**Group companies total**
Taxes paid			
Direct taxes paid	**40**	**1,824**	**1,868**
Income taxes	0	0	0
Transfer taxes	0	12	12
Property taxes	0	665	665
Employer's social security contributions	37	593	632
Parafiscal charges	3	553	558
Indirect taxes paid	**0**	**5,794**	**5,794**
Electricity taxes, net	0	341	341
Electricity taxes	0	341	341
Electricity taxes, return	0	0	0
Insurance premium tax	0	554	554
Fuel taxes, net	0	4,896	4,896
Fuel taxes	0	5,525	5,525
Fuel taxes, return	0	-629	-629
Waste tax	0	2	2
Taxes collected and accounted for	**962**	**3,203**	**3,349**
Tax withheld in advance	938	9,924	10,916
Value-added tax, net	24	-6,721	-7,567
Value-added tax, sales	417	97,952	98,640
Value-added tax, purchases	-393	-104,673	-106,207
Total	**1,002**	**10,821**	**11,010**
Ratio of tax payments to net sales	60,63%	1.85%	1.88%

BOARD OF DIRECTORS

31 December 2023

ANTTI KUMMU
Chair of the Board
M.Sc. (Econ.), CFA
b. 1976

OLAVI HUHTALA
Vice Chair of the Board
B.Sc. (Eng.)
b. 1962

PAULI ANTTILA
M.Sc. (Econ.)
b. 1984

TEIJA KANKAANPÄÄ
M.Sc. (Tech.)
b. 1964

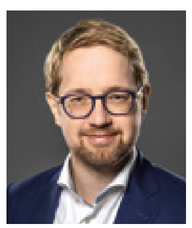
ILPO KORHONEN
B.Sc. (Eng.), eMBA
b. 1964

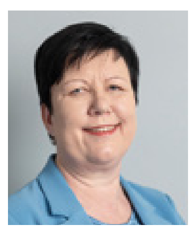
JUKKA OHTOLA
M.Sc. (Econ.), CEFA
b. 1967

EEVA RUOKONEN
D.Sc. (Tech.), MBE (diploma)
b. 1960

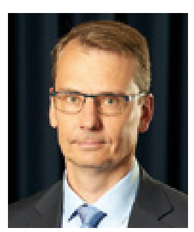

Antti Kummu


Olavi Huhtala


Pauli Anttila


Teija Kankaanpää


Ilpo Korhonen


Jukka Ohtola


Eeva Ruokonen

EXECUTIVE LEADERSHIP TEAM

31 December 2023

MATTI HIETANEN
CEO
LLM, M.Sc. (Econ.)
b. 1977

SINI ESKONNIEMI
VP, Innovation and Technology Development
M.Sc. (Tech.)
b. 1984

KATRI KAUPPILA
VP, People and Communications
M.Soc.Sc
b. 1965

JANI KIURU
SVP, Raw Materials
D.Sc. (Tech.)
b. 1975

TIMO KÄRKKÄINEN
VP, Investments
M.Sc. (Econ.)
b. 1963

AAPO NIKUNEN
CFO
LLM, M.Sc. (Econ.)
b. 1965

TIMO STRENGELL
SVP, Battery Value Chain
M.Sc. (Tech.)
b. 1974


Matti Hietanen


Sini Eskonniemi


Katri Kauppila


Jani Kiuru


Timo Kärkkäinen


Aapo Nikunen


Timo Strengell

ANNUAL ACCOUNTS

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GROUP, IFRS

PARENT COMPANY, FAS

ANNUAL REVIEW 1 JANUARY – 31 DECEMBER 2023

Significant events during the financial period

Finnish Minerals Group is a state-owned special-purpose company. In line with our strategy, (1) we create value through active ownership, (2) we increase the value add by building a Finnish battery value chain, (3) we build sustainable businesses, and (4) our aim is to be a forerunner driving prosperity of the Finnish mining and battery industry. In line with our vision, we are making available materials that enable Finland and Europe to achieve climate neutrality. Our mission is to responsibly maximise the value of Finnish minerals.

Our Group consists of the following companies: Suomen Malmijalostus Oy and Terrafame Oy as well as Sokli Holding Oy and Finnish Chemicals Battery Oy and its subsidiaries. Suomen Malmijalostus also uses the auxiliary business name Finnish Minerals Group.

The current mandate and trade name were given to the Group's parent company, Finnish Minerals Group, in 2018. The year 2023 was the company's fifth full year of operation under its current mandate.

Operations of Finnish Minerals Group

Our company's operations are organised according to two business areas and support functions. In the following sections, we discuss our work on raw materials, the battery value chain and R&D in 2023.

Raw materials

Our holdings in the Raw Materials business area were Terrafame Oy (56.1%), Keliber Oy (20.0%) and Sokli Oy (100%).

TERRAFAME OY

Our annual review deals with our subsidiary Terrafame more than our other portfolio companies, as it is our most important asset. In 2023, Sotkamo-based Terrafame produced nickel, cobalt and ammonium sulphates, as well as nickel-cobalt, zinc and copper sulphides. The company aims to start uranium recovery in summer 2024. We were an active participant in the development of Terrafame over the course of the year. Our experts participated in Terrafame's technical, commercial and financial committees and in the work of the steering committee for the battery chemicals plant project. In addition, we provided Terrafame with services related to legal affairs and R&D.

Under the shareholders' agreement, five people are appointed to Terrafame's Board of Directors based on Finnish Minerals Group's proposal.

KELIBER OY

Keliber continued the preparations for its lithium hydroxide project with the aim of starting production ramp-up in 2025. The project includes several mining sites in Central Ostrobothnia, a concentrator and a lithium refinery. Preparatory construction work for the lithium refinery in the Kokkola Industrial Park was completed, and the refinery's foundation stone was laid in June 2023. Keliber has the environmental and water management permits for the Päiväneva concentrator and the Rapasaari mine. The permits have not entered into force yet. Building the concentrator in Päiväneva started near the end of the year.

Finnish Minerals Group invested EUR 54 million in Keliber in 2023, increasing our holding to 20.0 percent. The company's main shareholder is the multinational mining and metals processing group Sibanye-Stillwater.

In the AGM decision of June, Keliber's Board of Directors was confirmed to have five members. Two persons are elected to Keliber's Board based on Finnish Minerals Group's proposal.

SOKLI OY

According to the results of the scoping study of the Sokli mining project, Sokli could produce at least 10 percent of the amount of rare earths needed annually in Europe to make permanent magnets. In addition, Sokli could potentially meet more than 20 per cent of Europe's annual demand for phosphate. Our goal is to launch the project's detailed feasibility study in 2025.

In addition to phosphate and iron, the ore in Sokli contains rare earth elements (REE) needed in the green transition and the electrification of transport. Other metals and minerals in the deposit include manganese, vermiculite, niobium and uranium. We assessed the possibility of minimising the environmental impact of production by relocating some of the mine's production phases. We continued to do test drilling and surveys related to nature and waterways during the year. The execution of the mining concession for the expanded mining site was not completed during 2023.

We organised open house coffee sessions about once a month at our office in Savukoski. We visited Savukoski Comprehensive School to talk about the mining industry and job opportunities in the sector. We also developed the safety-related training and onboarding materials and regularly informed our stakeholders about the project's progress, for example, with electronic newsletters. Six new permanent employees were recruited to work for Sokli Oy in 2023.

Based on current information, the total investment in opening the Sokli mine would be EUR 1–1.5 billion. Such an investment would require a new approach to implementing the EIA and permitting procedures. If realised, the mine would create new jobs in Savukoski and increase the demand for services and goods both locally and more widely.

Battery value chain

Global sales of electric cars remained strong, although growth was not in line with forecasts. In 2023, approximately 13.6 million (2022: 10.1 million) electric cars were sold worldwide, which is about 32 percent more than in the previous year. In Europe, the sales of electric passenger cars and light commercial vehicles increased by 18 percent.

The emerging collective capacity for European cell production was more than 1,300 GWh a year by 2030 (Benchmark Minerals, January 2024). Battery cells are needed for the electrification of transport. Cell production also requires battery materials production, and Finnish Minerals Group is meeting this need with its projects.

During the year, we worked mainly on the Hamina pCAM project, the Kotka CAM project and battery cell plant project and the anode material project in Vaasa. At the year end, after careful evaluation, we decided to withdraw from the planned LFP cathode material production project in Vaasa.

CNGR Finland Oy, a joint venture established with CNGR Advanced Material with a holding of 40 percent, is advancing the Hamina pCAM project. CNGR Finland submitted an environmental permit application for a pCAM plant with an initial phase target capacity of 60,000 tonnes of precursor material a year.

In the Kotka CAM project, we agreed to establish a joint venture with Beijing Easpring Material Technology as our partner, and a shareholders' agreement was signed. The next step in the project will be to start working on the environmental permit application. The initial phase target capacity planned for the plant was raised from 50,000 tonnes to 60,000 tonnes a year.

Preliminary agreements have been signed by our project company Finnish Battery Chemicals in 2021 with the cities of Hamina and Kotka on industrial sites where pCAM and CAM plants may be established. Both plots offer good opportunities for expanding the plants in the future. Groundwork was completed on the CAM plant site and the actual construction project can begin.

The environmental impact assessment programme concerning the anode material plant to be established in Vaasa was submitted together with our project partner Epsilon Advanced Material in spring 2023. The production capacity used as baseline data in the assessment was 10,000 tonnes, i.e. 10 GWh of battery manufacturing capacity for approximately 200,000 electric cars. The second option is 50,000 tonnes, which corresponds to 50 GWh of battery manufacturing capacity for approximately one million electric cars. Our goal is to complete the EIA procedure by summer 2024.

At the end of the year, we submitted the EIA programme for the battery cell plant planned in Kotka to the coordinating authority. The planned annual production capacity of 60 GWh would be sufficient for more than one million all-electric cars. We signed a Letter of Intent with the City of Kotka to reserve a 140-hectare plot for the project. The economic impact assessment showed that the plant would generate nearly half a billion euros in new tax revenue annually.

The joint venture, Adven-FMG Sodium Sulphate Solutions Oy, completed a preliminary evaluation of the solutions and economic feasibility of a project aimed at a solution for processing sodium sulphate into industrial commodities.

Research and development activities

Our research and development (R&D) activities support the company's goals of creating a responsible mineral and battery value chain in Finland. The vision we work towards is climate neutrality. We carry out long-term R&D work, through which we pursue our strategic goals, sustainable solutions and new business opportunities. The work is divided into business-related operational development activities and company-level strategic R&D work. This way we can focus our resources and guarantee the continuity of R&D work in the business areas and, on the other hand, the long-term competitiveness of Finnish Minerals Group and Finnish minerals.

Our work to develop the tracking and tracing of mineral raw materials and the indicators for responsibly produced raw materials continued by participating in Global Battery Alliance (GBA) working groups and their development of Battery Passport indicators. Developing policies and indicators that can be applied throughout the supply chain is important as it will enable battery and car manufacturers to ensure responsible production of minerals, which give a competitive advantage to both the material producer and the end-product manufacturer. The GBA aims to establish a low-carbon battery value chain, safeguard human rights and foster responsible economic development. Cooperation with Circulor on traceability ended.

In the business areas, we continued to develop investment projects and to actively support our portfolio companies and the related R&D activities. The topics covered included measures to reduce sodium sulphate emissions from the battery value chain, research to reduce dust emissions from the CAM process and building a runoff management concept, building an R&D portfolio for Sokli to support the project's concept development, develop a nickel refinery concept, and define the factors affecting the responsibility of mining projects.

In strategic research, development and innovation activities, the priorities were rare earth elements (REE), alternative renewable raw materials, and next-generation battery technologies and the raw materials needed for them. The driving forces of long-term strategic R&D work are sustainability and responsibility aspects. The objective of strategic R&D projects is to reduce Europe's and Finland's dependency on critical raw materials and to diversify Finnish Minerals Group's business. During the year, we also mapped out national research cooperation and continued our work in various Finnish research consortia, such as BatCircle2.0, BATTRACE and SecRes.

Operations of Terrafame Oy

Production and deliveries

Terrafame's strategic goal is to enhance low-carbon mobility with sustainable battery chemicals.

The ramp-up of the battery chemicals plant progressed well in a challenging market situation. As a result of the decrease in the price of nickel sulphate, the downtime was spent removing bottlenecks in production and paying attention to improving product quality.

Terrafame's net sales and operating profit decreased in 2023 due to lower market prices and limited production volumes at the battery chemicals plant. Net sales decreased by 4 percent to EUR 560.9 (2022: 584.4) million. Primary production volumes were at the record-high level of the previous year.

Battery chemicals business net sales increased to EUR 167.5 (2022: EUR 207.1) million, which was 29.8 percent (35.4) of the company's net sales. Metal intermediates business net sales were EUR 393.4 (2022: 377.3) million.

Terrafame continued deliveries of battery chemicals during 2023. The company agreed with car manufacturer Stellantis N.V. on the supply of low-carbon nickel sulphate for EV batteries, and with circular economy material specialist Umicore on low-carbon nickel deliveries to their cathode materials plant. Terrafame and Fortum agree on the delivery of metals recycled from the 'black mass' of spent electric car batteries by Fortum for use in Terrafame's battery chemicals production. The company also continued to sell nickel-cobalt sulphide and zinc sulphide.

In December, the company decided to start the recovery of uranium by summer 2024 at the latest.

Occupational safety

In Terrafame's operations, the most significant occupational safety risks are associated with maintenance operations, construction works, large machinery and the use of chemicals. However, most injuries are sustained during normal installation work or as a result of slipping and falling in the yard, for example.

The project to develop the company's operating culture launched in late 2020 and completed at the end of 2022 has had a positive impact on occupational safety. During 2023, special attention was paid to developing the partners' safety culture, which led to a clear reduction in the number of lost time injuries among the employees of partner companies. The lost-time injury frequency rate (LTIFR) of partner companies almost reduced to the same level as Terrafame's own rate.

An updated safety bonus, which also considers the lost-time injuries of partner companies' employees, was introduced in early 2022. The change encourages all Terrafame employees to intervene in potentially unsafe acts in their own area also when they involve partner companies' employees. The occupational safety performance of partners is closely monitored, and incentive and sanction systems have also been built for them.

The 12-month accident frequency rate (LTIFR), or the number of accidents resulting in absence per one million person-hours, was 4.5 (2022: 4.3) for Terrafame's employees and 4.8 for all those working in the industrial site (2022: 6.4).

Market environment

As a whole, the market conditions were very challenging in 2023. A total of around 13.6 (10.1) million electric passenger cars and light commercial vehicles were sold worldwide in 2023. All vehicle categories included, the sales weighted average size of electric car batteries in December 2023 was 51.8 kWh (2022: 51.9 kWh).

The EV battery market is clearly becoming divided between high-nickel-content NCM batteries and LFP batteries.

The market share of NCM 811 batteries with high nickel content increased from 20 percent in December 2022 to 22 percent in December 2023. The market share of LFP batteries was 42% in December 2023 (39% in December 2022). 7.2 (5.6) million electric vehicles utilising NCM battery technology were sold in 2023. The sales increased by 29% year-on-year.

The price of nickel on the London Metal Exchange (LME) was clearly lower throughout 2023 than in 2022. The average market price of nickel in 2023 was USD 21,477 per tonne (2022: 25,585), which is 16 percent lower than in 2022.

At the end of 2023, the total combined nickel stocks of LME and Shanghai Futures Exchange (SHFE) stood at 77,923 tonnes (2022: 57,878), which corresponds to demand of about 1,3 week (2022: 1,0).

The average EUR/USD exchange rate was 1.08 in 2023, compared to 1.05 in 2022.

Cash flow and financial position

In 2023, cash flow from operating activities totalled EUR 35.8 (2022: 51.8) million, of which change in net working capital comprised EUR -39.5 (2022: -82.0) million. Cash flow from investment activities was EUR -134.9 (2022: -75.5) million.

At the end of 2023, the company's cash and cash equivalents totalled EUR 15.2 (2022: 45.5) million.

Terrafame's balance sheet total on 31 December 2023 was EUR 1,242.6 (1,128.1) million. Year-end inventories totalled EUR 313.3 (288.9) million. Trade receivables totalled approximately EUR 48.8 (66.7) million at the end of the financial period. Other receivables totalled approximately EUR 13.4 (0.9) million. Prepaid expenses and accrued income totalled approximately EUR 77.4 (14.4) million.

Shareholders' equity on 31 December 2023 was EUR 718.4 (2022: 439.1) million. The total amount of debt was EUR 277.1 (2022: 457.0) million. In addition to this, the balance sheet includes a rehabilitation provision for mine closure and environmental clean-up costs amounting to EUR 247.1 (2022: 232.0) million.

Terrafame's equity ratio at the end of the financial period was 57.8 percent (2022: 38.9 percent), and net gearing was 17.6 percent (2022: 44.7 percent). Cash flow hedging against the weakening of the US dollar and decline in metal prices continued during the financial period 2023 in line with the company's hedging policy.

Financing arrangements

Year 2023 saw Terrafame restructure its financing. In June, the company agreed with Finnish Minerals Group on a new working capital limit of EUR 40 million. The company repaid loans from shareholders and made arrangements to postpone the loan repayments of June and October 2023 to spring 2024.

On 30 June 2023, Trafigura Galena Funds and Sampo plc exercised their stock options by subscribing shares in Terrafame totalling EUR 33 million. Sampo sold its holding to Mandatum Holding Oy on 29 September 2023.

Terrafame significantly strengthened its financial position towards the end of 2023. The financing arrangement consists of the repayment of EUR 142 million of shareholder loans to Trafigura and Mandatum through the exercise of stock options. In addition, Terrafame agreed on a new, unsecured loan facility of EUR 250 million with a Nordic banking group. Finnish Minerals Group raised the working capital limit granted to Terrafame in June from EUR 40 million to EUR 65 million.

Environment

In 2023, the metal and sulphate concentrations and sulphate load of discharge water complied with the environmental permit conditions. The discharge of sulphate into water bodies is a key environmental impact of Terrafame's production activities, which is why the company has developed its operations in such a way that sulphate is recycled more effectively back into the process. 11,056 tonnes was used of the environmental permit's sulphate quota of 16,300 tonnes (2022: 12,763 tonnes used). In 2023, 99 percent of process solution sulphate was recycled back into the circulating leaching solution, so the recycling target of 100 percent was not quite reached.

The most significant environmental risks in Terrafame's operations are related to leach cycle management and water management in bioleaching. Environmental safety related to process water management in bioleaching has a very high priority in the company's day-to-day operations.

The company has set a target to reach carbon neutrality in its own operations by 2039.

Permit matters

In February 2023, the Northern Finland Regional State Administrative Agency (RSAA) issued a decision not to process the permit application for the Kolmisoppi project. The key obstacle for processing the application in the scope that it was submitted in June 2022 is that the procedure needed to deviate from the water management plan targets in the project requires a law amendment that is currently in its drafting phase.

Kolmisoppi is an untapped ore deposit located in Terrafame's mining concession. With Kolmisoppi included, the largest nickel ore reserves in Europe are located in Terrafame's mining concession in Sotkamo. In addition to nickel also zinc, cobalt and copper are recovered from the ore.

Terrafame has decided to change the plans for the Kolmisoppi project so that it will proceed in two phases. Phase 1 is submitting an application for a permit for exploiting the ore deposit in Kolmisoppi land area with the mining scheduled for 2028–2033. The phase 1 permit application was submitted to the RSAA in summer 2023. Phase 2 is submitting an application for a permit for expanding the mine into the water area with the mining scheduled for 2040–2050. In 2033–2040, the mining will take place in the existing Kuusilampi mine.

In April 2023, the Vaasa Administrative Court issued its decision on the environmental permit decisions of Terrafame's battery chemicals plant and its energy production units. The Administrative Court amended the battery chemicals plant's permit by removing the permission to recycle the iron sludge generated at the plant for bioleaching due to a lack of sufficient documentation. Otherwise, appeals against the decision were dismissed. Terrafame applied for a new permit for the recycling from the RSAA in July 2023 after the necessary studies were completed. The Administrative Court also further specified the environmental permit for the energy production units with regard to environmental monitoring following Terrafame's appeal. No appeals have been lodged against the Administrative Court decision to the Supreme Administrative Court, so the decisions are final.

In June 2023, the RSAA granted an environmental permit for the new KL1 waste rock area and the Rajasuo landfill, and a water management permit for construction projects related to these activities.

Personnel

During 2023, approximately 1,900 people worked regularly in Terrafame's industrial site. At the end of the year, the company employed 842 (2022: 763) people. The company also hired approximately 100 people for summer jobs.

A total of 1,038 (783) employees (full-time equivalent, FTE) on average worked in the industrial site during the review period through partner companies and subcontractors.

Terrafame is preparing to start uranium recovery by the summer of 2024. In 2023, the company recruited around 40 people for various employee, management and expert positions at the plant.

Financial review and key figures

Finnish Minerals Group companies (consolidated)

The Group companies' net sales in the financial year 2023 totalled EUR 561.1 (2021: 584.4) million, EBITDA totalled 94.6 (2022: 147.2) million, and operating profit was EUR 31.5 (2022: 87.3) million. The profit/loss before tax was EUR -5.8 (2022: 55.7) million. The profit for the financial year was EUR -10.6 (2022: 79.0) million. The consolidated total assets of Finnish Minerals Group companies amounted to EUR 1,408.6 (2022: 1,225.6) million.

The Group companies' return on equity was -1.5 (2022: 15.1) percent and equity ratio 63.6 (2022: 45.7) percent. The shareholders' equity totalled EUR 895.9 (2022: 560.1) million, of which the share of non-controlling interests was EUR 355.2 (2022: 173.6) million. Liabilities totalled EUR 292.9 (2022: 460.3) million and provisions EUR 219.7 (2022: 205.3) million. The debt amounted to EUR 153.7 (2022: 241.9) million, of which EUR 112.3 (2022: 139.7) million were current and EUR 41.4 (2022: 102.2) million were non-current liabilities.

Terrafame Oy (subsidiary)

The net sales of our subsidiary Terrafame for the financial year 2023 were EUR 560.9 (2022: 584.4) million, EBITDA excluding non-recurring items EUR 99.4 (2022: 152.1) million, and operating result excluding non-recurring items EUR 38.4 (2021: 93.9) million. The total assets of Terrafame amounted to EUR 1,242.6 (2022: 1,128.1) million.

Shareholders' equity at the end of 2022 was EUR 718.4 (2022: 439.1) million. The total amount of debt was EUR 277.1 (2022: 457.0) million. In addition to this, the balance sheet includes a rehabilitation provision for mine closure and environmental clean-up costs, which is EUR 247.1 (2022: 232.0) million. Equity ratio at the end of the financial period was 57.8 (2022: 38.9) percent, and net gearing was 17.6 (2022: 44.7) percent.

Terrafame's capital expenditure totalled EUR 138.2 (2022: 83.0) million in 2023. Of this total, EUR 25.7 (2022: 13.1) million was used to improve productivity and increase capacity, and EUR 112.4 (2022: 69.9) million was used to sustain operations.

The most important investments in productivity improvement and capacity growth were related to the elimination of production bottlenecks and preparatory work to enable the exploitation of the Kolmisoppi deposit.

Investments in sustaining production mainly consisted of preparatory work related to the exploitation of the next sections of the Kuusilampi mine. Other significant investments included the start-up of the construction of a new section of the waste rock area, changes to the conveyors in the secondary leaching area and preparatory work for the new secondary sections (5–6).

KEY FIGURES

Consolidated	2023	2022
Net sales	EUR 561.1 million	EUR 584.4 million
EBITDA	EUR 94.6 million	EUR 147.2 million
Operating profit/loss	EUR 31.5 million	EUR 87.3 million
Operating profit, %	5.6%	14.9%
Equity ratio	63.6%	45.7%
Total assets	EUR 1,408.6 million	EUR 1,225.6 million
Wages and salaries	EUR 49.1 million	EUR 47,6 million
Average number of personnel	864 persons	876 persons

Parent company	2023	2022
Net sales	EUR 1.9 million	EUR 1.7 million
EBITDA	EUR -5.7 million	EUR -4.4 million
Operating profit/loss	EUR -5.8 million	EUR -4.5 million
Operating profit, %	-303.5%	-269.9%
Equity ratio	89.7%	99.7%
Total assets	EUR 707.5 million	EUR 580.3 million
Wages and salaries	EUR 3.3 million	EUR 3.1 million
Average number of personnel	34 persons	32 persons

Key figure calculation formulas

Equity ratio, %

$$\frac{100 \times \text{Equity}}{\text{Total assets – advances received}}$$

EBITDA

Operating profit + depreciation + amortisation + impairment

EBITDA, or earnings before interest, taxes, depreciation, and amortisation, is an Alternative Performance Measure (APM) defined by the European Securities and Markets Authority (ESMA), which Finnish Minerals Group uses in its reporting as a measure of the company's overall financial performance. EBITDA provides useful additional information in the company's financial statements, and the company management monitors this key performance measure internally.

Non-financial information

We develop our social responsibility on the basis of, for example, the ISO 26000 standard and the Government Resolution on State Ownership Policy, and our work is linked to the UN Sustainable Development Goals. Our aim is to identify our responsibility in various situations and the stakeholders affected by our operations.

Through the targets set in our remuneration programme, responsibility is linked to our activities as a whole, as well as to the work of each employee and executive staff member. The performance targets used as basis for remuneration are linked to the objectives set in the company's corporate responsibility programme.

The objectives for developing responsibility set in our corporate responsibility programme for 2020–2024 are related to social impact, a sustainable value chain and responsibility for the environment and climate. The progress made in achieving these objectives in 2023 is discussed in the beginning of the Annual Report.

Environmental responsibility

Reducing greenhouse gas emissions is a key goal for the European automotive industry, reflected in the battery value chain industry as a whole. Low emissions are also a key competitive factor in the production of battery minerals, chemicals and materials. Our projects aim to minimise the carbon footprint of the products manufactured within the battery value chain. This means that production generates the lowest possible emissions and that attention is paid to emission levels when sourcing raw materials.

Studies and surveys on the Sokli mining project continued in 2023. The design solutions selected are aimed at reducing the mine's nature footprint, impact on water bodies and greenhouse gas emissions. For example, we evaluated the possibility of using an underground pipe to transport materials for further processing, which would reduce the carbon footprint of logistics by more than 90 per cent.

Our subsidiary Terrafame kept enhancing environmental responsibility in accordance with its responsibility programme. The company's goal is to achieve carbon-neutral production by 2039. The company has decided to participate in the chemical industry's global Responsible Care programme. The results of responsibility work are monitored through annual comparison of indicators related to resource efficiency, emissions and occupational safety. In 2023, Terrafame continued the restoration of nearby lakes that it started in 2022.

Our portfolio company Keliber aims to start lithium hydroxide production in 2025. Keliber's permit for Rapasaari mine entered into force in December. The 12-month lost-time injury frequency rate (LTIFR), or the number of accidents resulting in absence per one million person-hours, among Keliber's employees and contractors was 7.89.

The environmental permit application for our associated company CNGR Finland's pCAM plant in Hamina was submitted to the competent authority in March. A new public notice was given in late 2023 after the company had updated its plans with the intention of directing discharge waters to two different locations.

The EIA programme for the planned battery cell plant in Kotka was submitted to the coordinating authority in December 2023. The EIA programme for the Vaasa anode material plant was submitted for discussion in April 2023, followed by preparing the EIA report for the project.

We also continued to develop our circular economy project, Adven-FMG Sodium Sulphate Solutions Oy. The company aims to recycle the sodium sulphate in industrial discharge water into commodity chemicals for the industry. In 2023, we moved on to designing an industrial-scale piloting and demonstration plant.

Social responsibility and human resources

The companies of Finnish Minerals Group agree to respect the UN Guiding Principles on Business and Human Rights, as well as the ILO Declaration of Fundamental Principles and Rights at Work. According to the Group's human rights policy, the company CEOs are responsible for human rights affairs in general, while the chief human resources officers and chief responsibility officers are responsible for interpreting and monitoring the application of the policy.

Drafting the human rights policy in 2021 also included doing interviews and a survey to identify the Group's most significant human rights risks. We found out that they concern occupational safety and health, equality and non-discrimination, right to a healthy environment and adequate standard of living. These topics are monitored with the help of our human rights indicators.

As a company, we participated in the activities of various communities throughout the year through our industrial projects and several cooperation groups. Since 2021, we have been involved in the work of the national battery cooperation body established by the Ministry of Economic Affairs and Employment, where the focus areas in 2023 were the permitting of battery value chain projects, new battery chemistry and technology, the electrification of heavy-duty road transport, and the role of batteries in the energy system. The cooperation body was terminated at the end of 2023. In addition, we participated in the activities of the various working groups of the Finnish Mining Association and in establishing the Battery Industry Association, which is chaired by the CEO of Finnish Minerals Group Matti Hietanen. At the end of the year, work on Finland's Minerals Strategy was launched with the aim of securing the availability of critical raw materials in particular and developing the operating conditions of the minerals sector in Finland. The goal is to be finished by the end of 2024. Jani Kiuru, Executive Vice President of the Raw Materials business area at Finnish Minerals Group, is in the steering group for the strategy work.

Through our R&D activities, we participated in many projects that brought together companies as well as research organisations and universities from Finland, the EU and around the world. We continued our work in the Global Battery Alliance (GBA), in which new Battery Passport proof-of-concept pilots were developed and work began on drafting global guiding principles for the measurement of biodiversity, indigenous rights, ecological product design and forced labour throughout the value chain. The GBA Critical Minerals Advisory Group also started drafting a roadmap for actions aimed at make mining activities more sustainable. At the European level, we participated in the activities of the European Raw Materials Alliance (ERMA) and Euromines. The Sokli mining project was accepted as part of ERMA's project portfolio. At the national level, we saw the completion of the BATTRACE project which, for several years, developed the traceability of mineral raw materials in the battery value chain and responsible production technologies.

During the year, our experts gave presentations and participated in many panel discussions in a number of seminars both in Finland and abroad. The topics included the company's battery value chain development projects and raw materials; especially rare earth elements and REE value chain development in Western countries.

Our own organisation continued to operate on the basis of two business areas: Raw Materials and Battery Value Chain. Various project resources were diverted in late 2023 based on existing competencies. Colleagues and team members also evaluated the work of supervisors with a 360 review that provides useful information on their personal strengths and development needs. We also repeated the biennial gender equality survey, which serves as the basis for the company's equality planning.

At the end of the financial period, Finnish Minerals Group and its wholly owned subsidiaries employed 42 people (2022: 37), three of whom were trainees. We recruited people for tasks including financial analysis of investments, legal affairs management, process development, etc. Examined by team, the number of personnel increased most in the Sokli mining project, which also received support from the parent company's employees. We also hired summer workers.

The personnel took a total of 148 days of sick leave during the year. There were no accidents resulting in absence from work. The occupational safety and health committee work launched in 2022 continued in our company and, in late 2023, the personnel elected a new committee for a two-year term.

A feedback channel was added to the website of Finnish Minerals Group in 2019 to provide the company's employees as well as individuals and communities outside the company a way of raising any special concerns that they may have about what the company does. The company's process for dealing with feedback is also described on the website. One whistleblowing concern was reported to us in 2023, and we responded to the whistleblower. The concern was about the reasons for not hiring.

We have obliged our staff and executives to raise any concerns they may have about misconduct or suspicious activities. We also require our suppliers of goods and services and our investment partners to commit to an anti-corruption policy.

Corporate governance

The main rules and regulations governing a state-owned special-purpose company are laid down in the Limited Liability Companies Act of Finland (624/2006) and the State Shareholdings and Ownership Steering Act (1368/2007). The management of Finnish Minerals Group is also guided by the Articles of Association, the Government Resolution on State Ownership Policy, the corporate governance code issued to the company, and the policies and guidelines adopted by the company's Board of Directors. In addition to the parent company, this guidance also applies to wholly-owned subsidiaries.

The General Meeting of Shareholders, the Board of Directors and the CEO are responsible for Finnish Minerals Group's administration and operations. The highest decision-making body of the company is the General Meeting of Shareholders. The company's Board of Directors is responsible for managing the company and for the appropriate organisation of its operations. The Board of Directors has appointed its members to form three committees: the Audit Committee, the Responsibility Committee and the Personnel and Remuneration Committee.

Until the 2023 General Meeting of Shareholders and thereafter, the Chair of the Board of Directors of Finnish Minerals Group was Antti Kummu, and the other Board members were Pauli Anttila, Olavi Huhtala (Vice Chair), Teija Kankaanpää, Ilpo Korhonen, Jukka Ohtola and Eeva Ruokonen. All Board members are independent of the company. Two out of seven Board members are not independent of the company's sole shareholder, the State of Finland. The company's Board of Directors complies with the rules of procedure it has approved.

Until the Annual General Meeting of 2023, the members of the Audit Committee were Pauli Anttila, Ilpo Korhonen and Jukka Ohtola. After the meeting, the composition of the Committee remained unchanged. The committee's Chair for the whole year was Pauli Anttila.

The members of the Personnel and Remuneration Committee until the Annual General Meeting were Antti Kummu, Olavi Huhtala and Ilpo Korhonen. After the meeting, the composition of the Committee remained unchanged. The committee's Chair for the whole year was Antti Kummu.

Until the Annual General Meeting 2023, the members of the Responsibility Committee were Eeva Ruokonen, Pauli Anttila and Teija Kankaanpää. After the meeting, the composition of the Committee remained unchanged. The committee's Chair for the whole year was Eeva Ruokonen.

The Authorised Public Accountants KPMG Oy Ab acted as the auditor of Finnish Minerals Group and its subsidiaries in 2023, with Authorised Public Accountant Antti Kääriäinen acting as the principal auditor.

Shares and shareholders

The State of Finland owns Finnish Minerals Group's entire share capital that on 31 December 2022 consisted of 588,408 shares. Each share entitles its holder to one vote.

Related party governance

The Board of Directors of Finnish Minerals Group has confirmed the policy on related party transactions for the Group companies. The Group's key related parties are the State of Finland, which is the sole shareholder of the Group's parent company, as well as the associated companies Keliber Oy, CNGR Finland Oy and Adven-FMG Sodium Sulphate Holding Oy. The key related parties of Terrafame Oy are Finnish Minerals Group, the State of Finland, Galena Private Equity Resources Investment 2 L.P., Galena Private Equity Resources Investment 3 L.P., Galena Private Equity Resources Investment 4 L.P. and

Trafigura. In addition, the related parties include members of Boards, CEOs, and management team members of Group companies, persons responsible for Terrafame's commercial agreements, immediate family members of persons referred to here, and entities in which they or their immediate family members exercise control or considerable influence. Finnish Minerals Group's related parties also include companies in which the State of Finland exercises control or considerable influence. The company has applied an exemption pursuant to which it only reports significant business transactions with state-affiliated companies.

Terrafame has spent approximately EUR 0.6 million on legal and other administrative services and approximately EUR 0.2 million on management services for product development projects purchased from Finnish Minerals Group.

The Group companies' related party transactions are described in the notes.

All business transactions between the Group companies and their related parties conformed to accepted market practices.

Remuneration of the Board of Directors and other executives

Finnish Minerals Group has published a description of the company's remuneration policy on its website at mineralsgroup.fi. In our company, remuneration is a management tool that supports the implementation of the company's strategy and the achievement of business targets. We follow the instructions of the state-owner in our remuneration practices.

The monthly fees paid in January-March 2023 were EUR 2,500 to the Chair of the Board of Directors of Finnish Minerals Group, EUR 1,600 to the Vice Chair and each Chair of the Committee, and EUR 1,300 to other Board members. As of the beginning of April 2023, the monthly fees were EUR 3,000 to the Chair, EUR 2,000 to the Vice Chair and each Chair of the Committee, and EUR 1,500 to the other Board members. In addition to the monthly fees, a meeting fee of EUR 600 was paid for each Board and committee meeting attended. In 2023, the Board of Directors of Finnish Minerals Group met a total of 12 times (2022: 12). Decisions were also made without holding a meeting. In addition, the Personnel and Remuneration Committee met three times (2022: 3), the Responsibility Committee five times (2022: 4) and the Audit Committee eight times (2022: 7).

The total amount of monthly fees paid to Board members was EUR 155,100 (2022: EUR 118,350) and the total amount of meeting fees EUR 77,700 (2022: EUR 65,000). No performance-based compensation or fees were paid to Board members.

Board members do not own shares in the company and the company has no option scheme.

Apart from the parent company Finnish Minerals Group and subsidiary Terrafame, no compensation or fees were paid to the members of the boards of directors of the other Group companies. The subsidiary Terrafame and portfolio company Keliber make their own reports on the remuneration paid to the members of their boards of directors and executives.

The remuneration of the Chief Executive Officer of Finnish Minerals Group consisted of a fixed salary, phone and meal allowances, and a performance bonus of up to 30 percent of the CEO's annual salary.

Remuneration of the Board of Directors

(EUR)	Monthly remunerations	Attendance fees	Total remuneration	Board meetings*	Committee meetings**
Antti Kummu	34,500	9,500	44,000	12/12	3/3
Pauli Anttila	22,800	14,400	37,200	12/12	13/13
Olavi Huhtala	22,800	9,000	31,800	12/12	3/3
Teija Kankaanpää	17,400	9,600	27,000	11/12	5/5
Ilpo Korhonen	17,400	13,700	31,100	12/12	11/11
Janne Känkänen	0	500	500		
Jukka Ohtola	17,400	11,400	28,800	12/12	8/8
Eeva Ruokonen	22,800	9,600	32,400	11/12	5/5
Total remuneration 2023*	**155,100**	**77,700**	**232,800**		

*) Meeting fee for December 2023 was paid in January 2024. Meeting fee for December 2022 was paid in January 2023.
**) Meeting fee for the November 2023 meeting of the Audit Committee was paid in January 2024.
Meeting fee for the January 2022 meeting of the Personnel and Remuneration Committee was paid in February 2023.

The CEO is not covered by a contribution-based or other additional pension insurance. CEO Matti Hietanen does not own shares in the company, and the company has no option scheme.

The total amount of remuneration, excluding the performance bonus, paid to the CEO Matti Hietanen in 2023 was EUR 216,240 (2022: EUR 216,226). The CEO received a performance bonus of EUR 32,434 (2022: EUR 31,001). The total amount of remuneration paid to the other members of the Executive Leadership Team was EUR 839,612 (2022: EUR 695,368). Of this amount, the performance bonuses paid for 2023 accounted for EUR 109,685.

The amounts of performance bonus to be paid for 2023 in 2024 are EUR 28,634 to the CEO and EUR 98,121 to the other members of the Executive Leadership Team.

Estimate of major risks and uncertainty factors affecting operations

The Board of Directors and Chief Executive Officer of the Group companies are responsible for organising internal control, risk management and internal auditing within the companies. In 2023, internal auditing continued to be organised in cooperation with PricewaterhouseCoopers Oy.

In 2023, Finnish Minerals Group updated its risk management policy. The update also included evaluating the major risks associated with the company's activities. The aim is to identify risks, assess their probability and impact on the company's activities and, where necessary, decide which measures to take to manage the risks. Risks are reviewed several times during the year, and more detailed risk assessments are carried out in projects. The audit committee and the company's Board of Directors regularly monitor and assess operational risks and risk management measures.

From the perspective of shareholder value, the key risks of Finnish Minerals Group relate to the business activities of its subsidiary, Terrafame, and to the company's ability to implement projects in the battery industry. Terrafame's business is affected by various risks typical to the mining industry, such as fluctuations in exchange rates and the price of nickel and zinc, the counterparty risk associated with customers and other business partners, as well as risks related to the prices of major raw materials and energy. Terrafame's risk management and operational risks are discussed in Terrafame's own reports. The battery industry's project implementation risks are centrally related to economic feasibility assessment, permitting processes and market changes.

Significant events after the end of the financial period

The financial period of Finnish Minerals Group ended on 31 December 2023. After this date, the State of Finland, as the sole owner of the company, decided on an equity investment of EUR 30 million in the company. The first instalment of this capital allocation, amounting to EUR 15 million, was paid to the company in February 2024. At the end of the review period, the company had drawn down a total of EUR 70 million from the Nordea credit facility. In January and February, the company repaid the loans drawn from the credit facility in full.

The pCAM plant that our associated company CNGR Finland Oy plans to establish in Hamina was granted an environmental permit by the RSAA.

Our subisidiary Terrafame Oy issued in February 2024 an invitation to change negotiations on production-related and financial grounds in accordance with the Finnish Co-operation Act. According to the initial estimate of the company, the maximum personnel reduction need would be in total 75 person-years.

There are unresolved product quality claims regarding Terrafame's business and consolidated financial statements of 2023 affecting profit by an estimated EUR three million at most.

Estimate of future developments

Finnish Minerals Group continues as the Group's parent company, whose core activities are to build a responsible battery value chain in Finland, invest in the mining and battery industry, and carry out technological development work. We are handling investment preparations for the cathode material projects in Hamina and Kotka, and continuing our work to bring the anode material project to Vaasa. Our goal for the Sokli mining project is to move to the next assessment phase. We are expecting a decision on the expansion of the Sokli mining concession during 2024.

Increased uncertainty in Europe's geopolitical situation is not expected to affect Terrafame's production and deliveries. Considerable uncertainties are related to base metal and battery chemical prices despite the positive trends early in the year.

Finnish Minerals Group will continue to streamline operations and enhance profitability.

Board of Directors' proposal for the disposal of the result

The result of Finnish Minerals Group for the financial year 2023 shows a profit of EUR 3,467,193.09. On 31 December 2023, the distributable equity of Finnish Minerals Group totalled EUR 632,226,363.13.

The Board of Directors will propose to the General Meeting of Shareholders that Finnish Minerals Group's loss for the financial period be recorded in the retained earnings account and that no dividend be paid.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(EUR 1,000)	Note	2023	2022
Net sales	1.1	561,067	584,414
Cost of goods sold	1.3	-477,935	-453,603
Gross profit		83,131	130,810
Other operating income	1.4	6,397	5,719
Sales and marketing expenses	1.5	-5,630	-2,406
Administrative expenses	1.6	-33,627	-25,939
Other operating expenses	1.7	-18,805	-20,883
Operating profit/loss		31,466	87,301
Finance income and cost	1.8		
Other finance income		6,412	3,938
Interest and other finance expenses		-42,496	-42,358
Reversals of impairment losses		4	8,155
Share of profit from associated company and joint venture	1.15	-1,196	-1,295
Total finance income and cost		-37,276	-31,561
Profit/loss before tax		-5,810	55,740
Income taxes	1.9	-4,759	23,321
Profit/loss for the period		**-10,569**	**79,061**
Other comprehensive income			
Items that may be reclassified to profit or loss in subsequent periods			
Cash flow hedging – effective portion of changes in fair value reserve	1.20	145,410	-13,576
Taxes on items that may be reclassified to profit or loss in subsequent periods		-29,082	2,715
Other comprehensive income, net		116,328	-10,861
Total comprehensive income for the period		**105,759**	**68,200**
Profit/loss for the period attibutable to			
Owners of the parent company		-8,656	53,620
Non-controlling interests		-1,913	25,441
		-10,569	**79,061**
Total comprehensive income attributable to			
Owners of the parent company		56,604	46,344
Non-controlling interests		49,155	21,587
		105,759	**68,200**
Earnings per share attributable to the owners of the parent (EUR)			
Basic earnings per share	1.10	-14.71	91.13
Diluted earnings per share		-14.71	91.13
Average number of shares:			
Undiluted		588,408	588,408
Diluted		588,408	588,408

The parent company does not have equity arrangements with a dilution effect on earnings per share.

CONSOLIDATED BALANCE SHEET

	Note	31 Dec 2023	31 Dec 2022
ASSETS			
Non-current assets			
Intangible assets	1.12	14,176	9,150
Property, plant and equipment	1.13	811,829	728,890
Biological assets	1.14	8,873	7,712
Investments in associates	1.15	75,258	22,367
Deferred tax assets	1.21	18,771	37,657
Total non-current assets		**928,908**	**805,776**
Current assets			
Inventories	1.16	313,250	288,908
Trade and other receivables	1.17	140,809	82,567
Cash and cash equivalents	1.18	25,599	48,330
Total current assets		**479,658**	**419,805**
Total assets		**1,408,565**	**1,225,581**
EQUITY AND LIABILITIES			
Equity attributable to equity owners of the parent	1.19		
Subscribed capital		2,258	2,258
Invested unrestricted equity fund		675,659	608,291
Fair value reserve	1.20	33,392	-38,060
Earnings from previous periods		-161,916	-239,606
Profit/loss for the period		-8,656	53,620
		540,736	386,503
Share of non-controlling interests		355,156	173,570
Total equity		**895,892**	**560,073**
Non-current liabilities			
Deferred tax liabilities	1.21	16,279	1,324
Interest-bearing liabilities	1.25	41,362	102,163
Provisions	1.24	219,729	205,251
Total non-current liabilities		**277,370**	**308,737**
Current liabilities			
Interest-bearing liabilities	1.25	112,324	139,700
Trade and other payables	1.26	122,979	217,071
Total current liabilities		**235,303**	**356,771**
TOTAL EQUITY AND LIABILITIES		**1,408,565**	**1,225,581**

CONSOLIDATED CASH FLOW STATEMENT

	Note	2023	2022
Cash flow from operating activities			
Profit/loss before tax		-5,810	55,740
Adjustments to operating profit/loss	1.27	35,773	31,824
Depreciation and amortisation		63,148	59,861
Change in working capital		-39,344	-81,739
Interest paid		-25,874	-20,404
Interest received		3,194	2,415
Net cash flow from operating activities		**31,087**	**47,696**
Cash flow from investing activities			
Investments in tangible and intangible assets		-140,569	-80,533
Proceeds from sale of tangible and intangible assets		0	0
Investments in associates		-54,087	-2,600
Investments in subsidiaries		-1	0
Net cash used in investing activities		**-194,657**	**-83,133**
Cash flow from financing activities	1.27		
Subscription issue		88,000	0
Proceeds from loans		97,767	75,769
Repayment of loans		-42,699	-67,077
Repayment of lease liabilities		-1,174	-4,353
Cash flow from financing activities		**141,894**	**4,339**
Change in cash and cash equivalents		**-21,676**	**-31,098**
Foreign exchange rate effect on cash and cash equivalents		-1,056	1,076
Cash and cash equivalents at beginning of year		48,330	78,353
Cash and cash equivalents at end of year		**25,599**	**48,330**

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	Note	Subscribed capital	Invested unrest-ricted equity fund	Fair value reserve	Retained earnings	Attributable to parent	Attributable to non-controlling interests	Total equity
Equity 1 Jan 2022		2,258	607,138	-30,850	-240,039	338,506	151,226	489,732
Comprehensive income								
Profit/loss for the period		0	0	0	53,620	53,620	25,441	79,061
Other comprehensive income (adjusted basis)								
Cash flow hedging		0	0	-7,277	0	-7,277	-3,584	-10,861
Total comprehensive income for the period		0	0	-7,277	53,620	46,344	21,857	68,200
Business transactions with shareholders								
Share issue		0	0	0	0	0	3,129	3,129
Total business transactions with shareholders		0	0	0	0	0	3,129	3,129
Changes in subsidiary holdings								
Acquisitions of non-controlling interests, no change of control	1.19	0	1,153	67	433	1,653	-2,641	-988
Equity 31 Dec 2022		2,258	608,291	-38,060	-185,986	386,503	173,570	560,073

	Note	Subscribed capital	Invested unrest-ricted equity fund	Fair value reserve	Retained earnings	Attributable to parent	Attributable to non-controlling interests	Total equity
Equity 1 Jan 2023		2,258	608,291	-38,060	-185,986	386,503	173,570	560,073
Comprehensive income								
Profit/loss for the period		0	0	0	-8,656	-8,656	-1,913	-10,569
Other comprehensive income (adjusted basis)								
Cash flow hedging		0	0	65,260	0	65,260	51,068	116,328
Total comprehensive income for the period		0	0	65,260	-8,656	56,604	49,155	105,759
Business transactions with shareholders								
Share issue		0	60,000	0	0	60,000	172,201	232,201
Total business transactions with shareholders		0	60,000	0	0	60,000	172,201	232,201
Changes in subsidiary holdings								
Acquisitions of non-controlling interests, no change of control	1.19	0	7,368	6,192	24,070	37,629	-39,770	-2,141
Equity 31 Dec 2022		2,258	675,659	33,392	-170,572	540,736	355,156	895,892

ACCOUNTING POLICIES FOR CONSOLIDATED FINANCIAL STATEMENTS, AND NOTES

Basic information about the Group

Finnish Minerals Group is a Group formed by companies operating in the mining and minerals sector, set up to develop the Finnish mining sector and build a battery value chain in Finland. The Group operates internationally and is engaged in the exploration, recovery and mining of ores as well as other mining and quarrying operations, the purchase and sale of mining rights, and any other business based on or related to knowledge acquired in these areas or otherwise suitable for the said areas. In line with its strategy, the Group's parent company focuses on the battery value chain, technological development and active ownership. The Group comprises the parent company Finnish Minerals Group (Business ID 2674050-9), the subsidiary Terrafame Oy (2695013-5), in which the parent has a shareholding of 56.1 percent, and the subsidiaries Finnish Battery Chemicals Oy (2999094-1) and Sokli Holding Oy (3174771-3), in which the parent has a shareholding of 100 percent.

Finnish Minerals Group is a state-owned special-purpose company subject to ownership steering by the Prime Minister's Office, tasked with developing the Finnish battery and mining industry. The current mandate and trade name were given to the company in June 2018. Before that, starting from 2015, the company operated under the name Terrafame Group Oy and focused on its duties as the parent of Terrafame Oy.

Finnish Minerals Group's most important asset item is its subsidiary, Terrafame Oy. Sotkamo-based Terrafame produces nickel, cobalt and ammonium sulphates, as well as nickel, cobalt, zinc and copper sulphides.

In the financial period ending 31 December 2023, the portfolio companies of Finnish Minerals Group included the associated companies Keliber Oy (holding 20%), CNGR Finland Oy (holding 40.0%) and Adven-FMG Sodium Sulphate Holding Oy (holding 49.0%) and their subsidiaries.

The parent company is domiciled in Helsinki (visiting address: Kaskuskatu 5 B, 8th floor, 00100 Helsinki, Finland). The Group's subsidiary Terrafame Oy was registered in the Trade Register on 5 June 2015, and its address is Malmitie 66, FI-88120 Tuhkakylä, Finland.

Finnish Minerals Group's Board of Directors approved these financial statements in its meeting of 19 March 2024. According to the Limited Liability Companies Act of Finland, shareholders may approve or reject the financial statements in the General Meeting of Shareholders held after their publication. The General Meeting may also decide to amend the financial statements.

Copies of the consolidated financial statements are available at Finnish Minerals Group's office and on the company's website at www.mineralsgroup.fi.

Accounting policies for consolidated financial statements

Basis of preparation

Finnish Minerals Group's consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) adopted in the European Union as well as the IAS and IFRS standards and SIC and IFRIC interpretations effective on the date of closing of the accounts, 31 December 2023. The notes to the consolidated financial statements also comply with Finnish accounting and corporate legislation. The financial statement information is reported in tables and related texts in thousands of euros and in the report of the Board of Directors in millions of euros to one decimal place. The comparative figures reported in brackets are figures for the financial year 2022. All the presented figures have been rounded according to general rounding rules, so the sum of the individual figures may be different from the sum presented. Key figures have been calculated using exact values. Comparative information has been adjusted where necessary to correspond with the information of the year under review.

The consolidated financial statements are drawn up on the basis of initial acquisition costs, with the exception of financial assets recognised at fair value through profit or loss, derivatives measured at fair value and biological assets measured at fair value less estimated costs to sell. The assets, liabilities and contingencies acquired through business combinations have been measured at their fair values at the acquisition date.

The preparation of financial statements under IFRS means that Group management must necessarily make certain estimates and judgements concerning the application of the accounting policies. Information about such considerations made by the management with the greatest influence on the figures presented in the financial statements are explained under the item 'Accounting policies requiring consideration by management and crucial factors of uncertainty associated with estimates'.

Subsidiaries

Subsidiaries are entities controlled by the Group. Control exists when the Group owns more than half of the voting rights or otherwise has a controlling interest. The existence of potential voting rights is also considered when assessing the existence of control in the case that the instruments entitling to potential control are currently exercisable. Control exists when the Group, by virtue of being part of the entity, is subject or entitled to its variable returns and is able to influence those returns by exercising it power within the entity.

Associated companies

The equity method of accounting has been applied to associated companies. If the Group's share of the losses of an associated company or a joint venture exceeds the carrying amount of the investment, the investment is recognised at zero value in the balance sheet and losses exceeding the carrying amount are not aggregated, unless the Group has agreed to fulfil the associates' obligations. Unrealised gains and losses have been eliminated to the extent of the Group's interest in company/venture. Unrealised losses are not eliminated if the business transaction provides evidence of an impairment of the transferred asset. The Group reports the revenue earned by associated companies or joint ventures below its operating profit in financial income and expenses, in an amount proportional to its interest in the company/venture. Similarly, the Group's share of the changes recognised in the other comprehensive income of the associated company or joint venture is recognised in the Group's other comprehensive income. The Group's associated companies and joint ventures have not had any of the profit and loss items described above during the financial years 2023 or 2022.

Separate recognition of non-controlling interests

Non-controlling interests are separately recognised in proportion to their share of ownership on the balance sheet date in the company's financial result and equity, which first have been adjusted to reflect the accounting policies adopted by Finnish Minerals Group.

Translation of items denominated in foreign currencies

Figures in the consolidated financial statements are shown in euro, the euro being the functional and presentation currency of the parent company, Finnish Minerals Group.

Transactions in foreign currencies are entered in euro at the rates prevailing at the transaction date or average rates provided by central banks. Monetary foreign currency items are translated into euro using the rates prevailing at the balance sheet date. Foreign exchange gains and losses related to business operations are included in the corresponding items of net sales, operating expenses or financial income and expenses.

Operating profit

IAS 1 *Presentation of Financial Statements* does not define the concept of operating profit. The Group has defined it as follows: an operating profit is a net amount derived from net sales plus other operating income, less purchase expenses, purchase expenses are adjusted for changes in inventories (growth in these increases and reductions decrease the operating profit) and expenses from production for own use, less employee benefit expenses, depreciation, amortisation and any impairment losses and other operating expenses. All other items in the income statement are shown below the operating profit. Exchange rate differences are included in the operating profit if they arise from items related to operations with third parties. Otherwise they are recognised in financial income and expenses. The realised earnings-related impacts of changes in the value of effective hedging instruments covered by hedge accounting are presented uniformly with the hedged item.

Revenue recognition

The revenue of Finnish Minerals Group mainly consists of sales of battery chemicals, fertilisers and semifinished metal products. A large portion of the company's production is sold under long-term contracts, but sales revenue is recognised on the basis of individual sales transactions. The terms of delivery determine when the transfer of control to the customer takes place. Revenue is recognised net of sales-related foreign exchange gains and losses and any applicable sales taxes. Most sales are priced in US dollars. Individual deliveries constitute a separate performance obligation.

According to established business practices, recognition of sales revenue based on a best estimate per delivered batch of metals is, if necessary, adjusted according to the final weighing and analysis data.

The sales revenue recognition of semifinished metal products is based on an advance invoice drawn up upon delivery according to preliminary analysis and measurement results and the market prices for the month preceding the month of delivery. There may be variability in consideration. Variable considerations are adjusted as needed on the basis of the final analysis and measurement results, in which case the prices of delivered metals are also adjusted to correspond to the market prices of the agreed pricing period. The final analysis and measurement results are normally obtained within a few months.

The sales revenue recognition of battery chemicals is based on an advance invoice drawn up upon delivery according to the analysis and measurement results confirmed by the company and the market prices for the month preceding the month of delivery. There may be variability in consideration. Variable consideration should be adjusted on the basis of the prices of the battery chemicals delivered, to reflect the market prices for the agreed pricing period if those prices are known.

With regard to deliveries for which final analysis and measurement results have not yet been obtained, the sales prices and euro-denominated valuations are adjusted at the date of reporting so as to correspond to the average market prices of the month of the financial statements and the exchange rates at the balance sheet date. With regard to these deliveries, the company also considers the need to make write-downs due to the changes in analysis and measurement results. No such write-downs have been recorded in the financial statements of 31 December 2023. In addition, the commodity and currency hedges for metal tonnes sold have been taken into account in the valuation of sales.

Government grants

Government grants related to the acquisition of tangible fixed assets have been recognised by deducting the grant from the asset's carrying amount when there is reasonable assurance that the grant will be received and the Group will comply with any conditions attached to the grant. Grants are recognised as deferred income on a systematic basis over the useful life of the asset. Grants receivable as compensation for costs already incurred are recognised as income in profit or loss in the period in which the grant is receivable. Grants received are shown in other operating income.

Pension obligations

The Group companies have pension schemes in accordance with the local conditions and practices. The schemes are generally funded through payments to insurance companies. Currently all pension schemes are defined contribution plans.

Defined contribution plan is a pension plan under which the company pays fixed contributions into a separate entity. The company has no legal or constructive obligation to pay further contributions if the entity does not hold sufficient assets to pay all employees the benefits related to employee service in current and prior periods. Under defined contribution plans the payments are accounted for as an expense for the period for which the payment is made.

Leases

Finnish Minerals Group acts as a lessee, in which role it has mainly leased machinery and equipment, other small appliances, and premises. As a rule, the Group records all its right-of-use assets and lease liabilities associated with leases in its balance sheet. The Group applies the standard's exemptions concerning short-term leases of up to 12 months and goods of a value of up to approximately EUR 5,000. The Group does not recognise these in the balance sheet, but accounts for the lease payments of the above-mentioned leases on a straight-line basis over the lease term. The lease term is the period during which the lease cannot be cancelled. It includes the period covered by an extension or termination option, if the lessee is reasonably certain to exercise the option to extend the lease, or not to exercise the option to terminate the lease.

At the inception date of the lease, the Group recognises a lease liability and a corresponding right-of-use asset. A right-of-use asset is initially measured at cost, which includes the original amount of the lease liability, plus any lease payments made at or prior to the inception date of the lease, less lease incentives obtained, plus any initial direct costs incurred by the Group, as well as the estimated restoration costs.

After the inception date of the lease, the right-of-use asset is measured at cost less the accumulated depreciation, amortisation and impairment loss. The asset is adjusted with certain items attributable to the re-measurement of the lease liability. The right-of-use asset is depreciated on a straight line basis starting from the inception date of the lease over the asset's useful life or the lease term. The useful life of the right-of-use asset is determined in the same way as the useful life of corresponding fixed assets held. If necessary, the right-of-use asset is tested for impairment and any impairment losses are recognised through profit or loss.

The original lease liability is measured at the current value of lease payments that were not made at the inception date of the lease. The Group discounts leases using agreement-specific internal borrowing rates. The value of the lease liability consists of: fixed payments, including factually fixed payments; variable lease payments that depend on an index or a rate and which are initially measured using the index or rate as at the lease's inception date; amounts payable by the lessee based on residual value guarantees; and the purchase option exercise price, if it is reasonably certain that the Group will exercise the option.

In subsequent periods, lease liabilities are measured at amortised cost using the effective interest method. The lease liability is remeasured when there is a change in future lease payments due to a change in the index or rate used to determine those payments, or if there is a change in the amounts expected to be payable under a residual value guarantee. Changes made by the Group in the assessment of a purchase option of an underlying asset or an extension or termination option may also lead to a re-measurement of the lease liability. When the lease liability is remeasured, a corresponding adjustment is made to the asset's carrying amount, or it is recognised through profit or loss if the carrying amount of the right-of-use asset has decreased to zero.

Finnish Minerals Group does not act as a lessor.

Impairment losses

The Group assesses at each balance sheet date whether there is any indication that an asset may be impaired. If any such indication exists, the asset's recoverable amount is estimated.

The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. The value in use refers to the estimated future net cash flows obtainable from the asset or cash-generating unit, discounted to their current value. The value in use is forecast on the basis of circumstances and conditions prevailing at the time of testing. The discount rate takes into account the time value of money as well as the special risks involved for each asset, different industry-specific capital structures and the expected ROI for investors. An impairment loss is recorded when the carrying amount of an asset is greater than its recoverable amount. If the impairment loss is allocable to a cash-flow-generating unit, it is allocated first to reduce the goodwill of the unit and subsequently to reduce other assets of the unit. As at the date of reporting or the end of the reference period, the Group has no goodwill contributing to its valuation.

The impairment loss is reversed if a change has occurred in circumstances and the recoverable amount of the asset has changed since the impairment loss was recognised.

Borrowing costs

Borrowing costs are recognised as an expense for the financial period during which they are incurred. Borrowing costs directly attributable to acquisition, construction or manufacturing of a tangible fixed asset (property, plant and equipment) meeting the criteria shall be capitalised as part of the asset's acquisition cost.

Income taxes

Tax expenses on the income statement consist of the tax based on taxable income for the year and deferred taxes. Taxes based on taxable income for the year are calculated using the applicable tax rates. Taxes are adjusted with any taxes arising from previous periods.

Deferred taxes are calculated from all temporary differences between the carrying amount and taxable amount. Deferred taxes are calculated using the tax rates set at the balance sheet date. Deferred tax assets arising from taxable losses carried forward are recognised up to the amount for which there is likely to be taxable income in the future, and against which the temporary difference can be used.

Property, plant and equipment

Property, plant and equipment, which on 31 December 2023 include buildings and infrastructure, machinery and equipment used in production operations, laboratory equipment, vehicles, roads, and structures for environmental protection, are stated at historical cost less accumulated depreciation and any accumulated impairment losses. Historical cost includes costs that are directly attributable to the acquisition, construction or production of an asset, and borrowing costs that meet the criteria.

Spare parts with a useful life of more than one year have been recognised in property, plant and equipment.

The recovery of ore reserves in the areas identified in the excavation plan requires removing the soil and waste rock overlying the mineral ore deposit. The resulting stripping costs have been capitalised and will be charged to expense as planned under the usage-based depreciation method as the recovery of the identified ore reserves progresses under the excavation plan. This balance sheet item is accounted for and tracked in accordance with the interpretation requirements of IFRIC 20 *Stripping costs in the Production Phase of a Surface Mine*.

Depreciation charges are not recorded for work in progress or land. Other assets are depreciated using the straight line method so that the depreciable amount – acquisition cost less residual value – is allocated on a systematic basis over the asset's useful life as follows:

Tangible asset	Depreciation period
Roads and power lines	25 years
Buildings and structures	10–40 years
Leaching heap foundations	10–30 years
Machinery and equipment	4–25 years
Stock	5–10 years
Vehicles	5–10 years
Spare parts recognised as PPE	3 years
Environmental containment structures	25 years

The useful life, depreciation methods and potential residual values of assets are reassessed at each reporting date. The reassessment is based on the Group's estimates of ore reserves, mineral resources, production capacity and other relevant factors. Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognised within other operating income or expenses, respectively, in the income statement.

Intangible assets

Other intangible assets are recorded at cost if the cost is reliably measurable and the future economic benefits for the Group are probable. Other intangible assets consist of expenditures incurred in exploration for and evaluation of mineral resources and IT applications supporting the Group's business operations. The Group's IT applications are amortised over 3–5 years.

The Group applies IFRS 6 *Exploration for and Evaluation of Mineral Resources* for the demonstration of technical feasibility and commercial viability of extracting mineral resources. IFRS 6 provides that recognised exploration and evaluation assets are classified as tangible or intangible according to the nature of the assets acquired. Once the technical feasibility and commercial viability of mining has been demonstrated, the assets are classified as tangible assets. An impairment test is performed on exploration and evaluation expenditures classified as intangible assets before they are reclassified.

The capitalisation of expenditures incurred in exploration for and evaluation of mineral resources starts when the entity has acquired legal rights to explore in a specific area, and it will continue until the technical feasibility and commercial viability of extracting a mineral resource are demonstrable. Exploration and evaluation expenditures are initially measured at cost using the cost model. Exploration and evaluation expenditures as assets are not depreciated before mining begins. Exploration and evaluation expenditures recognised as assets after mining has begun will form part of the carrying amount of the mine, which is charged to expense via usage-based depreciation.

Recognised exploration and evaluation assets have been classified as intangible assets according to their nature.

Impairment testing is performed on recognised exploration and evaluation assets in accordance with the references of IFRS 6 *Exploration for and Evaluation of Mineral Resources.* Entities recognising exploration and evaluation assets are required to perform an impairment test on those assets when facts and circumstances suggest that the carrying amount of the assets may exceed their recoverable amount. If the carrying amount exceeds the recoverable amount, an impairment loss is recognised.

According to IFRS 6, one or more of the following facts and circumstances indicate that an entity should test exploration and evaluation assets for impairment:

- The period for which the entity has the right to explore in the specific area has expired during the period or will expire in the near future, and is not expected to be renewed.
- Substantive expenditure on further exploration for and evaluation of mineral resources in the specific area is neither planned or budgeted for.
- Exploration for and evaluation of mineral resources in a specific area have not led to the discovery of commercially viable quantities of mineral resources and the entity has decided to discontinue such activities in the specific area.
- Sufficient data exist to indicate that, although development work in the specific area is likely to proceed, the carrying amount of the exploration and evaluation assets is unlikely to be recovered in full from successful development or by sale.

Research and development costs

Research costs are recognised as an expense in profit or loss once they have been incurred. Development expenditure is capitalised when it is probable that the development project will bring financial gains to the Group in the future and meets the recognition criteria, including technical feasibility and economic viability. Such development projects are mainly related to building a battery value chain in Finland and attracting the related industrial investments. The Group has capitalised development expenditure that is related to projects aimed at establishing pCAM and CAM plants in Finland.

Development projects are analysed separately to determine the date on which the capitalisation of development costs can begin for a project. After initial recognition, capitalised development costs are measured at cost less accumulated depreciation and impairment losses. The depreciation period is determined individually for each project. If it is found that the carrying amount exceeds the recoverable amount, the impairment loss corresponding to the difference is recognised in profit or loss.

Biological assets

Biological assets, i.e. living trees on company-owned land, are measured on initial recognition and at each balance sheet date at fair value less estimated point-of-sale costs. The fair values of biological assets other than young seedlings are based on quoted prices in active markets for biological assets. Biological assets, i.e. those physically attached to land, are recognised and measured at their fair value separately from the land.

The fair value of harvest, measured as its value at the time of sale, is deducted from the fair value of the biological assets. The estimated growth of trees is recognised as gains in the fair value of biological assets. The changes in the fair value of biological assets are included in operating profit in the income statement.

Inventories

The Group classifies its inventories into three groups: raw materials and consumables, work in progress, and finished products.

Raw materials and consumables are measured at the average purchase price of the goods in stock. A so-called write-down on slow-moving items is made on the slow-moving goods in the raw materials and consumables inventory. If an item has been in stock for more than a year, a write-down of 25 percent is made. The write-down increases annually by 25 percentage points, so the value of an item that has been stored for more than four years is zero.

Work in progress and finished products (metal content for sale) are presented in the balance sheet as valued at actual production costs but up to the net realisable value of the products on the balance sheet date. Net realisable value refers to the estimated selling price in the ordinary course of business, less the production costs necessary to making work in progress and finished products ready for sale.

The acquisition cost of work in progress and finished products (production cost) includes the fixed and variable costs of production and maintenance that supports production, as well as depreciation on these operations, based on the actual production costs in the production process. As of 2023, the value of metals in the ore in primary and secondary heaps included in the work in progress inventory of metal intermediates business for financial reporting will be measured with a procedure in which the acquisition cost of metals in ore capitalised during the reporting period is determined according to the production chain's average costs per operation in the reporting period and the previous financial period. Previously, the valuation has been based on the costs per operation in the reporting period. The change should mitigate the impact of exceptional short-run fluctuations on the value of the work in progress inventory of metal intermediates business shown in the balance sheet. Borrowing costs are not included in the acquisition cost.

In metal intermediates business, work in progress includes metals in the ore in primary and secondary heaps, as well as metals in the leaching process or metal precipitation and filtration process that can be processed for sale as a finished product. The work in progress in the battery chemical business is nickel-cobalt sulphide, which is used as raw material in the refining process. It is valued on the basis of the stage of completion of the main phases of the production process (high pressure acid leaching, extraction and crystallisation).

The amount of metal included in work in progress is determined by calculating the metal tonnes added to and removed from the production process, i.e., the work in progress inventory. The recoverable quantities of nickel, zinc, copper and cobalt included in work in progress are determined on the basis of the estimated ore concentrations based on geological surveys, the estimated recovery percentages of metals in the bio heap leaching process, the recovery percentages of the metal recovery plant and the battery chemicals plant.

Ore concentrations, the amount of metals in the production process and the metals recovery percentage are reviewed monthly.

The value of inventories determined in accordance with the principle of net realisation value includes discretionary factors related to, for instance, the measurement of metal volume in work in progress, metals recovery percentages, production costs, the production time necessary to complete sales, and sales prices.

Financial assets

Financial assets are classified based on the Group's business model for managing financial assets and their contractual cash flow characteristics to the following categories:

- Measured at amortised cost
- Measured at fair value through other comprehensive results
- Measured at fair value through profit or loss.

The classification is based on the Group's business model objective and the contractual cash flow characteristics of the investments. Purchases and sales of financial assets are recognised on the basis of the settlement date. At the time of initial recognition, the Group designates financial asset items as measured at fair value and, in the case of items not measured at fair value through profit or loss, the transaction costs directly attributable to the item will be added to or deducted from it. Financial assets at fair value through profit or loss are recorded at the time of initial recognition in the balance sheet at fair value and transaction costs are recognised in profit or loss.

Classified in the **Financial assets measured at amortised cost** category are financial assets for which the objective of the business model is to hold financial assets and to collect contractual cash flows consisting solely or capital and interest payments. This item includes trade receivables, loan receivables and other receivables that are non-derivative financial assets. The assets classified in this category are measured at amortised cost under the effective interest rate method. The carrying amount of short-term trade receivables and other receivables is deemed to correspond to their fair value. These items are shown in the balance sheet as short-term assets if they are expected to be realised within 12 months of the end of the reporting period. If necessary, the Group recognises an expected credit loss reduction from the financial assets measured at amortised cost.

The Group applies a simplified procedure for the determination of expected credit losses for trade receivables measured at amortised cost. Under the simplified procedure, credit losses are determined using the reserve matrix and recorded in the amount corresponding to the credit losses expected to occur over the life of the financial asset. Expected credit losses are estimated based on information about past events. The model also takes into account forecasts of future economic conditions available at the reporting date.

In the financial statements of 2023 and 2022, no expected credit losses have been recorded for trade receivables due to good credit rating and outstanding receivables from customers.

Receivables are recognised as credit losses when there is objective evidence that the Group will not be able to collect all amounts. Any impairment is recognised in the income statement as operating expenses. When a receivable is deemed irrecoverable, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against operating expenses in the income statement.

Classified in the **Financial assets recognised at fair value through profit or loss** category are financial assets that are acquired to be held for trading purposes or classified at the time of initial recognition to be measured at fair value through profit or loss.

Financial assets are derecognised when the Group's contractual entitlement to cash flows has lapsed or been transferred to another party or when the Group has transferred significant ownership risks and revenues outside the Group.

Cash and cash equivalents

The Group's cash and cash equivalents consist of cash at bank and cash in hand.

Financial liabilities

Financial liabilities are classified into the following categories:

- Recognised at amortised cost
- Recognised at fair value through profit or loss.

Financial liabilities are recognised at fair value at the time of initial recognition and, in the case of a financial liability other than that recorded at fair value through profit or loss, transaction costs directly attributable to the item will be added to or deducted from it.

Financial liabilities posted at amortised cost are measured at amortised cost under the effective interest rate method. The difference between the amount received and the recoverable amount is recorded in the income statement under the effective interest rate method over the loan period. Financial liabilities are classified as short-term unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the reporting period. A financial liability is derecognised when the Group either pays the debt to the lender or has been legally exempted from the principal obligation relating to the liability as the result of a judicial process or by the lender. Interest-bearing liabilities are liabilities that either include a contractual interest component, or are discounted to reflect the fair value of the liability.

The interest-bearing loans, including lease liabilities, trade payables and other non-interest bearing liabilities, included in the Group's financial liabilities are classified as liabilities measured at amortised cost.

The Group's financial liabilities recognised at fair value through profit or loss consist of derivative instruments.

A financial liability is derecognised when the Group either pays the debt to the lender or has been legally exempted from the principal obligation relating to the liability as the result of a judicial process or by the lender. A financial liability is derecognised if the terms of the liability are changed and the change leads to a significant change in future cash flows. The new liability is recognised at fair value. Where changes occur in the amount or timing of the loan's expected cash flow, the carrying amount of the loan is adjusted to reflect actual and expected cash flows and the resulting income or expense is recognised in the income statement.

Derivatives and hedge accounting

Derivatives

The Group's subsidiary uses foreign exchange and commodity derivatives to hedge the Group's exposure to risks arising from balance sheet item and foreign currency purchase and sales contracts. The derivatives used by Terrafame were acquired for hedging purposes, and hedge accounting has been applied to them. All derivatives are recognised initially at fair value. Unrealised change in the value of derivatives that are considered effective hedges are recognised at fair value in the balance sheet's fair value reserve as per the portfolio valuation report for the last day of the reporting period. The accounting process for gains and losses on fair value measurement is based on the purpose of use of the derivative contract.

The realised earnings-related impacts of changes in the value of effective hedging instruments that are covered by hedge accounting are presented uniformly with the hedged item. In the event of any ineffective hedging, changes in the fair value of hedging instruments are recognised in profit or loss.

Hedge accounting

The subsidiary applies hedge accounting to all hedging instruments. At the beginning of the hedging arrangement, the relationship between each hedging instrument and the hedged asset, as well as the risk management objectives, are documented by hedging instrument type. The effectiveness of the hedging relationship is assessed at the beginning of hedging and in quarterly accounts at a minimum.

If the hedging relationship no longer meets the hedge accounting criteria or the hedging instrument is sold, expires, or the related contract is terminated or realised, hedge accounting will be terminated prospectively.

Cash flow hedging

The subsidiary's hedging activities are entirely focused on cash flow hedging. The effective portion of changes in the fair values of derivatives acquired for the purpose of hedging forecasted cash flows are recognised at fair value through other comprehensive income in the fair value reserve under equity. The cumulative fair value is shown in the cash flow hedge reserve under equity. Changes in fair value are recognised in profit or loss for the same periods in which hedged cash flows affect the result. The subsidiary can use currency swaps (forward contracts and options) as hedging instruments for future cash flows denominated in a foreign currency.

When hedge accounting for a cash flow hedge is terminated, the amount accumulated in the cash flow hedge reserve is included in equity until it is transferred to profit or loss for the same financial period in which the hedged expected future cash flows affect profit or loss. If the hedged future cash flows are no longer expected to occur, the amount accumulated in the cash flow hedge reserve will be immediately transferred as a reclassification adjustment to profit or loss.

Provisions, contingent liabilities and contingent assets

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, and when it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate of the amount of the obligation can be made. If the effect of the time value of money is material, provisions are discounted at the current pre-tax interest rate that reflects, where appropriate, the risks specific to the liability. Where discounting is used, the increase in the provision due to the passage of time is recognised as a finance cost.

Rehabilitation provision for mine closure and environmental clean-up costs

A rehabilitation provision for mine closure costs is made with respect to the estimated future costs of closure and restoration, and for environmental restoration and rehabilitation to the condition required by the environmental permits granted for mining operations.

Prevention of the threat of environmental pollution entails environmental and landscaping obligations. After mining operations have ceased, any machinery and equipment, chemicals, fuels and waste involving the risk of environmental pollution must be removed from the site. This will be carried out as part of normal mining operations. In addition, the open pit must be restored to the condition required by public safety.

The majority of the estimated restoration costs arises from the closure of waste rock dumps and primary and secondary leaching areas, the treatment and clean-up of primary and secondary leaching solution channels, the construction, covering and landscaping of gypsum ponds, the treatment of rock drainage, the fencing of open pits and the ex post supervision of the mining site.

The mine closure plan is based on the covering of areas with water- and oxygen-impermeable material, and long-term aftercare. It is assumed that environmental monitoring of the mine will continue for 30 years after closure of the mine.

The rehabilitation costs have been estimated in accordance with the cost level at the date of closing of the accounts. The rehabilitation provision of 31 December 2023 in the consolidated balance sheet was EUR 219.7 million (2022: 205.2) million.

Accounting policies requiring consideration by management and crucial factors of uncertainty associated with estimates

Estimates and assumptions regarding the future have to be made during the preparation of the financial statements, and the outcome may differ from the estimates and assumptions. Furthermore, the application of accounting policies requires consideration.

The estimates made when preparing the financial statements are based on the management's best knowledge at the balance sheet date. The estimates are based on prior experience, as well as future assumptions that are considered to be the most likely on the balance sheet date with regard to issues such as the expected development of the Group's economic operating environment in terms of sales and cost levels. The Group monitors changes on a regular basis using both internal and external sources of information, and any changes to these estimates and assumptions are entered in the accounts for the period in which the estimate or assumption is adjusted and for all periods thereafter.

Tangible and intangible assets

The management of Finnish Minerals Group has used its judgment in the recognition of tangible and intangible assets in the balance sheet and in determining their useful lives, which has an impact on the consolidated balance sheet and the amount of depreciation to be recorded. Similarly, management is required to use judgment in determining the useful lives of intangible assets identified in accordance with IFRS 3, and in determining the amortisation period. This affects the financial result for the period through depreciation and changes in deferred taxes.

For tangible fixed assets, comparisons have been made of the market prices of similar assets, and the depreciation of the acquired assets due to aging, wear and other similar factors has been estimated. The fair value measurement of intangible fixed assets is based on estimates of cash flows associated to fixed assets. Management considers the assumptions and estimates to be sufficiently accurate to provide a basis for estimating the fair value. The Group also reviews any indication of impairment loss of tangible and intangible fixed assets at each date of the financial statements.

Valuation of mineral resources and ore reserves

In the Group's mining operations, estimates have to be applied in recognising mineral resources acquired in business combinations as assets on the consolidated balance sheet. In the recognition and measurement of mineral resources and ore reserves, the Group utilises available third-party analyses of the quantities, mineral content, estimated production costs and recovery potential of the resource. The reliability of the evaluation and calculation basis for mineral resources and ore reserves is also a key consideration. In the mining and minerals business, mineral resources and ore reserves are commonly classified into categories such as 'proven' and 'probable' ore reserves, and 'measured' and 'indicated' mineral resources.

Rehabilitation provisions

The Group assesses the rehabilitation liabilities associated with its mines and production facilities annually. The amount of provision reflects the management's best estimate of the rehabilitation costs. In determining the amount of provision, the Group has listed matters that it will rehabilitate and/or restore to the condition required by the licence terms in accordance with the nature of its operations and the official permit conditions. The Group estimates that rehabilitation measures will be taken in connection with its mining operations or, at the latest, in connection with mine closure. These measures are estimated to take a few years after the mine closure.

At the date of the financial statements, the Group has estimated the extent and unit cost of the various matters requiring rehabilitation and calculated the rehabilitation provision accordingly. In estimating the extent and unit cost of the various matters, the Group has used its best in-house experts in the matters in question.

In determining the fair value of the provisions, assumptions and estimates are made in relation to discount rates, the expected cost to rehabilitate the area and remove or cover the contaminated soil from the site, the expected timing of those costs, and whether the obligations stem from past activity. These uncertainties may cause the actual rehabilitation costs to differ from the provision which has been made.

Definition of value of work in progress

The value of inventories determined in accordance with the principle of net realisation value includes discretionary factors related to, for instance, the measurement of metal volume in work in progress, metals recovery percentages, production costs, the production time necessary to complete sales, and sales prices.

Leases

To process leases in accordance with IFRS 16, estimates and assumptions made by management must be used, inter alia, when assessing factors that have an impact on defining the lease term as well as leases that are valid until further notice. In addition, management's assumptions are used when assessing leases with termination and continuation options. Management's estimates are also required to determine which discount rate to use. Management's estimates have an impact on the amount of right-of-use assets and lease liabilities in the balance sheet, as well as on the recording of income and expenses in the income statement.

Deferred taxes

The recognition of deferred tax assets is based on management's forecasts and estimates of whether the company will generate sufficient taxable income in the future. The estimates used in the calculation are based on the latest management forecasts at the reporting date and assumptions consistent with the assumptions used elsewhere in the financial statements. The assessment requires consideration of, for example, future taxable income, the tax planning strategies available, and other factors that have a positive or negative impact. The amount of deferred tax assets on the balance sheet could be lower if the above estimates were to change or if the legislation in force would limit the possibility to take advantage of the estimated tax benefit.

New standards, amendments and interpretations

The new standards, amendments or interpretations adopted on 1 January 2023 have had no impact on the consolidated financial statements of Finnish Minerals Group.

New standards, amendments or interpretations to be adopted on 1 January 2024 or later, published by the date of closing of the accounts, are not expected to have a material impact on the consolidated financial statements of Finnish Minerals Group.

1 NOTES

1.1 Net sales

	2023	2022
Breakdown by sector		
Metal intermediates business	393,433	377,345
Battery chemicals business	167,497	207,069
Other service	137	0
Total	**561,067**	**584,414**
Geographical breakdown		
Europe	403,668	313,985
Asia	109,398	270,429
United States	24,342	0
Australia	23,658	0
Total	**561,067**	**584,414**

1.2 Employee benefit expenses and total depreciation

	2023	2022
Wages and salaries	49,112	47,598
Pension costs	9,295	8,545
Other social security expenses	2,033	2,015
Total	**60,440**	**58,158**
The Group's average number of employees during the financial period	864	876
The Group's number of employees at the end of the financial period	884	800

Total depreciation, amortisation and impairment charges	**2023**	**2022**
Intangible rights	115	139
Other intangible assets	463	356
	579	495
Tangible assets		
Buildings	6,592	6,498
Machinery and equipment	36,642	35,125
Right-of-use assets, machinery and equipment	3,406	3,316
Other tangible assets	15,930	14,427
	62,569	59,366
Total	**63,148**	**59,861**

1.3 Cost of goods sold

	2023	2022
Materials and services		
Raw materials and consumables		
Purchases during the financial year	205,596	212,988
Change in inventory	1,260	-5,699
	206,856	207,289
External services	97,897	102,144
Total	**304,753**	**309,433**
Change in inventory, products		
Change in inventory		
Change in inventory, semifinished products	-16,782	-37,754
Change in inventory, finished products	-8,820	-11,600
Total	**-25,603**	**-49,354**
Personnel expenses		
Wages and salaries	39,748	38,070
Pension costs	7,581	7,014
Other social security expenses	1,384	1,123
Total	**48,714**	**46,207**
Depreciation, amortisation and impairment charges		
Intangible rights	15	23
Tangible assets		
Buildings and structures	6,426	6,398
Machinery and equipment	36,501	35,049
Right-of-use assets, machinery and equipment	3,369	3,261
Other tangible assets	14,257	13,024
Total	**60,567**	**57,755**
Other costs of goods sold	**89,504**	**89,562**
Cost of goods sold total	**477,935**	**453,603**

1.4 Other operating income

	2023	2022
Revaluation of biological assets	1,161	-366
Insurance claims	21	0
Grants received	3,467	4,432
Proceeds from sale of tangible and intangible assets	2	0
Other fees and compensation, including sales of scrap metal and proceeds from tree felling	1,745	1,653
Total other operating income	**6 397**	**5,719**

1.5 Sales and marketing expenses

	2023	2022
Personnel expenses		
Wages and salaries	721	849
Pension costs	138	153
Other social security expenses	30	31
Total	**889**	**1,033**
Depreciation, amortisation and impairment charges		
Depreciation and amortisation charges	71	24
Right-of-use assets, depreciation	0	0
Total	**71**	**24**
Other expenses		
Sales and marketing misc. charges	4,671	1,350
Total	**4,671**	**1,350**
Total sales and marketing expenses	**5,630**	**2,406**

1.6 Administrative expenses

	2023	2022
Personnel expenses		
Wages and salaries	6,033	6,447
Pension costs	1,118	966
Other social security expenses	270	353
Total	**7,422**	**7,766**
Depreciation, amortisation and impairment charges		
Depreciation and amortisation charges	295	305
Right-of-use assets, depreciation	0	0
Total	**295**	**305**
Other expenses		
Other administrative expenses	25,475	17,546
Total	**25,475**	**17,546**
Auditors' fees		
Auditing	171	166
Certificates and reports	7	2
Tax advisory services	29	76
Other services	228	78
	435	**322**
Total administrative expenses	**33,627**	**25,939**

1.7 Other operating expenses

	2023	2022
Research and development costs		
Total research and development costs recognised as an expense	**2,998**	**2,825**
Personnel expenses		
Wages and salaries	2,602	2,187
Pension costs	403	386
Other social security expenses	75	75
Total	**3,080**	**2,647**
Depreciation, amortisation and impairment charges		
Depreciation and amortisation charges	1,799	1,748
Total	**1,799**	**1,748**
Other expenses		
Other operating expenses	10,928	13,663
Total	**10,928**	**13,663**
Total other operating expenses	**18,805**	**20,883**

1.8 Finance income and cost

	2023	2022
Finance income		
Interest income from other deposits	1,327	677
Foreign exchange gains	5,083	3,260
Other finance income	3	1
Total finance income	**6,412**	**3,938**
Change in fair value of financial assets carried at fair value		
Change in fair value, other investments	4	0
Total impairment charges	**4**	**0**
Finance expenses		
Other interest expenses	-24,638	-16,055
Foreign exchange losses	-2,584	-14,990
Other finance expenses	-15,274	-11,313
Share of profit from associated company and joint venture	-1,196	-6,859
Total finance expenses	**-43,692**	**-35,499**
Total finance income and cost	**-37,276**	**-31,561**

Of the unrealised foreign exchange gains included in finance income, EUR 3.3 (2022: 0.4) million consists of the valuation of foreign-currency loans at the closing rate on the balance sheet date. In the comparison period, EUR 1.1 million of the gains on exchange rates arises from the valuation of the bank accounts at the closing rate on the balance sheet date.

Of the unrealised foreign exchange loss included in finance expenses, EUR 1.1 million consists of the valuation of the bank accounts at the closing rate on the balance sheet date.

1.9 Income taxes

	2023	2022
Income taxes in the income statement		
Tax based on taxable income for the financial period	0	0
Taxes from previous periods	0	0
Tax based on taxable income for the period	**0**	**0**
Deferred taxes	-4,759	23,321
Income tax expense	**-4,759**	**23,321**

The Finnish corporate tax rate in the financial year 2023 and the reference year was 20.0%.

Net deferred tax asset on the balance sheet	**2,492**	**36,333**

1.10 Earnings per share

The basic earnings per share are calculated by dividing the profit attributable to the parent company's shareholders by the weighted average number of ordinary shares in issue during the financial period.

	2023	2022
Profit/loss for the period attributable to owners of the parent	-8,656	53,620
Weighted average number of shares during the period	588,408	588,408
Basic earnings per share, EUR/share	-14.71	91.13
Diluted earnings per share, EUR/share	-14.71	91.13

1.11 Business acquisitions and divestitures

The Group made no business acquisitions in the financial year 2023 or 2022.

1.12 Intangible assets

	Development costs	Intangible rights	Other intangible assets	Investments in progress	Total
Acquisition cost 1 Jan 2022	2,952	2,939	1,916	0	7,807
Increase				40	40
Capitalised during the period	777	0	3,810	0	4,587
Acquisition cost 31 Dec 2022	**3,729**	**2,939**	**5,726**	**40**	**12,434**
Accumulated depreciation and write-downs 1 Jan 2021	-356	-2,243	-191	0	-2,790
Depreciation for the year	-320	-139	-36	0	-495
Accumulated depreciation 31 Dec 2022	**-675**	**-2,382**	**-227**	**0**	**-3,285**
Carrying amount 31 Dec 2023	**3,053**	**557**	**5,499**	**40**	**9,150**
Acquisition cost 1 Jan 2023	3,729	2,939	5,726	40	12,434
Increase	1,157	0	4,059	140	5,356
Capitalised during the period	248	0	180	-180	248
Acquisition cost 31 Dec 2023	**5,135**	**2,939**	**9,965**	**0**	**18,039**
Accumulated depreciation and write-downs 1 Jan 2023	-675	-2,382	-227	0	-3,285
Depreciation for the year	-416	-115	-48	0	-579
Accumulated depreciation 31 Dec 2023	**-1,091**	**-2,498**	**-275**	**0**	**-3,863**
Carrying amount 31 Dec 2023	**4,043**	**441**	**9,691**	**0**	**14,176**

1.13 Property, plant and equipment

	31 Dec 2023	31 Dec 2022
Property, plant and equipment	803,556	718,385
Right-of-use assets	8,273	10,505
Carrying amount 31 Dec	**811,829**	**728,890**

	Land	Buildings	Machinery and equipment	Other tangible assets	Advance payments and construction in progress	Total
Acquisition cost 1 Jan 2022	3,295	134,720	385,486	332,017	52,954	908,113
Increase	227	484	10,585	-34,244	72,300	49,352
Capitalised during the period	0	70	16,599	28,431	-45,101	0
Acquisition cost 31 Dec 2022	**3,521**	**135,275**	**412,670**	**326,204**	**79,794**	**957,464**
Accumulated depreciation and write-downs 1 Jan 2022	0	-24,632	-107,999	-50,398	0	-183,029
Depreciation for the year	0	-6,498	-35,125	-14,427	0	-56,050
Accumulated depreciation 31 Dec 2022	**0**	**-31,130**	**-143,124**	**-64,825**	**0**	**-239,079**
Carrying amount 31 Dec 2022	**3,521**	**104,145**	**269,546**	**261,380**	**79,794**	**718,386**
Acquisition cost 1 Jan 2023	3,521	135,275	412,670	326,204	79,794	957,464
Increase	2	0	11,253	7,295	125,607	144,157
Capitalised during the period	0	1,310	11,780	39,495	-52,409	176
Acquisition cost 31 Dec 2023	**3,523**	**136,585**	**435,703**	**372,995**	**152,992**	**1,101,798**
Accumulated depreciation and write-downs 1 Jan 2023	0	-31,130	-143,124	-64,825	0	-239,079
Depreciation for the year	0	-6,592	-36,642	-15,930	0	-59,163
Accumulated depreciation 31 Dec 2023	**0**	**-37,722**	**-179,766**	**-80,754**	**0**	**-298,242**
Carrying amount 31 Dec 2023	**3,523**	**98,864**	**255,937**	**292,240**	**152,992**	**803,556**

Other tangible assets include the general infrastructure, roads, railways, ponds and dam areas in the mining site.

Right-of-use assets	**Machinery and equipment**	**Total**
Acquisition cost 1 Jan 2022	21,323	21,323
Increase	8	8
Acquisition cost 31 Dec 2022	**21,332**	**21,332**
Accumulated depreciation and write-downs 1 Jan 2022	-7,511	-7,511
Depreciation for the year	-3,316	-3,316
Accumulated depreciation 31 Dec 2022	**-10,827**	**10,827**
Carrying amount 31 Dec 2022	**10,505**	**10,505**
Acquisition cost 1 Jan 2023	21,332	21,332
Increase	1,174	1,174
Acquisition cost 31 Dec 2023	**22,506**	**22,506**
Accumulated depreciation and write-downs 1 Jan 2023	-10,827	-10,827
Depreciation for the year	-3,406	-3,406
Accumulated depreciation 31 Dec 2023	**-14,232**	**-14,232**
Carrying amount 31 Dec 2023	**8,273**	**8,273**

The right-of-use assets leased by Terrafame consist mainly of production-related machinery and equipment, such as heavy-duty dumper trucks, excavators, lorries and service vehicles. The length of the leases is typically approximately five years, after which the company and the lessor can decide on the use the lease's continuation option, if one is included in the agreement. As at 31 December 2023, no continuation options were included in the lease liability, as Terrafame does not yet have reasonable assurance that the continuation options will be exercised.

The maturity analysis of the lease liabilities is shown in Note 1.23 'Financial risk management'.

IFRS 16 Leases – Items recognised through profit or loss	**2023**	**2022**
Lease expenses of low value assets	86	63
Lease expenses of short-term leases	6,884	5,794
Depreciation of fixed assets (machinery and equipment)	3,406	3,316
Interest expenses on leases (included in item 'Interest expenses')	342	308

The lease expenses itemised above are mainly included in the income statement item Other operating expenses

Items recognised in the cash flow statement		
Total cash outflow from leases	8,058	5,552

1.14 Biological assets

The land owned by Terrafame Oy includes biological assets (forest). The forests are managed in accordance with a forest management plan. Approximately one-third of the mining concession area has been taken into production use. As the mining operations continue, more areas will be taken into use and, at the same time, forests be cleared.

Biological assets have been measured at fair value based on a third-party estimate, less sales-related costs. Growing stock and seeding stand have been measured at fair value, separately from land. Seeding stands have no value in timber trade since the trees will not be saleable until after 25–30 years. The value of seeding stands has been taken into account in the value of forests by discounting them at 31 December 2023 (time 25 years, interest rate 5%). The fair value of biological assets is based on classification level 3.

Biological assets	**31 Dec 2023**	**31 Dec 2022**
Value of growing stock	8,773	7,599
Value of seeding stands	100	113
	8,873	7,712
Total growing stock, m³	338,568	330,633
Total seeding stands, ha	305.10	339.80
Balance at 1 Jan 2022		**8,078**
Gains and losses on fair value measurement		-366
Balance at 31 Dec 2022		**7,712**
Balance at 1 Jan 2023		**7,712**
Gains and losses on fair value measurement		1,161
Balance at 31 Dec 2023		**8,873**

1.15 Investments in associates

Non-current	**2023**	**2022**
Investments in associated companies	81,451	27,364
Share of profit from associated companies	-6,193	-4,997
Balance at 31 Dec	**75,258**	**22,367**

	Holdings in associated companies
Acquisition cost 1 Jan 2022	24,655
Increase	2,709
Acquisition cost 31 Dec 2022	27,364
Accumulated impairment losses 1 Jan 2022	-8,155
Reversal of an impairment loss	8,155
Accumulated impairment losses 31 Dec 2022	0
Carrying amount 31 Dec 2023	**27,364**
Acquisition cost 1 Jan 2023	27,364
Increase	54,087
Acquisition cost 31 Dec 2023	81,451
Accumulated impairment losses 1 Jan 2023	0
Accumulated impairment losses 31 Dec 2023	0
Carrying amount 31 Dec 2023	**81,451**

31 Dec 2022	**Company holdings**	**Book-entry**	**Number of shares**	**Carrying amount**
Keliber Oy, Kaustinen, Finland	13,9%	Class B shares	479,868	24,655
CNGR Finland Oy, Hamina, Finland	40,0%		39,800	2,109
Adven-FMG Sodium Sulphate Holding Oy, Vantaa, Finland	49,0%		4,900	600
Total				**27,364**

31 Dec 2023	**Company holdings**	**Book-entry**	**Number of shares**	**Carrying amount**
Keliber Oy, Kaustinen, Finland	20%	Class B shares	822,863	78,601
CNGR Finland Oy, Hamina, Finland	40,0%		39,800	2,109
Adven-FMG Sodium Sulphate Holding Oy, Vantaa, Finland	49,0%		4,900	741
Total				**81,451**

In the financial year 2023, the Group's share of the associated company's profit for the financial year was EUR -1,196 thousand. During the financial period, the shareholding in Keliber Oy increased to 20.0 percent as a result of the share issue carried out by the associated company. The impairment loss of EUR 8,155 thousand recognised on Keliber's shares during previous financial years was reversed during the previous financial year. Keliber remains an associated company of the Group.

1.16 Inventories

	2023	2022
Raw materials and consumables	29,966	31,227
Work in progress	258,579	241, 797
Finished products	24,705	15,884
Total	**313,250**	**288,908**

The end product inventory of metal intermediates on 31 December 2023 was measured at acquisition cost, on a cost basis, at EUR 8.6 million, because the net realisable value was higher than the cost-based value. Since 2017, work in progress for metal intermediates has been measured on a cost basis whenever the cost-based value is lower than the net realisable value. The value of work in progress in metal intermediates business measured on a cost basis on 31 December 2023 was EUR 254.0 million, and the value of work in progress in battery chemicals production measured on a cost basis was EUR 4.6 million. The inventory of finished products in battery chemicals business on 31 December 2023 has been measured at net realisable value, EUR 16.1 million, because the unit costs in the ramp-up phase of production are higher than the net realisable value.

The value of raw materials and consumables on 31 December 2023 includes a provision of EUR 9.8 million for slow-moving inventory, which reduces the value of inventory. The corresponding provision on 21 December 2022 amounted to EUR 8.9 million.

1.17 Trade and other receivables

Current	**2023**	**2022**
Trade receivables	48,892	66,701
Prepaid expenses and accrued income	3,590	1,628
Derivative assets	74,541	13,847
Collateral	62	62
Other receivables	13,724	328
Total	**140,809**	**82,567**

Aging of trade receivables and items recognised as credit loss	**2023**	**2022**
Undue	42,555	61,317
Overdue		
Under 30 days	6,269	5,173
30–60 days	48	165
61–90 days	0	-17
Over 90 days	20	63
Total	**48,892**	**66,701**
Recognised impairment losses	0	0

Expected credit losses have not been recorded in the Group's financial statements of 31 December 2023 as, based on the good credit rating of customers and the long-term payment method of customer relationships, the company does not consider that there are sufficient grounds to prepare for future impairment losses.

Current receivables by currency, EUR	**2023**	**2022**
USD	124,195	78,470
EUR	16,544	4,096
CAD	37	0
GBP	32	0
Total	**140,809**	**82,567**

Other receivables consist of the following items:

Others	5,886	2
Value added tax receivables	7,838	328
Total	**13,724**	**328**

1.18 Cash and cash equivalents

	2023	2022
Cash in hand and at banks	25,599	48,330
Total	**25,599**	**48,330**

1.19 Notes on shareholders' equity

The parent company's share capital entered in the trade register on 31 December 2023 was EUR 2,258 thousand, divided into 588,408 shares of the same value. The nominal value of the share has not been specified. There were no changes in share capital during the financial year 2023 or 2022.

	2023		**2022**	
Subscribed capital	Number of shares	Subscribed capital	Number of shares	Subscribed capital
1.1.	558,408	2,258	558,408	2,258
Issued shares	0	0	0	0
Subscribed capital 31 Dec	**588,408**	**2,258**	**588,408**	**2,258**

	2023		**2022**	
Invested unrestricted equity fund	Number of shares	Subscribed capital	Number of shares	Subscribed capital
1.1.	558,408	606,151	558,408	606,151
Issued shares	0	60,000	0	0
Invested unrestricted equity fund 31 Dec	**588,408**	**666,151**	**588,408**	**606,151**

Decisions made and authorisations given by the General Meeting of Shareholders of the subsidiary, Terrafame Oy

The shareholders of Terrafame Oy have decided on 12 December 2023, with the consent of option holders, to cancel the prior option grant decisions made by the shareholders on 27 August 2020 and the outstanding option rights granted on the basis of those decisions. At the same time, the shareholders of Terrafame Oy have decided to grant a number of option rights for new shares equal to the number of cancelled and outstanding option rights.

The shareholders of Terrafame Oy have on 12 December 2023 decided to cancel the other authorisations of the Board of Directors concerning the directed share issue decided on 27 August 2020, with the exception of a directed authorisation decision of the Board of Directors to issue 81,000 new shares to the parent company of Terrafame Oy, the reason being to maintain control. The authorisation is valid until further notice.

Options and other special rights

The option rights entitling to Terrafame Oy's shares can be transferred to the permitted transferees. Both the direct and indirect pledging of options are prohibited. The subscribed capital agreed for the option rights is EUR 176.46, and the subscription rights may be exercised in several tranches, in part or in full. The option holder does not have rights to any dividends or assets distributed from the company's reserves for invested unrestricted equity.

Funds managed by Galena Asset Management and Mandatum Holding Oy exercised previously granted option rights in 2023. The majority of the remaining option rights will expire on 31 December 2025.

Options and other special rights (pcs)	Maximum number of issued shares **31 Dec 2023**	Shares issued **31 Dec 2023**	Shares outstanding **31 Dec 2023**
Tranche 7	880,915	809,496	71,419
Tranche 8	582,033	140,115	441,918
Tranche 9	21,518		21,518
Tranche 10	21,518		21,518
Tranche 11	21,518		21,518
Tranche 12	21,518		21,518
Tranche 13	21,518		21,518
At end of year	**1,570,538**	**949,611**	**620,927**

Options and other special rights (pcs)	Maximum number of issued shares **31 Dec 2022**	Shares issued **31 Dec 2022**	Shares outstanding **31 Dec 2022**
Tranche 7	880,915		880,915
Tranche 8	582,033		582,033
Tranche 9	21,518		21,518
Tranche 10	21,518		21,518
Tranche 11	21,518		21,518
Tranche 12	21,518		21,518
Tranche 13	21,518		21,518
At end of year	**1,570,538**	**0**	**1,570,538**

Share of non-controlling interests

Non-controlling interests accounted for EUR 355.2 million of the Group's equity in the financial year 2023 (2022: 173.6). This share of non-controlling interest has arisen from financing arrangements made during financial years 2017–2023, and it concerns the Group's subsidiary, Terrafame Oy, for which the share of non-controlling interest was approximately 43.9*) percent on the balance sheet date (2022: 33.0 percent).

*) Share of non-controlling interest includes shares registered on 15 February 2024.

Below is a summary concerning the subsidiary Terrafame Oy, in which the share of non-controlling interest is significant.

Terrafame (IFRS)	**2023**
Share of non-controlling interests	**43.9%**
Non-current assets	839,182
Current assets	468,039
Non-current liabilities	-277,370
Current liabilities	-220,839
Net assets	**809,012**
Non-controlling interest in net assets	355,156
Net sales	560,930
Profit/loss for the period	-4,357
Other comprehensive income	116,328
Comprehensive income for the period	**111,971**
Non-controlling interest in profit/loss for the period	-1,913
Non-controlling interest in other comprehensive income	51,068
Cash flow from operating activities	35,819
Cash flow from investing activities	-134,928
Cash flow from financing activities	69,894
Foreign exchange rate effect on cash and cash equivalents	-1,056
Change in cash and cash equivalents	**-30,271**

1.20 Notes to hedging derivatives

	31 Dec 2023			**31 Dec 2022**			**2023**	**2022**
	Positive fair values	Negative fair values	Net fair values	Positive fair values	Negative fair values	Net fair values	Nominal amounts in USD	Nominal amounts in USD
Currency and interest rate derivatives								
Foreign exchange forwards	2,179	0	2,179	8,488	1,891	6,598	133,000	318,000
Metal derivatives							Tonnes	Tonnes
Nickel forward	56,974	0	56,974	0	65,797	-65,797	10,465	14,262
Zinc forward	480	111	369	2,590	196	2,393	3,300	18,000
Total derivatives	**59,633**	**111**	**59,522**	**11,078**	**67,884**	**-56,806**		
Long-term derivatives	686	0	686	239	14,035	-13,796		
Short-term derivatives	58,947	111	58,836	10,839	53,849	-43,010		

	31 Dec 2023	**31 Dec 2022**
Gross assets on the balance sheet	74,541	13,847
Gross liabilities on the balance sheet	138	84,855

The fair value calculation of hedges is based on market rates and quotations on the balance sheet date in accordance with the hedging portfolio. Counterparties to derivative transactions have been approved in accordance with Terrafame's hedging policy. Intercompany receivables and liabilities are connected on a transaction level with each counterparty and accounted for on a daily level by transaction.

The importance of hedging instruments to the Group's financial position and projected profitability for the next 12 months was high on 31 December 2023. Terrafame had set up a cash flow hedge against a weakening US dollar with a hedging rate of approximately 25 percent. Terrafame had set up a cash flow hedge against a decline in the price of nickel for forecasted deliveries during the coming year using derivatives, with a hedging rate of approximately 35 percent. In addition, in line with its hedging policy, Terrafame had set up hedges for almost all of its nickel and zinc deliveries, which had been completed and previously reported as sales. As a result, the change in market prices after the closing of the accounts has hardly no effect on the sales revenue recognised for nickel and zinc deliveries completed during the financial year 2023.

1.21 Deferred tax assets and liabilities

Deferred taxes

On the balance sheet	**31 Dec 2023**	**31 Dec 2022**
Derivatives		
Deferred tax asset	0	14,202
Deferred tax liability	-14,881	0
Confirmed losses		
Deferred tax asset	18,771	23,455
Biological assets		
Deferred tax liability	-752	-520
Leases		
Deferred tax asset	1,096	1,384
Deferred tax liability	-1,741	-2,188
Balance at 31 Dec	**2,492**	**36,333**
Unrecognised deferred taxes		
Confirmed and carried-forward loss for tax purposes		
Deferred tax asset	7,536	6,535
Rehabilitation provision		
Deferred tax asset	43,946	41,050
Deferred tax liability	-8,416	-7,281
Deferred depreciation		
Deferred tax asset	8,964	9,044
Balance at 31 Dec	**52,030**	**49,348**

The Finnish corporate tax rate in the financial year 2023 and the reference year was 20.0%.

Deferred tax assets are recognised up to the amount for which there is likely to be taxable income in the future, and against which they can be used. The above table shows the temporary differences, tax losses and deferred depreciation for which deferred tax assets or tax liabilities have not been recognised due to uncertainty related to their recovery. Material unrecognised deferred taxes relate to adjustments to Terrafame Oy's assets on the basis of IFRS accounting policies in connection with the preparation of consolidated financial statements.

On 31 December 2023, the Group companies had unrecognised deferred tax assets of approximately EUR 16.5 million, which consisted of the confirmed losses for tax years 2015–2022 (EUR 6.5 million in tax assets), losses estimated to be confirmed for tax year 2023 (EUR 1.0 million in tax assets) and deferred depreciation (EUR 9.0 million).

No deferred tax assets have been recognised with respect to the annually updated rehabilitation provision recorded in connection with the acquisition of the mining business and the related IFRS adjustments. At the balance sheet date, the deferred tax asset from the provision is approximately EUR 43.9 million and the deferred tax liability from IFRS adjustments is approximately EUR 8.4 million. The deferred tax assets arising from finance lease arrangements in accordance with IFRS 16 have been netted off against the arrangement's deferred tax liabilities. The amount of net deferred tax liabilities arising from IFRS 16 leasing arrangements shown in the financial statements' balance sheet dated 31 December 2023 is EUR 646 thousand.

1.22 Contingent liabilities and other liabilities

	31 Dec 2023	**31 Dec 2022**
Fixed assets serving as collateral for installment credit	**0**	**76**
Installment credit		
Within one year	0	126
After one year but within five years	0	0
Total	**0**	**126**
Other contractual exposures		
Within one year	7,937	8,178
After one year but within five years	98	1,764
Total	**8,035**	**9,942**
Bank deposits	**0**	**0**
Total	**8,035**	**10,069**

Securities complying with environmental and mining permits	**Type of security**	**31 Dec 2023** Amount of security	**31 Dec 2022** Amount of security
Beneficiary			
Kainuu Centre of Economic Development, Transport and the Environment; no. 196	Credit insurance	362,325	153,245
Security in accordance with permit decision no. 52/2013/1	Bank guarantee	1,500	1,500
Security in accordance with permit decision no. 43/2014/2	Bank guarantee	6	6
Security in accordance with permit decision no. 43/2015/1	Bank guarantee	100	100
Security in accordance with permit decision no. 3/2017/1	Bank guarantee	50	50
Security in accordance with permit decision no. 76/2017/1	Bank guarantee	100	100
Security in accordance with permit decision no. 133/2010	Bank guarantee	0	10
Security in accordance with permit decision no. 5/2021	Bank guarantee	200	200
Security in accordance with permit decision no. 5/2021	Bank guarantee	0	20
Security in accordance with permit decision no. 87/2022	Bank guarantee	17	17
Security in accordance with permit decision no. 87/2022	Bank guarantee	10	10
Decision of the Finnish Safety and Chemicals Agency, 30 June 2014, Mining Register registration number: 2819	Bank guarantee	100	100
Decision of the Finnish Safety and Chemicals Agency, 30 June 2014, Mining Register registration number: 2819	Bank guarantee	35	35
Decision of the Finnish Safety and Chemicals Agency, 30 June 2014, Mining Register registration number: 2819	Bank guarantee	50	50
Total		**364,493**	**155,443**
Other collateral	Bank guarantee	1,895	1,895
Real estate investments' VAT refund liability		**12,181**	**13,797**
Business mortgages		**0**	**320,000**
Real estate mortgage		**0**	**1,200,079**
Mining certificate, Mining Register registration number 2819, mining concession	Pledge	**free**	**Yes**

Business and real estate mortgages and the pledge on the mining certificate were collateral for Terrafame's long-term financing agreements. The company's business and real estate mortgages were released during the financial year 2023.

1.23 Financial risk management

The nature of business exposes Finnish Minerals Group to foreign exchange, commodity price, credit and liquidity risks. The goal of the Group's financial risk management is to minimise the negative effects of changes in financial and commodity markets on its result and cash flow.

As the Group's main operating subsidiary, Terrafame is exposed to all the risks listed above. Terrafame's commercial and finance department identifies and assesses risks, acquires the instruments needed to hedge against risks, and reports on risks and any changes therein to the company's CEO and Board of Directors. Hedging transactions are carried out in accordance with the principles approved by the Board of Directors. If necessary, foreign-exchange forward transactions and options, foreign currency loans, interest rate swaps and nickel and zinc forwards, and options are used in financial risk management. The financial structure of subsidiaries is planned, evaluated and controlled whilst taking financial risk management into account.

The hedging policy adopted by Terrafame's Board of Directors defines the objectives of hedging, permitted hedging instruments, hedging levels, organisational responsibilities and reporting necessary for the management and control of financial risks. The accounting policies to be applied are also outlined in the hedging policy. The company's Board of Directors approves all counterparties to agreements relating to financial risk management. According to the hedging policy, derivative instruments can only be used to manage business risks. The use of derivative instruments to hedge against non-business risks (for trading purposes or speculative use) is prohibited.

The company's financial management submit reports on risk management, hedging position and outcomes to the CEO and Board of Directors on a monthly basis.

Currency risks

Since Finnish Minerals Group operates in the euro area and sales are made in US dollars, the company's business operations involve currency risks.

In 2023, the Group had USD-denominated sales worth USD 604.4 million, and the USD-denominated foreign-exchange forward transactions due during the financial year totalled USD 366 million. The hedge ratio was therefore set at 60.6 percent. As a result, a 10 percent change in the value of EUR/USD would have only affected the Group's net sales by 3.9 percent.

Most of Terrafame's long-term loans from financial institutions in the accounting period 2023 were USD-denominated. In accordance with the hedging policy, the risk of revaluing loans related to exchange rate changes is not subject to hedging measures.

Interest rate risk

The Group's interest rate risk arises from loans from financial institutions for which the reference rate is a variable interest rate. At the date of closing the accounts, the consolidated balance sheet showed EUR 153.7 million in interest-bearing liabilities (2022: 241.9). On the same date, the repayment period of interest-bearing liabilities was approximately 1.8 years. This calculation includes all of the liabilities for which a repayment period can be defined. The company has not taken any special measures to hedge against interest rate risks during the financial year.

Reasonably possible changes in the interest rate level would not have had a significant impact on the Group's result and shareholders' equity. An increase of one percentage point in the reference rate would have increased the interest costs of finance loans by approximately EUR 1.9 million. In accordance with the hedging policy, the risk of revaluation of loans is not subject to hedging measures.

Credit risk

The internal guidelines of Finnish Minerals Group define the principles and responsibilities of credit control. Once a new customer agreement has been signed, the Group estimates its expected annual volume and share of net sales, as well as the customer's creditworthiness.

No credit losses have been recognised for the financial year 2023 or 2022. Credit insurance has not been applied to secure trade receivables.

The aging schedule for trade receivables is presented in Note 1.17.

Capital management

The aim of the Group's capital management is to support business through an optimal capital structure and increase shareholder value by aiming at the highest possible return. An optimal capital structure also ensures smaller capital costs.

Developments in capital structure are monitored through the equity-to-assets ratio. The equity ratio on 31 December 2023 was 63.6 percent (31 December 2022: 45.7 percent).

Liquidity risk

Finnish Minerals Group continuously assesses and monitors the amount of financing required for business operations, so that the Group has sufficient liquid funds to finance its operations.

The maturity distribution based on debt contracts is as follows:

31 Dec 2023	Carrying amount	Cash flow	0–6 mths	6 mths–1 yr	1–2 yrs	More than 2 yrs
Interest-bearing liabilities	148,208	149,065	111,542	0	0	37,523
Accounts payable	94,888	94,888	94,888	0	0	0
Lease liabilities	5,478	6,095	954	954	3,684	504
Derivative liabilities	138	138	138	0	0	0
Total	**248,713**	**250,187**	**207,523**	**954**	**3,684**	**38,027**

31 Dec 2022	Carrying amount	Cash flow	0–6 mths	6 mths–1 yr	1–2 yrs	More than 2 yrs
Interest-bearing liabilities	234,942	261,322	43,423	120,001	75,955	21,944
Accounts payable	105,717	105,717	105,717	0	0	0
Lease liabilities	6,921	7,050	2,990	2,991	577	492
Derivative liabilities	84,855	84,855	35,891	31,420	17,544	0
Total	**432,435**	**458,945**	**188,021**	**154,412**	**94,076**	**22,435**

Market risk

The Group's sales in 2023 amounted to EUR 561.1 million (2022: 584.4). Selling prices are especially affected by world-wide prices of nickel and zinc. The importance of hedging instruments to the company's financial position and projected profitability for the next 12 months was high on 31 December 2023. The company had set up a cash flow hedge against a weakening US dollar with a hedging rate of approximately 25 percent. The company had set up a cash flow hedge against a decline in the price of nickel for forecasted deliveries during the coming year using derivatives, with a hedging rate of approximately 35 percent. In addition, in line with its hedging policy, the company had set up hedges for almost all of its nickel and zinc deliveries, which had been completed and previously reported as sales. As a result, the change in market prices after the closing of the accounts has hardly no effect on the sales revenue recognised for nickel and zinc deliveries completed during the financial year 2023.

1.24 Provisions – rehabilitation provision

Long-term provisions on the balance sheet are related to the environmental and rehabilitation liabilities associated with the Group's mine and production plants. The provisions are based on estimates of future liabilities.

Non-current

Rehabilitation provision	31 Dec 2023	31 Dec 2022
At beginning of year	205,251	232,024
Increase	7,294	0
Changes due to discounting	0	-34,244
Unwinding of the discount	7,184	7,471
At end of year	219,729	205,251
Total non-current	**219,729**	**205,251**
Estimated cost of the rehabilitation provision		
Rehabilitation of bioleaching areas	115,703	108,079
Other rehabilitation work	104,026	97,172
Total estimated rehabilitation costs	**219,729**	**205,251**

On 20 June 2022, the Regional State Administrative Agency for Northern Finland issued its decision on the environmental and water permit covering all Terrafame's operations – that is, the master permit. The master permit determines the scope of all operations (including new short-term plans), sets emission limits and defines an environmental guarantee for discontinued operations. The new permit also enables the progress of ongoing development projects, taking account of the interim decisions issued by the Vaasa Administrative Court in January 2024.

However, the permit decision increased Terrafame's environmental guarantee from EUR 138 million to EUR 324 million, which is high even by global comparison. In the third quarter of 2022, Terrafame filed an application with the Vaasa Administrative Court concerning the calculation principles of the guarantee.

Terrafame already increased the environmental provision in its financial statements for 2021, and the provision remained unchanged in Terrafame's financial statements for 2022. In Terrafame's financial statements for 2023, the provision was increased by EUR 15.1 million, mainly due to the introduction of new waste rock fields. In Group's financial statements provision has been discounted, and the provision was increased during the financial period by EUR 7.3 million. The unwinding of the discount during the financial period also increased the provision by EUR 7.2 million. The impact on the Group's operating result (IFRS) is EUR -7.2 million. The amount of the provision in the consolidated balance sheet on 31 December 2023 was 219.7 million (2022: 205.2).

In preparation for costs arising from closure measures, Terrafame has included in its balance sheet an environmental provision that is updated annually. As far as applicable, the provision complies with the guarantee determined in the environmental permit and the Northern Finland Regional State Administrative Agency's estimate of area-based closure costs. The general costs in the guarantee requirement and the value added tax added to the unit cost are not included in the environmental provision, as these costs will not be borne by Terrafame when the company carries out its closing obligation.

1.25 Interest-bearing liabilities

Non-current financial liabilities measured at amortised cost	**31 Dec 2023**	**31 Dec 2022**
Loans from financial institutions – finance loan	37,484	101,129
Other payables – installment credit	0	0
Lease liability	3,878	1,034
Total	**41,362**	**102,163**

Current financial liabilities measured at amortised cost		
Loans from financial institutions – finance loan	110,724	133,686
Other payables – installment credit	0	126
Lease liability	1,600	5,887
Total	**112,324**	**139,700**

Terrafame strengthened its financial position during the financial year 2023. Funds managed by Galena Asset Management and Mandatum Holding Oy exercised previously granted option rights. The proceeds received from the options exercised were used to repay EUR 142 million in long-term loans granted by Trafigura and Mandatum, which means that Terrafame no longer has shareholder loans from Trafigura and Mandatum.

Terrafame agreed on a new loan arrangement of EUR 250 million. The loan package is unsecured, with a maturity of four years. It includes a bullet loan of EUR 100 million and a revolving credit facility of EUR 150 million. The bullet loan is for refinancing Terrafame's existing liabilities. The revolving credit facility is used to meet working capital needs and the company's general financing needs.

During the financial year 2023, Finnish Minerals Group has agreed with Nordea on a credit facility of EUR 80 million, of which EUR 70 million has been drawn during the financial year. In January and February, the company repaid all the loans drawn from the credit facility. No funds have been drawn from the credit facility since that date. The credit facility is valid until 25 June 2025.

The fair values of current and non-current liabilities do not differ significantly from their carrying amounts.

1.26 Provisions, trade and other payables

Current	**31 Dec 2023**	**31 Dec 2022**
Advances received	0	0
Accounts payable	94,888	105,717
Accruals and deferred income	26,502	25,133
Derivative liabilities	138	84,855
Other payables	1,451	1,366
Total	**122,979**	**217,071**

Non-interest bearing liabilities by currency, EUR	**31 Dec 2023**	**31 Dec 2022**
USD	624	104,667
GBP	3	0
SEK	42	2
CAD	8	0
EUR	122,302	112,402
Total	**122,979**	**217,071**

During the financial year 2023 and 2022, derivative assets and liabilities were recognised at fair value. A breakdown of these is presented in the Notes to hedging derivatives (see 1.20).

Classification of financial assets and liabilities

31 Dec 2023		**Carrying amount**		**Total carrying amount**	**Fair value**	Level 1	Level 2	Level 3
	Measured at amortised cost	Measured at fair value through profit or loss	Covered by hedge accounting					
Financial assets								
Derivatives			74,541	74,541	74,541		74,541	
Trade receivables	48,892			48,892	48,892			
Cash and cash equivalents	25,599			25,599	25,599			
Total	**74,491**	**0**	**74,541**	**149,032**	**149,032**			
Financial liabilities								
Loans from financial institutions	148,208			148,208	148,208			
Other liabilities – installment credit	0			0	0			
Lease liabilities	5,478			5,478	5,478			
Accounts payable	94,888			94,888	94,888			
Derivatives			138	138	138		138	
Total	**248,575**	**0**	**138**	**248,713**	**248,713**			

For financial assets and liabilities measured at amortised cost, the carrying amount is considered to be the best estimate of their fair value. The Group made no transitions between the classification levels of fair value during the financial year.

31 Dec 2022	**Carrying amount**			**Total carrying amount**	**Fair value**	Level 1	Level 2	Level 3
	Measured at amortised cost	Measured at fair value through profit or loss	Covered by hedge accounting					
Financial assets								
Derivatives			13,847	13,847	13,847		13,847	
Trade receivables	66,701			66,701	66,701			
Cash and cash equivalents	48,330			48,330	48,330			
Total	**115,031**	**0**	**13,847**	**128,879**	**128,879**			
Financial liabilities								
Loans from financial institutions	234,846			234,846	234,846			
Other liabilities – installment credit	126			126	126			
Lease liabilities	6,921			6,921	6,921			
Accounts payable	105,717			105,717	105,717			
Derivatives			84,855	84,855	84,855		84,855	
Total	**347,579**	**0**	**84,855**	**432,435**	**432,435**			

Classification level 1 fair values are based on the quoted (unadjusted) prices of identical assets or liabilities in an appropriate market. In determining the fair value of these instruments, the Group has mainly used Bloomberg valuations as the source of prices and the Group has verified that the prices received represented actual and frequent market transaction prices for the instruments in question.

The fair values of instruments in classification level 2 are for a significant part based on inputs other than the prices quoted in classification level 1, however, it is based on data that is observable for the asset or liability in question either directly (as the price) or indirectly (derived from the price). In order to determine the fair value of these instruments, the Group uses generally accepted valuation models, the inputs of which are nonetheless for a significant part based on observable market data.

The fair values of level 3 instruments, on the other hand, are based on inputs on an asset or a liability that are not based on observable market data (unobservable inputs) but for a significant part on estimates made by management and the generally accepted methods of valuation used.

The fair value classification level for a specific item measured at fair value as a whole is determined on the basis of the lowest level input data relevant to the item in question. The significance of the input has been assessed in relation to the item measured at fair value as a whole.

1.27 Adjustments to cash flows from operating activities

	2023	**2022**
Adjustments to operating profit/loss		
Unrealised foreign exchange gains and losses	-2,259	9,031
Finance income and costs	38,339	29,375
Other income and expenses that do not include payments	-1,503	257
Reversal of impairment loss, Keliber	0	-8,155
Share of profit from associated companies	1,196	1,295
Other adjustments	0	20
Total	**35,773**	**31,824**

Changes in liabilities arising from financing activities

	1 Jan 2023	**Changes arising from cash flows**	**Non-cash changes**			**31 Dec 2023**
			Foreign exchange movements	Transfers	Other changes	
Non-current liabilities	101,129	0	-896	-90,516	27,767	37,484
Current liabilities	133,813	-40,154	-9,089	-43,846	70,000	110,724
Lease liabilities						
non-current	1,034	0	0	-1,267	4,111	3,878
current	5,887	-3,718	0	-1,974	1,406	1,600
Total liabilities arising from financing activities	**241,863**	**-43,873**	**-9.985**	**-137,603**	**103,284**	**153,686**

	Non-current liabilities	**Current liabilities**	**Non-current lease liabilities**	**Current lease liabilities**	**Total liabilities arising from financing activities**
Net liabilities 1 Jan 2022	109,019	107,125	6,898	4,367	227,409
Cash flows	0	-67,644	0	-4,353	-71,997
Date of acquisition	76,110	0	21	0	76,131
Exchange rate variations	414	-9,919	0	0	10,333
Other changes that do not include payment	-84,413	84,413	-5,886	5,873	-13
Net liabilities 31 Dec 2022	**101,129**	**133,813**	**1,034**	**5,887**	**241,863**

	Non-current liabilities	**Current liabilities**	**Non-current lease liabilities**	**Current lease liabilities**	**Total liabilities arising from financing activities**
Net liabilities 1 Jan 2023	101,129	133,813	1,034	5,887	241,863
Cash flows	0	-40,154	0	-3,718	-43,873
Date of acquisition	27,767	70,000	4,111	1,406	103,284
Exchange rate variations	-896	-9,089	0	0	-9,985
Other changes that do not include payment	-90,516	-43,846	-1,267	-1,974	-137,603
Net liabilities 31 Dec 2023	**37,484**	**110,724**	**3,878**	**1,600**	**153,686**

1.28 Related party transactions

Finnish Minerals Group's key related parties are the State of Finland, the sole shareholder of the Group's parent company, the associated companies Keliber Oy, CNGR Finland Oy and Adven-FMG Sodium Sulphate Holding Oy and their subsidiaries. The key related parties of Terrafame Oy are Finnish Minerals Group, the State of Finland, Galena Private Equity Resources Investment 2 L.P., Galena Private Equity Resources Investment 3 L.P., Galena Private Equity Resources Investment 4 L.P. funds and Trafigura Group. In addition, the related parties include members of Boards, CEOs, and management team members of Group companies, persons responsible for Terrafame's commercial agreements, immediate family members of persons referred to here, and entities in which they or their immediate family members exercise control or considerable influence. Finnish Minerals Group's related parties also include companies in which the State of Finland exercises control or considerable influence. The company has applied an exemption pursuant to which it only reports significant business transactions with Government-related companies.

During the financial year, Finnish Minerals Group has made an additional investment of EUR 54 million in the associated company Keliber, which has increased Finnish Minerals Group's holding to 20.0 percent. Finnish Minerals Group has also made an additional investment of EUR 0.1 million in associated company Adven-FMG Sodium Sulphate Holding Oy during the financial year.

During financial year 2023, Funds managed by Galena Asset Management exercised previously granted option rights. The proceeds received from the options exercised were used to repay EUR 121.4 million in loans granted by Trafigura, which means that Terrafame no longer has shareholder loans from Trafigura. As part of shareholder financing, Finnish Minerals Group increased the working capital facility granted to Terrafame. The amount drawn from the facility at the end of the year was EUR 58.0 million.

Terrafame has spent approximately EUR 0.6 million on legal and other administrative services and approximately EUR 0.2 million on management services for product development projects purchased from Finnish Minerals Group.

Business transactions with related parties	**31 Dec 2023**	**31 Dec 2022**
Net sales from goods and services		
Associated companies	137	0
Purchases of goods and services		
Other related entities	56,985	53,477
Accounts payable		
Other related entities	5,661	9,332

Executives' benefits	**2023**	**2022**
Salaries and other short-term benefits	3,116	2,675
Termination benefits	0	0
Post-employment benefits	0	0
Other long-term employee benefits	0	0
Share-based payments	0	0
Total	**3,116**	**2,675**

The Executives' benefits table includes the salaries and remunerations of the Board of Directors and CEOs and the executives of Group companies.

Wages and salaries	**31 Dec 2023**	**31 Dec 2022**
Parent company	249	247
CEO		
Members of the Board of Directors		
Teija Kankaanpää	27	23
Ilpo Korhonen	31	24
Antti Kummu	44	34
Olavi Huhtala	32	20
Janne Känkänen	1	5
Eeva Ruokonen	32	25
Pauli Anttila	37	29
Jukka Ohtola	29	24
Total remuneration of the Board of Directors	**233**	**183**
Terrafame Oy (subsidiary)	**31 Dec 2023**	**31 Dec 2022**
CEO	474	394
Members of the Board of Directors		
Lauri Ratia	80	79
Jesus Fernandez	44	43
Emmanuel Henry	0	21
Julian Sanchez	44	22
Matti Hietanen	44	33
Riitta Mynttinen	44	43
Tuomo Mäkelä	43	43
Jyrki Vainionpää	44	43
Total remuneration of the Board of Directors	**343**	**327**
Total wages and salaries	**1,299**	**1,152**

At the end of the financial year 2023 and 2022, the members of the Board of Directors and executives of Finnish Minerals Group or Terrafame Oy and their related parties do not own the company's shares.

All business transactions between the Group companies and their related parties conformed to accepted market practices.

The pension cover of key personnel is determined on the basis of statutory pension provision. There are no option or other share-based incentive schemes in place for executives.

1.29 Parent company and subsidiary relationships of the Group

Company	**Domicile**	2023 **Holding (%)**	2023 **Share of votes (%)**	2022 **Holding (%)**	2022 **Share of votes (%)**
Finnish Minerals Group – parent company	Finland				
Terrafame Oy	Finland	56.1%	56.1%	67.0%	67.0%
Finnish Battery Chemicals Oy	Finland	100.0%	100.0%	100.0%	100.0%
Sokli Holding Oy	Finland	100.0%	100.0%	100.0%	100.0%
Sokli Oy	Finland	100.0%	100.0%	100.0%	100.0%

1.30 Events after the balance sheet date

The financial period of Finnish Minerals Group ended on 31 December 2023. After this date, the State of Finland, as the sole owner of the company, decided on an equity investment of EUR 30 million in the company. The first instalment of this capital allocation, amounting to EUR 15 million, was paid to the company in February 2024.At the end of the review period, the company had drawn down a total of EUR 70 million from the Nordea credit facility. In January and February, the company repaid the loans drawn from the credit facility in full.

The pCAM plant that our associated company CNGR Finland Oy plans to establish in Hamina was granted an environmental permit by the Southern Finland Regional State Administrative Agency in February 2024.

In February 2024, the subsidiary Terrafame Oy started co-operation negotiations in accordance with the Act on Co-operation within Undertakings for production and financial reasons. The preliminary estimate of the workforce reduction needed is 75 person-years at the most.

There are unresolved product quality claims regarding Terrafame's business and consolidated financial statements of 2023 affecting profit by an estimated EUR three million at most.

PARENT COMPANY FINANCIAL STATEMENTS (FAS)

PARENT COMPANY INCOME STATEMENT

(EUR 1,000)

Finnish Minerals Group	**Note**	**2023**	**2022**
Net sales	2.1	1,898	1,652
Gross profit		**1,898**	**1,652**
Other operating income	2.2	467	394
Administrative expenses	2.4	-5,302	-4,506
Research and development costs	2.5	-2,824	-1,999
Operating profit/loss		**-5,761**	**-4,459**
Finance income and cost	2.6		
Other interest and finance income		3,302	540
Impairment of non-current assets – reversal of impairment loss		4	8,155
Interest and other finance expenses		-1,012	-5
Total finance income and cost		2,294	8,691
Profit/loss before tax		**-3,467**	**4,232**
Income taxes		0	0
Profit/loss for the period		**-3,467**	**4,232**

PARENT COMPANY BALANCE SHEET

(EUR 1,000)	**Note**	**31 Dec 2023**	**31 Dec 2022**
ASSETS			
Non-current assets			
Intangible assets	2.7	437	236
Development costs			
Investments	2.8	537,481	537,481
Amounts owed by Group companies	2.9	78,601	24,655
Investments in associates			
		616,519	**562,372**
Total non-current assets			
Current assets			
Non-current receivables	2.10	21,290	14,509
Receivables from Group companies			
Current receivables	2.11	60,348	970
Current receivables	2.12	9,353	2,421
Cash and cash equivalents			
		90,992	**17,901**
Total current assets			
TOTAL ASSETS		**707,511**	**580,273**
EQUITY AND LIABILITIES			
Equity			
Subscribed capital	2.13	2,258	2,258
Invested unrestricted equity fund		666,151	606,151
Profit/loss from previous periods		-30,020	-34,252
Profit/loss for the period		-3,467	4,232
Total equity		**634,921**	**578,388**
Current liabilities			
Current liabilities	2.14	72,590	1,885
Total current liabilities		72,590	1,885
TOTAL EQUITY AND LIABILITIES		**707,511**	**580,273**

PARENT COMPANY CASH FLOW STATEMENT

(EUR 1,000)	**2023**	**2022**
Cash flow from operating activities		
Profit/loss for the period	-3,467	4,232
Adjustments to operating profit/loss	-2,247	-8,662
Change in working capital	-353	175
Interest paid	-598	-5
Interest received	1,692	11
Net cash flow from operating activities	**-4,973**	**-4,249**
Cash flow from investing activities		
Investments in tangible and intangible assets	-248	-51
Loans granted	-65,000	0
Investments in other investments	-5,900	-6,500
Repayment of loan receivables	7,000	0
Investments in associated companies	-53,946	0
Net cash used in investing activities	**-118,095**	**-6,551**
Cash flow from financing activities		
Subscription issue	60,000	0
Proceeds from short-term loans	70,000	0
Cash flow from financing activities	**130,000**	**0**
Change in cash and cash equivalents	**6,932**	**-10,800**
Cash and cash equivalents at the beginning of the period	2,421	13,221
Cash and cash equivalents at the end of the period	**9,353**	**2,421**

PARENT COMPANY'S ACCOUNTING POLICIES AND NOTES

Accounting policies

The scope of financial statements, and accounting policies

The company has prepared the financial statements in accordance with Finnish accounting legislation and Finnish Accounting Standards (FAS). The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS).

The financial statement information is reported in tables and related texts in thousands of euros and in the report of the Board of Directors in millions of euros to one decimal place. The comparative figures reported in brackets are figures for the financial year 2022. All the presented figures have been rounded according to general rounding rules, so the sum of the individual figures may be different from the sum presented. Key figures have been calculated using exact values. Comparative information has been adjusted where necessary to correspond with the information of the year under review.

Transactionsin foreign currencies

Transactions in foreign currency are recorded at the rate prevailing on the transaction date. Receivables and liabilities on the balance sheet on the closing date of the accounts are value at closing rate.

Research and development costs

Research expenditure is treated as annual expenses and recognised as an expense in the income statement. The costs incurred in the development of battery business and battery technologies are capitalised on the balance sheet if the development activities are expected to generate income beyond the current accounting period. Capitalised development costs are amortised over ten years as planned.

Amortisation of pension costs

Pension expenditure is recognised as an expense in the year it was accrued.

Receivables

Receivables are valued at nominal value or at a lower probable value.

Non-current assets

Shares in subsidiaries are stated on the balance sheet at historical cost. If the future income generated from shares is estimated to be permanently lower than the undepreciated acquisition cost, the difference is entered as an expense under impairment.

Deferred taxes

No deferred tax assets or liabilities have been recognised on temporary differences between taxation and financial statements, but these have been presented in the notes. The most significant temporary difference is the loss to be confirmed for the financial period.

2 PARENT COMPANY'S NOTES

2.1 Net sales

	2023	2022
Intra-group sales	1,762	1,652
Selling to others	137	0
Total	**1,898**	**1,652**

2.2 Other operating income

	2023	2022
Grants and subsidies received	467	275
Other income	0	119
Total	**467**	**394**

2.3 Personnel expenses and number of employees

Personnel expenses	**2023**	**2022**
Wages and salaries	3,303	3,117
Pension costs	558	519
Other social security expenses	82	106
Total	**3,943**	**3,742**
Average number of employees		
White collar employees	34	32
	34	**32**

2.4 Administrative expenses

Personnel expenses	**2023**	**2022**
Wages and salaries	2,360	2,403
Pension costs	399	400
Other social security expenses	59	82
Total	**2,818**	**2,886**
Auditors' fees		
Auditing	41	44
Certificates and reports	0	0
Tax advisory services	29	62
Other services	28	6
Total	**98**	**112**
Travel expenses	388	225
Rents	148	142
Other legal and consulting services	698	93
Other administrative expenses, Group	10	32
Other administrative expenses	1,142	1,016
Total administrative expenses	**5,302**	**4,506**
Management salaries and fees		
CEO and Board members	481	430

2.5 Research and development costs

	2023	2022
Total research and development costs recognised as an expense	2,824	1,999

2.6 Finance income and expenses

	2023	2022
Other interest and finance income		
From Group companies	2,853	529
From other companies	449	11
Impairment of investments held as non-current assets	4	8,155
Interest and other finance expenses		
To other companies	-1,012	-5
Total	**2,294**	**8,691**

2.7 Intangible assets

	Total
Carrying amount 31 Dec 2022	**236**
Acquisition cost 1 Jan 2023	410
Capitalised during the period	248
Acquisition cost 31 Dec 2023	658
Accumulated amortisation and impairment losses 1 Jan 2023	174
Amortisation for the year	47
Accumulated amortisation and impairment losses 31 Dec 2023	222
Carrying amount 31 Dec 2023	**437**

2.8 Investments in subsidiaries

Shares in Group companies	
Carrying amount 31 Dec 2022	537,481
Acquisition cost 1 Jan 2023	537,481
Acquisition cost 31 Dec 2023	537,481
Carrying amount 31 Dec 2023	**537,481**

Group companies	**31.12.2023**	**31.12.2022**
Parent company holdings		
Terrafame Oy, Sotkamo, Finland	56.1%[*)]	67.0%
Finnish Battery Chemicals Oy, Helsinki, Finland	100.0%	100.0%
Sokli Holding Oy, Helsinki, Finland	100.0%	100.0%

[*)] Holding includes shares registered on 15 February 2024. Holding before registration was 64.4%.

2.9 Investments in associates

	Holdings in associated companies
Carrying amount 31 Dec 2022	24,655
Acquisition cost 1 Jan 2023	24,655
Increase	53,946
Acquisition cost 31 Dec 2023	78,601
Accumulated impairment losses 1 Jan 2023	0
Accumulated impairment losses 31 Dec 2023	0
Carrying amount 31 Dec 2023	**78,601**

31 Dec 2023	Company holdings	Book-entry	Number of shares	Carrying amount
Keliber Oy, Kaustinen, Finland	20%	Class B shares	822,863	78,601

During the financial year 2023, the shareholding in Keliber Oy increased to 20 percent as a result of the share issue carried out by the associated company. The company's status as Finnish Minerals Group's associated company remains unchanged.

2.10 Non-current receivables

	31 Dec 2023	31 Dec 2022
Receivables from Group companies	21,290	14,509
Total receivables	**21,290**	**14,509**

2.11 Current receivables

	31 Dec 2023	31 Dec 2022
Receivables from Group companies	59,566	650
Receivables from associates	137	0
Trade receivables	0	0
Lease guarantees	38	37
VAT receivable	132	0
Tax account receivable	0	72
Prepaid expenses and accrued income	475	210
Total receivables	**60,348**	**970**

2.12 Cash and cash equivalents

	31 Dec 2023	31 Dec 2022
Cash in hand and at banks	9,353	2,421

2.13 Equity

	31 Dec 2023	31 Dec 2022
Subscribed capital 1 Jan	2,258	2,258
Subscribed capital 31 Dec	2,258	2,258
Total restricted equity	2,258	2,258
Invested unrestricted equity fund 1 Jan	606,151	606,151
Issued shares	60,000	0
Invested unrestricted equity fund 31 Dec	666,151	606,151
Profit/loss from previous periods	-30,020	-34,252
Profit/loss for the period	-3,467	4,232
Total unrestricted equity	632,663	576,130
Total equity	634,921	578,388
Calculation of distributable funds		
Invested unrestricted equity fund	666,151	606,151
Profit/loss from previous periods	-30,020	-34,252
Profit/loss for the period	-3,467	4,232
Capitalised development costs	-437	-236
Total distributable funds	**632,226**	**575,895**

2.14 Current liabilities

	31 Dec 2023	31 Dec 2022
Amounts owed to Group companies		
Accounts payable	0	0
Loans from financial institutions	70,000	0
Advances received	0	0
Accounts payable	832	358
Amounts owed to Group companies	132	0
Other liabilities - tax withheld in advance and social security expenses	96	79
Value added tax liability	0	44
Accrued expenses and deferred income – wages and salaries with social security expenses	601	534
Accrued expenses and deferred income – other	929	869
Total	**72,590**	**1,885**

2.15 Other notes

	31 Dec 2023	31 Dec 2022
Contingent liabilities and other liabilities		
Amounts due on leases and leasing commitments		
Within one year	154	90
After one year but within five years	98	0
Total	**252**	**90**

The company has confirmed losses for the tax years 2015 to 2022 amounting to approximately EUR 29.7 million, for which no deferred tax asset has been recognised. The unrecognised deferred tax asset for the confirmed losses amounts to approximately EUR 5.9 million. The estimated loss for the tax year 2023 is approximately EUR 3.5 million, for which unrecognised deferred tax asset amounts to EUR 0.7 million.

Signatures to the financial statements

In Helsinki, 19 March 2024

Antti Kummu
Chair of the Board of Directors

Teija Kankaanpää

Ilpo Korhonen

Olavi Huhtala

Eeva Ruokonen

Jukka Ohtola

Pauli Anttila

Matti Hietanen
CEO

Auditor's confirmation

A report on the audit has been issued today.

In Helsinki, 19 March 2024

KPMG Oy Ab
Authorised Public Accountants

Antti Kääriäinen
APA

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