FINNISH MINERALS GROUP
SUOMEN MALMIJALOSTUS

ANNUAL REPORT 2021

ANNUAL REPORT 2021

Layout: Graphic Room

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2021 IN REVIEW

By developing the battery value chain in Finland, we can provide materials and products that enable Finland and Europe to strive for climate neutrality.

VISION

We provide materials for climate neutrality

MISSION

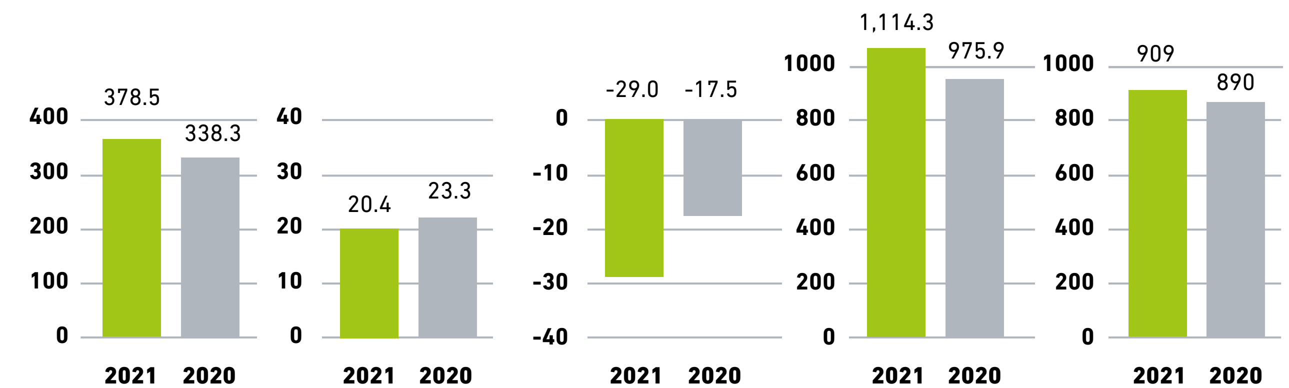
Responsibly maximising the value of Finnish minerals

STRATEGIC OBJECTIVES

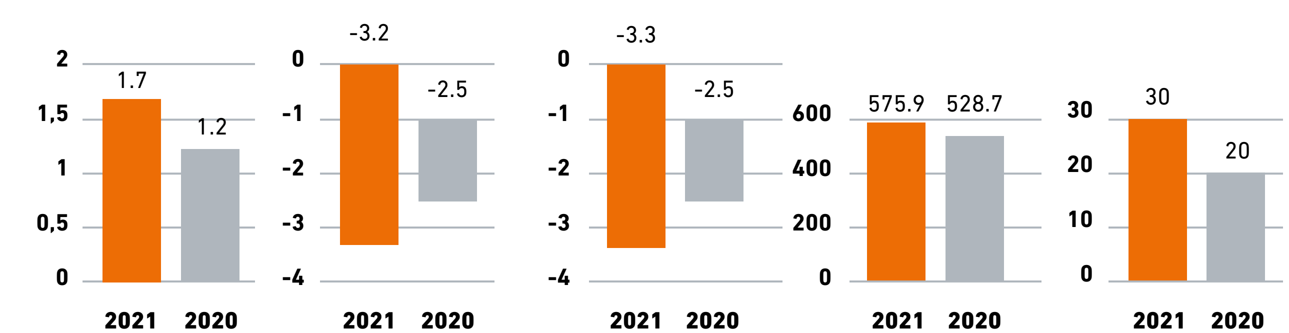
KEY FIGURES 2021

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

GROUP COMPANIES



FINNISH MINERALS GROUP



*) Including personnel of the wholly owned subsidiaries.

CEO'S REVIEW

A NEW INDUSTRY IS EMERGING IN FINLAND

The electrification of transport requires working to build a responsible value chain. For us, this work comprised many projects within the value chain, ranging from the mine to battery cell production.

THE YEAR has been memorable. While our company's work in the previous year consisted mainly of project preparation, in 2021, the focus shifted to the design and feasibility assessment of industrial projects.

One of our most important milestones was the completion of the Definitive Feasibility Studies (DFS) on the battery material plants to be built in the Kymenlaakso region. Based on the results, we have concluded with both CNGR Advanced Material and Beijing Easpring Material Technology that the planned pCAM and CAM plants are in a good position with respect to operating in the European market, and we have continued working closely to develop these projects.

In addition to battery material production, Finland is all set to attract investments in battery cell production. During the autumn, we explored various co-operation and business models with FREYR Battery for the establishment of a battery cell plant in Vaasa while our partner was getting ready for the EIA procedure.

In the beginning of the year, we announced our collaboration with UK-based Johnson Matthey, in which our role was to support our partner in water treatment in their potential plant in Vaasa. In November, however, Johnson Matthey announced that they were planning to sell the battery material business in its entirety. This strategic evaluation resulted in the suspension of our cooperation to advance the project.

OUR SUBSIDIARY Terrafame completed the construction work on the battery chemicals plant, which will increase the value added of its nickel and cobalt production. The rise of electric cars is boosting the demand for battery chemicals. Our portfolio company Keliber found a new financier in Sibanye-Stillwater and was able to continue its mining and lithium hydroxide production project in Central Ostrobothnia.

Furthermore, our subsidiary Sokli started assessing the technical and economic feasibility of the Sokli mining project in late 2021 with the aim of comprehensively examining the site's mineral potential based on the latest production technologies.

THE GLOBAL ELECTRIC CAR STOCK has been growing fast for many years. The transition from fossil fuels to electricity in cars, however, cannot keep up with the demand and market forecasts unless we can ensure the availability of the raw materials and materials needed in battery production. Europe is export-dependent, that we are aware of, but so far corrective actions have been insufficient.

Finnish Minerals Group is a unique entity in all of Europe. In line with our vision, we want to provide the materials needed to achieve climate neutrality. We can already see a new industry emerging in Finland that will bring jobs, improve our competence and create well-being.

WE HAVE worked hard throughout the year to keep the projects moving forward. I want to thank our entire team, because everyone's input matters. The rapidly developing market and our large investment projects will demand a lot of us in 2022 as well.

MATTI HIETANEN
CEO
Finnish Minerals Group

KEY EVENTS ▶

JANUARY

- Our subsidiary Terrafame receives an environmental permit for its new battery chemicals plant.

FEBRUARY

- Our project company Finnish Battery Chemicals submits an EIA report on battery materials production to the coordinating authority.
- Our portfolio company Keliber and Sibanye-Stillwater agree upon the further financing of Keliber's lithium hydroxide project. We invest a total of EUR 3.8 million in Keliber in 2021.
- Finnish Minerals Group announces that it is negotiating with CNGR Advanced Material about a pCAM plant to be established in Hamina.

MARCH

- A public event is held about Finnish Battery Chemicals' EIA report on battery materials production.

APRIL

- We begin strategic cooperation with Circulor to develop the traceability of minerals.
- We announce our partnership with Johnson Matthey concerning a battery materials plant that would be established in Vaasa.

MAY

- The Group companies' human rights surveys and interviews are launched to gather stakeholder views.

JUNE

- Centre for Economic Development, Transport and the Environment (ELY Centre) for Southeast Finland issues a reasoned conclusion on the EIA report on battery materials production.
- Finnish Battery Chemicals signs letters of intent with the cities of Kotka and Hamina for plots intended for the pCAM and CAM plants.
- The ramp-up of production begins at Terrafame's new battery chemicals plant.
- The Supreme Court issues its decision in Terrafame's uranium recovery permit case.

INTERVIEW

FIVE QUESTIONS TO THE CHAIR OF THE BOARD

The development of the Finnish battery value chain is at an exciting stage, says Antti Kummu.

1. What are the three most important achievements of Finnish Minerals Group in 2021?

The most significant events for the company were the launch of Terrafame's battery chemicals plant, the progress made in the preparation of the pCAM plant project in Hamina and the CAM plant project in Kotka, and Sibanye-Stillwater becoming a partner in portfolio company Keliber's lithium project. All these events have a major impact on our company.

2. What was the top moment of the year for you as the Chair of the Board?

It is difficult to name only one event, but in terms of the implementation of the company's strategy, reaching the detailed planning phase in the pCAM plant project in Hamina and agreeing with CNGR Advanced Material on the establishment of a joint venture can be considered key achievements.

Antti Kummu started as Chairman of the Board in 2020.

3. Any disappointments during the year?

There were a few disappointments during the year as well. Mainly due to the coronavirus pandemic, the start-up of Terrafame's battery chemicals plant was delayed by several months, which impacted the company's operational and financial development. Also the cancellation of the planned cooperation with Johnson Matthey due to their strategic change was a clear disappointment. The long drawn out coronavirus pandemic made both project work and international cooperation difficult.

4. What is the Board's current view on Finnish battery value chain development?

It is looking very good. Global demand is growing more rapidly than anticipated and supply is lagging behind. From this perspective, the domestic battery cluster has excellent future prospects. All we need is courage to invest in the future.

5. What are your expectations for 2022?

Same as everyone else: overcoming the coronavirus pandemic and adapting to the new normal. It is essential for the company to move forward with the battery cluster investments together with its partners. I also expect Terrafame's financial performance to clearly improve after the nickel sulphate production ramp-up phase is over.

JULY

- The Kainuu ELY Centre issues a public announcement of Terrafame's EIA report on the utilisation of the Kolmisoppi deposit and the expansion of the mining concession.

AUGUST

- Finnish Minerals Group and FREYR Battery announce their cooperation to establish a battery cell plant in Vaasa.
- We start the demolition and renovation of old buildings at the Sokli mining project area.

SEPTEMBER

- Keliber reports that its estimated proven and probable ore reserves are 32 per cent higher than previously announced.

OCTOBER

- Terrafame announces a Memorandum of Understanding with Renault Group on nickel sulphate deliveries.

NOVEMBER

- Finnish Minerals Group and Beijing Easpring announce that they will continue the preparations for the establishment of a CAM plant in Kotka on the basis of the feasibility study.
- Johnson Matthey reveals its plans to divest its battery material business, causing the cooperation to establish a battery material plant in Vaasa to be suspended.

DECEMBER

- Finnish Minerals Group and CNGR Advanced Material announce that they will continue the preparations for the establishment of a pCAM plant in Hamina on the basis of a feasibility study.

NUMBER OF PERSONNEL GREW SIGNIFICANTLY

With the number of personnel growing, it is important for us to onboard the new people to our corporate culture and include everyone in the team and the work we do.

OUR PERSONNEL has been growing in numbers over the past two years in line with the expanding projects. One third of our current organisation of 30 people was recruited during 2021. We also updated our organisational structure to clarify the areas of responsibility.

The increased workload has required our people to be adaptable and flexible and have the courage to look ahead. For some of us, work descriptions may have been changed quickly according to where our input was needed the most at the time. On the other hand, people have had the opportunity to use and build their knowledge and skills in the rapidly evolving battery industry.

DESPITE the major transition phase and the effects of the coronavirus pandemic, the job satisfaction of our people was at a good level in the autumn's personnel barometer and, according to the feedback, the atmosphere in the work community in general was good. As expected, changes in work and the increase in the number of new colleagues were among the issues raised in the barometer.

In early autumn, many of our team expressed interest in returning to the office from time to time. As a result, we started refurbishing our office premises to enable more versatile use of the workstations and to maintain a comfortable work environment.

AS PART OF OUR RISK ASSESSMENT, we identified occupational well-being and coping at work to be a significant operational risk. The best way to influence these factors is consistent leadership based on equality and fairness. Our human resources policy has the goal of working together to build a transparent and enthusiastic corporate culture based on mutual trust.

Our principles and practical guidelines related to people matters were documented, and the basics are now discussed in a supervisor's handbook. Furthermore, we worked on a personnel and training plan. With an equality survey, we collected background information on our people's personal perceptions and experiences.

Due to the increased number of personnel, an occupational safety and health committee was appointed for our company to promote occupational safety and well-being at work.

4.3

In the autumn job satisfaction barometer, our people assessed the meaningfulness of their work on a scale of 1 to 5. The total average based on all responses was 4.3.

30 At the end of 2021, the company and its wholly owned subsidiaries employed 30 people.

41 The average age of the personnel was 41 years, and the age distribution was balanced.

97/3 97% of the employees worked on a permanent contract and 3% on a fixed-term contract.

19/11 The number of male employees was higher than female employees; 19 were men and 11 women.

26 The total number of training days was 26. In addition, many participated in various seminars.

58 During the year, the personnel took 58 days of sick leave. No accidents at work occurred.

Business studies come in handy

I STARTED WORKING at Finnish Minerals Group as a summer trainee at the end of spring 2020. Due to the restrictions during the coronavirus epidemic, the recommendation to work remotely prevented me from going to the office, but the onboarding went smoothly regardless.

After the summer, I was offered the chance to continue working for the company, which I gladly accepted. Alongside work, I have been pursuing a degree at Hanken School of Economics with the aim of graduating in early 2022.

I work as an analyst under Finnish Minerals Group's investment team, where my job has allowed me to directly apply the skills and knowledge I have attained at Hanken. My job description has varied: I have done market research, business analysis, financial modelling and company valuation, as well as compiled materials to support decision-making.

During my time working at Finnish Minerals Group, our team has grown significantly, and it consists of experts in various fields, which I think is a great asset. Having people from various fields of expertise brings new perspectives and ideas to the project that you would not have thought of yourself.

ATTE JORTIKKA
Analyst

STRATEGIC THEMES

Finnish Minerals Group has three strategic themes. We attract sustainable investments in the battery value chain to Finland, create innovative business opportunities and aim to achieve a positive impact and return on our investments.

BATTERY VALUE CHAIN INVESTMENTS LOOK PROMISING

The transition of European car manufacturers to the production of electric vehicles continued even faster than expected, creating stronger demand for the European battery value chain.

EUROPE´S planned battery cell production continued on a path of high growth in 2021. The number of gigafactory projects in Europe rose from 17 to 27 projects, while the corresponding battery cell production projected for 2030 rose from 550 to 779 gigawatt hours.

One of the major news of the year was VW's announcement to invest in six battery cell plants in Europe. Several car manufacturers, including Tesla and VW, also announced that they will be expanding their cathode active material portfolios by introducing cheaper LFP cathode materials suitable for shorter travelling distances with a single charge alongside high-energy NMC cathode materials.

OUR PROJECT COMPANY Finnish Battery Chemicals submitted an EIA report on Hamina and Kotka battery material plants to the coordinating authority at the beginning of the year and received a reasoned conclusion from the authority in June. According to the reasoned conclusion, the EIA report has been prepared properly and, from the environmental impact perspective, the projects are feasible.

Feasibility studies of the projects in Hamina and Kotka started in the autumn of 2020. In late 2021, the projects were deemed to be technically and economically feasible on the basis of the pre-design and economic modelling.

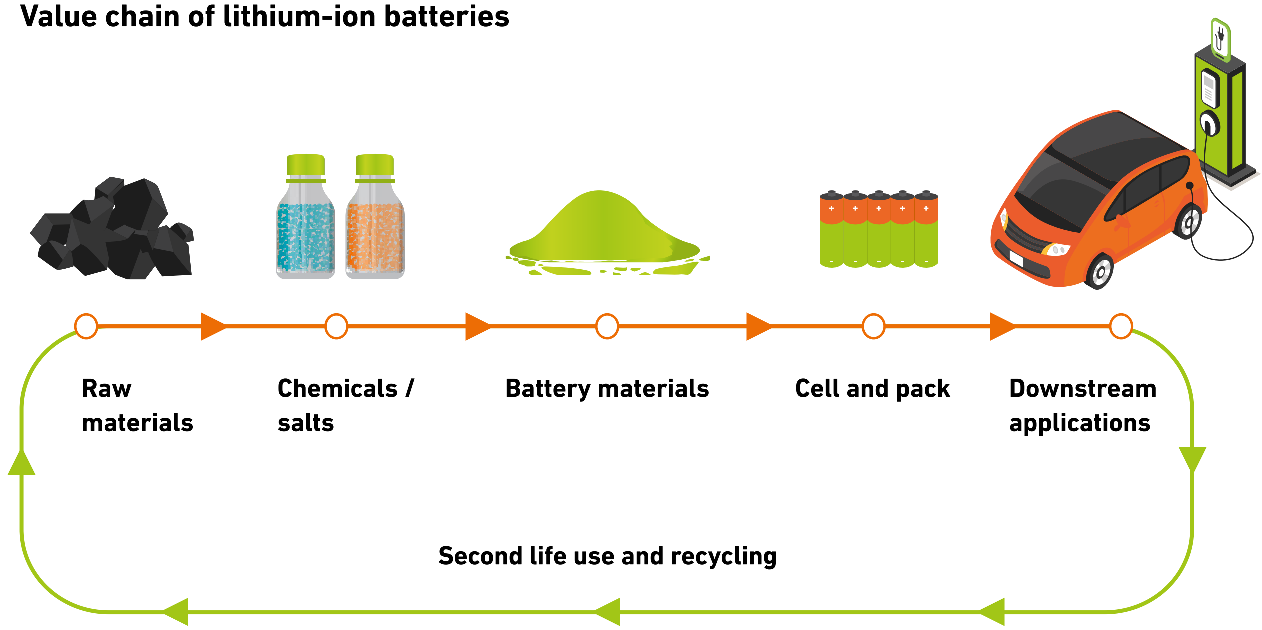
Partnership talks progressed positively, and the publication of partner names ensued. In the Hamina pCAM plant project, our partner is CNGR Advanced Material, the world's leading manufacturer of nickel-rich NMC precursor materials. In the Kotka CAM plant project, we collaborate with Beijing Easpring, one of the world's leading manufacturers of cathode materials.

In the spring, we announced our participation in the treatment of process waters and metallic minerals in the cathode material plant that Johnson Matthey was planning to establish in Vaasa. However, later in the year, the company announced the divestment of its battery materials business, which resulted in suspending all project development.

In the autumn, we also made an announcement regarding our memorandum of understanding with FREYR Battery, which relates to a potential battery cell plant investment. FREYR and Vaasa have agreed on exclusive rights to a 90-hectare plot.

> **The feasibility studies of the battery materials plants were completed in 2021.**

Value chain of lithium-ion batteries



Carving our way into the global battery value chain

AESTHETICALLY, the Chinese art of seal engraving is all about harmonious lines and dots within a defined space. Thick or thin, curved or straight, continuous or broken—the artisan first sketches the design on a piece of paper before delicately engraving it in stone. This work requires patience, virtuosity, and tenacity, what the Finns call 'sisu' – and so does planning and building up our battery material plants in Finland.

Joining Finnish Minerals Group at the end of 2019, I had the pleasure of working intensely on our Kotka-Hamina projects together with the professionals at Finnish Minerals Group and two leading Chinese pCAM and CAM companies, with which we announced our partnerships during 2021.

It has been a nice journey. Even though Covid-19 hit the world unexpectedly at the beginning of 2020 and travel restrictions were imposed, we managed to achieve positive progress through active dialogues and negotiations—for example, we finalised DFS reports, including future preliminary plant layouts. We have exciting work ahead of us: joining forces to transform the drawings into real plants!

It is said that a good seal is created by hands full of confidence, energy, and stability – and in this same spirit, we are developing the plants in Finland and carving our way into the global battery value chain.

MINYUE ZHU
Senior Project Advisor

SPEARHEAD PROJECTS LEADING THE WAY TOWARDS INNOVATIVE BUSINESS OPPORTUNITIES

Our spearhead projects focused on the processing of sodium sulphate and the traceability of battery minerals.

IMPROVING the treatment of sodium sulphate in water-intensive battery value chain processes became a major topic of discussion during the year. Finnish Minerals Group has carried out R&D work related to sodium sulphate since 2015, and we stepped up the efforts last year with extensive studies and the pre-design of the battery materials plant.

In the end of the year, we launched joint development with Adven to offer sodium sulphate treatment as an industrial service. In our view, this service can be useful in the metal, mining and battery materials industries.

OUR DEVELOPMENT of mineral traceability reached a new phase and we entered into a strategic partnership with Circulor, a leading solution provider for the traceability and carbon footprint tracking of raw materials. As part of the collaboration, we did a demonstration of carbon footprint tracking at Terrafame.

We will continue to develop traceability also in 2022, as it is an important tool for monitoring and verifying sustainability and a critical factor in the development of the competitiveness of European industry.

WITH OUR NEW THEMES for 2022, we want to ensure the competitiveness of Finnish minerals well into the future. We also aim to increase the acceptability of operations and support the green transition.

Through our work, we create the conditions for Finland to utilise domestic rare earth elements (REE). The biggest role here is played by Sokli's REE deposit. At best, the engines of the electric cars of the future will have sustainably produced permanent magnets made from Finnish raw materials. Carbon-free energy could also be produced partly with Finnish REE by using them, for example, in wind turbine generators.

THROUGH MINERAL SUBSTITUTION, i.e. using alternative materials as substitutes for minerals, we can seek to reduce the dependence of e-mobility on non-renewable mineral resources. Bio-based materials have already been proven to be excellent substitutes.

In the future, partial mineral substitution may be set as a requirement for battery value chain operators. In some cases, it may also result in better performance. This makes it important for us to have knowledge of the requirements set for the materials, the conditions of the materials, and the interaction between them when they go through the same process.

WE ARE HEADING towards 2022 with a solid, diverse project portfolio. Our outlook is for technologies that could become industrial investments even in the short term. Secondly, we have research topics of great potential on hand, albeit with a long R&D journey to go.

Developing the processing of sodium sulphate

2015–2020
- We launch the monitoring and evaluation of sodium sulphate treatment technologies.
- The technologies are tested, piloted and assessed.

2021–2024
- The new battery material plants are in the preparation phase.
- Our goal is to design the recycling of sodium sulphate as part of a pCAM plant's main process.

2025–2029
- The plants' processes are optimised while production is ongoing.
- The processing of sodium sulphate as part of the main production process improves step by step towards a new industrial solution.

2030s
- European plants produce battery materials for electric cars, bikes, scooters, etc.
- Sodium sulphate is recycled into commodities.

Sustainable solutions require technological development and innovations

OUR MISSION is to responsibly maximise the value of Finnish minerals and to improve the conditions for building a battery value chain in Finland. Innovations and technological development play a key role in this work, laying the foundations for Finnish Minerals Group's business success.

The solutions for the future must be genuinely responsible and driven by circular economy. We aim to put significantly more effort in research and development, to seek new business opportunities for the future. We are a small organisation, and our way of working is based on partnerships. Through cooperation and external partnerships, we can also enhance our capacity for innovation.

Our collaboration network consists of research institutes, universities, technology developers and other actors in the battery value chain. Partnering and extensive cooperation will help us in creating an active battery ecosystem in Finland, which in turn contributes to the development of a new industry. R&D efforts play a key role in ensuring the sustainable production and further processing of raw materials and meeting growing demand.

SINI ESKONNIEMI
Head of Innovation and Technology Development

GOOD PROGRESS MADE IN DEVELOPING THE PROJECT COMPANIES

In line with our strategy, as an owner, we focus on ensuring that our portfolio companies succeed and grow.

OUR SUBSIDIARY Terrafame is a solid foundation for building the Finnish battery value chain. In the summer, the company completed the construction of the new world-class battery chemicals plant and started customer deliveries of nickel sulphate.

Our view as the parent company of Terrafame is that the company repositioned itself along the value chain at the right time. The European electric vehicle market is growing and there is a high demand for traceable, low-carbon battery materials.

As regards mining, Terrafame prepared for the next phase by initiating the EIA procedure on the utilisation of the Kolmisoppi ore deposit and the expansion of the mining concession. Until now, the company has been using the Kuusilampi ore deposit.

PROGRESS was also made with the financing arrangements of our associated company Keliber in March as the company decided on a directed share issue of EUR 40 million. As a result of the arrangement, Sibanye-Stillwater became the company's main owner and our shareholding fell to 20.4 per cent. The financing arrangement enabled Keliber's mining and chemical plant project to proceed during the year.

In the ore reserves estimate updated at the end of the summer, Keliber's proven and probable ore reserves increased from 9.37 million tonnes to 12.30 million tonnes, corresponding to a growth of 32 per cent. As the market price of lithium also increased by hundreds of per centage points during the year, we believe that Keliber is well placed to be the first in Europe to launch lithium hydroxide production by 2025 at the latest.

> There is a high demand for traceable, low-carbon battery materials.

DURING 2021, we examined ore samples, previous studies and design solutions, and we worked on new modelling and analyses. As part of the review, we examined Sokli's potential as a source of raw materials, which include several minerals classified as critical by the EU. This work served as a basis for drawing up the plans for research and feasibility studies for 2022. We also stepped up environmental monitoring at the mining site planned in Sokli.

During the year, we examined the battery minerals market and the current situation of mining projects in Finland with the Geological Survey of Finland. This work puts us in a good position to monitor the progress of mining projects and their suitability to our investment portfolio.

TERRAFAME OY

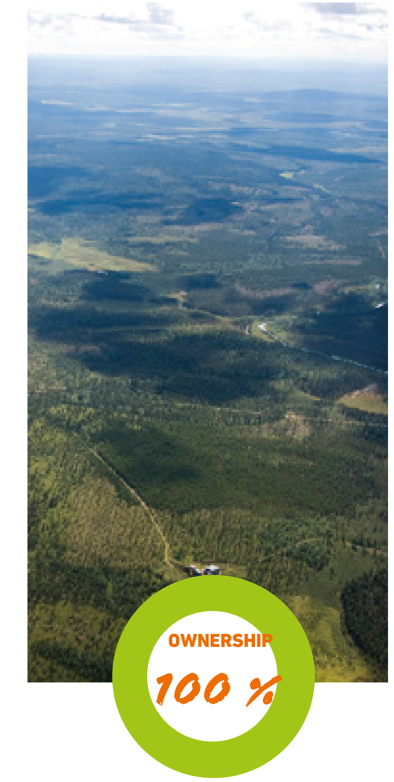
Products: nickel, cobalt and ammonium sulphates; nickel-cobalt, zinc and copper sulphides

- Battery chemicals plant investment was completed in the summer 2021.
- Terrafame began to produce battery chemicals for the manufacture of lithium-ion batteries.
- In the autumn, Renault Group and Terrafame announced a Memorandum of Understanding on deliveries of fully traceable, low-carbon nickel sulphate.
- The company initiated the EIA procedure for the utilisation of the Kolmisoppi ore deposit and the expansion of the mining concession.
- The Supreme Administrative Court made a favourable decision on Terrafame's uranium recovery permit application submitted in 2017.

KELIBER OY

Planned product: lithium hydroxide

- Keliber holds several well-studied lithium deposits, located in an area of more than 500 square kilometres in Central Ostrobothnia.
- In addition to mining activities, the company is preparing to establish a chemical plant in the Kokkola Industrial Park.
- Sibanye-Stillwater became Keliber's largest shareholder (26.6%) in a share issue held in the autumn.
- The updated feasibility study is nearly ready, and construction work should start at the mining site in the summer 2022.
- The Syväjärvi mining site's environmental and water management permits are final.



SOKLI OY

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

- Finnish Minerals Group acquired the rights and liabilities for the Sokli mining project located in Savukoski for wholly owned Sokli Oy in December 2020.
- In autumn 2021, the Supreme Administrative Court conducted a review at the Sokli project's mining concession.
- In November, we initiated the first phase of the feasibility studies.
- We expect the Supreme Administrative Court to make a decision on the water management and environmental permit in early 2022.
- The final meeting on the execution of the mining concession for the expanded mining site will be held in early 2022.

CORPORATE RESPONSIBILITY PROGRAMME

We develop sustainability on the basis of our corporate responsibility programme prepared for the period 2020–2024.

OUR SECOND YEAR WITH A CORPORATE RESPONSIBILITY PROGRAMME

There are three themes in our corporate responsibility program.

THEME 1:

Social impact

8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Topic	Objective	Progress in 2021	Indicator 2024
Jobs	New high-tech jobs to Finland	• We continued the preparatory work for the pCAM and CAM plants; based on initial capacity, the direct employment impact of the two plants is approximately 400 person-years. • Terrafame has hired 150 people for its battery chemicals plant. • At the end of the year, Keliber's lithium project employed 20 people.	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	• According to a study we commissioned in 2019, the GDP impact of the pCAM and CAM plants would be approximately MEUR 600 per year at a capacity of 50,000 t/a. • With the battery chemicals plant in operation, Terrafame's annual GDP impact is MEUR 203–210.	EUR 1.5 billion increase in GDP based on decisions to investment in the battery value chain.
Utilisation of expertise	Channelling expertise to the development of responsibility in the mining and battery industry	• We introduced traceability development indicators, such as the CO_2 footprint; the related demonstration was launched in Terrafame's operations. We also chose Circulor as our strategic partner and solution provider for traceability. • We participated in the planning of the next two-year term of the European Commission's Horizon Europe framework programme under the Batteries European Partnership Association (BEPA).	Upward development curve or continuous good feedback from the corporate image research results on expertise.

pCAM = precursor cathode active material
CAM = cathode active material

THEME 2:

Sustainable value chain

17 PARTNERSHIPS FOR THE GOALS

Topic	Objective	Progress in 2021	Indicator 2024
Value chain and co-operative relationships	Responsible actions throughout the value chain and in partnerships	• We carried out Group-level human rights risk identification and prepared a human rights policy. • Finnish Minerals Group collected personnel's perceptions and experiences on equality for preparing an equality and non-discrimination plan.	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	• Our subsidiary completed the EIA procedure for battery materials production for the pCAM and CAM plants in Hamina and Kotka. • We presented the battery materials project to contractors and widely interviewed potential cooperation partners. • We initiated the stakeholder work and mining concession negotiations of the Sokli mining project.	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

6 CLEAN WATER AND SANITATION
13 CLIMATE ACTION
15 LIFE ON LAND

Topic	Objective	Progress in 2021	Indicator 2024
Environmental impact and the circular economy	Initiatives to minimise environmental impact and promote the circular economy	• The work to develop recycling solutions for sulphate-containing effluent progressed to the plant design phase. We also started cooperation with Adven. • In the Kolmisoppi EIA procedure, Terrafame identified several ways of reducing the project's environmental impacts, and project development decreased the mining concession's expansion need.	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	• We started assessing the life cycle impacts of the plant projects in Hamina and Kotka. • Terrafame completed the commissioning of the battery chemicals plant. The carbon footprint of its main product – nickel sulphate – is approximately 60 per cent lower than the industry average.	The Boards of portfolio companies annually approve strategic development plans for the reduction of carbon dioxide emissions.

THEME 1: SOCIAL IMPACT

SIGNIFICANT FINANCIAL IMPACT FROM MAJOR PROJECTS

The theme of social impact encompasses the creation of jobs and economic value added, as well as ways of using our own expertise to develop responsibility in the mining and battery industry.

THE YEAR 2021 saw our large battery value chain projects in the Kymenlaakso region progress to the detailed planning of investments. As regards the battery cell project in Vaasa, basic design was carried out for use in the EIA procedure.

Based on initial targeted capacity, the precursor cathode active material (pCAM) plant that we are looking into building in Hamina with CNGR Advanced Material will employ about 150 people, and the cathode active material (CAM) plant that we are looking into building in Kotka with Beijing Easpring will employ about 250 people. Many external service providers will be needed during the construction and operation of the plants. The preliminary works related to levelling the plots and setting up the project infrastructure were kicked off in the end of the year.

According to the economic impact assessment we commissioned earlier, with an annual production capacity of 50,000 tonnes, the plants in the Kymenlaakso region would generate more than 600 million euros in GDP. The initial capacity of the CAM plant will be 50,000 tonnes a year, and the initial capacity of the pCAM plant 20,000 tonnes a year. The plots reserved for the projects have been chosen for their potential for expanding the plants in the future.

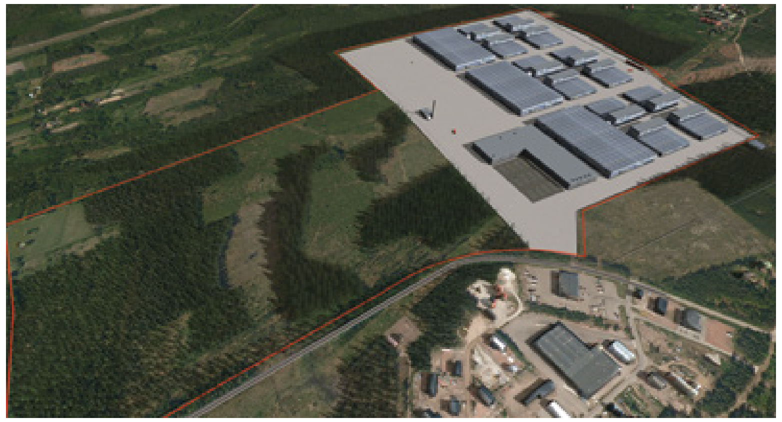
TERRAFAME AND KELIBER also made progress in their projects. The business ideas of these companies are based on further processing of their own mineral production.

The personnel of Sotkamo-based Terrafame was strengthened already in 2020 by hiring about 150 people for the battery chemicals plant. The ramp-up of production at the plant commenced in spring 2021. As a result, the company's activities from the mine to further processing, including the multiplier effects, account for almost 20 per cent of the GDP in the Kainuu region and employ directly and indirectly over 5,500 people in Finland.

In the second quarter of the year, Keliber in Central Ostrobothnia secured a funding package of 40 million euros. The company also estimated its employment impact to increase during the construction in 2022–2024 to up to 500 person-years. In addition, the goal is to set up a production organisation of 150–200 people in 2022–2023. At the end of 2021, Keliber employed about 20 people.

> **The feasibility studies and design of the pCAM and CAM plants alone provided thousands of hours of work for several companies.**

The Hamina pCAM plant (above) and Kotka CAM plant have been modelled based on the capacity of 120,000 t/a, which was introduced in the EIA report as the highest option.



Designers and contractors appreciate large-scale plant projects

TIMO STRENGELL
Project Director

THE PLANT projects in Hamina and Kotka were kicked off in 2019. The year 2021 saw the completion of the feasibility studies on both plants. The studies were carried out simultaneously with the EIA procedure. These phases alone have required thousands of hours of work, which several companies have helped to carry out.

Over the summer and autumn, Timo Strengell, who is our Kymenlaakso project director, discussed the work opportunities of construction phases with dozens of contractors.

"The projects have attracted the attention of local, national and global operators. The competences, resources and willingness to jump onboard are there. Local companies will be used in the projects, but support will be sought globally as well," says Strengell.

The initial construction phase of the project in Hamina is estimated to take about 18 months, while in Kotka it will be over two years.

THEME 2: SUSTAINABLE VALUE CHAIN

BATTERIES REGULATION ALREADY GUIDES VALUE CHAIN DEVELOPMENT

The theme of sustainable value chain is our opportunity to influence the development of the entire battery value chain. We worked especially to ensure the acceptability of the battery material projects and the Sokli mining project.

FINNISH MINERALS GROUP works to create new kind of industry in Finland. This work is carried out in cooperation among Finnish and foreign operators, which requires a common understanding of what sustainability is.

In addition to the recommendations, guiding principles and quality standards of international organisations, the work is guided by European legislation. In 2021, the European Commission continued drafting the Batteries Regulation, which was also circulated to us for comments.

We find updating the European legislation useful in guiding companies to adopt operating models that better take into account responsibility for the environment as well as social responsibility and good corporate governance. It is likely that requirements will be set for the sourcing of raw materials, recycling of materials and product information on batteries, among others. Large batteries are expected to have a battery passport, i.e. a digital product data sheet and usage history report for the entire life cycle of the battery.

> A reasoned conclusion was issued on the EIA report on battery materials production.

AS PART OF OUR stakeholder work, we continued the EIA procedure for battery materials production launched in the previous year. We met with stakeholders in Hamina and Kotka, and held a public online event about the EIA report. In the summer, the Centre for Economic Development, Transport and the Environment for Southeast Finland issued a reasoned conclusion on the report.

During the EIA procedure, the discussions we had with the stakeholders focused on water treatment, technological development and the regional economic effects of the plants. The matters raised with the contractors included the project schedules, the possible contracts and the competencies of the contractor companies.

In the Sokli mining project, we met on several occasions with local stakeholders. These discussions concerned, for example, the effects of the possible mine on reindeer herding and water bodies, and the allocation of tax revenue to mining municipality under the proposed mine tax.

HUMAN RIGHTS risk identification was carried out at Group-level in early summer. We examined the country risks related to our operations, conducted stakeholder interviews and implemented an electronic survey that was open to the public.

Based on the results, our most significant human rights risks are those concerning occupational safety and health, equality and non-discrimination, right to a healthy environment and adequate standard of living.

Mineral traceability is a key target for development in the battery value chain now and in the coming years.

Traceability work reached demo phase

RONJA RUISMÄKI
Development Manager

RESEARCH and development on the traceability of minerals has been carried out at Finnish Minerals Group for a couple of years now. In spring 2021, strategic collaboration on mineral traceability was initiated with Circulor.

Traceability not only enables battery value chain operators to disclose the origin of material, but also material content and information on the effects of battery production throughout the supply chain, from the mine to the consumer. Finnish Minerals Group wants to be involved in system development and indicator setting so that traceability will serve the European supply chain and consumers and provide a competitive advantage to responsible operators.

In the autumn, we carried out a successful demonstration of tracking the carbon footprint of the nickel sulphate produced at Terrafame's new battery chemicals plant. At the same time, we examined Terrafame's readiness for dynamic carbon footprint accounting, which is based on the calculation of greenhouse gas emissions in three categories (scopes 1–3).

"Car manufacturers are highly interested in tracking the carbon footprint of minerals and production, among others, and it is important to have our portfolio companies be the first in line to meet these expectations. Being transparent will promote the building of a responsible battery value chain," says Development Manager Ronja Ruismäki.

THEME 3: RESPONSIBILITY FOR THE ENVIRONMENT AND CLIMATE

PROCESSING OF SODIUM SULPHATE CLOSE TO INDUSTRIAL IMPLEMENTATION

Our third responsibility theme relates to the environment and climate. Under this topic, we focused on the development of industrial processes and a comprehensive assessment of Sokli's mineral potential.

BATTERIES needed in electric cars require establishing a new kind of industry in Finland and Europe. When designing new battery material plants, for example, special attention must be paid to the minimisation of environmental impact.

Sodium sulphate has always been generated as a by-product in forest, mining and metal industry production processes. Due to the lack of demand for sodium sulphate in Europe, Finnish Minerals Group has been working for years to develop new solutions for the processing and use of sodium sulphate.

In 2021, we started preparing for the industrial implementation of a new method of processing sodium sulphate. Our goal is the world's first production-scale process for battery materials in which sodium sulphate would be recycled for further use.

The industrial implementation of new technologies is always long-term work, and in this case it requires further development while the plant is in operation. Extensive development work should be done first at one plant and then put that project's outcomes into use in other places.

IN DECEMBER 2020 Finnish Minerals Group acquired the rights to the Sokli mining project for its wholly owned project company, Sokli Oy. During 2021, we arranged Sokli's ore samples, reviewed previous studies and design solutions, and worked on modelling and analyses.

For environmental reasons alone, it is important in mining to get as much out of the minerals available as is technically and economically feasible. Therefore, we seek to identify Sokli's development opportunities by examining the overall raw material potential of the area. In addition to phosphorus and iron, the mineral reserves contain elements such as rare earth elements.

The Sokli project's mining concession and environmental permit matters were nearing conclusion in late 2021. Both permitting processes were based on applications submitted by the previous owner.

In 2022, our goal is to continue assessing the technical and economic feasibility of Sokli.

> **Industrial implementation of new technologies is long-term work.**

A major environmental clean-up and safety improvement project was commissioned for the Sokli mining concession.

Life cycle analysis supports decision-making

JENNI BÄCK
Project Development Manager

IDENTIFYING the life cycle effects of a plant is a good way to produce analytical data to support decision-making. Assessing the life cycle effects of the pCAM plant for Hamina began in the autumn.

Jenni Bäck, who works as development manager in the project, finds it important to have sufficient and correct underlying information on all the plant's design and implementation solutions, which can be analysed to justify decisions. Information is needed for planning the plot layout, choosing building structures, selecting devices that consume energy, optimising the production process, and making other such decisions.

"The Earth's resources are limited, and ever higher costs will be incurred to operators from natural resource use. At the same time, we must pay more attention to protecting the natural environment and human health. All this requires careful preparation," says Bäck.

A life cycle analysis will also be performed on the CAM plant that is planned for Kotka.

CORPORATE GOVERNANCE

Finnish Minerals Group is a special-purpose company owned by the State of Finland. We are guided by legislation, instructions issued by the State and the company's own policies.

CORPORATE GOVERNANCE SUPPORTS OUR STRATEGY

The ownership steering of Finnish Minerals Group was transferred from the Ministry of Economic Affairs and Employment to the Prime Minister's Office.

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

Our corporate governance and decision-making complies 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, the corporate governance code of the Prime Minister's Office, and the policies and guidelines adopted by the company's Board of Directors.

THE HIGHEST DECISION-MAKING body of the company is the General Meeting of Shareholders. The Annual General Meeting was held on 26 March and two Extraordinary General Meetings were held on 15 June and 8 December. In both Extraordinary General Meetings, one additional member was elected to the company's Board of Directors.

The Board of Directors is responsible for managing the company and for the organisation of its operations. The composition is at least three and at most seven members, who are elected for one year at a time. At the end of 2021, our Board consisted of seven members. The term of office for Board members 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. The Board had two committees, one for personnel and remuneration matters and the other for corporate responsibility. The committees are convened 3–4 times a year. Seventeen board meetings were held, of which one time the board made a decision without holding a meeting.

THE 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 decides on the appointment and dismissal of the CEO and on the terms of employment for the position.

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

At the end of the year, the Board of Directors had seven members.

THE BOARD OF DIRECTORS AND CEO are responsible for the arrangement of internal control, risk management and internal auditing. The Board has confirmed the principles of risk management and the policy for organising related party governance and dealing with related party transactions.

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

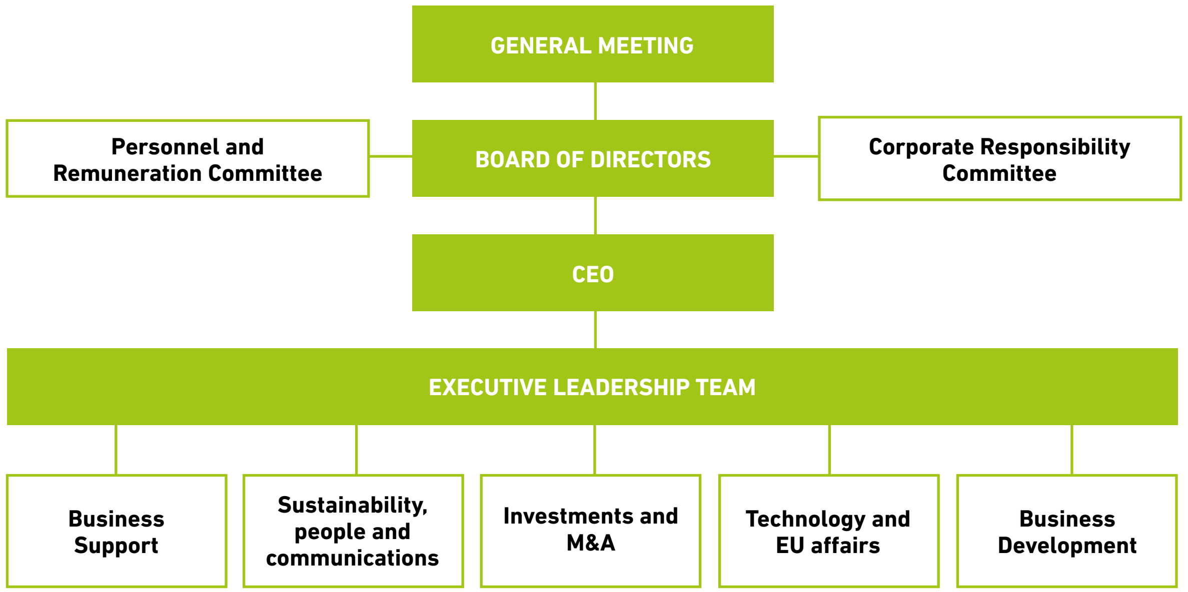
Special-purpose companies focus on their own projects

OUR wholly owned project company, Finnish Battery Chemicals Oy, has carried our the EIA procedure for battery materials production in Kymenlaakso region and participated in the preparation of the feasibility studies of the plant projects in Hamina and Kotka. Also during 2021, the company entered into preliminary agreements with the cities of Kotka and Hamina for industrial sites suitable for building pCAM and CAM plants.

In December, our company and CNGR Advanced Material announced a joint venture that will continue advancing the Hamina pCAM project. Finnish Minerals Group has a shareholding of 40 per cent in the new company.

In late 2021, our company and Adven Oy set up a joint venture to develop industrial solutions for the processing of sodium sulphate. Our shareholding in the new company is 49 per cent. Our work on the Sokli mining project was carried out through our wholly owned company, Sokli Oy.

The management system of Finnish Minerals Group



TAX CONTRIBUTION OF GROUP COMPANIES

We report on the management of tax matters and publish an itemisation of taxes paid to Finland in accordance with the guidance on tax reporting issued by the Government Ownership Steering Department.

TAX contribution reporting and preparing for taxes are part of the corporate responsibility requirements of Finnish Minerals Group. The Group companies are committed to comply with tax legislation in addition to other laws and regulations, and also with the tax reporting guidelines issued by 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 the know-how of our personnel.

THE MOST IMPORTANT tax-related matters are dealt with by the Boards of Directors of Group companies in accordance with the Finnish Limited Liability Companies Act. The CEOs of Group companies are responsible for the organisation of tax matters in their respective companies.

In accordance with the principles of corporate responsibility, the Group does not plan its operations with the aim of gaining tax benefits, nor does it have operations or assets abroad.

TAX REPORTING is based on the financial statements and accounting documents prepared 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 their 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 VAT, energy and fuel taxes. Furthermore, the companies have paid the usual taxes related to the acquisition and ownership of assets.

> Tax reporting is based on the financial statements and accounting documents prepared in accordance with the Finnish Accounting Act.

2021 EUR 1,000	Finnish Minerals Group	Terrafame Oy	Group companies total
Taxes paid			
Direct taxes paid	**35**	**1,505**	**1,599**
Income taxes	0	0	0
Transfer taxes	0	22	22
Property taxes	0	650	650
Employer's social security contributions	30	659	693
Parafiscal charges	5	174	234
Indirect taxes paid	**0**	**3,287**	**3,287**
Electricity taxes, net	0	-1,975	-1,975
Electricity taxes	0	311	311
Electricity taxes, return	0	-2,286	-2,286
Insurance premium tax	0	536	536
Fuel taxes, net	0	4,723	4,723
Fuel taxes	0	5,478	5,478
Fuel taxes, return	0	-755	-755
Waste tax	0	3	3
Taxes collected and accounted for	**805**	**20,002**	**20,175**
Tax withheld in advance	675	9,737	10,500
Value-added tax, net	130	10,265	9,675
Value-added tax, sales	467	99,712	100,248
Value-added tax, purchases	-337	-89,447	-90,573
Total	**840**	**24,794**	**25,061**
Ratio of tax payments to net sales	48.05%	6.55%	6.62%

2020 EUR 1,000	Finnish Minerals Group	Terrafame Oy	Group companies total
Taxes paid			
Direct taxes paid	**23**	**1,285**	**1,308**
Income taxes	0	0	0
Transfer taxes	0	48	48
Property taxes	0	544	544
Employer's social security contributions	20	490	510
Parafiscal charges	3	203	206
Indirect taxes paid	**0**	**5,998**	**5,998**
Electricity taxes, net	0	943	943
Electricity taxes	0	3,039	3,039
Electricity taxes, return	0	-2,096	-2,096
Insurance premium tax	0	412	412
Fuel taxes, net	0	4,642	4,642
Fuel taxes	0	5,393	5,393
Fuel taxes, return	0	-750	-750
Waste tax	0	1	1
Taxes collected and accounted for	**356**	**-10,555**	**-10,618**
Tax withheld in advance	532	8,562	7,956
Value-added tax, net	-176	-19,116	-18,719
Value-added tax, sales	343	78,267	77,264
Value-added tax, purchases	-519	-97,384	-96,841
Total	**379**	**-3,272**	**-3,302**
Ratio of tax payments to net sales	32.06%	-0.97%	-0.98%

BOARD OF DIRECTORS

31 December 2021

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

JANNE KÄNKÄNEN
Vice Chair of the Board
M.Soc.Sc
b. 1967

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

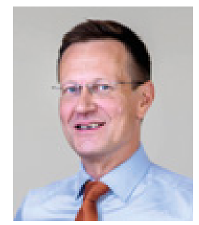
TEIJA KANKAANPÄÄ
M.Sc. (Tech.)
b. 1964

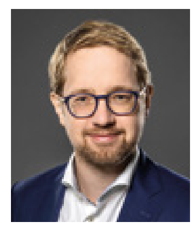
ILPO KORHONEN
B.Sc. (Eng.), eMBA
b. 1964

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

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


Antti Kummu


Janne Känkänen


Pauli Anttila


Teija Kankaanpää


Ilpo Korhonen


Jukka Ohtola


Eeva Ruokonen

PERSONNEL

31 December 2021

MATTI HIETANEN
CEO

JANI ADOLFSSON-TALLQVIST
Development Manager

JENNI BÄCK
Project Development Manager

TEEMU ELOMAA
Project Development Manager

SINI ESKONNIEMI
Head of Innovation and Technology Development

PASI HEINO
Project Manager

ATTE JORTIKKA
Analyst

TEUVO KARPEEKI
Mining Area Supervisor

KATRI KAUPPILA*
VP, Corporate Responsibility, People and Communications

KAISA KIIPULA
Development Manager

JANI KIURU*
Chief Technology Officer

VESA KOIVISTO*
SVP, Battery Operations

PIA KORTELAINEN
Financial Controller

TIMO KÄRKKÄINEN*
Investment Director

TEO LEHTO
Project Geologist

VILLE MIETTINEN
Senior Technology Manager

SAMULI NIKULA
Senior EHQS Engineer

AAPO NIKUNEN*
CFO

SANJA-MARIA OLLI
Chemist (Battery Materials)

RISTO PIEVILÄINEN
Senior Process Engineer

LAURI PURO
Head of Strategy and Business Development

RONJA RUISMÄKI
Development Manager

VILHELMIINA RUOHONEN
HR and Communications Coordinator

JUKKA SALMELA
Business Development Manager

PIRITTA SALONEN
Head of Process Technology

ARTO SOISALO
Group Legal Counsel

TIMO STRENGELL
Project Director

MERJA TAKALA
Financial Planning Development Manager

EMIL VIITALA
Group Legal Counsel

MINYUE ZHU
Senior Project Advisor

Personnel includes also the staff of wholly owned subsidiaries.

* Member of Executive Leadership Team

ANNUAL ACCOUNTS

CONTENTS

GROUP, IFRS

PARENT COMPANY, FAS

ANNUAL REVIEW 1 JANUARY – 31 DECEMBER 2021

Significant events during the financial period

Finnish Minerals Group is a state-owned special-purpose company. In accordance with our strategy, we (1) strive to achieve social impact and returns on our investments, (1) are building a responsible battery value chain in Finland and (3) creating innovative business opportunities. In line with our vision, we provide materials that enable Finland and Europe to strive for climate neutrality. Our mission is to responsibly maximise the value of Finnish minerals.

Finnish Minerals Group companies consist of Suomen Malmijalostus Oy, Terrafame Oy, Sokli Holding Oy and its subsidiary Sokli Oy, and Finnish Chemicals Battery Oy and its subsidiaries. Suomen Malminjalostus 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 2021 was the company's third full year of operation under its current mandate.

Operations of Finnish Minerals Group

Our company's operations are organised on the basis of strategic goals. The following is a report on our efforts related to investment activities, new business opportunities and the development of the battery value chain during 2021.

Investments

On 31 December 2021, the companies in our investment portfolio were Terrafame Oy (shareholding 67.1%), Keliber Oy (shareholding 20.4%) and Sokli Oy (shareholding 100%).

TERRAFAME OY

The subsidiary Terrafame Oy is the main asset of Finnish Minerals Group, so it is discussed more extensively in the annual review than the other portfolio companies. Terrafame, which operates in Sotkamo, Finland, produced nickel-cobalt and zinc sulphides in 2021, and launched the production of nickel, cobalt and ammonium sulphates, which are used to manufacture lithium-ion batteries for electric cars, in its new battery chemicals plant in the summer.

We were an active participant in the development of Terrafame over the course of the year. Our experts were involved in the work of the Steering Committee for the battery chemicals plant project and Terrafame's Technical and Commercial Committee. 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 in 2025 at the latest. The company holds several lithium deposits in the Central Ostrobothnia region and, in addition to mining activities, it is preparing to establish a chemical plant in the Kokkola Industrial Park.

In February, Finnish Minerals Group issued its favourable position on Keliber's plans for a EUR 40 million financing arrangement, in which Sibaney-Stillwater provides a significant part of the financing and Keliber is able to continue developing the project. As a result of two share issues held during the year, with a shareholding of 26.6 percent, Sibanye-Stillwater became Keliber's largest shareholder, a position previously held by Finnish Minerals Group. We invested EUR 3.8 million in Keliber during the year.

In addition, Finnish Minerals Group has had a representative in Keliber's Shareholders' Nomination Committee, with CEO Matti Hietanen serving as the chair. When Sibanye-Stillwater invested in Keliber, the General Meeting of Shareholders decided in May to confirm that the Board comprises seven members, as proposed by the Nomination Committee.

SOKLI OY

In December 2020, Finnish Minerals Group acquired the rights to the Sokli mining project located in Savukoski for its wholly owned company Sokli Oy. The decision on the mining rights and the right for the execution of the mining concession to change the Sokli mining concession became final in May 2021. The Supreme Administrative Court continued its consideration of granting an environmental and water management permit for the extraction of phosphorus and iron ore on the basis of the permits granted to the previous operator in 2018. We are expecting a resolution to be made in the procedure concerning the expansion of the mining concession in early 2022.

In addition to phosphorus and iron, the ore in the Sokli area contains minerals such as rare earth elements needed in the electrification of transport and the green transition, for example. Our goal is to conduct a comprehensive survey of Sokli's ore potential, and the mining project's Preliminary Economic Assessment (PEA) was initiated in late 2021. This assessment work should be completed by the end of 2022. The results will be used as basis for deciding on the need for further assessments and the timeline for their implementation.

Based on current information, the total investment in opening a new mine would be approximately EUR one billion.

Sustainable battery value chain

According to a preliminary estimate by the International Energy Agency (IEA), the market share of electric cars in Europe increased to 8,6 percent globally in 2021 (2020: 4,1 percent). In Europe, 2.3 million electric cars were registered (2020: 1,4).

By the end of 2021, the collective planned capacity for European cell production was more than 850 GWh a year (Benchmark Minerals, January 2022). Publicly announced cell projects serve as a strong foundation for the development of a supply chain for European battery production. Cell production also requires battery materials production.

Finnish Minerals Group has set the goal of attracting industrial investments to the Finnish value chain in which the company sees itself as a strategic partner. Over the course of the year, we negotiated with several potential business partners on a variety of projects. We made the most progress with the battery materials production plant projects launched in Kymenlaakso in 2019. Assessing the technical and economic feasibility of the projects as well as their pre-designs were completed in late 2021.

In December, we announced that the pCAM (precursor cathode active material) plant project in Hamina will be further developed by a joint venture company between Finnish Minerals Group and CNGR Advanced Material. Finnish Minerals Group will hold a 40 percent stake in the joint venture company. In the initial phase, the capacity of the plant will be 20,000 tonnes a year, and construction is scheduled to begin during 2022.

The feasibility studies of the CAM (cathode active material) plant planned for Kotka were also completed, and based on the results, we agreed with our partner, Beijing Easpring Material Technology, to continue our collaboration to implement the project. The initial capacity was set at 50,000 tonnes a year.

In the summer, our project company Finnish Battery Chemicals entered into preliminary agreements with the cities of Hamina and Kotka for the industrial sites for which the pCAM and CAM plants have been designed on the basis of previously concluded preliminary agreements. Both sites offer good opportunities for expanding the plants in the future. In late 2021, the cities launched preparatory work on the plots to get ready for the actual earthworks and the establishment of project infrastructure.

We also completed the EIA (Environment Impact Assessment) procedure for battery materials production in the Kymenlaakso region when the coordinating authority issued its reasoned conclusion on the EIA report of Finnish Battery Chemicals in the summer. The options examined in the EIA procedure were deemed feasible from the perspective of environmental impact assessment.

In late summer, we made a public announcement concerning our cooperation with FREYR Battery under a letter of intent for the establishment of a battery cell plant in Finland. The work involved, for example, the identification of cooperation and business models.

The CAM plant project, which Johnson Matthey announced in the spring for Vaasa, came to a halt at the end of the year with the company's announcement of divesting its battery materials business. This also made us suspend our preparatory work for the project. Originally, our aim was to develop the treatment of process waters and the production of metallic raw materials for the plant.

New business opportunities

One of our goals is to make the mining and battery industry as sustainable as possible and thus develop responsibility and value creation in the sector. We introduce new technologies to the industry and continue developing the existing ones. Our work focuses on investment projects and the technical monitoring of our portfolio companies. We also carry out our own R&D work. This way, we primarily support the operations of Finnish Minerals Group and our portfolio companies.

In the processing of sodium sulphate in the battery value chain's industrial processes, we prepared for the industrial implementation. The related R&D work has been ongoing for several years, and additional research and technical pre-design work was done during 2021. Our goal is to commercialise the industrial processing of sodium sulphate and recycle it into industrial goods in accordance with the principles of the circular economy. In late 2021, we initiated cooperation regarding the development work with Adven Oy, a company specialising in the energy and water services for industries.

Traceability of mineral raw materials and related indicators support the development of sustainability in mining and give Finnish production a competitive advantage. We continued the traceability work, which included, for example, our participation in the Finnish BATTRACE project. We also launched a strategic partnership with Circulor, a software developer specialising in traceability and tracking the carbon footprint of raw materials. As part of the collaboration, we did a demonstration of carbon footprint tracking at Terrafame.

With IPCEI (Important Project of Common European Interest), our focus was on developing Terrafame's battery chemicals plant investment based on the previous year's funding decisions. IPCEI cooperation gives us an opportunity to be involved in strategically important European battery value chain development consortia, which support the competitiveness of industry, cleaner transport and job creation in Europe.

The first business case of the European Raw Materials Alliance (ERMA) deals with the production of rare earth elements, which is not yet competitive in Europe. Finnish Minerals Group has also made similar Group-level efforts by surveying the rare earth element deposits found in Finland, especially the one in Sokli.

Launched in late 2020, the Batteries European Partnership Association (BEPA) is building a battery industry that will create circular economy-based growth and jobs in Europe and support the achievement of a clean and non-toxic environment. CTO of Finnish Minerals Group Jani Kiuru served on the Association's Executive Board as a representative of the battery raw materials industry.

Operations of Terrafame Oy

Production and deliveries

Terrafame's strategic goal is to enhance low-carbon mobility with responsible battery chemicals. The production ramp-up at the new battery chemicals plant started in June 2021. The battery chemicals plant project of the company as well as the launch of the battery chemicals business on a larger scale were delayed from the original schedule due to the coronavirus pandemic.

Production levels of nickel and zinc remained at the same level as in 2020. Nickel production was 28,582 (2020: 28,740) tonnes. Zinc production was 54,353 (2020: 55,100) tonnes.

In 2021, net sales of the battery chemicals business were EUR 27.1 million and net sales of the metal intermediates business were EUR 351.3 million. Net sales were EUR 378.4 (338.3) million in total, representing an increase of 11.8% year-on-year. In 2020, total net sales came from the metal intermediates business.

Terrafame's product deliveries to end customers were made mainly through Trafigura's sales network.

Occupational safety

In Terrafame's operations, the most significant occupational safety risks are related to maintenance and construction work, 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 yard areas, for example.

The ROTI project, which started in late 2020, has begun to be reflected in the company's safety performance. Accidents involving Terrafame's employees decreased markedly during 2021. Our partner companies' performance has not been satisfactory, which is why we have paid special attention to the development of their safety culture.

In 2021, the rolling 12-month lost-time injury frequency rate (LTIFR) of Terrafame's own personnel, or the number of accidents resulting in absence per one million hours worked, was 5.5 (2020: 8.3). The LTIFR for partner companies operating on the industrial site was 11.8 (2020: 10.6). Total accident frequency rate on the industrial site was 8.9 (2020: 9.8)

Market developments

In total more than 6.5 (2020: 3.2) million electric vehicles were sold globally in 2021. In Europe, the sales of passenger cars and light duty vehicles totalled around 2.2 (1.3) million.

Including all electric vehicle categories, the sales-weighted average pack size was 45.3 kWh (2020: 46.6 kWh). The market share of nickel-rich NCM 811 batteries increased to around 18% (2020: around 8%). The market share of NCM 622 batteries was around 24% (2020: around 36%). The market share of NCM 712 batteries, which were introduced in the summer of 2020, was around 3% in December 2021.

The prices of base metals on the London Metal Exchange (LME) in the review period were markedly higher than in 2020. The average market price of nickel in 2021 was 18,469 (2020: 13,789) USD/t, which is 34% higher than in the previous year. The average market price of zinc in 2021 was 3,006 (2020: 2,267) USD/t, which is 33% higher than in the corresponding period of 2020. In 2021 the nickel sulphate premium (SPOT China) on LME price was USD 2,979 per nickel tonne in average.

The total combined nickel stocks of the London Metal Exchange (LME) and the Shanghai Futures Exchange (SHFE) stood at 106,313 tonnes at the end of 2021, corresponding to demand for around 2 weeks. Zinc stocks stood at 257,919 tonnes, corresponding to demand for around 1 week.

The average EUR/USD exchange rate for the fourth quarter of 2021 was 1.14 (1.19 in the fourth quarter of 2020).

Cash flow and financial position

In 2021, cash flow from operating activities was EUR 35.3 (2020: 42.5) million, of which change in networking capital comprised EUR 15.4 (2020: 18.6) million. Cash flow from investment activities was EUR -136.9 (2020: -186.9) million.

At the end of 2021, the company's cash and cash equivalents totalled EUR 63.5 (2020: 58.6) million.

Terrafame's balance sheet total on 31 December 2021 was EUR 1,006.7 (2020: 918.5) million. Year-end inventories totalled EUR 233.9 (2020: 220.5) million.

Trade receivables totalled approximately EUR 24.2 (2020: 15.9) million at the end of the financial period. Other receivables totalled approximately EUR 0.2 (2020: 2.8) million. Prepaid expenses and accrued income totalled approximately EUR 1.1 (2020: 17.1) million.

Shareholders' equity on 31 December 2021 was EUR 384.8 (2020: 442.1) million. The total amount of debt was EUR 389.8 (2020: 317.4) million. In addition to this the balance sheet includes a rehabilitation provision for mine closure and environmental clean-up costs amounting to EUR 232.0 (2020: 159.1) million.

Terrafame's equity ratio at the end of the financial period was 38.2 (2020: 48.1) percent, and net gearing was 42.6 (2020: 31.0) percent.

In the 2021 financial period, the company continued to hedge its cash flow against a decrease in the US dollar exchange rate and metal prices in line with its hedging policy.

Financing arrangements

In 2021, Terrafame drew out a total instalment of around EUR 92 million of the equity financing (EUR 115 million in total) negotiated with Finnish Minerals Group and Galena in August 2020. After these withdrawals, Terrafame has used the entire financing package.

In September 2021, Terrafame signed a USD 90 million unsecured financing arrangement with an international bank. The company also refinanced its environmental guarantee with an international insurance syndicate in September.

Environment

Sulphate loading of natural waterways is one of the most significant environmental impacts of Terrafame's production. The metal and sulphate concentrations of discharge waters, as well as sulphate loading, were in line with the environmental permit conditions in 2021. 14,492 tonnes was used of the environmental permit's sulphate quota of 16 300 tonnes (2020: 13,067 tonnes). In September, there was one case of non-conformity relating to discharge waters. It was reported to the local authority and remedial action was taken promptly.

The bioleaching pond capacity was also increased during 2021 to further improve solvent circulation management. Dam safety management was further enhanced by developing reporting practices and reinforcing resources.

Permits

On 20 January 2021, the Regional State Administrative Agency for Northern Finland granted an environmental permit to Terrafame for its battery chemicals plant.

On 22 June 2021, the Supreme Administrative Court issued its decision on the environmental permit for Terrafame's KL2 waste rock area. With its decision, the Supreme Administrative Court rejected the appeals filed against the decision issued by the Vaasa Administrative Court, meaning that the decision of the Vaasa Administrative Court remains valid. The environmental permit for the KL2 waste rock area is valid until the case concerning Terrafame's main permit has been resolved by means of a final or executable decision.

On 24 June 2021, the Supreme Administrative Court issued its decision on the uranium recovery permit granted by the government. The Supreme Administrative Court confirmed the permit granted by the government.

On 2 July 2021, the Regional State Administrative Agency for Northern Finland granted an environmental permit to Terrafame for the extension of the primary leaching area. The production use of the primary leaching area was expanded by 150 metres in sections 2 and 3 during the summer of 2021.

Terrafame has a permit process in progress with regard to the renewal of its master permit with the Regional State Administrative Agency for Northern Finland. The application was submitted in August 2017.

Financial review and key figures

Finnish Minerals Group companies (consolidated)

The Group companies's net sales in the financial year 2021 totalled EUR 378.5 (2020: 338.3) million, EBITDA totalled 20.4 (2020: 23.3) million, and operating profit was EUR -29.0 (2020: -17.5) million. The profit/loss before tax was -51.0 EUR (2020: -18.3) million. The loss for the financial year was EUR -51.2 (2020: -18.7) million. The consolidated total assets of Finnish Minerals Group companies amounted to EUR 1,114.3 (2020: 975.9) million.

The Group companies' return on equity was -10.4 (2020: -3.9) percent and equity ratio 44.0 (2020: 50.9) percent. The shareholders' equity totalled EUR 489.7 (2020: 496.7) million, of which the share of non-controlling interests was EUR 151.2 (2020: 141.1) million. Liabilities totalled EUR 392.6 (2020: 320.1) million and provisions EUR 232.0 (2020: 159.1) million. The debt amounted to EUR 227.4 (2020: 195.8) million, of which EUR 115.5 (2020: 3.6) million were current and EUR 115.9 (2020: 192.2) million were non-current liabilities.

Terrafame Oy (subsidiary)

The net sales of our subsidiary Terrafame for the financial year 2021 were EUR 378.4 (2020: 338.3) million, EBITDA excluding non-recurring items was EUR 24.2 (2020: 23.8) million, and operating result excluding non-recurring items EUR -22.4 (2020: -16.9) million. Free cash flow from operating activities* was EUR -43.2 (2020: 13.8) million. Reported operating result was EUR -95.3 (2020: -16.9) million. The total assets of Terrafame amounted to EUR 1,006.7 (2020: 918.5) million.

Shareholders' equity at the end of 2021 was EUR 384.8 (2020: 442.1) million. The total amount of debt was EUR 389.8 (2020: 317.4) million. In addition to this, the balance sheet includes a rehabilitation provision for mine closure and environmental clean-up costs, which is EUR 232.0 (2020: 159.1) million. Equity ratio at the end of the financial period was 38.2 (2020: 48.1) percent, and net gearing was 42.6 (2020: 31.0) percent.

Terrafame's capital expenditure totalled EUR 117.9 (2020: 201.8) million in 2021. Of this total, EUR 57.6 (162.3) million was used to improve productivity and increase capacity, and EUR 60.3 (2020: 39.5) million was used to sustain production.

The investments in capacity growth in 2021 were related to the construction of the battery chemicals plant and the extension of sections 2 and 3 of the primary leaching area by 150 metres.

The most significant investment projects related to sustaining production were the expansion of the Kuusilampi open pit, construction of a new section of the waste rock area, the purchase of spare parts for mining equipment and the ore crushing lines, and the increase of the pond capacity related to bioleaching and water management.

*) Free cash flow from operating activities after sustaining capital expenditure = EBITDA – Change in net working capital – Sustaining capital expenditure.

KEY FIGURES

Consolidated	2021	2020
Net sales	EUR 378.5 million	EUR 338.3 million
EBITDA	EUR 20.4 million	EUR 23.3 million
Operating profit/loss	EUR -29.0 million	EUR -17.5 million
Operating profit, %	-7.7%	-5.2%
Equity ratio	44.0%	50.9%
Total assets	EUR 1 114.3 million	EUR 975.9 million
Wages and salaries	EUR 47.0 million	EUR 40.5 million
Average number of personnel	935 persons	850 persons

Parent company	2021	2020
Net sales	EUR 1.7 million	EUR 1.2 million
EBITDA	EUR -3.2 million	EUR -2.5 million
Operating profit/loss	EUR -3.3 million	EUR -2.5 million
Operating profit, %	-188.5%	-210.5%
Equity ratio	99.8%	99.8%
Total assets	EUR 575.9 million	EUR 528.7 million
Wages and salaries	EUR 2.3 million	EUR 1.7 million
Average number of personnel	21 persons	16 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.

Personnel

At the end of the financial year, Finnish Minerals Group and its wholly owned subsidiaries employed 30 people (2020: 20). People were hired to project development, financial administration and legal duties. Two people were also hired by the company for summer jobs.

Nearly 1,800 people were regularly employed on Terrafame's industrial site during 2021. At the end of the review period, Terrafame had 879 (2020: 870) employees of whom 56 (2020: 97) were temporary employees. In the summer, the company provided around 80 people with a summer job. In addition to own personnel, an average of 883 (2020: 1,166) people employed by contractors and subcontractors worked on the industrial site during the review period (FTE). The reduction in the number of external personnel was mainly due to a decrease in the number of people working for the battery chemicals plant construction project.

Developing sustainability

The objectives for developing responsibility set by Finnish Minerals Group in its 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 2021 is discussed in the beginning of the annual report.

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

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

Organisational governance

Finnish Minerals Group is a special-purpose company wholly owned by the State of Finland. In 2021, the ownership steering of Finnish Minerals Group was transferred from the Ministry of Economic Affairs and Employment to the Prime Minister's Office.

The company's highest decision-making body 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 has appointed three of its members form a responsibility committee, which was also active in 2021. The committee is tasked with, for example, supporting the company's executives and board in taking responsibility aspects into account. The committee met three times during the year.

The basic principles of our company's corporate governance are respect for the rule of law, ethical conduct and compliance with the principles and guidelines of government ownership steering. The internal guidelines of Finnish Minerals Group, for example, the code of ethics, financial policy and anti-corruption guideline, also directly apply to all Group companies in which Finnish Minerals Group has 100 per cent ownership.

Human rights

The Group companies agree to respect the UN Universal Declaration of Human Rights and the UN Guiding Principles on Business and Human Rights, as well as the ILO Declaration of Fundamental Principles and Rights at Work. In 2021, we prepared the Group's human rights policy for publication in early 2022. The CEOs of the companies 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.

Our background work for preparing the human rights policy included conducting a risk assessment, which comprised stakeholder interviews, a public online survey and an examination of the human rights risks related to countries which may be connected to our supply chains in the coming years. Based on the results, our most significant risks on the Group level are those concerning occupational safety and health, equality and non-discrimination, right to a healthy environment and an adequate standard of living. Human rights risks are also part of the risk management policy and risk analysis of Finnish Minerals Group.

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 concerns that they may have about the company. The website also describes the company's processes for dealing with the feedback received. No concerns were raised during 2021.

Labour practices

At the end of the year, the total number of employees, including the personnel of wholly owned subsidiaries, was 30, which is 10 more than a year earlier. The increase in the number of employees made us take a closer look at our obligations and we started to revise our plans for the company's operations.

We prepared a practical manual for supervisors and drew up a personnel and training plan for the coming year. In late 2021, we carried out an equality survey for use in equality planning.

Late 2021 also saw the second election of an occupational safety and health representative for the company. From the beginning of 2022, an occupational safety and health representative and two deputy representatives, who were elected by the personnel through an election, as well as an occupational health and a safety manager, appointed by the employer, form the company's occupational health and safety committee. It is tasked with making proposals concerning, for example, the improvement of working conditions, the provision of occupational safety training and the maintenance of working capacity.

We also updated the occupational health action plan and drew up a substance abuse programme. The main goal of the programme is to prevent our employees from using substances that are addictive and harmful to health. A ban on harassment and other inappropriate behaviour was added to the principles of our code of ethics. The code now also obliges our employees and executives to raise their concerns about factors that could jeopardise well-being, working capacity, equality or ethics in the workplace.

As every year, annual appraisal and development discussions and semi-annual development discussions were held with employees. Feedback was collected from personnel twice during the year using a barometer that contained questions on the meaningfulness of work, feeling of being heard, coping with work stress, and ability to maintain a healthy work-life balance.

In office work, we continued minimising the risk of coronavirus infections based on the authorities' latest guidelines. Those visiting industrial sites were required to have occupational safety card training and additional training provided by each industrial company, such as our subsidiary Terrafame. In the Sokli mining project, we launched a procedure for conducting risk assessments of various work tasks. We also prepared a crisis management and communication plan for our company.

No accidents at work occurred to the personnel of Finnish Minerals Group or its wholly owned companies during 2021. The personnel took a total of 58 days of sick leave during the year.

The environment

Our project company, Finnish Battery Chemicals, completed the EIA procedure for battery materials production in the summer. In the documentation, special attention was paid to identifying the optimal discharge locations for effluent and minimising the impacts of sulphate emissions and heat load on the basis of water modelling made in accordance with the precautionary principle. Assessing the life cycle effects of the pCAM and CAM plants began in late 2021.

In the area of the Sokli mining project, we carried out extensive cleaning work by demolishing old buildings, emptying the interiors from old equipment and removing electrical wiring and piping where needed. Some of the buildings were renovated and repurposed. Groundwater and surface water measurements and archaeological surveys continued in the area as well. Our plans for 2022 include river flow rate and groundwater level measurements and the related sampling. Surface waters are also under biological monitoring. The mapping of plants will continue as well.

The key development projects relating to environmental matters concerned the treatment of sodium sulphate in industrial processes and the traceability of mineral raw materials. Our goal for the sodium sulphate treatment is to develop an industrial service that enables recycling sodium sulphate into industrial products in accordance with the principles of the circular economy. Tracking the origin of minerals and the possibility of linking information on the environmental, social and economic factors of minerals increase transparency within the sector and encourage companies to act responsibly.

Fair operating practices

Our company's internal policies and ethical principles are aimed at preventing corruption and maintaining sound ethical practices. 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 preventing corruption.

We respect all rights accompanying ownership of tangible and intangible property. In 2021, negotiations were held with land owners, reindeer herders and other parties to change the Sokli mining concession in accordance with the process initiated by the previous operator.

Community involvement and development

One of the most important objectives of Finnish Minerals Group is to In addition to developing our own industrial projects, we participated in the activities of the national battery cooperation body established by the Ministry of Economics Affairs and Employment. The cooperation body participates, for example, in the definition of Finland's positions on key issues related to the battery sector and ensures that the innovation and business policy takes into account the development of the battery value chain. We also participated in the activities of various working groups of the Finnish Mining Association and the activities of the advisory group on batteries set up by the Chemical Industry Federation of Finland.

Through our R&D activities, we were involved in many projects that brought together companies as well as research organisations and universities from Finland and the EU. Our national collaboration included the BATTRACE project for developing the traceability of mineral raw materials. On the European level, we continued to collaborate under the European Raw Materials Alliance and the Batteries European Partnership Association to develop the European mining and battery industry.

During the year, our staff gave presentations and participated in many panel discussions in numerous seminars both in Finland and abroad on topics such as the company's battery value chain development projects, raw materials and responsibility.

Corporate governance at Finnish Minerals Group

Shares and shareholders

The State of Finland owns Finnish Minerals Group's entire share capital that on 31 December 2021 consisted of 588,408 shares. Each share entitles its holder to one vote.

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 of the Prime Minister's Office, and the policies and guidelines adopted by the company's Board of Directors. The General Meeting of Shareholders, the Board of Directors and the CEO are responsible for Finnish Minerals Group's administration and operations.

Until the Annual General Meeting of 2021, the Chair of the Board of Directors of Finnish Minerals Group was Antti Kummu, and the other members of the Board were Teija Kankaanpää, Ilpo Korhonen, Janne Känkänen (Vice Chair) and Eeva Ruokonen. From the Annual General Meeting onwards, the Board of Directors consisted of Antti Kummu (Chair) and Board members Teija Kankaanpää, Ilpo Korhonen, Janne Känkänen (Vice Chair) and Eeva Ruokonen. Jukka Ohtola was elected as a member of the Board of Directors as of 15 June 2021 and Pauli Anttila as of 8 December 2021. The committees set up by the Board of Directors included the personnel and remuneration committee and the corporate responsibility committee. All Board members are independent of the company. Three 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.

The Authorised Public Accountants KPMG Oy Ab acted as the auditor of Finnish Minerals Group and its subsidiaries in 2021, with Authorised Public Accountant Antti Kääriäinen acting as the principal auditor.

Related party transactions

The Board of Directors of Finnish Minerals Group has confirmed the policy on related party transactions for the Group companies. The key related parties include the State of Finland, which is the Group's only shareholder, and the associated company Keliber Oy, Galena Private Equity Resources Investment 2 L.P., Galena Private Equity Resources Investment 3 L.P. and Galena Private Equity Resources Investment 4 L.P. funds, as well as Trafigura Ventures V B.V. The related parties also 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 Government of Finland exercises control or considerable influence. The company has applied an exemption pursuant to which it only reports significant transactions with Government-related companies.

Financing arrangements are in place between Terrafame and Trafigura Group and three funds – Galena Private Equity Resources Investment 2 L.P., Galena Private Equity Resources Investment 3 L.P. and Galena Private Equity Resources Investment 4 L.P. – and between the company and Finnish Minerals Group. The amount of the company's related-party borrowings connected with these financing arrangements is EUR 159.7 million. Terrafame has commercial arrangements with Trafigura Nat Gas Limited that generated EUR 437.6 million in sales during the financial year. Terrafame has spent approximately EUR 0.5 million on legal and other administrative services and approximately EUR 0.3 million on management services for product development projects purchased from Finnish Minerals Group.

During the financial year 2021, Terrafame arranged its environmental guarantee with an international insurance syndicate, resulting in the release of the EUR 32.5 million counter-guarantee issued by the State of Finland as a collateral in accordance with the environmental permits.

The Group companies' related party transactions are described in the notes. Financing arrangements with related parties are disclosed in the report's section concerning financing arrangements.

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

Remuneration of the Board of Directors and executives

The monthly fees paid in 2021 were EUR 1,500 to the Chair of the Board of Directors of Finnish Minerals Group, EUR 850 to the Vice Chair, and EUR 700 to each Board member. In addition to the monthly fees, a meeting fee of EUR 500 was paid for each Board and committee meeting attended.

In 2021, the Board of Directors of Finnish Minerals Group met a total of 17 times (2020: 14), of which one time the Board made a decision without holding a meeting, so no fees were paid. In addition, the personnel and remuneration committee met four times, and the responsibility committee three times.

The total amount of monthly fees paid to Board members was EUR 58,650 (2020: EUR 57,600) and the total amount of meeting fees paid to Board members EUR 55,000 (2020: EUR 45,000). 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.

In addition to the parent company Finnish Minerals Group and its subsidiary Terrafame, no remuneration was paid to the members of the Boards of Directors of other Group companies. The subsidiary Terrafame and the portfolio company Keliber report on the remuneration paid to their Board members and executives in their own reports.

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 per cent of the CEO's annual salary. The CEO was not covered by a contribution-based or other additional pension insurance. CEO Matti Hietanen did 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 2021 was EUR 216,186 (2020: 192,896). The CEO received a performance bonus of EUR 31,828. The total amount of remuneration paid to the other members of the Leadership Team was EUR 632,479 (2020: 590,876). Of this amount, the performance bonuses paid for 2020 accounted for EUR 68,818 euroa.

From 2021, a performance bonus of EUR 31,001 will be paid to the CEO and a total of EUR 82,473 to the other Leadership Team in 2022.

Estimate of major risks and uncertainty factors affecting operations

The Board of Directors and Chief Executive Officers of the Group companies are responsible for organising internal control, risk management and internal auditing within the companies.

In 2021, Finnish Minerals Group updated its risk management policy. The update also included an evaluation of the most significant risks associated with the company's operations. 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. The company's Board of Directors regularly monitors and assesses risks related to the activities, as well as the risk management measures.

From the perspective of shareholder value, the key risks of Finnish Minerals Group relate to the business activities of the subsidiary, Terrafame, and to the parent company's ability to accomplish its battery industry projects. The business of Terrafame 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 the risks associated with the related activities are discussed in Terrafame's reporting. Risks concerning the battery industry projects are related to their economical feasibility, licensing and changes in the market situation in particular.

Remuneration of the Board of Directors

(EUR)	Monthly fees	Attendance fees	Total remuneration	Board meetings	Committee meetings
Antti Kummu	18,000	10,000	28,000	16/16	4/4
Pauli Anttila	700	500	1,200	1/1	-
Teija Kankaanpää	8,400	9,500	17,900	16/16	3/3
Ilpo Korhonen	8,400	11,500	19,900	16/16	7/7
Janne Känkänen	10,200	10,000	20,200	16/16	4/4
Jukka Ohtola	4,550	4,000	8,550	8/8	-
Eeva Ruokonen	8,400	9,500	17,900	16/16	3/3
Total remuneration 2021	**58,650**	**55,000**	**113,650**		

Significant events after the end of the financial period

The financial period of Finnish Minerals Group ended on 31 December 2021.

In January, the subsidiary Terrafame announced that it was pursuing annual savings of EUR 10 million and would be starting cooperation negotiations. As a result of the negotiations, the decision was made based on financial and production reasons and the company reorganisation measures to reduce staff by 65 person-years, 42 of which are dismissals. In March, the company announced that it will increase the environmental provision in the financial statements for 2021 from EUR 159.1 million to EUR 232 million.

The armed conflict in Ukraine, which began in February 2022, has a significant impact on the business environment, including metal market prices, the pricing and availability of industrial commodities, and supply chains.

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 continuing with the investment preparations for the cathode material projects in Hamina and Kotka. The pre-feasibility study on the Sokli mining project will be completed during 2022. Also during the year, decisions should be taken on the expansion of the Sokli mining concession and the environmental and water management permits.

Our subsidiary Terrafame has several significant customer negotiations and product approval processes in progress related to battery chemicals. The ramp-up of production in the battery chemicals plant continues systematically in accordance with the business plan. The goal is to reach full production capacity by the summer of 2022. The increased uncertainty in Europe's geopolitical situation is not expected to affect Terrafame's production and deliveries. The price development of base metals and battery chemicals involves significant uncertainty even though the price development in the beginning of the year has been positive. Finnish Minerals Group continues to increase efficiency of its operations and improve profitability.

Board of Directors' proposal for the disposal of the result

The result of Finnish Minerals Group for the financial year 2021 shows a loss of EUR 2,985,701.01. On 31 December 2021, the distributable equity of Finnish Minerals Group totalled EUR 571,685,984.14.

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

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(EUR 1,000)	Note	2021	2020
Net sales	1.1	378,458	338,320
Cost of goods sold	1.3	-368,971	-325,350
Gross profit		9,487	12,970
Other operating income	1.4	2,068	2,089
Sales and marketing expenses	1.5	-3,030	-2,750
Administrative expenses	1.6	-23,694	-20,723
Other operating expenses	1.7	-13,847	-9,133
Operating profit/loss		-29,015	-17,547
Finance income and cost	1.8		
Other finance income		1,423	16,996
Change in fair value, other investments		66	464
Interest and other finance costs		-21,926	-17,102
Share of profit from associated company	1.15	-1,502	-1,105
Total finance income and cost		-21,939	-746
Profit/loss before tax		-50,954	-18,293
Income taxes	1.9	-241	-366
Profit/loss for the period		**-51,194**	**-18,659**
Other comprehensive income			
Items that may be reclassified to profit or loss in subsequent periods			
Cash flow hedges - effective portion of changes in fair value		-44,771	-11,525
Taxes on items that may be reclassified to profit or loss in subsequent periods		8,954	2,305
Other comprehensive income, net		-35,817	-9,220
Total comprehensive income for the period		**-87,011**	**-27,879**
Profit attributable to			
Owners of the parent company		-36,222	-13,758
Non-controlling interests		-14,972	-4,901
		-51,194	**-18,659**
Total comprehensive income attributable to			
Owners of the parent company		-60,272	-19,916
Non-controlling interests		-26,740	-7,963
		-87,011	**-27,879**
Earnings per share attributable to shareholders of the parent company			
Basic earnings per share	1.10	-62.05	-24,65
Diluted earnings per share		-62.05	-24,65
Average number of shares:			
Basic		583,805	558,038
Diluted		583,805	558,038

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

CONSOLIDATED BALANCE SHEET

	Note	31 Dec 2021	31 Dec 2020
ASSETS			
Non-current assets			
Intangible assets	1.12	5,017	2,158
Property, plant and equipment	1.13	738,896	596,930
Biological assets	1.14	8,078	7,950
Investments in associates	1.15	12,799	10,503
Deferred tax assets	1.21	11,486	2,532
Total non-current assets		**776,277**	**620,073**
Current assets			
Inventories	1.16	233,854	220,486
Trade and other receivables	1.17	25,846	37,123
Cash and cash equivalents	1.18	78,353	98,182
Total current assets		338,053	355,792
Total assets		**1,114,330**	**975,865**
EQUITY AND LIABILITIES			
Equity attributable to equity owners of the parent	1.19		
Subscribed capital		2,258	2,258
Invested unrestricted equity fund		607,138	563,054
Fair value reserve	1.20	-30,850	-6,765
Earnings from previous periods		-203,817	-189,173
Profit/loss for the period		-36,222	-13,758
		338,506	355,615
Share of non-controlling interests		151,226	141,076
Total equity		**489,732**	**496,691**
Non-current liabilities			
Deferred tax liabilities	1.21	1,189	948
Interest-bearing liabilities	1.25	115,917	192,238
Provisions	1.24	232,024	159,077
Total non-current liabilities		**349,131**	**352,263**
Current liabilities			
Interest-bearing liabilities	1.25	111,492	3,588
Trade and other payables	1.26	163,976	123,322
Total current liabilities		**275,467**	**126,910**
TOTAL EQUITY AND LIABILITIES		**1,114,330**	**975,865**

CONSOLIDATED CASH FLOW STATEMENT

	Note	2021	2020
Cash flow from operating activities			
Profit/loss before tax		-50,954	-18,293
Adjustments to operating profit/loss	1.27	21,871	-200
Depreciation and amortisation		49,400	40,846
Change in working capital		16,129	18,555
Interest paid		-4,357	-4,921
Interest received		93	3,401
Net cash flow from operating activities		**32,182**	**39,389**
Cash flow from investing activities			
Investments in tangible and intangible assets		-140,408	-188,077
Proceeds from disposal of tangible and intangible assets		79	991
Acquisition of other investments		-3,798	-2,353
Proceeds from disposal of other investments		66	464
Net cash flow from investing activities		**-144,061**	**-188,975**
Cash flow from financing activities			
Subscription issue		77,616	36,903
Proceeds from loans		17,298	66,471
Repayment of loans		-74	-2,516
Repayment of lease liabilities		-4,119	-3,388
Net cash flow from financing activities		**90,721**	**97,470**
Change in cash and cash equivalents		**-21,158**	**-52,116**
Effect of movements in exchange rates on cash held		1,329	-2,384
Cash and cash equivalents at beginning of the period		98,182	152,682
Cash and cash equivalents at end of the period		**78,353**	**98,182**

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	Subscribed capital	Invested unrestricted equity fund	Fair value reserve	Retained earnings	Attributable to parent	Attributable to non-controlling interests	Total equity
Equity 1 Jan 2020	2,258	559,519	-653	-201,081	360,043	100,888	460,931
Comprehensive income							
Profit/loss for the period	0	0	0	-13,758	-13,758	-4,901	-18,659
Other comprehensive income (adjusted basis)							
Cash flow hedging	0	0	-6,158	0	-6,158	-3,062	-9,220
Total comprehensive income for the period	0	0	-6,158	-13,758	-19,916	-7,963	-27,879
Business transactions with shareholders							
Share issue	0	0	0	0	0	67,007	67,007
Total business transactions with shareholders	0	0	0	0	0	67,007	67,007
Changes in subsidiary holdings							
Acquisitions of non-controlling interests not leading to change of control	0	6,904	0	0	6,904	-6 904	0
Acquisitions of non-controlling interests leading to change of control	0	-3,369	46	11,908	8,585	-11,953	-3,369
Equity 31 Dec 2020	2,258	563,054	-6,765	-202,932	355,615	141,076	496,691
Equity 1 Jan 2021	2,258	563,054	-6,765	-202,932	355,615	141,076	496,691
Comprehensive income							
Profit/loss for the period	0	0	0	-36,222	-36,222	-14,972	-51,194
Other comprehensive income (adjusted basis)							
Cash flow hedging	0	0	-24,049	0	-24,049	-11,767	-35,817
Total comprehensive income for the period	0	0	-24,049	-36,222	-60,272	-26,740	-87,011
Business transactions with shareholders							
Share issue	0	50,000	0	0	50,000	36,956	86,956
Total business transactions with shareholders	0	50,000	0	0	50,000	36,956	86,956
Changes in subsidiary holdings							
Acquisitions of non-controlling interests not leading to change of control	0	988	0	0	988	-988	0
Acquisitions of non-controlling interests leading to change of control	0	-6,904	-36	-886	-7,825	921	-6,904
Equity 31 Dec 2021	2,258	607,138	-30,850	-240,039	338,506	151,226	489,732

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 (Business ID 2695013-5), in which the parent has a shareholding of 67.1 percent, and the subsidiaries Finnish Battery Chemicals Oy (Business ID 2999094-1) and Sokli Holding Oy (Business ID 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 the duties of the parent of Terrafame Oy.

Finnish Minerals Group's most important asset item is its subsidiary, Terrafame Oy. Terrafame produces nickel, zinc, cobalt and copper at its mine and metal works located in Sotkamo. During the financial year, the company launched the production of nickel and cobalt sulphate used to make lithium batteries for electric cars at its new battery chemicals plant.

In the financial year ending 31 December 2021, the portfolio companies of Finnish Minerals Group included the associated company Keliber Oy (shareholding 20.4%).

The parent company is domiciled in Helsinki and its visiting address is Keskuskatu 5 B, 8th floor, FI-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 28 March 2022. According to the Limited Liability Companies Act of Finland, shareholders may approve or reject the financial statements in the Annual General Meeting 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 they can be viewed 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 2021. 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 period 2020. 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.

Acquired subsidiaries are consolidated from the date on which the Group gains control. The consolidation ends when on the date on which control is lost.

Intra-group transactions, balances and unrealised gains on intra-group transactions are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset item transferred.

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 the associated company or joint 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 the percentage of its equity investment 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 2021 or 2020.

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 that are 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 a 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. Therefore, the offsets may be variable and will be adjusted as needed on the basis of the final analysis and measurement results. Furthermore, the prices of delivered metals are 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 a 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. Therefore, the offsets may be variable and 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 2021. 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 abovementioned 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-user 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 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 in different lines of business, and the investors' return expectations for similar investments. 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 that directly attributable to acquisition, construction or manufacturing of a tangible fixed asset (property, plant and equipment) that meets 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 2021 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 precursor cathode active material (pCAM) and cathode active material (CAM) plants in Finland.

Development projects are analysed separately to determine the date on which the project has reached the phase after which the capitalisation of development costs can begin. 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 per cent 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. Borrowing costs are not included in the acquisition cost.

Work in progress in metal intermediates business includes the metals in the ore in primary and secondary heaps, as well as the metals in the leaching process or the metal precipitation and filtration process that can be processed for sale as a finished product. Work in progress in the battery chemicals business includes nickel-cobalt sulphide, which is used as a raw material in processing and is measured in accordance with the level of completion of the main phases of the production process (pressure leaching, solvent extraction and crystallization).

The amount of metal included in work in progress is measured 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 studies, the estimated recovery percentages of metals in the bio heap leaching process, the recovery percentages of the metals 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 income
- 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 remaining 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 2021 and 2020, no expected credit losses have been recorded for trade receivables due to good credit rating and outstanding receivables from customers.

Receivables will be 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 within 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 transfer the payment of the liability at least 12 months from the end of 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 of 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 in Terrafame's balance sheet of 31 December 2021 and that of the corresponding consolidated balance sheet was EUR 232.0 million. Finance costs in accordance with IFRIC 1:8 have not been presented since the company estimates that they will have little impact due to low interest rates.

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 it will take rehabilitation measures 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 Group has been applying the amendment to IAS 16 ***Property, Plant and Equipment – Proceeds Before Intended Use*** early as of 1 January 2021, to recognise revenue from the sale of products arising from the use of capital work in progress and the related manufacturing costs through profit or loss. The amendment has no impact on comparability between financial years.

The new standards, amendments or interpretations adopted on 1 January 2021 have had no impact on the consolidated financial statements of Finnish Minerals Group.

New standards, amendments or interpretations to be adopted on 1 January 2022 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

	2021	2020
Breakdown by sector		
Metal intermediates business	351,322	338,258
Battery chemicals business	27,126	0
Other service	10	62
Total	378,458	338,320
Geographical breakdown		
Europe	351,342	338,337
Asia	27,101	0
United States	15	-17
Total	378,458	338,320

1.2 Employee benefit expenses and total depreciation

	2021	2020
Wages and salaries	47,029	40,541
Pension costs	8,015	6,518
Other social security expenses	1,973	1,447
Total	57,016	48,506
The Group's average number of employees during the financial year	935	851
The Group's number of employees at the end of the financial year	909	888

Total depreciation, amortisation and impairment charges	**2021**	**2020**
Intangible rights	290	563
Other intangible assets	304	58
	594	620
Tangible assets		
Buildings	4,887	4,093
Machinery and equipment	26,320	22,721
Right-of-use assets, machinery and equipment	3,043	2,534
Other tangible assets	14,555	10,877
	48,805	40,226
Total	**49,400**	**40,846**

1.3 Cost of goods sold

	2021	2020
Materials and services		
Raw materials and consumables		
Purchases during the financial year	129,183	114,479
Change in inventory	-1,296	785
	127,887	115,264
External services	75,495	70,257
Total	203,382	185,521
Change in inventory, products		
Change in inventory		
Change in inventory, semifinished products	-13,893	-3,913
Change in inventory, finished products	1,821	799
Total	-12,072	-3,114
Personnel expenses		
Wages and salaries	38,755	31,820
Pension costs	6,596	5,139
Other social security expenses	1,017	1,083
Total	46,368	38,042
Depreciation, amortisation and impairment charges		
Intangible rights	181	310
Tangible assets		
Buildings and structures	4,786	3,994
Machinery and equipment	26,247	12,365
Right-of-use assets, machinery and equipment	2,900	2,442
Other tangible assets	11,929	20,976
Total	46,044	40,087
Other costs of goods sold	85,250	64,814
Cost of goods sold total	**368,971**	**325,350**

1.4 Other operating income

	2021	2020
Revaluation of biological assets	128	976
Insurance claims	252	1
Grants received	325	419
Proceeds from disposal of tangible and intangible assets	76	26
Other fees and compensation, including sales of scrap metal and proceeds from tree felling	1,287	667
Total other operating income	**2,068**	**2,089**

1.5 Sales and marketing expenses

	2021	2020
Personnel expenses		
Wages and salaries	1,148	940
Pension costs	194	147
Other social security expenses	33	31
Total	1,374	1,118
Depreciation, amortisation and impairment charges		
Depreciation and amortisation charges	9	62
Right-of-use assets, depreciation	106	0
Total	116	62
Other expenses		
Sales and marketing misc. charges	1,540	1,569
Total	1,540	1,569
Total sales and marketing expenses	**3,030**	**2,750**

1.6 Administrative expenses

	2021	2020
Personnel expenses		
Wages and salaries	5,567	4,625
Pension costs	924	784
Other social security expenses	346	261
Total	6,836	5,669
Depreciation, amortisation and impairment charges		
Depreciation and amortisation charges	275	274
Right-of-use assets, depreciation	37	37
Total	312	311
Other expenses		
Other administrative expenses	16,297	14,446
Total	16,297	14,446
Auditors' fees		
Auditing	141	126
Certificates and reports	5	2
Tax advisory services	18	57
Other services	85	111
	249	**297**
Total administrative expenses	**23,694**	**20,723**

1.7 Other operating expenses

	2021	2020
Research and development costs		
Total research and development costs recognised as an expense	**1,121**	**993**
Personnel expenses		
Wages and salaries	1,583	1,269
Pension costs	232	191
Other social security expenses	-150	41
Total	1,665	1,501
Depreciation, amortisation and impairment charges		
Depreciation and amortisation charges	2,816	439
Total	2,816	439
Other expenses		
Other operating expenses	8,246	6,201
Total	8,246	6,201
Total other operating expenses	**13,847**	**9,133**

1.8 Finance income and cost

	2021	2020
Finance income		
Interest income from other deposits	27	51
Foreign exchange gains	1,350	16,774
Other finance income	46	171
Total finance income	**1,423**	**16,996**
Change in fair value of financial assets carried at fair value		
Change in fair value, other investments	66	464
Total impairment charges	**66**	**464**
Finance expenses		
Other interest expenses	-456	-14,524
Foreign exchange losses	-15,691	-2,410
Other finance expenses	-5,779	-168
Share of profit from associated company and joint venture	-1,502	-1,105
Total finance expenses	**-23,428**	**-18,207**
Total finance income and cost	**-21,939**	**-746**

In the financial year 2021, EUR 66 thousand was recognised as an impairment reversal in respect of the write-down made in 2018 for the convertible bond issued to Ferrovan Oy. The entry is based on a final payment received from the bankruptcy estate and does not involve estimates. Of the unrealised foreign exchange gains included in finance income, EUR 1,330 thousand (2020: 13,643) consists of the valuation of foreign exchange-denominated loans using the exchange rate at the balance sheet date. The finance expenses for the year include EUR 15,627 thousand (2020: 2,384) of unrealized exchange rate losses on the valuation of foreign exchange-denominated loans using the exchange rate at the balance sheet date.

1.9 Income taxes

	2021	2020
Current tax expense		
Current tax on profits for the year	0	0
Taxes from previous periods	0	0
Total current tax expense	0	0
Deferred taxes	-241	-366
Income tax expense	**-241**	**-366**

The Finnish corporate tax rate in the financial year 2021 and the reference year was 20.0%

Deferred tax on the balance sheet	**10,297**	**1,584**

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.

	2021	2020
Profit/loss for the period attributable to owners of the parent	-36,222	-13,758
Weighted average number of shares during the period	583,805	558,038
Basic earnings per share, EUR/share	-62.05	-24,65
Diluted earnings per share, EUR/share	-62.05	-24,65

1.11 Business acquisitions and divestitures

The Group made no business acquisitions in the financial year 2021 or 2020.

1.12 Intangible assets

	Development costs	Intangible rights	Other intangible assets	Construction in progress	Total
Acquisition cost 1 Jan 2020	0	2,418	144	0	2,654
Increase	1,120	495	0	92	1,700
Capitalised during the period	0	0	176	84	0
Acquisition cost 31 Dec 2020	**1,120**	**2,913**	**320**	**-176**	**4,354**
Accumulated depreciation and write-downs 1 Jan 2020	0	-1,481	-94	0	-1,575
Depreciation for the year	-112	-473	-36	0	-620
Accumulated depreciation 31 Dec 2020	**-112**	**-1,954**	**-130**	**0**	**-2,195**
Carrying amount 31 Dec 20210	**1,008**	**960**	**190**	**0**	**2,158**
Acquisition cost 1 Jan 2021	1,120	2,913	320	0	4,354
Increase	0	26	0	4	30
Capitalised during the period	1,832	0	1,596	-4	3,424
Acquisition cost 31 Dec 2021	**2,952**	**2,939**	**1,916**	**0**	**7,807**
Accumulated depreciation and write-downs 1 Jan 2021	-112	-1,954	-130	0	-2,195
Depreciation for the year	-243	-290	-61	0	-594
Accumulated depreciation 31 Dec 2021	**-356**	**-2,243**	**-191**	**0**	**-2,790**
Carrying amount 31 Dec 2021	**2,596**	**696**	**1,725**	**0**	**5,017**

1.13 Property, plant and equipment

	31 Dec 2021	31 Dec 2020
Property, plant and equipment	725,084	582,926
Right-of-use assets	13,812	14,004
Carrying amount 31 Dec	**738,896**	**596,930**

	Land	Buildings	Machinery and equipment	Other tangible assets	Advance payments and construction in progress	Total
Acquisition cost 1 Jan 2020	1,409	64,866	157,915	182,449	111,308	517,946
Increase	1,299	20	9,962	1,679	189,697	202,657
Capitalised during the period	0	335	8,500	35,906	-44,740	0
Decrease	0	0	-57	0	0	-57
Acquisition cost 31 Dec 2020	**2,708**	**65,221**	**176,320**	**220,033**	**256,264**	**720,547**
Accumulated depreciation and write-downs 1 Jan 2020	0	-15,652	-59,363	-24,910	0	-99,924
Accumulated depreciation on decreases and transfers	0	0	50	0	0	50
Depreciation for the year	0	-4,093	-22,721	-10,933	0	-37,747
Accumulated depreciation 31 Dec 2020	**0**	**-19,745**	**-82,034**	**-35,843**	**0**	**-137,621**
Carrying amount 31 Dec 2020	**2,708**	**45,476**	**94,287**	**184,191**	**256,264**	**582,926**
Acquisition cost 1 Jan 2021	**2,708**	**65,221**	**176,320**	**220,033**	**256,264**	**720,547**
Increase	587	0	10,685	72,947	103,704	187,923
Capitalised during the period	0	69,499	198,838	39,037	-307,374	0
Decrease	0	0	-358	0	0	-358
Acquisition cost 31 Dec 2021	**3,295**	**134,720**	**385,486**	**332,017**	**52,954**	**908,113**
Accumulated depreciation and write-downs 1 Jan 2021	0	-19,745	-82,034	-35,843	0	-137,621
Accumulated depreciation on decreases and transfers	0	0	355	0	0	355
Depreciation for the year	0	-4,887	-26,320	-14,555	0	-45,763
Accumulated depreciation 31 Dec 2021	0	-24,632	-107,999	-50,398	0	-183,029
Carrying amount 31 Dec 2021	**3,295**	**110,088**	**277,487**	**281,619**	**52,594**	**725,084**

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 2020	**17,799**	**17,799**
Increase	685	685
Decrease	-11	-11
Acquisition cost 31 Dec 2020	**18,472**	**18,472**
Accumulated depreciation and write-downs 1 Jan 2020	**-1,934**	**-1,934**
Depreciation for the year	-2,534	-2,534
Accumulated depreciation 31 Dec 2020	**-4,468**	**-4,468**
Carrying amount 31 Dec 2020	**14,004**	**14,004**
Acquisition cost 1 Jan 2021	**18,472**	**18,472**
Increase	2,851	2,851
Acquisition cost 31 Dec 2020	**21,323**	**21,323**
Accumulated depreciation and write-downs 1 Jan 2021	**-4,468**	**-4,468**
Depreciation for the year	-3,043	-3,043
Accumulated depreciation 31 Dec 2021	**-7,511**	**-7,511**
Carrying amount 31 Dec 2021	**13,812**	**13,812**

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 2021, 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 – Notes to the standard Items recognised through profit or loss	**2021**	**2020**
Lease expenses of low value assets	42	90
Lease expenses of short-term leases	4,228	4,565
Depreciation of fixed assets (machinery and equipment)	3,043	2,534
Interest expenses on leases (included in item 'Interest expenses')	416	438

The lease expenses itemized above are mainly included in the income statement item 'Other operating expenses'.

Items recognised in the cash flow statement		
Total cash outflow from leases	8,389	7,975

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 2021 (time 25 years, interest rate 5%).

Biological assets	**31 Dec 2021**	**31 Dec 2020**
Value of growing stock	7,978	7,844
Value of seeding stands	100	105
	8,078	7,950
Total growing stock, m³	361,863	328,897
Total seeding stands, ha	302.80	326,90

Balance at 1 Jan 2020	**6,974**
Gains and losses on fair value measurement	976
Balance at 31 Dec 2020	**7,950**
Balance at 1 Jan 2021	**7,950**
Gains and losses on fair value measurement	128
Balance at 31 Dec 2021	**8,078**

1.15 Investments in associates

Non-current	**31 Dec 2021**	**31 Dec 2020**
Investments in associated companies	16,500	12,702
Share of profit from associated companies	-3,701	-2,199
Balance at 31 Dec 2021	**12,799**	**10,503**

	Holdings in associated companies
Acquisition cost 1 Jan 2020	18,503
Increase	2,353
Acquisition cost 31 Dec 2020	20,857
Accumulated impairment losses 1 Jan 2020	-8,155
Accumulated impairment losses 31 Dec 2020	-8,155
Carrying amount 31 Dec 2020	**12,702**
Acquisition cost 1 Jan 2021	20,857
Increase	3,798
Acquisition cost 31 Dec 2021	24,655
Accumulated impairment losses 1 Jan 2021	-8,155
Accumulated impairment losses 31 Dec 2021	-8,155
Carrying amount 31 Dec 2021	**16,500**

	31 Dec 2020 Company holdings	Book-entry	Number of shares	Carrying amount
Keliber Oy, Kaustinen, Finland	26,3%	Class B shares	384,905	12,702

	31 Dec 2021 Company holdings	Book-entry	Number of shares	Carrying amount
Keliber Oy, Kaustinen, Finland	20,4%	Class B shares	479,868	16,500

In the financial year 2021, the Group's share of profit from associated company for the year was EUR -1,502 thousand.

1.16 Inventories

	2021	2020
Raw materials and consumables	25,527	24,231
Work in progress	204,043	190,150
Finished products	4,284	6,105
Total	**233,854**	**220,486**

The metal intermediates inventory on 31 December 2021 was measured at cost, EUR 2.7 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 2021 was EUR 199.0 milion, and the value of work in progress in battery chemicals production measured at net realizable value was EUR 5.0 million. The inventory of finished suphated productions of the battery chemicals business on 31 December 2021 has been measured at net realisable value, EUR 1.6 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 2021 includes a provision of EUR 7.6 million for slow-moving inventory, which reduces the value of inventory. The corresponding provision on 31 December 2020 amounted to EUR 7.2 million.

1.17 Trade and other receivables

Current	2021	2020
Trade receivables	24,163	15,865
Prepaid expenses and accrued income	1,104	5,279
Derivative assets	181	12,668
Collateral	211	209
Other receivables	188	3,102
Total	**25,846**	**37,123**

Aging of trade receivables and items recognised as credit loss	2021	2020
Undue	14,614	15,863
Overdue		
Under 30 days	9,548	0
30–60 days	0	1
61–90 days	0	0
Over 90 days	0	1
Total	**24,163**	**15,865**
Recognised impairment losses	0	0

Expected credit losses have not been recorded in the Group's financial statements of December 31 2021 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	2021	2020
USD	23,795	28,474
EUR	2,051	8,622
AUD	0	28
Total	**25,846**	**37,123**

Other receivables consist of the following items:		
Loan receivable	2	0
Value added tax receivables	186	3,102
Total	**188**	**3,102**

1.18 Cash and cash equivalents

	2021	2020
Cash in hand and at banks	78,353	98,182
Total	**78,353**	**98,182**

1.19 Notes on shareholders' equity

The parent company's share capital entered in the trade register on 31 December 2021 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 2021 or 2020.

	2021		2020	
Subscribed capital	Number of shares	Subscribed capital	Number of shares	Subscribed capital
1.1.	558,408	2,258	535,908	2,258
Issued shares	30,000	0	22,500	0
Subscribed capital 31 Dec	**588,408**	**2,258**	**558,408**	**2,258**

	2021		2020	
Invested unrestricted equity fund	Number of shares	Subscribed capital	Number of shares	Subscribed capital
1.1.	558,408	556,151	535,908	556,151
Issued shares	30,000	50,000	22,500	0
Invested unrestricted equity fund 31 Dec	**588,408**	**606,151**	**558,408**	**556,151**

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

The shareholders of Terrafame Oy have, on 27 August 2020, authorised the company's Board of Directors to decide on the issuance of a maximum of 757,867 new shares in the company in deviation from the shareholders' pre-emptive rights. The authorisation for 716,867 new shares in the company remains valid until 31 March 2023, and the authorisation for 41,000 new shares in the company remains valid until 24 April 2024. In addition, the shareholders have authorised the Board of Directors to decide on the issuance of a maximum of 81,000 new shares in the company in a directed share issue to the company's parent on the grounds of maintaining control over the company. 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 subscription prices agreed for the option rights were 10% higher than the subscription price at the time of the arrangement, 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. For tranche 7, the subscription period is divided for 47% of the subscription rights (7_1) to be exercised between 27 August 2020 and 31 December 2023, and for 53% of the subscription rights (7_2) to be exercised between 27 August 2020 and 24 April 2024. Correspondingly, for tranche 8, 84% of the subscription rights (8_1) are to be exercised between 27 August 2020 and 31 December 2023, and 16% of the rights (8_2) between 27 August 2020 and 30 June 2024. The subscription period for tranche 9 is from 27 October 2020 to 30 June 2024, while the subscription period for tranches 10–13 started immediately and ends on 30 June 2024.

Options and other special rights	Maximum number of issued shares	Shares issued	Shares outstanding
(pcs)	**31 Dec 2021**	**31 Dec 2021**	**31 Dec 2021**
Tranche 7	1,034,008	153,093	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	**1,723,631**	**153,093**	**1,570,538**

Options and other special rights	Maximum number of issued shares	Shares issued	Shares outstanding
(pcs)	**31 Dec 2020**	**31 Dec 2020**	**31 Dec 2020**
Tranche 7	1,034,008	153,093	880,915
Tranche 8	582,033		582,033
Tranche 9	21,518		21,518
At end of year	**1,637,559**	**153,093**	**1,484,466**

Share of non-controlling interests

Non-controlling interests accounted for EUR 151.2 million of the Group's equity in the financial year 2021 (2020: 141.1 million). This holding of the Group consists of financing arrangements made during financial years 2017 to 2021, and it concerns the Group's subsidiary, Terrafame Oy, for which the non-controlling interest was approximately 32.9 percent on the balance sheet date (2020: 33.2 percent).

1.20 Notes to hedging derivatives

	31 Dec 2021			31 Dec 2020			2021	2020
	Positive fair values	Negative fair values	Fair net value	Positive fair values	Negative fair values	Fair net value	Nominal amounts in USD	Nominal amounts in USD
Currency and interest rate derivatives								
Foreign exchange forwards	121	7,533	-7,412	10,133	0	10,133	234,000	381,500
Metal derivatives							Tonnes	Tonnes
Nickel forward contracts	0	31,663	-31,663	2	10,783	-10,781	12,800	14,350
Zinc forward contracts	41	6,911	-6,870	2	9,481	-9,479	19,200	32,100
Derivatives total	**162**	**46,107**	**-45,945**	**10,136**	**20,264**	**-10,128**		
Long-term derivatives	0	149	-149	1,287	4,405	-3,118		
Short-term derivatives	162	45,958	-45,796	8,849	15,859	-7,010		

	31 Dec 2021	**31 Dec 2020**
Gross assets on the balance sheet	181	12,668
Gross liabilities on the balance sheet	57,613	25,329

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 the company'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 company's financial position and projected profitability for the next 12 months was high on 31 December 2021. The company had set up a cash flow hedge against a weakening US dollar with a hedging rate of approximately 49 per cent of its projected estimated USD denominated net cash flow. The company had set up a cash flow hedge with a 43 percent hedging rate against falling nickel prices for the company's projected nickel deliveries for the following year utilizing derivatives and fixed-price sales agreements. For planned zinc deliveries company has set up hedges for almost all of its nickel and zinc deliveries, which has been completed and reported under sales already earlier. As a result, the change in market prices after the closing of the accounts has hardly no effect on the deliveries reported as sales for the financial year 2021.

1.21 Deferred tax assets and liabilities

Deferred taxes

On the balance sheet	**31 Dec 2021**	**31 Dec 2020**
Derivatives		
Deferred tax asset	11,486	2,532
Biological assets		
Deferred tax liability	-593	-568
Leases		
Deferred tax liability	-596	-381
Balance at 31 Dec	10,297	1,584
Unrecognised deferred tax assets		
Confirmed and carried-forward loss for tax purposes		
Deferred tax asset	39,946	29,914
Rehabilitation provision		
Deferred tax asset	46,405	31,815
Deferred tax liability	-14,075	-325
Deferred depreciation		
Deferred tax asset	9,044	13,227
Balance at 31 Dec	81,319	74,632

The Finnish corporate tax rate in the financial year 2021 and the reference year was 20.0 percent.

Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the related tax benefits can be utilized. The above table shows the temporary differences, tax losses and deferred depreciations for which deferred tax assets or deferred tax liabilities have not been recognised due to uncertainty related to their realisation. Material unrecognised deferred taxes relate to adjustments made to Terrafame's assets and liabilities in the preparation of consolidated financial statements according to IFRS. Terrafame's business is still in the development phase and the level of taxable income has not yet stabilised. For this reason, there is significant uncertainty regarding the realisation of the long-term deferred taxes shown above, and those deferred taxes have not been recognised in the consolidated financial statements.

On 31 December 2021, the Group companies had unrecognised deferred tax assets of approximately EUR 48.9 million relating to confirmed losses for tax years 2015–2020 (EUR 29.9 million in tax assets), losses estimated to be confirmed for tax year 2021 (EUR 10.0 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 relating to the provision was approximately EUR 46 million and the deferred tax liability related to the IFRS adjustments was approximately EUR 14 million.

1.22 Contingent liabilities and other liabilities

	31 Dec 2021	**31 Dec 2020**
Fixed assets serving as collateral for installment credit	**150**	**328**
Installment credit		
No later than one year	115	76
Later than one year and no later than five years	125	239
Total	**240**	**315**
Other contractual exposures		
No later than one year	8,053	8,341
Later than one year and no later than five years	3,684	5,600
Total	**11,737**	**13,941**
Bank deposits	**150**	**150**
Total	**12,127**	**14,405**

Securities complying with environmental and mining permits	**Type of security**	**31 Dec 2021** Amount of security	**31 Dec 2020** Amount of security
Beneficiary			
Kainuu Center of Economic Development, Transport and Environment; securities in accordance with permit condition 117	Credit insurance	133,245	127,945
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	10	0
Security in accordance with permit decision no. 5/2021	Bank guarantee	200	0
Security in accordance with permit decision no. 5/2021	Bank guarantee	20	0
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		**135,416**	**129,886**
Other collateral	Bank guarantee	1,545	2,453
Real estate investments' VAT refund liability		**15,894**	**2,690**
Business mortgages		**320,000**	**320,000**
Real estate mortgage		**1,200,079**	**1,200,079**
Mining certificate, Mining Register registration number 2819, mining concession	Pledge	**Yes**	**Yes**

For the financial year 2021, Terrafame Oy has a pledge account for the benefit of Customs. Terrafame Oy also has a supply contract bank guarantee for the supplier's benefit in the amount of EUR 1.5 million. Business and real estate mortgages and the pledge on the mining certificate are collateral for Terrafame's long-term financing agreements.

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 2021, the Group had USD-denominated sales worth USD 517.6 million, and the USD-denominated foreign-exchange forward transactions due during the financial year totalled USD 344.5 million. The hedge ratio was therefore set at 66.5 percent. As a result, a 10 percent change in the value of EUR/USD would have only affected the Group's net sales by 3.1 percent.

A significant portion of Terrafame's long-term loans from financial institutions are 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 227.4 million in interest-bearing liabilities (2020: 195.8 million). On the same date, the repayment period of interest-bearing liabilities was approximately 2.2 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 1.8 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 2021 or 2020. 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 2021 was 44.0 percent (31 December 2020: 50.9 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 2021	Carrying amount	Cash flow	0–6 mths	6 mths–1 yr	1–2 yrs	More than 2 yrs
Interest-bearing liabilities	216,144	232,281	46,907	70,388	63,590	51,396
Accounts payable	72,817	72,817	72,817	0	0	0
Lease liabilities	11,265	11,699	2,337	2,337	5,976	1,050
Derivative liabilities	57,613	0	0	0	0	0
Total	**357,838**	**316,797**	**122,061**	**72,725**	**69,566**	**52,446**

31 Dec 2019	Carrying amount	Cash flow	0–6 mths	6 mths–1 yr	1–2 yrs	More than 2 yrs
Interest-bearing liabilities	183,293	205,493	3,853	4,852	102,417	94,370
Accounts payable	81,782	81,782	81,782	0	0	0
Lease liabilities	12,533	12,533	1,756	1,756	3,580	5,442
Derivative liabilities	25,329	25,330	8,826	10,998	5,506	0
Total	**302,937**	**325,138**	**96,217**	**17,606**	**111,503**	**99,812**

Market risk

The Group's sales in 2021 amounted to EUR 378.5 million (2020: 338.3). 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 2021. The company had set up a cash flow hedge against a weakening US dollar with a hedging rate of approximately 49 percent of its projected estimated USD denominated net cash flow. The company had set up a cash flow hedge against falling nickel prices for the company's projected nickel deliveries for the following year utilizing derivatives and fixed-term sales agreements. For planned zinc deliveries company has set up a hedge with a hedging rate of approximately 43 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 deliveries reported as sales for the financial year 2021.

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 2021	31 Dec 2020
At beginning of year	159,077	157,398
Increase	72,947	1,679
At end of year	232,024	159,077
Total non-current	**232,024**	**159,077**
Estimated cost of the rehabilitation provision		
Rehabilitation of bioleaching areas	122,177	37,365
Other rehabilitation work	109,847	121,442
Estimated rehabilitation costs total	**232,024**	**159,077**

Terrafame estimates that it will receive a new environmental permit concerning all its operations from the Regional State Administrative Agency for Northern Finland in March 2022. The environmental permit will also stipulate the measures for the closure and rehabilitation of Terrafame's production and waste areas as well as euro-denominated collateral for environmental rehabilitation to ensure these measures. The collateral will secure the closure measures by the permit in the event that the operator is unable to perform them.

In 2021, the Regional State Administrative Agency for Northern Finland granted a separate permit to Terrafame for the extension of the primary bioleaching area. In its decision, the Regional State Administrative Agency raised the area-based collateral set for the closure plan of the primary leaching area. Terrafame estimates that the increased collateral stipulated in this permit decision will also have a impact on the environmental permit concerning all its operations, estimated to be granted in March 2022, which is expected to increase the total amount of the collateral significantly.

Terrafame has prepared for the costs generated by the closure measures with an environmental provision, which has been recognized in the balance sheet and updated annually. Where applicable, the provision complies with the collateral stipulated in the environmental permit as well as the area-based cost estimate for the closure issued by the Regional State Administrative Agency for Northern Finland.

Based on the previous permit decision described above, Terrafame assumes it is likely that the collateral for environmental restoration will increase in the new environmental permit. Thefore the amount of environmental provision recognized at 21 December 2021 has been increased from EUR 159.1 million to EUR 232 million. The impact that the increase in the provision has on Terrafame's operating result (FAS) for 2021 is EUR -72.9 million. The impact of the provision on the Group's operating result (IFRS) is approximately EUR -2.5 million.

1.25 Interest-bearing liabilities

Non-current financial liabilities measured at amortised cost	**31 Dec 2021**	**31 Dec 2020**
Loans from financial institutions – finance loan	108,894	182,978
Other payables – installment credit	125	239
Lease liability	6,898	9,021
Total	**115,917**	**192,238**

Current financial liabilities measured at amortised cost		
Loans from financial institutions – finance loan	107,010	0
Other payables – installment credit	115	76
Lease liability	4,367	3,512
Total	**111,492**	**3,588**

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 2021**	**31 Dec 2021**
Advances received	353	538
Accounts payable	72,817	81,782
Accruals and deferred income	22,255	14,384
Derivative liabilities	57,613	25,329
Other payables	10,938	1,290
Total	**163,976**	**123,322**

Non-interest bearing liabilities by currency	**31 Dec 2021**	**31 Dec 2020**
EUR		
USD	68,058	31,105
GBP	51	20
SEK	11	2
EUR	95,856	92,196
Total	**163,976**	**123,322**

During the financial year 2021 and 2020, 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 2021	**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			181	181	181		181	
Trade receivables	24,163			24,163	24,163			
Cash and cash equivalents	78,353			78,353	78,353			
Total	**102,516**	**0**	**181**	**102,697**	**102,697**			
Financial liabilities								
Loans from financial institutions	215,904			215,904	215,904			
Other liabilities – installment credit	240			240	240			
Lease liabilities	11,265			11,265	11,265			
Accounts payable	72,817			72,817	72,817			
Derivatives			57,613	57,613	57,613		57,613	
Total	**300,226**	**0**	**57,613**	**357,838**	**357,838**			

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 2020	**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			12,668	12,668	12,668		12,668	
Trade receivables	15,865			15,865	15,865			
Cash and cash equivalents	98,182			98,182	98,182			
Total	**114,047**	**0**	**12,668**	**126,715**	**126,715**			
Financial liabilities								
Loans from financial institutions	182,978			182,978	182,978			
Other liabilities – installment credit	315			315	315			
Lease liabilities	12,533			12,533	12,533			
Accounts payable	81,782			81,782	81,782			
Derivatives			25,329	25,329	25,329		25,329	
Total	**277,608**	**0**	**25,329**	**302,937**	**302,937**			

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

	2021	2020
Unrealised foreign exchange gains and losses		
Unrealised foreign exchange gains and losses	14,297	-11,259
Finance income and cost	6,205	11,224
Other income and expenses that do not include payments	0	197
Other adjustments	1,368	-361
	21,871	**-200**

Other adjustments for the period include the treatment of associated companies' profits, revaluation of biological assets and gains recorded on a previous write-down of an investment.

The finance income and costs include an interest-rate adjustment for options totalling EUR 0.0 million (2020: 8.8 million).

Changes in liabilities arising from financing activities

	1 Jan 2021	Changes arising from cash flows	Non-cash changes			31 Dec 2021
			Foreign exchange movements	Transfers	Other changes	
Non-current liabilities	183,217	0	19,628	-111,124	17,298	109,019
Current liabilities	76	-75	-4,001	111,124	0	107,125
Lease liabilities: non-current	9,021	0	0	-4,041	1,918	6,898
Lease liabilities: current	3,512	-4,119	0	4,041	933	4,367
Total liabilities arising from financing activities	**195,826**	**-4,194**	**15,627**	**0**	**20,149**	**227,409**

	Non-current liabilities	Current liabilities	Non-current lease liabilities	Current lease liabilities	Total liabilities from financial operations
Net liabilities 1 Jan 2020	128,970	28,570	11,887	3,360	172,788
Cash flows	0	-2,591	0	-3,388	-5,979
Date of acquisition	69,532	0	528	146	70,205
Exchange rate variations	-15,210	-1,419	0	0	-16,629
Other changes that do not include payment	-75	-24,484	-3,394	3,394	-24,559
Net liabilities 31 Dec 2020	183,217	76	9,021	3,512	195,826

	Non-current liabilities	Current liabilities	Non-current lease liabilities	Current lease liabilities	Total liabilities from financial operations
Net liabilities 1 Jan 2021	183,217	76	9,021	3,512	195,826
Cash flows	0	-75	0	-4,119	-4,194
Date of acquisition	17,298	0	1,918	933	20,149
Exchange rate variations	19,628	-4,001	0	0	15,627
Other changes that do not include payment	-111,124	111,124	-4,041	4,041	0
Net liabilities 31 Dec 2021	109,019	107,125	6,898	4,367	227,409

1.28 Related party transactions

The key related parties of Finnish Minerals Group include the State of Finland, which is the Group's only shareholder, and the associated company Keliber Oy, Galena Private Equity Resources Investment 2 L.P., Galena Private Equity Resources Investment 3 L.P. and Galena Private Equity Resources Investment 4 L.P. funds, as well as Trafigura Ventures V B.V. The related parties also 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 Government 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.

Financing arrangements are in place between Terrafame and Trafigura Group Pte. Ltd., between the company and three funds – Galena Private Equity Resources Investment 2 L.P., Galena Private Equity Resources Investment 3 L.P. and Galena Private Equity Resources Investment 4 L.P. – and between the company and Finnish Minerals Group. The value of Terrafame's related-party borrowings is EUR 159.7 million. The commercial agreements between Terrafame and Trafigura Nat Gas Limited generated EUR 437.6 million in sales during the financial year. Terrafame has spent approximately EUR 0.5 million on legal and other administrative services and approximately EUR 0.3 million on management services for product development projects purchased from Finnish Minerals Group.

Business transactions with related parties	**31 Dec 2021**	**31 Dec 2020**
Net sales from goods and services		
Other related entities	439,358	319,923
Purchases of goods and services		
Other related entities	43,835	33,889
Open balances on sales and purchases of goods and services		
Trade receivables		
Other related entities	24,279	17,278
Accounts payable		
Other related entities	5,746	4,768
Loans received		
Other related entities	167,201	149,645
Loans, issued		
Other related entities	7,480	2,224

Executives' benefits	**2021**	**2020**
Salaries and other short-term benefits	2,750	2,798
Termination benefits	0	0
Post-employment benefits	0	0
Other long-term employee benefits	0	0
Share-based payments	0	0
Total	**2,750**	**2,798**

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 2021**	**31 Dec 2020**
Parent company		
CEO	248	226
Members of the Board of Directors		
Teija Kankaanpää	18	16
Ilpo Korhonen	20	17
Antti Kummu	28	25
Janne Känkänen	20	20
Juha Majanen	0	4
Minna Pajumaa	0	5
Eeva Ruokonen	18	16
Pauli Anttila	1	0
Jukka Ohtola	9	0
Total remuneration of the Board of Directors	**114**	**103**

Terrafame Oy (subsidiary)	**31 Dec 2021**	**31 Dec 2020**
CEO	387	408
Members of the Board of Directors		
Lauri Ratia	79	79
Jesus Fernandez	43	41
Emmanuel Henry	44	43
Matti Hietanen	0	0
Esa Lager	12	43
Riitta Mynttinen	43	43
Tuomo Mäkelä	44	43
Total remuneration of the Board of Directors	**296**	**293**
Total wages and salaries	**1,045**	**1,031**

At the end of the financial year 2021 and 2020, the members and management of the Board of Directors 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**	2021 **Holding (%)**	2021 **Share of votes (%)**	2020 **Holding (%)**	2020 **Share of votes (%)**
Finnish Minerals Group – parent company	Finland				
Terrafame Oy	Finland	67.1%	67.1%	66.8%	66.8%
Finnish Battery Chemicals Oy	Finland	100.0%	100.0%	100.0%	100.0%
FBC project 1 Oy	Finland	100.0%	100.0%	100.0%	100.0%
FBC project 101 Oy	Finland	100.0%	100.0%	100.0%	100.0%
FBC project 2 Oy	Finland	100.0%	100.0%	100.0%	100.0%
FBC project 201 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%

The Group's parent company provides administrative services to the companies belonging to the Group.

1.30 Events after the balance sheet date

The financial period of Finnish Minerals Group ended on 31 December 2021.

In January, the subsidiary Terrafame announced that it was pursuing annual savings of EUR 10 million and would be starting co-operation negotiations in accordance with the Act on Co-operation within Undertakings. As a result of the negotiations, the decision was made based on financial and production reasons and the company reorganisation measures to reduce staff by 65 person-years, 42 of which are termination of employment contracts. In March, Terrafame announced that it will increase the environmental provision in the financial statements for 2021 from EUR 159.1 million to EUR 232 million.

The armed conflict in Ukraine, which began in February 2022, has a significant impact on the business environment, including metal market prices, the pricing and availability of industrial commodities, and supply chains.

PARENT COMPANY FINANCIAL STATEMENTS (FAS)

PARENT COMPANY INCOME STATEMENT

(EUR 1,000)

Finnish Minerals Group	**Note**	**2021**	**2020**
Net sales	2.1	1,748	1,182
Gross profit		**1,748**	**1,182**
Other operating income	2.2	13	408
Administrative expenses	2.4	-3,271	-2,551
Research and development costs	2.5	-1,784	-1,529
Operating profit/loss		**-3,294**	**-2,489**
Finance income and cost	2.6		
Other interest and finance income		283	123
Impairment of investments held as non-current assets		66	464
Interest and other finance expenses		-40	-134
Total finance income and cost		309	453
Profit/loss before tax		**-2,986**	**-2,036**
Profit/loss for the period		**-2,986**	**-2,036**

PARENT COMPANY BALANCE SHEET

(EUR 1,000)	**Note**	**31 Dec 2021**	**31 Dec 2020**
ASSETS			
Non-current assets			
Intangible assets	2.7		
Development costs		213	299
Investments			
Amounts owed by Group companies	2.8	537,481	473,097
Investments in other shares and participations	2.9	16,500	12,702
Total non-current assets		**554,194**	**486,098**
Current assets			
Non-current receivables			
Receivables from Group companies	2.10	7,480	2,224
Current receivables			
Current receivables	2.11	971	1,728
Cash and cash equivalents	2.12	13,221	38,666
Total current assets		21,672	42,618
TOTAL ASSETS		**575,866**	**528,717**
LIABILITIES			
Equity	2.13		
Subscribed capital		2,258	2,258
Invested unrestricted equity fund		606,151	556,151
Profit/loss from previous periods		-31,266	-29,231
Profit/loss for the period		-2,986	-2,036
Total equity		**574,156**	**527,142**
Current liabilities			
Current liabilities	2.14	1,710	1,575
Total current liabilities		1,710	1,575
TOTAL LIABILITIES		**575,866**	**528,717**

PARENT COMPANY CASH FLOW STATEMENT

(EUR 1,000)	2021	2020
Cash flow from operating activities		
Profit/loss for the period	-2,986	-2,036
Adjustments to operating profit/loss	-196	-420
Change in working capital	893	-156
Interest paid	-40	-18
Interest received	27	99
Net cash flow from operating activities	**-2,302**	**-2,531**
Cash flow from investing activities		
Investments in tangible and intangible assets	-26	-333
Proceeds from disposal of tangible and intangible assets	0	958
Acquisition of other investments	-8,798	-4,353
Proceeds from disposal of other investments	66	464
Investments in subsidiaries	-64,384	-46,096
Net cash flow from investing activities	**-73,143**	**-49,360**
Cash flow from financing activities		
Subscription issue	50,000	0
Cash flow from financing activities	**50,000**	**0**
Change in cash and cash equivalents	**-25,445**	**-51,891**
Cash and cash equivalents at the beginning of the period	38,666	90,556
Cash and cash equivalents at the end of the period	**13,221**	**38,666**

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 period 2020. 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.

Transactions in 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

	2021	2020
Intra-group sales	1,738	1,172
Selling to others	10	10
Total	**1,748**	**1,182**

2.2 Other operating income

	2021	2020
Grants and subsidies received	178	408
Other income	-165	0
Total	**13**	**408**

2.3 Personnel expenses and number of employees

Personnel expenses	**2021**	**2020**
Wages and salaries	2,275	1,662
Pension costs	364	234
Other social security expenses	67	44
Total	**2,706**	**1,940**
Average number of employees		
White-collar employees	21	16
	21	**16**

2.4 Administrative expenses

Personnel expenses	**2021**	**2020**
Wages and salaries	1,718	1,200
Pension costs	275	169
Other social security expenses	50	32
Total	**2,043**	**1,401**
Auditors' fees		
Auditing	47	33
Certificates and statements	2	2
Tax advisory services	14	57
Other services	1	59
Total	**64**	**151**
Travel expenses	72	42
Rents	134	134
Other legal and consulting services	317	583
Other administrative expenses, Group	10	88
Other administrative expenses	631	151
Total administrative expenses	**3,271**	**2,551**
Management salaries and fees		
CEO and Board members	363	329

2.5 Research and development costs

	2021	2020
Total research and development costs recognised as an expense	1,784	1,529

2.6 Finance income and expenses

	2021	2020
Other interest and finance income		
From Group companies	256	72
From other companies	27	51
Impairment of investments held as non-current assets	66	464
Interest and other finance expenses		
To other companies	-40	-134
Total finance income and expenses	**309**	**453**

2.7 Intangible assets

	Development costs	Total
Carrying amount 31 Dec 2020	**299**	**299**
Acquisition cost 1 Jan 2021	333	333
Capitalised during the period	26	26
Acquisition cost 31 Dec 2021	359	359
Accumulated amortisation and impairment losses 1 Jan 2021	33	33
Amortisation for the year		
Impairment losses	24	24
Accumulated amortisation and	89	89
impairment losses 31 Dec 2021	146	146
Carrying amount 31 Dec 2021	**213**	**213**

2.8 Investments in subsidiaries

Shares in Group companies	
Carrying amount 31 Dec 2020	473,097
Acquisition cost 1 Jan 2021	473,097
Increase	64,384
Acquisition cost 31 Dec 2021	537,481
Carrying amount 31 Dec 2021	**537,481**

Group companies **Parent company holdings**	**31.12.2021**	**31.12.2020**
Terrafame Oy, Sotkamo, Finland	67.1%	66.8%
Finnish Battery Chemicals Oy, Helsinki, Finland	100.0%	100.0%
Sokli Holding Oy, Helsinki, Finland	100.0%	100.0%

2.9 Investments in associates

	Holdings in associated companies	Total
Carrying amount 31 Dec 2020	**12,702**	**12,702**
Acquisition cost 1 Jan 2021	20,857	20,857
Increase	3,798	3,798
Acquisition cost 31 Dec 2021	24,655	24,655
Accumulated impairment losses 1 Jan 2021	-8,155	-8,155
Accumulated impairment losses 31 Dec 2021	-8,155	-8,155
Carrying amount 31 Dec 2021	**16,500**	**16,500**

31 Dec 2021	Company holdings	Book-entry	Number of shares	Carrying amount
Keliber Oy, Kaustinen, Finland	20,4%	Class B shares	479,868	16,500

During the financial period 2021, the shareholding in Keliber Oy decreased to 20.4 per cent 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 2021	31 Dec 2020
Receivables from Group companies	7,480	2,224
Total receivables	**7,480**	**2,224**

2.11 Current receivables

	31 Dec 2021	31 Dec 2020
Receivables from Group companies	696	938
Trade receivables	12	0
Lease guarantees	37	35
Tax account receivable	45	53
Prepaid expenses and accrued income	180	701
Total receivables	**970**	**1,728**

2.12 Cash and cash equivalents

	31 Dec 2021	31 Dec 2020
Cash in hand and at banks	13,221	38,666

2.13 Equity

	31 Dec 2021	31 Dec 2020
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	556,151	556,151
Issued shares	50,000	0
Invested unrestricted equity fund 31 Dec	606,151	556,151
Profit/loss from previous periods	-31,266	-29,231
Profit/loss for the period	-2,986	-2,036
Total unrestricted equity	571,899	524,884
Total equity	574,156	527,142
Calculation of distributable funds		
Reserve for invested unrestricted equity	606,151	556,151
Profit/loss for the previous period	-31,266	-29,231
Profit/loss for the period	-2,986	-2,036
Capitalised development costs	-213	-299
Total distributable funds	**571,686**	**524,585**

2.14 Current liabilities

	31 Dec 2021	31 Dec 2020
Amounts owed to Group companies		
Accounts payable	47	0
Advances received	353	538
Accounts payable	356	325
Other liabilities – withholding tax and social security expenses	77	54
Value added tax liability	28	104
Accrued expenses and deferred income – wages and salaries with social security expenses	434	276
Accrued expenses and deferred income – other	415	278
Total	**1,710**	**1,575**

2.15 Other notes

	31 Dec 2021	31 Dec 2020
Contingent liabilities and other liabilities		
Amounts due on leases and leasing commitments		
Within one year	72	68
After one year but within five years	0	0
Total	**72**	**68**

The company has confirmed losses for the tax years 2015 to 2020 amounting to approximately EUR 12.4 million, for which no deferred tax asset has been recognized. The unrecognized deferred tax asset for the confirmed losses amounts to approximately EUR 2.5 million.The estimated loss for the tax year 2021 is approximately EUR 3.1 million, for which unrecognized deferred tax asset amounts to EUR 0.6 million.

Signatures to the financial statements

In Helsinki, 28 March 2022

Antti Kummu
Chair of the Board of Directors

Teija Kankaanpää

Ilpo Korhonen

Janne Känkänen

Eeva Ruokonen

Jukka Ohtola

Pauli Anttila

Matti Hietanen
CEO

Auditor's confirmation

A report on the audit has been issued today.

In Helsinki, 28 March 2022

KPMG Oy Ab
Authorised Public Accountants

Antti Kääriäinen
APA

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