



Four seasons give the reason

Nordkalk
Sustainability Report 2022



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Nordkalk's limewise solutions set the foundation for a brighter tomorrow

We contribute to a brighter tomorrow with our limestone, which nurtures the ground that feeds us, purifies the water we drink and the air we breathe, and is essential for several critical industrial processes, such as steel and pulp and paper. Our success is built on a solid limestone foundation, more than 120 years of history and the expertise of our people.



Follow our journey towards
a brighter tomorrow



This report summarises Nordkalk’s sustainability development during the year 2022. Nordkalk’s financial performance is reported as part of our owner SigmaRoc PLC’s Annual Report which was published on March 27, 2023.



*Read SigmaRoc’s
Annual Report.
CLICK ICON*



INTRODUCTION | Nordkalk in brief

The leading limestone company in Northern Europe

Nordkalk is the leading company providing limestone-based products and solutions in Northern Europe, with a significant presence in Central Europe.

Always near our customers

With operations in almost 40 locations in Europe, we are always near our customers. We operate in 10 countries around the Baltic Sea and in Central Europe. Our headquarters are located in Pargas, Finland.

Part of SigmaRoc

Since 1 September 2021 Nordkalk has been a part of SigmaRoc group, a company specialised in quarried materials sector and listed on London Stock Exchange AIM market.

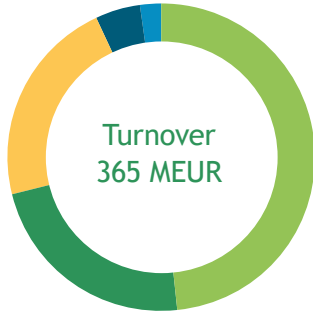
Circular economy promotes sustainable use of resources and raw materials.

Read how we have managed to utilise our sidestreams in Lappeenranta, Finland.
[CLICK ICON](#)





INTRODUCTION | Our operations



- Finland 49%
- Sweden 23%
- Poland 19%
- Baltics 6%
- Others 3%



- Finland 38%
- Poland 32%
- Sweden 18%
- Estonia 9%
- Others 4%

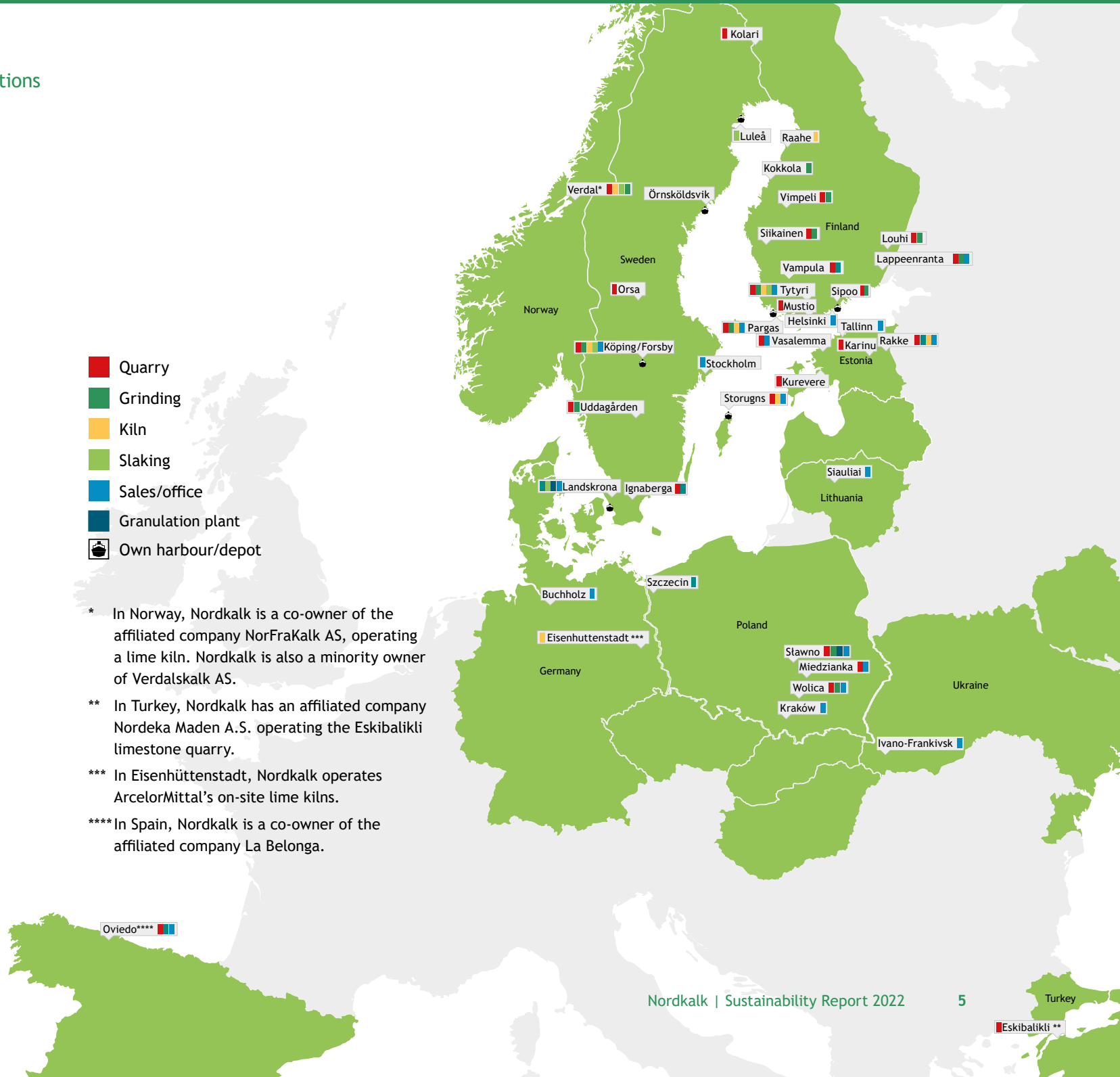
- Quarry
- Grinding
- Kiln
- Slaking
- Sales/office
- Granulation plant
- Own harbour/depot

* In Norway, Nordkalk is a co-owner of the affiliated company NorFraKalk AS, operating a lime kiln. Nordkalk is also a minority owner of Verdalskalk AS.

** In Turkey, Nordkalk has an affiliated company Nordeka Maden A.S. operating the Eskibalikli limestone quarry.

*** In Eisenhüttenstadt, Nordkalk operates ArcelorMittal's on-site lime kilns.

**** In Spain, Nordkalk is a co-owner of the affiliated company La Belonga.



INTRODUCTION | View of our CEO

The year of improved safety and climate actions

In 2022 our overall situation in health and safety improved compared to the previous year. Our LTA1 rate (number of accidents leading to sick leave per one million working hours) was at an all-time low level of 4.3 for our own employees.

In 2023 we will focus more on the incidents and near-misses which happen in so called Serious Seven situations, i.e., working on height; working with lime; mobile equipment and electricity; machine guarding; ground control/scaling and lock out/tag out/try out work tasks. We will also specifically measure the LTA rate for our contractors.

Proven resilience in a crisis

From the business perspective, 2022 was an extraordinary year. We faced the unthinkable and horrible situation with the war in Ukraine, super inflation with high energy prices and several rounds of COVID-19.

Thanks to our employees' intense and loyal fighting spirit we managed these crises well, and I dare say that we are stronger as a company today than we were a year ago. Nordkalk has proven its fantastic resilience and leadership at all levels, and I am proud of our collective performance.

Strategy delivered

At the beginning of 2022, we set out five strategic focus areas and have delivered well on each one.

- 1) Firstly, Health and Safety. As described earlier, the overall situation has improved, but we can never rest.
- 2) Our sustainability journey towards net zero emissions by 2040 took big steps forward during the year. We have been intensively testing biofuels in our kilns and our owner has made an agreement with Norwegian Aqualung to install the first carbon capture unit in one of Nordkalk's lime kilns in the first half of 2023. We have also detailed our plan for CO₂ reduction with several activities to be announced shortly.
- 3) In terms of sales growth, we developed and launched five new sustainable products in 2022 utilising circular materials and thus reduced our environmental impact. From October onwards we have been implementing a new organisation with an increased focus on growing our quicklime business and our sales in the Baltic countries. We have also invested in future growth, for instance enhancing our harbour and production facilities on Gotland to support the Swedish cement supply.
- 4) We have continued improving our Operational excellence, which has helped us in mitigating the impact of inflation and rising energy costs.



PAUL GUSTAVSSON, CEO, NORDKALK CORPORATION:

At Nordkalk, the health and safety of our people, contractors and business partners always comes first. It is our priority to ensure we all get home safely in the evening and get to retire in good health."

5) In regards to reserve development, we opened new reserves in Miedzianka, Poland and acquired Spanish Canteras La Belonga together with a partner to create large and long-term reserves for our customers in Northern Europe.

Industry-changing investments in sustainability

The cooperation with our new owner SigmaRoc has resulted in many positive lessons and expanded our knowledge, e.g., a revitalised focus on health & safety, improved operational excellence and a strong agenda for growth and expansion. The support from SigmaRoc has also been instrumental in moving from "PowerPoint to action" and making real, industry-changing investments in sustainability.

Our employees and customers are equally excited about the opportunities that we are seizing to support green transition and a climate neutral future. In the coming years, sustainability remains at the forefront of our customers' mind and we will do our utmost to meet their growing expectations.

I sincerely thank everyone who has and continues to contribute to the performance of Nordkalk.



**We are committed to
limit global warming and
set ambitious science-based
emission reduction targets.**



*Read about our
SBTi commitment.
CLICK ICON*

INTRODUCTION | Year 2022

Highlights from 2022

March

We condemn military aggression in all forms, and also therefore the aggression against Ukraine. Due to this Nordkalk ceased sourcing from Russia and Belarus and stopped product deliveries to Russia directly after the invasion started. Nordkalk divested its Russian subsidiary, Nordkalk LLC, to the local management. The company supported our Ukrainian employees and their families throughout the year.



March

Nordkalk's soil stabilisation product family expanded, when Nordkalk Terra GREEN was launched. The product consists mostly of circular raw materials enabling a significantly smaller carbon footprint compared to traditional soil-stabilisation products. Later in the spring, new sustainable Nordkalk Terra products, where traditional cement has been replaced with CEM III cement, containing blast furnace slag, were introduced.



May

After three intense years of reserve development, environmental impact assessment and permitting process, Nordkalk started quarrying operations at the newly opened Olowianka deposit, adjacent to the Miedzianka quarry in Poland. This will guarantee the supply of limestone for local customers for years to come.



June

As part of Nordkalk's compliance programme and Sigma-Roc's compliance requirements, new e-learning courses were introduced and completed by over 80% of Nordkalk's white-collar employees by the end of the year. Blue-collar employees were trained face-to-face in the autumn. The training courses generated lots of positive discussions and new initiatives on how to improve our operations further.



June

Nordkalk's first solar panels were brought into use in Miedzianka, Poland. The aim of the first installation was to generate up to 50,000 kWh of energy per year. The produced green energy is fully consumed at the plant and thus reducing the CO₂ emissions by 20 tonnes per year. Later in the year, a similar project was conducted in the Wolica unit and the third is planned for Slawno plant in 2023.



September

Nordkalk's owner SigmaRoc and Carrières du Boulonnais (CdB) acquired a high-quality limestone deposit Canteras La Belonga near the city of Oviedo in Asturias Spain and established a joint venture out of which Nordkalk owns 65% and CdB 35%. La Belonga's operations include a quarry and a grinding unit with a packaging line. The company, with more than 40 years of experience in limestone quarrying, employs 20 people. Its current production capacity is approximately 1 million tonne per year.



September

Nordkalk continues the commitment made by Partek in 1998 to lime the local string of lakes in Nokia, Finland, which were not in good condition at that time. The lakes are limed every few years to reduce water acidity, improving living conditions for fish, crayfish, and plants. The liming is done using a boat loaded with powdered lime from Nordkalk's Pargas quarry.



October

To strengthen the company further, Nordkalk implemented a new organisational structure. By establishing a new quicklime business division, the aim was to increase focus on quicklime, implement the energy transformation and upgrade the kiln network to meet the customers' sustainability requirements now and in the years to come. To seize market opportunities and to develop its carbonate business, specialty and circular products in the Nordics, Nordkalk created a new Nordic Region covering its operations in Finland and Sweden. A separate Baltic Region was established to generate growth in the Baltic markets.



November

Nordkalk's owner SigmaRoc announced a co-operation agreement with Norwegian Aqualung Carbon Capture AS, a leading membrane carbon capture and separation technology provider. The aim of the partnership is to decarbonise Nordkalk's kiln operations. The first Carbon Capture facility is planned to be installed in one of Nordkalk's lime kilns during the first half of 2023.



November

We want to do our part to limit global warming. We at Nordkalk through our parent company SigmaRoc PLC have committed to setting near- and long-term company-wide emission reductions targets in line with science-based net-zero with the SBTi, thereby supporting rapid and deep emission cuts to help in the halving global emissions before 2030.



INTRODUCTION | Our products

Lime is everywhere

Limestone-based products are widely used in various industries, environmental applications and agriculture. Limestone is a versatile and often invaluable material with a wide array of applications. Every day we all use products that have somehow been involved in the production of limestone.

Limestone-based products hold high societal value because many products would not exist without them, for example steel. This is because their manufacturing process essentially requires lime. Limestone-based products are also used in agriculture and in animal feeding, providing the necessary calcium to guarantee normal growth and well-being. In agriculture it improves the structure of the soil and makes the nutrients more available, hence increasing the yield of the crop.

Versatile raw material

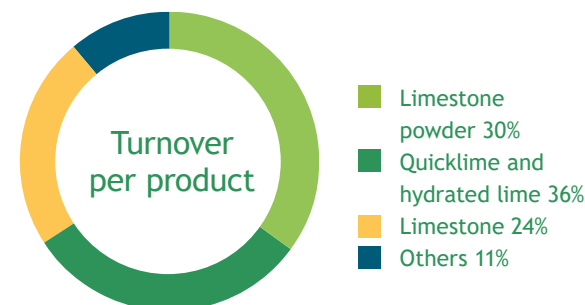
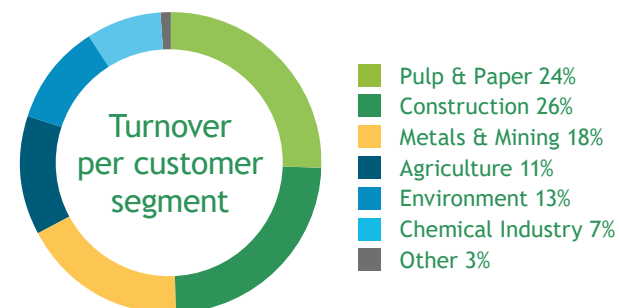
Originally, limestone is a sedimentary carbonate rock consisting mainly of calcite mineral, i.e., calcium carbonate (CaCO₃). Pure limestone contains 95% to 100% calcium carbonate.

Nordkalk extracts limestone at 25 different sites. The deposits represent different stages of geological evolution and vary in age between 70 and 1900 million years. The different types of limestone differ considerably in both their physical and chemical properties, and they behave differently during extraction and processing - and in customers' processes.

Limestone is a pure natural product which can be used unrefined, either crushed or ground. When refined into calcium oxide (CaO, quicklime) or calcium hydroxide (Ca(OH)₂, hydrated lime), the reactivity of lime increases as does its ability to absorb impurities. Limestone-based products are used to remove impurities in different processes and as neutralisation agents.

Nordkalk's main products are crushed limestone, limestone powder, quicklime and hydrated lime. The products also include dolomite and a rare mineral called wollastonite, which is found together with limestone.

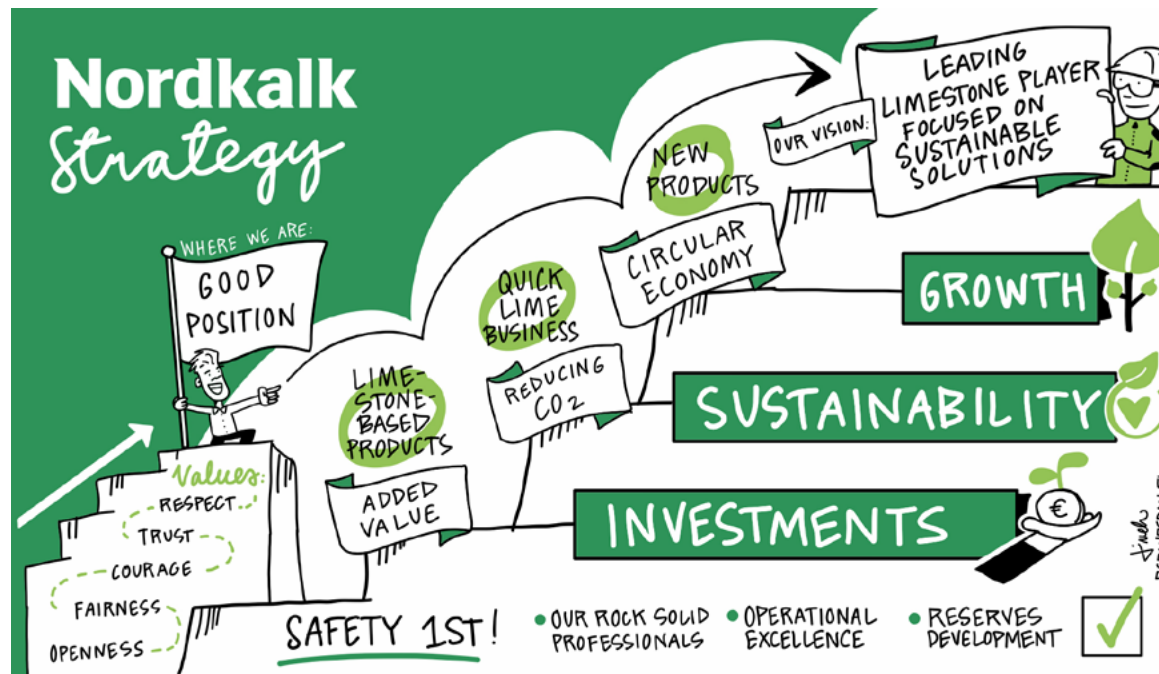
In order to provide our customers and the market with more sustainable products in a rapidly changing business environment, Nordkalk has developed a more agile time-to-market process of new product development, named value creation process. The process focuses on market needs, potential, project commitment and management. The process is divided into four main stages, opportunity analysis, scoping and screening, execution and finally deployment.



INTRODUCTION | Our strategy

Leading limestone player focused on sustainable solutions

Our values, Openness, Fairness, Courage, Trust and Respect, form the base of our strategy and define how we communicate with each other and with our customers.



As always, safety is our priority, and our ultimate target is zero accidents. Our future success lies in the continuing commitment of our people, and we want to make sure that they can do their work safely and motivated every day.

To ensure the profitable growth of our business, we continue to drive operational excellence in everything we do and make our best to secure limestone reserves for the future.

In our strategy we have three cornerstones:

- Limestone business, where we invest in value-added products, such as granulated or grinded products which bring more value to our customers and ourselves.
- Quicklime business, which we aim to grow in the future while reducing the CO₂-intensity of the operations.
- New business and circular products focusing on utilising our own side streams as well as our customers' residues by driving new product development in close collaboration with key customers and end-users.

Focusing on these will help us in reaching our targets and becoming the leading limestone player focused on sustainable solutions.

INTRODUCTION | Sustainability

Corporate targets on sustainability

Nordkalk's corporate strategy is reviewed annually by the Board of Directors, which also approves the strategic targets. These targets are included in Nordkalk's remuneration system and are in line with the Sustainability Programme KPIs.

The KPIs and main targets related to sustainability in 2022 are presented in the table on the right. Some targets will change, and new ones will be implemented 2023 onwards. We will also set corporate CO₂ reduction target for the near-term with the SBTi validation.

The corporate KPIs on material efficiency and H&S are implemented throughout the organization by having them as production targets also at site level. This is done through the management system ISO14001. CO₂ reduction, employee engagement and energy saving are followed at corporate level.

In addition, we have other KPIs for each of our sustainability focus areas to support their development. These are implemented through the management system to local levels. These are more described in the specific sections of this report and in the table on page 78-79.

	Target in 2022	Actual in 2022	Actual in 2021
Material efficiency	97%	94%	95%
Energy saving	-1%	-0.45%	-0.3%
CO ₂ tonnes/tonne of quicklime	Decreasing number	1.11	1.08
Lost time accident frequency	<4	4.3	4.9
Employee engagement	Satisfactory + (A+)	Satisfactory + (A+)	Good (AA)
New sustainable product launches	>5	6	5

INTRODUCTION | Sustainability

Sustainability management

The Nordkalk Management Team (NKMT) makes all significant decisions regarding sustainability (economic, environmental and social issues). It also approves the Sustainability Programme (with strategic objectives and annual targets/KPI's) and monitors the progress regularly. Each sustainability focus area has a dedicated supervisor in the NKMT. The sustainability manager brings development aspects to the NKMT.

Implementing the Sustainability Programme and acting in a compliant manner are part of the daily management of our business operations. A sustainability team, consisting of experts responsible for sustainability focus areas, has been formed to facilitate sustainability development and to support Business Regions in implementing the Sustainability Programme. Compliance organisation is responsible for general compliance policies, training, documentation and implementation of the Compliance Programme.



INTRODUCTION | Sustainability

Sustainability to us

Sustainability means to us that we operate in a way that does not harm the environment conclusively, use our reserves carefully and follow ethical principles. We aim to create and maintain the conditions under which people and nature can exist in productive balance for the current and future generations. Sustainability also means that we create financially successful and resilient business. We need to have continuing commitment of our people - we want to take good care of our personnel and ensure that they can do their work safely every day.



INTRODUCTION | Sustainability

Material topics

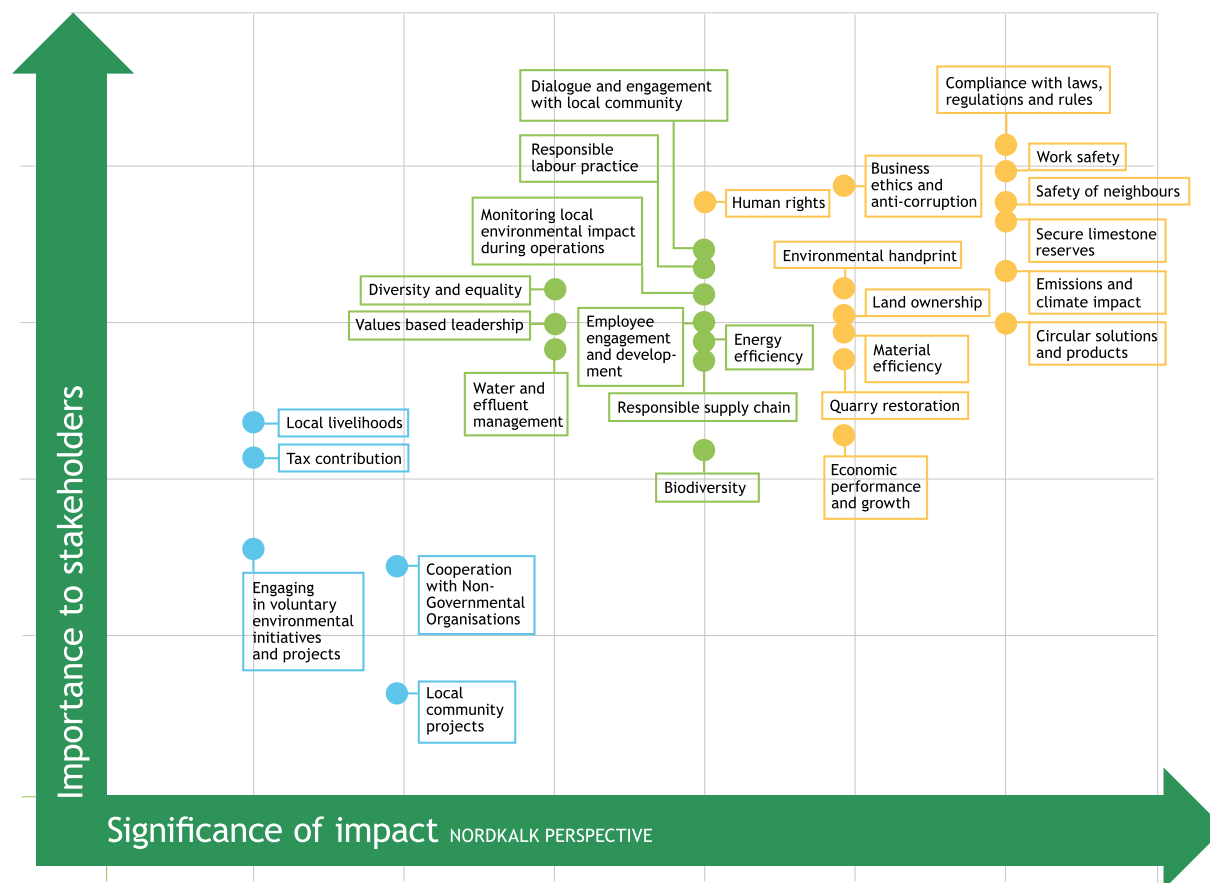
Nordkalk's sustainability priorities are based on the materiality assessment, which considers the most important impacts of our operations and the views of our key stakeholders.

The last specification of material topics, conducted in 2020 included an extensive stakeholder survey, management review, consultations and benchmarking. The most relevant requirements and structure provided by codes and frameworks were also analysed, including the Global Compact, the OECD guidelines for multinational companies, ISO 26000, the Global Reporting Initiative, the UN Sustainable Development Goals and applicable legislation.

It has been assessed that the materiality topics have not significantly changed during 2021-2022 and are still accurate considering our operations. We are planning to update the materiality analyses in 2023 and to include double materiality.

Materiality assessment

- Highest materiality = main focus of our sustainability
- High materiality = important sustainability topics
- Other topics (to be monitored)



Sustainability Programme steers our efforts

Nordkalk's sustainability work is guided by the Sustainability Programme, focusing on the material impacts and bases on company strategy and stakeholder expectations from the environmental, social and economic perspectives.

Our Sustainability Programme was updated by the Management Team after the owner change to be consistent with SigmaRoc's ESG approach in 2021. In 2022 some further changes were made:

1. We wanted to lift biodiversity as a separate focus area in our programme. Therefore, it was separated from FA3 (Responsibility to land and water) to its own focus area FA4 Biodiversity.
2. Circular solutions are now part of FA1 Sustainable solutions and FA5 focuses on reserves and material efficiency.

Nordkalk's Sustainability Programme is structured into 9 focus areas consisting of 17 material topics. Each focus area contains dedicated management commitments, long-term strategic objectives and Key Performance Indicators (KPIs) that are followed at least on a yearly basis. Some of them are followed as part of our corporate strategic KPIs on a quarterly basis.

INTRODUCTION | Sustainability












Sustainability programme

	FOCUS AREAS	MATERIAL TOPICS	LONG-TERM TARGETS
Environmental	FA1 Sustainable solutions	<ul style="list-style-type: none"> • Low-carbon and circular products • Environmental handprint 	> Increase the share of sustainable solutions
	FA2 Climate impact	<ul style="list-style-type: none"> • Energy efficiency • Reduced emissions 	> Net Zero by 2040
	FA3 Responsibility for land and water	<ul style="list-style-type: none"> • Land use, quarry restoration • Water and effluents 	> Minimise harmful impacts
	FA4 Biodiversity	<ul style="list-style-type: none"> • Biodiversity impact 	> No Net Loss by 2030
	FA5 Resource consciousness	<ul style="list-style-type: none"> • Material efficiency • Secured limestone reserves 	> 100% material efficiency by 2027 <5% of total permitted reserves consumed yearly
Social	FA6 Good place to live	<ul style="list-style-type: none"> • Local dialogue and engagement • Impacts to local communities and safety of neighbours 	> Continued support for our operations
	FA7 Good place to work	<ul style="list-style-type: none"> • Employee engagement and development • Labour practises 	> Employee engagement above industry average No discrimination
	FA8 Safe place to work	<ul style="list-style-type: none"> • Occupational health and safety 	> Continuous improvement in LTA1 100% of employees engaged in safety work
Governance	FA9 Compliance, ethical behaviour and responsible supply chain	<ul style="list-style-type: none"> • Compliance with laws, regulations and rules • Business ethics, anti-corruption and human rights • Responsible supply chain 	> Zero tolerance towards compliance violations

INTRODUCTION | Sustainability to us

UN Sustainable Development Goals set long-term horizon


Nordkalk's long-term position on corporate sustainability is in correspondence with UN Sustainable Development Goals (2030). We have incorporated the most relevant SDGs into our sustainability focus areas, and these will direct us in developing our sustainability agenda further in the coming years.

Nordkalk Sustainability Focus Area	UN Sustainable Development Goals	How do we contribute?
FA1: Sustainable solutions	 	Products for soil improvement in agriculture, water and wastewater purification and neutralisation.
FA2: Climate Impact	 	Use of BAT technology in our production and aiming at reduced emissions. Reducing our GHG emissions. Strengthening resilience and adaptive capacity to climate-related hazards and natural disasters at our sites.
FA 3: Responsibility for land and water		Control of discharged waters. Supply of fresh water to communities.
FA4: Biodiversity		Biodiversity improvement projects. Rehabilitation of mining sites.
FA5: Resource consciousness		Full material efficiency of extracted natural resources. Development of circular solutions and utilisation of side streams and residues.
FA6: Good place to live		Ensured safety precautions at our operations and reduced impact on the surroundings. Continuous dialogue with our neighbours.
FA7: Good place to work		Equality plans and freedom for employee organisation. Regular development discussions, development plans and personnel surveys. Mitigation of discrimination and harassment cases.
FA8: Safe place to work		Well defined objectives for H&S performance and systematic work for continuous improvement towards zero accidents.
FA9: Compliance and ethical behaviour		Responsible sourcing and controlled supply chains. Implemented human rights and whistleblowing procedure. Compliance programme rolled-out in the company.

FOR THE PLANET

Environmental – for the Planet

As a limestone company, our impacts in the environment are twofold. On the one hand, we consume natural resources and have impact in land use and biodiversity, but on the other hand, our products are used in different environmental purposes. Our objective is to grow the positive environmental impact, the so called environmental handprint, of our solutions and reduce the harmful impacts of our operations by aiming for energy and material efficiency as well as reducing our climate impact and impact on biodiversity.

FOCUS AREAS	MATERIAL TOPICS	MAIN TARGETS	OUR SUCCESS IN 2022
 <p>FA1 Sustainable solutions</p>	<ul style="list-style-type: none"> • Low carbon and circular products • Environmental handprint 	Increase the share of sustainable solutions	<ul style="list-style-type: none"> • 15% of sales were circular products • 6 new sustainable products launched
 <p>FA2 Climate impact</p>	<ul style="list-style-type: none"> • Energy efficiency • Reduced emissions 	Net Zero by 2040	<ul style="list-style-type: none"> • Increased use of biofuels • SBTi commitment
 <p>FA3 Responsibility for land and water</p>	<ul style="list-style-type: none"> • Land use, quarry restoration • Water and effluents 	Minimise harmful impacts	<ul style="list-style-type: none"> • No significant spills
 <p>FA4 biodiversity</p>	<ul style="list-style-type: none"> • Biodiversity 	No net Loss by 2030	<ul style="list-style-type: none"> • Active biodiversity projects in main countries
 <p>FA5 Resource consciousness</p>	<ul style="list-style-type: none"> • Material efficiency • Secured limestone reserves 	100% material efficiency by 2027 <5% of total permitted reserves consumed yearly	<ul style="list-style-type: none"> • Material efficiency 94% • <5% of total permitted reserves consumed

Did you know?

Agriliming efficiently reduces the nutrient discharge into the water systems and thus prevents eutrophication.

FOR THE PLANET | FA1 Sustainable solutions



Sustainable solutions

Sustainability is at the very core of Nordkalk’s strategy, and our vision is to become the leading limestone player focused on sustainable solutions. In practice, this means that we actively develop new products and solutions that support our customers in reducing their environmental impact, that are more environmentally friendly, are based on circular materials or have low carbon footprint.

Nordkalk’s products are widely used in water and wastewater treatment, flue gas cleaning and soil improvement, where their role is to clean, neutralise or purify harmful emissions. They are also used for binding impurities in industrial processes.

Nordkalk’s solutions’ positive environmental impacts include, for example:

- lake and wetland conditioning through liming (environmental liming)
- reduced nutrient discharge from agriculture to water systems (structure liming)
- fewer harmful emissions to receiving water courses (purifying municipal or industrial waste waters)
- fewer emissions into the air (flue gas cleaning)

New product launches in 2022

The main focus of new product development is on circular solutions. In the year 2022 Nordkalk has developed 6 new sustainable products out of which 5 are considered circular products. Product launches for the construction and the agriculture segment were well represented 2022.

Two circular products were developed for soil improvement. The first developed in Eastern Finland from an internal side stream into high reactive and effective sustainable product saving substantially virgin materials.

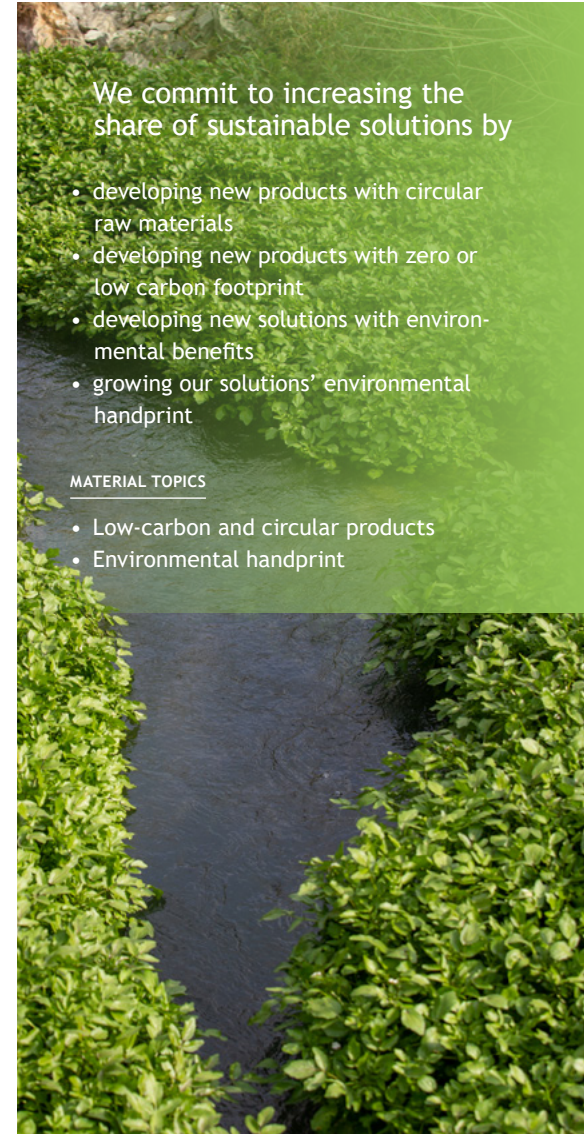
Similarly, Nordkalk productified an external side stream in South-West Finland during spring 2022. Both products were very well received by the customers.

We commit to increasing the share of sustainable solutions by

- developing new products with circular raw materials
- developing new products with zero or low carbon footprint
- developing new solutions with environmental benefits
- growing our solutions’ environmental handprint

MATERIAL TOPICS

- Low-carbon and circular products
- Environmental handprint



FOR THE PLANET | FA1 Sustainable solutions

Our soil stabilisation products were developed into more sustainable products by utilising cement type CEM III in the formulations. The outcome was ca 30% reduction in carbon footprint with improved product (strength) performance. Additionally, a new efficient additive for concrete applications was launched accelerating cement reactions in construction materials. The acceleration performance can be used for cement reduction or overall production cycle improvements for the customers.

15% of sales were circular products

Nordkalk's customers are increasingly interested in products which have been produced with circular raw materials. In addition to maximising the use of its own side streams, Nordkalk helps its customers by using their secondary products as raw material for Nordkalk products.

In 2022, products based on secondary raw materials and replacing the need for virgin raw materials, comprised 15% of Nordkalk's total sales volume (in tonnes). Circular products in Nordkalk are products that are completely or at least significantly (one third or more) produced from external secondary materials or Nordkalk's own side streams.

We aim for increasing the share of circular products in our offering. In our own production processes, the main side streams are side stone, lime kiln dust, generated in the dust removal of our kilns, and tailings from flotation of process in Lappeenranta. We are actively seeking for new opportunities to increase the use of these materials.

Sustainability criteria to guide us

In 2022, we started developing sustainability criteria for our products that would guide us in developing our products and also in communicating the different product sustainability characteristics to our customers. Our intention is that products with specific environmental characteristics would stand out from the other products. Our aim is to develop our whole product portfolio to become more sustainable, e.g., through common criteria, for example GHG emissions and sustainable mining, and partly develop new products that are more focused, e.g., specific criteria on circularity. The work continues in 2023.



FOR THE PLANET | FA1 Sustainable solutions

Environmental Product Declarations

As we all know, GHG (Green House Gas) emissions and climate change are and have been one of the most important topics of the last few years. There is pressure for all companies to reduce their GHG emissions. This includes knowing of the historical and current emissions levels and recognising where the emissions originate in the value chain.

To assess the origin of the emissions there is an increasing trend to have product-related carbon footprint and so called LCA (Life Cycle Assessment) estimations calculated. These are also asked by several of Nordkalk's customers for them to assess the GHG emissions of their supply chain and their own products, where Nordkalk's limestone-based products have been used as part of their production processes.

Many times, this information is declared in standardised Environmental Product Declarations, so called EPDs. EPDs include information of emissions of the life cycle of the specific product. In addition to Global Warming Potential, it gives information on energy and water use and secondary materials in that specific production process.

Nordkalk started working with EPDs for certain products in 2021, and the work has continued over the year 2022. To ease this work, we have also taken software, including a wide database, into use. This will support us in different calculations and speed the process significantly. We will accelerate the work with EPDs in 2023, and we aim to have them ready for the most requested products in 2023.

Environmental handprint

In contrast to the environmental footprint, which focuses on calculating negative impacts, the environmental handprint is an approach which describes the positive environmental impacts of a product or a solution. The environmental handprint is a relatively new material topic in Nordkalk's sustainability programme, referring to the positive environmental impacts of our limestone-based solutions.

Our goal is to grow the environmental handprint of our products and solutions. In practice, this occurs when we manage to reduce the negative environmental impact in the customer's process with our products or services.

In late 2021, Nordkalk together with the LUT University (Lappeenranta-Lahti University of Technology) initiated a master's thesis work on the topic of environmental handprint of limestone-based products. The thesis is ongoing and planned to be finished during spring 2023. Many of our products have positive handprints but not all calculation methodology exists. So far, several handprints have been identified to fit our products. These are for example carbon handprint, chemical handprint and water handprint.

After the results from the thesis, Nordkalk will continue to develop its environmental handprint perspective and it will be further assessed if the handprint as a tool would work for us in the future.



FOR THE PLANET | FA1 Sustainable solutions

CASE: Lappeenranta Circular Calcite



**JOUNI HEINONEN,
UNIT MANAGER
LAPPEENRANTA**

 *This is a win-win solution: we don't need to dispose of this valuable material and the Finnish farmers get a better crop for a reasonable cost."*

Nordkalk's largest production site in Finland is located in Lappeenranta where we have a quarry, grinding plant, two flotation plants and a sales office. In the flotation process, the stone material hoisted from the quarry is wet milled to a suitable grain size, and then the usable minerals are separated from the rest of the material by flotation.

As a by-product of the process, so called tailings or flotation sand is generated. This is pumped to tailing ponds along with a closed water cycle. Some of the basins in the area have tailings-rich water and some are drying up. Wet sand from the drying basins is stockpiled, which enables the utilisation of the tailings. The stockpiled material has the so-called end-of-waste status.

Circular economy challenges to find new uses for tailings

Nordkalk is committed to promoting the circular economy in its operations. The goal is to utilise all the extracted materials and to make the most efficient use of our own and customers' calcium-based side streams. In 2022, the company managed to utilise 94 % of the quarried material (including some material quarried during previous years) and the share of the circular economy in the total sales volume was 15%.

In Lappeenranta, the share is lower, because

despite the tailings produced being a by-product of calcite and wollastonite production is a CE-marked material suitable for many applications, its utilisation possibilities have so far been limited.

"One of our most important goals in Lappeenranta is to find new uses for tailings. It is excellent material for, among other things, environmental construction and soil improvement", said Unit Manager Jouni Heinonen from Nordkalk's Lappeenranta unit.

Win-win solution

At the beginning of 2022, Nordkalk launched a new circular product "Kiertokalsiitti" or "Circular Calcite", which is based on tailings and intended to be used for soil improvement in agriculture.

"In addition to traditional calcite, the new product contains silicates, which have a high pH and, like limestone, can raise the pH of the soil. In spring 2022, Kiertokalsiitti was granted an organic certification, which means it can be used for soil improvement even on farms specialising in organic farming," stated Jouni Heinonen.

In the year 2022, 25,000 tonnes of Kiertokalsiitti in total were spread to the Finnish fields. This corresponds to almost 20% of the annual generation of tailings in Nordkalk Lappeenranta.

FOR THE PLANET | FA2 Climate Impact



Climate impact

Climate impact is one of our strongest focus areas. Climate change will impact our operations and business both directly and indirectly. We want to do our part to limit global warming by reducing our CO₂ emissions. While combatting climate change we also need to prepare for the potential physical and transitional changes and their impact to our business.

Our climate impact comprises of industrial emissions to air such as NO_x, SO₂ and dust, as well as carbon dioxide emissions from our production. Emissions to air are mainly produced in our kilns. The quarry and other operations only cause minor emissions.

Greenhouse gas emissions

The main source of Nordkalk's CO₂ emissions is the quicklime production and, more specifically, emissions originating from the raw material, limestone. CO₂ is released from the limestone during calcination due to the chemical reaction (CaCO₃ + heat > CaO + CO₂) when burned at high temperatures in lime kilns. Because of the strongly endothermic nature of the process, burning lime also requires a lot of energy. Our operations do not cause significant amounts of other greenhouse gas emissions.

Nordkalk has calculated its GHG emissions for the production (scope 1), purchased energy (scope 2) and conducted a screening of value chain emissions (scope 3). Our emissions between the years 2021 and 2022 are fully not comparable, because the 2021 scope 1 emissions only include kiln emissions. However, they do indicate that our scope 1 emissions have decreased.

The scope 1 and 2 from 2022 include all consolidated companies of the corporation (Sweden, Finland, Estonia, Poland, Turkey and Spain). The scope 3 is a screening that includes six categories (purchased goods and services, capital goods, waste generated in operations, business travel, fuel and energy related emissions, and investments). Some categories that were excluded because the emissions were considered minor or the data was not available or unreliable. Of the investment category NorFraKalk and SKOY are included but Verdalskalk is excluded due to missing data.

We commit to lowering emissions to air by

- implementing our eLIMEnate roadmap
- improving our energy efficiency
- reducing emission intensity in quicklime production.

MATERIAL TOPICS

- Energy efficiency
- Reduced emissions



FOR THE PLANET | FA2 Climate Impact

	2022 (CO ₂ eq ktonnes)	2021 (tonnes)
Scope 1	650,250	652,000 (only kiln emissions)
Scope 2 (market based) Scope 2 (location based)	56,950 39,850	Not available 39,330
Scope 3	240,240	Not available

All Nordkalk lime kilns are covered by the EU Emission Trading System (ETS). According to the ETS reporting, our kilns' emissions have reduced by 7% compared to 2021. This is roughly a reduction of 45,000 tonnes of CO₂.

We have a corporate target to reduce the CO₂ intensity of our quicklime. Our target is to lower the intensity annually. Our quicklime intensity was 1.11 tonne CO₂ / tonne quicklime. This represents an increase (+2.9%) compared to 2021 when the result was 1.08. This is due to a few reasons; during 2022 the volumes at our most efficient kilns has been lower. Secondly, we have produced higher quality quicklime, which generates higher specific CO₂ emissions. However, this does not mean that our absolute emissions have increased.

Net zero by 2040

We belong to the so called hard-to-abate industry because roughly 60% of our direct CO₂ emissions originate from limestone. This means that the part of the emission can only be removed by implementing carbon capture technology. The rest of the emissions

comprise mainly of the used fuels in the kiln. One of our strongest focuses is on the reduction of CO₂ emissions. We describe our climate ambitions in our eLIMEnate programme.

We tackle the emissions through various methods and by these actions we aim to reach net zero:

- Several kilns are transforming to use biobased fuels, or alternative fuels which have lower fossil content compared to fossil fuels
- Improvements in energy efficiency
- Implementing carbon capture technology at kilns
- Changing quarry machinery to use electricity or biobased fuels
- Converting our grinding processes to use renewable fuels or electricity for drying the limestone

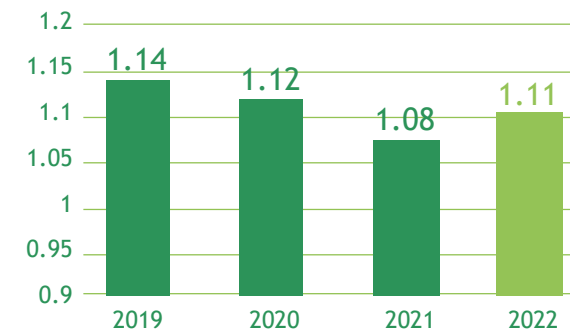
One of the most exciting news of 2022 was that SigmaRoc PLC, Nordkalk's owner, has entered into an agreement with Aqualung Carbon Capture AS, a leading membrane carbon capture and separation technology provider. SigmaRoc and Aqualung will construct Europe's first industrial scale facility of its type at one

of Nordkalk kilns in H1 2023. The aim is to capture most of the kiln limestone-related emissions by 2030. This means that we are able to reduce a significant part of our emissions far sooner than 2040.

When new investment is made the BAT (Best Available Technology) is promoted, and all investments exceeding EUR 50 000 are reviewed for their CO₂ reduction impact.

We participate in several research project related to climate change mitigation. In Sweden Nordkalk is part of Umeå University project to decrease CO₂ emissions of cement and quicklime industry. In Finland Nordkalk is taking part in the DeCarbonate project developing capture and utilisation of CO₂ from industrial processes led by the VTT Technical Research Centre of Finland. Nordkalk is also taking part to FFS - Towards Fossil-free Steel project in Finland. Nordkalk is responsible for a sub-project aiming for manufacturing lime without fossil fuels. The project is funded by Business Finland.

Quicklime CO₂ intensity (tonnes of CO₂/tonne of quicklime)



FOR THE PLANET | FA2 Climate Impact

#eLIMEnate

Nordkalk's roadmap to fossil-free operations by 2040



Committed to the Science Based Targets initiative

Nordkalk is committed to the Science Based Targets initiative through our parent company SigmaRoc PLC. In practice this means that we will streamline our GHG emission targets according to the latest climate science - limiting global warming to 1.5 degrees Celsius. It is ambitious because reducing GHG emissions is not easy for a lime producer. It will require prompt annual actions taken at different operations to reach short-term goals and innovative technologies to reach long-term goals.

While our customers have been impressed with our eLIMEnate roadmap towards net-zero, many of them have been asking for a clearer view of our emission reductions and near-term quantitative targets. With SBTi we will set ambitious and science-based near-term targets. Once the targets have been set and validated by the Science Based Targets organisation, everyone can track our progress against annual targets in our sustainability reports. By reducing our emissions, the carbon footprint of our products will become smaller, and we will be able to support our customers in their sustainability targets.

We find limiting global warming important because it prevents the detrimental impacts of warming through direct and indirect climate change impacts. These include heat waves, heavy rains, changes in water scarcity and biodiversity, and crop production. It is important that we do our part in limiting our emissions and preventing potential disasters on hunger, biodiversity and drought globally.

FOR THE PLANET | FA2 Climate Impact

Year of energy

It can be said that 2022 has been a year of energy. There has been turmoil in the energy market and fuel and electricity prices have increased more than ever before. The changes in market prices have been on a daily basis as large as have been observed in previous years on a monthly or even yearly basis. Electricity price in the Nordpool market reached such high levels that the maximum market price needed to be increased.

There actually have been limitations on availability of the fuels on the market as the reduction of large import flows have been so sudden. Scarcity of, for example, wood pellets have caused some of the largest suppliers to private consumers close their sales for the entire heating season.

Our kiln operations use a lot of energy, because we burn the limestone in the kiln to make lime products. Most of our fuels have been fossil, but now we are transforming to use non-fossil fuels. This transformation requires a review of the current fuel feeding systems and the suitability of fuel to our process in such a way that the quality of the end product is not compromised. In 2022 we have continued the work to test several new types of biofuels in our Köping (Sweden) and Pargas (Finland) kilns. Read more from page 29.

Saving energy

Nordkalk has set a corporate target to reduce the use of energy by 1% annually compared to the previous year. This year we reached 0.45% of reduction (2021 0.30%).

In Sweden all our electricity is non-fossil. Due to high electricity costs in 2022 and due to sustainability aspects we have also installed our own renewable energy production on our sites. In Poland, solar plants in two locations were commissioned providing green electricity for the plants' usage.

In Finland, Nordkalk has a long history of participating in Energy Efficiency Agreements and is currently participating in the latest agreement covering the years 2017-2025. In 2022 we also participated in a nationwide energy saving campaign "Down a Degree". Inspired by the Finnish campaign, Nordkalk implemented our own energy saving campaign for the employees and contractors working in our plants. The campaign continued until April 2023.

In addition, we have taken several energy saving actions in 2022. The actions include efficiency improvements to compressed air and conveyor systems on many sites. In Gotland dump trucks have been replaced with more efficient ones and the flue gas handling at our KPAB kiln has been improved. The drying temperature has been optimised at our grinding facility in Slawno and the quarry water pumping at Lappeenranta has been made more energy efficient.



Want to read more about energy savings in Lappeenranta? [CLICK ICON](#)



FOR THE PLANET | FA2 Climate Impact

Other emissions to air

Like any other industrial operation, our kiln burning process emit nitrogen oxides, sulphur oxides and dust to the ambient air, emissions which are mainly generated in the kiln burning process. Very limited amounts of heavy metals, PCDD/F and HCl and HF are also emitted from the plant that cofires alternative fuels. There are also diffuse dust emissions from quarry operations.

Nordkalk implements Best Available Techniques at all sites. At all kiln sites there are filters or ESPs in place to reduce dust emissions. In addition, at Köping kiln there is equipment aimed at NO_x reduction and slurry injection to reduce SO₂ emissions.

Climate change impact and resilience

We need to also consider the impact of climate change to our operations. In 2022 Nordkalk began work to review the physical climate change impact to our quarries. It was identified that from all our operations quarries, due to their large surface areas, are the most vulnerable to physical climate change impacts. We will first conduct the assessments on our quarries and later on our mines and kilns. Our climate impact assessment includes gathering appropriate data for RCP scenarios 2.6, 4.5 and 8.5 and conducting an onsite workshop to assess individual impacts on each site and potential investment needs. Later on, we will continue with indirect impacts assessment.



FOR THE PLANET | FA2 Climate Impact

CASE: Successful biofuel tests in Pargas and Köping



**PATRIK UNGERSTAM,
UNIT MANAGER KÖPING**

Despite the limited market supply during 2022, it was observed that it is possible to reach a very notable share of biofuel in the energy input to the kiln.”

Pargas lime plant in Finland has tested several different fuel alternatives over the years in order to reduce the carbon emission of quicklime production. During 2022 it was time to return to wood-based fuels, such as high-quality pellets and wood dust in order to confirm the suitability of the fuels in the lime calcination process in Pargas and the fuel handling and feeding system of the kiln.

Normal trial preparations were made in the fuel feeding system, fuel supplies were scheduled and the test points with sampling were planned. Tests started with a moderate feed as usual and as there were no apparent disadvantageous effects for the process or emissions, the test continued.

“Expectations were high, as they should be with high quality fuels like these. Pellet worked well, and a moderately good substitution rate was reached with the current installation”, said Nordkalk’s Energy Manager Erka Uttu.

Later during the year another dry wood dust stream was tested, with similarly promising results. “Handling of the dust causes some more items to be dealt with to avoid dusting problems but also the alternative was seen as good process-wise. No increase in emissions of problems with the production process were seen”, said Uttu.

Encouraged by the test results, work continues

in getting the new fossil-free fuels into constant use and reducing the CO₂ emissions of the lime calcination process.

30% share of biofuels reached in Köping

The Köping kiln in Sweden also has a long history of different alternative and biofuels. During 2022 the fuel selection was directed to wood pellets as it is a high-quality fuel, with standardised production quality, easy handling and low amount of ash components.

“It was anticipated to reach high substitution rates with minimal disadvantageous effects on the process”, stated Unit Manager Patrik Ungerstam. His initial thoughts proved to be correct and through the year, volumes were fed into the kiln. In 2022 Köping kiln has been running on up to 30% with biofuels.

Due to the market being quite difficult during the year, the availability of fuel somewhat limited the development of the substitution rate. Once the availability of fuel is again starting to relieve, there are better possibilities for the continuation of increased biofuel share.

To support the goals of developing fossil-free lime from Nordkalk, the aim is set next to 50% share of biofuels. The work continues with, for example, equipment development for enabling reaching the set targets.

FOR THE PLANET | FA3 Responsibility for land and water



Responsibility for land and water

The extraction and the operation of quarries disturbs land areas, changes the landscape and involves the management of water flows. We aim to manage the land in our operating areas efficiently and leave unaffected areas around our quarries. Large volumes of water are pumped out of most quarries by us every year to keep the quarries dry. This involves careful management of water flows.

Impacts to land and water are considered as significant environmental aspects (ISO 14001) and are followed within Nordkalk's Management System. The purpose and the strategic objective of this focus area is to minimise the harmful impacts of the aspects included here. In line with our Operating Policy, we take measures to reduce the impact of our extraction activity, especially in water and recultivation issues.

Quarries take large areas of land

Mining operations take into use land areas and alter the landscape. There were some bigger changes in our land use in 2022. A larger overburden removal project was implemented during the year in Finland, and in Poland we started a quarry expansion. We also included a new quarry from Spain to our company.

Our quarry areas vary from around 1 to 130 ha in size. Our largest quarries are located in Poland. In 2022,

the total disturbed area of land by Nordkalk in Finland, Sweden, Poland and Estonia was approximately 1500 ha. This includes open pit quarries, factory, storage and waste areas in use and not yet recultivated. In comparison, we have about 200 ha of already restored areas, which correspond to roughly 17 percent of total disturbed area.

Water management

Most of the material processing in Nordkalk's operations is dry, and therefore our processes are not water consuming. In general, we do not produce large quantities of process wastewaters.

Water is used or consumed in the production processes when washing stone, moisturising the product, hydration of lime and in the flotation process to mention a few. Lappeenranta, Finland is the only location in Nordkalk where limestone and wollastonite are

We commit to the responsible use of land and water by:

- long-term planning of land and water use
- developing comprehensive plans for water management and extractive stone handling

MATERIAL TOPICS

- Land use and quarry restoration
- Water and effluents



**FOR THE PLANET | FA3 Responsibility for land and water**

upgraded by using flotation and thus the only location requiring tailing ponds in production. The process water is recirculated, and hence only small amounts of added water is needed. In our quarries at Miedzianka, Poland and Storugns, Sweden, fine-grained rock materials are processed by washing. In Lappeenranta, Finland and Pargas, Finland limestone fed into optical sorting machines is washed. There is no direct discharge of these washing waters. The washing waters are discharged via settling ponds in, for example, Pargas, Lappeenranta and Storugns.

In Miedzianka, there are filter presses which separate the water and the solid materials. These are some examples of water use and treatment; more detailed information is stored in the individual and site-specific

Water Management Plans. The plans are kept as records within the Management System.

The wastewater discharged to the municipal wastewater treatment plants consist mainly of sanitary wastewaters and floor washing waters of indoor premises.

The records on any possible significant spillage in the environment and actions taken are kept and managed within the Management System and in the non-conformance records. There were no significant spills to waterbodies or the soil in 2022. Significant spills are those larger than a single hydraulic oil leak or smaller stain in a limited contained area. Significant spills are always mandatory to report to authorities, despite the impact on the environment being avoided through oil recovery and other damage control measures.

The discharged water quality is followed by regular sampling according to the site-specific monitoring programmes. No significant spills of fuels or chemicals or other harmful substances took place in 2022.

Unintentional water flow

Precipitation and rising water from ground, add water to unintentionally to the quarries and mines. These volumes are pumped out or discharged to keep the sites dry to allow for production. Because the flow is unintentional, it is difficult to reduce the water volumes. Some of the quarry water is used in production, e.g., for moisturising the product, but the water needed for production is much smaller than the water formed through precipitation. We look for additional suitable uses to the water when possible.

At Lohja quarry, Finland, the groundwater rising to the mine has since 1991 been supplied to the community as a public water source after further processing at the water purification plants. At Klinthagen quarry in Gotland, it is possible to use the quarry lake water as a source for fresh water in the municipal water supply. In our Turkish operations there are no significant volumes of water.

In Ignaberga, Sweden an agreement was made with landowners based on their desire to lower the water level of the old quarry by one to two meters during the coming years. The lowering of the water level started in September 2021 and the discharged volumes will be higher in the future than in earlier years.

	Unintentional water withdrawal and discharge*	Consumption of withdrawn water**	Water delivered to local communities
Finland	5 082 600 m ³	925 300 m ³	511 600 m ³
Sweden	3 343 900 m ³	157 900 m ³	
Poland	14 886 500 m ³	59 400 m ³	36 100 m ³
Estonia	3 063 100 m ³		

*these figures are based on pumped volumes from sites where pumping has been done.

**the consumed water is used for washing the stones, moisturising the product before transport, for dust control, and in Lappeenranta as add-in water for the flotation process. In Finland the figure also includes the volume of water delivered to local communities.

FOR THE PLANET | FA4 Biodiversity



Biodiversity

Limestone itself is a product of the circle of life on Earth. It is usually an organic sedimentary rock that forms from the accumulation of shell, coral, algal and fecal debris. Without versatile life on Earth, no limestone would have been formed. Besides limestone's history, it also delivers rich environments which have high biodiversity values. We are aware that our operations impact biodiversity values directly through land use, indirectly by our emissions and our supply chain. For us it is important to co-exist with nature on our sites. We value biodiversity and recognise its importance in the local ecosystems.

The alkaline soil conditions formed in limestone areas attract specific, commonly called lime loving species of plants, which in turn attract butterflies or other insects which prefer these plant species and habitats over others. Plant species found near Nordkalk quarries include, for example rare orchids and there are several species of uncommon mushrooms, lichen and mosses which are attracted to limestone areas. Waterbodies forming in quarries attract birds and sometimes even salamanders. The above-mentioned are only some of the examples of the biodiversity present at our sites.

Greater emphasis on biodiversity

We have recognised that biodiversity is a significant sustainability topic. This is why Nordkalk developed in 2022 a biodiversity policy which was approved by the Management team in the beginning of 2023. We commit to EU targets of no net loss by 2030 and net gain after that. Nordkalk is committed to following the mitigation hierarchy in all operations.

In 2023 we will prepare a corporate level no net loss roadmap. Targets and indicators will be developed as part of the roadmap. All our sites already have

We commit to protecting biodiversity values by:

- recognising protective actions for the endangered species at our quarries and keeping biodiversity records
- following the mitigation hierarchy in all operations
- adhering to EU targets of no net loss by 2030 and net gain after that
- developing active projects in which measures are taken in order to preserve or improve biodiversity

MATERIAL TOPICS

- Biodiversity impact

FOR THE PLANET | FA4 Biodiversity

rehabilitation plans and biodiversity plans in place. The biodiversity plans currently focus on active biodiversity projects and baseline information of the biodiversity values and protected species at and near the operating areas.

Biodiversity in our areas today

We have identified that our main direct impacts to biodiversity take place at the quarries. These have a considerable impact on biodiversity because of the land change these sites impose. Another reason is that the quarries are established in limestone areas which hold naturally high biodiversity values. When a quarry is established the biodiversity values in the operating area are lost. Kilns, other operating sites and suppliers are not identified as affecting biodiversity to the same extent.

During operation biodiversity values vary depending on the location and the scale of operation of the quarry. Dusting from operational sites can have both negative and positive impacts on biodiversity. Excessive dusting can be harmful to biodiversity, and have health and social impacts. Limestone dust can have a positive impact on rare species which prefer limestone environments by increasing the amount of available lime in topsoil in areas surrounding operational sites. This effect has been detected in nature inventories in many Nordkalk operational locations, where rare species thrive in the close vicinity of activities.

For all our sites the biodiversity impacts have been assessed in the EIA or environmental permitting phase. During the lifetime of the quarry nature surveys are conducted and hence information on biodiversity and

changes related to it are recorded. This information is summarised in the Biodiversity plans of the sites.

There are some Natura2000 and nature protection areas located close to our operations or even within our mining zone boundaries. These are:

- In Finland Vimpeli, Kolari, Parainen and Lappeenranta sites
- In Sweden Forsby, Ignaberga, Storugns and Uddagården sites

The most significant impacts to biodiversity from our supply chain are created by purchasing fuels such as biomass-based fuels, explosives, spare parts and other products which are used in the production process. We mitigate the impacts from fuels by setting sustainability criteria for the biofuels that we purchase. Through these we fight deforestation in our supply chain and avoid the conversion of habitats with valuable biodiversity for biomass production. We are developing sustainability risk assessment for our supply chain. This will also include impacts on biodiversity. Climate change and preserving biodiversity are also very closely related. The more the temperatures rise, the bigger the impact on biodiversity. By reducing our CO₂ emissions, we also reduce the impact of climate change on biodiversity.

Invasive species are a cause for concern in some sites. In Ingaberga, Sweden Canadian Goldenrod (*Solidago canadensis*) is taking over roadsides and can cause a threat to recultivation efforts. Parsnip (*Pastinaca sativa*) in turn in Pargas, Finland is causing similar concerns. We therefore need to continue paying attention to this topic.



Quarry restoration

After the active operational phase comes to an end, the mining area will be rehabilitated. At some locations, continuous rehabilitation is applied, and partial rehabilitations have been performed in the past at many locations. We have preliminary plans in place for each site in which we outline the coming rehabilitation measures. These plans are preliminary and the final actions taken are decided when the quarry reaches the end of its lifetime, considering the requirements set by authorities and potentially also wishes from the local community and other stakeholders.

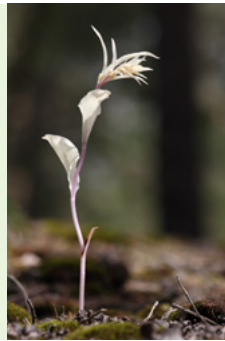
FOR THE PLANET | FA4 Biodiversity

Active biodiversity projects

Our goal in 2022 was to have one active biodiversity project in all principle operating countries. Typically projects related biodiversity are long and it can take several years before results are seen. We have had continuing projects for the last years. These are:

Liming research project for a rare ghost orchid in Lappeenranta, Finland (2019-2023). An area of 78 m² was treated with lime-based products within the Mäntylänmäki protected area. Treatments were done in 2019 and monitoring will continue until 2023.

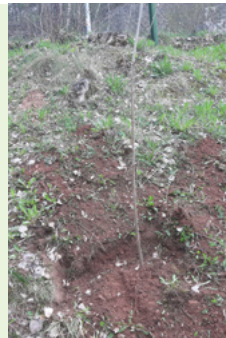
Photograph: Juha Jantunen



In July 2022 Nordkalk and local ornithologists went bird watching to Kamariku quarry in Estonia. One bird nest was found, and the birds were ringed. Ornithologists go to Kamariku regularly and an agreement has been made that no recultivation works should be done during nesting time from 1 May till 15 July.



In 2022 15 trees were planted (common maples, *Acer platanoides* L.) close to Miedzianka plant in Poland. The trees were planted due to official authority decision. Tree planting will continue in 2023 on an even larger scale.



Nordkalk has since 2016 conducted a special protection and conservation program aiming to increase the natural areas of the two rare butterfly (apollo and large blue butterfly) and their host plants and host ants in Gotland, Sweden. Bushes and trees have been trimmed to create the right habitat conditions.

The development of the population is regularly monitored (13 transects) in 21.5 ha. The results were weak after dry summer 2018 but the populations have increased since 2020.



FOR THE PLANET | FA4 Biodiversity

CASE: Bird watching and ringing in Kamariku quarry, Estonia

The small plover is a bird about 15 cm long, with a weight around 30-40 g. The bird normally lives next to water or on the coast and it also likes old quarry areas. The bird is migratory, arrives in Estonia in April and leaves in August.

Ornithologists visit the Kamariku quarry in Estonia regularly.

The small plovers enjoy living and nesting in the quarry. In 2018 the quarry bottom was cleaned to create better nesting conditions.

An agreement has been made with local ornithologists that no recultivation works should be done during nesting time between 1st May and 15th July.

In July 2022, there was bird watching with Nordkalk and local ornithologists and one nest with birds was found. Two nestlings were found and ringed.



FOR THE PLANET | FA5 Resource consciousness



Resource consciousness

Our reserves are the heart of our operations. Without them, Nordkalk's business would not exist. Securing sufficient reserves and their efficient and sustainable use is one of the core pillars of our strategy. For Nordkalk, resource consciousness means using all quarried materials as efficiently as possible.

By increasing the material efficiency of Nordkalk's operations and introducing more circular solutions, less stone can be extracted, and less waste is generated. As stated in our Operating Policy and Sustainability Programme, our goal is to increase the material efficiency of our operations, reach the 100% material efficiency target by 2027 and develop new circular solutions as well as secure limestone reserves well into the future.

Material efficiency is one of the corporate targets followed up on by the Management Team on a quarterly basis. The actions taken to improve material efficiency are delegated to operational level, to sales and circular product development.

94% material efficiency was reached

Resource consciousness has for quite some time been a clear focus area in all Nordkalk operations. We have continued to succeed in improving the material efficiency of our operations to a very good level. The efforts are often also supported by direct cost savings when less material needs to be disposed to a landfill.

In 2022 our goal for material efficiency was 97%. By material efficiency we mean the total amount of raw material used for final products compared to the total amount of material quarried. This year we ended up at a good level of 94.1%.

Our material efficiency has varied over the past years depending on the demand on local markets. Our main

We commit to sustainable use of all materials by

- aiming for 100% material efficiency
- maximising the use of internal side streams
- Improving the utilisation of customer-related sidestreams
- securing limestone reserves well into the future

MATERIAL TOPICS

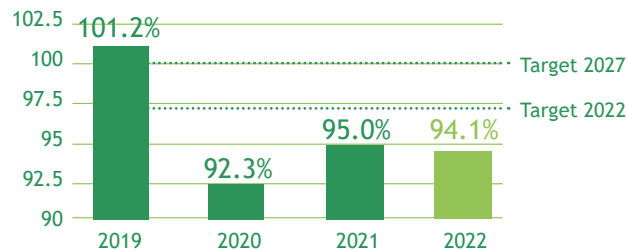
- Material efficiency (incl. internal side-streams)
- Secured limestone reserves



FOR THE PLANET | FA5 Resource consciousness

challenge in increasing the material efficiency further is the low demand of the side-stone. Sometimes the side-stone quality does not suit for all infraconstruction and its transporting costs become too high if the distance is long. In 2022 we establish Baltic Aggregates Oy to increase our sales of limestone and side-stone products in the Baltic region. We have created a clearer process for the responsibilities from production to sales to R&D to evolve the use of different side materials.

Material efficiency, %



Secure limestone reserves

Securing limestone reserves is fundamental to Nordkalk's business and it is a key objective in our strategic planning. This is achieved in three ways; 1) efficient use of existing reserves and 2) securing expansion possibilities of current reserves and by 3) acquiring new reserves.

Current use of reserves

In 2022, we extracted 14.6 million tonnes of limestone, which is 4% of the company's total reserves. This is well below our target of 5% which has been set to secure reserves for a minimum of 20 years per site.

Evaluation and classification of reserves must be based on a consistent and suitable system to ensure comparability between different deposits. Nordkalk has adopted a system based on the United Nations Framework Classification (UNFC) methodology to evaluate our mineral reserves and resources. UNFC classification system is similar to more widely used CRISCO-based mineral reserves standard, but it has some advantages when it comes to evaluating specifically industrial minerals. The advantage of the UNFC classification, and the reason it suits Nordkalk, is its three-dimensional approach: The mineral assets are evaluated based on (i) the environmental and socio-economic status, (ii) the technical feasibility level and (iii) the geological level

of confidence. The access to land and the permit issues are often crucial and ruling in Nordkalk's case which can be taken into account in this evaluation system (i). As a result, the mineral assets can be divided into Commercial (reserves) and Potential Commercial (resources).



FOR THE PLANET | FA5 Resource consciousness

Actions taken in 2022

We aim to secure reserves by exploration drilling projects and permit processes of our existing sites. We also look for new sites when feasible. Recently we have had several projects on these. These will guarantee the supply of limestone for customers in the years to come.

The two main sites of exploration activity are the Klinthagen quarry on Gotland island and the Miedzianka site in Poland. In Klinthagen, we expanded operations in the current limestone quarry. According to the current permit decision, excavation can be expanded in the coming years but only with consideration for the protection of certain natural habitats in the area. In 2022 quarrying operations started at the newly opened Olowianka deposit, adjacent to the Miedzianka quarry in Poland. The first fully permitted phase covers 8.5 million tonnes of limestone. In Lappeenranta quarry in Finland we started overburden removals in order to expand to Northeastern side of the quarry.

In 2022 we increased our reserves by a transaction. Nordkalk's owner SigmaRoc and Carrières du Boulonnais (CdB) acquired a high-quality limestone deposit Canteras La Belonga in Asturias Spain and established a joint venture. Its current production capacity is approximately 1 million tonne annually.



FOR THE PLANET | FA5 Resource consciousness



**KONRAD
MIESZCZANKOWSKI,
MINING AND BUSINESS
DEVELOPMENT DIRECTOR,
NORDKALK POLAND**

It seems that a challenging mining plan including Ostrówka and Ołowianka operations will be successfully completed in the next few years. This allows us to secure limestone reserves for the future for the benefit of our customers."

CASE: Miedzianka quarry expansion

Nordkalk's largest quarry and production plant in Poland is located in Miedzianka near Kielce. The high-quality limestone-based products are delivered for industrial applications like glass, sugar and steel processing. The rest of the product portfolio is supplied mainly to the road construction and environmental segments.

The Miedzianka plant, with an annual total production capacity exceeding 6 million tonnes is based on Ostrówka and Ołowianka deposits. The deposits, with high quality calcium carbonate, make Miedzianka the largest Devonian-age limestone reserve in the southern part of Poland.

Strategic investments released increased volumes in Ostrówka

Most volumes come from the Ostrówka quarry, where mining started almost 60 years ago. During this time, the Ostrówka quarry has been developed many times to achieve an eight-benches open pit, operating in 126 ha of mining area.

In recent years, development activities have been successfully conducted to expand the quarry towards the south, east, and north. Some strategic investments were needed to be able to access the increased

volumes. These included a new pumping station and pipelines releasing reserves on the south front, land acquisitions on the north front and intensive overburden campaign on the east.

Mining in Ołowianka reactivated

In the past, the Ołowianka operation was running until the beginning of the 1970's. Since then, all efforts focused on the Ostrówka side, because it contained much larger limestone reserves which are easier for open pit mining.

This changed about 10 years ago when the permitting process started to reopen the inactive Ołowianka quarry. In recent years, a couple of strategic land plots were acquired, which officially removed the last obstacles to applying for a mining permit.

Finally, the mining permit was obtained in March 2021, securing 20 ha of the quarrying area, and allowing the preparative works on the field. The first blast in May 2022 officially started Ołowianka limestone mining.

Currently, the Ołowianka quarry is developed in the central part as a two-benches open pit. There are still possibilities to develop Ołowianka towards west and south if the next land purchases are successful and permitting is completed by relevant state authorities.

FOR THE PEOPLE

Social: For the people

Our operations have positive and negative impacts on the lives of the people in the local communities where we operate. Our goal is to do our best to minimise harmful impacts and partake in an active dialogue with the local community. For our own employees, we want to be a good and a safe place to work.

FOCUS AREAS

MATERIAL TOPICS

MAIN TARGETS

OUR SUCCESS IN 2022



FA6
Good
place
to live

- Local dialogue and engagement
- Impacts to local communities and safety of neighbours

Continued
support for
our operations

- Stakeholder Engagement plans for main locations
- Renewed Stakeholder Engagement process
- 93% of local complaints resolved



FA7
Good
place
to work

- Employee engagement and development
- Labour practises

Employee
engagement above
industry average
No discrimination

- PeoplePower rating A+ (Satisfactory +)



FA8
Safe
place
to work

- Occupational health and safety

Continuous
improvement in LTA1
100% of employees
engaged in safety work

- LTA1 accident rate 4.3
- 93% of employees engaged in safety work

Did you know?

Lime plays a crucial part in food production enhancing crops and being a vital part of animal feed.

FOR THE PEOPLE | Our stakeholders

Stakeholder dialogue is essential part of our sustainability work

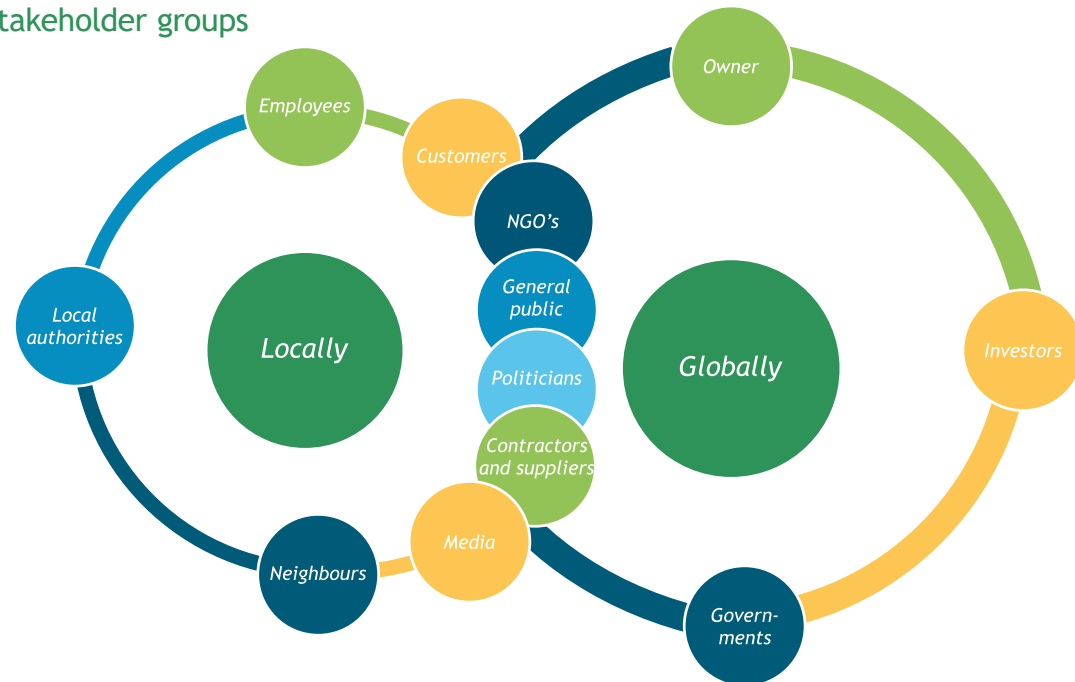
Nordkalk wants to be a good employer to our people, a long-term loyal partner and a reliable supplier to our customers, a value-creating investment for the owners, a good cooperation partner to our suppliers and contractors, a good neighbour in the local communities in which we operate and a responsible corporate citizen to the society at large.

Stakeholder dialogue is performed on several levels

Our operations have an impact from the local level to society at large. There are several stakeholder groups that are important for our company. The aim of the stakeholder engagement is to inform our company's values and direction. On the other hand, the dialogue gives us information of the stakeholders' expectations for us.

Stakeholder dialogue is conducted for many purposes, with several stakeholder groups and through various channels. Various channels are needed because the stakeholder groups can be very local and interested in one aspect of the company, or global and focusing on the whole corporation's performance. This is why stakeholder engagement is performed at several levels of the organisation.

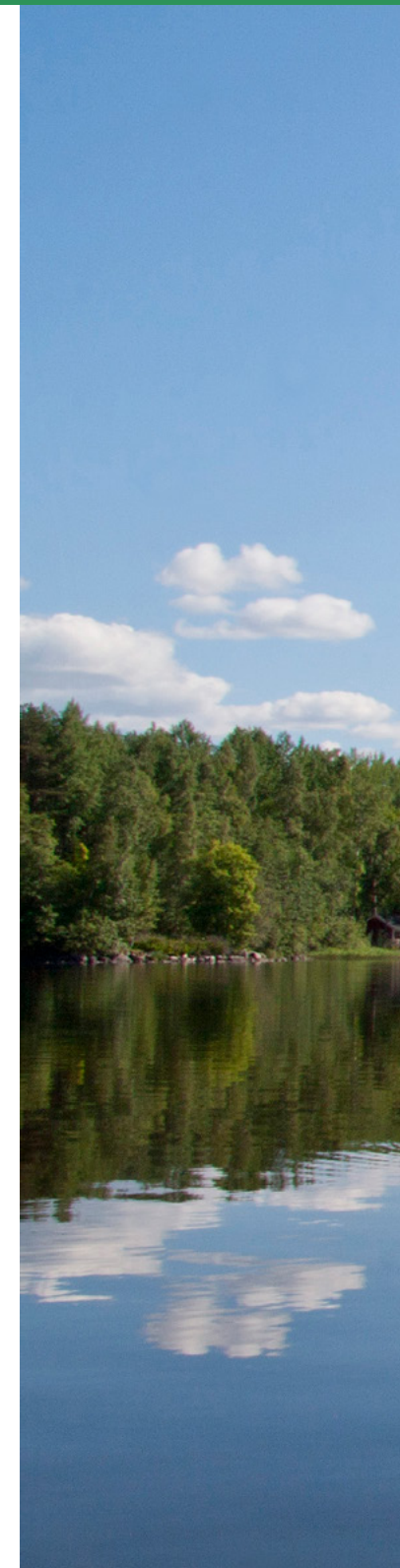
Stakeholder groups



FOR THE PEOPLE | Our stakeholders

The main channels, concerns of our stakeholders and main activities in 2022 are listed in the table below.

Stakeholder group	Main channels	Main topics	Main activities in 2022
Employees	Yearly personnel survey, development discussions, union meetings, personnel meetings and infos, training courses and e-learnings, internal communications channels (intranet, info-TVs).	Health and safety, personnel well-being, business performance, strategy implementation, rules, regulations and new policies.	<ul style="list-style-type: none"> Personnel survey and action planning Development discussions Regular union meetings Regular region, site and team level meetings Trainings and e-learnings, main focus on compliance on all organisational levels Monthly review meetings for middle management, quarterly personnel infos for all and yearly Nordkalk Days - event for all (partly hybrid).
Customers	Customer meetings, customer support, customer satisfaction surveys, customer audits, agreements and procurement processes, joint R&D projects, customer events and fairs, newsletters, the Internet and social media.	Quality and supply of products and solutions, CO ₂ reduction, environmental product declarations, energy use, biodiversity.	<ul style="list-style-type: none"> Customer satisfaction survey /NPS Regular customer meetings and Key Account Management Customer service contacts Customer audits and questionnaires Joint R&D projects Customer events, seminars and trade fairs. Interaction on social media and the renewed website.
Owners and investors	Board meetings, internal meetings and communication, meetings with investors	Business development, strategy, financial development, Health and Safety, ESG.	<ul style="list-style-type: none"> Regular Board meetings Internal newsletters Meetings with investors.
Suppliers and subcontractors	Contracts, supplier Code of Conduct and supplier audits	Contracts, environmental and safety aspects, technical development	<ul style="list-style-type: none"> Contract negotiations Supplier assessment initiative Supplier Code of Conduct Supplier creation process Supplier audits
Local communities and neighbours	Open houses, neighbour meetings, regular contacts with municipalities, complaints and whistle blowing, neighbours pages on www and social media.	Environmental permits, local impacts (dust, noise, vibrations), community support initiatives.	<ul style="list-style-type: none"> Social dialogue initiative in Miedzianka, local community support projects. Lappeenranta open house event, f2f events in Sweden Local contacts with neighbours and municipalities. Interaction on social media and the renewed website; new SMS information channel taken into use in Finland. Sponsoring and local support.
Media, general public	Press releases, articles and blogs, media meetings, the Internet and social media	Necessity of limestone in society, new products and solutions, permits and sustainability aspects, incl. local impacts.	<ul style="list-style-type: none"> Press meetings and interviews Interaction through social media.
Authorities, NGOs, politicians	Consultations with authorities, dialogue and supervisory meetings, regular environmental control visits, notifications, referrals, networks, permit processes	Rules, regulations and compliance, permit processes, environmental monitoring, sustainability aspects.	<ul style="list-style-type: none"> Meetings Regular contacts
Research and educational institutions	Joint R&D projects, thesis work co-operation, traineeships	Innovations, co-operation opportunities	<ul style="list-style-type: none"> Joint R&D projects and educational co-operation. Thesis work and traineeships.



FOR THE PEOPLE | Our stakeholders

Memberships in associations

Nordkalk participates and contributes to the industry through memberships in relevant industry associations. Networks for energy, environment, labour, quality, health and safety and communication related aspects

play an important role in the development of the business. Through memberships we also follow legislative changes taking place in the EU and in our operating countries and can point out our view of the planned changes.

International	Estonia	Finland	Poland	Sweden
IMA Europe - Industrial Minerals Association Europe	Estonian Association of Mining Enterprises EMTEL	FinnMin - Finnish Mining Association	Polish Lime Association	Kalkföreningen - Swedish Lime Association
EuLa - European Lime Association	Association of Construction Material Producers of Estonia EETL	CFCI - The Confederation of Finnish Construction Industries RT	Polish Association of Aggregates Producers	SweMin - Swedish Association of Mines, Mineral and Metal Producers
CCA - European Calcium Carbonate Association	Estonian Chamber of Commerce.	VVY - Finnish Water Utilities Association	Polish Asphalt Pavement Association	GAF - Swedish Association of Industrial Employers in the Mining Industry
ILA - International Lime Association		PSK Standards Association	Polish Association of Sustainable Agriculture.	MinFo - Swedish Mineral Processing Research Association
		Suomen Sähkökäyttäjät r.y. - Electricity Users in Finland		Svensk betong - Swedish Concrete Association
		Regional Chambers of Commerce in Finland.		Mastic Asphalt organisation in Sweden (Gjutasfaltföreningen i Sverige)
		Regional water and environmental protection associations in Finland.		

FOR THE PEOPLE | FA6 Good place to live



Good place to live

Continuing support of the local communities where we operate is a prerequisite for our business continuity. Prompt management of environmental issues and complaints as well as open and transparent communication with our closest neighbours and local communities are necessary to ensure continued stakeholder support for our operations.

Many of our sites are located near towns, some are even located in the town centres, because mineral extraction is only possible in places where the deposits are located, and in many cases, settlements have been established close to the deposits contributing to growing industry and offering jobs to people.

Sometimes it is not the easiest to exist next to residential areas, which are also coming closer to the quarries in many of our locations. To ensure good neighbour relations we actively contribute to zoning planning near our operations and keep the closest neighbours and important decision-makers informed of our operations.

We have several ways to increase co-operation with the local communities. In addition to legally required public consultations during permitting processes, we organise meetings and open-house events at the sites to show our operations and to interact with our stakeholders.

We engage in various local events and projects to create beneficial value for the local community and the environment. We also have continuous dialogue with our neighbours e.g., by informing them of blasting and answering questions and complaints related to our operations.

Most of our sites are located in small towns or villages where we are one of the major employer and purchaser of local services and goods. We also contribute to local well-being by paying community taxes and by supporting the building and enhancing of local infrastructure.

Stakeholder Engagement Plans

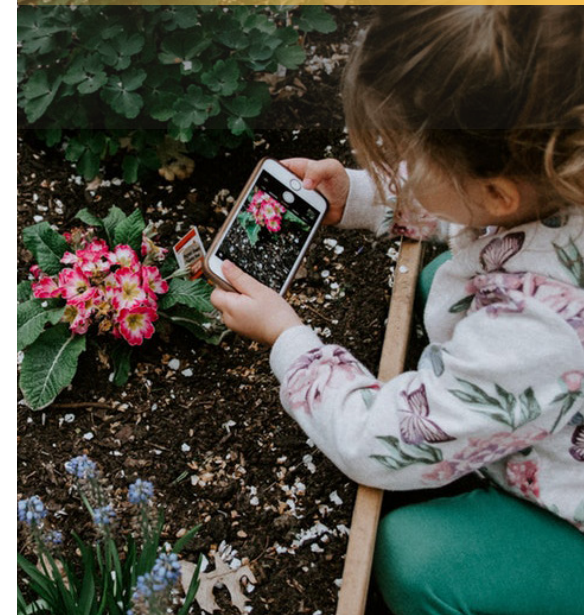
When quarry operations are expanded or a completely new mine is planned, it naturally raises questions in the communities nearby. To earn social acceptance, we need to be transparent in our operations and act in a responsible way during the whole life cycle of the quarry.

We commit to being a good neighbour by

- minimising harmful impact of our operations
- engaging in active dialogue with local communities
- engaging in efforts that benefit local communities and society at large

MATERIAL TOPICS

- Local dialogue and engagement
- Impact on local communities and the safety of neighbours



FOR THE PEOPLE | FA6 Good place to live

In 2022 Nordkalk renewed the process and template of Stakeholder Engagement Plans, which have been formerly called Social Acceptance Plans. In the coming years these plans are to be compiled for our main operating locations to structure the regular social actions to be taken. The goal of the plans is to identify the main stakeholders at our locations, their possible concerns and plan activities involving them and coordinating support for the local communities.

The plans, which are updated annually and followed up quarterly, include:

1. Most important planned changes affecting neighbours/local communities during the year.
2. Memberships of industry and trade associations at the national, regional and local levels, most important topics on their agendas and Nordkalk representation at different forums.
3. The main stakeholders, their main concerns and expectations of Nordkalk's operations and how we plan to engage with them.
4. Local community development programmes, cooperation and sponsorships.
5. Local grievance processes, local contacts and communication channels towards local communities.

The main communications channel towards the neighbours is our external website, where we have dedicated neighbour sites for each main operational unit. We do our best to keep the neighbours informed if anything extraordinary happens.

Open dialogue with neighbours

In Lappeenranta, Finland, we continued dialogue with our neighbours to relieve their worries related to

potential changes in our local operations. We organised meetings on ongoing air-quality measurements and vibrations and responded promptly to their concerns which were raised through various channels or authorities.

These concerns were mainly related to the environmental permit process regarding the planned tailings disposal area. Throughout the year 2022 comprehensive air quality measurements have been ongoing and new dust binding chemicals have been tested. Nordkalk has also worked actively to identify new opportunities to reuse tailings and thus reduce the amount of material to be piled.

On Gotland, Sweden, we organise regular meetings with our neighbours to discuss actual topics and potential concerns regarding our local operations. In 2022 we for example covered topics related to traffic arrangements and noise prevention related to increasing cement stone deliveries

In Ignaberga, Sweden we held a meeting with our local neighbours regarding the quarry expansion plan and their willingness to sell land for Nordkalk.

In the autumn 2022 Nordkalk initiated a new way to enhance communication with our neighbours in Pargas, Finland. We decided to offer our neighbours SMS messages, for example when the blasting takes place at the end of the quarry which is closest to the town centre. Later, the service was expanded to Lappeenranta also.



Want to read more about the SMS service?
CLICK ICON



FOR THE PEOPLE | FA6 Good place to live

Close cooperation with local communities

At Nordkalk, we believe in giving back to the communities that support us. Support from a local actor can have a truly positive impact on society; especially as we often operate in small communities. To be fair to all applicants decisions on local community support are made according to our “sponsoring request” instruction and all applications should be directed to sponsorship application at our external website.

As part of our commitment to sustainability and community support, we have been sponsoring local initiatives in several of our locations of operations in 2022.

In Pargas, Finland, we supported a local sports club and in return, the club’s active parents helped us in preserving a part of our history by painting some old buildings that used house the company’s personnel and nowadays serve as a part of the town’s museums.



In Lappeenranta, Finland, we supported a musical production by high school students. The teenagers worked hard, perhaps discovered new passions, developed new skills, and built new friendships.



In Estonia we prolonged our voluntary agreements with parishes near our sites. The aim of the agreements is to support local cultural and sport projects. In addition to the agreements, we also installed in Vasalemma speed camera on the road and donated aggregates to support the building of children’s playground in Kurevere.



On Gotland, in Sweden, we supported local sports clubs as well as a non-profit organisation that runs a meeting place for local people and visitors including our own personnel, providing people opportunities to get involved in the local social activities.



FOR THE PEOPLE | FA6 Good place to live

In September 2022, we organised an open house event with guided bus tours of the Lappeenranta quarry area. The event was very popular and approximately 400 people visited us during the day. In the catering of the event we cooperated with a local football team.



In Miedzianka, Poland, we continued active interaction with local communities surrounding our quarry. Read more about our local dialogue and activities on page 49.



In Poland we provided local schools with metal containers called 'Hearts from Nordkalk' into which local residents can throw plastic caps. Their main goal is to encourage residents to recycle plastics.



In Stawno, Poland we co-operated with scientists from the Polish Academy of Science Institute of Paleobiology to organise paleontology workshops for students and scientists. We also supported excavation and archaeological work in the Owadów-Brzezinki Geopark, which is located close to our plant and is considered to be one of Poland's most important paleontological discoveries of recent years.



FOR THE PEOPLE | FA6 Good place to live

Minimising local impacts

Limestone is a safe, environmentally friendly mineral to extract. It does not cause harmful leakage; on the contrary, limestone-based products are used to neutralise process waters in metal mines and mine waters from limestone operations can even be utilised in providing drinking water to local communities.

However, during active quarrying or kiln operations, there are impacts on local communities, such as noise, dust, vibrations, local emissions and traffic load. We do our best to minimise impacts of our operations, but it is not possible to fully prevent them. These impacts are managed through environmental permit processes (including regular authority audits and reporting), the ISO 14001 certified Management System, a constant self-monitoring and continuous improvement process.

To minimise the impact caused by our operations, we have installed state-of-the-art dust filters in our lime factories in Lohja and Pargas, water sprayers to prevent dusting at our quarry in Miedzianka, and ramparts to reduce noise in Köping, Sweden. We have also paid particular attention to planning our blasting in such a way that the number of explosives can be minimised.

Any contacts by our stakeholders are registered and managed within our Management System procedures and corrective actions are taken according to the documented routines. The public is of course also entitled to approach the local environmental authority in case of concerns or assumed ongoing illegal activities. We also have a whistleblowing channel available for external stakeholders' concerns.

In 2022, we received a total of 83 (2021:51) grievances regarding our activities from our external stakeholders in Finland, Sweden, Estonia and Poland. Most of these were related to dust, noise and vibrations caused by our quarrying activities. Some had to do with discomfort caused by heavy traffic, and some were related to disturbances in local water supply to private wells. The increase in the number of contacts had no specific reason or were not related to any specific changes in our operations. By the end of the year, 93% of them had been resolved. Six of them still required some further actions.

Any claims and non-conformances (grievance) are recorded in the existing reporting tool within the Management System and managed according to the documented routines. The effectiveness of this management approach is reflected by the swift handling of claims and complaints by our stakeholders.

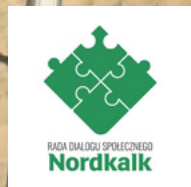


FOR THE PEOPLE | FA6 Good place to live



**PIOTR MACIAK ,
EVP NORDKALK
CENTRAL EUROPE**

These activities are especially important for the residents of villages, often far from big cities. We at Nordkalk believe that our projects and activities will positively influence the perception of our company as a reliable social partner, and that young residents will trust our company so much that they will find employment here in the future."



CASE: Nordkalk Social Dialogue Council works for the benefit of local community

Building good neighbourhoods, educating young people, and caring for the environment have become a permanent part of Nordkalk's activities in Poland. When making business decisions, we take into account both growth in the economic context and the social development of the communities in which we operate. We try to be close to local communities and learn about their needs, which is why we have created the Nordkalk Social Dialogue Council, where we implement projects for the benefit of the local community together with residents and local authorities.

In 2022, as part of our cooperation with the Social Dialogue Council, we carried out several important projects for nearby villages. These included bringing stone from our quarry and paving a local road, a parking lot near the school and a bus stop. All these projects are aimed at improving the quality of life for the residents of the villages neighbouring the Miedzianka quarry.

Playground and outdoor gym for the children of Rykoszyn

The village of Rykoszyn is located about 20 kilometers from the larger city of Kielce. In this village there is no cultural center or playground, apart from the school, where children and young people can meet and actively spend their time. And it is difficult to get to

other villages, as there is no public transport there. Therefore, together with our partners in the locality and the local authorities, we were looking for an idea to integrate the local community, which is an essential element in the social development of children and young people.

The project to build a playground and gym had to meet many technical and safety requirements and the most important requirement was that it should appeal to children. Now the square has swings, climbing walls, slides and exercise equipment, among others. We have carried out all the planned tasks and have received very good feedback from the children and the local community.

"We have created a friendly place for recreation, but above all for joint integration. Thanks to such spaces, we also give young people a place where they can spend their free time while taking care of their physical condition. So often, instead of spending time at the computer, they spend it outdoors", said Piotr Maciak, EVP Nordkalk Central Europe.

How important our investment was for the residents was evident during the grand opening of the playground. During its opening, residents of the village of Rykoszyn, local authorities, local firefighters and local cultural organisations from the village, held an integration picnic.

FOR THE PEOPLE | FA7 Good place to work



Good place to work

At Nordkalk, our future success lies in the continuing commitment and competence of our people. Our goal is to be a good place to work, with satisfied, motivated, well-being and engaged personnel. We want to support a good work-life balance and offer our people opportunities for development.

In our Operating Policy we have committed to encouraging our employees to engage in their personal and professional development. We have regular development discussions with all the employees and take care of the needed competence development to secure the success of the company. The compensation and benefits system has been built to support the efficiency and motivation of personnel.

The Human Resources process and corporate-wide instructions are a part of Nordkalk's Management System. KPIs, which are in line with the Sustainability Programme, and risk assessments are followed and audited within the system.

Nordkalk complies with international labour standards as well as national legal and other requirements related to our employees in the countries where we operate. We respect collective agreements and our employees' right to freedom of association.

Employee engagement at benchmark level

Employee engagement is one of the most important KPI's for Nordkalk's social responsibility. It is measured regularly as part of our comprehensive personnel survey. In 2022 our employee engagement on a corporate PeoplePower rating, measuring the overall employee engagement, was on our target level of A+ (Satisfactory+). This corresponds with the European general norm, i.e., the average score of thousands of European benchmark companies included in our co-operation partner's database.

Nordkalk's strengths compared to the benchmark companies are related to work well-being, as well as intra and inter-departmental work. In general, themes around our own work are rated more positively, in particular job motivation and empowerment are rated on a good level.

We commit to

- aiming for continuous development in employee engagement
- developing the competence of our personnel
- establishing a good leadership culture based on our values

MATERIAL TOPICS

- Employee engagement and development
- Labour practice



FOR THE PEOPLE | FA7 Good place to work

Company-level themes, such as employer image and leadership culture continue to be our major development areas compared to the benchmark. However, compared to the previous survey our relative strengths are related to the bright future and identifiable values and objectives.

As in previous years, there are big variations between regions, countries and also between units within one country.

Nordkalk Management Team has reviewed the results on the corporate level and have decided a few main actions for the coming year. The actions are the following:

1. to enhance communication about strategy and future views by implementing interactive strategy trainings and organising internal info meetings in all organisational levels
2. to improve the quality of development discussions by offering superiors support materials and training
3. and to share best practices within teams and functions.

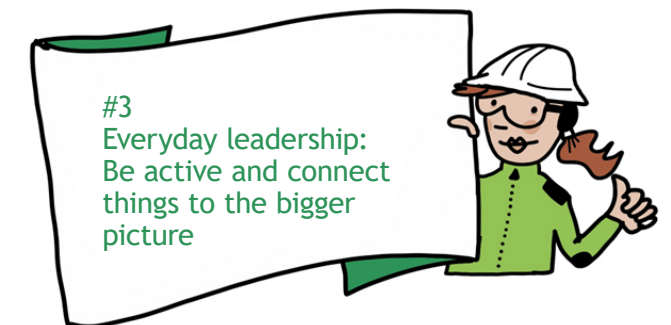
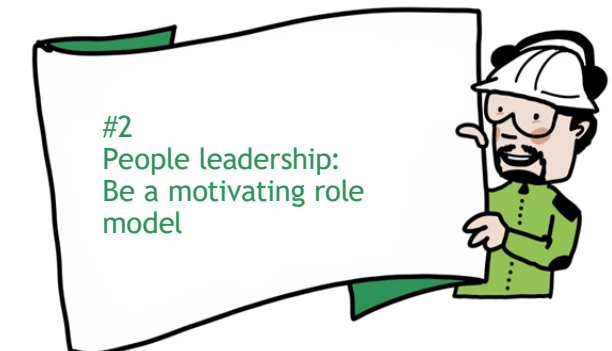
Leadership profile based on our values

As a follow-up action from the previous personnel survey, which was conducted in 2021, we have defined Nordkalk's "Rock-solid leadership" profile to clarify our expectations towards managers and decision making. At the same time, we also defined the golden rules or "Bright People Way of Working" guidelines for a good colleague to apply to all Nordkalk people.

In 2022 we were ready to launch these and started developing the contents further together with our people. We conducted a series of internal podcasts where Nordkalk employees from different countries were asked to share their thoughts about what makes a good colleague and how they carry out Bright People Way of Working guidelines in their daily encounters with workmates.

In October 2022, approximately 50 Nordkalk managers gathered together to discuss strategy and leadership around so-called Dialogue mats, which are interactive tools designed to support strategy discussions within the company. After the feedback received during the workshop, the tools were developed further and translated to local languages. In 2023 they will be used in country level trainings and workshops, which will also be a perfect opportunity to launch Bright People Way of Working guidelines to the organisation.

Rock-solid leadership



FOR THE PEOPLE | FA7 Good place to work

Development discussions

Every Nordkalk employee has the right to an open development discussion at least once per year. The discussion themes include follow-up of annual targets, well-being at work, superior work and employee's competencies and development.

Through development discussion, employees and their superiors identify the employees' current competencies and establish a shared view on what competencies are needed in the future. Development discussion works also as a feedback channel where the superior and the subordinate give and receive feedback. The superior gets feedback and development ideas about their work as a superior and the employee can express their hopes regarding e.g., job responsibilities and career plans.

In 2022, 88% of Nordkalk employees' (95% of white-collar employees' and 84% of blue-collar employees) had development discussions with their superior.

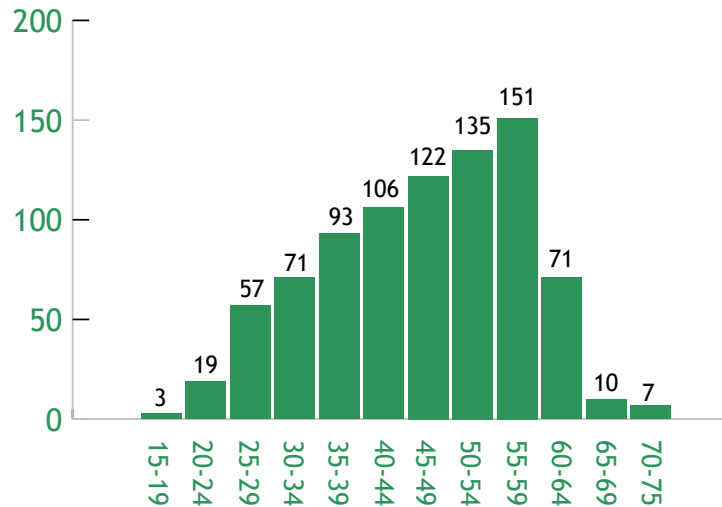
Yearly development discussions form the basis for each employee's personal development plans. They are also utilised when compiling the corporate and country-level training and development plans.

Nordkalk personnel in figures

At the end of 2022, Nordkalk had 845 (2021: 821) employees, of which 81% were male and 19% were female. Blue-collar jobs amounted to 67% and white-collar jobs to 33%. As many as 98.9% of all employees work full time and only 1.1% work part time.

During the year Nordkalk hired 83 new employees and 76 people left the company. The turnover of personnel was 9%

Personnel by age



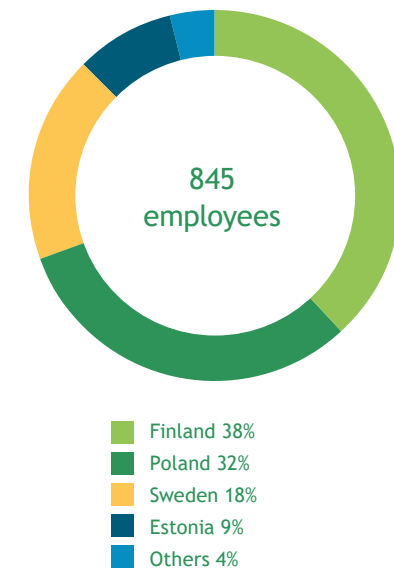
Personnel by gender



Personnel by gender in managerial positions



Personnel by country





FOR THE PEOPLE | FA7 Good place to work

Employees by employment contract, by gender.			
Women	Total	160	
	Permanent	155	97%
	Temporary	5	3%
	Non-guaranteed hours	0	0%
Women	Total	160	
	Full-time	158	99%
	Part-time	2	1%
Men	Total	685	
	Permanent	670	98%
	Temporary	15	2%
	Non-guaranteed hours	0	0%
Men	Total	685	
	Full-time	678	99%
	Part-time	7	1%

New employee hires during 2022, by age group, gender and country.									
		<20	20-29	30-39	40-49	50-59	59>	Female	Male
Finland	23	0%	30%	22%	30%	17%	0%	30%	70%
Poland	21	0%	38%	24%	24%	14%	0%	29%	71%
Sweden	37	14%	27%	24%	11%	19%	5%	27%	73%
Estonia	1	0%	0%	100%	0%	0%	0%	100%	0%
Others	1	0%	0%	0%	100%	0%	0%	0%	100%

Employee turnover, by age group, gender and country.									
		<20	20-29	30-39	40-49	50-59	59>	Female	Male
Finland	22	0%	14%	18%	9%	27%	32%	14%	86%
Poland	20	0%	10%	50%	25%	0%	15%	25%	75%
Sweden	23	9%	22%	30%	13%	9%	17%	9%	91%
Estonia	6	0%	17%	33%	17%	0%	33%	17%	83%
Others	5	0%	0%	0%	60%	40%	0%	60%	40%

Employees by employment contract, by country.			
Finland	Total	322	
	Permanent	319	99%
	Temporary	3	1%
	Non-guaranteed hours	0	0%
	Full-time	320	99%
Poland	Total	267	
	Permanent	255	96%
	Temporary	12	4%
Sweden	Total	151	
	Permanent	148	98%
	Temporary	3	2%
	Non-guaranteed hours	0	0%
	Full-time	146	97%
Estonia	Total	73	
	Permanent	73	100%
	Temporary	0	0%
	Non-guaranteed hours	0	0%
	Full-time	71	97%
Others	Total	32	
	Permanent	30	94%
	Temporary	2	6%
	Non-guaranteed hours	0	0%
	Full-time	32	100%

FOR THE PEOPLE | FA7 Good place to work

Zero tolerance for bullying and discrimination

Nordkalk does not accept any kind of bullying or harassment. We take measures to protect our employees from any kind of bullying and harassment.

To prevent bullying and harassment, we have a dedicated e-learning course available to all employees. In January 2023, 93% of all white-collar employees had completed the course, which is also a mandatory part of our introduction programme.

We evaluate possible bullying and discrimination cases in our personnel survey. In 2022, there were 22 reported bullying cases, 9 of which had been resolved and 13 that were still ongoing. 25 employees reported that they had been subject to discrimination by a co-worker or superior during the last 12 months, but 8 of these had already been resolved by the time of the survey.

The unsolved cases are our highest priority, but since the personnel survey answers are anonymous, it complicates the possibility to resolve individual cases. However, it was clearly seen that most of the reported cases came from same operating units. Therefore, support and corrective measures could be targeted at certain units.

Freedom of association

All Nordkalk's employees and contractors have freedom of association. At the end of 2022, 99% (2021 98%) of our employees were covered by collective agreements (in Finland and Sweden) or corresponding local agreements (in Poland, Estonia and Spain).

In our main operating countries, we have established employee co-operation practices, such as works councils, occupational health and safety committees and other worker representation bodies meeting on a regular basis.

Co-operation with local trade unions is also important, not only for our employees and their work conditions, but also to discuss important issues in the local communities where we operate.

Workers who are not employees

At Nordkalk, subcontracting is used when the task in question is not seen as our core business, requires machinery or knowledge that is not worth investing in the company or is conducted in campaigns or in connection with yearly maintenance shutdowns.

Our goal is to conduct work with our own personnel as widely as possible. However, in some sites, such as Miedzianka Poland, we use subcontracting in internal logistics and the number of contracted employees is quite high. In some sites, such as Raahe lime kiln in Finland, which we operate on our customer's behalf, all our production work is subcontracted.

In 2022 we estimated the working hours of our subcontractors on a unit level for the first time. This estimate contains the contractors' personnel working on our sites on a regular basis and the persons who participated the yearly maintenance shutdowns.

The total estimated number of contractors' working hours in our sites was 515,000 hours in the year 2022. In

FTE's this corresponds to approximately 300 FTEs in the year 2022. In 2023, we aim to improve data gathering and quality by implementing new and more advanced data collecting methods.

Remuneration

No separate compensation is paid for the membership on the Nordkalk's Board of Directors. The company's general short-term incentive pay system is applied to the members of the Nordkalk's Management Team.

The purpose of the system is to motivate employees to work towards the company's strategical and operational targets. Incentive targets also connect employees' work to the bigger picture where everyone has a role in order to achieve company's targets.

The Board of Directors defines the structure and yearly targets for the short-term incentive programme and the owner defines targets for the long-term incentive programme applied for the Nordkalk Management Team.

Besides financial targets, the key sustainability targets aligned with Nordkalk's Sustainability programme are included in both short-term and the long-term incentive programmes.

A separate long-term incentive pay system is applied to Nordkalk's Management Team. Clawbacks included. No sign-on bonuses, recruitment incentive payments, nor retirement benefits are applied at Nordkalk.

CASE: Why would a bike as a perk be a good idea?



Traditionally, a car is often one of the main company perks. However, a company car has never been a possibility for all employees. This was one of the things in consideration at Nordkalk when thinking about employee benefits. In 2021, bikes as a company perk became tax free in Finland. This made it possible to contemplate bikes, also e-bikes, as a perk that could be available equally for all the staff in the Finnish organisation.

“We had received inquiries from some members of the personnel about bikes, which further encouraged us to introduce bikes as a new company benefit. Also, the positive experiences of other companies, e.g., our subsidiary SKOY, helped us in the decision making”, recalls HR Manager Katja Lindholm from Nordkalk Finland.

It is dark and wet or very cold for a long period of time of the year in Finland so when it became possible to get a bike in the heart of the winter of 2021, the interest shown by the personnel wasn't that great.

Smartest commuter of summer 2022

In 2022, the bike idea was boosted with the help of a friendly competition on who will collect the most kilometres commuting to work by foot or by bike during the summer. About 5% of our Finnish personnel

participated. They all collected their kilometres cycling to work 1 to 5 times a week. Altogether they cycled 6800 kilometres. These kilometres would take you three times from Stockholm to Krakow and back and then some.

Today, 12% of the Finnish employees have chosen a bike as an employee benefit. Most often the choice is an e-bike, which makes riding a bike in the Finnish weather conditions much easier. E-bike or traditional one, providing bikes to our employees has many benefits:

1. Biking is good for traffic, the environment and for one's own health.
2. Exercise has been shown to increase energy levels, focus and overall productivity, which is beneficial to both our people and Nordkalk.
3. Nordkalk's company image can improve and attract potential employees who prioritise sustainability and healthy lifestyles.
4. Employee satisfaction can increase. The latest personnel survey supports this with significantly improved rating in “employer supports employee well-being” within Finnish production personnel.

After Nordkalk, many other industrial companies in Finland have chosen bikes as one of the employee benefits, too. Yet, Finland is the only organisation at Nordkalk with bikes as a company perk.

FOR THE PEOPLE | FA8 Safe place to work



Safe place to work

Safety at work is important every day at Nordkalk. Safety always comes first and is a normal part of management and planning of work. We include everybody working on Nordkalk's premises, whether they are our own personnel, contractors or visitors, in our safety culture in order to give them a safe place to work or visit.

Occupational Health and Safety is one of the three main processes in Nordkalk's Operating policy and an essential part of our Management System. Our employees are covered by the Nordkalk Management System and affiliated companies have their own respective systems. Workers who are not employees are not covered by Nordkalk's Management System, but the same safety instructions, reporting processes and investigation practices apply to them when they are working in our premises.

Health and Safety management

Nordkalk's management has ultimate responsibility for safety. The CEO leads the corporate Health and Safety team comprised of country level Health and Safety Managers and holds a H&S committee meeting every month.

The Management Team sets the annual safety targets, which are approved by national safety committees comprised of employer and employee representatives. The targets are communicated to all personnel and incorporated into our incentive programmes at all organisational levels.

The development and outcome of the safety numbers are monitored and reported monthly to the Management Team and to our personnel. A comprehensive health and safety report, with key targets' follow-up, descriptions of accidents and near misses as well as corrective actions, is part of the Management Team's monthly review meeting attended by company's senior management from all operating countries. The monthly health and safety report is also published on the company's intranet.

We commit to being a safe place to work by:

- aiming for zero accidents to our own personnel and others on our premises
- establishing a positive safety culture, where all employees are engaged in safety
- prioritising health and safety in all decisions and situations

MATERIAL TOPICS

- Occupational health and safety





FOR THE PEOPLE | FA8 Safe place to work

We have local safety committees comprised of the Health and Safety Manager, people from the local management and personnel representatives. Usually, a doctor or an occupational health nurse from the healthcare services also participates in the meetings held 2 to 5 times a year. In these meetings, local annual safety and healthcare target programmes are approved and information of other daily or ongoing safety issues is shared.

Our Health and Safety management system is certified according to the ISO 45001:2018 standard. The management system is based on continuous improvement, and a plan-do-check-act cycle. The current certificate is valid until 2024. The management system internal audits are done yearly according to the agreed audit plan. External audits are conducted every year based on the plan of the external auditor.

In 2022 Management System external audits were performed in Landskrona, Köping, Lappeenranta, Pargas, Vimpeli, Kurevere, Krakow and Szczecin sites. External auditors noticed our considerable improvement in LTA1 accident rate, on the other hand they pointed out the importance of handling the observations in due time. That is a clear area for improvement for Nordkalk. The other area of improvement is the systematic approach on tidiness (5S).

The standardized minimum requirements and rules of work safety are listed in our Health & Safety Guidelines. In every country where we have production, the local collective agreements and legislation are complied with.

Building a positive safety culture

Over the years our personnel has become more aware and active in safety work, and both the number and quality of safety observations have developed in a positive direction. Also the safety gear, e.g. gloves and goggles, has become more comfortable, which has increased their use - and the company has also wanted to invest in them.

We have learned from the serious accidents that have happened in other industrial companies and developed our own operations based on them. In addition, we actively share information between Nordkalk's various units. The sharing of information has accelerated with the introduction of digital channels and, for example, info-tv's are used instead of traditional bulletin boards. Over the years, Nordkalk has used various software to support safety work. GRIA was first introduced in Sweden in 2014 and in Finland, Estonia and Poland in 2017. Today it is widely used thanks to the availability in our local languages and accessibility to all.

Continuous improvement

We measure our occupational work environment - dust, noise, vibration - regularly, and the results of these measurements are communicated to the personnel. Corrective actions are planned, and the personnel's representatives can freely give suggestions on how to eliminate risks, if something abnormal has been found in the measurements. The target is always to eliminate any risk or hazard as the hierarchy of control requires.

We use the GRIA system with various ready-to-use checklists for the risk assessments, safety-check rounds, near misses and risk and safety behaviour observations.

To support continuous improvement in safety, we include safety reminders in all our meetings. The safety check procedure is a check list of safety issues in the beginning of each meeting and a reminder to "Take 5" is added in the end of our meetings. Take 5 is a simple method, which emphasises the importance of stopping and thinking of safety issues before acting.

There are several safety trainings at Nordkalk. Both general and work specific onboarding include H&S aspect recognising also work related risks. In addition to these, there are other trainings, such as first aid training and in Finland Occupational Safety Card training.

FOR THE PEOPLE | FA8 Safe place to work

Our instructions also apply to contractors

Contractors and subcontractors who are working on our premises must follow our health and safety instructions. Should they violate these instructions, we can stop the work and ultimately ban a person from entering our sites.

Contractors' personnel must have a safety introduction before they can enter our production area. For that purpose, we have safety introduction videos in place those who come to work or visit on our sites. The videos cover our H&S rules and can be found and viewed on Nordkalk's website. A more task specific introduction is given by the local technical handler or the person who has ordered the work when needed.

All workers, our own and contractors' personnel, need to stop working without any ramifications if the workplace or the work task has been found to be dangerous and there is a risk of an injury or accident. One must inform Nordkalk of all such cases, as it is prohibited to perform that work until the potential safety risk is eliminated.

LTA1 improved compared to previous year

All accidents, near misses, safety, safety behaviour and risk observations are reported using the GRIA system. The system is aimed at holistic health and safety management and tailored for the mining industry. GRIA is accessible to all our own and our contractors' employees on computer desktops and as an easy-to-use mobile application. Also, positive observations are made when something has been done well.

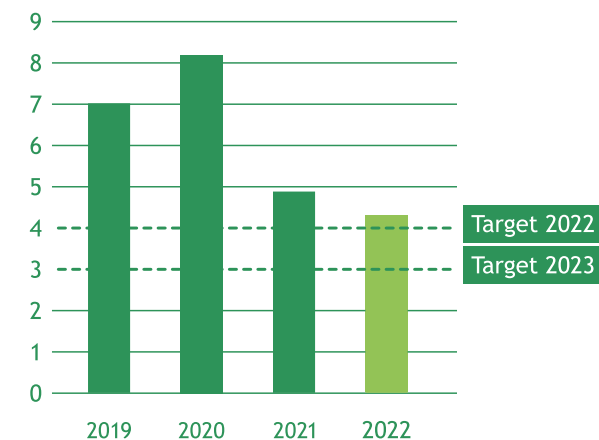
All reported incidents, including those of our contractors, are investigated and with corrective actions are planned. These are disclosed monthly to all Nordkalk personnel in the intranet. The aim is to prevent the same type of accidents happening in our other units.

The most common types of accidents that happen to our personnel are a twisted ankle or leg and injuries to the shoulder or hand.

Nordkalk's long-term target with regards to safety is zero accidents. The main key performance indicators for safety in 2022 were the LTA1 accident rate (per 1,000,000 hours) with the target ≤ 4 and personnel's engagement in safety work with the target of 100%.



■ Engaged 93%
■ Not engaged 7%

Lost time accident frequency (LTA1)

FOR THE PEOPLE | FA8 Safe place to work

Injured body parts due accidents in our own personnel were ankle, knee and leg 8 times, finger, hand, arm and shoulder 17 times, back 3 times, eye and head 5 times. There can be multiple injuries in one incident.

Our LTA1 remained decreasing in the year 2022 as in 2021. In the end of the year 2022 our LTA1 rate was 4.3 (2021: 4.9). The calculation of working hours is partly based on estimations. In 2022 we had 11 LTA1 accidents of which 6 occurred to our own personnel and 5 to contractor's personnel.

Our target is to handle all observations in the GRIA system within a two-month time limit. In 2022, 89% (2021: 89%) of all observations were handled within the time limit.

In 2022, in total 3 severe accidents, causing over 30 days of sickness absence, happened. Two to our own personnel and one to contractors. No fatalities have happened since 2005 to our own personnel and since 2011 to contractors.

Personnel's engagement in safety work was on a good level of 93% (2021: 95%). This is calculated based on observations and personnel in the end of year 2022.

	2022	2021	2020
LTA1 + LTA0 (own employees)	12.9	10.5	9.7
Lost working days due to accidents	59	241	439
Total sickness absenteeism rate	6.0%	4.6%	4.0%
The number of near misses	83	95	NA
The number of risk and safety behaviour and safety observations	4602	4804	3967



FOR THE PEOPLE | FA8 Safe place to work

Preventive occupational healthcare

Preventive occupational healthcare services are available to all our employees, but subcontractors use their own employers' healthcare services. Occupational healthcare includes workplace assessments, regular health examinations (exposed work), guidance and counselling.

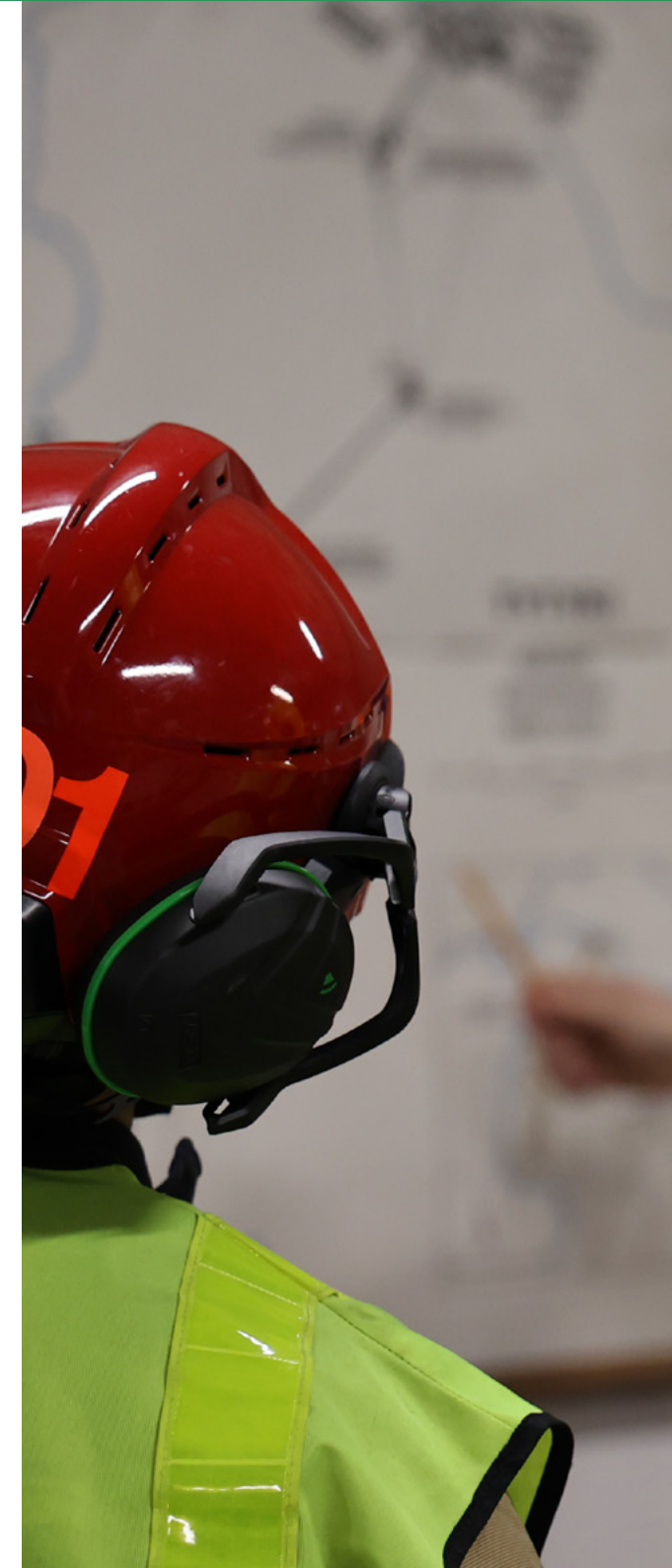
The employer also receives proposals from occupational health services based on workplace surveys and health inspections to improve health and safety in the workplace, to promote employees' ability to work and function, or to adapt work to meet the employee's work ability.

The occupational health service and the employer jointly monitor the implementation of the proposals, for example in connection with workplace visits. Health inspections for our own personnel are done regularly. Frequency is based on work tasks and possible exposures, e.g., to stone dust. In 2022, we had no cases that would have led to a loss of ability to work due to working conditions or exposure to chemicals

or other substances. In Finland, we had one person to whom we managed to find new tasks when the person no longer managed the existing tasks due to a deteriorating basic illness.

The scope of non-occupational medical and healthcare services varies between the countries and voluntary health promotion services and programmes are mostly decided at the national level. For example, in Estonia we have had a new updated well-being package available for employees since the beginning of 2022. The package has been planned in such a way that it would support the wishes and needs of different employee groups as well as possible. All employees can decide for the coming calendar year whether they would like to use employer's compensation for sport and leisure activities or take additional Health Insurance.

Since we have zero tolerance for all consumption of alcohol and illegal drugs at the workplace and a no smoking policy, Nordkalk offers guidance and support programs concerning abuse of alcohol and drugs as well as smoking addiction.



FOR THE PEOPLE | FA8 Safe place to work

CASE: SafeNordkalk, a campaign to further engage and activate our people in safety

The SafeNordkalk campaign as the next step towards zero accidents, was first introduced at Nordkalk in 2020. It was created to assist our local teams in improving safety performance using existing tools, trainings and measures, and to engage all Nordkalk employees in safety activities and discussions.

The first campaign resulted in hundreds of ideas on how to improve safety further at Nordkalk. Since the beginning of the campaign, it has developed into an annual event taking place in all our major countries of operations aiming to set a new and common standard for all Nordkalk sites in safety work.

Annual themes according to present needs

In 2022, corporate level themes for SafeNordkalk campaign were decided by our local Health and Safety managers, who are the best experts to estimate the issues that need to be reminded of or strengthened within Nordkalk.

“Safety topics should be on top of our agenda every day, but with SafeNordkalk campaign we aim to highlight the topics which require most of our people’s attention for the moment”, said Jörgen Lönn, who works as Nordkalk’s Health and Safety Manager in Sweden and was responsible for coordinating the campaign in 2022.

To support local needs in the best way, the contents of the campaign varied across the organisation, but all activities related to common themes and familiar SafeNordkalk concept.

Helmet to help

After the few “pandemic” years, we wanted to support our people’s return to the new normal by organising facilitated discussions as well as lectures on stress management and psychosocial health. The other selected focus areas were 5S and safety in winter conditions.

Winter conditions pose an increased risk e.g., for slip & fall and traffic accidents in all main Nordkalk countries with the more or less Northern weather conditions”, said Jörgen Lönn. “We wanted to remind our people about correct ways of acting in the winter conditions by using visual comic strips where our recognisable SafeNordkalk character “Helmet” was presented in different risky situations”, he continued.



One practical piece of communication about the winter conditions was sent to every Nordkalk employee; an ice scraper for the car.

GOVERNANCE

Governance

Compliance with laws, regulations and rules are key priorities at Nordkalk and fundamental considerations in how Nordkalk operates as a company. Furthermore, Nordkalk is committed to improving and enhancing compliant and ethical culture at all levels and in all its countries of operation as well as within the company's supply chain.

FOCUS AREAS



FA9
Compliance,
ethical
behaviour
and responsible
supply chain

MATERIAL TOPICS

- Compliance with laws, regulations and rules
- Business ethics, anti-corruption and human rights
- Responsible supply chain

MAIN TARGETS

Zero tolerance
towards
compliance
violations

OUR SUCCESS IN 2022

- Comprehensive compliance trainings
- Human rights policy

Did you know?

Limestone-based products are used to neutralise the acidic compounds from the flue gas before the chimney.

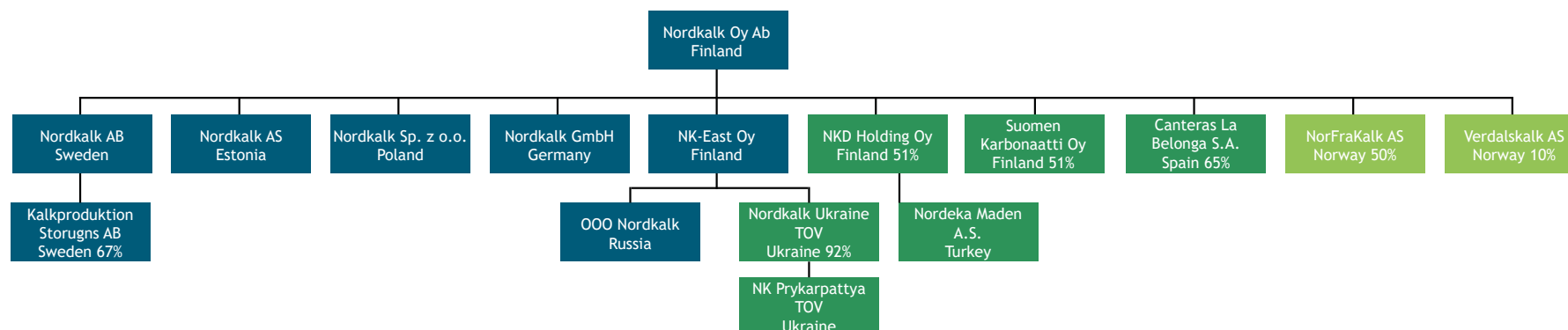
GOVERNANCE

Corporate governance

Nordkalk's consolidated financial statements include the entities shown in the chart, except the two companies in Norway. In this report, the financial, personnel and health and safety data covers the consolidated entities. The rest of the data covers the entities included in the Nordkalk's Management System. Any exceptions to this are mentioned in the KPI table on pages 78-79.

Nordkalk Corporation's legal structure, ownership percentages are included if less than 100%

- Consolidated entities included in Nordkalk's Management System
 - Consolidated entities not included in Nordkalk's Management System
 - Non-consolidated entities
-
- Consolidated entities included in Nordkalk's Management System
 - Consolidated entities not included in Nordkalk's Management System
 - Non-consolidated entities



GOVERNANCE

Governance structure

The General Meeting of Shareholders, the Board of Directors elected by the shareholders and the CEO, who is appointed by the Board of Directors, are responsible for Nordkalk's management and business operations. These are the constitutional bodies required by the Finnish Limited Liability Companies Act and Nordkalk's Articles of Association for management and business operations.

The company's supreme decision-making body is the General Meeting of the sole Shareholder where the shareholder exercises its decision-making power. The Board of Directors, which is the highest governing body, is responsible for the company's management and its appropriate organisation. The CEO is responsible for the day-to-day operations of the company in accordance with the applicable legislation and the guidelines and instructions provided by the Board of Directors. The CEO is supported by the Nordkalk Management

Team (NKMT) and is the immediate supervisor of its members.

The highest governing body

The highest governing body is the Board of Directors. The Board has no committees due to the size of the organisation. The Board comprises of six persons, who are all male. Three of them represent the owner of Nordkalk, SigmaRoc, one is the CEO, and one is the CFO of Nordkalk and one is a non-executive member. The age of board members is 39-62 years. The chair of the board is not senior executive in the company.

The Board members are selected by the sole shareholder in Annual Shareholder's meeting. The sole shareholder supported by SigmaRoc's Nomination Committee makes decisions regarding the appointment and removal of Directors.

Given its size and stage of development, between

the Directors, Nordkalk's Board has an effective and appropriate balance of skills and experience across technical, commercial and financial disciplines. The Board also has a suitable balance between independence and knowledge of the Group and its operations to discharge its duties and responsibilities effectively. The Board receives periodic updates from the management team. All directors are encouraged to use their independent judgement and to challenge all matters, whether strategic, operational or financial. Membership of the Board, its activities, performance and composition are subject to periodic review.

All members are independent and do not have conflicts of interest. Members do not have significant other positions or commitments that would disable their work as a member of Board of Directors. The members do does have some cross-border memberships or positions e.g., in the consolidated Nordkalk companies or the owner company of Nordkalk. The company has



The affiliated companies indicated in the legal structure chart on page 14 are managed through their Boards of Directors, where Nordkalk Management Team members are represented.

GOVERNANCE

effective procedures in place to monitor and deal with conflicts of interest. The Board is aware of the other commitments and interests of its Directors, and changes to these commitments and interests are reported to, and, where appropriate, agreed with the rest of the Board.

The Board guides and monitors the business and affairs of Nordkalk on behalf of the Shareholder by whom they are elected and to whom they are accountable. Given its size and stage of development, between the Directors, the Board has an effective and appropriate balance of skills and experience across technical, commercial, financial disciplines and ESG. The Chairman assesses the individual contributions of each member of the Board to ensure that their contribution is relevant and effective and impacts the economy, environment and people; they are committed; and where relevant, they have maintained their independence.

Based on the Board's evaluation, it was decided that the Board shall meet three times annually and focus on strategical issues in addition to issues set by the Finnish legislation and Nordkalk's Articles of Association. The Board can also make decisions on other times in ad-hoc meetings or in writing if they are unanimous. The Board member participation rate to the meetings was 100% in 2022. The Board also made a strategical decision to emphasise the focus on Quicklime and ESG related matters in 2022.

Meeting of the Board of Directors comprises of CEO's status review, CFO report and other topics that need to be formally approved by the Board according to the legislation as well as strategy discussions. All

significant impacts to economy, environment and people are brought to the Board of Directors for their decision. The Board decides on the most important and significant topics of the company.

Critical concerns (potential and actual negative impacts on stakeholders raised through grievance mechanisms) are also reported to the Board. The number of these were 4 in 2022.

Stakeholder engagement partly takes place by the Board of Directors. The members of the Board have contacts with shareholder, investors and relevant customers. Engagement related to local communities, grievance, customers, suppliers, authorities and NGOs is delegated to local level. Any significant actions, concerns or complaints related to stakeholders are brought to the Board of Directors through the management team and the CEO. The CEO will bring the items to the Board.

The Board of Directors is responsible for decision making and overseeing the management of the company's impact on the economy, environment and people. The Board of Directors approves the Code of Conduct and key policies and reviews the progress of Nordkalk's sustainability targets on a yearly basis. The Board approves the sustainability report.

The Board oversees and divides the responsibility within the company. Responsibilities are divided into the management team and each business area responsible, who are all part of the management team. The management team assigns relevant responsibility to experts within the company, e.g., production managers, sustainability manager, energy experts or R&D.



GOVERNANCE

Key Governance policies and guidelines

There are several policies and guideline documents related governing of sustainability at Nordkalk. Policies are approved by the board or Nordkalk management team.

The policies are available in the intranet for our own employees. The commitments in the policies apply to Nordkalk's operations and our supply chain. The policy commitments are communicated internally either in the intranet and/or by training. The main aspects of the policies are also implemented to the supply chain by the Supplier Code of Conduct.

The policy commitments are implemented by programs or guiding documents. These are also listed in the table below. There is responsible person for each focus area of the Sustainability Programme under which all policy commitments fall to. In addition, the sustainability manager and NKMT are responsible for following up the progress of each focus area.

Precautionary principle

Nordkalk's aim is to continuously improve its operations, products and processes. The company and the management firmly believe that this aim is best achieved when the social, economic and environmental aspects of our operations are at the heart of decision-making. Natural resources such as stone, water

and energy are used in our production and inevitably affect the environment. Nordkalk endeavours to limit the negative impacts of its activities by using the

best available methods and techniques and applying the precautionary principle regarding people and the environment.

	Policies	Guiding documents or implementation programmes
Sustainability	Operating policy (2021)	Sustainability programme
Biodiversity	Biodiversity policy (2022)	Sustainability programme Biodiversity plan (in development phase)
Compliance	Compliance policy 2022 GDPR policy 2021 Anticorruption and bribery 2020 (updated 2021) KYC policy 2020 (updated 2021) Competition compliance policy 2020 Whistleblowing policy 2019 (updated 2022)	Sustainability programme Compliance programme Code of conduct Supplier Code of Conduct
Social	Human rights policy (2022)	Sustainability programme Code of conduct

GOVERNANCE

Management system directs our actions towards strategic targets

Nordkalk's Management System is a tool for good leadership, unified ways of working and for directing actions towards strategic targets while continuously improving our performance. It ensures customer satisfaction and steers our financial performance in the right direction.



Apart from the strategy process, the requirements set by the three standards ISO 9001 (Quality), ISO 14001 (Environment) and OHSAS 45001 (Health and Safety) guide the content of the Management System. Nordkalk's Management System includes the fully owned subsidiaries and the affiliated company in Sweden (KPAB). The affiliated companies Suomen Karbonaatti Oy, Canteras La Belonga S.A. and Nordeka Maden A.S. all have their own management systems with similar certifications in quality, environment and health and safety.

Nordkalk's Management System is certified, which means that a third-party audit (currently performed by DQS) is performed in order to assess the compliance of our activities with the standards. Both internal and external audits of the Management System are performed annually, and findings are reported and handled in the quality assurance system. Besides assuring compliance with the standards, they help us identify development opportunities for continuous improvement.

External management system audits were conducted in all main countries. The major non-conformity from the audit was related to handling of observations. During the second half of 2022 we have discussed and communicated a lot of proper handling and on-time closing of observations, both in IFS and Gria. We can see improvement already, and the work continues in 2023. Management team has decided that improving on-time closing of observations is one of our corporate targets for 2023. We have emphasised the importance of root cause analysis as part of observation handling process during 2022. Instructions have been clarified and an e-learning course was published in early 2023. External auditors made positive notes on our improved corporate brand image as well as our efforts to increase personnel's awareness of sustainability issues. Systematic target setting and follow up is an area where we still have room for improvement.

A management review of our performance is carried out at least once a year to ensure the effectiveness of our Management System. The review includes assessing

how objectives and targets have been used to manage our processes and meet the needs and requirements of our customers and other interested stakeholders.

The Operating Policy lists the guiding principles of our Management System and provides a framework for setting quality, environmental and HS goals supporting our strategy and aiming for continuous improvement.

- We place a strong focus on the safe and healthy working conditions of our employees, contractors and visitors.
- We are committed to fulfilling our customers' needs and expectations by extracting, processing and delivering limestone-based products and sustainable solutions.
- We act as a responsible company and take proper action to reduce the impact of our exploitation of natural resources.



See Operating Policy on our website.
CLICK ICON

GOVERNANCE

Risk management

The purpose of risk management is to identify, evaluate and mitigate the potential risks that could impact our business and the implementation of strategy. It also ensures that risks are proportional to the company's risk-bearing capacity. The process includes the most important sustainability-related risks regarding the environment, societal conditions, personnel, respect for human rights, business ethics and corruption.

The NKMT ensures that Nordkalk's risk management is handled in an appropriate manner and its members are in charge of managing risks in their respective areas. The risks and mitigation activities are evaluated yearly.

Nordkalk has a separate Enterprise Risk Management Process (ERM) in place which is based on the principles and the process of ISO 31000 risk management standard. A more comprehensive evaluation is conducted every three to four years and NKMT reviews, updates and approves the top ten risks and risk mitigation actions annually. The ERM is approved by the Board of Directors annually.

The main objectives of the process are to create a clear picture of Nordkalk's biggest risks in an understandable format, evaluate the risk impact, likelihood and current risk management level and create risk profile, evaluate risk impact on strategical objectives, develop key actions for the Nordkalk's risk management and risk mitigation and improve risk awareness.

Most important sustainability related risks and mitigation actions

Risk	Mitigation
Climate impact	Defined long-term objectives and roadmap to reduce CO ₂ emissions. Implement the long and short-term plans, frequent follow-up.
Land and water use and biodiversity aspects	Recognising the nature values at our sites, working with biodiversity actions, continuous dialogue with stakeholders, impact analysis as input to permit matters.
Natural resources extraction	Strategic focus on material efficiency and circular solutions, making the most of the extracted materials and calcium-based side streams.
Health and safety risks	Continuous performance monitoring, training and behavior development. More effective actions and follow-up towards subcontractors.
Compliance issues	Compliance Programme with employee trainings and awareness building, Code of Conduct and Governance procedures, KYC (Know Your Counterparty) process.
Human Rights	Part of the Compliance Programme, updated policies, employee trainings.
Supply chain	Supplier audits, supplier Code of Conduct process.
Inadequate social acceptance	Structured and timely communication with all stakeholders. Stakeholder engagement plans for main sites.

GOVERNANCE

Site and process specific risk assessments

Managing environmental and health and safety related risks is an essential part of our Management System. Risks are evaluated regularly on all organisational levels and processes. This includes production sites and corporate processes such as HR and Purchasing. The risk assessments include identifying risks related to target setting and corporate processes. In addition to these, risks are assessed for different vacancies and in connection with the use of a certain equipment.

Environmental risks are typically included in the production site risk assessments. Typical environmental risks of our operations are for example dusting, leaks or spills and atypical emissions due to abnormal production circumstances.

Nordkalk is starting a process to evaluate physical climate change risks to its operating sites. The evaluation will follow the TCFD framework for assessing physical climate risks.



GOVERNANCE | FA9 Compliance and ethical behaviour



Compliance and ethical behaviour

Compliance with laws, regulations and rules are key priorities at Nordkalk and fundamental considerations in how Nordkalk operates as a company. Furthermore, Nordkalk is committed to improving and enhancing compliant and ethical culture at all levels and in all its countries of operation as well as within the company's supply chain.

Compliance with the applicable local, national and international laws and regulations wherever Nordkalk does business is critically important for the success of the company. When participating to a business transaction, Nordkalk employees have an obligation to be familiar with, and adhere to, the applicable laws and regulations.

Concerns about ethics

Nordkalk believes that there is a clear connection between sustainability, highly ethical business practices and successful financial results. We view compliance with laws and regulations as a precondition for sustainable business. It is clear and obvious to everyone at Nordkalk that the applicable laws and legal requirements are to be complied with.

Our Compliance Programme is designed to support the company's performance and culture of doing the right thing at all levels and in all Nordkalk's operating countries, and hence, to improve the company's profitability over time. It is created to strengthen an ethical and compliant culture, and to ensure that Nordkalk's ethical objectives are met. The Compliance Programme sets the principles for managing ethics and compliance risks across the whole Group.

Our Code of Conduct compiles and describes the ethical principles that underpin how Nordkalk conducts business. The Code of Conduct and the whole Compliance Programme applies to everyone acting for or on behalf of Nordkalk. Any suspected misconduct is to be reported through the anonymous whistleblowing channel, which is available to internal and external stakeholders.

We commit to acting in a compliant and ethical way by

- conducting our business in accordance with laws and regulations
- embracing high standards of business ethics and integrity
- respecting human rights
- only cooperating with business partners that commit to a high level of responsible and ethical behaviour

MATERIAL TOPICS

- Compliance with laws, regulations and rules
- Business ethics, anti-corruption and human rights
- Responsible supply chain



GOVERNANCE | FA9 Compliance and ethical behaviour

Compliance programme

In the modern world, global regulations and stakeholders' expectations are proliferating and becoming increasingly more complex. Respectively, Nordkalk's goals as a sustainable, compliant and responsible player have highly increased. Our stakeholders have also viewed ethical behaviour and compliance as one of the key elements of Nordkalk's sustainability activities.

In order to build a strong, ethical and compliant culture and to ensure that ethical objectives are not merely a statement of good intentions, we have implemented a Compliance programme. The Compliance programme is designed to support the company's performance, sustainability goals and culture of doing the right thing at all levels, and therefore aims to also improve Nordkalk's profitability over time.

As part of the Compliance programme, we have established a set of policies providing guidance for employees and directors on acting in an ethical way. Compliance policy is the foundation of Nordkalk's Compliance Programme setting the principles and standards of the Compliance Programme for managing Compliance risks across the Nordkalk Group and also describing key roles and responsibilities in supporting the company to remain compliant and strengthen its compliance culture.

In addition to the Compliance policy, Compliance Programme consists of: Code of Conduct and Supplier Code of Conduct compiling the main ethical principles also for external use, we have also GDPR policy, KYC policy, Anti-corruption and bribery policy, Human Rights policy, Competition compliance policy and Whistleblowing policy. All policies are made easily available to all Nordkalk employees on the Compliance section of the corporate intranet. The Code of Conduct and Supplier Code of Conduct are also publicly available to external stakeholders via Nordkalk's website. In addition to Nordkalk's own policies, SigmaRoc's policies on share dealing, disclosure and criminal finances have been adopted as part of Nordkalk Compliance programme.

89% of all own employees had completed the trainings on Anti-Corruption and Bribery, Criminal Finances and Whistleblowing. 84% of Nordkalk's employees have completed the training on Code of Conduct. The course contains practical examples from Nordkalk's everyday work and highlights all the key rules contained in the Code of Conduct.



GOVERNANCE | FA9 Compliance and ethical behaviour



Zero tolerance towards anti-corruption and bribery

Nordkalk has a zero-tolerance approach towards all forms of bribery and corruption, whether they are committed by Nordkalk's employees, officers, or third parties acting for or on behalf of the company.

In 2022, Nordkalk had no confirmed incidents of corruption in which employees would have been dismissed or disciplined for corruption, or where contracts with business partners would have been terminated or not renewed due to corruption violations. Furthermore, Nordkalk had no public legal cases brought against it or its employees for corruption violations. The Anti-corruption and bribery policy was updated in 2021 and the relevant training is mandatory to all employees.

Whistleblowing service available to internal and external stakeholders

All Nordkalk employees and other stakeholders are encouraged to report any concerns they might have about possible violations or any suspected cases of misconduct regarding human rights, corruption, breach of laws or other unethical behaviour. Employees can contact their supervisors, Human Resources or Legal Affairs in order to report any possible concerns.

We also provide a service for employees in all operating countries as well as external stakeholders to report potential violations or non-compliance cases through an anonymous reporting channel. Reports can also be made by mail. The Whistleblowing process is further described in the Whistleblowing Policy which is available for all employees on Intranet. Information about the whistleblowing channel and procedure is also available on Nordkalk's website under 'Report violations' and the channel can be accessed through a web link: report.whistleb.com/nordkalk.

All reported concerns are handled confidentially and according to the Whistleblowing directive (EU 2019/1937) and relevant national legislation. Nordkalk will not retaliate against any employee or manager who in good faith reports a suspected violation or a concern regarding compliance. During 2022, there were four cases reported through Whistleblowing service of which the investigations have been closed.



See 'Report violations'
on our website.
CLICK ICON



GOVERNANCE | FA9 Compliance and ethical behaviour

Human rights

Nordkalk supports the United Nations Universal Declaration of Human Rights, treats people with respect and gives them all equal opportunities for personal growth and professional development. No employee shall be discriminated based on grounds such as gender, race, colour, sexual orientation, age, ethnicity, nationality, marital status, pregnancy, religion, political affiliation, social status, union membership or other such characteristics. Nordkalk complies with recognised international labour standards as defined by the International Labour Organization (ILO) and UN Global Compact covering human rights, labour, the environment and anti-corruption. Nordkalk does not, under any circumstances, accept child or forced labour in any of our operations or activities, and the abovementioned also applies to suppliers.

We recognise that in undertaking our activities in different environments and cultures, we are also exposed to risks which are an inherent element of doing business, and as such, all risks shall be considered. After considering all possible risks concerning Human Rights, we have not identified any materialised risks in our operations.

We are committed to carry out our economic activities in accordance with international human rights agreements standards, guiding principles and human rights and fundamental freedoms conventions, such as but not limited to UN Universal Declaration of Human Rights, UN Guiding Principles on Business and Human Rights, OECD Guidelines for Multinational Enterprises, Declaration of the International Labour Organisation on Fundamental Principles and Rights at Work, International Bill of Human Rights, The International Covenant on Civil and Political Rights and The International Covenant on Economic, Social and Cultural Rights.

Geographically, Nordkalk's biggest potential impact on these rights is in countries where it employs large groups of people, either directly or through joint venture operations or contractors. These countries include, for example, Finland, Sweden, Poland and Estonia.

Nordkalk operates various quarries, kilns and mills where heavy machinery, chemical use, and emissions may present safety hazards to operating and surrounding people if not managed correctly. This could have impacts on occupational safety, wellbeing, and

access to safe air, water, and soil. To ensure the health & safety of all employees, customer, suppliers, visitors etc. Nordkalk has established a separate Guide on Occupational Health & Safety complemented with site specific additional instructions at all locations. These guides and instructions apply to everyone entering Nordkalk's premises.

We actively work with psychosocial wellbeing. Health & Safety conditions at work should ensure that all personnel are able to work for Nordkalk until retirement age and retire in good health.

Environmental compliance

During the reporting period, Nordkalk has not identified any non-compliance issues with environmental laws and/or regulations that would have resulted in sanctions - either monetary or non-monetary - nor have there been any cases brought through dispute resolution mechanisms related to environmental non-compliance, except for one minor case in Poland.

Minor deviations in the operations in relation to environmental permit conditions are managed according to the procedures defined in our Management System and/or according to environmental permit conditions and corrective actions have been taken.



LAURA LEHTIKUNNAS,
CHIEF LEGAL OFFICER

 *Company's responsibility and "culture of doing the right thing" starts with its people, its employees. It was very valuable to be able to meet in person and have open conversation on Compliance and on what it means for each one of us!"*

CASE: Compliance trainings

In 2022 a number of compliance training courses were provided to all Nordkalk employees. The first compliance trainings for blue collars in Nordkalk's history were arranged as face-to-face trainings at sites in all Nordkalk's operating countries.

These training courses included the following topics: Compliance in general/what does it mean for blue collar workers, Health and Safety, Code of Conduct, Anti-Corruption and Bribery, Competition compliance, Criminal Finances and Whistleblowing.

The aim of the blue-collar training courses were to promote the "Nordkalk way" - a culture of doing the right thing, based on humanity, responsibility, sustainability and fair treatment of people, and to ensure that all employees know what is expected from them and that they know what to do and how to act if they notice that something is not right. The training courses brought up very valuable conversations. A strong and healthy compliance culture means for Nordkalk that all employees and those acting on behalf of Nordkalk understand the Compliance risks related to their own duties and also have the means to take active steps to ensure Nordkalk complies with applicable laws, rules, regulations and internal policies.

The training courses will be provided annually to all employees also in the future and the completion rates are reported also to SigmaRoc's Board of Directors.

GOVERNANCE | FA9 Compliance and ethical behaviour



Responsible supply chain

All purchasing is performed in compliance with Nordkalk's purchasing process which is part of the Management System. New suppliers' reliability as well as ethical and financial performance are evaluated. Nordkalk expects its suppliers to follow and commit to the Supplier Code of Conduct to ensure that suppliers also adhere to business ethics.

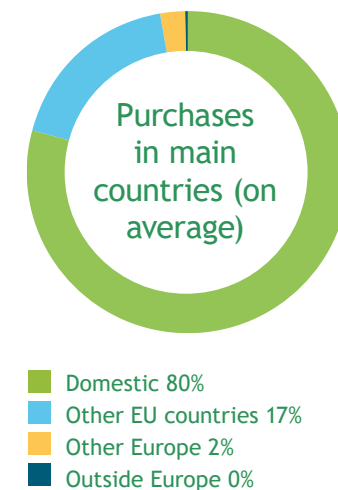
Our supply chain

Our supply chain mainly comprises of European suppliers from our operating countries (Finland, Sweden, Poland and Estonia). This improves the visibility of the supply chain. We have a wide variety of suppliers, of which logistics, energy, equipment and contractors are the most common. Energy, shipping and equipment are usually purchased globally, while land transports and contractors are hired from local companies. As spend our biggest purchased categories are fuels, external transports, logistic services, production services and maintenance.

At Nordkalk, subcontracting is used when the task in question is not seen as our core business, requires machinery or knowledge that is not worth investing in the company or is conducted in seasonally or in connection with for example yearly maintenance

shutdowns. Our goal is to conduct all maintenance work with own personnel as much as possible and the use of contractors is not significant. In internal logistics of quarried stone, subcontracting is frequently used. The biggest volume of this is in Miedzianka, Poland.

In 2022 due to the fading of fossil fuels in our kins, we have had more focus on the supply chain of biomasses. This means that we require that the biomass we use has relevant certificates to assure its sustainability as based on the accepted EU level schemes. In addition, in Sweden the biomass supplier must hold national sustainability certificate. Most of our purchased biomass is from the Nordics. All wood pellets purchased during 2022 for our kiln in Köping Sweden were from Sweden.





Supplier code of conduct

All new suppliers are asked to commit to the Supplier Code of Conduct as well as provide information and copies of their environmental, social and quality certifications. Existing suppliers are required to commit to the updated Supplier Code of Conduct when their contract is renewed.

By the end of 2022, 70% of our critical suppliers in Finland, Sweden, Estonia and Poland had accepted and signed the Nordkalk Supplier Code of Conduct. Critical suppliers are defined as being critical for site operations. They include explosive and chemical suppliers, maintenance and small onsite contractors.

92% of new suppliers established in our systems in Estonia, Finland, Poland and Sweden during the year had accepted and signed the Supplier Code.

Alongside the documentation provided by the suppliers, risk evaluations are done by the procurement organisation. These evaluations include risks regarding financial strength, product quality and compliance with the Supplier Code of Conduct. In these evaluations, Nordkalk uses country-specific sources and reports. When necessary, Nordkalk also uses external service providers to conduct broad financial checks.

Nordkalk reserves the right from time to time to conduct visits or audits to ensure the supplier's compliance with the Supplier Code of Conduct. The audit questionnaire was updated in 2022 to include more sustainability and environmental questions. If Nordkalk finds that the supplier is not meeting the expectations, Nordkalk will discuss with the supplier any issues that need to be corrected or improved. The supplier shall then, without undue delay, take the commercially reasonable corrective actions. We may cancel outstanding orders, suspend future orders and/or terminate the contract with the supplier in case of material breach of the Supplier Code of Conduct.

Preliminary sustainability risk rating for the critical suppliers was established in 2022. Nordkalk has decided to improve the supplier management and work for this has already started and will continue in 2023. The development work includes better tools for supplier follow-up, defining criteria and risk assessing suppliers also from a sustainability point of view. The development work is required also to include upcoming developments on new EU level legislation regarding supply chain management and mandatory human rights and environmental due diligence.

GOVERNANCE | FA9 Compliance, ethical behaviour and responsible supply chain

Know your counterparty and suppliers

Nordkalk takes care to know its counterparties by implementing a robust Know Your Counterparty process in relation to all its counterparties. As a part of its compliance program, Nordkalk is requesting that all possible counterparties from sanction listed countries fill in and sign Nordkalk's Counterparty Information Form that is part of the initial on-boarding procedure or the periodic review of existing counterparties. Identifying and verifying counterparties helps us to comply with applicable laws (including sanctions, money laundering and bribery & corruption).

The KYC process was first created and taken into use in 2019 and actively used over the course of 2020. In the beginning of 2021, the KYC process was improved by taking an essential screening platform in use that is created to support due diligence needs in the fight against financial crime, bribery and corruption.

During the year 2022, the number of conducted KYC assessments decreased tremendously due to the decision to divest Nordkalk's Russian entity and to terminate all cooperation with Russian and Belarussian suppliers and customers. During the year 2022, 12 KYC assessments were made regarding counterparties or possible counterparties from high-risk countries. Of these two were not completed, one resulted to termination of the cooperation and one to a refusal to deliver.

Due to the complicated regulatory framework which Nordkalk conducts its business, issues of legal compliance may arise. At all times, Nordkalk acts responsibly and develops its KYC and screening processes. Nordkalk also has a e-learning course for targeted group of employees on KYC process available.





Key Performance Indicators

FOCUS AREA/KPI	ACTUAL 2021	ACTUAL 2022	GOAL 2022	GOAL 2023	LONG-TERM TARGETS	KPI CALCULATION
FA 1 - SUSTAINABLE SOLUTIONS						
Environmental handprint	Thesis work topic defined	Thesis work started	Model for more detailed assessment of environmental handprint of Nordkalk products and services.	Further assessment to which product the handprint ideology applies best.	Increase the share of sustainable solutions	To be defined after the thesis work ends in 2023
New sustainable products created	5	6	>5	>5		New products with sustainability aspects annually
FA 2 - CLIMATE IMPACT						
Energy efficiency: Improved energy efficiency, (%)	0.3%	0.45%	1% annual improvement	1% annual improvement	Net zero by 2040	Annual energy saving impact from energy efficiency actions implemented during the reporting period.
Emissions: Specific CO ₂ emissions for kiln processes (tonnes)	1.08	1.11	Decrease according to eLIMEnate roadmap	Set reduction targets aligned with SBTi Decrease according to eLIMEnate roadmap		CO ₂ tonne / tonne of quicklime
FA 3 - RESPONSIBILITY FOR LAND AND WATER						
Land use, quarry restoration	Actions done	Actions done, plans updated	Continuous rehabilitation actions	Continuous rehabilitation actions	Minimise harmful impacts	Number of updated plans
Water and effluents: Water management	No spills	No spills	No significant spills	No significant spills		Number of spills
FA 4 - BIODIVERSITY						
Active biodiversity projects	4/4	4/4	One active project per main country (Finland, Poland, Sweden, Estonia)	Make a plan for no net loss and plan new biodiversity projects	No net loss by 2030	Active projects
FA 5 - RESOURCE CONSCIOUSNESS						
Material efficiency (%)	95.0 %	94.1%	≥97%	≥97%	Material efficiency 100% by 2027	Total raw material quarried - all volumes put to heap / Total raw material quarried. KPAB and Turkey included in the utilisation rate.
Secure limestone reserves (%)	4.5%	4.0%	< 5%	< 5%	Secure reserves	Annual share of consumed available reserve (permitted and accessible)



Key Performance Indicators

FOCUS AREA/KPI	ACTUAL 2021	ACTUAL 2022	GOAL 2022	GOAL 2023	LONG-TERM TARGETS	KPI CALCULATION
FA 6 - GOOD PLACE TO LIVE						
Local dialogue and engagement: Stakeholder engagement plans	4/4	4/4	Stakeholder engagement plans for main countries (Finland, Poland, Sweden, Estonia)	Stakeholder engagement plans for main countries (Finland, Poland, Sweden, Estonia) and follow-up.	Continued support for our operations	Number of stakeholder engagement plans
Impacts to local communities and safety of neighbours: Local complaints closed (%)	92%	93%	All reported complaints (100%) are investigated and closed	All reported complaints (100%) are investigated and closed		Closed complaints vs. total complaints Main countries (Finland, Sweden, Poland and Estonia) included.
FA 7 - GOOD PLACE TO WORK						
Employee engagement and development	Good (AA)	Satisfactory + (A+)	Satisfactory + (A+)	Satisfactory + (A+)	Employee engagement above industry average	Overall personnel survey result compared to the European benchmark
Development discussions	100%	88% (all employees)	Development discussions coverage 100%	Development discussions coverage 100%		Includes personnel from consolidated entities included in Nordkalk's Management System. Not including personnel in long leaves.
FA 8, SAFE PLACE TO WORK						
Occupational safety: Lost time accident frequency LTA1	4.9	4.3	<4	LTA1 for own employees <3 LTA1 for contractors <3	Zero accidents	Number of accidents (LTA1, own personnel) / million working hours per year (incl SKOY, KPAB and Turkey).
Employees engaged in safety work (%)	95%	93%	100% of employees engaged in safety work	100% of employees engaged in safety work		% of employees that have made one or more safety observations
FA 9 - COMPLIANCE AND ETHICAL BEHAVIOUR						
Business ethics, anti-corruption: Number of complaints from whistleblowing system and resolved cases.	2 out of 2 cases resolved	4 out of 4 cases resolved	All reported misconduct cases are investigated and resolved within a reasonable time from when the case was first reported.	All reported misconduct cases are investigated and resolved within a reasonable time from when the case was first reported.	Zero tolerance towards compliance violations	Number of cases from the whistleblowing system/resolved cases
Labour practice and human rights		No cases	All known discrimination cases are solved	All known discrimination cases are solved		Number of identified cases vs. solved cases.
Responsible supply chain	83%	92%	100% of new suppliers commit to the Supplier Code of Conduct	100% of new suppliers and critical suppliers commit to the Supplier Code of Conduct	No discrimination	Number of new suppliers committed to the Supplier Code of Conduct. In 2021 only Finland and Sweden included. In 2022 also Poland and Estonia are included.

GRI Content Index

Statement of use		Nordkalk Corporation has reported in accordance with the GRI Standards for the period 1 Jan to 31 of Dec 2022.		
GRI 1 used		GRI 1: Foundation 2021		
Applicable sector standards		None		
GRI 2: General Disclosures 2021		Pages	Omission	Comments
GRI 2: General Disclosures 2021				
2-1	Organizational details	4-5		
2-2	Entities included in the organization's sustainability reporting	63		
2-3	Reporting period, frequency and contact point	84		
2-4	Restatements of information			Indicated in the GRI table
2-5	External assurance	85		
2-6	Activities, value chain, and other business relationships	5, 10, 75		
2-7	Employees	52-53		
2-8	Workers who are not employees	54		
2-9	Governance structure and composition	13, 64-65		
2-10	Nomination and selection of the highest governance body	64		
2-11	Chair of the highest governance body	64		
2-12	Role of the highest governance body in overseeing the management of impacts	64-65		
2-13	Delegation of responsibility for managing impacts	65		
2-14	Role of the highest governance body in sustainability reporting	65		
2-15	Conflicts of interest	65		
2-16	Communication of critical concerns	65		
2-17	Collective knowledge of the highest governance body	64-65		
2-18	Evaluation of the performance of the highest governance body	65		
2-19	Remuneration policies	54		
2-20	Process to determine remuneration	54		
2-21	Annual total compensation ratio			> 1:17, increase ratio 1.77.
2-22	Statement on sustainable development strategy	11		
2-23	Policy commitments	14, 72-73		

		Pages	Omission	Comments
2-24	Embedding policy commitments	66, 76-77		
2-25	Processes to remediate negative impacts	42, 44-48		
2-26	Mechanisms for seeking advice and raising concerns	72		
2-27	Compliance with laws and regulations	73		
2-28	Membership associations	43		
2-29	Approach to stakeholder engagement	44-45		
2-30	Collective bargaining agreements	54		
GRI 3: Material Topics				
3-1	Process to determine material topics	15		
3-2	List of material topics	15		
3-3	Management of material topics	15		
FA1 Sustainable Solutions				
GRI 3: Material Topics				
3-3	Management of material topics	20-23		
	NK own indicator: share of sales of circular products (% of tons)	21		This indicator describes the volume of our circular products compared to the total sales volumes. Existing indicators are not suitable for extracting industry.
FA2 Climate Impact				
GRI 3: Material Topics				
3-3	Management of material topics	24-29		
GRI 302: Energy				
302-4	Reduction of energy consumption	27		
GRI 305: Emissions				
305-1	Direct (Scope 1) GHG emissions	25		
305-2	Energy indirect (Scope 2) GHG emissions	25		New
305-3	Other indirect (Scope 3) GHG emissions	25		New
305-4	GHG emissions intensity	25		
FA3 Responsibility for water and land				
GRI 3: Material Topics				
3-3	Management of material topics	30-31		
GRI 303: Water and effluents				
303-1	Interactions with water as a shared resource	30-31		
303-2	Management of water discharge-related impacts	30-31		
303-3	Water withdrawal	31		
303-4	Water discharge	31		
303-5	Water consumption	31		

Disclosure	Pages	Omission	Comments
FA4 Biodiversity			
GRI 3: Material Topics			
3-3	Management of material topics	32-33	
GRI 304: Biodiversity			
304-3	Habitats protected or restored	30	Restored areas 238 ha
FA5 Resource consciousness			
GRI 3: Material Topics			
3-3	Management of material topics	36-38	
GRI 301: Materials			
	NK own indicator: material efficiency (%)	37	This indicator describes our material efficiency. Existing indicators are not suitable for extracting industry.
FA6 Good place to live			
GRI 3: Material Topics			
3-3	Management of material topics	44-49	
GRI 413: Local communities			
413-1	"Operations with local community engagement, impact assessments, and development programs "	42, 44-45	Covering largest sites in main countries.
413-2	Operations with significant actual and potential negative impacts on local communities	44-45, 48	
FA7 Good place to work			
GRI 3: Material Topics			
3-3	Management of material topics	50-55	
GRI 401: Employment			
	Own indicator: PeoplePower Index	50	This indicator describes our employee engagement compared to the benchmark.
401-1	New employee hires and employee turnover	52-53	
GRI 404: Training and education			
404-3	Percentage of employees receiving regular performance and career development reviews	52	
GRI 406: Non-discrimination			
406-1	Incidents of discrimination and corrective actions taken	54	

		Pages	Omission	Comments
FA8 Safe place to work				
GRI 3: Material Topics				
3-3	Management of material topics	56-62		
GRI 403: Occupational health and safety				
403-1	Occupational health and safety management system	56-57		
403-2	Hazard identification, risk assessment, and incident investigation	57, 68-69		
403-3	Occupational health services	60		Occupational health services cover all workers who are employees.
403-4	Worker participation, consultation, and communication on occupational health and safety	56-57		
403-5	Worker training on occupational health and safety	57, 61		Spain not included
403-6	Promotion of worker health	60		
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	60		
403-8	Workers covered by an occupational health and safety management system		Occupational health and safety management systems cover all employees, except one in Helsinki and 2.5 in Ukraine.	Occupational health and safety management systems cover all employees, except one in Helsinki and 2.5 in Ukraine.
403-9	Work-related injuries	59		Spain not included
FA9 Compliance, ethical behaviour and responsible supply chain				
GRI 3: Material Topics				
3-3	Management of material topics	70-77		
GRI 204: Procurement Practices				
204-1	Proportion of spending on local suppliers	75		Significant locations of operations = main operating countries (Finland, Poland, Sweden, Estonia), local = domestic.
GRI 205: Anti-corruption				
205-3	Confirmed incidents of corruption and actions taken			No incidents
GRI 206: Anti-competitive Behavior				
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices			No incidents

EU Taxonomy Reporting practice

EU Taxonomy is a classification system that identifies environmentally sustainable economic activities according to its requirements. The Taxonomy regulation entered into force in 2020. In addition to the regulation, it is reinforced by Delegated Acts. The Taxonomy sets sustainability reporting requirements for activities that are included in the Taxonomy. Currently our main operations, mining or lime manufacturing, are not included in the Taxonomy and no technical screening criteria exists either.

The Nordkalk 2022 Sustainability Report has been prepared in accordance with the GRI Standards. The GRI content index, which specifies each of the GRI Standards used and lists all disclosures included in the report can be found in pages 80-83 of this report.

This Sustainability Report covers the operations of the Nordkalk Corporation. It is a separate report from the Annual Report and the ESG Report of our owner SigmaRoc plc. Nordkalk Corporation as “Nordkalk platform” is included in the Annual Report and the ESG Report of SigmaRoc Group plc.

In this report, the financial, personnel and health and safety data covers Nordkalk’s consolidated entities. The rest of the data covers the entities included in the Nordkalk’s Management System. See page 63 for closer details. Any exceptions to this are mentioned in the KPI table on pages 78-79.

The reporting period is 1 January 2022 - 31 December 2022 and reporting takes place annually. The previous report for 2021 was published on our website on May 9th 2022.

In our reporting we focus on the most material sustainability aspects of our operations in accordance with our Sustainability Programme. The material topics and topic Boundaries have been determined based on the most significant impact of our operations, company strategy and stakeholder expectations from environmental, social and economic

perspectives. Since Nordkalk’s financial figures and economic performance are now reported as part of SigmaRoc’s Annual Report, we no longer report these separately in our Sustainability Report.

The reporting is linked to the wider context of sustainable development through the UN sustainable development goals (SDGs), see page 24 of this report.

Nordkalk’s sustainability team is responsible for annual sustainability reporting. The Nordkalk Management team (NKMT) has reviewed the report and ensured that all the material aspects are covered. The Board of Directors has approved the Sustainability Report 2022.

The Nordkalk Sustainability Report is available as a digital version (pdf), which can be downloaded from our website: www.nordkalk.com/sustainability. The report will also be provided in printed format.

Any questions regarding the report should be directed to: Sustainability Manager Noora Guzman Monet, noora.guzmanmonet@nordkalk.com or Chief Communications and People Officer Hanne Mäkelä, hanne.makela@nordkalk.com.

This report has been reviewed in its entirety by an independent third party (KPMG). See the Independent Assurance Report on the next page.



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Independent Assurance Report to the Management of Nordkalk Corporation

We have been engaged by the Management of Nordkalk Corporation (hereafter "Nordkalk") to provide limited assurance on corporate sustainability indicators presented in Nordkalk's Sustainability Report 2022 (hereafter "Corporate Sustainability Information") for the year ended 31 Dec 2022.

Management's responsibilities

The Management of Nordkalk is responsible for the preparation and presentation of the Corporate Sustainability Information in accordance with the reporting criteria, i.e. *GRI Sustainability Reporting Standards*, and the information and assertions contained within it. The Management is also responsible for determining Nordkalk's objectives with regard to sustainable development performance and reporting, including the identification of stakeholders and material issues, and for establishing and maintaining appropriate performance management and internal control systems from which the reported performance information is derived.

Our responsibilities

Our responsibility is to carry out a limited assurance engagement and to express a conclusion based on the work performed. We conducted our assurance engagement on the Corporate Sustainability Information in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised), *Assurance Engagements other than Audits or Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards Board IAASB. That Standard requires that we plan and perform the engagement to obtain limited assurance about whether the Corporate Sustainability Information is free from material misstatement.

KPMG Oy Ab applies International Standard on Quality Management ISQM 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants IESBA, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Procedures performed

A limited assurance engagement on Corporate Sustainability Information consists of making inquiries, primarily of persons responsible for the preparation of information presented in the Corporate Sustainability Information, and applying analytical and other evidence gathering procedures, as appropriate. In the engagement, we have performed the following procedures, among others:

- Interviewed the members of Nordkalk's senior management and relevant staff responsible for providing the Corporate Sustainability Information;

KPMG Oy Ab, a Finnish limited liability company and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

Y-tunnus 1805485-0
Kotipaikka Helsinki

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- Assessed the application of the *GRI Sustainability Reporting Standards* reporting principles in the presentation of the Corporate Sustainability Information;
- Assessed data management processes, information systems and working methods used to gather and consolidate the Corporate Sustainability Information;
- Reviewed the presented Corporate Sustainability Information and assessed its quality and reporting boundary definitions;
- Assessed the Corporate Sustainability Information's data accuracy and completeness through a review of the original documents and systems on a sample basis and;
- Conducted site session to review the Corporate Sustainability Information on Nordkalk's sites.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Inherent limitations

Inherent limitations exist in all assurance engagements due to the selective testing of the information being examined. Therefore fraud, error or non-compliance may occur and not be detected. Additionally, non-financial data may be subject to more inherent limitations than financial data, given both its nature and the methods used for determining, calculating and estimating such data.

Conclusion

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusions.

Based on the procedures performed and the evidence obtained, as described above, nothing has come to our attention that causes us to believe that the information subject to the assurance engagement is not prepared, in all material respects, in accordance with the *GRI Sustainability Reporting Standards*.

Helsinki, 5 May 2023

KPMG Oy Ab

Tomas Otterström
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Henry Maarala
Authorized Public Accountant, KHT

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Introduction

For the planet

For the people

Governance

Data and reporting practice

Nordkalk

www.nordkalk.com