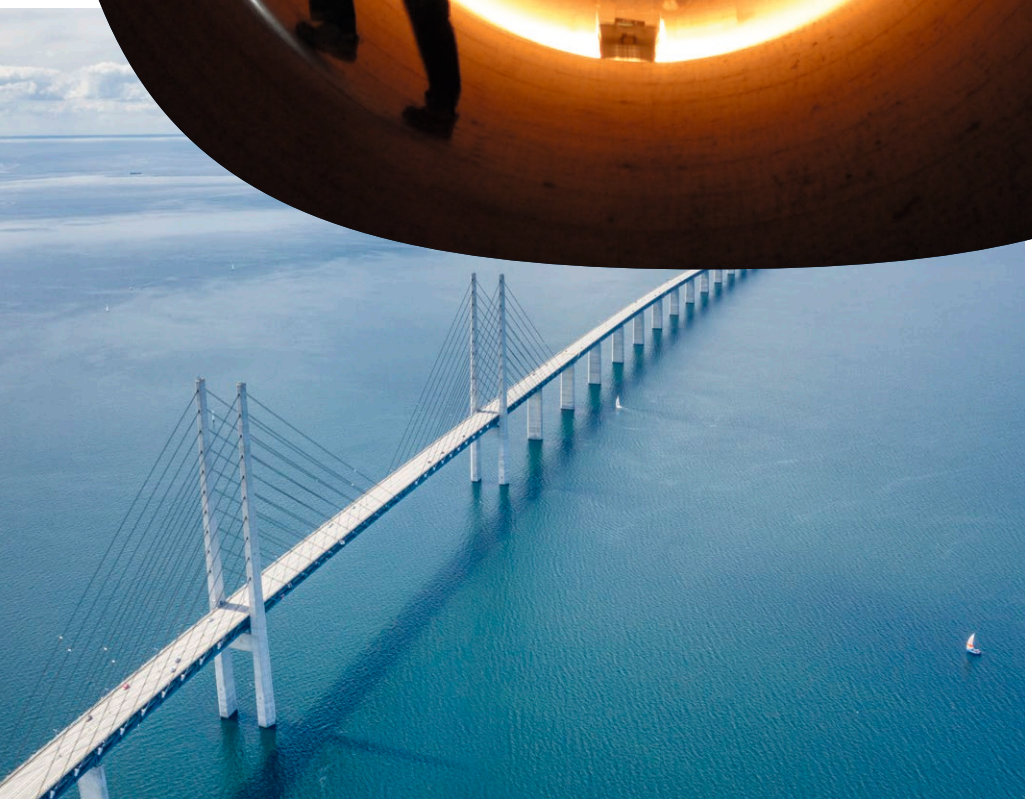
Höganäs Borgestad

Sustainability statement





Sustainability statement



General information

Sustainability at Höganäs Borgestad

In 2022, Höganäs Borgestad ("Höganäs Borgestad" or "Group") began the work to define how the company will approach the important new aspects of sustainability, comply with the CSRD and continue to be compliant with the Transparency Act requirements.

This still-ongoing work aims to ensure that the company and its subsidiaries make good strategic and sustainable decisions, direct effort and investments where they are needed and have the highest impact, and manage risks and opportunities.

The following four pillars form the core of Höganäs Borgestad's work with sustainability:

Ensure compliance with current and future laws and regulations

Höganäs Borgestad must ensure compliance as requirements come into force. In line with the coming European directives, Höganäs Borgestad will implement sustainability in the company's strategies and goals.

Understand and acknowledge where Höganäs Borgestad has an impact

Höganäs Borgestad aims to get a thorough understanding of the company's actual and potential impacts on its surroundings, both positive and negative. The company operates in an industry that is emissions-intensive, has a risk of accidents and injuries, and has a global supply chain. This must be reflected in the company's strategies and values.

Handle future financial risk and take advantage of commercial opportunities

Sustainability may pose a risk to the refractory industry in the long-term. Höganäs Borgestad must identify and assess significant financial risks and opportunities and determine how these should be managed to minimise risk and maximise opportunities. This requires thorough strategic planning.

Create a common direction for the company and subsidiaries

Höganäs Borgestad is in the early stage of defining how it will deal with material sustainability issues. The aim of this work is to ensure that the company and its subsidiaries make good strategic decisions, directing effort and investments where they are needed and have the highest impact.

Sustainability has gone from being a niche focus for impact-oriented companies to being a regulatory requirement and a financial and commercial liability if not sufficiently handled, and Höganäs Borgestad has initiated several projects in response to this. The company and its subsidiaries will continue to integrate the basic pillars into their strategies and contribute to Höganäs Borgestad's regulatory compliance and meeting stakeholders' sustainability expectations.

For 2023, Höganäs Borgestad has used the European Union's Corporate Sustainability Directive (CSRD) and the accompanying European Sustainability Reporting Standards (ESRS) for inspiration for the restructuring of the sustainability reporting.

1. About the report

1.1. General basis for preparation of sustainability statements

Höganäs Borgestad's sustainability report for 2023 is inspired by the European Union's Corporate Sustainability Directive (CSRD) and the accompanying European Sustainability Reporting Standards (ESRS). Below is an overview of the company reporting structure.

The sustainability report has been prepared on a consolidated basis, covering all companies within Höganäs Borgestad Group. The basis for preparation of ESG metrics is described in the relevant chapters, along with actions planned for improvement where applicable. ESRS compliance will require improved data quality and access and development of the relevant transition plans, policies, strategies, and targets.

The materiality assessment extends across both upstream and downstream value chains, ensuring a wide evaluation of impacts, risks, and opportunities, with a primary focus on Höganäs Borgestad and the company's upstream value chain. Policies, actions, and targets are mainly focused on Höganäs Borgestad's own operations, supported by a supplier code of conduct, particularly regarding workers in the value chain. Emission data and value chain metrics are detailed within the climate account and in the waste board of directors report.

In 2022, Höganäs Borgestad initiated a project to ensure the company would meet CSRD and Norwegian Transparency Act requirements when they come into force, and to ensure the business effectively handles the risks and opportunities associated with the coming green shift. This work continued in 2023, with the initiation of projects to improve Höganäs Borgestad's greenhouse gas accounting and Norwegian Transparency Act reporting for Höganäs Borgestad AS. For 2024, Höganäs Borgestad intends to conduct an in-depth climate risk assessment, in addition to updating the double materiality analysis and executing a GAP analysis.

		ESRS 2 Generall information			Content in topical standards							
		Overarching aspects			Managemnet of impacts, risks and oppotunnities					Metrics and targets		
ESRS	Topics	Governance	Strategy	Double materiality	Transport plan	Polices	Action plan & resourses	Stakeholder engagement	Process for raising concern	Target	Potential financial effects(')	Metrics
E1	Climate change	2.1 2.2 2.3	3.1 3.2	3.3	4.1.1	4.1.1	4.1.1			4.1.1	4.1.1	4.1.1
E2	Pollution					4.1.2	4.1.2			4.1.2	NR	4.1.2
E3	Water & Marine											
E4	Biodeversity											
E5	Circular economy					4.1.3	4.1.3			4.1.3	NR	4.1.3
S1	Own workforce*					4.1.2	4.1.2	4.1.2	4.1.2	4.1.2		4.1.2
S2	Value chain workers*					4.2.2.	4.2.2.	4.2.2.	4.2.2.	4.2.2.		NR
S3	Affected cummuities*											
S4	Consumer & end user*											
G1	Business conduct					4.3.1						4.3.1
		Primaily qualative workflows								Primaily qualative requirements		

NR= Not reported



2. Governance

2.1. The role of, and the information provided to, the administrative, management and supervisory bodies

Sustainability-related matters are integrated into Höganäs Borgestad governance mechanisms. The Board of Directors has the ultimate responsibility for sustainability-related impacts, risks, and opportunities and considers such matters when reviewing and guiding the strategy and business plans, and for decision-making.

The Board monitors and evaluates more specific sustainability-related matters.

The CEO is the highest responsible for sustainability-related matters under the Board of Directors. The CEO is responsible for monitoring, assessing, and managing sustainability-related matters and reports this to the Board of Directors. The CEO is invited and a part of all Board meetings held.

2.2. Integration of sustainability-related performance in incentive schemes

Höganäs Borgestad has not yet adopted any incentive schemes that integrates with sustainability-related performance.

2.3. Statement on due diligence

As part of compliance with the Transparency Act, Höganäs Borgestad AS will conduct regular risk-based human rights due diligence on suppliers. The company will further expand the risk-based due diligence to include environmental matters as well.

3. Strategy

3.1. Strategy, business model and value chain

Höganäs Borgestad is an developer, producer and supplier of smart refractory and high temperature solutions offering refractory products and services critical for high-temperature industrial processes.

The company strategy is to position itself with high quality products that plays an important part in reducing end users' energy consumption, while providing solid returns to shareholders.

The value chain for Höganäs Borgestad is illustrated below. Höganäs Borgestad supplies refractories products and services for industries such as steel, cement, and pulp and paper, as well as for use in petrochemical plants and incinerators. These products are crucial for the durability and efficiency of the clients' operations, withstanding extreme conditions to ensure production. Höganäs Borgestad operations rely on critical inputs for high-quality refractory solutions. These inputs include a range of materials including, but not limited to, cement, steel, brown fused alumina, bauxite, graphite, alumina, micro silica, and chamotte. Höganäs Borgestad value chain extends from raw material sourcing, through production and distribution to clients and end-users.

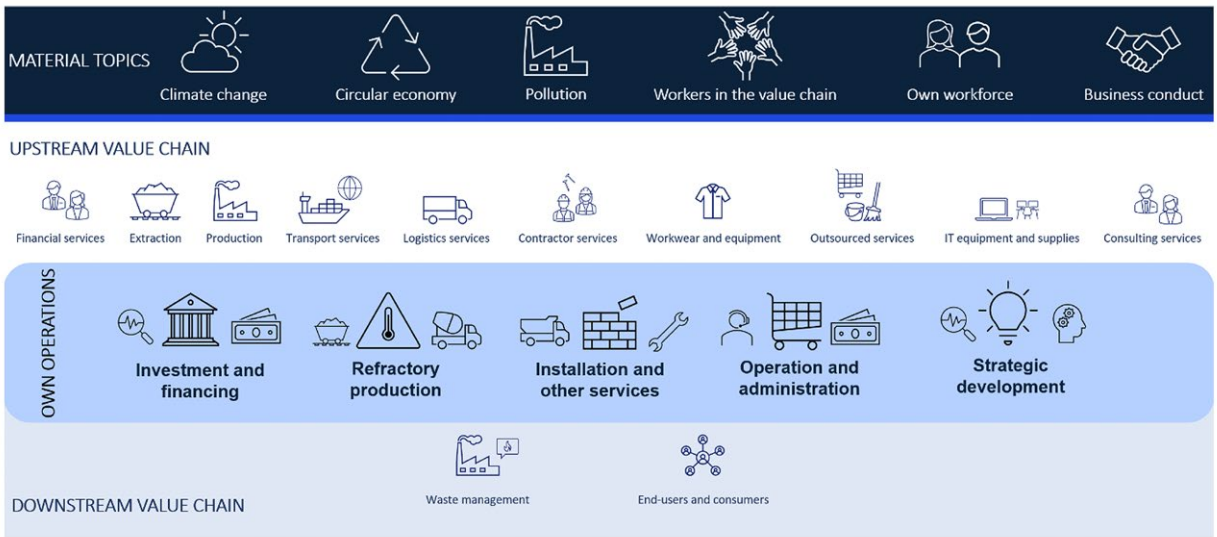
3.2 Interests and views of stakeholders

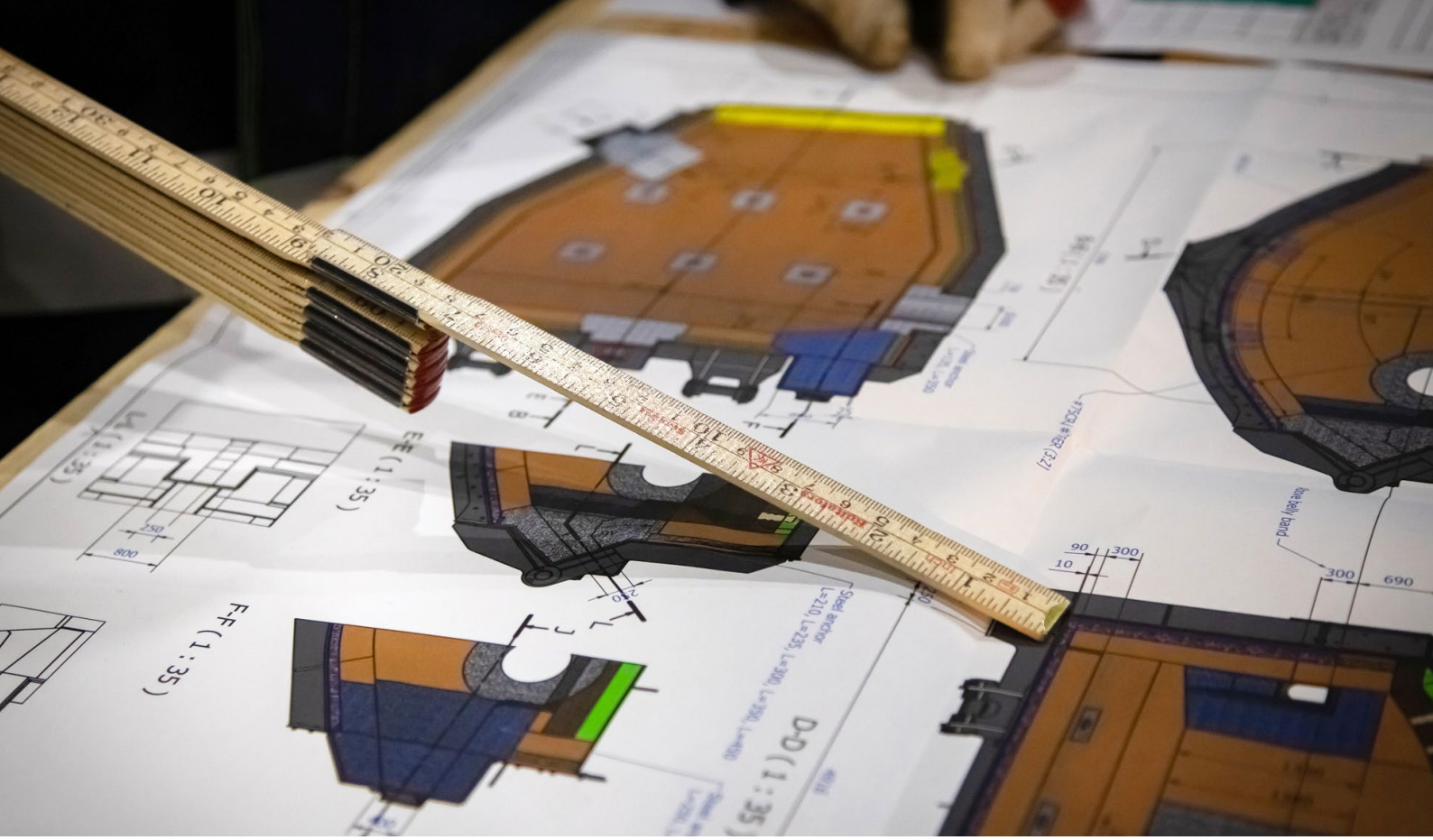
Höganäs Borgestad maintains a constant dialogue with its stakeholders as part of its normal business operations. Regular engagement with stakeholders ensures that Höganäs Borgestad is aligned with stakeholders' expectations and the company's sustainability goals.

In 2023 Höganäs Borgestad initiated dialogues with core stakeholders, hereunder board members, employees, and financial partners. The insights gained from these initial discussions were instrumental in establishing four guiding pillars (see page 1) that now direct the strategic decisions for the company, and to further understand the company's material topics on a high level.

As part of the preparation for ESRS compliance, Höganäs Borgestad will revisit the initial stakeholder mapping and engagements and use as input in the Double Materiality Assessment (DMA) that will be conducted later in 2024. The aim is to include more stakeholders in the assessment that can provide clear and detailed inputs to the impacts, risks and opportunities that are material to Höganäs Borgestad.

During 2023, a process was started to engage with suppliers on human rights risks as part of the Transparency Act work, and this work will continue and expand in coming years.





3.3. Material impacts, risks and opportunities and their interaction with strategy and business model

Höganäs Borgestad initial high level materiality analysis identified climate change, pollution, circularity and resource use, own workforce, workers in the value chain, and business conduct as most important topics for Höganäs Borgestad. These topics directly influence Höganäs Borgestad sustainability strategy and operational focus.

3.3.1. Environment

3.3.1.1. Climate change

The world is facing significant climate change, which poses both risks and opportunities for businesses both through the physical climate changing and the transition to a low-carbon economy. Höganäs Borgestad works strategically to mitigate negative impacts from climate risks and capitalise on opportunities in the green shift.

3.3.1.1.1. GHG emissions

Höganäs Borgestad acknowledges the critical challenge posed by climate change and recognises the business' role in contributing to global greenhouse gas emissions. Höganäs Borgestad operations, notably in the production of refractory products, generate significant direct emissions from fuel combustion and chemical processes. The Group also has significant emissions in the upstream value chain through mining of raw materials, suppliers' production of refractory products and components, and transportation of raw materials and products.

3.3.1.1.2. Climate adaptation

Höganäs Borgestad reliance on external suppliers for raw materials places the company at risk of disruptions due to climate-induced extreme weather events. These risks, prevalent in countries with significant supply chain operations, could affect the company's long-term costs and lead times. Further, the carbon-intensive nature of refractory material production exposes Höganäs Borgestad to potential increases in operating costs, through e.g., the expected tightening of emission regulations.

3.3.1.1.3. Energy consumption

Höganäs Borgestad production processes are energy-intensive, and currently relies largely on non-renewable energy sources with negative impact on the climate. Through its end-users, Höganäs Borgestad mitigates environmental impacts by providing high-quality refractory products that lower clients' energy use and emissions.

The rising cost of energy presents a financial risk for the company, particularly given the industry's high energy demands. Conversely, the shift towards energy efficiency in client industries represents a significant opportunity. By pioneering products that further reduce energy consumption, Höganäs Borgestad can capitalize on potential commercial benefits and contribute to the broader transition to a low-carbon economy.



3.3.1.1.4. Strategic response

To mitigate negative impacts and risks, and seize opportunities related to climate, Höganäs Borgestad is, enhancing energy efficiency and exploring sustainable energy sources to reduce environmental footprint. Strengthening resilience in the supply chain to mitigate physical and transition risks associated with climate change and pursuing innovation in refractory products to further support clients' energy efficiency improvements and GHG reduction efforts.

3.3.1.2. Pollution

Höganäs Borgestad manufacturing processes generate emissions to air. For the Bjuv facility, Höganäs Borgestad has emissions permits. The pollution in Bjuv arises mainly from the combustion of fossil fuels utilised in machinery and heating, contributing to local air pollution challenges. There are further emissions to air throughout the company's value chain from raw material sourcing and processing and to customer combustion processes. Höganäs Borgestad is committed to addressing pollution not just within the immediate operations but throughout the value chain.

The regulatory environment poses significant risks, particularly with initiatives like the EU Industrial Emissions Directive (IED), which mandates the adoption of Best Available Techniques (BATs) to mitigate pollution. These regulations introduce potential financial implications due to the investment required in pollution control technologies. Höganäs Borgestad is proactively evaluating these risks and aligning operations with regulatory expectations to mitigate financial and compliance-related impacts.

3.3.1.2.1. Strategic response

In response to these challenges, Höganäs Borgestad is enhancing its strategy to manage and mitigate pollution related impacts, risks and opportunities through monitoring and reporting by committing to increased transparency regarding emissions to air in its own operations at the Bjuv facility. Further, by value chain engagement, Höganäs Borgestad will actively engage with suppliers and partners to promote sustainable practices and reduce pollution throughout the value chain. This includes assessing the environmental practices of suppliers, especially those involved in raw material provisions.

3.3.1.3. Circular economy

Höganäs Borgestad is committed to include sustainability in its operations, with a focus on circular economy principles to address the environmental impacts associated with resource use, reuse, and disposal. The company's approach is geared towards transitioning from a linear to a more circular model, recognising the environmental and economic benefits of such a shift.

The refractory industry, characterised by the high turnover of materials due to the limited lifespan of refractory products, traditionally follows a linear model of use and disposal. Höganäs Borgestad faces challenges associated with low reuse rates of materials, leading to significant waste and reliance on landfill disposal. The current practices contribute to increased consumption of scarce minerals, elevated GHG emissions from the production of new materials, and adverse impacts on local ecosystems due to landfill usage. These issues present both environmental and financial risks, urging a shift towards more sustainable practices.

3.3.1.3.1. Strategic response

To address the risks and capitalise on the opportunities presented by the circular economy, Höganäs Borgestad is researching strategic adaptation, with the highest priority on enhanced resource management by implementing strategies to improve the efficiency of resource use in operations, including the optimisation of material selection, utilisation processes and the opportunity for re-use. Secondly, collaboration with stakeholders will be key in succeeding in the circular economy. Working closely with clients, suppliers, and industry partners to foster a collaborative approach to circularity, sharing best practices, and exploring joint initiatives for material reuse and recycling is of essence. Monitoring and reporting will be important, committing to increased transparency regarding resource use and waste management practices, including the development of metrics to track progress towards circular economy objectives.

3.3.2. Social

3.3.2.1. Own workforce

At the end of 2023, 313 people were employed by Höganäs Borgestad, distributed across the company's various countries and businesses. The majority of these are full-time employees, but particularly Höganäs Borgestad operations also involve the use of temporary employees, a total of 275 people in 2023. Höganäs Borgestad is committed to fostering a safe, diverse, and inclusive workplace for both employees and temporary employees. Höganäs Borgestad approach to managing the company's own workforce is reflected in the dedication to the health, safety, and well-being of the employees, while also addressing the challenges and opportunities related to diversity, inclusion, and employment practices.

3.3.2.1.1. Working conditions

Höganäs Borgestad production processes includes handling chemicals and workers are exposed to very high temperatures. This can have negative impacts on employees' health and safety and lead to injuries or fatalities if the health and safety conditions are inadequate. Such incidents not only have human costs but can also lead to legal and reputational consequences and impact production efficiency.

There is a risk that insufficient working conditions, such as excessive working hours, leads to poor employee satisfaction both by employees and temporary employees. This can result in increased sick leave, turnover, loss of reputation, and failure to attract and retain talent. This can in turn lead to lower productivity and less innovation as well as increased costs related to training and onboarding of new employees, all of which in turn can have a negative impact on company growth and revenues.

In Höganäs Borgestad, there were 275 temporary employees hired through third parties in 2023. These temporary workers are covered by collective trade union arrangements and are thus protected by Swedish law. However, there is a higher inherent risk of exploitation of these workers compared to full-time employees that are hired directly by Höganäs Borgestad. These employees can e.g., have insufficient working conditions or pay, and if Höganäs Borgestad does not detect this, the company could indirectly maintain a system that exploit workers.

3.3.2.1.2. Equal treatment and opportunities for all

Höganäs Borgestad workforce is male dominated which can have a negative impact on the workforce and Höganäs Borgestad can be viewed as a company that has insufficient considerations of gender rights. Further, the lack of gender diversity can result in challenges to attract and retain talents, and a loss of reputation. On the other side, as an important employer, particularly in the Bjuv community, Höganäs Borgestad has the opportunity to create jobs for people from diverse backgrounds and stand out as an inclusive employer.

Through the training and upskilling that Höganäs Borgestad offers its employees, the company builds strong relations with its workforce. This can result in lower turnover, increased reputation, and higher productivity.

3.3.2.1.3. Strategic response

To address these aspects, Höganäs Borgestad is developing multiple measures, firstly by enhancing health and safety measures. Höganäs Borgestad is investing in safety training, equipment, and protocols to minimise the risk of accidents and ensure a safe working environment for all employees. Höganäs Borgestad will start promoting diversity and inclusion, and initiatives are underway to improve gender balance and inclusivity within our workforce, recognising the value of diverse perspectives and experiences. Höganäs Borgestad is committed to ensuring that all workers, including those not directly employed by Höganäs Borgestad, receive fair treatment, wages, and working conditions and fair treatment of non-employee workers.

3.3.2.2. Workers in the value chain

Höganäs Borgestad is committed to ensuring the well-being and rights of workers throughout the company's global value chain. Operations and procurement practices, spanning from Norway to Malaysia and including various projects and suppliers worldwide, necessitate a vigilant approach to upholding health and safety standards and human rights.

Parts of raw materials used in the refractory production come from mining operations in countries like Guyana, China, and other regions in southern Asia. Höganäs Borgestad, and the rest of the refractory industry, are dependent on a market controlled by a few players, with few alternatives to choose from. The extraction of these raw materials occurs through mining operations in countries typically associated with risks of human rights violations, child labour, health and safety challenges, and negative environmental impacts.

Non-compliance with the Norwegian Transparency Act may lead to financial sanctions by the Norwegian Government. Lack of control of health and safety and human rights impacts in the supply chain exposes Höganäs Borgestad to both regulatory, financial, and reputational risk. Compliance with relevant laws and regulations is an absolute minimum requirement.

3.3.2.2.1. Strategic response

To address these challenges, Höganäs Borgestad is intensifying its focus on human rights in the supply chain in alignment with the Norwegian Transparency Act. This involves conducting thorough due diligence to identify, prevent, and mitigate potential human rights abuses. For the due diligence to be effective Höganäs Borgestad is engaging and Höganäs Borgestad is committed to working closely with the companies' suppliers to ensure they adhere to high standards of labour practices. This includes regular audits, capacity building, and fostering open communication channels to address any concerns proactively.







3.3.3. Governance

3.3.3.1. Business conduct

Höganäs Borgestad operates under the principle that ethical practices and strong governance are foundational to sustainable business success. Höganäs Borgestad downstream value chain has relatively low risk of corruption and bribery as the customers mainly operates in the Nordics. In the upstream value chain on the other hand, the risk of corruption and bribery can be more prevalent. Much of the raw materials used in refractory products are sourced from countries that rank high on corruption risk, and Höganäs Borgestad has limited insight into its value chain beyond tier one suppliers. Incidents of corruption, if unaddressed, could inflict significant financial and reputational harm, potentially leading to market exclusion or loss of business. Therefore, engaging with suppliers and cooperate with other industry players to increase transparency and improve business conduct is and will continue to be of high focus to Höganäs Borgestad.

In recent years, Höganäs Borgestad has faced challenges related to price volatility and export complexities for raw materials. Unexpected value chain disruptions from extreme weather events to geopolitical disturbances have made it challenging for Höganäs Borgestad to predict cost levels. These factors highlight the need for agile and responsive supply chain management to navigate the fluctuations that affect both the cost base and the company's ability to adapt to changing client needs.

3.3.3.1.1. Strategic approach

Höganäs Borgestad commitment to business conduct is seamlessly integrated into its overall sustainability framework, underscoring the importance of ethical practices and supplier management.

4. Impact risk and opportunity management

4.1. Environment

4.1.1. Climate change

Impacts	Description and link to business model
GHG emissions	Refractory production is energy intensive, generating substantial GHG emission (-)
Energy	Purchasing ready-made bricks and transportation of goods and raw materials generates GHG emission in the value chain (-)
	Quality refractory products can reduce customers' energy consumption (+)
Risks	**Description and link to business model**
Energy prices	Energy is a major cost component in direct operations and in the value chain
Current and emerging carbon pricing mechanism due to EU ETS and other CO_2 taxes	Direct impact on energy costs
Extreme weather	Potential value chain disruptions
Opportunities	**Description and link to business model**
Energy prices	Customers operates in energy intensive sectors, so the demand for products to reduce energy consumption can create opportunities for commercial advantage

4.1.1.1. Transition plan for climate change mitigation

Höganäs Borgestad does not yet have a transition plan for climate change mitigation, but for the next two years, this will be a focus area for the company.

4.1.1.2. Policies related to climate change mitigation and adaptation

Climate change related challenges are addressed in the Policy for Sustainable Business Practice. Höganäs Borgestad states that negative environmental impacts shall be reduced in its own operations and throughout the value chain, and actions shall be implemented to minimize emissions of greenhouse gases. National and international environmental laws and regulations shall be complied with, and relevant emission permits shall be obtained.

ISO9001, ISO14001 and ISO45001 certifications form the basis of Höganäs Borgestad quality, environmental and health & safety management respectively. The Norwegian part of the company is also certified as an Eco-Lighthouse.

4.1.1.3. Actions and resources in relation to climate change policies

Höganäs Borgestad is in the preliminary phase of identifying and implementing risk reduction measures. This will require a more detailed analysis of the company's exposure to climate-related risks, compared to the current initial risk and opportunity assessment Höganäs Borgestad has conducted. Höganäs Borgestad recognises the importance of reducing emission intensity through innovation and technology development. Increased interaction with the value chain, including mapping of subcontractors, will be a crucial step towards active risk management.

Höganäs Borgestad efforts are currently focused on understanding its position in the value chain and exploring opportunities for risk mitigation. This includes activities across its operations and interactions with the upstream and downstream value chain. This is an ongoing process, with no set completion date.

Höganäs Borgestad is prioritising investments in innovation and new technology as this is seen as central to sustainable practices and risk management. However, detailed financial commitments and resource allocations are planned for future stages, after the detailed risk analysis. The commitment to diversification and technology development will require capital expenditures and operational expenditures, though specific amounts are not yet determined.

Given the company's current sustainability maturity level, Höganäs Borgestad is in the process of developing a more comprehensive approach to climate change risks and opportunities. Future disclosures are expected to provide a detailed list of climate change mitigation and adaptation actions, and post-risk analysis, which will be (allocated towards these actions and) linked to financial statements and performance indicators.



4.1.1.4. Targets related to climate change mitigation and adaptation

Development of climate-related targets will be conducted within the next two years.

4.1.1.5. Energy consumption and mix

Höganäs Borgestad accounts for its renewable and fossil energy consumption for Höganäs Borgestad however, the location in Skien is omitted due to lack of data. Höganäs Borgestad will include this location in next year's reporting.

Energy is used in manufacturing processes, in vehicles and for electricity and heating, where Höganäs Borgestad accounts for approximately 90% of the company's total energy consumption.

The production of refractory products requires a significant amount of energy, sourced primarily from direct combustion of natural gas and from purchased electricity. This energy consumption has a negative impact on climate change, however for the electricity used in Bjuv, Höganäs Borgestad purchases guarantees for origin.

The table below presents the sources for Höganäs Borgestad energy consumption, including the Group's own fuel use and self-produced renewable energy as well as purchased electricity and heat.

Höganäs Borgestadtotal revenue and other income for 2023 was SEK 1,042 million, giving the Group an emissions intensity of 73.93 tons of carbon dioxide equivalents per million Norwegian kroner when calculated using the location-based method for Scope 2 and 74.20 tons of carbon dioxide equivalents per million Norwegian kroner when calculated using the market-based method for Scope 2.

Energy source	2023
Fuel consumption from coal and coal products (in MWh)	0
Fuel consumption from crude oil and petroleum products (in MWh)	0
Fuel consumption from natural gas (in MWh)	3 260
Fuel consumption from other fossil sources (in MWh)	1 964
Consumption of purchased or acquired electricity, heat, steam, and cooling from fossil sources (in MWh)	1 445
Total fossil energy consumption (in MWh)	6 669
Share of fossil sources in total energy consumption (%)	61.81 %
Consumption from nuclear sources (MWh)	1 346
Share of consumption from nuclear sources in total energy consumption (%)	12.48 %
Fuel consumption from renewable sources, including biomass (also comprising industrial and municipal waste of biologic origin, biogas, renewable hydrogen, etc) (MWh)	15
Consumption of purchased or acquired electricity, heat, steam, and cooling from renewable sources (MWh)	2 760
The consumption of self-generated non-fuel renewable energy (MWh)	0
Total renewable energy consumption (MWh)	2 775
Share of renewable sources in total energy consumption (%)	25.72 %
Total energy consumption (MWh)	10 790

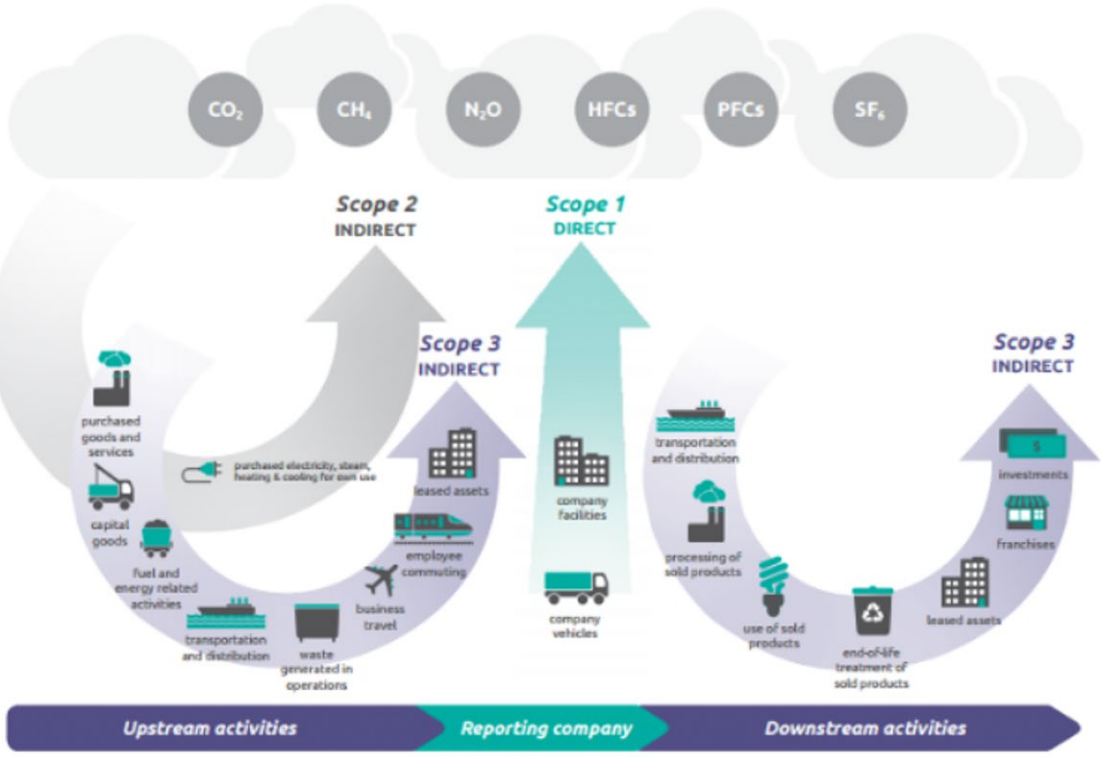


Figure 1: GHG Protocol

4.1.1.6. Gross Scopes 1, 2, 3 and total GHG emissions

Höganäs Borgestad operates in an emission-intensive industry and is subject to EU's emission trading scheme (EU ETS). In the future, Höganäs Borgestad will look to best practices and explore alternative solutions when it comes to its own energy use. To make this possible, Höganäs Borgestad is currently prioritizing gaining a better overview of its direct and indirect climate impact.

After establishing a partial greenhouse gas account for 2022, covering the Bjuv production facility, Höganäs Borgestad worked throughout 2023 to gain access to more data. As a result, the 2023 greenhouse gas account – developed following the Greenhouse Gas Protocol – is significantly more extensive and includes Scope 1 and 2 emissions from all facilities except the one in Skien, as well as Scope 3 emissions from purchased goods, fuel and energy related activities, business travel and waste (for the Bjuv facility only). The below figure illustrates the different scopes as described in the GHG Protocol.

Höganäs Borgestad generates significant emissions through its production activities, with the burning of natural gas being responsible for almost half of its Scope 1 emissions in 2023. The Group also consumes a lot of electricity and heating in Norway, Sweden and Finland. The largest share of this electricity is consumed in Sweden.

Höganäs Borgestad 2023 Greenhouse Gas Emissions	
Gross Scope 1 (location-based)	1 104.23
% Scope 1 emissions from regulated emissions trading schemes	0
Gross Scope 2 (location-based)	120.69
Gross Scope 2 (market-based)	406.99
Gross Scope 3	75 807.12
Category 1: Purchased goods and services	75 183.40
Category 3: Fuel and energy related activities not included in Scope 1 or Scope 2	288.41
Category 5: Waste generated in operations	18.31
Category 6: Business travelling	317.01
Total GHG emissions with location-based Scope 2 (metric tonnes CO_2e)	77 032.04
Total GHG emissions with market-based Scope 2 (metric tonnes CO_2e)	77 318.34
Biogenic Scope 1 CO_2 emissions (metric tonnes of CO_2)	33.00

This greenhouse gas account has been developed using an operational control approach in accordance with the Greenhouse Gas Protocol Corporate Standard, and is therefore divided into Scope 1, Scope 2, and Scope 3, although it is not a complete account due to limited data and emissions factor availability. It includes all gases covered by the Kyoto Protocol (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride).

Scope 1 covers most of Höganäs Borgestad direct emissions from the Group's own fossil fuel use, apart from the location in Skien due to a lack of data. Höganäs Borgestad fossil fuel use was calculated by taking the Group's total fuel use, and subtracting volume of the fuel that is assumed to come from biological sources. These assumptions are based on the Norwegian Environment Agency's requirement that a certain percent of all fuel sold in Norway must be biofuel, and on publicly available information from fuel retailers about the maximum share of biofuel in the fuels they sell. As directed by the Greenhouse Gas Protocol and ESRS E1 on climate change, carbon dioxide emissions from biofuel combustion are reported separately from Scope 1, while methane and nitrous oxide emissions from the combustion of biofuels are included in Scope 1.

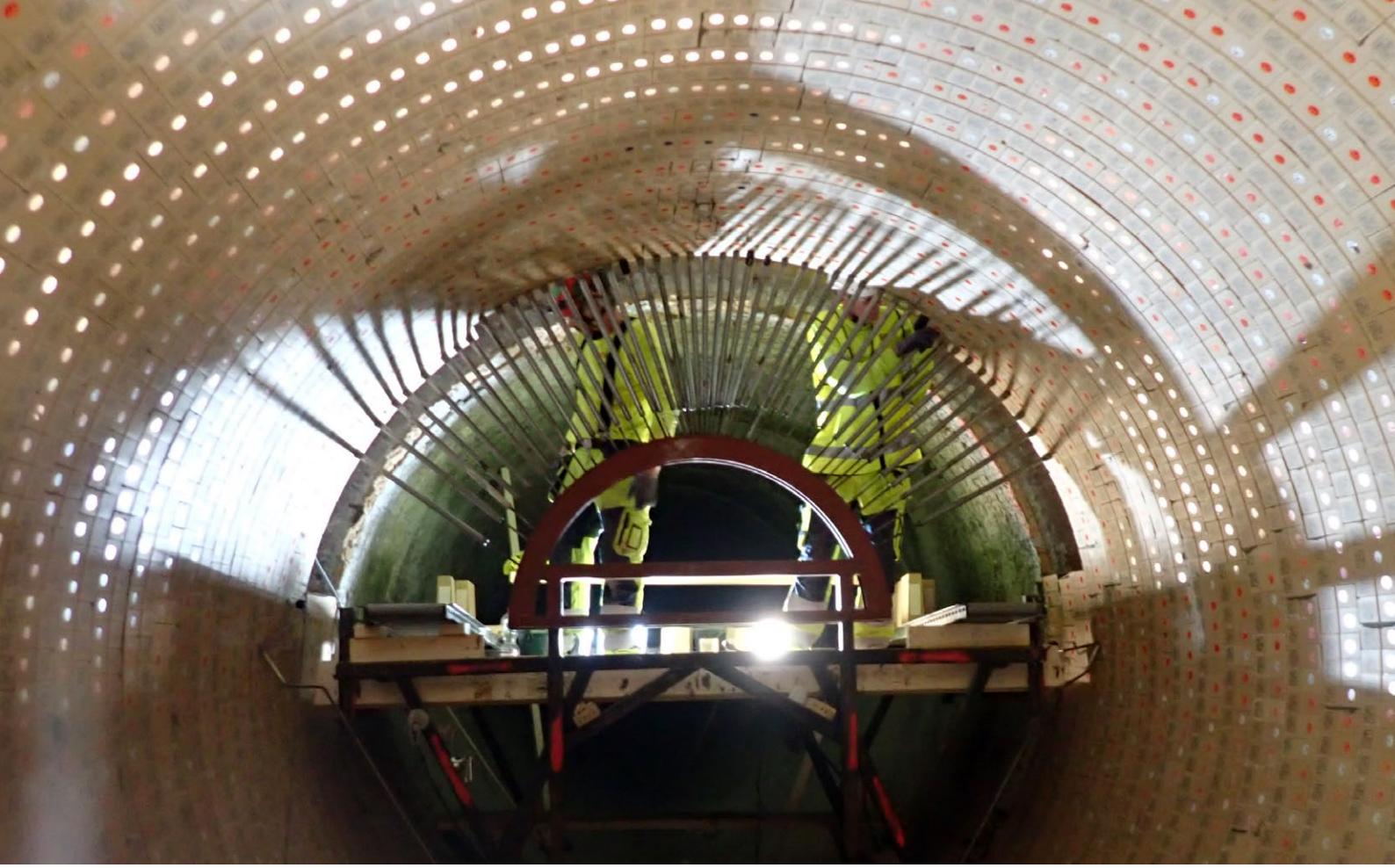
Scope 2 includes Höganäs Borgestad indirect greenhouse gas emissions from the consumption of purchased electricity and heating. For 2023, Höganäs Borgestad purchased electricity and/or district heating in Norway, Sweden and Finland. Höganäs Borgestad location-based Scope 2 emissions were calculated using an emissions factor from the Norwegian Water Resources and Energy Directorate from 2022, which was the most recent year available. This factor gives carbon dioxide equivalents and includes the climate effects of methane and nitrous oxide – the two additional greenhouse gases emitted under combustion of fuels which are covered by the Kyoto Protocol. The emissions factors for Sweden and Finland came from the International Energy Agency, and included only the emissions of carbon dioxide. These were the best available emissions factors. Höganäs Borgestad emissions from purchased heat were also calculated using the best available factors, which were the International Energy Agency's factors for combined electricity, heat, and steam. This means that the emissions for purchased heat are likely overestimated in this greenhouse gas account.

Höganäs Borgestad market-based Scope 2 emissions from electricity were calculated using the residual mix factors for 2022, the most recent year available, calculated by the Association of Issuing Bodies. These were the best factors available, although they only account for carbon dioxide emissions. Höganäs Borgestad market-based Scope 2 emissions from purchased heat were calculated using the same factors as location-based emissions for heat consumption, as these were the best available factors. This is also a limiting factor in the accuracy of this greenhouse gas account. Additionally, Höganäs Borgestad has purchased guarantees of origin for a large share of its electricity use in Sweden, and the emission for this electricity were set to zero under the market-based approach.

Höganäs Borgestad Scope 3 greenhouse gas accounting is limited by data availability and lack of access to the correct emissions factors, and does not include all categories in which Höganäs Borgestad has activities. Category 1: purchased goods and services includes only emissions from sozme purchased materials and does not include already purchased and completed products.

Höganäs Borgestad is currently in the midst of a project to improve the company's greenhouse gas accounting and will in 2024 focus on improving the data quality needed to calculate Scope 3 emissions. This is expected to improve the precision of Höganäs Borgestad calculations for the already included categories and will hopefully result in the inclusion of even more categories in the future.





4.1.1.7. Internal carbon pricing

Höganäs Borgestad site in Bjuv is subject to EU ETS and the company has pollution permits. Höganäs Borgestad reports emission and pollution figures to Swedish authorities through annual environmental reports. Höganäs Borgestad has no internal carbon price as of today.

4.1.1.8. Anticipated financial effects from material physical and transition risks and potential climate-related opportunities

In 2023, Höganäs Borgestad conducted a high-level exploration of potential climate-related physical and transition risks and opportunities that can impact the company in the short, medium, and long-term time horizon.

The transition risks identified include more stringent cost of carbon and increased energy prices, that can directly impact operational cost. It can further lead to the need for a price increase on refractory products to cover the increased operational costs. As Höganäs Borgestad customers are also likely to be impacted by increased cost of carbon, this can result in reduced purchasing power, and negatively impact Höganäs Borgestad income streams. It is estimated that these risks, if they occur, can have high financial consequences for the company in the medium to long-term time horizon.

The physical risks identified include extreme weather events such as flooding, that can cause disruptions in the value chain. This can result in increased lead times, increased costs, and loss of reputation.

During 2024, Höganäs Borgestad will conduct a detailed climate risks and opportunities analysis. The analysis will consist of identifying all relevant climate-related risks and opportunities in a low-emissions scenario and in a high-emissions scenario for both direct operations and the company value chain. Likelihood of occurrence and financial impacts on the company in different time horizons will be explored in more detail than in the conducted

4.1.2. Pollution

Impacts	Description and link to business model
Emission to air	The production of refractory products results in emission of NOx dusts, and HF gases (-)
Risks	**Description and link to business model**
Permit breaches	Repeated or severe breaches may result in fines or loss permits
Stricter regulations	May result in incremental investment in production equipment or systems to reduce or prevent pollution
Opportunities	**Description and link to business model**
Not identified	

high-level analysis to be compliant with the ESRS requirements. The findings from the analysis will guide where, when, and how Höganäs Borgestad will implement risk mitigating and opportunity seizing activities.

4.1.2.1. Policies related to pollution

Höganäs Borgestad Ethical Code of Conduct and Policy for Sustainable Business Practices does not address pollution specifically, however, pollution is a part of the objective of protecting the environment. The policy specifies an obligation to operate within environmental permits as specified by national and international permits and to collect relevant pollution permits. Höganäs Borgestad is subject to pollution permits in Bjuv and must thus ensure that all required permits are maintained and kept current. Chemicals and other potential hazardous materials are to be identified to ensure safe handling, and emissions to air is regularly managed and tracked.

4.1.2.2. Actions and resources related to pollution

Emissions of NOx is usually measured in Bjuv, however, there were no measurement in 2023 due to an error on the measuring instrument. A new measurement will therefore be conducted in March 2024, after the completion of this report.

4.1.2.3. Targets related to pollution

Höganäs Borgestad targets zero breaches of environmental permits relating to air pollution. In recent years there has not been any cases of breaches.

4.1.2.4. Pollution of air, water and soil

The emissions to air measured during 2023 is found in the table below.

Category	Number (unit)
Dust (except furnaces)	6 (mg/Nm^3)
Dust (from furnace)	8 (mg/m^3 ntg)
HF gas (from furnace)	0.9 (mg/m^3 ntg)
Fuel consumption from other fossil sources (in MWh)	1 964





4.1.3. Circular economy and resource use

Impacts	Description and link to business model
Waste disposal	Limited reuse of refractory products resulting in high dependence on landfill disposal for end-users (-)
Waste disposal	Waste in own operations from production processes of refractory products (-)
Risks	**Description and link to business model**
Raw materials shortage	Low recycling rates implies continued reliance on non-renewable raw materials in the industry, potentially resulting in raw materials shortage and increased prices
Opportunities	**Description and link to business model**
Increased recycling or re-use	Efficiently reusing refractory products and materials can result in reduced costs for raw materials, waste disposal energy consumption

4.1.3.1. Policies related to resource use and circular economy

Höganäs Borgestad has not implemented a policy for circularity and resource use.

4.1.3.2. Actions and resources related to resource use and circular economy

Höganäs Borgestad is looking into a project for re-using refractory products where used refractory bricks can be applied as input into new materials and products. Despite its potential for environmental and economic benefits, progress has been slow due to technical, logistical, and regulatory challenges.

This project is being pursued through two alternatives: firstly, by re-using old refractory material to manufacture new bricks, and secondly, by utilising old refractory raw materials in new markets. Both approaches, if executed effectively, will reduce GHG emissions and lower costs. Advancing this initiative necessitates focused research, technology investment, and a commitment to sustainable practices, aiming to fully realise its potential and establish a model for circular economy principles within Höganäs Borgestad.

Höganäs Borgestad will look further into this opportunity in 2024.

4.1.3.3. Targets related to resource use and circular economy

There are currently no targets related to resource use and circular economy other than a general aim to reduce waste. Targets related to resource use and/or circular economy will be developed during the next two years.

4.1.3.4. Resource inflows

Höganäs Borgestad discloses resource inflows information relating to material impacts, risks, and opportunities, focusing on own operations and the upstream value chain.

Höganäs Borgestad operations and upstream value chain utilises various resources, e.g., raw materials essential for the refractory production processes. The following table include some of the procured raw materials for Höganäs Borgestad. It does not include finished products for refractory operations or other type of products.

Resource catergory	Total weight (tonnes)	% Sustainables sourcing	% Secondary materials used
Total	8 249	0 %	0 %
Products	8 249	0 %	0 %
Technical materials	7 999	0 %	0 %
Biological materials	250	0 %	0 %



Category	Total (Tonnes)	Hazardous	Non-Hazardous
A. Total waste generated	**489.133**	**2.542**	**486.591**
B. Total Diverted from disposal	**8 249**	**0 %**	**0 %**
B1. Preparation for use reuse	0	0	0
B2. Recycling	450.796	0.608	450.188
B3. Other recovery operations	0	0	0
C. Directed to disposal	**38337**	**1.934**	**36.403**
C1. Incineration	38.029	1.626	36.403
C3. Other disposal operations	0	0	0
D. Non-recycled waste	**8%**	**76%**	**7%**

4.1.3.5. Resource outflows / waste management

Höganäs Borgestad collects and reports waste management data for Höganäs Borgestad operations in Bjuv. This initial effort lays the groundwork for waste reporting and focuses on establishing a baseline for waste generation, handling, and disposal at this specific location.

The table above outlines the types of waste generated, along with details on diversion, recovery operations, and disposal methods, highlighting both hazardous and non-hazardous waste categories.

Höganäs Borgestad is committed to improving waste management reporting by incorporating data for all company operations in coming years. This year's focus on Bjuv is a crucial first step towards achieving more detailed waste management insights in the years ahead.

4.2. Social

Impacts	Description and link to business model
Health and safety	The production process in includes handling chemical and exposure to very high temperatures (-)
Gender balance	The workforce is male dominate and could result in insufficient considerations of gender right (-)
Insufficient working conditions for non-employee worker	As the company relies on non-employee workers especially for the installation services. Borgestad can have a potential negative impact systems that maintains exploitation of workers (-)
Risks	**Description and link to business model**
Injures or fatalities	Resulting from inadequate health and safety conditions related to handling of chemicals and/or heavy machinery and the exposure to very high temperatures. This can potentially result in bodily injures or fatalities.
Gender balance	Failing to embrace diversity can result in challenges to attract and retain skilled personnel and loss reputations.
Insufficient pay or excessive working hours	Could result in loss reputations, reduced productivity, and failure to attract and retain skilled personnel.
Opportunities	**Description and link to business model**
Job creation	Höganäs Borgestad is an important employer in Bjuv
Training	Resulting in quality operations through building strong relations with the workforce and client

4.2.1. Own workforce

4.2.1.1. Policies related to own workforce

Höganäs Borgestad Policy for Sustainable Business Practice and Ethical Code of Conduct contains requirements and expectations relating to the company's workforce. Höganäs Borgestad supports and acknowledges human and labor rights standards set out in the OECD Guidelines for Multinational Enterprises, The International Labor Organization and The United Nations Guiding Principles on Business and Human Rights.

The objective of the policies is to provide a safe, fair and inclusive working environment free from any form of discrimination and abuse and to support company employees to develop their potential. Höganäs Borgestad shall comply with the highest standards and laws related to human rights and health and safety in the countries where the company operates.

4.2.1.2. Processes for engaging with own workers and workers' representatives about impacts

Höganäs Borgestad adheres to the highest standards and practices for health and safety in its own operations. The company works to ensure that health and safety are maintained in the value chain by creating space for communication and dialogue, conducting regular health and safety reviews, and setting clear requirements for the company's suppliers through relevant policies.

Höganäs Borgestad production operations have injury and accident risks. The company's preventive work is structured and carried out by the management, administration, and workers in cooperation with trade unions and regulatory authorities. At Höganäs Borgestad, safety rounds and internal courses are held throughout the year, and employees are responsible for following safety regulations and minimising the risk of injuries to themselves and their colleagues. Any risks identified must be reported. Höganäs Borgestad also operates in an industry where physical overload and subsequent wear-and-tear injuries are a risk. In the event of injuries, employees receive follow-up with a doctor, physiotherapy, and rest. The responsible manager follows up with the employees in accordance with standards and requirements from the relevant authority, e.g., NAV in Norway.

To mitigate negative impacts and risks on gender balance, Höganäs Borgestad motivates both mothers and fathers to take parental leave. The company offers good parental leave arrangements in portfolio companies with the aim of contributing to an equal everyday life. Equality is a fundamental principle for all aspects of the company's operations, and no form of discrimination based on gender, religion, orientation, age, or ethnicity is accepted. The fundamentals

of equality and motivation for all employees to take parental leave and for the Group to be flexible related to parental leave or in other circumstances are a highly valuable within the Group for Board of Directors, executive management and all other employees.

4.2.1.3. Processes to remediate negative impacts and channels for own workers to raise concerns

Höganäs Borgestad has a channel for raising concerns through Höganäs Borgestad independent whistle-blower channel that is available for own workers on the intranet. When a concern is raised through the whistle-blower channel, the whistle-blower has the opportunity to stay anonymous. The concern is sent to the CEO for handling and is further reported to the chairman of the board.

4.2.1.4. Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities

Höganäs Borgestad will continue to work towards the company's vision of zero injuries and accidents in the workplace. All companies in the Group are expected to minimise the risks of injuries, accidents, and illness related to work.

In addition, Höganäs Borgestad has a goal of a total sick leave across the company of less than 3%. Despite positive development particularly in Finland, the figures in Sweden and Norway are somewhat higher in 2023 than in 2022. The average number for Höganäs Borgestad was 6% (see table under social metrics).

4.2.1.5. Characteristics of employees

Employee categories	Female	Male	Other	Total
Number of employees (head count)	69	488	-	546
Number of permanent employees (head count)	62	220	-	282
Number of temporary employees (head count)	7	268	-	275
Number of non-guaranteed hours employees (head count)		-		
Number of full-time employees (head count)	53	448	-	501
Number of part-time employees (head count)	15	30	-	45

4.2.1.5.1. Employees per country

Category	Number (head count)
Sweden	389
Norway	60
Finland	87
Other	13

4.2.1.6. Turnover

Category	Number
Turnover headcount	36
Turnover rate	6%

4.2.1.7. Collective bargaining coverage and social dialogue

Coverage rate	Employees – EEA
0-19%	
20-39%	
40-59%	
60-79%	Norway
80-100%	Sweden



4.2.1.8. Diversity metrics

Category	Men	Female	Total
Number of employees	477	69	546
% total number of employees	87 %	13 %	100 %
Number of managers, all levels	25	7	32
% total number of managers	68 %	32 %	100 %

The proportion of women on the company's board is 40% (two out of five, excluding deputy members).

4.2.1.9. Health and safety metrics

Category	Men	Female	Total
Injuries	13	10	9
Fatalities	0	0	0

4.2.1.10. Sickness absence metrics

Country	2023	2022	2021
Norway	6.92 %	4.90 %	3:65 %
Sweden	6.48 %	4.17 %	6.90 %
Finland	3.56 %	7.10 %	7.01 %

4.2.1.11.Compensation metrics (pay gap and total compensation)

Category	Number
Average gross monthly pay (NOK)	64 645
Pay gap (%)	36%

4.2.2. Workers in the value chain

Impacts	Description and link to business model
Health and safety	Much of the raw materials used in refractory products are sources in countries like Guyana, China and other regions in southern Asia (-)
Human rights	Much of the raw materials used in refractory products are sourced in countries like Gyana, China and other regions in southern Asia which tank high on human rights risks (-)
Risks	**Description and link to business model**
Human rights breaches	Resulting in financial penalties and reputational damage
Non-compliance	Resulting in financial penalties and reputational damage for failure to monitor human rights risks in the supply chain
Transparency Act	
Opportunities	**Description and link to business model**
Supply chain engagement	Engagement with suppliers leads to more transparency the industry supply chain

4.2.2.1. Policies related to value chain workers

As reflected in the Höganäs Borgestad Ethical Code of Conduct, the company shall have high integrity and ethical conduct in all aspects of its business. This includes identifying, preventing, mitigating, and accounting for adverse environmental, human rights and governance impacts in own operations, and the company expects the same commitment from suppliers.

In the company's business endeavours, Höganäs Borgestad strives to uphold the UN Guiding Principles on Business and Human Rights. This includes treating employees fairly, with dignity and respect, and avoiding causing or contributing to abuse of human and labour rights, including child labour. Höganäs Borgestad takes a zero-tolerance approach towards any form of modern slavery, servitude, forced or compulsory labour and any form of human trafficking in the supply chain. Suppliers must work to prevent child labour in their operation and supply chain and ensure legal working conditions for young workers. Further information can be found in Höganäs Borgestad Norwegian Transparency Act report available on the company web page.



4.2.2.2. Processes for engaging with value chain workers about impacts

Höganäs Borgestad does not yet have direct engagement with workers in the value chain. However, through the company representation in European Refractories Producers Federation (PRE), the aim is to contribute to the broader dialogue on value chain due diligence. More engagement with workers in the value chain will also be the result of the company's continued work related to the Transparency Act.

4.2.2.3. Processes to remediate negative impacts and channels for value chain workers to raise concerns

In line with company commitment to uphold the highest standards of ethical conduct and integrity across operations and supply chains, Höganäs Borgestad encourages open communication regarding compliance with our Supplier Code of Conduct and the Höganäs Borgestad Ethical Code of Conduct. Höganäs Borgestad has a channel for raising concerns through Höganäs Borgestad independent whistle-blower channel that is available for workers in the value chain on the company web page.

4.2.2.4. Taking action on material impacts on value chain workers, and approaches to managing material risks and pursuing material opportunities related to value chain workers, and effectiveness of those actions

Höganäs Borgestad is a member of the PRE and can help increase the focus on the complexity of the value chain through representation in this forum.

In Norway, Höganäs Borgestad AS has developed its own supplier assessment and requires suppliers to sign a Health, Safety and Environment (HSE) declaration. This is done to ensure that the supplier complies with the same ethical guidelines that are stated in the company's Ethical Code of Conduct. The aim is to achieve quality and proper production in all stages.

To ensure supply chain transparency for own operations, Höganäs Borgestad reports to the sustainability reporting company EcoVadis and was awarded a silver rating in 2023. EcoVadis rates companies in four categories: Environment, Labour & Human Rights, Ethics and Sustainable Procurement. The EcoVadis methodology is based on international sustainability standards (Global Reporting Initiative, United Nations Global Compact, ISO 26000), and supervised by a scientific committee of sustainability and supply chain experts, to ensure reliable third-party sustainability assessments.

Höganäs Borgestad has adopted, and will continue to develop, a risk-based approach for its supply chain, where suppliers operating in high-impact or risk area are prioritized. Such prioritizations allow Höganäs Borgestad to implement mitigating actions where they have the most effect. This supports Höganäs Borgestad commitment for responsible business practices and sustainable growth.

4.2.2.5. Targets related to managing material negative impacts, advancing positive impacts, and managing material risks and opportunities

Höganäs Borgestad has a 2027 target of investigating whether the company's high-risk suppliers have systems in place to follow up the principles according to Höganäs Borgestad Supplier Code of Conduct.

4.3. Governance

Impacts	Description and link to business model
Corruption and bribery incidents	Much of the raw materials used in refractory products are sources in countries that rank high on corruption Asia (-)
Risks	**Description and link to business model**
Corruption and bribery incidents	Could involve Borgestad personnel or suppliers, resulting in financial penalties, reduced reputation and/or loss of business
Volatile prices and export complexities	Impacts cost base but also tests the adaptability in meeting client need
Opportunities	**Description and link to business model**
Supply chain engagement	Borgestad can engage with suppliers to increase transparency and improve business in the industry

4.3.1. Business conduct

4.3.1.1. Corporate culture and business conduct policies and corporate culture

Höganäs Borgestad is committed to the highest standards of ethical conduct and integrity. This commitment is embodied in the company Ethical Code of Conduct, which applies to all employees and Board of Directors. The business operations are guided by a steadfast adherence to applicable laws and regulations, underpinned by a dedication to ethical, sustainable, and socially responsible practices.

Höganäs Borgestad has zero tolerance for any form of corruption and bribery, without exception. Trainings and controls have been implemented to prevent and mitigate the risk of corruption throughout company operations. Every individual representing Höganäs Borgestad is entrusted with the responsibility to ensure that their actions are in full compliance with both legal standards and internal ethical requirements as detailed in the Ethical Code of Conduct. Non-compliance is treated as a serious violation and disciplinary matter.

4.3.1.2. Management of relationships with suppliers

Höganäs Borgestad is committed to improving its sustainable work by focusing on responsible supply chain management, through ethical and sustainable procurement practices. A key initiative has been done in 2023 with the implementation of the Policy for Sustainable Business Practice.

The company has integrated social and environmental criteria into its supplier selection process, aiming to improve the sustainability of its supply chain. Efforts include the support of local and at-risk suppliers to build a resilient supply chain capable of withstanding various challenges.

Höganäs Borgestad is currently evaluating its supplier management strategies through audits and direct engagement, aiming for transparency and collaboration. As part of the company's ongoing journey towards better ESG performance, Höganäs Borgestad is committed to sustainable procurement, clear communication with suppliers, and contributing positively to its sustainability objectives.

4.3.1.3 Prevention and detection of corruption and bribery

Höganäs Borgestad relies on several suppliers of critical raw materials, many who operate in countries where the risk of corruption and bribery incidents is high. Höganäs Borgestad has a whistle-blower service, and all employees have a right and duty to report any violations of the principles of the Ethical Code of Conduct. Employees are encouraged to express fears or draw attention to actions with possible ethical implications.

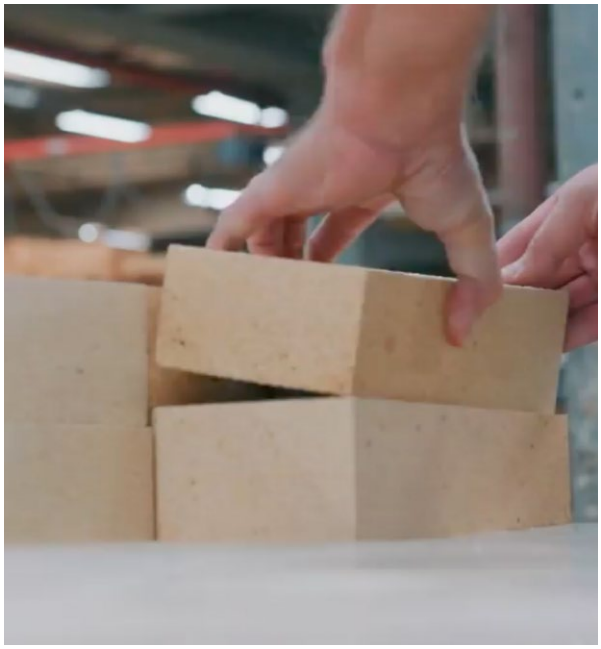
Further, employees undertake regular training on anti-corruption and anti-bribery as a mean to prevent and detect corruption and bribery.

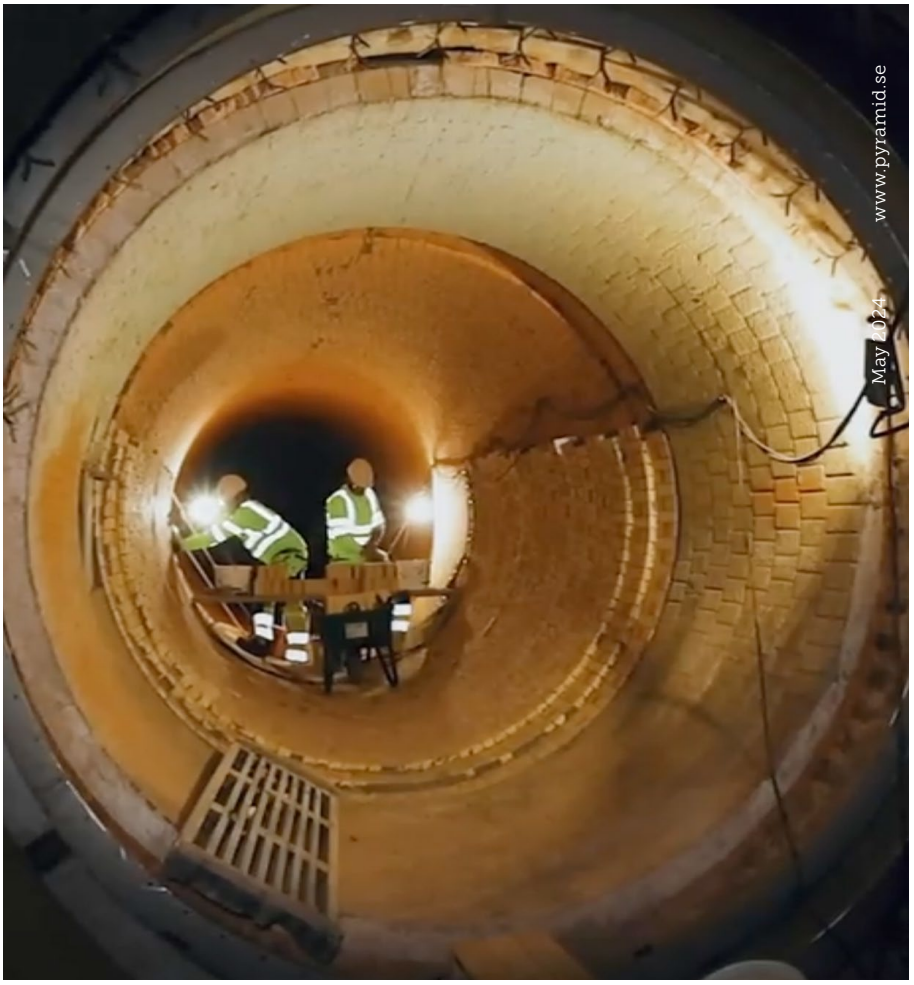
4.3.1.4. Confirmed incidents of corruption or bribery

There were no incidents of corruption reported during 2023.




Höganäs Borgestad
AWARD
Höganäs Borgestad
TK 20





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