

Ferro Duo GmbH

Materiality report 2024

→ Our company is certified in accordance with the international standards for environmental management (DIN EN ISO 14001), quality management (DIN EN ISO 9001) and occupational health and safety (DIN ISO 45001).



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↑ This is Cordula Kehrmann, our ESG manager .

Preparation for the Corporate Sustainability Reporting Directive (CSRD)

We welcome the new EU Sustainability Reporting Directive (CSRD) and the underlying European Sustainability Reporting Standards (ESRS). We are convinced that this directive and standards will not only contribute to a more balanced, transparent and consistent disclosure of sustainability information, but will also strengthen sustainability governance and management.

Reporting on sustainable finance

This year, responsibility for ESG accounting and reporting was transferred to our finance organisation. This ensures close collaboration between our ESG accounting, control and reporting teams and our finance teams in terms of processes, deadlines, tools, documentation templates and reporting products. In addition, these teams work closely with our sustainability team and external service providers. This setup of our reporting has positioned us well to be prepared for future requirements.

New sustainability declarations

Although we are not directly subject to the CSRD reporting obligation, we have decided to voluntarily prepare a comprehensive materiality report with reference to the ESRS. Our aim is to implement the basic structure of the standards as far as possible and to prepare for sustainability reporting in accordance with ESRS in the best possible way.

This report reflects our commitment to environmental, social and ethical responsibility and is aligned with industry best practice, including the European Sustainability Reporting Standards (ESRS). Our aim is to provide stakeholders with a clear insight into our sustainable business strategies, initiatives and results in order to build trust and demonstrate our responsibility towards society and the environment.

Our double materiality analysis (DMA) was performed taking into account the ESRS, with some decisions made to limit the scope of the DMA. We will closely monitor the further development of the DWA and prepare for possible full compliance.

Enjoy reading!

We are delighted to be able to present our materiality report to you. We hope that you will find it informative and clear and that you will easily get the information you require on sustainability.



Carsten Nass
HSE Manager &
Head of Sustainability Committee



Overview of our strategic sustainability priorities

Sustainability in the circular economy is an essential part of our business activities. In all our actions, we are guided by the goal of creating the greatest possible added value for both society and our company.

We have three strategic sustainability focus areas - environmental, social and governance (ESG) - each with specific priorities. These three areas address our material sustainability impacts, risks and opportunities. They support our efforts to realise rapid and large-scale growth that benefits both the planet and people, while laying the foundation for a resilient business.

On the following pages, we explain how we use a double materiality analysis to identify and assess our material impacts, risks and opportunities.



ENVIRONMENT

A circular economy that drives sustainable action

PROCEDURE

We are intensifying our recycling efforts and at the same time developing effective waste minimisation strategies to enable our customers to actively contribute to environmental protection

PRIORITIES

1. Decarbonisation of our Operating processes by 2035
2. Complete transition to cycle-orientated resource management



SOCIAL

A sustainable change that is people-orientated

PROCEDURE

We are committed to promoting a green energy transition that benefits everyone and excludes no one

PRIORITIES

1. Promoting equality, diversity and inclusion in the workplace
2. Ensuring the health, safety and satisfaction of our employees



GOVERNANCE

Governance that enables the right decisions to be made

PROCEDURE

We strive to integrate sustainability and ethical principles into the processes and decision-making processes of our entire organisation

PRIORITIES

1. Promoting and ensuring responsible management
2. Careful selection and review of our suppliers and business partners
3. Implementation of sustainability principles in all areas of the company
4. Active support and commitment to sustainable practices in the industry

ESRS 2 Double materiality analysis (DMA)

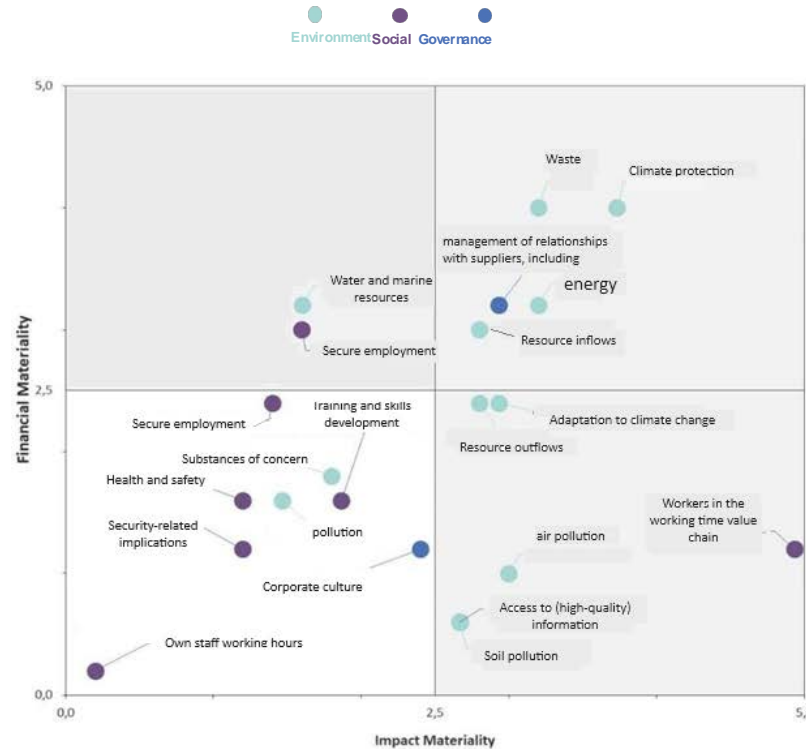
Result

We have identified our impacts on the environment and society (impact materiality) and the sustainability-related risks and opportunities to which we are exposed (financial materiality). The result is aggregated according to ESRS topics and shows that E1, E2, E3, E5, S1, S2 and G1 are our most material sustainability topics.

The environmental impacts and risks in areas E1 and E5 are closely linked to our strategic efforts to drive forward the rapid expansion of renewable energies. The expansion of new renewable energy capacities reduces climate impact, but also requires significant amounts of natural resources such as steel, which has indirect negative effects on the climate and the environment.

The expansion also affects people and societies, which is reflected in the impacts and risks of area S2. We are focussing our efforts on making the energy transition fair and inclusive, including for the people who work along the renewable energy supply chains, and in a way that benefits local communities.

The next page provides a detailed illustration of where our main impacts, risks and opportunities - highlighted in grey in the matrix on the right - occur along our entire value chain.



We have established a structured process for carrying out the double materiality analysis, starting with the assessment of the materiality of the impact and followed by the financial materiality.

- ### Procedure
1. Involvement of relevant stakeholders such as banks, ESG experts and consultants
 2. Identification of material impacts, risks and opportunities
 3. Assessment of the material effects, risks and opportunities
 - When assessing the "extent", we analysed how serious or beneficial the impact on the environment and people is
 - The "scope" referred to the spread of the impact, measured by parameters such as number of locations, number of employees or financial expenditure
 - Irreversibility" refers to whether effects can be remedied, i.e. restored to their original state
 - In the case of potential impacts, the "probability" was also assessed
 - In the case of negative impacts on human rights, the "severity" takes precedence over the "probability"
 4. Review by stakeholders and management
 5. Management of material effects, risks and opportunities

Significant sustainability-related impacts, risks and opportunities

The following tables list the sustainability-related impacts, risks and opportunities that we have identified as material and have identified and assessed as part of our double materiality analysis.

As shown in the matrix on page 5, seven of the ten ESRS topics are material to us. Each material ESRS topic is presented in the following tables, in which we indicate the sub-topics to which our material impacts, risks and opportunities relate, e.g. adaptation to climate change, climate change mitigation and energy.

In addition, we show in the tables whether the impacts, risks and opportunities occur in our own operations (EB) or in the upstream or downstream value chain (VWK/NWK). We also show whether our impacts are positive or negative.

(EB) Own operation (EB)
(VWK) Upstream value chain
(NWK) Downstream value chain

Brief descriptions of the main impacts, risks and opportunities are included in the tables. Further information on how we are responding to the impacts, risks and opportunities will be provided in detail next year in our Sustainability Report for 2024.

By 2026, we will further refine our DMA process and methodology based on the new EFRAG guidelines.

ENVIRONMENT



E1 Climate change > Adaptation to climate change

	Impact, risk or opportunity	Description
Positive impact (EB)	Recycling and reprocessing in the Framework of the Circular Economy Act	The circular economy is part of Ferro Duo's DNA and is a central element for us. strategic approach to minimising waste, conserving resources and building a sustainable economy. In doing so, we adhere to the waste hierarchy of the European Waste Framework Directive - waste prevention before reuse, reuse before material recovery, material recovery before thermal recovery, and recovery before disposal. By implementing this approach, we can make significant progress by drastically reducing environmental impacts, maximising resource efficiency and helping to reduce greenhouse gas emissions. This approach is not only crucial in the fight against climate change, but also a driver of innovation and economic growth by turning waste into valuable resources. By committing to the principles of the circular economy, we are moving closer to a sustainable future that benefits both our planet and society.
Negative impact (EB)	Processing of industrial and by-products and waste products, particularly in the key areas of cement, steel and chemicals	Emissions along our supply chain are caused by procurement, production and supply of industrial and by-products, as well as waste products, particularly in the key areas of cement, steel and chemicals, and through the use of the products we sell throughout the value chain. We address these impacts through our strategic goals and measures to decarbonise our supply and value chain.
Risk (EB)	Physical risks, especially in the Relation to flooding that disrupts the supply chain and delivery of our products	Rising transport costs due to flooding represent a considerable risk for us. This particularly affects the profitability of our exports and imports of goods via seaports and the Rhine. Long-term financial burdens and operational risks may arise if our adaptation measures do not respond adequately to the speed or extent of climate change. This could lead to significant disruptions in our supply chain and rising operating costs, jeopardising the long-term competitiveness and profitability of our company.
Opportunity (VWK)	Physical risks, particularly in the Connection with floods that disrupt the international supply chain and the delivery of products outside Europe	In the short term: Rising transport costs due to physical risks make regionally and locally produced materials more economically attractive as they reduce the cost of imports. This promotes local production and reduces dependence on international supply chains. In the long term: In the long term, we want to limit ourselves to imports from countries that promote measures to adapt to climate change, which will enable us to increase our security of supply. In addition, this will also open up long-term competitive advantages for us by making us pioneers in sustainable and climate-adapted technologies and processes. This not only strengthens our resilience to global market changes, but also sustainably improves our innovative capacity and market position.

ENVIRONMENT



E1

Climate change > Climate protection

	Impact, risk or opportunity	Description
Positive impact (EB)	<p>Switching to green electricity and the Heat recovery in drying processes</p> <p>Customisation of our Business operations and strategies to more sustainable practices</p>	<p>In the short term: We are switching to green electricity and heat recovery in drying processes, particularly in our plant 3, and thus making a direct contribution to reducing CO₂ emissions.</p> <p>Medium-term: We want to align our business operations and strategies with more sustainable practices in order to make us more resilient to market fluctuations and regulatory changes. One example of this is the conversion of the drying processes from natural gas to green hydrogen at plant 3.</p> <p>In the long term: We want to secure our long-term existence and profitability. To achieve this, we are aligning ourselves with global climate targets and reducing our dependence on fossil fuels. One example of this could be the conversion of internal logistics to electric drives and/or fuel cells.</p>
Risk (EB)	<p>Switching to green electricity and the Heat recovery during drying processes</p> <p>Adapting our business operations and strategies to more sustainable practices</p>	<p>Indeed: We are introducing climate-friendly technologies and processes.</p> <p>In the short term: There is a risk that other companies will relocate their production to non-EU countries, which could put us at a competitive disadvantage. There is also the risk that products manufactured abroad have a larger CO₂ footprint due to longer transport routes.</p> <p>In the medium term: There is a risk that the conversion of the plant will not amortise. In addition, there may be initial uncertainties and interruptions to operations due to the radical reorganisation of operating processes.</p> <p>In the long term: Potential long-term risks may arise if we underestimate the speed of market change towards more sustainable practices or do not adapt quickly enough. This could jeopardise our competitiveness and long-term stability.</p>

ENVIRONMENT



E1

Climate change > Climate protection

	Impact, risk or opportunity	Description
Opportunity (EB)	<p>Switching to green electricity and the Heat recovery in drying processes</p> <p>Customisation of our Business operations and strategies to more sustainable practices</p>	<p>Indeed: We implement energy-efficient solutions. This increases operational efficiency and leads to significant cost savings.</p> <p>In the short term: We take proactive climate protection measures: For example, we are switching to renewable energy sources and implementing heat recovery systems. In this way, we can significantly reduce our CO₂ footprint. We are also committed to environmental protection and sustainability by deciding to switch to green electricity and utilise waste heat efficiently. In addition, we have adapted our business operations to energy-efficient solutions, such as the optimisation of production processes and the targeted use of resources. This has not only led to cost savings, but has also increased our operational efficiency. These measures not only demonstrate our environmentally conscious behaviour, but also strengthen our brand image and market presence.</p> <p>In the medium term: We are tapping into new business models and opportunities in a low-carbon economy, such as the promotion of regional production. This opens up considerable growth opportunities for us.</p> <p>In the long term: We achieve long-term competitive advantages and a leading position in our industry by fully integrating sustainable and environmentally friendly practices. One example of this is the grinding of granulated blast furnace slag or the production of calcined clays to reduce the clinker/cement factor.</p>



ENVIRONMENT



E1 Climate change > Energy

Positive impact (EB):

Indeed:
We are reducing our emissions by using energy more efficiently and increasing the use of renewable energies.

Short term:
We aim to reduce energy consumption and operating costs, by improving our energy efficiency measures to comply with energy recovering heat from our drying processes.

In the medium term:
We are increasing our resilience to fluctuating energy prices by reducing our dependence on fossil fuels through the purchase of green electricity and the use of green hydrogen.

In the long term:
We secure our energy supply and minimise climate-related business risks through our sustainable energy strategy.

Negative impact (NWK):

Indeed:
Greenhouse gas emissions are generated in the supply chain during the production and installation of renewable energy systems.

risk (WIK):

Energy consumption, in particular through combined heat and power plants (CHP plants), forms the basis for our production.

Indeed:
If our partners' industries produce less due to rising energy costs, this may lead to a reduction in energy supplies to us, which means that we will continue to be dependent on fossil fuels.

In the short term:
We are switching to renewable energy technologies and energy efficiency measures, such as the use of green hydrogen instead of natural gas. This requires considerable investment and entails uncertainties regarding the availability of green hydrogen.

In the medium term:

There is a risk of business interruptions if the renewable energy sources and storage technologies are not sufficiently reliable.

In the long term:

In the long term, potential regulatory and legal risks could occur especially if we do not manage to utilise the new energy regulations and reduction targets, for example due to insufficiently advanced technologies, drying processes, cost constraints or lack of expertise, or if the demand for green hydrogen exceeds the available quantity.

Opportunity (EB):

Indeed:
We are reducing our emissions by using energy more efficiently and increasing the use of renewable energies.

In the short term:

We utilise heat recovery to increase operational sustainability and energy efficiency in our company. This enables us to reduce our carbon footprint and position ourselves as an environmentally conscious and responsible company, which strengthens the trust of our partners, customers, banks and other relevant stakeholders in us.

In the medium term:

We are reducing our carbon footprint by substituting natural gas with hydrogen and switching from grey electricity to green electricity. We are also establishing a process for treating oily sludge and recovering the oil for material recycling in order to achieve additional environmental benefits.

In the long term:

We are promoting our company's growth by helping to shape the energy transition at an early stage, for example with a new technology that enables not only the metals but also the oil to be recycled from oily metal sludge. This makes the process more efficient, reduces the CO₂ footprint and conserves resources.

By playing an active role in shaping the company, we can utilise potential subsidies or tax benefits. This strengthens the competitiveness and future viability of our company.

ENVIRONMENT



E2

Environmental pollution > Air pollution

Negative impact (EB)

Indeed:

We operate all filter systems (dryer exhaust air, hall exhaust air, filter exhaust air, silo top filter exhaust air) in accordance with the Technical Instructions on Air Quality Control (TA Luft) and the statutory emission protection guidelines. This enables us to guarantee good working conditions and protect the health of our employees. We achieve this, for example, by reducing indoor air pollution.

Effects on human health:

1) Respiratory diseases: Air pollution can cause respiratory diseases such as asthma, bronchitis and COPD. Particulate matter and other pollutants impair lung function and increase the risk of respiratory infections.

2) Cardiovascular diseases: Long-term air pollution increases the risk of cardiovascular disease, as pollutants such as nitrogen dioxide (NO₂) and particulate matter can trigger inflammation, heart attacks and strokes.

3) Cancer risk: Some air pollutants, in particular particulate matter and certain chemical compounds, are carcinogenic and can increase the risk of lung cancer and other types of cancer with long-term exposure.

4) Impairment of cognitive functions: Studies have shown that air pollution can also have negative effects on the brain, including impaired cognitive function and an increased risk of neurodegenerative diseases such as Alzheimer's.

Impact on the environment:

1) Damage to ecosystems: Air pollution affects plants and animals and can contribute to the acidification of soils and water bodies through pollutants such as sulphur dioxide (SO₂) and nitrogen oxides (NO_x), which worsens the living conditions of many organisms.

2) Climate change: Greenhouse gases such as carbon dioxide (CO₂) and methane (CH₄) contribute to climate change, resulting in extreme weather events and rising sea levels.

3) Ozone depletion and smog: Pollutants such as NO_x and VOCs contribute to ozone depletion. The formation of ground-level ozone and smog, which affects air quality and the health of plants and animals.

4) Visual obstructions and aesthetic impairments:

Air pollution can affect visibility in urban and natural environments and change the aesthetic appearance of landscapes.

By operating our filter systems in compliance with TA air and emission control directives have already taken an important step towards reducing air pollution. In the long term, this will have several positive effects:

1) Improvement of the corporate image and long-term cost savings: We invest in modern filter systems and environmentally friendly technologies, such as filter systems for exhaust air flows from the warehouses and production halls, the drying systems and for the conveying and displacement air in the pneumatic filling of our storage silos. This enables us to save costs by avoiding fines and clean-up costs and to organise our production more efficiently. These measures also secure and strengthen our market position, as environmentally conscious customers and partners prefer to work with us.

2) Securing our market position: We focus on environmentally friendly practices. For example, we substitute natural raw materials with by-products or waste in our formulations, thereby conserving resources. This enables us to secure and strengthen our market position, as environmentally conscious customers and partners prefer to work with us.

4) Sustainable business development: We are endeavouring to air pollution control and thus promote sustainable development, which both ecologically and economically advantageous.

Summary:

Air pollution has serious negative effects on human health and the environment. However, by operating our filter systems in accordance with TA Luft and emission protection guidelines, we create good working conditions and protect the health of our employees. In the long term, our company can improve its image and secure its market position through environmentally friendly practices, leading to sustainable economic success. Investing in clean technologies and reducing emissions therefore pays off for us not only ecologically, but also financially.

ENVIRONMENT



E2

Environmental pollution > Air pollution

Risk (EB)

In the short term:

We are obliged to have regular emission measurements carried out by the TÜV, which can entail financial costs:

- 1) Measurements and monitoring costs: Compliance with the requirements requires regular inspections by the TÜV, which are cost-intensive and have to be financed from our current budget.
- 2) Implementation of new emission control technologies: In order to meet strict emissions regulations, we may need to invest in new emission control technologies. These technologies, such as advanced filtration and cleaning systems, require high initial investment and ongoing maintenance costs.

In the medium term:

Violations of emissions regulations can have significant medium-term financial and reputational consequences:

1) Fines and penalties: Non-compliance with emissions regulations can lead to significant fines, which will affect our profitability and to unexpected burdens for our financial planning, financial penalties,

2) Loss of trust among stakeholders: Violations against emission regulations can lead to a loss of trust among customers, investors and other important stakeholders, which weakens our business relationships and jeopardises future business opportunities.

In the long term:

The long-term financial risks associated with air pollution and non-compliance with emission reduction targets are considerable:

1) Legal disputes:

Long-term non-compliance with emissions regulations can lead to costly and time-consuming legal disputes that distract management from important business activities.

2) Permanent reputational damage:

If we do not achieve the long-term emissions reduction targets, this can lead to permanent reputational damage, making it more difficult to attract new customers and investors and to maintain existing business relationships.

3) Competitive disadvantages:

Companies that comply with strict emissions standards can be perceived as market leaders in environmental protection. In the long term, we could fall behind competitors who invest more in environmentally friendly technologies, which could lead to a loss of market share.

Summary:

Air pollution and the associated financial risks represent a considerable challenge for us. In the short term, we must bear the costs of emissions measurements and new technologies

In the medium term, breaches of emissions regulations could lead to fines and loss of confidence. In the long term, there is a risk of legal disputes and permanent reputational damage.

To counteract these risks, we are continuously investing in modern emission control technologies and ensure that all legal requirements are met through regular emission measurements. Through proactive measures, such as regular maintenance by external and internal experts, we can minimise financial burdens and strengthen our image as a responsible and environmentally conscious market leader.

ENVIRONMENT



E2 Environmental pollution > Air pollution

Opportunity (EB)

Indeed: We consistently focus on compliance with legal regulations on emissions control. This strategy not only offers environmental benefits, but also opens up considerable financial opportunities.

Improved public perception:

1) Neighbourhood relations
By strictly complying with emissions regulations, we demonstrate responsibility towards the local community. The reduction of pollution improves air quality and overall well-being in the neighbourhood of our operating sites. This leads to a positive perception in the neighbourhood, which avoids conflicts and gains support by the community.

2) Local support and co-operation:
A positive relationship with the neighbourhood offers practical benefits, such as less resistance to business expansions, support with approval processes and a generally more favourable business environment.

Such relationships are valuable for the long-term stability and success of the company.

Positive perception by customers and partners:

1) Environmentally conscious customers:
In a market that increasingly emphasises environmental responsibility, complying with high environmental standards, we create an improved perception in the target group. Customers who favour environmentally friendly products and services will be more inclined to contribute to the growth of our company. This stabilizes our market position and expands our customer base and sales.

2) Stronger partnerships:
Business partners who also value sustainability will see us as a favoured partner. A good environmental performance strengthens co-operation with other environmentally conscious companies and leads to long-term, stable business relationships. This can strengthen our market position and open up new business opportunities.

Long-term financial opportunities:

1) Market leadership in environmental protection:
By proactively complying with emissions regulations and investing in environmentally friendly technologies, we can take a leading role in environmental protection. This not only improves our image, but also attracts the attention of investors and business partners who want to invest in sustainable companies.

2) Promote innovation:
Consistent compliance with legal regulations often requires the use of state-of-the-art technologies and innovative processes, such as thermal processes for recovering phosphate from sewage sludge.

This promotes a culture of innovation, which in the long term leads to more efficient processes, cost savings and improved long-term competitiveness of our business.

3) Competitive advantages:
In an increasingly regulated market environment adaptation to stringent environmental regulations can give us a competitive advantage. Companies with advanced emission control system are prepared for regulatory changes and can therefore minimise risks and uncertainties.

Summary:

Consistent compliance with legal requirements for emissions control not only offers us ecological advantages, but also numerous financial opportunities. An improved awareness in the public and by our customers as well as strong partnerships contribute to the long-term stability and growth of our company.

By positioning ourselves as an environmentally conscious market leader promoting innovation, we can increase our competitiveness and successfully position ourselves in a challenging market environment.

ENVIRONMENT



E2 Environmental pollution > Soil pollution

Negative impact (EB)

In fact: The soil surfaces of our sites are sealed and meet requirements of the Water Resources Act (WHG) and the German Ordinance on Installations for Substances Hazardous to Water (AwSV).

Effects on human health:

1) Exposure to pollutants:
Soil contamination can lead to the accumulation of toxic chemicals such as heavy metals and industrial pollutants. People through direct contact or through contaminated food and water may be exposed to these pollutants, leading to health problems such as cancer, neurological disorders and can lead to reproductive problems.

2) Contaminated groundwater:
Soil pollution can affect groundwater, an important source of drinking water. Pollutants can seep into the groundwater and contaminate it, which impairs water quality and poses health risks to the population.

Impact on the environment:

1) Soil quality and fertility:
Soil pollution can change the physical and chemical properties of the soil, affecting its fertility and ability to support plants. This can reduce agricultural productivity and jeopardise the food supply.

2) Ecosystems and biodiversity:
Polluted soil can directly harm flora and fauna. Pollutants can affect the roots of plants and inhibit growth, while animals that use the soil or live in it can be poisoned. This can lead to a decline in biodiversity and the destruction of ecosystems.

Short-term:

Soil contamination can result in immense remediation costs. The elimination of contamination often requires complex and expensive measures such as soil excavation, decontamination and refilling with clean soil material. These measures are not only cost-intensive but can also cause considerable disruption for the affected municipality and the surrounding area.

Summary:

Although the ground surfaces of our sites are properly sealed and monitored, soil pollution remains a serious problem and a threat to human health and the environment. Regular soil monitoring and advanced protection measures are essential to minimise the negative effects and to ensure a sustainable use of soil resources. The long-term health of people and the environment depends heavily on how effectively we overcome these challenges.

ENVIRONMENT



E2 Environmental pollution > Soil pollution

Risk (EB)

In the short term:
Soil contamination can cause considerable financial burdens. In the event of soil contamination at our sites, immediate and extensive remediation measures are required, including

1) Soil excavation and disposal:
The contaminated soil must be safely removed and disposed of, resulting in high transport and landfill costs.

2) Decontamination:
Chemical treatments or biological methods may be necessary on site, which are costly and time-consuming.

3) Monitoring and reporting:
Regular testing and reporting are required to monitor progress. This can document remediation and ensure that soil quality is maintained. This requires additional human and financial resources.

In the medium term:

Another financial aspect of soil pollution concerns the company's image.

1) Loss of confidence:
Soil contamination can lead to a significant loss of confidence among customers, investors and the public. This represents a potential loss of customers or experiences difficulties to open up new business opportunities.

2) Reputational damage:
Negative media coverage can damage our reputation in the long term, which can lead to boycotts and a decline in market share.

3) Additional PR costs:
In order to restore a damaged image, we may have to invest considerable resources in PR and marketing campaigns. This may cause additional financial burdens and further strain our resources.

In the long term:
The long-term financial risks of soil pollution encompass several important aspects:

1) Long-term refurbishment costs:
The complete clean-up of a contaminated site can take many years and require continuous investment. This puts a strain on our financial planning and liquidity.

2) Business interruptions during the conversion periods:
During the reorganisation and possible conversions, there may be considerable operational downtime. This leads to production losses and potential loss of market share, as our customers may switch to competitors.

3) Costs for improvements:
After remediation, additional measures often need to be taken to prevent future pollution. This may require investment in modern technology and infrastructure to be further financial burdens.

Summary:
Soil pollution harbours considerable financial risks for us on short-term, medium-term and long-term level. In the short term, the remediation costs can be massive. In the medium term, our image may suffer, leading to a loss of trust and additional PR costs. In the long term, the ongoing refurbishment costs, operational losses during the remodelling and necessary improvements are a significant financial challenge. It is therefore crucial that we take preventive measures and continuously invest in the protection and monitoring of our land areas in order to minimise these risks and ensure sustainable business development.

ENVIRONMENT



E2 Environmental pollution > Soil pollution

Opportunity (EB)

In the long term:
Despite the challenges posed by soil pollution, there are significant financial opportunities for us. By taking proactive measures and positioning ourselves as a responsible player in the waste disposal industry, we can benefit in the long term.

1) Trustworthiness and reliability:
By maintaining high standards and avoiding emissions into the soil, we gain the trust of customers and suppliers. This strengthens our position as a reliable company of the circular economy.

2) Long-term contracts and financial stability:
A good image and high environmental standards can lead to long-term contracts with industrial customers, local municipalities and other organisations who are dependent on sustainable waste disposal solutions. These contracts ensure a steady income and provide us with financial stability.

3) Competitive advantages through a good environmental image:
A strong environmental image gives us a competitive advantage. Customers favour companies that are environmentally conscious and apply sustainable practices, which helps us to gain market share and differentiate ourselves from competitors.

4) Attractiveness for investors:
Our environmentally friendly and responsible practices make us more attractive to investors. This makes it easier for us to access capital and improves our financing options, which increases our expansion opportunities and innovative strength.

5) Cost savings by avoiding soil emissions:
Preventing soil pollution saves considerable costs in the long term, that would otherwise be incurred for remediation and environmental regulations. These savings can be reinvested in other areas of the company to promote growth and innovation.

6) Legal and regulatory advantages:
Compliance with strict environmental standards and the avoidance of soil emissions reduce the risk of legal disputes and fines. This protects us from financial penalties and promotes stable business management.

In the long term, there are numerous financial benefits for us from a proactive and environmentally conscious business strategy:

1) Strengthening the market position:
By positioning ourselves as a leading specialised waste management high environmental standards, we can strengthen our market position open up new business opportunities.

2) Sustainable sources of revenue:
Long-term partnerships and contracts ensure continuous contracts revenue and financial stability.

3) Reduced risk and cost savings:
Preventing soil pollution reduces long-term risks and saves considerable costs that can be invested in other business areas.

4) Improved financing options:
A strong environmental image and responsible behaviour make us more attractive to investors and facilitate access to capital.

Summary:
Through soil pollution prevention and compliance with high environmental standards, we minimise financial risks and use long-term financial opportunities. Our good image as a reliable and environmentally aware waste management company strengthens our market position, creates new business opportunities and secures sustainable revenue. By proactively investing in environmental protection and being a responsible partner, we lay the foundation for a successful and sustainable future.

ENVIRONMENT



E3

Water and marine resources > Water consumption

Positive impact (EB)

Actual:
We currently use hardly any water in the production process, which reduces operational disruptions in the short term.

Risk (EB)

Short term:
We implement more efficient water use methods and thus reduce our operating costs. Less water is needed to achieve the same amount of production, resulting in savings on water bills. These savings strengthen our financial stability and competitiveness.

Medium term:
More efficient water use allows us to improve production stability. Even in the event of regional water shortages, our water supply is secure because we use less water and rely on sustainable water sources. This helps to avoid production downtimes due to water shortages and ensure the continuity of our operations.

In the long term:
We implement sustainable water management and thus not only reduce our operating costs, but also contribute to the protection of natural water resources and the environment. This supports our social responsibility and strengthens our image as an environmentally conscious and sustainable company.

Summary:
By using non-water-intensive disposal processes and integrating the water used into production, we reduce our operating costs in the short term and strengthen our financial stability. In the medium term, efficient water utilisation ensures stable production even in the event of regional water shortages. In the long term, sustainable water management supports the protection of natural resources and improves our image as an environmentally conscious company.

Risk (EB)

In the short term:
Sudden water shortages or price increases for water can lead to cost. This can lead to short-term cost increases and operational. If we are forced to use alternative water sources due to water.

Long-term. The long-term financial risks of soil pollution include several important aspects:

Long-term remediation costs: The complete remediation of a contaminated site can take many years and require continuous investment. This puts a strain on our financial planning and liquidity. 2) Operational downtime during conversion periods. During refurbishment and possible conversion work, there may be considerable operational downtime. This leads to production losses and potential loss of market share, as our customers may switch to competitors.

In the long term:
Long-term financial risks associated with water consumption include potential liability risks and permanent damage to the ecosystem. If we do not use water resources sustainably and damage the ecosystem through excessive water consumption or pollution, this can lead to legal disputes and financial compensation. Long-term environmental damage can cause operating losses and a loss of market share, as we may lose our licence or be boycotted by customers.

Summary:
Short-term water shortages or price increases can lead to cost increases and operational disruptions. In the medium term, inefficient water use harbours risks for our reputation and can lead to regulatory challenges. In the long term, improper water use and environmental pollution can lead to legal disputes and financial compensation, as well as permanent damage to the ecosystem that jeopardises our market share and operating licence.

ENVIRONMENT



E3

Water and marine resources > Water consumption

Opportunity (EB)

In the short term:
We implement water-saving technologies and recycling processes and can thus reduce costs in the short term. The use of efficient water management techniques enables us to optimise water consumption and reduce wastewater costs. These savings strengthen our financial performance and competitiveness.

In the medium term:
Efficient water management demonstrates our environmental responsibility and strengthens our brand. More and more consumers and companies are attaching importance to environmentally friendly products and sustainable production practices. By implementing environmental protection measures and improving water efficiency, we gain the trust of our customers and position ourselves as a responsible company.

In the long term:
Through exemplary water management, we secure long-term licences and access to water resources. In the face of increasing water scarcity and stricter environmental regulations, it is crucial to use water efficiently and implement sustainable practices. By positioning ourselves as a pioneer in water management, we not only secure our operational continuity, but also our long-term access to vital water resources.

Summary:
By implementing water-saving technologies and recycling processes, we can reduce costs and improve our competitiveness in the short term. In the medium term, efficient water management strengthens our environmental image and promotes customer loyalty. In the long term, best water management practices ensure our operational continuity and access to key water resources, which opens up significant financial benefits and new business opportunities.

ENVIRONMENT



E5
Circular economy > Resource inflows

	Impact, risk or opportunity	Description
Positive impact (EB)	Production utilising by-products and waste	<p>Our production method, which is based on over 95% by-products and waste and a strong focus on the circular economy has a significant impact on both people and the environment. This approach offers many positive effects:</p> <p>1) Environmental protection: By utilising by-products and waste as raw materials, we reduce our environmental impact. Instead of extracting new resources, we reuse existing materials, which reduces our ecological footprint.</p> <p>2) Waste reduction: Our focus on the circular economy helps to minimise the amount of waste that would otherwise end up in landfill. This supports sustainable waste management and helps to prevent pollution.</p> <p>3) Resource efficiency: The utilisation of by-products and waste increases the efficiency of resource use. This reduces the pressure on natural resources such as forests, minerals and water.</p>
Negative impact (VWK)	Dependence on the supply of by-products and wastes	<p>Our production method, which is based on over 95% by-products and waste and a strong focus on the circular economy has a significant impact on both people and the environment. This approach also brings with it some challenges:</p> <p>1) Quality assurance: The use of by-products and waste as raw materials can affect the quality of the manufactured products. It is important to ensure that the materials used meet the required standards to guarantee the functionality and safety of the products.</p> <p>2) Logistics and procurement: The availability of by-products and waste as raw materials can vary. This requires careful planning and organisation of the procurement and logistics processes in order to ensure continuous production.</p>

ENVIRONMENT



E5
Circular economy > Resource inflows

	Impact, risk or opportunity	Description
Risk (VWK)	Production utilising by-products and waste	<p>The increasing demand for sustainable solutions requires a continuous Customisation. We develop products and processes that replace natural resources with recycled products.</p> <p>In the short term: Supply chain disruptions can lead to production downtime, especially if critical materials are affected.</p> <p>In the medium term: Price volatility for raw materials can make our cost planning more difficult.</p> <p>In the long term: Our dependence on suppliers and potential difficulties in switching to alternative resources or suppliers pose risks in the event of market changes.</p>
Opportunity (EB)	Production utilising by-products and wastes	<p>The utilisation of by-products and waste offers economic advantages. Through By reducing material costs and optimising production processes, we can lower our costs and strengthen our competitiveness. We consciously pursue a strategy with a high proportion of recycled raw materials.</p> <p>In the short term: We are introducing additional recycling processes. This offers the opportunity to conserve natural resources. For example, by recycling phosphate from municipal sewage sludge and utilising packaging materials made from recycled materials. This brings both ecological and economic benefits.</p> <p>In the medium term: Access to new and technologically advanced recycling materials, such as oil from oily metal sludge, enables the development of innovative products and services. This gives us the opportunity to differentiate our product lines and tap into new markets.</p> <p>In the long term: By developing sustainable, regional resource strategies, we can strengthen our resilience to resource fluctuations on the international market. We could expand local production capacities, such as the production of calcined clays and geopolymers, to replace material flows from the primary industry that are no longer available. This increases our independence from global supply chains and creates new opportunities for value creation and innovation.</p>

ENVIRONMENT



E5

Circular economy > Resource outflows

	Impact, risk or opportunity	Description
Positive impact (EB)	Design of products and Materials in line with the principles of the circular economy	<p>In the short term: We optimise the use of materials and reduce waste, thereby improving our operational efficiency. This leads to a more effective use of resources and reduces our environmental impact.</p> <p>Medium-term: We are improving our materials management, thereby saving costs and reducing disposal costs. This increases our profitability and reduces our ecological footprint through more efficient use of resources.</p> <p>Long-term: We use recycled packaging materials to ensure the long-term availability of resources and reduce our dependence on volatile raw material markets. This sustainable practice protects the environment and stabilises our supply chain.</p>
	Increase in the extent to which products, materials and waste processing waste processing are reused	
Negative impact (NWK)	The expected shelf life, The reusability, reparability, dismantling, reprocessing, reconditioning and recycling of the products we place on the market are difficult to control and influence	<p>The limited durability, reusability, reparability, dismantling, The reprocessing, refurbishment and recyclability of our products can have a negative impact on people and the environment.</p> <p>For the environment: Products that are not durable or reusable quickly become waste and fill landfills. Limited repair and dismantling options lead to the loss of valuable materials and increase the demand for new raw materials, resulting in environmental degradation. Non-recyclable products contribute to environmental pollution and damage to ecosystems.</p> <p>For the people: Consumers have to buy new products more frequently, which increases their financial burden and impairs sustainability in everyday life. Environmental problems caused by inefficient waste management, such as pollution and resource scarcity, have a negative long-term impact on quality of life and health. Dependence on new raw materials can cause economic instability, especially in regions dependent on raw material imports.</p>

ENVIRONMENT



E5

Circular economy > Resource outflows

	Impact, risk or opportunity	Description
Risk (EB)	Inefficient use of resources or Excessive waste production	<p>In the short term: Potential cost increases and operational disruptions due to inefficient resource utilisation or excessive waste production can increase our operating costs and impair our business performance.</p> <p>In the medium term: Stricter environmental regulations and possible penalties for non-compliance with recycling and waste disposal regulations may result in additional costs and jeopardise our financial stability if we do not manage to respond to them in good time.</p> <p>In the long term: Failure to comply with environmental standards can permanently damage a company's image and cost it market share. Customers and partners could favour environmentally conscious alternatives. In addition, rising raw material prices, particularly for petroleum-based materials, could impact production costs and long-term profitability.</p>
Opportunity (EB)	Market differentiation through Use of more sustainable packaging materials, thereby reducing the environmental impact	<p>In the short term: We use sustainable packaging materials, such as 100% recyclable cardboard and bags made from PE recycle, and can thus differentiate ourselves in the market while reducing our impact on the environment. This can improve perception among environmentally conscious customers and boost our sales.</p> <p>In the medium term: A positive image as a sustainable company that prioritises resource conservation and environmental protection can set us apart from our competitors. The use of recycled packaging materials also offers potential savings, reduces production costs and increases profitability.</p> <p>In the long term: In the long term, we want to promote innovation and improve the environmental compatibility of our products and packaging, for example by using compostable paper sacks instead of PE sacks in biogas plants. The introduction of reusable packaging instead of disposable packaging is also a sustainable option for us in order to reduce waste and minimise our environmental impact. This promotes our customer loyalty and market expansion in the long term. A sustainable corporate image can attract more loyal customers and new customer groups, which increases long-term stability and growth opportunities.</p>

ENVIRONMENT



E5
Circular economy > Waste

Positive impact (EB):
Recycling of waste

In addition to waste avoidance and reuse, we also prioritise recycling. Material recovery is of particular importance in the waste hierarchy and as part of the circular economy since our foundation we have been focussing on recycling waste in order to conserve natural resources and minimise our impact on the environment.

For example:

We recycle 43 different types of waste in our Duisburg plants. This conserves natural resources and avoids the disposal of waste, which leads to a significant reduction in environmental pollution. These measures contribute to a cleaner and healthier environment, which improves people's quality of life.

In the medium term:

We develop resource-saving technologies to promote the circular economy, thereby strengthening our ecological image and building trust with stakeholders and customers. Examples include the recycling of oily sludge to recover metal compounds and oil, and the production of new cement components with a low carbon footprint. These innovations promote sustainability and reduce pollution.

In the long term:

Sustainable resource utilisation and reducing the carbon footprint of our products contribute to sustainability throughout our customers' value chain. By using recycled materials and reducing emissions, we make a significant contribution to global climate protection and preserve natural resources for future generations. This creates a more liveable environment and promotes the well-being of people worldwide.

Negative impact (NWK):
Recycling of waste

Although material recycling is a priority in the waste hierarchy alongside waste avoidance and reuse is of particular importance. We have seen ourselves as part of the circular economy since our foundation.

Indeed:

We recycle 43 different types of waste in our Duisburg plants. While this conserves natural resources and avoids the disposal of waste, the operation of such plants can lead to local environmental pollution. Emissions from recycling processes, such as air pollution caused by harmful substances, could affect the health of local residents. There is also a risk of soil and water contamination due to improper handling of waste or operational accidents.

In the medium term:

We will develop resource-saving technologies. Despite the environmental benefits, this also brings challenges. The process of recovering metal compounds and oil from oily sludges can generate potentially hazardous by-products that need to be disposed of or further treated. The production of new cement components with low carbon footprints could also have unforeseen environmental impacts if all the environmental impacts of these new materials and processes are not fully understood and controlled.

In the long term:

In the long term, dependencies on specific recycling processes and technologies could arise. If these technologies turn out to be less effective or more environmentally problematic than expected, they could damage the environment and cause additional costs for their adaptation or replacement. An excessive focus on recycling could also slow down efforts to reduce resource consumption and develop alternative, less resource-intensive materials and processes.

ENVIRONMENT



E5
Circular economy > Waste

risks (VWK):
Increasing disposal costs for waste and rising raw material costs

The increasing disposal costs for waste and the rising cost of raw materials due to the scarcity of natural resources pose considerable financial risks.

In the short term:

Increased disposal costs and rising raw material costs can impact our profit margins and impair our competitiveness.

In the medium term:

Supply bottlenecks for critical materials such as lithium, rare earths, phosphate and ores can disrupt production. This leads to higher procurement costs and destabilises supply chains, which could affect timely and cost-efficient production.

Long term:

Processes with high waste generation could become uneconomical if the costs of waste management and raw material procurement continue to rise. The long-term inefficiency of such processes could cause financial burdens and jeopardise the business model. A necessary switch to more sustainable processes could require high investments and further jeopardise financial stability.

Opportunity (EB):
Waste utilisation

Indeed. We are the industry leader in the recycling of ferrous waste as well as hazardous ash and dust. This leading position opens up numerous financial opportunities.

In the short term:

By grinding slag and minerals to produce low-CO2 building materials, we can expand our portfolio. This opens up new markets and generates additional sources of income while meeting the demand for environmentally friendly building materials.

In the medium term:

The disposal of oily sludge with simultaneous material recycling of metal and oil components opens up a new area of business. This innovative approach makes it possible to convert waste into valuable resources, which leads to additional sales and strengthens our competitiveness.

Long-term:

Securing our company in the long term through compliance and a pioneering position in environmentally friendly technologies offers considerable financial opportunities. Examples such as phosphate recycling or recycling of blast furnace gas sludge and acidic pickling solutions position us as a pioneer in the field of sustainable technologies.

This pioneering role strengthens our market position and long-term stability by promoting the trust of customers and investors and investors and providing access to new business opportunities and partnerships.

SOCIAL



S1
Own workforce > Secure employment

Positive impact (EB):

Indeed:
We only offer permanent employment contracts, which can have a positive impact on our employees.

In the short term:
We only award permanent employment contracts and thus strengthen the loyalty of our employees. This results in a stable and valuable knowledge and a motivated workforce that feels connected to the company in the long term.

This stability helps to preserve and continuously develop internal know-how, which promotes our efficiency and innovative strength. The security of a permanent employment contract enables our employees to plan and focus better on their professional development, which in turn leads to increased satisfaction and well-being.

A low unemployment rate not only signals a good economic development, but can also indicate a shortage of skilled labour. In this context, as an attractive employer, we offer valuable stability and security through permanent employment contracts, which is particularly important in times of a shortage of skilled labour.

This not only helps to attract and retain qualified employees, but also promotes a productive and committed working environment that ultimately benefits both employees and the company.

Risk (EB):

Indeed:
We only offer permanent employment contracts, which can entail financial risks.

Short term:
Irrespective of the awarding of permanent employment contracts, we can suffer higher staff turnover, which means the loss of internal expertise. This loss of knowledge can result in additional costs as new employees have to be recruited and trained. The associated expenses for recruitment, training and the initially lower productivity of new employees can put a strain on our financial resources.

In the medium term:
Open-ended contracts can also cause difficulties in scaling the workforce quickly in response to market changes. Less flexible employment relationships make it more difficult to react quickly to growth or declining demand. During periods of growth, we cannot hire new employees quickly enough, while during downturns our personnel costs remain high, leading to inefficiencies and increased operating costs.

In the long term:
In the long term, permanent contracts carry the risk of assuming disproportionately high financial burdens in economically uncertain times. Long-term obligations to employees can lead to considerable financial burdens in times of declining sales or economic crises. These long-term obligations can affect our financial stability by limiting our flexibility to reduce costs and adapt to changing market conditions. This can ultimately jeopardise our long-term viability and competitiveness.

SOCIAL



S1
Own workforce > Secure employment

Opportunity (EB):

Indeed:
We only offer permanent employment contracts, which can bring positive financial opportunities.

In the short term:
We only offer permanent employment contracts. This leads to increased employee loyalty in the short term. As the employment relationships are long-term, employees feel more committed to the company and are more motivated to actively contribute. This reduces staff turnover and the associated costs of training new employees, which has a positive impact on our financial health.

In the medium term:
The long-term use of permanent employment contracts strengthens the corporate culture through a stable and satisfied workforce. Employees who identify with our company in the long term contribute to a positive working atmosphere and are more willing to commit to the goals and values of our company. This promotes cooperation, increases productivity and contributes to the long-term stability of the company.

In the long term:
The promotion of innovation and continuous improvement is favoured by an experienced and well-trained workforce, which is recruited through permanent employment contracts. Employees who stay with us long-term develop a deep understanding of work processes, products and customer needs. This enables us to react quickly to changes in the industry and develop innovative solutions. An experienced workforce is also better able to tackle new challenges and identify efficient ways of working, which leads to cost savings and improved business results in the long term.

SOCIAL



S2
Labour in the value chain > Working hours

Negative impact (EB):

The industry in which we operate - the processing of industrial products, industrial by-products and recycled waste products - is characterised by intensive working conditions and long working hours in the value chain.

To counter these negative effects, we have developed the implemented the following measures:

1) Introduction of a supply chain control system:
We have established a comprehensive supply chain control system to ensure that labour standards are adhered to along the entire value chain. This includes regular audits and assessments to ensure that all partners in the supply chain comply with our standards.

2) Compliance with international labour standards:
We are committed to complying with internationally recognised labour standards as defined by the International Labour Organisation (ILO). These include reasonable working hours, regular rest breaks and the right to time off. These standards are firmly anchored in our contracts and agreements with suppliers and contractors.

3) Transparency and reporting:
We attach great importance to transparency and publish comprehensive information on working hours and conditions along our entire supply chain. Regular reports document compliance with working time standards and our ongoing measures to improve working conditions.

Risk (EB):

We see some financial risks in relation to the working hours of our employees.

Labour in the value chain:

1) Labour law violations and legal costs:
Violations of working time standards and labour rights can lead to lawsuits, sanctions and fines, resulting in considerable legal costs and affecting our financial stability.

2) Business interruptions and production losses:
Unfair working conditions can cause dissatisfaction and absenteeism among our labour force in the value chain, leading to business interruptions and production losses, missed delivery deadlines, customer dissatisfaction and loss of sales. This can have a negative impact on our financial results.

3) Reputational damage and loss of customers:
Negative reporting on labour conditions and working hours in our supply chain can damage our image and lead to loss of customers. Both companies and consumers often prefer suppliers who comply with fair labour practices. A negative image can cause them to turn away from us.

In order to counter and minimise these risks, we have developed the implemented the following measures:

1) Introduction of a supply chain control system:
Our supply chain control system ensures compliance with working time standards along the entire value chain, thereby reducing the risk of legal consequences in the event of labour law violations.

2) Compliance with international labour standards:
We adhere to the labour standards defined by the International Labour Organization (ILO) and integrate these into our contracts with suppliers and contractors in order to minimise legal risks and reputational damage.

3) Transparency and reporting:
By transparently disclosing working hours and conditions throughout the supply chain and reporting regularly, we strengthen the trust of our customers and stakeholders and prevent reputational damage.

SOCIAL



S2
Labour in the value chain > Working hours

Opportunity (EB):

We see some financial opportunities in relation to the working hours of our labour in the value chain:

- 1) Reputation and customer loyalty:
we can By introducing a supply chain control system and the comply with international labour standards, we strengthen our image as a responsible company and improve customer loyalty, as many of our customers are increasingly focussing on ethical working practices and social responsibility.
- 2) Market advantage and competitiveness:
Transparency and reporting on working hours and conditions throughout the supply chain gives us a market advantage as we stand out from the competition and attract customers who value fair labour practices.
- 3) Long-term sustainability and efficiency:
The integration of working time guidelines into contracts and agreements with suppliers and contractors and regular reporting promote our efficiency and sustainability in the long term, leading to cost savings through more efficient work processes and optimised use of resources.

We have implemented the following measures to capitalise on these opportunities:.

- 1) Strengthening the corporate image:
By transparently disclosing working hours and conditions and regularly reporting on compliance with working time standards, we strengthen our image as a responsible company and consolidate the trust of our customers and stakeholders.
- 2) Improved and long-term customer relationships:
We comply with international labour standards and integrate working time guidelines into contracts and agreements with our suppliers and contractors. In this way, we promote customer loyalty and are perceived as a trustworthy partner who is actively committed to fair labour practices, which leads to long-term business relationships and recurring orders.

3) Competitive advantages:
We have a sustainable, ethically responsible and customisable business model. By prioritising customer focus, sustainability and By placing social responsibility at the centre of our business, competitive advantages and gain market share in order to be successful in the long term. Although there are negative effects on people and the environment due to working conditions in the value chain, we have the opportunity to capitalise on financial benefits and set ourselves apart from the competition through sustainable and ethical corporate management.

GOVERNANCE



G1 Company policy > Management of relationships with suppliers

Positive impact (EB):

Indeed: We attach great importance to clear communication and compliance with punctual payments, transparent supplier evaluation and effective risk management. We work continuously to improve supplier management, including the optimisation of payment practices, for example through regular supplier evaluation and risk analysis. The transparent supplier evaluation is based on performance indicators such as quality, delivery times and customer service. We discuss the results of this evaluation with our suppliers in order to identify potential for improvement and take measures to optimise cooperation.

In the short term: We only award permanent employment contracts and thus strengthen the loyalty of our employees. This creates a stable and motivated workforce that feels a long-term commitment to the company. This stability helps to retain and continuously develop internal expertise, which promotes our efficiency and innovative strength. The security of a permanent employment contract enables our employees to plan and focus on their professional development, which in turn leads to increased satisfaction and well-being.

In the long term: Building sustainable and reliable supply chains is one of our long-term goals. We achieve this through transparent payment practices, clear supplier evaluation and effective risk management. These measures enable us to build stable and trusting relationships with our suppliers. A sustainable supply chain not only offers economic benefits, but also promotes social responsibility and environmental friendliness. Ultimately, this improves the well-being of everyone involved in the supply chain.

risk (VWI):

In the short term: Late payments can cause supply disruptions, as suppliers may have to stop or reduce their deliveries. This leads to bottlenecks in our supply chain, production losses and additional costs for procuring alternative suppliers.

In the medium term: Late payments affect the loyalty of our suppliers and increase their operating costs. Suppliers could lose confidence in us and look for other business partners, leading to higher procurement costs for us. We could be forced to find new suppliers at higher prices or make more expensive emergency purchases.

In the short term: Irrespective of the awarding of permanent employment contracts, higher staff turnover may occur, meaning that valuable knowledge and experience leaves the company with the departing employees as new employees have to be recruited and trained. The associated expenses for recruitment, training and the initially lower productivity of new employees can put a strain on our financial resources.

GOVERNANCE



G1 Company policy > Management of relationships with suppliers

Opportunity (EB):

Indeed: We recognise the importance of long-term supplier relationships and the optimisation of payment practices as key opportunities to ensure stable supply chains and gain potential competitive advantages.

In the short term: Thanks to a professional supply chain management system, we benefit from various financial advantages. For example, prompt payment of invoices allows us to take advantage of discounts and improved conditions with our suppliers, which leads to direct cost savings. In addition, prompt payment strengthens the relationship with our suppliers and promotes trust, which can have positive long-term effects.

In the medium term: An effective supply chain management system enables us to achieve better contract terms and ensure supply through consistent payment practices. Ensuring continuous and timely payment reduces the risk of supply disruptions, which can lead to higher productivity and efficiency in our supply chain. A stable supply situation helps to reduce operating costs and strengthens our competitiveness.

In the long term: Maintaining good relationships with our suppliers and a professional supply chain management system gives us the opportunity to build partnerships that promote innovation and increase cost efficiency. By working closely with suppliers, we can utilise their expertise and resources to develop innovative solutions and open up new markets. Long-term partnerships help to minimise risks and achieve long-term business goals, which ultimately contributes to the sustainable and profitable development of our company.

Environment - Key figures

CO₂ balance and reduction targets

Ferro Duo is committed to minimising its environmental impact and has set ambitious targets for reducing CO₂ emissions. Our CO₂ footprint, based on the guidelines of the Greenhouse Gas Protocol (GHG Protocol), includes Scope 1, Scope 2 and Scope 3 emissions.

In 2023, our emissions totalled:

Scope 1: 1,854 tonnes of CO₂e

Scope 2: 436.8 tonnes of CO₂e

Scope 3: 441.7 tonnes of CO₂e

We therefore emitted a total of 2,733 tonnes of CO₂e.

Below we show our emissions in 2023 by the most important sub-categories:

- Waste disposal (0.18%)
- Hotel stay (0.37%)
- Business trips - land (1.74%)
- Business trips - air (1.98%)
- Electricity mix (15.99%)
- Fuels and combustibles (8.06%)
- Gaseous fuels - natural gas (59.79%)

Reduction targets

Ferro Duo has set itself ambitious targets to significantly reduce CO₂ emissions in the coming years:

1. Reduction of 20% by 2030
2. Reduction of 50% by 2035
3. Climate neutrality by 2050

Methodology of the CO₂ calculation

Our CO₂ balance sheet is prepared in accordance with the guidelines of the Greenhouse Gas Protocol, which, in addition to carbon dioxide (CO₂), also takes methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃) into account. However, in order to enable a simplified and focussed assessment, we primarily refer to CO₂ emissions.

The conversion of emitters into CO₂ equivalents is mainly carried out using the DEFRA database. Other factors that differ from the DEFRA database can also be used for specific emissions.



Renewable energies: Increasing the proportion of renewable energies in our energy supply.

Technological innovations: Use of new technologies to reduce CO emissions.²

Circular economy: promoting the recycling and reuse of materials to minimise waste and emissions.

Sustainable supply chains: Collaboration with suppliers and partners to reduce emissions along the entire value chain.

Environment - Key figures

Outlook and commitment

Ferro Duo is determined to achieve the climate targets it has set itself and is continuously working to minimise its environmental impact. We will regularly review our progress and adapt our strategies to ensure that we make progress towards climate neutrality.

Our efforts to reduce CO₂ emissions are part of a comprehensive commitment to sustainability and environmental responsibility. Ferro Duo remains committed to taking a leading role in industrial sustainability and making a positive contribution to global climate protection.

Obligation to pay E1 - Climate change

Data point	Unit	Goal	2023	2022	Δ
emissions					
Scope 1	tCO ₂ e	-20%	1,854,00	-	-
Scope 2	tCO ₂ e	-5%	436,83	-	-
Scope 3	tCO ₂ e	-5%	441,70	-	-
Energy mix					
Total consumption of non-renewable energy	(MWh)	0%	10.244.327,6	11.488.341,00	(11%)
Total consumption of renewable energy	(MWh)	100%	0	0	0%
Certificates					
Energy Management System	Yes/No	Yes	No	Yes	-
ISO 14001	Yes/No	Yes	Yes	Yes	-

Obligation to pay E2 - Environmental pollution

Environmental pollution	CO ₂ e	n.a.	2.732,53	-	-
Air pollutants caused (greenhouse gases up to CO ₂ e)					

Obligation to pay E3 - Water and marine resources

Water consumption	m ³	-10%	456	766	(40,5%)
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Obligation to pay E5 - Circular economy

Circular economy					
Non-recycled waste	t	-5%	38,13	94,99	(60%)
Hazardous waste	t	-2%	0,83	0,65	28%
% of recycled or reused waste	%	99	98,5	98,2	0%
Certificate: TÜV Nord	Yes/No	Yes	Yes	Yes	

Social - Key figures

Secure employment and social protection

At Ferro Duo, we attach great importance to secure employment and social protection. Currently, less than 5% of our employees have fixed-term contracts. The ratio of non-permanent to permanent employees is 1:10, which emphasises the stability and commitment of our core team.

Our employees enjoy comprehensive social protection, including a company pension scheme, health insurance and accident insurance. In addition, we offer professional development programmes and personal development opportunities to ensure that our employees can work in a safe and supportive environment.

We try to avoid redundancies in order to offer our employees stability and security. In addition, we limit the renewal of fixed-term employment contracts in order to promote long-term employment and give our employees planning security.

If state regulations on social protection are inadequate, we take responsibility as an employer. We offer comprehensive social protection, including a company pension scheme, health insurance and accident insurance. We also ensure that our employees have access to training and development opportunities to support their professional and personal development.

Through these measures, we ensure that our employees can work in a safe and supportive environment. The combination of permanent contracts and comprehensive social protection demonstrates our commitment to the well-being and long-term security of our workforce.

Duty to pay S1 - Own employees

Data point	Unit	Target	2023	2022	Δ
Number of employees					
Total number of employees (as at 31 December)	FTE #	49	49	49	0%
Number of employees during the year	FTE #	49	49	49	0%
Total employee turnover rate	%		32	16	100%
Employee satisfaction					
	High/Low	High	High	High	
Management Board					
Number of members	FTE #	5	8	6	33%
Share of members: Gender with the lowest representation (female)	%	20	12,5	16,7	0%
Total number of reportable injuries	#	0	2	4	(50%)
Number of deaths	#	0	0	0	0%

Duty to pay S2 - Labour in the value chain

Number of suppliers					
Total number of suppliers	#	317	317	317	0%
Total number of national suppliers	#	236	236	236	0%
Total number of international suppliers	#	81	81	81	0%
Total number of suppliers with a code of conduct for suppliers	#	317	85		
Directive for human rights	Yes/No	-	Yes	No	-
Code of Conduct for Suppliers	Yes/No	-	Yes	No	-
Code of Conduct	Yes/No	-	Yes	No	-

Summary

Ferro Duo - your strategic partner for recycling management and CO₂ optimisation

At a time when environmental protection is becoming increasingly important, topics such as the circular economy and CO₂ optimisation play a major role. Companies that do not adapt to new regulations such as the EU Green Deal, Fit for 55 or the Supply Chain Act can suffer economic disadvantages. We see these changes as an opportunity and are focussing on sustainability.

Our products and services Industrial products and by-products:

We offer a wide range of industrial products, industrial by-products and recycled waste products.

Technical solutions:

Our modern, patented processes for material preparation are efficient and innovative.

Applications:

We are experts in the application of our products in various industries such as cement, steel and chemicals.

Global presence and expertise

With locations and partners in Germany, Italy, Switzerland, the USA, UK, Spain and China, we have a global network. We have extensive experience in processing materials such as iron sulphate, slag, iron oxide, aluminium oxide, fly ash, clay and gypsum.

Comprehensive consulting services

Our consulting services offer companies technical expertise and a precise analysis of their specific challenges. We develop customised solutions to increase efficiency and reduce the environmental footprint, using innovative approaches and the latest technologies.





Disclaimer

This materiality report contains forward-looking statements that are based on our current estimates and assumptions. These statements include, but are not limited to, forecasts, targets, expectations and plans relating to our sustainability efforts. By their nature, they are subject to risks and uncertainties that could cause actual results to differ materially from those anticipated or implied.

Factors that could cause such deviations include, among others:

- Changes in legal and regulatory framework conditions
- Technological developments and innovations
- Market and economic conditions
- Availability and price of resources and materials
- Climatic and ecological changes

We endeavour to provide accurate and up-to-date information on an ongoing basis, but we assume no obligation to update or revise the forward-looking statements contained in this report, except as required by law.

The data and information contained in this report have been compiled to the best of our knowledge and belief, but we assume no liability for the accuracy, completeness or timeliness of the information. This report is for information purposes only and does not constitute legal, financial or other advice.