

Sustainability Report 2020



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Sustainability Report 2020

The Höganäs vision is to inspire industry to make more with less. Metal powder technology is a resource-efficient alternative that can provide endless opportunities for many industries. We believe that metal powders can play an important contribution to a more sustainable world when manufactured and used responsibly.

This is the Höganäs Sustainability Report 2020.



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This is Höganäs

Höganäs is one of the leading global providers of metal powder solutions with an annual production capacity of over 500,000 tonnes. We have 18 strategically located production facilities in 11 countries and are represented by tech-centres and sales offices close to our customers in all three of our regions: Americas, APAC and EMEA.

Read more [about the industries we serve](#), [our products](#) and [our know-how](#) at www.hoganas.com.



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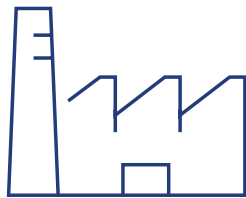
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500,000
tonnes production
capacity



2,300
employees

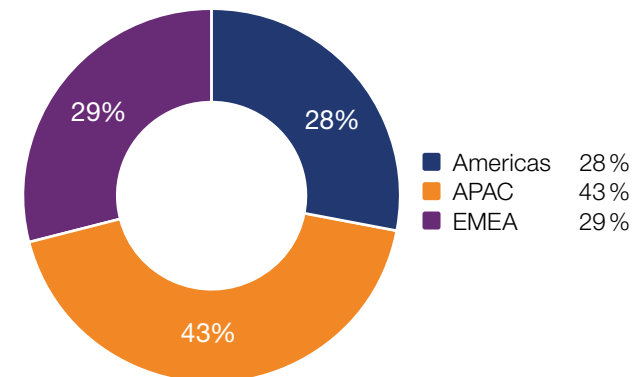


3,000
customers



800
granted patents

Sales per region



The role of metal powders in a more sustainable world

Powder metallurgy can help solve many of society's pressing challenges by promoting the efficient manufacture of complex metal parts to promote greater resource utilization, energy efficiency and reduced waste compared with welding or machining. Powdered metal surface coatings can also increase a product's lifetime by providing improved wear and corrosion resistance.

In addition, metal powder is used in water treatment and soil remediation, as well as to produce inductors for renewable energy generation – to improve the lives of millions of people around the world.

Targets and results

The table below summarises our Group targets, the progress we made in 2020 and if we are on track to achieve each target.

Target/KPI description	Numerical	Progress 2020 (2019)	Progress
Lost time injury frequency	Long-term zero target	5.4 (7.6)	●
Rate female co-workers	Long-term target >25%	17 (16)	●
ISO 45001 certified	16 (of 19) sites by 2022	9 (2)	●
Direct materials suppliers evaluated towards our supplier Code of Conduct	100% by 2020 ¹	29% (20%)	●
Employees completed Code of Conduct e-learning	100% by 2020 ²	72%	●
Employee participation in Code of Conduct workshops	100% by 2021	36%	●
ISO 50001 certified (melting production sites)	10 sites by 2021	4 (2)	●
Reduction of energy use per produced tonne	10% by 2020 (base year 2010) ³	8.1 (7.1)	●
Reduction of CO ₂ emissions, scope 1 and 2	30% by 2026 (base year 2018)	<1	●
Process residuals put to use	85% by 2020 95% by 2026	80% (80%)	●
Höganäs Product Sustainability Vision implemented in all Product Areas with at least one aligned product on offer ⁴	>3 by 2022	New target	●

¹ Target was not met due to unforeseen obstacles related to resource constraints and prioritizations.

² Progress on this target was slowed by the coronavirus pandemic. We now aim to achieve this target by the end of 2021.

³ Shutdowns and decreased production volumes due to the coronavirus pandemic resulted in less efficient processes and that it was not possible to reach the target, but a substantial improvement has nevertheless been accomplished.

⁴ Read more about our Product Sustainability Vision under [Our vision for more sustainable products](#).

Key

- we are on track to achieve the target
- we are not currently on track to meet the target
- we do not expect to meet the target

CEO Statement

We overcame significant challenges during the year as we continued to drive our sustainability agenda and refine how we measure our progress. This work will continue in 2021 as we redefine our key performance indicators.

The pandemic made 2020 an unprecedented year for many, and it put our customers under great strain, predominantly the automotive industry, which reduced the demand for metal powders. We coped with the pandemic by prioritising the safety of our people and ensuring minimal disruption to our production. I am extremely proud of the efforts and dedication of each and every one of our employees during this challenging year.

Regardless of the pandemic, we continued to drive our sustainability agenda and our five sustainability areas: Workplace, Society, Climate, Environment and Products. In 2021, we will redefine key performance indicators and plan how we will realise the key activities within each area.

Sustainability leadership

We are determined to lead the profound change in the industry that is needed to achieve sustainable steelmaking. Sustainability leadership is embodied in our commitment to develop more sustainable products that create customer and societal value, as well as our work to make our operations more sustainable.

We recognise that the actions of our co-workers in their everyday work are essential to our sustainability ambitions and leadership. The integration of our sustainability



Fredrik Emilson, CEO

agenda into our business is also important to demonstrate sustainability leadership throughout Höganäs and among our external stakeholders.

The climate opportunity and more sustainable solutions

I see the area of “Climate” as our biggest sustainability-related challenge – but also our greatest opportunity.

As a steelmaker, we have a large carbon footprint, which is why we have set the ambitious goal to become climate neutral by 2045. We know there are many obstacles ahead of us, such as access to renewable energy sources and technology leaps that are required to produce carbon-free steel. I am looking forward to stepping up our sustainability work – not least in the fields of carbon neutrality and material circularity – together with our stakeholders.

Another strategic priority is our vision to deliver sustainable products, which will help us develop a product portfolio that meets customer demands for lower life cycle impact. The markets Höganäs caters for show increased awareness of climate change and interest in more sustainable solutions. Therefore, we believe that our ambitious sustainability objectives will help us to not only meet these customer demands but also lead the industry. Through our sustainable offerings, we can add new customer value and increase our competitiveness.

To achieve our sustainability objectives, we need to find new pieces of the puzzle that are not yet available to us –

including new efficient technologies, large-scale industry solutions, and access to resources such as bio coke and green energy gas. We are actively investing in R&D and working with pilot projects to develop such solutions.

Our sustainability progress

In 2020, we made progress on our sustainability targets and I believe our work to reorganise how we manage sustainability and refine our sustainability agenda around our five areas has created a solid platform for future success. Good progress during the year included our work with safety and the reduction of our LTI frequency from 7.6 to 5.4 per million hours worked. Our proactive work with safety included arranging a successful Global Safety week with focus on risk awareness. Exciting work also began towards our long-term goal of being climate neutral by 2045 through a Climate Roadmap kick-off project.

I was proud of our continued work to implement our Code of Conduct during the year, and the multi-certification of our German production facilities in Goslar and Laufenburg, including the ISO 50001 standard, was a great achievement. We have also strengthened sustainability competence within our organization, particularly when managing projects. This involves using a sustainability assessment tool in feasibility studies, both with the aim of exploring the sustainability impacts of projects and to educate project teams in sustainability thinking.

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Sustainability – an essential part of our business, today and in the future

We know that metal powder can contribute to a more sustainable society, for example through greater resource efficiency for customers, water purification and soil remediation. As a 223-year-old company, we also know what an important role we play in creating sustainable communities and safe workplaces.

Sustainability plays a key role in the everyday decisions we make – in everything from our actions to our investments. Our work is shaped by the demands and expectation of external stakeholders with the ambition of leading the industry. The ten principles of the UN Global Compact, which we have been a signatory of since 2017, continue to form the basis for our global sustainability work. I firmly believe that our sustainability work will continue to play an essential role in the development of our business in the coming years, and that it will be increasingly visible to both our internal and external stakeholders.

Achieving our objectives of reducing our carbon emissions by 30 per cent and turning more than 95 per cent of our side-streams to useful products by 2026 for example will need us all to work together – both within our company and among our industry partners. I am looking forward to stepping up our sustainability work together with our stakeholders in 2021 and beyond.

Fredrik Emilson

President and CEO, Höganäs Group



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Governance

Through our corporate governance, we aim to lead the industry in terms of sustainability, guided by our values and principles – which are enshrined in our Code of Conduct.

Our values and principles are fully integrated into our company and everything we do. This includes our decision-making structures, responsibilities and accountability throughout the organization. Good governance is also embodied in how we manage risk and emerging sustainability topics to ensure they are effectively governed.

Sustainability management

The ultimate responsibility and decision-making authority for Höganäs' sustainability performance and compliance with statutory and regulatory requirements lies with the Board. Sustainability objectives are communicated internally, and activities are agreed as part of the business plan. The progress on these activities is followed up and reported to the Board.

During 2020, we reorganised how we manage sustainability within our organization. This involved creating a new sustainability management position and clearer focus on our sustainability objectives.

Our values and principles

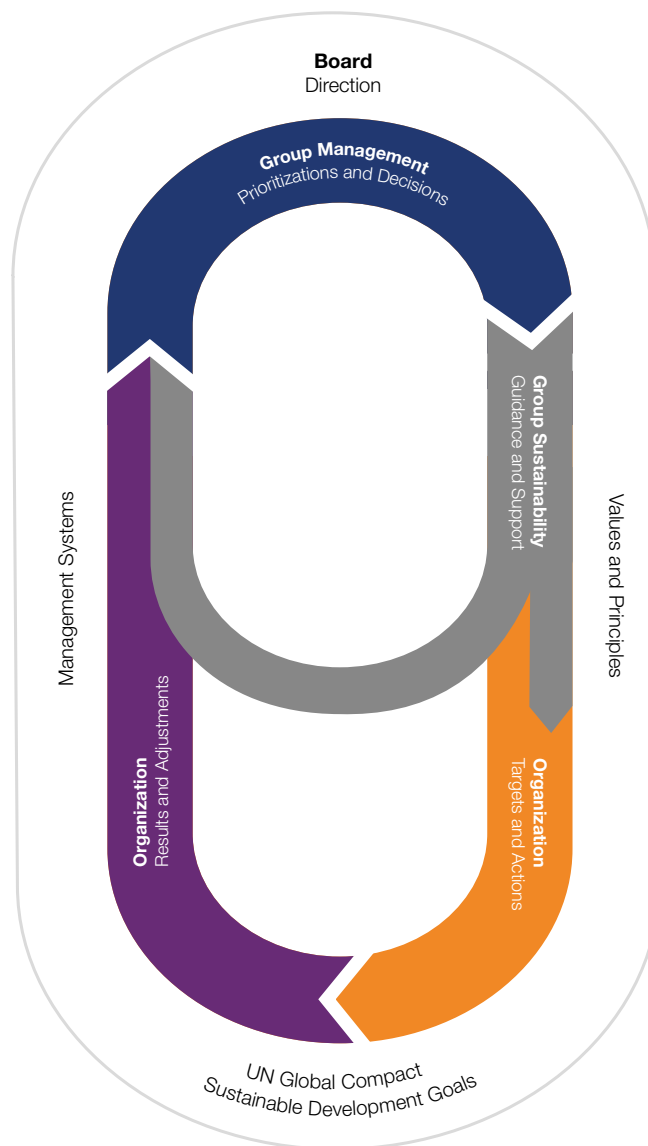
Sustainability governance at Höganäs is based on internationally agreed principles and objectives such as the



Our vision and our management philosophy, More Höganäs.

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Sustainability Governance



Sustainable Development Goals and the ten principles of the UN Global Compact. Our vision and our management philosophy, **More Höganäs**, as well as our Code of Conduct guide us on how to act in all situations. We realise that there is always room for improvement and that we constantly need to evaluate how we work in order to be a better employer, manager and co-worker.

The Höganäs Code of Conduct

A new version of the Höganäs Code of Conduct was launched in November 2019. The code guides the Höganäs management philosophy and provides a common platform on how the company and its employees should act based on high ethical standards. Commitments to human rights, local society, anti-corruption, ethics, business operations and business partners are all expressed in the Code of Conduct.

In 2020, Höganäs rolled out a comprehensive employee training programme to ensure all its employees understand and comply with the new policy, including the company's anti-corruption policies and procedures. The training programme included interactive workshops and e-learning, educational films and scenario-based discussions. The goal was that all co-workers would take part in a mandatory knowledge assessment during 2020 to ensure they understand and are willing to comply with the code.

The figure illustrates the sustainability management process. Relevant policies, certifications and legal statements are available at www.hoganas.com.

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Nicklas Lång, SVP General Counsel and Sustainability, member of Höganäs central crisis team.

The training programme was hampered by the coronavirus pandemic during the year and the fact that many blue-collar workers do not have access to their own computer. But 70 per cent of our sites, or 73 per cent of our co-workers, achieved the goal and almost 40 per cent of employees participated in workshops with interactive films, scenario exercises and discussions. Our new ambition is for all employees to have completed a workshop by the end of 2021.

The new Code of Conduct includes an improved system for reporting breaches of our code, and an extensive internal information campaign has been carried out to encourage everyone to speak up when needed.

Crisis management and communication

We have well-established emergency response teams at all our production units. These teams are responsible for managing local incidents, including events immediately after an incident, the following root cause analysis and the updating of routines to avoid similar incidents in the future.

Höganäs has a central crisis team with the purpose of supporting local teams if an incident develops into a crisis, either locally or globally. The central crisis team has directives, routines, reporting tools and templates in place to support local teams in how and when to escalate incidents to a global level.

India leads Code of Conduct training implementation

The roll-out of the updated Code of Conduct was slowed by the coronavirus pandemic around the world. But India was one country that succeeded in the large-scale roll-out of the training despite the pandemic.

By the end of 2020, 95 per cent of employees in India had participated in the Code of Conduct workshop, compared with the Group average of 40 per cent, and all co-workers in India had completed the e-learning. We speak with four employees from India about their experiences from the training they received and their perceptions of the updated Code of Conduct.



*Subhash Todkar,
HR & Admin Manager*

“I found the workshop to be very effective and highly relevant to my daily working life. The Code of Conduct provides me with a clear ethical guideline in my work and day-to-day decision making. I believe the new Code of Conduct will help to reduce workplace discrimination, maintain our company culture and improve our organization’s reputation, while making Höganäs a better place to work.”



*Jayant Hazra,
Supply Chain Manager*

“I participated in an e-learning before holding an on-line Code of Conduct workshop for my team of seven supply chain colleagues. The Code of Conduct is essential to our work with suppliers as it includes all the aspects we evaluate them on – such as child labour, environmental performance, anti-bribery and conflict minerals. The new code is really useful in explaining to suppliers what we expect from them and I think it has really stepped up our work with our supply chain.”



*Priyanka Gaikwad,
Engineer Technology-
Metallography*

“The Code of Conduct e-learning course and workshop provided me with a good revision of business ethics since my induction when I joined Höganäs in 2017. We discussed how we can promote a good working environment by looking at different practical case studies and I learned how to use the Code of Conduct as a reference in my everyday activities to maintain ethics. I think the code is also a useful platform to promote gender equality in my workplace as we currently have few female employees.”



*Kaustubh Deshpande,
Maintenance Manager
and LEAN Coach*

“The online workshop was really useful as it was full of practical examples of how we should behave in various day-to-day circumstances. It really helped me to understand how I can act in accordance with the principles of the Code of Conduct, for example when dealing with suppliers, customers and of course my colleagues. I have never worked for a company with such a well-defined Code of Conduct. It really feels like we are cared for.”

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Strategy

Our sustainability agenda focuses on five areas – workplace, society, climate, environment and products – and was shaped by our risk management, materiality assessment and stakeholder dialogue.

Risk management

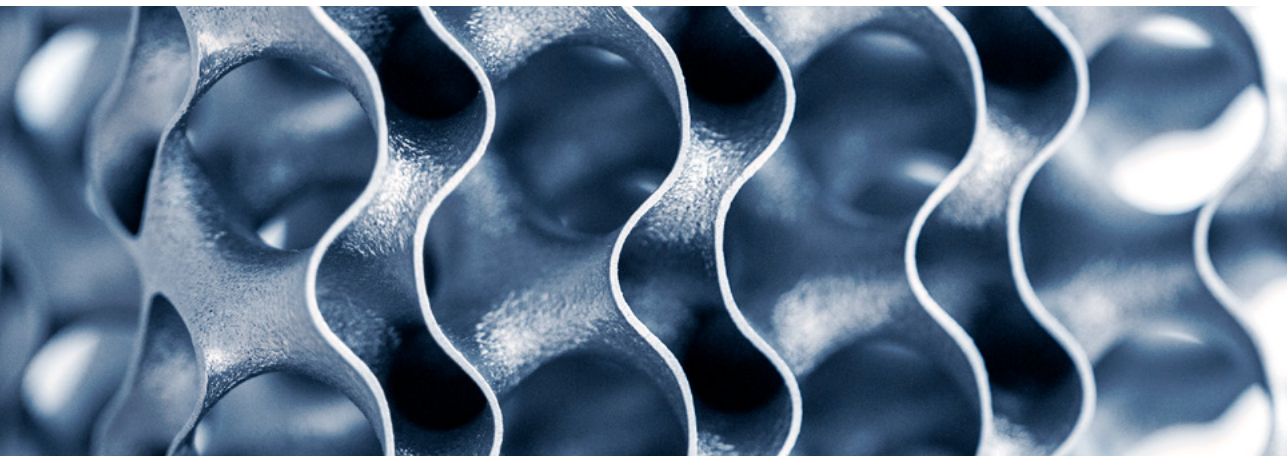
We regularly conduct risk analyses within the organization, including an analysis each year at Board level. The Group level risk assessment also includes risks related to sustainability, such as strategic business risks driven by climate change, demands related to circularity and biodiversity, environmental regulatory compliance risks and supply chain risks.

Our risk management and mitigation processes include:

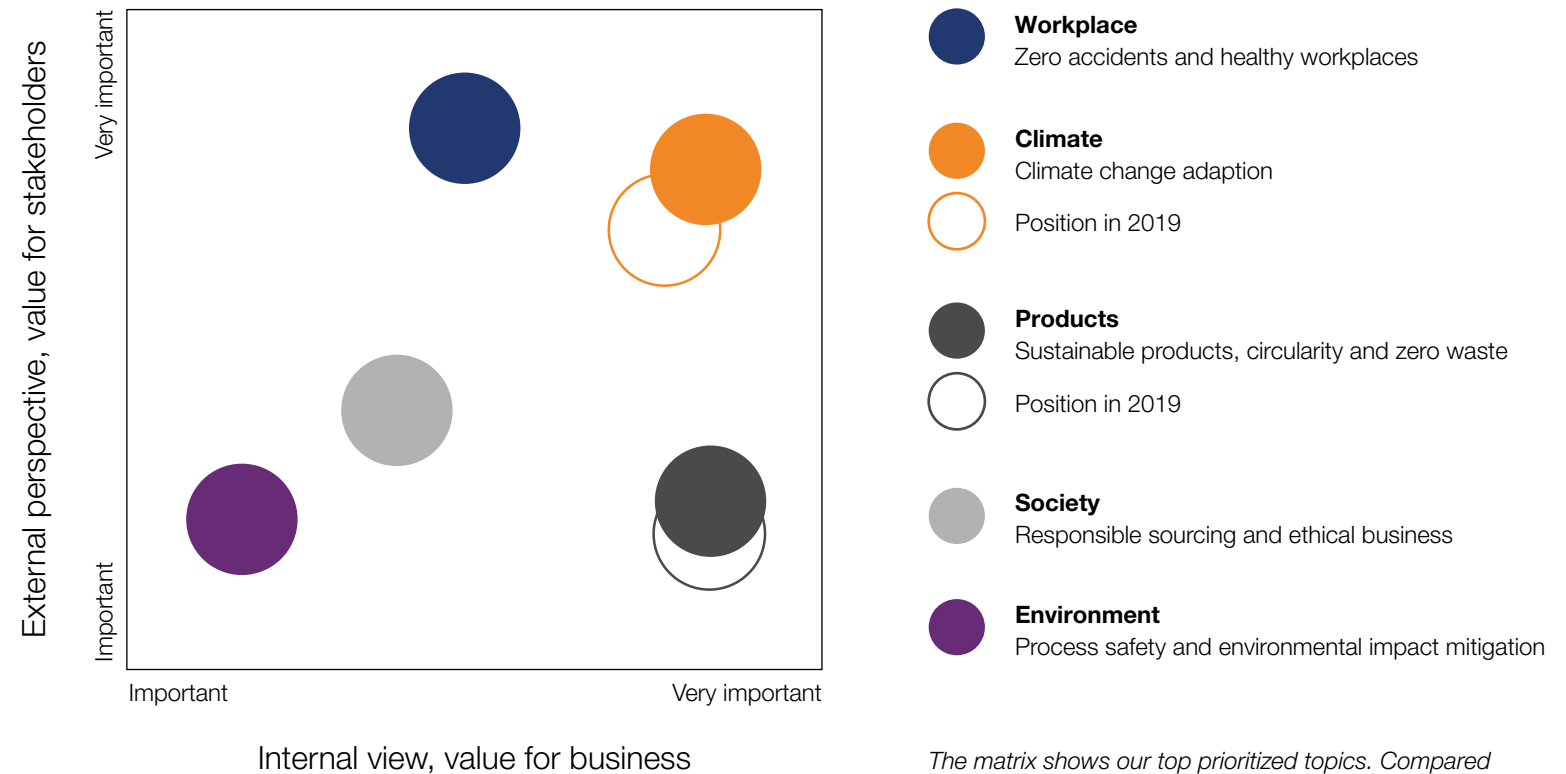
- The reporting and management of incidents
- Management systems and certifications

Materiality analysis

Our sustainability agenda is guided by our latest materiality analysis in 2019 that prioritised the most important sustainability topics to our business. The assessment included the impact of topics on business stability, long-term profitability and reputation, as well as on performance and the topic prioritization of external stakeholders.



Materiality matrix



Stakeholder dialogue

Our sustainability agenda is also shaped by our stakeholder dialogue, which was limited by the coronavirus pandemic during the year.

Owners/Board	
Examples of dialogue Board meetings and owner inquiries.	Key interests Risk/opportunity management, financial results, business ethics, sustainability performance, and climate strategy.

Co-workers	
Examples of dialogue People satisfaction survey, performance and development talks and input from formal forums with union representatives.	Key interests Fair and equal treatment, good labour terms, personal development and satisfaction, safety, social security, and good leadership.

Authorities	
Examples of dialogue Inquiries.	Key interests Legal compliance, integrity, and open dialogue.

Industry organizations	
Examples of dialogue Participation in working groups, and requests for information	Key interests Model, good example for the industry, knowledge sharing, and innovation.

Customers	
Examples of dialogue Customer satisfaction surveys, complaints and interviews.	Key interests Competence, highest quality, customer focus, product life cycle, efficiency, and innovation.

Financial institutions	
Examples of dialogue Individual meetings and surveys.	Key interests Risk/opportunity management, sustainability challenges, climate strategy, and ethics.

Suppliers	
Examples of dialogue Meetings and evaluations.	Key interests Reliability, good customer, fair business behaviour, and timely payments.

Neighbours	
Examples of dialogue Public consultation meetings at all production sites, Group and local websites, social media, and other information channels.	Key interests Honesty, consideration, responsible member of society, and good employer.

Local communities	
Examples of dialogue We devote time and resources to a number of non-profit projects.	Key interests Building communities by contributing where we operate, reliability, open dialogue, and responsible member of society.

The Höganäs sustainability agenda

Our sustainability agenda comprises of five main areas where we focus our efforts:

Workplace – By creating good and safe working conditions, we promote Höganäs as an attractive employer to help us attract and retain the right competence and skills.

Climate – We work proactively to minimise the greenhouse gas emissions generated from our activities toward our objective to be net climate neutral by 2045.

Environment – We mitigate the environmental impacts from our production and from the materials and chemicals we use.

Products – Our circular, resource and energy-efficient product portfolio can help overcome customer challenges and contribute toward a more sustainable society.

Society – We are a responsible member of society committed to high ethical standards in everything we do, including our sourcing, financial reporting, and our responsibility toward external stakeholders and the local community.

Our five sustainability areas – Workplace, Climate, Environment, Products and Society – are detailed in the following chapters of this report. We summarise why each area is important to us, how we work with the area, and the progress we made during 2020.



Our most strategic long-term sustainability topics

- Zero accidents and healthy workplaces
- Climate change adaption – net climate neutral 2045
- Resource efficiency and zero waste
- Responsible and ethical business
- Environmental impact mitigation

Workplace

By creating good and safe working conditions, we promote Höganäs as an attractive employer. In 2020, we made good progress on our safety performance, updated our Health and Safety policy, and launched a “safety toolbox”.

How we work

Our ambition is to create a great and meaningful workplace for all our co-workers. The Höganäs Code of Conduct is fundamental in these efforts and we implemented the new version of our Code of Conduct in 2020.

Health and safety is our number one workplace priority, and our objective is to achieve zero accidents. We also work to attract competent, skilled people and make sure they can develop to their full potential and thrive at Höganäs, as well as strive to attract more women in what is a traditionally male-dominated industry.

Our business is aligned with the ten principles of the UN Global Compact in the areas of human rights, labour, the environment and anti-corruption, which we have been a signatory of since 2017. Our Code of Conduct outlines our principles and how they are related to labour standards and human rights in our workplaces around the world.

Collective bargaining

At the end of 2020, 84 (80) per cent of our co-workers were covered by collective bargaining agreements.



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SDG target

Our objectives and what we do

TARGET 5-1



END DISCRIMINATION
AGAINST WOMEN AND
GIRLS

>25% female co-workers, ensuring equal treatment and career opportunities for women

➔ See the “Diversity and inclusion” section and the “Non-discrimination”

TARGET 8-5



FULL EMPLOYMENT
AND DECENT WORK
WITH EQUAL PAY

Ensure fair working and wage conditions in all countries through the values and principles of More Höganäs, and by implementing the Code of Conduct

➔ See this entire Workplace chapter

TARGET 8-8



PROTECT LABOUR
RIGHTS AND PROMOTE
SAFE WORKING
ENVIRONMENTS

The values and principles of More Höganäs, and systematic work with working environments and occupational health and safety (ISO 45001)

➔ See this entire Workplace chapter

TARGET 10-2



PROMOTE UNIVERSAL
SOCIAL, ECONOMIC
AND POLITICAL
INCLUSION

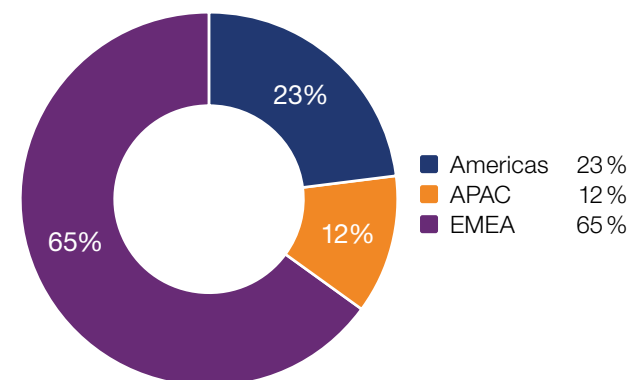
The values and principles of More Höganäs, Code of Conduct, anti-discrimination, equal treatment and diversity

➔ See the “Diversity and inclusion” section and the “Non-discrimination” section

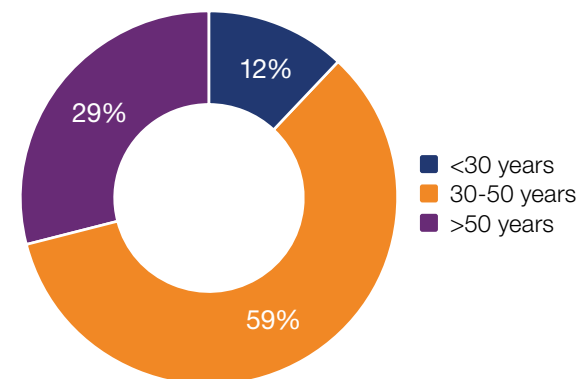
Our people

In 2020, Höganäs had 2,300 (2019: 2,454) employees in 16 (16) countries, counted as FTE. During the year, 188 men and 40 women left the company and 79 men and 27 women were employed. The total employee turnover rate during 2020 was 9.5 (4.5) per cent, which is an increase of 5.0 percentage points compared to 2019. The increase in employee turnover is explained by organizational changes.

Co-workers per continent percentage



Age groups percentage



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Co-workers per region according to gender and employment type

Percentage	AMERICAS	APAC	EMEA	Total
Men	20.0%	9.6%	53.9%	83.5%
Women	2.8%	3.0%	10.8%	16.6%
Full-time position	22.6%	12.5%	58.2%	93.3%
Part-time position	0.2%	0.0%	6.5%	6.7%
Temporary employed	0.0%	0.3%	2.1%	2.4%
Permanently employed	22.8%	12.2%	62.6%	97.6%

Health and safety
– towards industry best practice

We strive to achieve industry best practice in health and safety, including a preventative approach to health and a zero-accident culture where behavioural change is key.

We work safely – or not at all

Our long-term objective is zero accidents, which some of our production units are approaching. In order to work systematically to reduce risks and prevent accidents, our operations have health and safety management systems that cover all activities and co-workers. We are

Our main safety KPIs are

Lost Time Injury (LTI) frequency, which is the number of workplace injuries that cause absence from work per million hours worked.

In addition, we follow the **Total Recordable Injury (TRI)** frequency, a severity index and a reporting culture index.

working towards certifying all our production plants to the ISO 45001 occupational health and safety standard before year end 2021.

Our safety culture

“Safety first” sums up our aim to create a solid safety culture where dialogue and risk-elimination are key, and where the rule is to never compromise on safety. Our long-term objective is zero accidents and some of our production units are approaching that level of safety. Our work to strengthen our safety culture involves risk management, incident reporting, training and systematic behavioural change.

Our Safety Dialogue Map is a training tool to strengthen the Höganäs safety culture. It encourages co-workers to adopt safety procedures and policies into their everyday work. The map is typically used in groups of four to six people supported by a supervisor.



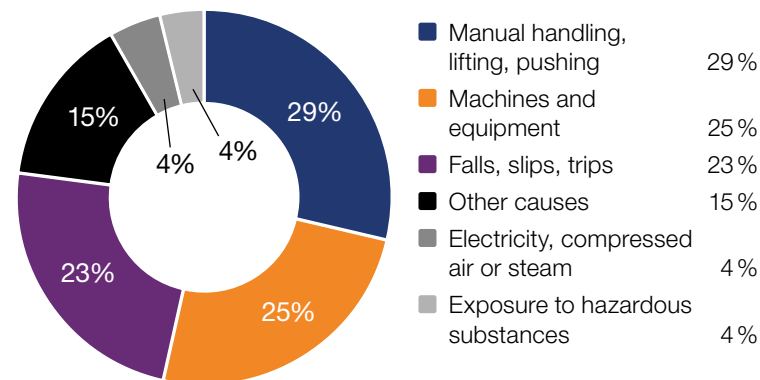


During 2021, we plan to update the existing Safety Dialogue Map concept.

Progress on health and safety

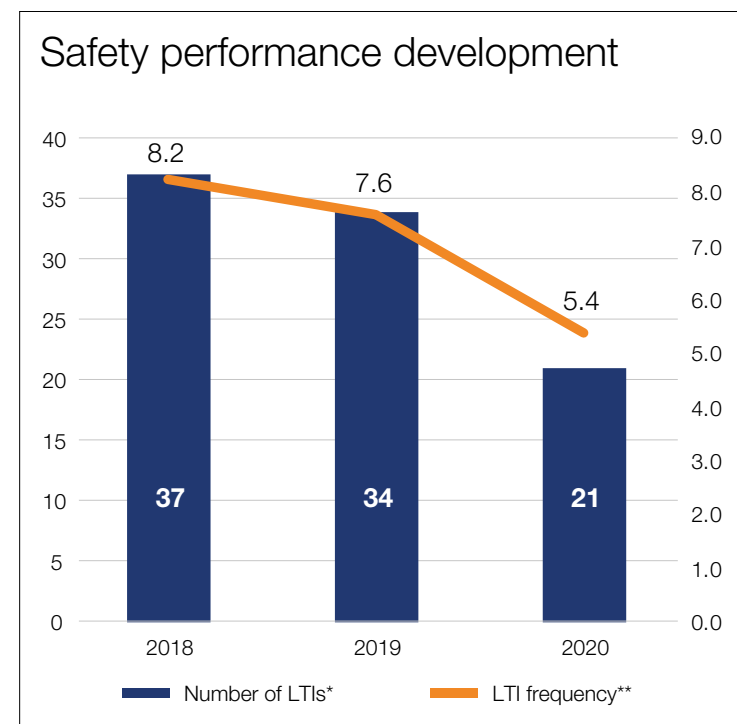
The recently published updated version of our Health and Safety policy in eight languages has increased focus on the management of psychosocial and stress-related risks. During the year, we also launched a “Safety toolbox”, which consists of four practical tools to promote safety. The toolbox has been rolled out at our plants in Sweden, Belgium and Tonbridge in England, and will continue around the world in 2021.

Causes of injuries



The analysis of causes of injuries shows that we have made improvements regarding falls, slips and trips, but that we need to focus more on ergonomics and manual handling.

During 2020, there were 21 lost time injuries compared to 34 in 2019, resulting in a LTI frequency of 5.4 (7.6) per million hours worked. The decrease follows various activities and measures to increase safety awareness in recent years. We have made significant progress on health and safety since the Global Safety Manager started in 2019, particularly regarding Safety Week, safety working groups and best practice sharing. However, we still have work to do in terms of our safety performance.



***LTI:** Number of lost time injuries

***LTI frequency:** Lost time injury frequency per 1 million hours worked



Health and safety performance, co-workers	2020	2019	2018	2017
Number of recordable injuries*	185	221	164	201
Number of lost time injuries**	21	34	37	39
Number of high-consequence work-related injuries	0	0	1	0
Number of fatalities	0	0	0	0
Lost time injury frequency per million hours worked	5.4	7.6	8.2	9.7
Recordable injury frequency per million hours worked	47.2	49.3	36.5	49.8
Incident reporting frequency***	120	63	53	53
Sick leave rate	3.8%	3.7%	3.8%	****

* Including all reported injuries with or without absence from work and commuting accidents.

** Including injuries and commuting accidents leading to absence from work.

*** Reported risk observations, near misses and accidents per lost time accident.

**** Data not available.

Health and safety committees

Our health and safety committees, which cover all Höganäs co-workers, meet up to four times a year and include all levels of the organization, from shop floor to management. The committees create a formalised way of collecting knowledge from all levels of the organization by creating a forum where improvements can be discussed and decided upon.

Emergency preparedness

Evacuation drills are carried out at all sites on a regular basis and improvements are made. Inspections of emergency exits, as well as fire safety equipment and evacuation routes are conducted as part of weekly and monthly safety walks.

Global Safety week focus on risk awareness

In October, Höganäs arranged a three-day global “Höganäs Global Safety Week” with a focus on workplace risks and personal responsibility. Our plants around the world conducted a broad range of activities such as the review of risk assessments, CPR training, fire safety training and drill exercises concerning the leakage of liquid steel. This was our first global safety week, and a second is planned in 2021 where other relevant topics will be covered based on the feedback from 2020.

Increasing safety competence

Our operations hold quarterly global “Lessons Learned” meetings with the purpose of sharing experiences and implementing best practice. During the year, this included the safe use of hand-held tools and ladders, and sweat-absorbing screens in hard hats to prevent employees getting fine metal powder in their eyes.

Our “Best Practice” groups, which cover risks related to specific production areas, performed two parallel workshops as part of a two-day virtual Hot Metal Safety conference in September. One important outcome will be a new

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cross-functional working team with representatives from all continents with the scope to create frameworks on how to write safety and quality instructions. Two new Best Practice groups will also be formed in 2021 within the areas “Atomising – High alloy” and “Atomising – iron powder”.

Health and safety training that is adapted to the individual work-related risk exposure is mandatory for all co-workers and general safety training is part of our induction process for new employees. Even though we want to become the safety benchmark for the steel industry, our track record shows that we still have a long way to go and that “safety first” must remain our top priority.

Promoting health

Occupational health services are provided locally and according to national legislation. Medical health checks are carried out on a regular basis based on the type of work, and employees have on-site access to health services.

We continue to proactively offer lifestyle health promotion activities based on local needs. These range from rewards for cycling to work, step counting competitions, weight-loss and stop smoking groups, contributions to wellness programmes and gym cards, and healthier lunch alternatives.

We work continuously to minimise exposure to hazardous substances at work and co-workers undergo special training to avoid health risks. Recent technical improvements include new dust filters and vacuum cleaners, and more enclosed and automated operations to mitigate

health risk exposure. LEAN and 5S (Sort, Set in order, Shine, Standardise and Sustain) are important tools to achieve and maintain clean and safe ways of working.

We encourage the reporting of any suspected ill-health case into our health and safety reporting system, but at present they may go unreported as co-workers may only choose to report their cases to external health care providers.



We offer lifestyle health promotion activities based on local needs. These range from stop smoking groups and wellness programmes to rewards for cycling to work.

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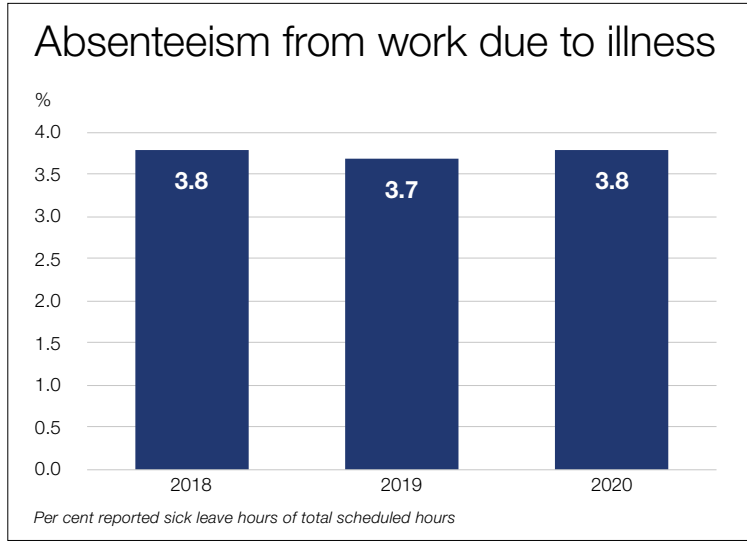


Sick leave rate unchanged despite the corona pandemic

People have adapted well to the new circumstances following the coronavirus pandemic. This included switching to video meetings and existing digital collaboration platforms have been utilised in a better way.

The French sales team took the concept of video meetings further by carrying out video plant visits (tours) at customer sites with great results.

Co-workers in production have adapted by keeping distance, regular hand washing and wearing masks.



The sick leave rate has been stable and has not been noticeably affected by the coronavirus pandemic. Those who have been able to work from home have done so, and precautions have been applied at workplaces.



Co-workers adapted well to the new circumstances following during the coronavirus pandemic and co-workers in production have adapted by keeping social distancing, regular hand washing and wearing masks. "We are protecting ourselves and each other, but I look forward to the day when we can take off our masks and stay close again", says Sunny Zhang, engineer in Shanghai.

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Maintaining a safe work environment during the pandemic

During the coronavirus pandemic in 2020, Höganäs acted quickly and proactively to promote the safety and well-being of its people and minimise business disruption.

Implementing people safety contingency plans for all sites

“We were very early in setting up people safety contingency plans for all our sites globally when the coronavirus first started to impact China,” says Lena Nordberg, SVP HR & Communications at Höganäs. “So, we were glad to already have a variety of measures in place when the pandemic really took hold globally.”

These measures included site safety plans, local coronavirus crisis teams at large sites, ensuring sufficient supplies of face masks and hand sanitisers, routines for external visitors, a coronavirus travel checklist and a global committee that followed up that the measures were correctly implemented.

Co-worker support around the world

Höganäs co-workers supported each other during the pandemic. In February, during the peak of the coronavirus crisis in China, Höganäs co-workers in the country received support from colleagues around the world, and donated 184,000 CNY (25,000 USD) to support the Wuhan district. Then in March, Höganäs in China sent more than 38,000 masks to protect their colleagues in different Höganäs countries. They also donated 165,000 surgical face masks to Örebro University hospital in Sweden.

Employee health first

“As the number of infections rose, we began weekly meetings involving our local crisis teams and global management, and each local site continuously reinforced their routines as the local and global situation developed,” says Nordberg. “Of course, the health and well-being of our co-workers was our number one priority, and this went hand in hand with minimising the disruption of our business during the pandemic.”

Höganäs has had no serious operational disruption during the pandemic in 2020. “Our sales have been hit by the pandemic, but by maintaining production, we have managed to keep up with customer demand and ensure the supply chain was not disrupted,” concludes Nordberg.



Lena Nordberg



Diversity and inclusion

We foster a culture that welcomes new co-workers from all backgrounds to quickly become a part of our global organization, with common employment standards and ways of working that promote diversity and inclusion. We also realise that respect, equal treatment and equal opportunity are fundamental to being an attractive employer and we view diversity as a long-term success factor.

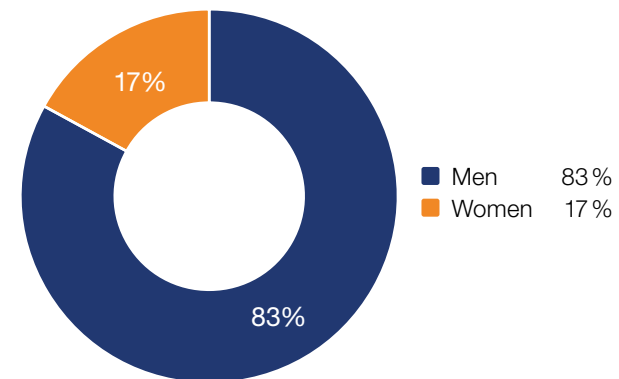
At Höganäs, we see great potential to encourage women to discover the opportunities within our industry. This helps us to access a larger pool of talent, and to become a more modern and attractive company to work for. We work with the principle of 50/50 women and men on the list of candidates in recruitment.

Our target is to increase the proportion of female co-workers to 25 per cent. At the end of 2020, women made up 17 per cent of our workforce and 28 per cent of managers at level 1 and 2.

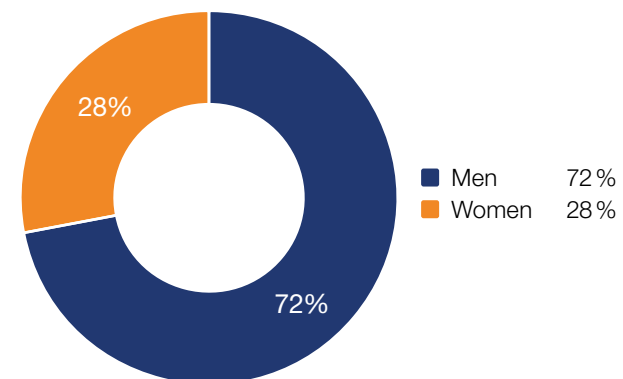
We do not discriminate on the basis of race, ability, sexual orientation, or gender expression. During the year, there were no instances of discrimination reported to the Höganäs Group.

18% women in Board of Directors
9% women in Group management team

Gender distribution, all co-workers



Gender distribution, managers



The proportion of female co-workers increased by one percentage unit compared to 2019. The proportion of female members of Group management and Board remained unchanged.

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Promoting gender diversity at Höganäs

Höganäs has the long-term objective to increase the proportion of female employees from 17 per cent in 2020 to 25 per cent. We speak with Caroline Larsson VP of Material Development and Product Portfolio Management at Electro & Mechanical Technologies (EMT) about her career, gender diversity and what it's like to be a female manager working at Höganäs.

Please tell us about your career to date

I am an engineer with a background in material physics and metallurgy and have worked at Höganäs for around 30 years. My career began in product development before moving into sales and marketing, and then into production, which have all been combined in my latest position.

Why should industry employ more women?

My experience is that more balanced teams – both from a gender and ethnic background perspective – are better at taking a broader perspective, for example by considering a wider range of topics and stakeholders. There are also lots of talented female engineers out there, which industry needs to attract in order to further develop in the future, and of course more and more of our customers will be female and from diverse backgrounds in the future.

What is it like to be a female manager at Höganäs?

I would say that Höganäs is an inclusive company that sees value in diversity, and I have had fantastic opportunities to develop both personally and professionally over the years. People are treated the same and voices are equally valued, which I feel creates



Caroline Larsson

an inclusive working environment. As a female employee and manager, I personally have always supported the development of women in an industry that has been traditionally male dominated, and I am looking forward to seeing even more women in various roles in the future.

What's your message to young women thinking about working in industry?

I strongly recommend that women consider career opportunities in industry. I have personally thrived on the wide variety of roles in a very international environment at Höganäs.



People development

Our industry is highly technical and demands specialised expertise that must constantly be developed in line with our business transformation. Even though 2020 was a challenging year on many fronts, we continued to implement our diversification strategy. Our success factors for 2021 are:

- Right Leaders
- Right Competence
- Employee understanding of our direction
- Employee role and contribution

Through our annual People and Competence Review, we identify competence gaps based on business needs to ensure that the right competence is available at the right time and place. During the year, the Höganäs Academy continued to provide practical tools and learning resources to support our co-workers to improve and grow. The academy used more online meetings during the pandemic. In 2020, the Höganäs Group provided 26,280 (25,240) hours of formalised training worldwide in total, which is 11 (10) hours per co-worker on average.

During 2020, our main focus was on upskilling and reskilling initiatives as well as the restructuring of centralised R&D activities to be closer to our customers. Our focus in 2021 is on securing the right leadership.

Our aim is that all our co-workers should have individual performance and development talks to make sure they are able to contribute to the company's success to the best of

their ability. This helps us ensure that employees have the right competence and understand their role and contribution to our overall success. In 2020, 66 (66) per cent of our co-workers globally had individual performance and development talks. For our Swedish sites, the figure was 85 (94) per cent.



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Clovis Rondineli Silva

New programme supports long-term sustainability agenda

In 2020, Höganäs launched the RiSe programme to create a better balance between operational and strategic priorities – and ultimately drive Höganäs’ sustainability agenda more efficiently.

RiSe, short for “Right Size” in all dimensions, aims to rebalance roles and responsibilities in areas such as sales and administration where we see potential for improvements – to ensure Höganäs’ short, medium and long-term strategic objectives and priorities are met. The programme, which began in early 2020, is identifying and implementing efficiency savings and is expected to end around mid 2021.

Driving sustainability through employee insight

“Through the RiSe programme, we are gaining insight from as many of our co-workers as possible across all businesses and functions through participatory workshops,” explains Clovis Rondineli Silva, Group Vice-President of Human Resources at Höganäs.

“From a sustainability perspective, the programme aims to ensure time, resources and money are best spent now to support Höganäs’ long-term objectives. RiSe will help us to future proof Höganäs in the long term by achieving a better balance between operational and strategic priorities.”

Climate





We work proactively to minimise the greenhouse gas emissions generated from our activities toward our objective to be net climate neutral by 2045. In 2020, we launched the Climate Roadmap 2045 kick-off project and reduced our upstream emissions.

How we work

Our objective to become net climate neutral by 2045 involves making gradual operational improvements and investing in research and innovation to make improvements beyond what is possible today. We are currently focusing on improving energy efficiency, transitioning to renewable energy in production and transport, replacing solid fossil-based carbon used in our processes, and rethinking our raw materials.

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TARGET 7-2  <small>INCREASE GLOBAL PERCENTAGE OF RENEWABLE ENERGY</small>	Increasing the use of renewable energy and fuels (Höganäs Climate Roadmap 2045) ➔ See the “Going renewable” section in this chapter
TARGET 7-3  <small>DOUBLE THE IMPROVEMENT IN ENERGY EFFICIENCY</small>	Reducing emissions through energy efficiency (Höganäs Climate Roadmap 2045) ➔ See the “Energy management and efficiency” section in this chapter
TARGET 13-2  <small>INTEGRATE CLIMATE CHANGE MEASURES INTO POLICIES AND PLANNING</small>	The Höganäs Climate Roadmap 2045 ➔ See this entire Climate chapter
TARGET 13-3  <small>BUILD KNOWLEDGE AND CAPACITY TO MEET CLIMATE CHANGE</small>	Höganäs’ internal work to increase competence and capability, and the work in our sphere of influence such as supply chain, customers and other stakeholders in society ➔ See this entire Climate chapter

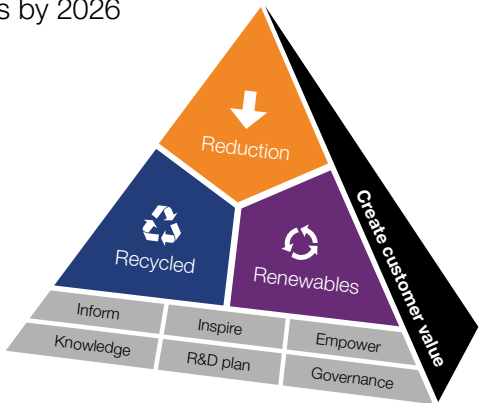
Climate Roadmap 2045

Our roadmap to become net climate neutral by 2045 covers our direct and indirect emissions, and our scope 3 emissions (cradle to gate)¹ – including material and energy supply, production processes, research and development plans, and our business models. The roadmap guides our strategy and business planning processes, with the three main strategic areas to reduce climate impact:

1. Reducing emissions through energy efficiency
2. Using more recycled materials to decrease upstream emissions
3. Increasing the use of renewable energy and fuels

The success of our Climate Roadmap is also highly dependent on external factors such as cooperation with stakeholders in our value chain, regulation and technological development.

One important milestone is our short-term target to achieve a 30 per cent reduction of our total scope 1 and scope 2 emissions by 2026 compared with 2018.



¹ “Cradle to gate” includes the contribution from upstream resource extraction, processing and transport, and downstream transport to the customers’ factory gate.

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R&D and our Climate Roadmap

The integration of the Climate Roadmap 2045 into our way of working in our Product Areas and in long-term R&D, as well as in capital investment plans, is essential. We are exploring and developing a number of technologies with the potential to realise emission reductions – including some with technological challenges to overcome.



Examples of technical areas we are exploring and developing to fit Höganäs production processes with the aim to realise emission reductions.

Emission scope	Technology	Mitigation	Challenges	Technical applicability
1	Biofuels/biomass	Replaces use of fossil carbon	Availability, process limitations, contingency risks, raw material costs, investments in technology	Highly applicable
1	Production of hydrogen from renewable sources	Replaces use of natural gas fuel as energy and raw material	Investments in new technology Increased production costs	Highly applicable
1	Carbon capture, storage and utilization (CCS/U)	Capture of emitted fossil CO ₂	Low process readiness Needs further development	Partly applicable
1	Electrification	Replaces the use of fossil fuels	Infrastructure development and investments Local power availability	Highly applicable
2	Electricity from renewable sources	Reduced indirect emissions of CO ₂	Access to electricity from renewable sources Market prerequisites	Highly applicable
3	Secondary raw materials	Reduced indirect upstream emissions of CO ₂	Access to secondary materials Process flexibility and product quality	Highly applicable
3	Primary low carbon footprint materials	Reduced indirect upstream emissions of CO ₂	Access to hydrogen reduced iron	Highly applicable



Climate Roadmap kick-off project

During 2020, we launched the Climate Roadmap kick-off project that focuses on identifying and creating capabilities within the company to achieve our long-term goal of being climate neutral by 2045. The project is establishing an internal platform to implement our Climate Roadmap 2045 by:

- Creating stakeholder awareness and buy-in
- Acquiring reliable climate data in all scopes
- Planning long-term R&D and investments
- Making the organization decisive by providing clear direction and tools
- Identifying competence gaps and establishing efficient methodologies

In 2021, this work will continue by developing internal short-term goals and action plans. These will be based on the prioritization of new and/or improved products and process technologies, investments in process equipment and access to renewable raw materials.

Once the prioritizations are made and a long-term R&D and investment plan is agreed on, the execution will be incorporated into the annual business planning process.

Our carbon footprint

A significant proportion of the climate impact from our production comes from upstream emissions when our input raw materials, machines, equipment and vehicles are produced and transported (our scope 3 emissions). We are currently mapping our upstream scope 3 emissions to understand where we can make a difference.

Direct carbon dioxide emissions, scope 1

The use of fossil-based solid carbon and fuels in our production is the largest source of our direct carbon dioxide emissions (scope 1). In 2020, our total direct emissions amounted to 235,400 (256,200) tonnes. The decrease of 20,800 tonnes during the year was due to lower

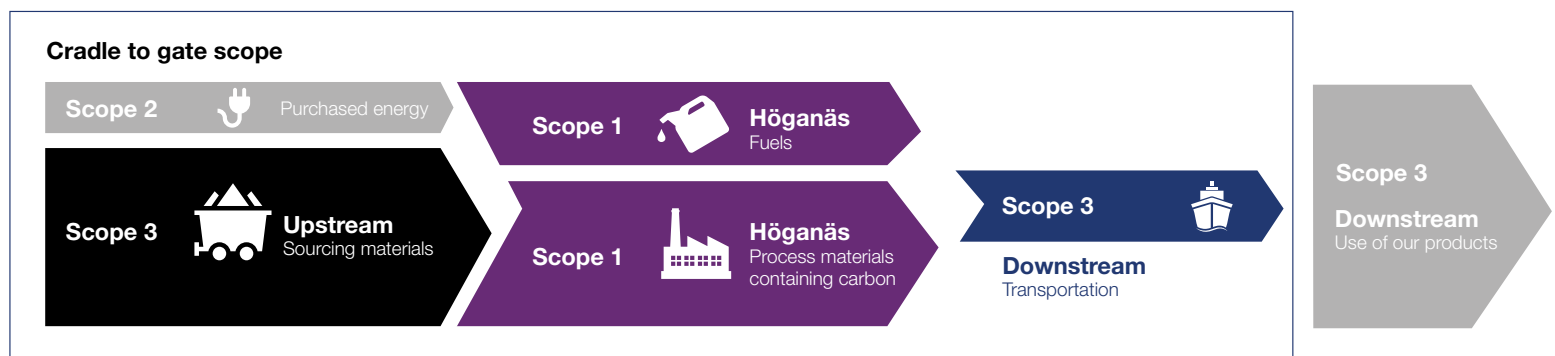


Illustration of the "cradle to gate" scope for Höganäs' Climate Roadmap. Material sourcing represents our largest source of carbon dioxide emissions.



production volumes, and a number of improvements that together have saved about 10,000 tonnes¹.

Natural gas accounts for 96 per cent of our emissions from non-renewable fuels, while the remaining 4 per cent is generated from LPG, diesel and petrol.

Emissions from fuels are calculated based on local or default emission factors from the EU-ETS framework. Emissions from raw materials in production processes are calculated based on carbon content and mass balance where the remaining carbon content in outgoing materials such as waste, side streams and products are deducted from the carbon content in incoming materials.

Indirect carbon dioxide emissions, scope 2

Our indirect emissions (scope 2) result from purchased electricity. When available, indirect emissions are calculated on location-based emission factors provided locally by owners of distribution networks or energy suppliers. As a comparison, we have also used a market-based calculation based on national residual grid mix factors.

Even though individual companies within Höganäs have been free to source electricity from renewable sources, the focus on renewable electricity will increase as part of our Climate Roadmap 2045. In 2020, we avoided emitting 30,400 (35,400) tonnes of carbon dioxide by sourcing electricity from renewable sources. We have identified electricity produced from renewable sources and the further utilization of self-produced heat as our main opportunities to reduce our scope 2 emissions and are looking into further potential action.

Direct carbon dioxide emissions, scope 1, tonnes CO ₂ e	2020	2019	2018
Emissions from fuels	72,000	81,700	89,400
Carbon in raw materials	175,200	186,300	196,100
- Carbon in waste	-10,300	-10,500	-12,900
- Carbon in side-stream materials	-1,400	-1,200	-1,700
- Carbon in products	-100	-100	-100
Total	235,400	256,200	270,800

Indirect carbon dioxide emissions from purchased energy, scope 2, tonnes CO ₂ e	2020	2019	2018
Location based (residual mix)	95,200	118,800	124,400
Avoided CO ₂ emissions by choosing renewable energy	30,400	35,400	15,000
Market based (own choices)	64,800	83,400	109,400

Direct and indirect emissions, scope 1 and 2, tonnes CO ₂ e	2020	2019	2018
Total CO₂ emissions	300,200	339,600	380,200

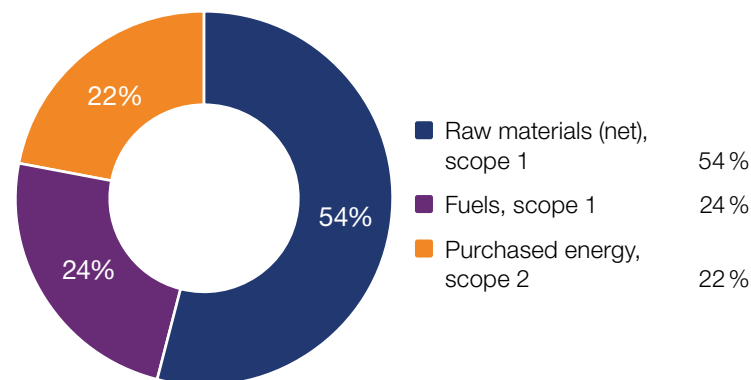
Carbon dioxide emissions from purchased electricity decreased 22 per cent compared to last year due to a 12 per cent decrease in energy use, but also by purchasing electricity with lower emissions in some locations. Emission factor sources: carbonfootprint.com, residual mix factors. Regional and local residual mix factors and market-based factors provided by energy suppliers.

¹ Estimation based on 46,500 MWh from energy efficiency initiatives relating to the decrease of electricity, heating and fuel use.

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Carbon dioxide emissions, scope 1 and 2, percentage



Scope 1 emissions from raw material such as coke, anthracite and electrodes, and from fuels, mainly natural gas, together amount to 78 per cent of our emissions. Scope 2, purchased electricity, heat, and cooling together account for 22 per cent.

Reducing upstream emissions

During the year, we continued to reduce our upstream emissions, which include the production and transportation of the materials we use and represent the bulk of our total carbon footprint. Replacing high-carbon footprint materials with low-carbon footprint materials has the potential to significantly reduce our scope 3 emissions.

Virgin metals have a much higher carbon footprint than secondary metals of similar quality and composition. By increasing the use of recycled materials as raw materials in our production, we can lower our total carbon footprint while contributing to the circular economy.

Quantifying and minimising transport emissions

In recent years, we have developed a systematic approach to quantifying climate emissions from transport. We have also made some progress on reducing transport emissions by switching to more low-carbon modes of transport and making transport more efficient.

There is however still work to be done. The total emissions from transport amounted to 10,400 tonnes, which is about the same level as last year.



HCT transport vehicles can carry two freight containers instead of one, which lower carbon dioxide from our transports.

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Global Technology team drives long-term carbon reduction

Many investment and process development projects to reduce environmental impact at Höganäs are driven by a dedicated team of experts – the Global Technology team.

We speak with Pontus Hydén, Director of Global Technology, about how the team works, their progress in 2020 and what is in the pipeline for the future.



What does the Global Technology team do?

The Höganäs Group Technology team consists of almost 60 employees and around 10 consultants that support Höganäs sites around the world with a variety of projects and services that reduce environmental impact and financial costs. Our work is focused on supporting the company business plan by reducing energy and waste while increasing yields and promoting more efficient processes. We also work with process development to improve existing processes, as well as designing new processes for new products.

How does the team operate?

We often work closely together with other parts of the company on our projects, which might involve working with a particular site, or our mirror organization in Germany – Technical Services. We conduct feasibility studies, have design and project management capabilities, and provide sites with hands-on support to optimise equipment or advise on best available technologies.

What kind of projects do you work with?

We work with two main types of projects. The first is investment projects that might involve designing and overseeing the construction of facilities for producing metal powder for example. The second type of project is process development that focuses on developing new processes. We work with three core technologies: Atomisation, which involves breaking molten metals into small drops of liquid to form powder, soft annealing furnaces, and mixing and packing.

How important is reducing climate impact in your work?

We have worked with reducing our greenhouse gas emissions for many years, and reducing climate impact is a natural part of our work. Many of Höganäs' projects to realise energy savings, switch to >>

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>> more efficient natural gas burners and bring in new technology for example have been overseen by Global Technology.

What main progress did Global Technology make in 2020?

We are currently working on a number of long-term projects related to reducing Höganäs carbon emissions that we made progress on during the year. For example, we are working on a project to partially replace fossil coal with bio coal in our Sponge Powder plant, which is the company's single largest emitter of CO₂. In another partnership with Cortus Energy, we are working to replace our natural gas for heating furnaces with syngas that will be produced from woodchip biomass.

How will these projects develop in 2021 and beyond?

In 2021, we will conduct a month-long test with bio coal. The project will not be able to completely replace fossil coal, but we expect to be able to annually avoid 8,500 tonnes of fossil coal by 2026, which would reduce our fossil CO₂ emissions by 30,000 tonnes per year.

The syngas project, executed in cooperation with Cortus Energy, still has challenges to overcome but we expect the newly constructed 6 MW Wood Roll® facility in Höganäs to begin producing syngas in 2022. When fully implemented, the facility will annually avoid 10,000 tonnes of fossil CO₂ by gasifying waste biomass to produce biogas. There is also an option for producing bio coal, and when implemented, the bio coal will partially replace the fossil coal Höganäs uses as a reduction agent in the production of sponge iron powder.

Going renewable

As a steel producer, we use fossil fuels such as natural gas in our operations that produce significant quantities of carbon dioxide emissions. Our ambition is to replace all fossil fuels with non-fossil renewable alternatives in order to meet our carbon neutrality objective. We proactively work to incorporate existing renewable solutions into our processes, and even lead the development of innovative renewable solutions together with our partners.

Electricity generated from fossil fuels is another significant source of carbon dioxide emissions. We increasingly source renewable electricity and even install our own renewable electricity generation at some of our sites. We are in the process of installing photovoltaic solar panels at Höganäs sites in Stony Creek, USA and Ath, Belgium.



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Solar park to generate 20 per cent of Höganäs' energy needs in Belgium

As a part of its ambition to increase the use of renewable energy, Höganäs took the decision to develop a solar photovoltaic energy park in a grazing field in Belgium in 2020. The park will be constructed in 2021 on land adjacent to Höganäs' factory in Ath, and when in operation it will continue to be grazed by sheep.

In total, 17,532 solar panels will be installed that will generate around 5,500 MWh of electricity, which is equivalent to about 20 per cent of Höganäs Ath's total energy needs. The project is being conducted in partnership with a Belgian energy company and will be completed by the summer 2021.



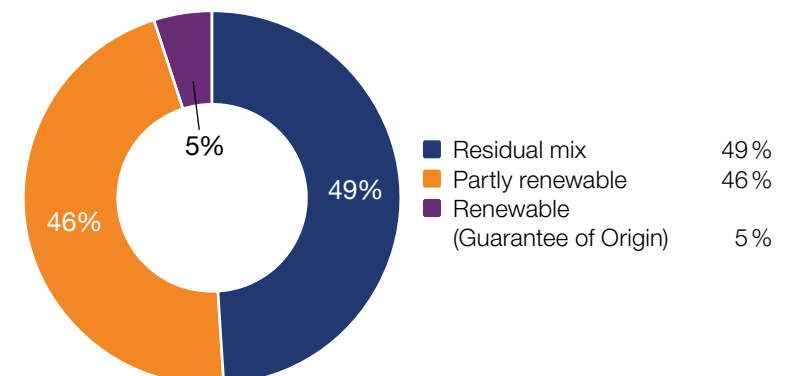
Our energy use

Höganäs' energy use consists of fuel consumption and purchased energy. The main fuel we use in production is natural gas, with smaller amounts of liquefied petroleum gas (LPG), and diesel and petrol used for vehicles and other engines. We also use some biogas to produce hydrogen gas. In 2020, we used 1.1 (1.2) per cent renewable fuel.

Surplus energy from our processes is converted into residual heat, which we deliver to external parties. In 2020, we delivered 55,000 (51,000) MWh in the form of surplus heat to district heating and municipal treatment plants in the Swedish cities of Höganäs and Halmstad, which avoided the equivalent of 11,000 tonnes carbon dioxide emissions compared with natural gas combustion.

In 2020, we purchased 411,000 (469,000) MWh of electricity of which 51 (50) per cent was from renewable or partly renewable sources. We produced 2,332 (190) MWh of renewable electricity at our own facilities.

Electricity sources by percentage





Energy use decreased, partly due to reduced production and partly because of measures to increase energy efficiency. The energy efficiency activities resulted in decreased energy use in 2020 by 46,500 MWh in total.

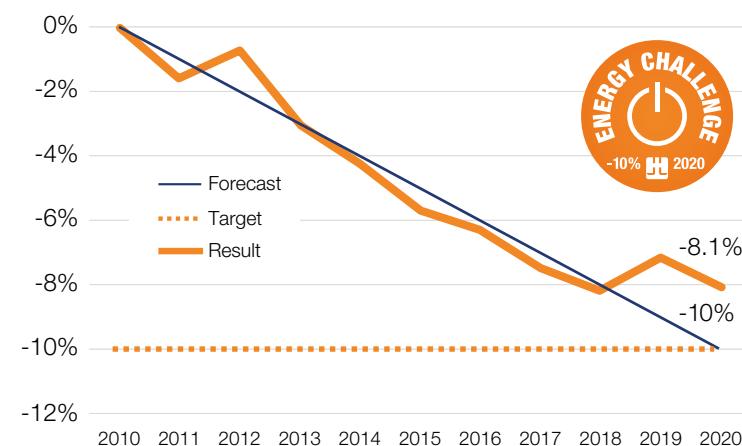
Energy use within the organization in MWh	2020	2019	2018
Non-renewable fuels	394,400	412,000	456,100
Renewable fuels	4,000	5,100	2,700
Total energy use from fuels	398,400	417,100	458,800
Purchased electricity, residual mix	200,800	235,000	249,000
Purchased electricity from renewable or partly renewable sources	210,900	234,000	277,000
Purchased heat, steam or cooling	12,500	17,200	2,100
Total purchased energy	424,200	486,200	528,100
Self-generated energy from renewable sources*	2,300	190	80
Total energy use	824,900	903,490	986,980

*Energy generated from surplus process heat is excluded (produced and sold)

Energy management and efficiency

We are working towards our goal to certify the most energy intensive units within the Group, such as melting operations, to the ISO 50001 Energy Management system by the end of 2021. Five out of ten production sites were certified as of the end of 2020. Our major Swedish production sites are already certified, and Laufenburg

and Goslar in Germany were certified in 2020 despite challenges due to the pandemic. The remaining five sites in the US (3), Brazil (1) and Belgium (1) will be certified as soon as possible considering the coronavirus situation. Our “Energy Challenge”, which includes the target to reduce energy use per produced tonne by 10 per cent between 2010 and 2020, achieved an 8.1 per cent (7.1) reduction. Shutdowns and decreased production volumes due to the coronavirus pandemic resulted in less efficient processes, which meant that it was not possible to reach the target. But a substantial improvement has nevertheless been accomplished. We have now launched a new 10-year period target to continue to decrease our specific energy use by at least 1 per cent per year (MWh/produced tonne).



“Energy Challenge” target and result 2010 – 2020

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A number of successful energy saving projects around the globe have resulted in reducing energy use by 46,500 MWh in total. One successful project was completed at our plant in Ahmednagar, India, which according to a power audit, reduced its electricity consumption by 10 per cent in 2020, which is equivalent to avoiding 2,250 tonnes of carbon dioxide.

The successful team behind the ISO certification in Goslar and Laufenburg. Tobias Roesch (far left), responsible for HSEQ, in conversation with his team consisting of Marco Goerke, More Höganäs Manager, Elena Sethke, HSEQ Documentation and Jörg Müller (right), responsible for Quality Management



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Environment

We mitigate the environmental impacts from our production and from the materials and chemicals we use. During the year, we improved process stability to reduce the environmental impacts of our operations.

How we work

Our production processes and related activities impact the environment through emissions, water discharge, and the use of land and water. For information on our energy use and climate impact, see the “Climate” chapter. Our approach is to avoid negative environmental impacts as much as we can by applying the precautionary principle, using best available technologies and creating stability in our processes.

All our production sites have environmental management systems, and all production units are certified according to the ISO 14001 environmental management system. During 2020, we had no reported breaches of environmental permits, and no spills or other environmental accidents with significant environmental impact were reported from our operational sites.

To uphold the stability in our production processes and facilities, we have a well-managed loss prevention and risk management system in place. This system is part of our contingency planning and provides instructions for consistent actions according to best practice at all operational sites. All sites have clear organisational responsibilities and procedures, and extensive and regular on-site auditing is



Höganäs' facility in Stony Creek, US

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<div> <div>TARGET6-4</div> <div> </div> <div> INCREASE WATER-USE EFFICIENCY AND ENSURE FRESHWATER SUPPLIES </div> </div>	<p>Monitoring water intensity and striving to promote water efficiency and avoiding the use of freshwater at local level</p> <p>➔ See the “Water use” section in this chapter</p>
<div> <div>TARGET9-4</div> <div> </div> <div> UPGRADE ALL INDUSTRIES AND INFRASTRUCTURES FOR SUSTAINABILITY </div> </div>	<p>Continuously upgrading and optimising equipment at the local level</p> <p>➔ See the section on “Environmental impact mitigation” in this chapter</p>
<div> <div>TARGET12-4</div> <div> </div> <div> RESPONSIBLE MANAGEMENT OF CHEMICALS AND WASTE </div> </div>	<p>Resource efficiency and zero waste, responsible sourcing and process safety management</p> <p>➔ See the “Material use” section in the “Products” chapter</p>

conducted by external specialists. The audits shape action plans and drive continual improvements.

Environmental impact mitigation

Stable processes are key to avoiding unplanned production disruptions with greater potential for increased emission levels, spills, leakages and other events that could cause harm. Preventive maintenance is essential to ensure

process safety and mitigate environmental impact. Daily routine maintenance is conducted by operators and scheduled maintenance by local maintenance teams. Our Loss Prevention Manual is the steering document for the loss prevention and risk management system, which is part of our overall management system.

We conduct comprehensive risk analyses for hazards concerning molten metal and reactive chemicals, as well as for each individual chemical and piece of equipment used. Chemicals are only used on site after being approved and a regular inventory of chemicals is made as part of our internal audit programme. We have procedures to replace chemicals with less harmful alternatives.



Preventive maintenance is essential and daily routine maintenance is conducted by operators and scheduled maintenance by local maintenance teams.

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Process safety top of the agenda in India

Höganäs in India is driving process safety management to achieve more stable processes with less environmental impact and a safer working environment.

In late November 2020, the Höganäs team in India underwent Process Safety Management (PSM) training and will work in subgroups on a gap analysis in 2021. PSM is a disciplined framework for managing the integrity of operating systems and processes that handle hazardous substances by applying good design principles, engineering and operating practices.

The importance of PSM in environmental incidents

A five-day comprehensive PSM training programme was held for 20 participants that was followed by a qualification exam. Topics included the importance of PSM and what the environmental consequences can be when processes are breached. All the participants presented gaps in current process safety management and developed action plans to improve PSM.

Höganäs deals with many gases and hazardous materials, which are an integral part of its processes but at the same time requires adequate knowledge, competence and processes to make sure they are handled correctly.

“We have decided to effectively control PSM with efforts focused on leading indicators,” says Sharad Magar, who heads Höganäs’ Ahmednagar plant in India. The work has been integrated into the Business Plan 2021 to monitor and implement action.



Workplace safety

The work with PSM has also helped co-workers to improve their knowledge of their own processes, which will enable them to work more safely.

“The comprehensive training and then creation of subgroups for the gap analysis and corrective actions will go a long way in enhancing workplace safety at our Ahmednagar site,” says Sunil Muralidharan, Managing Director at Höganäs India.

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Emissions to air and water

Minimising water discharges and air emissions is an important part of our work to mitigate the environmental impacts of our operations. We calculate discharges and emissions based on local monitoring to ensure we do not exceed environmental permit limits.

Air emissions

Our production processes generate air emissions both via stack and as fugitive emissions. Stable production processes and the preventive maintenance of process equipment are key to avoid dust releases.

To minimise stack emissions, all large point sources are equipped with filters. Local environmental control programmes typically include monitoring emissions such as nitric oxides (NOx), sulphur oxides (SOx), metals to air, and other substances of concern, depending on the nature of the process.

To prevent fugitive emissions, raw materials and products (metal powders) are handled in closed processes whenever possible. In-house material storage and sealed transport containers are used to prevent particles from spreading.

Slag handling, including sorting and transporting to internal landfills, is generally carried out in the open at all slag production sites. Procedures such as watering and road sweeping are used to minimise dust emissions.

Read more about our greenhouse gas emissions [here](#).

Air emissions, tonnes	2020	2019	2018
Nitrogen oxides (NOx)	100	120	120
Sulphur oxides (SOx)	30	40	40
Carbon monoxide (CO)	100	120	140
Non-methane volatile organic compounds (NMVOC)	8	8	9

Metal and dust emissions to air	2020	2019	2018
Iron (Fe), kg	8,500	9,800	11,570
Chromium (Cr), kg	6,500	7,600	9,000
Zinc (Zn), kg	1,400	1,100	1,500
Nickel (Ni), kg	500	600	100
Copper (Cu), kg	70	80	60
Lead (Pb), kg	60	70	70
Cadmium (Cd), kg	10	10	10
Mercury (Hg), kg	2	2	2
Total dust, including metals to air, tonnes	60	60	80
PM10, tonnes	30	40	50

Air emissions are emissions from point sources such as stacks and are calculated based on local monitoring carried out to cover the needs for function control and compliance with environmental permit limits. As a result, not all sites report on all substances and the consolidated figures may therefore not cover all actual emissions. Fugitive or diffuse emissions are excluded.

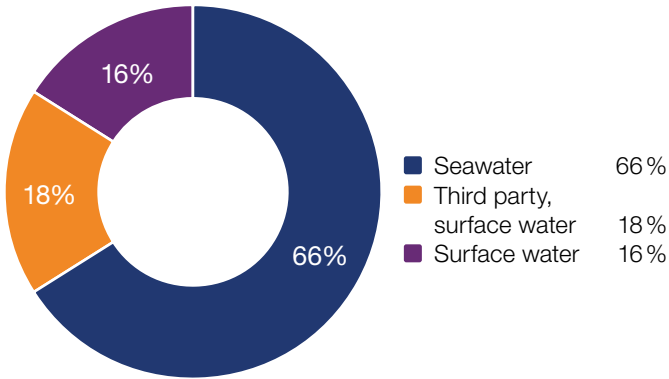
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Water discharge

Our site environmental permits stipulate our water discharge requirements. We monitor our discharges of metals to water and measure other substances of concern. Our discharged water is mainly uncontaminated cooling water.

Water discharge by destination



Discharges of substances to water, kg	2020	2019	2018
COD (Chemical Oxygen Demand)	7,650	10,770	9,230
O&G (Oil and grease)	350	700	170
N-tot (Nitric nutrients)	270	390	380
TS (Total Solids (TSS+TDS))	8,140	4,630	5,370

Metal discharges to water, kg	2020	2019	2018
Iron (Fe)	550	460	600
Zinc (Zn)	70	130	290
Nickel (Ni)	110	50	90
Copper (Cu)	10	20	20
Chromium (Cr)	50	20	20
Lead (Pb)	10	10	2
Cobalt (Co)	20	20	1
Arsenic (As)	2	2	<1
Cadmium (Cd)	<1	<1	<1

Water discharges are calculated based on local monitoring carried out to cover the needs for function control and compliance with environmental permit limits. As a result, not all sites report on all substances and the consolidated figures may therefore not cover all actual discharges.



The facility in Höganäs, Sweden. Our discharged water is mainly uncontaminated cooling water.



Water use

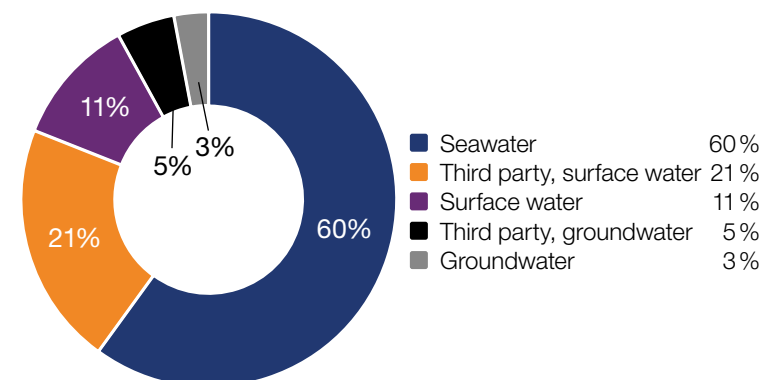
We monitor our water use in relation to water availability in all locations where we operate to identify and mitigate negative impacts. The largest quantity of water we use is seawater for the cooling of closed systems through heat exchange, and we used 3,760 (4,140) thousand cubic metres during the year. Our use of large quantities of seawater does not have significant environmental impact as the seawater is returned to the ocean in the same state as it was taken.

In Halmstad, we annually use around 4,000 cubic metres of municipal water for cooling. We are investigating opportunities to use other water sources such as processed water from a local sewerage treatment plant or seawater.

Water is also used in the atomising process where molten steel is atomised into the desired particle sizes in a controlled “water jet” process. The water is treated, cooled and largely recycled within the atomising process. Water for dust binding and slag quenching is evaporated, treated on site or sent to external water treatment plants.

Our production sites are generally located in areas where fresh water supply is plentiful. The exception is our Indian site in Ahmednagar, where seasonal fluctuations cause water stress either in the form of flooding or drought. Measures are being taken to optimise the use of water and store water for use during dry periods.

Water withdrawal by source



Water withdrawal, cubic metres	2020	2019	2018
Total volume of water withdrawn	6,294,000	6,865,000	6,261,000
- of which Seawater	3,758,000	4,140,000	4,160,000
- of which Freshwater	2,535,000	2,726,000	2,100,000
Total water discharges	5,742,000	6,233,000	5,587,000
Total water consumption	552,000	632,000	674,000

Water use in 2020 decreased by 13 per cent due to decreased production compared with the previous year.

Water intensity: 1.4 m³ per produced tonne

Products

Our circular, resource and energy-efficient product portfolio can help overcome customer challenges and contribute toward a more sustainable society. Our products continued to create customer and societal value during the year.

How we work

Our business approach is to offer products that create value for our customers and contribute to a more sustainable society. We want to preserve natural resources as much as possible by increasing our use of secondary raw materials, aiming for closed resource loops and zero waste in our production processes.

By continuously working with product design for circularity and by improving our environmental performance, as well as that of our suppliers and customers, for example, we aim to minimise the life cycle footprint of our products. We do this in partnership with customers and offer application development capabilities, technical support and logistics solutions – to drive the transformation toward more sustainable solutions involving metal powders.

Read more about our [products](#) and [services](#) on our webpage.



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SDG target	Our objectives and what we do
TARGET 8-4  <small>IMPROVE RESOURCE EFFICIENCY IN CONSUMPTION AND PRODUCTION</small>	Resource efficiency and zero waste, responsible sourcing and process safety management Product sustainability vision ➔ See this “Material use” section in this chapter
TARGET 12-2  <small>SUSTAINABLE MANAGEMENT AND USE OF NATURAL RESOURCES</small>	Resource efficiency and responsible sourcing Product sustainability vision ➔ See this “Material use” section in this chapter
TARGET 12-5  <small>SUBSTANTIALLY REDUCE WASTE GENERATION</small>	Resource efficiency and zero waste Product sustainability vision ➔ See this “Material use” section in this chapter

The Höganäs product portfolio

Our product portfolio includes over 3,500 products, and we serve around 3,000 customers in 75 countries. Höganäs products are used in a wide range of applications, such as:

- Powder metallurgy components
- Additive manufacturing
- Electromagnetic applications
- Water and soil treatment
- Surface coating and joining

Our products promote sustainability

Powder metallurgy enables customers to efficiently manufacture complex metal parts. The technique has the highest raw material utilization (over 95%) and the lowest energy requirement per kilogram of finished part (consuming around 43% of the energy) compared with forging and machining.

Powdered metal surface coatings can increase a product's lifetime by providing improved wear and corrosion resistance. Metal powder is also used in water treatment and soil remediation, as well as to produce inductors for renewable energy generation – to improve the lives of millions of people around the world.

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Our products create customer value

Powder metallurgy is recognised as a resource-efficient production technique compared to traditional methods such as forging and machining, in terms of both materials and energy. Our business approach is to create value for our customers, by providing products and services that contribute to increased customer sustainability performance, productivity and profitability, while continuously improving sustainability and environmental performance in our product portfolio.

Our metal powders have a variety of compositions, from plain iron powders to high alloyed powders, which are used in applications with a wide range of performance and lifetime requirements. We are committed to optimising sustainability and customer value for our various products – from raw material sourcing and increasing the use of secondary raw materials to more sustainable packaging solutions and finding uses for our residuals.

Our vision for more sustainable products

Through our product portfolio, we already today contribute toward overcoming some of society's global sustainability challenges, such as clean drinking water, soil remediation and renewable energy systems and other applications that support electrification.

Central to continue developing our product portfolio is our vision for sustainable products, which serves as a compass for technological development and the future direction for our product portfolio.

Our product sustainability vision is based on sustainability principles and a life cycle perspective, and is in accordance with the UN Sustainable Development Goals. It rests on four pillars that describe sustainable metal powders:

- 
Climate neutral
 Eliminate dependence on fossil carbon sources.
- 
Circularity
 Enable circular material flows throughout the value chain
- 
Resource productive solutions
 Promote effective and efficient solutions for industry and society
- 
Safe and ethical
 Cause no harm to people and the environment throughout the value chain

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Achieving our vision requires mastering a set of key enablers, or skills, that need to be fostered. Three key enablers have been identified that represent the key capabilities needed for making our sustainability product vision a reality:

- Material selection from a full life cycle perspective
- Sustainability-driven market transformation for the metal powder industry
- Re-imagining partnerships for future applications and working together to influence the value chain

Our product sustainability vision is intertwined with other areas of our sustainability agenda such as our Climate Roadmap 2045, our Responsible Sourcing programme, sustainable production processes and minimised environmental impact.

The principles from the product sustainability vision are actively used in our development process. A sustainability assessment is part of the start-up of all new pre-studies and projects for both product- and process development, as well as in investment pre-studies and projects. These principles are also applied by our product areas on their product portfolio to increase knowledge, identify business opportunities and clarify the direction for the development of new products, as well as further improve existing products. One example is the Brazing segment, which is currently under review to strengthen its sustainability profile.



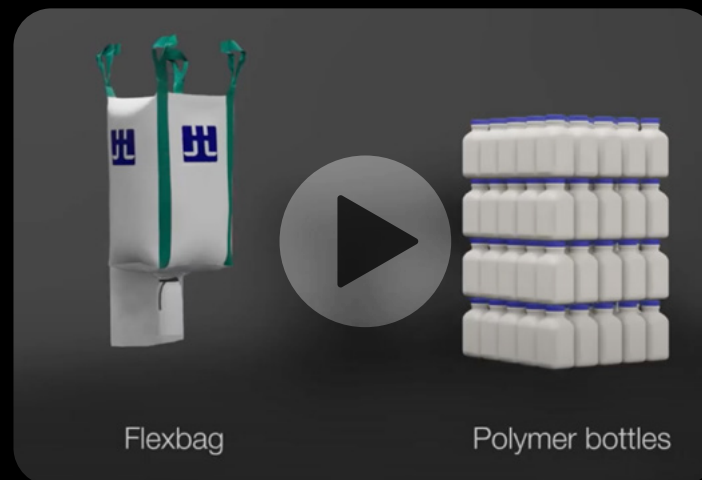
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Improving resource efficiency in the additive manufacturing industry

Höganäs has launched a new packaging solution for the additive manufacturing industry that reduces waste and ensures a dust-free working environment.

Metal powders for additive manufacturing are typically packaged in plastic bottles that contain 5 to 15 kg of powder. Höganäs is now conducting trials to replace these plastic bottles with flex-bags that can contain 200, 500 or 1,000 kg of powder, which will significantly reduce waste. For example, a customer annually using 10 tonnes of powder would use between 10 and 50 flex-bags instead of between 667 and 2,000 plastic bottles.



Promoting resource efficiency

“The plastic bottles cannot be recycled after use as they contain metal powder residue, and so they have to be incinerated,” says Denis Oshchepkov, Product Manager Customization Technologies. “The flex-bags also have to be incinerated for the same reason, but they contain much less plastic, so we save resources.”



Denis Oshchepkov

Promoting resource-efficient and more circular solutions is a part of Höganäs’ wider sustainability work in the additive manufacturing industry. Initiatives that promote circularity include taking back scrap powder from customers to reuse it in Höganäs metal powder production processes.

Benefiting the growing additive manufacturing industry

Two customers successfully trialled the use of the flex-bags in 2020, and several others have the potential to switch to flex-bags in the near future. In some cases, customers need to invest in their handling systems to accommodate the flex-bag solution, however the solution can significantly streamline their processes.

“Another important customer benefit is that the flex-bag solution significantly reduces operator dust exposure by ensuring a closed powder discharge into the customer’s system, which actually makes the production more sustainable by improving the working environment,” says Oshchepkov. “The solution also suits customers that use larger quantities of powder, so we anticipate that it will be of interest to more customers in the future as the additive manufacturing industry continues to grow and develop.”

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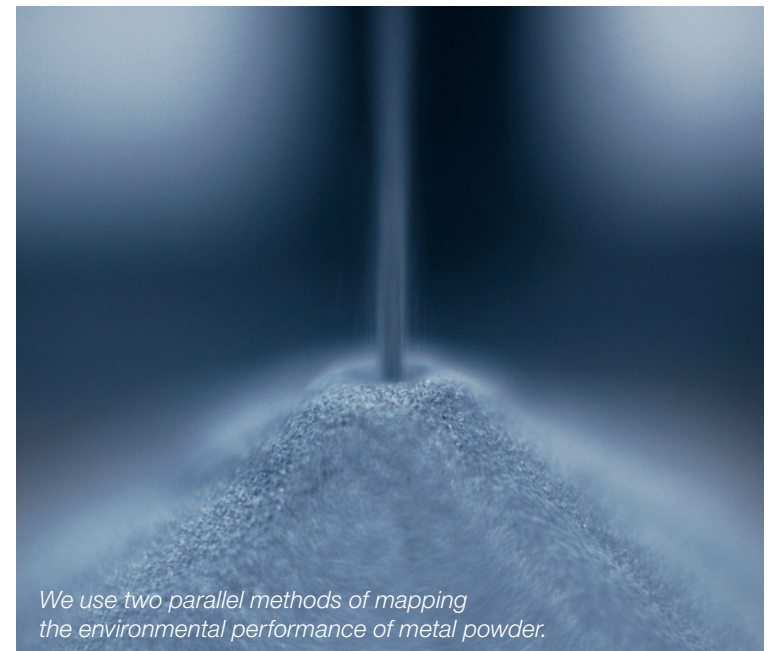
Life cycle assessments and product footprints

To achieve sustainable industrial development, all stages of a product's life cycle must be considered. For environmental areas with good data availability (e.g. for greenhouse gases), quantification of the product footprint is necessary to make qualified decisions to drive sustainability. However, where complete data is missing, both for parts of the life cycle and for some entire footprint areas (e.g. social footprint and recyclability), traditional life cycle assessments do not give a full picture.

We therefore use two parallel methods with the goal of mapping the environmental performance of metal powder:

Life cycle assessments (LCA) – focus on “cradle to gate”¹ analysis covering the parts of our products' life cycle that we can directly influence. We have begun an industry-wide initiative on life cycle assessments within the European Powder Metallurgy Association (EPMA), starting with a lighthouse project to quantify the complete life cycle impact of a specific powder metal part.

Sustainability Assessment² – is a qualitative analysis of a product's footprint based on the four sustainability principles. This method is used in pre-studies to ensure that all sustainability aspects are covered in the forthcoming development work.



Material use

In 2020, we handled 545,000 (611,000) tonnes of direct materials in total to produce around 400,000 tonnes of products and 39,600 (46,000)³ tonnes of side-stream materials. The raw materials representing the largest volumes are non-renewable in the sense that they are extracted from the earth's crust. These materials are mainly iron ore, limestone and fossil process coal or coke.

By ensuring that half of our total raw material base consists of secondary, or recycled materials, we can improve our resource efficiency as well as reduce our

¹ “Cradle to gate” includes the contribution from upstream resource extraction, processing and transport, and downstream transport to the customers' factory gate.

² Also sometimes called SLCA, Sustainability Life Cycle Assessment.

³ Internally recirculated process residuals are excluded.

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carbon dioxide emissions, our environmental footprint from our production processes and the life cycle footprint of our products. Secondary materials include both pre- and post-consumer scrap. Our largest secondary material type by weight is iron-based scrap, which amounted to more than 270,000 (290,000) purchased tonnes in 2020. Our ambition is to further increase the proportion of secondary materials in our production.

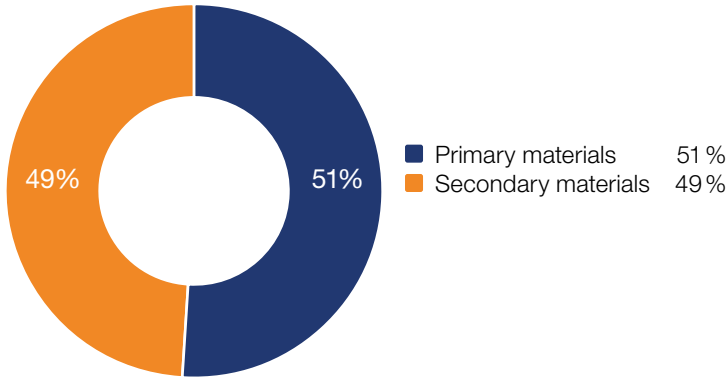
In 2020, we used 2,350 (2,160) tonnes of packaging material, such as cardboard and metal. The largest part, 89 per cent is plastic, which in some cases can be a more sustainable alternative, despite being non-renewable, as it has a longer lifespan and is fully recyclable.

Raw materials, tonnes	2020	2019	2018	2017
Secondary materials, metal scrap	267,000	294,100	360,900	360,300
Ferrous and ferroalloys	191,000	221,600	248,500	215,500
Graphites, coke and anthracites	46,000	53,100	57,700	55,500
Slag-forming agents and minerals	26,000	28,800	36,200	32,500
Non-ferrous metals	12,000	10,800	12,600	13,700
Organic	3,000	3,100	3,700	4,900
Total	545,000	611,400	719,500	682,400

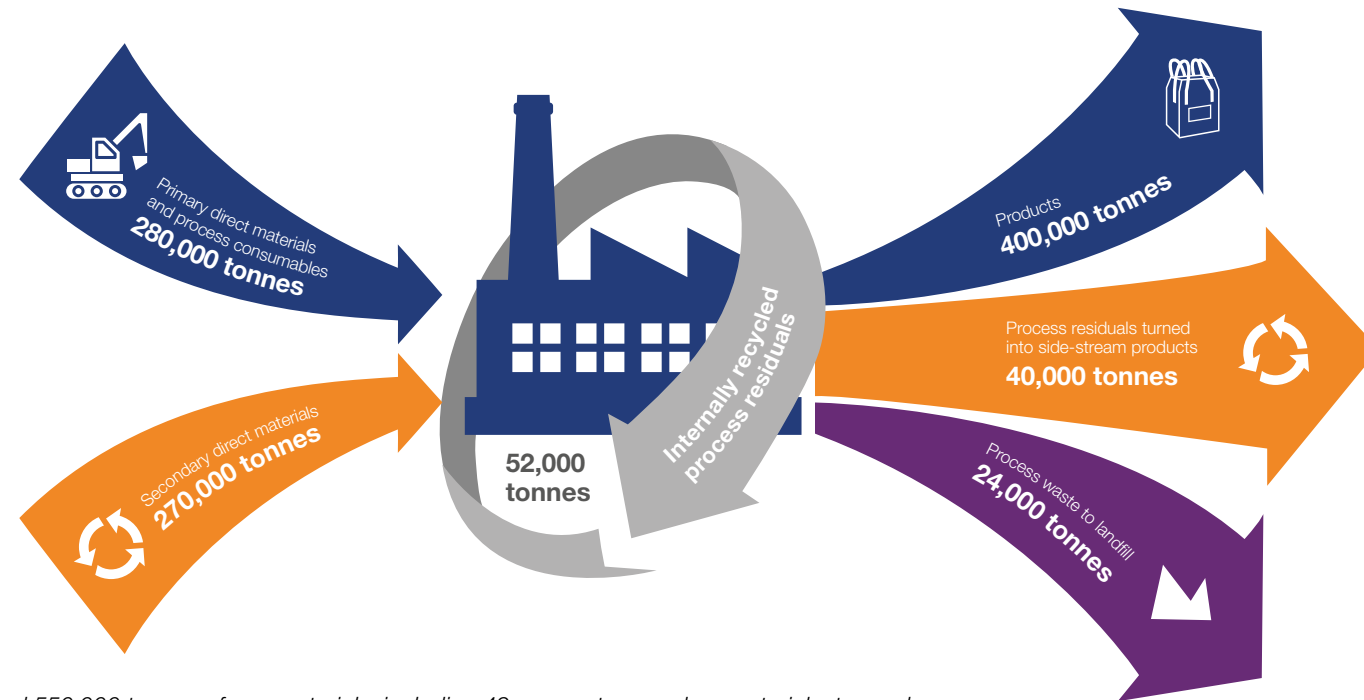


Scrap raw material used in Stony Creek, USA. Half of our total raw material base consists of secondary, or recycled materials.

Part Secondary raw materials



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We used 550,000 tonnes of raw materials, including 49 per cent secondary materials, to produce approximately 400,000 tonnes of products and 116,000 tonnes of process residuals. Of these residuals, 92,000 tonnes were reused internally or externally, and 24,000 tonnes were sent for disposal.

Packaging materials, tonnes	2020	2019	2018
Cardboard & Paper	30	130	170
Metal & Fibre	220	190	220
Plastic	2,100	1,840	1,950
Total	2,350	2,160	2,340

Packaging materials consist of 90 per cent plastics such as flex bags and pallets. In recent years, we have switched from wooden pallets to plastic pallets. The reason is that plastic pallets last longer and therefore reduce waste. They can also be recycled into new pallets at their end of life.

Process residuals, circularity and zero waste

Our aim is to improve the circularity of our processes by finding new uses for process residuals to avoid them from becoming waste with the long-term objective of zero waste. Our target was that 85 per cent of our process residual materials should be converted into useful products by 2020. It takes knowledge, creativeness and co-operation to identify new, valuable uses for residual materials and so far we have made great progress. In 2020, 80 (80) per cent of our process residuals were reused.



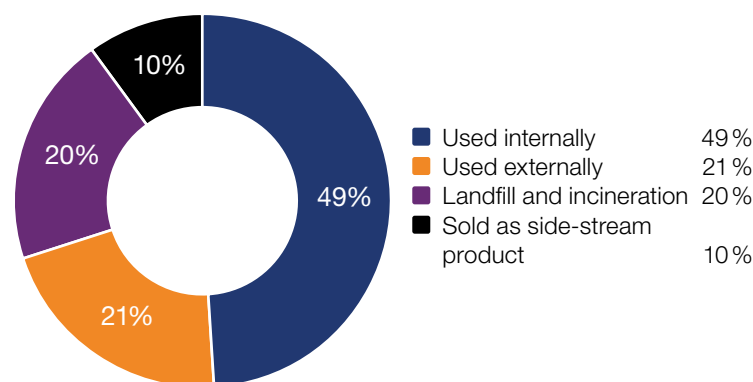


Even though we did not achieve our target to reuse 85 per cent of our process residuals by 2020, we are optimistic about achieving our target of 95 per cent by 2026.

We divide our process residuals into three categories depending on their final use:

1. Process residuals as side-stream materials or products that are recycled, reclaimed, reused or repurposed by a third party.
2. Process residuals as side-stream materials that are internally recycled, reused, reclaimed or repurposed within the site of origin.
3. Process residuals as waste for internal or external landfill.

How process residuals used



In 2020, we diverted 80 per cent of our total amount of process residuals from disposal, with the remaining 20 per cent sent to landfill or incineration.

Process residuals	2020	2019	2018
-------------------	------	------	------

Process residuals directed to disposal, tonnes

to external landfill	6,800	7,200	9,400
to internal landfill	16,800	17,100	24,200
to incineration with energy recovery	100		
Process residuals directed to disposal (98% non-hazardous)	23,700	24,300	33,600

Process residuals diverted from disposal, tonnes

to external recipient for recycling	19,900	25,500	33,800
to external recipient for reuse	15,700	16,700	12,200
to internal recipient within Höganäs Group	4,000	3,800	12,700
to internal recirculation or reuse	52,300	54,000	50,700
Process residuals diverted from disposal (81% non-hazardous)	91,900	100,000	109,400

Proportion of process residuals put to use	80%	80%	77%
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80%

of all process residuals are diverted from disposal

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Our useful side-stream products

Two of our most useful side-stream products that we have developed and REACH registered are Petrit® E and Petrit® T, which are both made from slag. Petrit® E can be used to replace gravel in road construction, as an aggregate in asphalt, as a construction material and as a raw material for producing stone wool insulation. We are conducting promising research into the potential to use Petrit® E for water treatment by reducing phosphorus and other metals. Another potential use for Petrit® E is the restoration of coral reefs.

Petrit® T can be used as a lime replacement, for example, as a lime additive for clay soils to improve soil quality for agriculture. It can also be used for soil stabilization.

Melted furnace dust is sent for zinc recovery and other forms of dust are processed for iron recovery. Spent refractory materials can be reused as slag formers in metal production.

Today, approximately 11,500 tonnes, or 10 per cent of Höganäs’ total residual materials are sold as products for use in new applications, for example as soil improvers, asphalt raw materials and insulation.

Non-process waste

In 2020, non-process related waste amounted to 13,900 (6,400) tonnes, or less than 8 per cent of our total waste and side streams. This included general plant waste, domestic waste and waste from packaging materials.

Non-process waste	Domestic waste	General plant waste		Packaging		Total
	Non-hazardous	Hazardous	Non-hazardous	Hazardous	Non-hazardous	
Recycling	40	20	7,030	-	250	7,340
Reuse	80	-	70	-	50	200
Incineration with energy recovery	170	40	220	10	440	880
Incineration without energy recovery	-	-	-	-	-	-
Landfill	70	-	5,350	-	30	5,450
Total, tonnes	360	60	12,670	10	770	13,870

The largest quantity of non-process waste in 2020 consisted of sand (11,350 tonnes), of which 4,290 tonnes were materials dredged from the harbour in Höganäs and sent to landfill. The rest was excavated material to enable the construction of a new building on the Höganäs site and was recycled. Of the total non-process waste, 54 per cent was recovered and less than 1 per cent was classified as hazardous waste. Sales offices are excluded from waste reporting as they produce insignificant amounts of waste.

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Exploring the potential to create coral reefs from residual material

Höganäs actively seeks innovative ways to turn its process residual materials into side-stream products to promote resource efficiency, the circular economy and societal value.

As part of the EU's LIFE LOPHELIA project, different materials are being tested to manufacture artificial reef structures in the Kosterhavet National Park off the west coast of Sweden. The project will ultimately involve manufacturing and placing structures in the sea for native larvae of the cold-water coral *Lophelia pertusa* to attach to and grow into coral reefs.

The potential to create value from process residuals

Höganäs' production of metal powder generates process residuals that contain lime. The LIFE LOPHELIA project is investigating whether one of these side-stream products, Petrit® E, may be suitable for use in artificial reef structures.

"We are still testing the Höganäs residual material, including both tests in the laboratory and on the ocean floor, but preliminary results are promising," says Ann Larsson, Senior Researcher at the University of Gothenburg. "We won't know the results for another couple of years, but if the material is deemed to be suitable and safe, it will be used to create 25 hectares of valuable habitat for the coral."



Ann Larsson, Photographer: Anna-Lena Lundqvist

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Society

We are committed to high ethical standards in everything we do. Our common global standards mean that we go beyond compliance in many of the locations we work in around the world.

How we work

We aim to have a positive impact on society by working with our supply chain and responsible sourcing, human rights and business ethics, and creating societal value. Our societal responsibility is also reflected in our transparency and our non-negotiable compliance with legislation, including our financial and non-financial reporting, our anti-corruption work, our tax payments and our attitude toward external parties dependent on our business.

Our supply chain

At the end of 2020, Höganäs Group had 609 (472) suppliers of direct materials and approximately 6,300 suppliers of indirect materials, transportation and other services. We on-boarded 12 (14) new suppliers of direct materials and 294 (166) new suppliers of indirect materials and services. Direct material suppliers also increased in 2020 due to previous acquisitions being fully incorporated into the statistics.

Even though we source raw materials globally, we prioritise local or regional suppliers, and more than half of our raw materials are sourced locally within the country of operation. During the year, we have further identified



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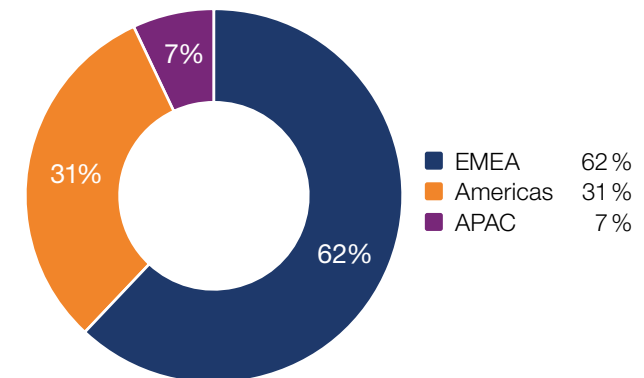


SDG target	Our objectives and what we do
TARGET 8-7  <small>END MODERN SLAVERY, TRAFFICKING AND CHILD LABOUR</small>	Responsible Sourcing Programme ➔ See the “Responsible Sourcing” section in this chapter
TARGET 8-8  <small>PROTECT LABOUR RIGHTS AND PROMOTE SAFE WORKING ENVIRONMENTS</small>	Responsible Sourcing Programme ➔ See the “Responsible Sourcing” section in this chapter
TARGET 12-6  <small>ENCOURAGE COMPANIES TO ADOPT SUSTAINABLE PRACTICES AND SUSTAINABILITY REPORTING</small>	Responsible Sourcing Programme ➔ See the “Responsible Sourcing” section in this chapter
TARGET 16-4  <small>COMBAT ORGANIZED CRIME AND ILLICIT FINANCIAL AND ARMS FLOWS</small>	Responsible Sourcing Programme ➔ See the “Responsible Sourcing” section in this chapter
TARGET 16-5  <small>SUBSTANTIALLY REDUCE CORRUPTION AND BRIBERY</small>	Responsible Sourcing Programme. Other business partners and Höganäs co-workers are covered by internal policies and procedures ➔ See the “Responsible Sourcing” section in this chapter

opportunities to localise the purchasing of both metallic and non-metallic additives for our mixes. This has the potential to reduce transportation, improve cash flow and increase value creation for local markets. Indirect spend such as maintenance, consultancy and entrepreneur services are already mainly sourced within the country of operation.

Our total spend on external suppliers in 2020 was 6,613 (8,177) MSEK, 62 (51) per cent of which was spent in Europe, 31 (41) per cent in the Americas and 7 (8) per cent in Asia. Approximately 15 per cent of our raw material in spend is sourced through distribution channels or traders.

Spend per continent



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Responsible Sourcing

As a large part of our social impact takes place in our supply chain, we work with responsible sourcing to achieve our sustainability goals. Ethical business behaviour builds mutual trust that helps ensure supply. Compliance with internationally agreed principles concerning business ethics, anti-corruption, and respect for human rights and fair labour standards, as well as environmental precautions, are fundamental.

Intrinsic risks from the extraction of certain ores and minerals related to high-risk areas such as artisanal mining and conflict minerals are identified in Höganäs Group's upstream supply chain of raw materials and are continuously and systematically monitored and addressed accordingly. Other identified risk areas are upstream greenhouse gas emissions and labour-related human rights infringements. Risks are identified from three perspectives:

- Generic risks related to geography and category.
- Supplier self-assessment of its own risks and how it manages them.
- Evaluation of the supplier's performance.

Conflict minerals

Conflict minerals are natural resources extracted in a conflict zone where armed groups sell the minerals to finance continued conflict.

Artisanal mining

Artisanal mining is the small-scale mining of metals and minerals that generally use manually intensive methods with inadequate safety precautions and social responsibility. Artisanal mining is typically associated with human rights risks, unsafe working conditions and child labour.

Supplier Code of Conduct

Our objective is to communicate our Supplier Code of Conduct to all our suppliers of direct materials. The ambition is that all suppliers comply with Höganäs standards, either by accepting Höganäs Group's Supplier Code of Conduct or by presenting their own Code of Conduct that fulfils the same criteria.

During 2020, we communicated our Supplier Code of Conduct to 387 suppliers of direct materials and 133 suppliers of indirect materials and services.

Besides the requirement for new suppliers to fill out a standardised questionnaire covering their governance and performance within sustainability, including environmental and social assessments, and quality related issues before on-boarding, we also regularly evaluate existing suppliers with the same methodology.

Making progress on responsible sourcing

In 2020, we further developed our Responsible Sourcing Programme, which consists of a governance and escala-

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tion structure, and processes for the evaluation, selection and development of suppliers. The tools and principles in the programme address the challenges and risks that we have identified in our upstream supply chain and help us to build strong relations with suppliers that we trust.

The objective is that all our direct material suppliers should be evaluated according to our Responsible Sourcing Programme by 2021. In 2020, 81 (48) suppliers were evaluated, which represents almost 40 per cent of our direct material suppliers in total (based on our number of suppliers in 2019). We will continue the work to evaluate all our direct material suppliers, even though we did not meet our 100 per cent target in 2020.

Incidents, non-compliance and increased risks concerning, for example, child labour, forced labour or freedom of association are reported through our Group-wide reporting system. During 2020, no such cases were reported.

In 2020, we had ten cases of insufficient supplier responsiveness, for example when a supplier fails to respond to our request for a self-assessment, performs poorly in an assessment or fails to show willingness to improve. Eight of these cases were closed following in-depth dialogue with the supplier, but two instances resulted in Höganäs discontinuing the business relation as it was clear the supplier could not meet our standards. During 2020, supplier audits were difficult to arrange due to the coronavirus pandemic, although four supplier audits were carried out in APAC with satisfactory results.



Our Responsible Sourcing programme involves dialogue with our suppliers to improve performance and compliance.

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Human rights and business ethics

Our respect for human rights principles is expressed in our Code of Conduct, which includes commitments to local society, our own operations and our business partners. Höganäs has always been committed to high ethical standards in all business relations. Our Code of Conduct expresses our stance against all forms of corruption and unethical business behaviour.

In total, we have 53 active contracts with agents covering activities in 48 countries, including many long-term contracts. We did not sign any new contracts in 2020.

In order to minimise risks, an audit of integrity is conducted with all agents exposed to bribery or other corruption risks before any contract is signed and the audit is expanded if necessary. Besides the requirement to comply with applicable anti-bribery laws and Höganäs’ policy, agreements with agents also include permission for us to request an audit of the agent’s financial records by an independent auditor to verify compliance.

Reported incidents in 2020

There were no open cases at year-end 2019. During 2020, five new cases were reported through our whistleblowing system that concerned the violation of safety regulations (1), improper behaviour (1), questioned leadership ability (2) and conflict of interest (1). All cases have been followed up and investigated with certain actions/improvements implemented. Four cases have been handled according

to procedures and are now closed, and one case remained open at year-end 2020.

In 2020, there were no reported claims or incidents concerning corruption nor concerning product health and safety, labelling or marketing, loss of customer data or other non-compliances.

Creating societal value

We create value and contribute to society through taxes and salaries paid to our employees. We always strive to ensure compliance with transparency requirements, and we do our utmost to avoid transactions or arrangements that may be considered tax evasion. In 2020, we paid 206 MSEK in taxes globally. Our salaries and social security expenses amounted to 1,832 MSEK during the year.

Key monetary figures, MSEK	2020	2019	2018
Turnover	8,645	10,343	10,361
Supply chain	6,613	8,177	7,753
Tax payments	206	210	175
Salaries, other benefits and social security expenses	1,832	1,934	1,810
Investments excluding acquisitions	351	701	671
Equity	9,886	9,806	9,046
Net debt	4,033	5,300	6,235

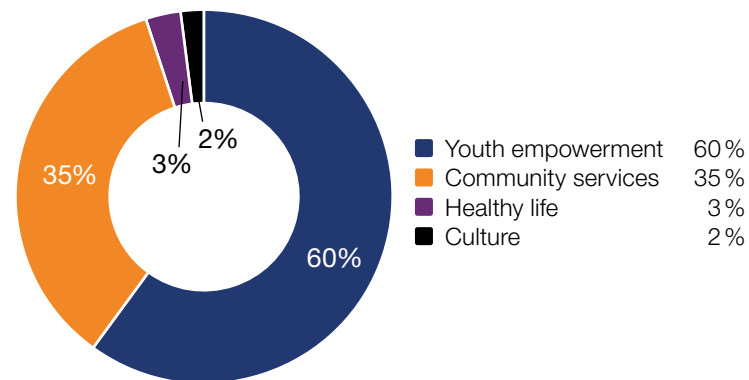
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Local contributions

In line with our global commitment, we have developed a Group framework for community engagement and donations. In 2020, we launched a new Sponsorships and Donations policy that states that our local sites can make donations that support our sustainability agenda. The policy provides a transparent and consistent process for donations throughout the Group.

Community donations



The majority of our donations are given to NGOs and to local public facilities or community services directed toward youth empowerment – including, education, scholarships, anti-drug programmes, support to vulnerable families and activities related to sports and culture.

Companies within the Höganäs Group donated 0.93 (3.46) MSEK to local communities in 2020. Around 60 per cent of these donations support the development of youth

and children through scholarships and other initiatives to promote education and children's rights.

The remaining 40 per cent of the contributions includes support to organisations to help vulnerable groups in society, and improve access to culture and leisure activities. During 2020, donations to support the fight against the coronavirus included Höganäs in China donating 165,000 surgical face masks to a Swedish hospital.

External stakeholder engagement

We have a responsibility to maintain an active and transparent dialogue where we inform the community about our activities and listen to their opinions in all locations where we operate. In Höganäs and Halmstad, Sweden, as well as in Mogi das Cruzes, Brazil, we distributed printed newsletters during 2020, but from 2021 the printed versions will be replaced by increased communication on social media where Facebook and LinkedIn are used as effective external communication channels.

In Ath, Belgium, the local management team usually invites local citizens and companies twice a year to discuss any issues. In 2020, one of the two scheduled meetings was cancelled in March due to the lockdown in Belgium. Instead, Höganäs in Belgium communicated by e-mail and at a meeting in November, which was conducted in a large room to enable proper social distancing and ventilation.

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Grievance reporting

We welcome spontaneous feedback from our neighbours and all sites have communication and grievance mechanisms. SpeakUp is a tool on our website that enables external stakeholders, such as neighbours, suppliers and customers to anonymously report incidents.

In 2020, we received two grievance reports from our neighbours. One was related to noise in Belgium and one concerned tree branches being too close to municipal power lines in Brazil. Both cases were handled and closed.



Around 60 per cent of our donations support the development of youth and children through scholarships and other initiatives to promote education and children's rights.

Industry memberships of importance for our business

Höganäs holds a position on the governance body for:

- European Powder Metallurgy Association (EPMA)
- Metal Powder Industries Federation (MPIF)
- Powder Metallurgy Association of India (PMAI)

Höganäs participates in projects and committees in:

- Japan Powder Metallurgy Association (JPMA)
- Jernkontoret (Swedish steel producers' association)
- Eurofer (European steel association) represented by Jernkontoret
- Korean Powder Metallurgy Institute (KPMI)
- American Water Works Association
- China Powder Metallurgy Alliance (CPMA)

Höganäs is a signatory of the UN Global Compact

COMMUNICATION
ON PROGRESS



This is our **Communication on Progress** in implementing the Ten Principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

Appendix

About this report

This report presents the sustainability performance of Höganäs Holding AB (Höganäs Group) in 2020. As the operational responsibility for the Höganäs Group is delegated to Höganäs AB's Board of Directors, the Sustainability Report focuses on Höganäs AB and its subsidiaries. Höganäs Group is privately owned by FAM (50%) and Lindéngruppen (50%) and the owners are represented on Höganäs AB's Board of Directors.

The report has been prepared in accordance with the GRI Standards: Core option and in accordance with the Swedish regulation (Årsredovisningslag) regarding the disclosure of non-financial information. This report also serves as our annual Communication on Progress report in accordance with our commitment to the UN Global Compact.

The report consists of a descriptive part and a GRI index with references. The digital publication published on hoganas.com/sustainabilityreport2020 is the main publication and the official appendix to the Annual Report.

The data presented includes all companies within the Group, i.e. Höganäs AB, with its headquarters located in Höganäs, Sweden, and its subsidiaries. Any exceptions are commented on. Management approach, boundaries, omissions and additional explanations are found in connection to each topic.

No significant changes to the organization or the supply chain have been made during the reporting period. There are no significant changes in reporting content.

The report has been approved by the Höganäs Board of Directors and has not been subject to external assurance.

The previous report was published on April 15, 2020, and the reporting is annual.

The list of entities included in the consolidated financial statements is found in the Höganäs Holding AB's Annual Report 2020. Any exceptions are commented on.

Queries

Please send any queries or feedback on the report to Director Group Sustainability, Catharina Nordeman catharina.nordeman@hoganas.com.

GRI index

Core	GRI indicator	Relevant section in this report	Fulfilment
■	102-1 Name of the organization	About this report	●
■	102-2 Activities, brands, products, and services	This is Höganäs	●
■	102-3 Location of headquarters	About this report	○
■	102-4 Location of operations	This is Höganäs	●
■	102-5 Ownership and legal form	About this report	●
■	102-6 Markets served	This is Höganäs	●
■	102-7 Scale of the organization	Creating societal value	●
■	102-7 Scale of the organization	Our people	●
■	102-8 Information on co-workers and other workers	Our people	●
■	102-9 Supply chain	Our supply chain	●
■	102-10 Significant changes to the organization and its supply chain	About this report	●
■	102-12 External initiatives	External stakeholder engagement	●
■	102-13 Membership of associations	Industry memberships of importance for our business	●
■	102-14 Statement from senior decision-maker	CEO statement	●
■	102-15 Key impacts, risks and opportunities	CEO statement, Strategy	●
■	102-16 Values, principles, standards and norms of behaviour	Our values and principles	●
■	102-18 Governance	Governance	●
■	102-40 List of stakeholder groups	Stakeholder dialogue	●
■	102-41 Collective bargaining agreements	Collective bargaining	●
■	102-42 Identifying and selecting stakeholders	Stakeholder dialogue	●
■	102-43 Approach to stakeholder engagement	Stakeholder dialogue	●
■	102-44 Key topics and concerns raised	Materiality analysis	●
■	102-45 Entities included in the consolidated financial statements	About this report	●
■	102-46 Defining report content and topic boundaries	The Höganäs Sustainability Agenda	●
■	102-47 List of material topics	Materiality analysis	●
■	102-48 Restatements of information	About this report	●

Core	GRI indicator	Relevant section in this report	Fulfillment
■	102-49 Changes in reporting	About this report	●
■	102-50 Reporting period	About this report	●
■	102-51 Date of most recent report	About this report	●
■	102-52 Reporting cycle	About this report	●
■	102-53 Contact point for questions regarding the report	About this report	●
■	102-54 Claims of reporting in accordance with the GRI Standards	About this report	●
■	102-55 GRI content index	GRI index	●
■	102-56 External assurance	About this report	●
■	103-1 Explanation of the material topic and its Boundary	About this report	●
	201-1 Direct economic value generated and distributed	Creating societal value	●
	205-2 Anti-corruption communication, training	Our values and principles	●
	205-3 Confirmed incidents of corruption and actions taken	Reported incidents 2020	●
	301 Materials	Materials use	●
	302-1 Energy consumption within the organization	Energy use	●
	302-3 Energy intensity	Omitted due to commercial sensitivity	○
	303 Water	Water use	●
	305-1 Direct (scope 1) GHG emissions	Direct carbon dioxide emissions, scope 1	●
	305-2 Energy indirect (scope 2) GHG emissions	Indirect carbon dioxide emissions, scope 2	●
	305-4 GHG emissions intensity	Omitted due to commercial sensitivity	○
	305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Air emissions	●
	306-2 Waste	Process residuals, circularity and zero waste, Non-process waste	●
	307-1 Non-compliance with environmental laws and regulations	Environmental impact mitigation	●
	308 Supplier environmental assessment	Responsible sourcing	●
	401-1 New employee hires and employee turnover	Our people	●
	403-1 H&S management system	We work safely - or not at all	●
	403-2 Hazard identification, risk assessment and incident investigation	Health and Safety - towards industry best practice	●
	403-4 Worker participation, consultation and communication on occupational health and safety	Health and Safety - towards industry best practice	●

Core	GRI indicator	Relevant section in this report	Fulfillment
	403-5 Worker training on occupational health and safety	Health and Safety - towards industry best practice	●
	403-7 Prevention and mitigation of occupational health and safety impacts	Health and Safety - towards industry best practice	●
	403-8 Workers covered by an occupational health and safety management system	Health and Safety - towards industry best practice	●
	403-9 Work-related injuries	Health and safety	●
	404-1 Average hours of training per year per co-worker	People development	●
	404-2 Programmes for upgrading employee skills and transition assistance programs	People development	●
	404-3 Percentage of co-workers receiving regular performance and development reviews	People development	●
	405-1 Diversity of governance bodies and co-workers	Diversity and inclusion	●
	406-1 Incidents of discrimination and corrective actions taken	Reported incidents in 2020	●
	414 Supplier social assessment	Responsible sourcing	●
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Reported incidents in 2020	●
	417-2 Incidents of non-compliance concerning product and service information and labeling	Reported incidents in 2020	●
	417-3 Incidents of non-compliance concerning marketing communications	Reported incidents in 2020	●
	418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Reported incidents in 2020	●
	419-1 Non-compliance with laws and regulations in the social and economic area	Reported incidents in 2020	●