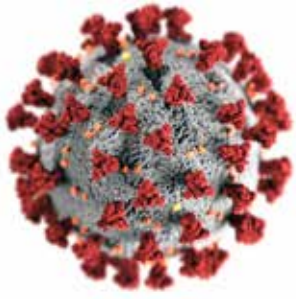
OVAKO

SUSTAINABILITY REPORT

2020

CONTENTS



Read about our Covid-19 countermeasures on page 18.

Ovako has prepared a sustainability report for the group (consisting of Ovako Group AB (org no 556813-5379) and its subsidiaries) in accordance with the EU Regulation 2019/2088 of the European Parliament on sustainability-related disclosures as well as national Swedish and Finnish legislation. The report has been prepared as a separate report in accordance with chapter 6, section 11 of the Swedish Annual Accounts Act.

OVAKO FIRST IN THE WORLD TO HEAT STEEL USING HYDROGEN IN PRODUCTION

Ovako conducted a full-scale trial using hydrogen to heat steel before rolling. The trial was performed with good results in one of Ovako´s pit furnaces at the Hofors rolling mill. This historic development for the steel industry proves that carbon dioxide emissions from rolling can be eliminated. Read more on page 17

TOWARDS ZERO ACCIDENTS AND OCCUPATIONAL ILLNESSES

Ovako has decreased the rate of lost time accidents by 90 % over the past five years. We have developed a solid safety culture, with success factors including implementation of more than 60,000 safety actions, along with dedicated safety leadership. Read more on page 19

54 %
reduction of CO_2e emissions from operations since 2015

80 %
lower CO_2e than the global average

1.9 LTIFR
accidents with sick leave per million working hours

94 %
of all residual products are recycled or reused

OUR BUSINESS

Ovako makes specialty steel for the bearing, transport and manufacturing industries. Our production is fully based on recycled steel scrap and in combination with our efficient processes together with Nordic electricity, our carbon footprint is about 80 % lower than the global average. With Ovako's high-performance steel, customers can develop products and solutions that are lightweight, resilient and climate-smart. In fact, Ovako's steel can be found in world-leading bearings, agricultural equipment, trucks, cars and windmills all around the world.

Our production is based on three metallurgy operations, Hofors–Hällefors, Smedjebacken–Boxholm and Imatra, each adapted for different types of customer needs. We produce bar steel in all executions. Round, square, flat or as hot-rolled profiles. We cut, machine, grind and heat treat our products into many types of delivery conditions – from basic forms to almost-completed components. We also produce tube, ring and wire, and supply an industry-leading range of hard-chromed long products.

Ovako has around 2,800 employees in more than 30 countries, including production facilities in nine locations. The company also has sales offices in Europe, North America and Asia. Ovako is a member of the Nippon Steel Group, one of the largest steel producers in the world, and a subsidiary of Sanyo Special Steel.

2,800
employees

9
production sites

30
countries

1,000
kton capacity

A year focused on health, safety and climate

KEY EVENTS

Q1

- Ovako conducted the world's first successful full-scale trial of using hydrogen to heat steel before rolling in a production environment.
- The new vacuum degassing facility in Smedjebacken began production. Vacuum degassing reduces the carbon footprint and improve the properties of the steel.
- Ovako was recognized as one of the top 20 most attractive employers in Sweden, and number three in the category of manufacturing, in Randstad's annual Employer Branding survey.
- Ovako participated in trials of driverless, battery-powered trucks at the production site in Hofors.

Q2

- In response to the Covid-19 pandemic, Ovako implemented countermeasures and restrictions to create a safe work environment. Efforts to ensure safety and productivity continued through the year.
- Ovako implemented a mobile app for efficient crisis management.
- We further improved our production flow by adding two new teeming cars to increase capacity and create a safer environment at the steel mill in Hofors.

Q3

- For the fourth consecutive year, Ovako conducted a Global Employee Engagement Survey to get feedback on our strengths and improvement areas.
- The Carbon Footprint Calculator tool was refined to provide customers with specific environmental data for each product.
- The Ovako Safety standard was launched to support managers and employees as we pursue our long-term goal of zero accidents.

Q4

- The Ministry of Economic Affairs and Employment, Energy Authority and Motiva awarded the Imatra site as an "Energy Genius 2020" for the implementation of a new vacuum degassing system.
- Applications for fuel conversion to hydrogen in Hofors and Imatra were submitted to the Swedish and Finnish governments.
- Ovako published new Environmental Product Declarations to provide customers with independently audited environmental footprints.
- For the first time, we achieved a LTIFR below 2 (1,9) an improvement of 90 % in five years.
- Ovako participated in the formation of the Mid Sweden Hydrogen Valley initiative.
- As part of the long-term fuel conversion project, a heat treatment furnace in Hällefors was converted from LPG to electricity to further reduce CO_2 emissions.

A different year to learn from

When looking back at 2020, we cannot overlook the impact of Covid-19. The global pandemic will be remembered as one of the largest challenges in modern times. It placed great pressures on public health and safety while impacting the global economy. Yes, the pandemic had an impact on our business, but at the same time we learned new ways of working through digitalization and we also created new opportunities for the green transition.

At Ovako, the health and safety of our employees always comes first. So as soon as the pandemic struck, we implemented strict safety precautions in line with the recommendations of recognized health authorities. Now, a year later we can see that our early actions together with other precautions helped limit the spread of the virus and also secured the smooth running of our operations. With lockdowns and closed borders, there were many companies struggling financially. We acted to protect our financial results by implementing a number of cost-saving initiatives together with Sanyo Special Steel and Nippon Steel. We will now keep building on our synergies to excel in areas such as research and development, productivity and commercial activities, where we see many exciting opportunities to serve our customer base even better.

Accelerating the green transition

In March, we showed the world that it is possible to heat steel with hydrogen before rolling. This was when we did the first full-scale test in a production environment at our rolling mill in Hofors. Not only does this mean that carbon emissions can be eliminated, but it also proves that there are great possibilities for a faster green transition. We have also found that our concept better supports stability of the electricity grid as well as offering a cost-efficient source of hydrogen for fuel-cell-powered long haul trucking. It is now time to collaborate across industries, governments and institutes to make this a reality – and one crucial factor is a well-functioning and stable fossil-free energy supply, both today and in the future.

Ambitious new climate targets for continued leadership

Along with safety, sustainability continues to be an essential part of our operations. We now have a great opportunity to ensure our industry leading position in carbon neutrality. We already provide our customers with steel products with a world-leading low CO_2e footprint, and since 2015 we have reduced carbon emissions from our own operations by 54 %. Now it is time for us to accelerate the journey towards fossil-free steel in a climate-neutral industry. Our new targets are to reduce carbon emissions from our operations by 80 % by 2030 and 90 % by 2040. This will rely on stable energy supplies, together with efficient processes for environmental permits.

Time for a radical change

As safety is our main priority, I want to conclude by reflecting on the step change we have achieved in safety. In 2015 we decided that drastic change was necessary as we had far too many accidents and near misses. Since then, we have worked hard to reduce our accidents. The result is that our level of lost time injury accidents (LTI) is down by almost 90 % and our LTI frequency rate is at the leading level in the Nordics at 1.9. Many factors have contributed to this great progress. They include a structured safety program, improved safety reporting and risk handling, and a strengthened safety culture that embraces dedicated management and employee engagement. Now safety is part of our DNA and we are determined to reach our long-term goal of being a zero-accident workplace.

Marcus Hedblom, President and CEO

Global challenges and opportunities

Global factors are always affecting our industry. Some create opportunities while others become challenges. It is our responsibility to analyze these trends so we can capture the opportunities and decide on proactive strategic measures to handle the challenges. In 2020, we faced a challenge that no one could ever have foreseen. The Covid-19 pandemic affects us in so many ways, both professionally as well as personally. It also creates new prerequisites and momentum for faster digitalization and green transition.

THE PANDEMIC & THE GLOBAL ECONOMY

The Covid-19 pandemic has been a challenge both from a health and economic perspective. It placed great demands on companies to secure employee safety, manage operations as well as minimize the financial impacts.

In order to ensure that the operations run smoothly while protecting the health and safety of our employees, Ovako implemented strict safety precautions, in line with the recommendations given by recognized health authorities. We have closely followed the development of the situation and taken proactive measures.

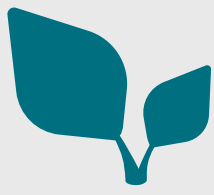
Covid-19 also had a financial impact. The lockdowns that were implemented to prevent the spread of the virus had a high impact on the automotive industry and its supply chain. At Ovako, we introduced several cost savings measures to counteract the negative effects of weakened market demand.

MOMENTUM IN THE GREEN TRANSITION

The common threat of global warming, in combination with a pandemic, led to increased awareness of environmental risks. This has generated increased public pressure on governments and businesses for a faster environmental progress. In turn it has also accelerated the steel industry´s measures to create a future climate neutral industry with circular economy as its foundation.

Investments in energy efficiency, electrification and low CO_2e emission technology are constantly increasing within the industry. We have also seen that hydrogen has arisen as a driver for a green transition and fossil free steel production.

Sustainability is an integrated part of Ovako's strategy and the green transition is fundamental to our operations. Our sustainability targets show our high ambition and we have dedicated plans on how to continue our journey as a leading sustainability player in the steel industry.



DIGITAL TOOLS AND SOLUTIONS

2020 introduced a whole new focus on digitalization. Digital meetings, events and seminars became part of everyday life for many. This also impacted the progress for the steel industry, where digitalization and automation create opportunities for improved efficiency and better customer service. Specifically, increased adoption of e-commerce, online services and educational tools are supporting the development of new enhanced services.

Ovako is working with digitalization initiatives on a continuous basis to streamline our business and offer services that generate value for our customers. We are also working to further automate our operations for enhanced efficiency and a safer work environment.

In this regard we are part of two development projects in collaboration with other companies, universities and institutes, funded by Sweden´s Innovation Agency Vinnova.

Sustainability throughout the value chain

Ovako strives for a sustainable value chain and a business that generates value at all stages, from product development to end products. A sustainable value chain is about ensuring that all aspects of sustainability are integrated within the entire chain, from materials and design all the way to production.

Our value chain can be divided into the following stages:

Product development

Steel is a key component in society. Ovako works constantly to develop new products and materials that meet customer needs and support a sustainable future.

The development projects are carried out together with our customers and other key stakeholders, such as research institutes and universities. These projects provide an opportunity to identify future needs of the market where both technology and sustainability are key drivers of our product development process.

Purchasing

Ovako's production is based on steel scrap. Most of the scrap is sourced domestically through well-established recycling systems. In some cases, Ovako has a supply chain with customers that also includes the return of our specific scrap.

All our suppliers are qualified, rated and assessed by a standardized process, where sustainability is an important qualifier. By identifying the suppliers that have the largest CO_2e impact on our products, we can place demands and thereby reducing our CO_2e footprint.

Production

Sustainability is integrated throughout the entire production process, from steel manufacturing based on recycled steel to further processing into specialty steel products.

Through continuous improvements in the different production processes, our emissions to air and water are continuously reduced, giving our steel products a world-leading low carbon footprint.

Sales and distribution

By manufacturing steel products with customized characteristics and high quality, Ovako creates added value for customers in several industries. We have a loyal and diverse base of more than 2,000 customers, often premium manufacturers in their fields. A key component of our strategy is to provide new services for customers as well as capturing climate opportunities in the distribution chain through digitalization.

Steel for advanced applications

Ovako manufactures steel for many different applications and needs. Ovako's steels are among the cleanest in the world, featuring minimum levels of impurities and higher fatigue strength than conventional engineering steel.

Our products give customers unique opportunities to develop smart product solutions that are lightweight and resilient, which provide better performance, lower production costs and improved climate profiles.

The product life cycle

The steel industry represents more than 8 % of the world's carbon dioxide emissions and even more when taking in the complete "cradle-to-gate" perspective. This creates an opportunity for climate-conscious producers like Ovako to make a difference by supplying steel that is more sustainable.

We work continuously to improve our performance. Our production is based on melting recycled steel scrap in electric arc furnaces (EAF) that are powered by low-carbon energy. This differs from many steel producers who use the basic oxygen furnance (BOF) method to process iron ore useing fossil fuels.

Ovako's steel is part of a cycle in which scrap becomes steel which again becomes scrap. Once a product or system that uses steel has reached the end of its life, it can be recycled. Steel is the world's most recycled material and can be remelted again and again to produce the highest quality products in a sustainable cycle. At Ovako we recycle around 800,000 tonnes of scrap every year, which makes us the largest recycler in the Nordics.

We also re-use or recycle 94 % of all our residual products with the goal of contributing to the best possible societal benefits. Ovako therefore conducts ongoing development to identify areas of use for the residual products that arise in the production process of our high-quality steel products.

Carbon neutral steel

Ovako has set ambitious new climate targets. These new targets touch on every step of the steel lifecycle, from the supply of raw materials through production, use and all the way to recycling. The emissions-focused target builds on the success Ovako has already had. Since 2015, Ovako has reduced its emission of CO_2e by 54 %. The achievement shows how we are responding to the climate challenge and the new targets are in line with limiting the global temperature rise below 1.5°C under the United Nations' Paris Climate Agreement.

Ovako's climate targets are based on a roadmap to 2040 that covers three main areas. The first targets focus on our own carbon footprint. Ovako will reduce its CO_2e by 60 % by 2030 and 70 % by 2040. This follows a "cradle-to-gate" approach that covers sourcing, processing and transport of raw materials, as well as steel production and logistics at every step until it leaves the factory gates. Furthermore, Ovako aims to eliminate CO_2e from our own operations, with initial targets of 80 % by 2030 and 90 % by 2040.

The second target focuses on providing high-performance steel products that enable end customers to reduce their CO_2e. Ovako will demonstrate this by developing case studies with calculations that illustrate how much CO_2e has been saved in end-applications.

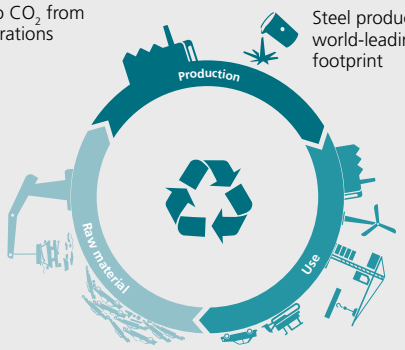
All the iron in Ovako's steel is from carefully sorted steel scrap to minimize the use of virgin alloys. Our third target focuses on the recyclability of steel, with initiatives such as working with the supply chain to focus on the collection and processing of high-quality steel scrap. We will also actively pursue projects to reduce or eliminate concerns related to increasing levels of copper in scrap.

CLIMATE AMBITION AND TARGETS

World-leading carbon neutral steel

Zero CO_2 from operations

Steel products with world-leading CO_2 footprint



Circular production in an eternal recycling loop

Unique steel that saves many millions of tonnes of CO_2 emissions in end-products

TODAY

CO_2 from operations reduced by 54 % since 2015

80 % lower CO_2 footprint than the global average

Production based on 97 % recycled steel scrap.

Ovako clean steel rings for wind turbines enable lifetime CO_2 savings of 260 million tonnes

2030

Reduce CO_2 from operations by 80 % from 2015 level

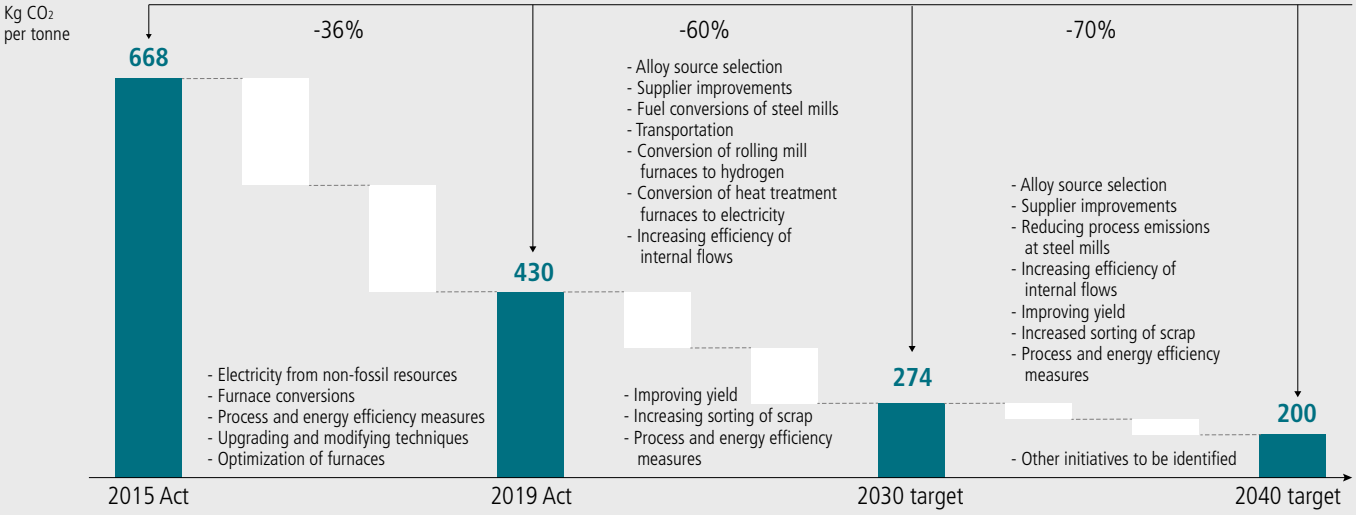
Continue to evolve our world-leading CO_2 footprint

Enhanced steel circularity driven by Ovako initiatives

Increased number of customer end-products that use our steel for greater CO_2 savings

CLIMATE ROADMAP

CO_2 footprint "cradle-to-gate" for hot-rolled bar



The UN Global Goals

At the United Nations Summit on September 25, 2015, the world's heads of state and governments adopted the Agenda 2030 resolution on sustainable development and 17 sustainable development goals. Countries are committed to leading the world toward a sustainable and fair future by 2030. These goals are closely linked to Ovako's own targets. We strive to create steel products with the lowest possible environmental and climate impact and we support the development of socially sustainable infrastructure. We have analyzed the UN's Global Sustainable Development Goals in order to identify the goals where Ovako can contribute. Below is a selection of our various activities that contribute to achieving these goals.

- Promotion of employee health and safety, especially through the group-wide Safety at Work program and the newly launched safety standard.

- Ongoing professional development of our employees.
- Collaboration with local educational providers in the areas where we operate.

- Continuous efforts to increase the representation of women in our operations.
- Increase the number of women in managerial positions.

- Recycling of process water used in production.
- Treatment of discharged process water in internal treatment plants.

- Continuous work on energy efficiency.
- Production based on a fossil-free electricity mix.
- Excess heat is sold to district heating plants.
- Our steel products enable the manufacturing of lighter steel components, which result in more energy efficient end-products.

- We follow collective agreements, promote human rights and a good working environment.
- A Code of Conduct for suppliers is included in all new agreements, where requirements are set for key aspects such as business ethics, anti-corruption, working conditions and human rights.

- Through research and development, Ovako contributes to new, more sustainable products.

- Our production is based on recycled steel. In this way, we contribute to our customers becoming part of the circular economy.
- Through continuous improvements in the production process, we are reducing our emissions to air and water.
- Our manufacturing processes provide steel products with a reduced carbon footprint throughout their life cycle.

- Production with significantly lower climate impact than the global average.
- Our products have few impurities, which makes it possible for customers to use clean steel to manufacture smaller and lighter components, resulting in climate-smart products.

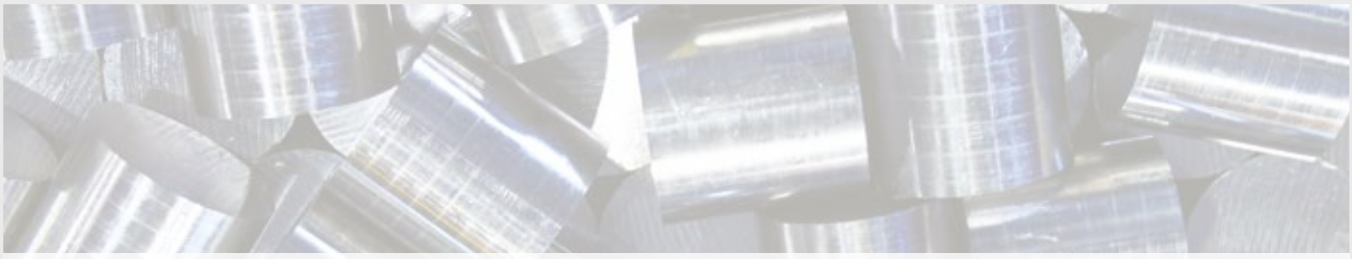
THE GLOBAL GOALS
For Sustainable Development

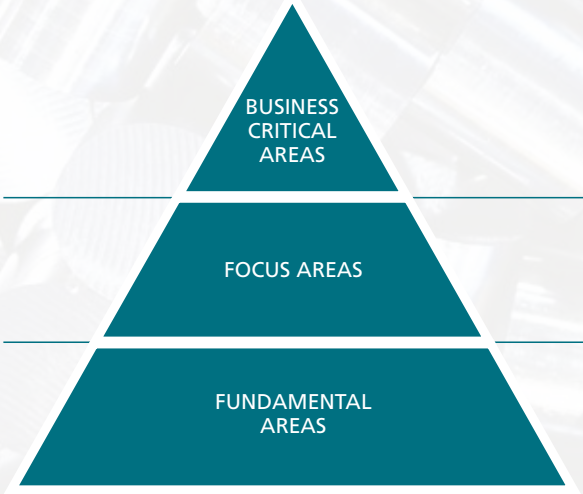
Sustainability areas in focus

At Ovako, sustainability is central to what we do – and while we are already world-leaders in sustainable steel, we are working hard to further improve our performance. We have structured our approach by setting priorities and supporting them with governance and monitoring.

We conducted a materiality analysis to identify the areas of greatest importance for both us and our stakeholders. This involved conducting several in-depth dialogues with key stakeholders such as employees, customers and business partners, owners and special interest groups. The key sustainability areas that were identified cover Ovako's entire business and product offering.

From the materiality analysis and these discussions, we have structured our approach to sustainability across three areas: business critical, focus and fundamental. We have concrete targets in place for the first two areas. For the fundamental areas, we have already established high standards and have processes in place for continuous improvement to maintain our leading position.





- ENVIRONMENT Read more on page 11
- PRODUCTS AND SERVICES Read more on page 14
- ANTI-CORRUPTION Read more on page 16
- SUPPLIERS Read more on page 16
- EMPLOYEES, HEALTH AND SAFETY Read more on page 18
- GOVERNANCE AND MONITORING Read more on page 21
- SOCIAL ENGAGEMENT Read more on page 21
- HUMAN RIGHTS Read more on page 22

PRIORITY AREAS

PRIORITY AREAS	TARGETS	STATUS	COMMENTS
BUSINESS CRITICAL AREAS			
Climate Further develop our world-leading CO_2e footprint "cradle-to-gate".	Reduce CO_2e carbon footprint 60 % by 2030 and 70 % by 2040 ("cradle-to-gate" for hot-rolled bar with 2015 as base).	Ongoing	Investments and improvements are continuously beeing implemented to reduce CO_2e emissions. The emissions are followed up according to Greenhouse Gas Protocol and ISO14064.
	Reduce CO_2e in operations 80 % by 2030 and 90 % by 2040 (scope 1&2 according to the Greenhouse Gas Protocol with 2015 as base).	Ongoing	
Provide leading steel products for CO_2e savings in end-usage.	Increase number of customer cases with improved climate profile in end-applications.	Ongoing	Ongoing development with customers to reduce the environmental impact of their products.
Circular economy Make contributions to further improve the recyclability of steel.	Actively pursue projects to reduce or eliminate concerns related to increasing levels of copper in scrap.	Ongoing	Ongoing project to investigate more possibilities in the recyclability of steel.
	Continue to lead the circular economy by reusing or recycling at least 90 % of residual products from production.	Completed	94 % of residual procucts are recycled or reused. Ovako works actively to identify new applications for its residual products.
FOCUS AREAS			
Safety Ambition to reach zero accidents.	Initial target to reduce Lost Time Injury Frequency Rate (LTIFR) below 2 by the end of 2023.	Completed	The LTIFR in 2020 was 1.9 which is below the initial target. The LTI frequency rate has decreased by 90 % since 2015. We are continuing the efforts to achieve the long-term target of zero accidents.
Diversity The right competence at the right place with people that reflect the societies where we are located.	Long-term target of minimum 40 % women in total workforce and management positions (double share of women in total workforce compared to 2020).	Ongoing	In 2020 women represented 18 % of the work-force and 21 % in managerial positions. External recruitment firms are always required to present women as candidates for potential employment.
	23 % women in total workforce and 25 % women in manager positions end of 2025.	Ongoing	
Anti-corruption	Relevant employees must have knowledge of anti-corruption and bribery and must be trained through Ovako's internal training.	Completed	An e-learning module has been implemented and relevant employees have been trained.
	Zero confirmed incidents of corruption and bribes from external and internal sources.	Completed	No known incidents 2020.
Suppliers	Ovako's Code of Conduct included in all procurement agreements.	Ongoing	Continuous work in connection with new agreements and revisions of agreements. Ovako's Code of Conduct is currently included in 60 % of all agreements.
	Classify and evaluate the suppliers with the highest impact with the aim to reduce the CO_2e footprint from suppliers with 20 % by 2030.	Ongoing	Process started and a support system for supplier monitoring is under evaluation.

ENVIRONMENT

Efficient production for the environment

Contributing to the circular economy

Ovako's production is based on using recycled steel as input material instead of iron ore. Steel can be recycled an infinite number of times while maintaining its properties. By basing our production on steel scrap, we can create high-quality steel with a lower climate impact without compromising the quality.

However, not all scrap is the same. We sort our incoming scrap material into multiple categories based on its alloy content, size and shape. By closely matching the quality of the scrap with the steel grade we are planning to produce, we reduce the amount of virgin alloys needed. That is one reason why we achieve a "cradle-to-gate" carbon footprint that is 80 % lower than the global average.

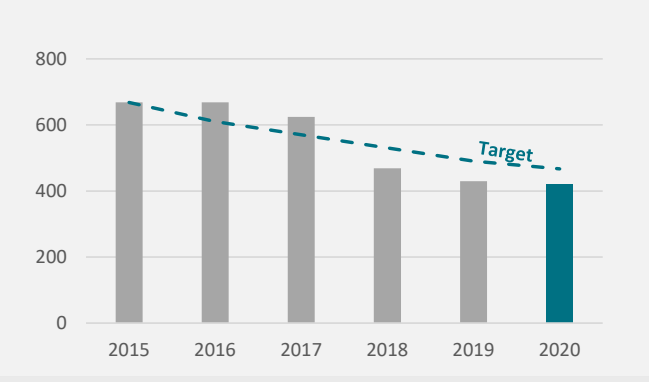
Environmental emissions

We have made considerable progress in reducing the environmental impact of our production processes through ongoing improvements. The main emissions to air are carbon dioxides and nitrogen oxides from combustion, and dust from steel mills and mechanical processing.

All non-diffuse sources of dust emissions are fitted with filters, and emissions are regularly monitored according to self-inspection programs. We have reduced the emissions of carbon dioxides and nitrogen oxides through ongoing development of more efficient heating processes. Conversion of furnaces from LPG, natural gas and oil to electricity has further reduced emissions, as well as saved energy. Since 2015, our efforts have resulted in reductions of carbon dioxide in scope 1 and 2 by 54 % and 37 % reduction of carbon footprint "cradle-to-gate" of finished hot-rolled steel products. We have also reduced our CO_2e emissions from steelmaking by 15 % since 2017, resulting in what we believe to be a world leading level of 67 kg CO_2e per tonne of crude steel for our Smedjebacken steel mill.

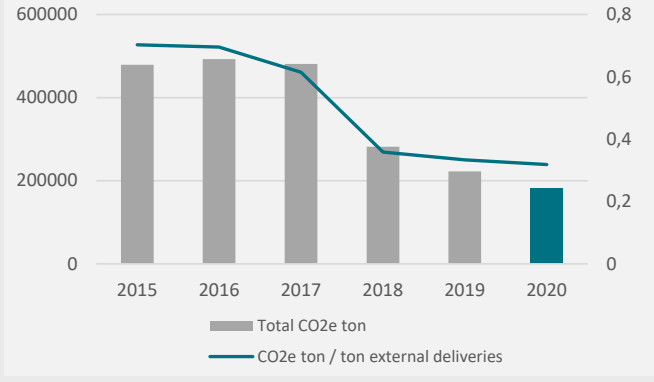
Carbon footprint

"cradle-to-gate" CO_2e/ton hot-rolled bar steel product



Green house gas emissions from operations

CO_2e/ton Scope 1 and 2 according to GHS Protocoll and ISO14064



Energy efficiency

Energy efficiency is a sustainability priority within Ovako. All our main production sites work according to, or are energy-certified under, ISO 50001. As part of this, we conduct regular energy surveys to identify and implement improvements.

One important area is heat recovery. Our main production sites in Sweden sell residual heat to their local communities via district heating networks. In addition, several of our sites use recovered heat from process cooling water, which means that net usage of district heating to warm these buildings has essentially been reduced to zero.

Transport optimization

The environmental impact of transportation is another area we are focusing on. We are always looking for opportunities to improve transport efficiency by increasing usage of rail freight, co-loading and using modern energy-efficient vehicles. Ovako's large production sites have rail connections, providing the flexibility to meet different transport needs.

Ovako has also started to implement a proactive system to quantify and visualize efficiency of transportation alternatives based on emissions. This enables us to optimize, steer and follow transports based on their CO_2e footprint. This project is carried out in collaboration with the transport management system provider Unifaun and the Network for Transport Measures (NTM).

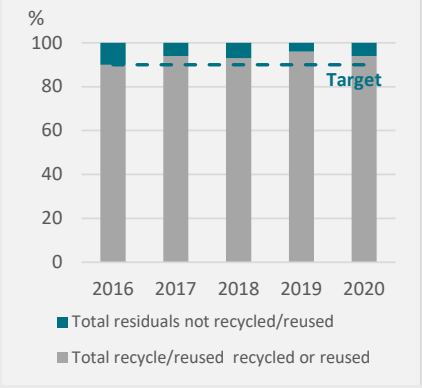
Biodiversity

Biodiversity on and around our production sites is important. One example of our efforts to preserve biodiversity and support rare plant species is the managed grazing area at our Hofors Site. Cattle graze at the Värnabackarna birch pasture on the site, keeping the ecosystem in balance.

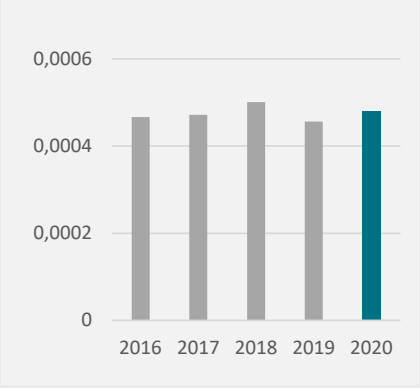
Water usage

Water is plentiful in the areas around our major production sites and these environments are not classified as being water-stressed. However, we work actively to use water as efficiently as possible in our production. Process water is constantly being recycled and treated in our water treatment plants before it is released.

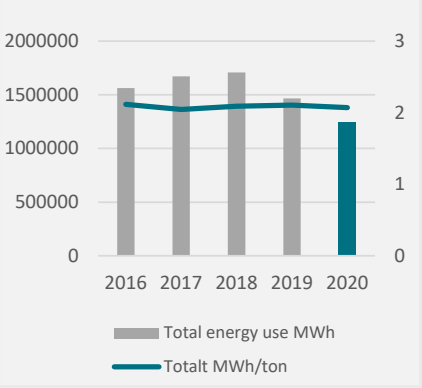
Residual products
% residuals recycled/reused



Nitrogen oxides emissions
NOx/ton from production



Energy use
Energy from production (scope 2)



New life for residual products

We always work to identify new ways to minimize waste by reusing or recycling our residual products. In 2020, 94 % of all residual products and 72 % of hazardous waste was recycled or reused. Our ambition is to identify applications for all residuals. One example is the reuse of slag. Slag production is an inevitable and integral part of steel production. At Ovako, we are investigating the use of slag to replace primary natural materials. For instance, slag can be used in asphalt as an input material to create unique properties that contribute to low road maintenance costs and increased service life. Another forthcoming application is as a component in insulation.

EXAMPLES OF ACTIVITIES IN 2020

- Ovako conducted the world's first full-scale trial using hydrogen to heat steel before rolling.
- In Imatra, steel slag has been CE-marked. The construction properties of the slag are now regularly monitored and controlled in compliance with the European harmonized product standard. This will increase the use of slag in road construction, replacing virgin materials.
- Slag from the mill in Smedjebacken is now used to make insulation, a new application.
- Hällefors has started successful trials of using UV technology instead of biocidal products for treatment of cutting fluids.
- Hofors is participating in trials of driverless, battery-powered dump trucks from Volvo, which will reduce the use of fossil fuel.
- Improvements in the use of cutting fluids have been made by increasing the precision of metal working fluids and maintenance of cooling systems in Hällefors.
- All pit furnaces in Hofors have now been converted from oil to LPG.
- A heat treatment furnace in Hällefors has been converted from LPG to electricity, reducing its CO_2 emissions by 1,900 tonnes per year.
- New, more energy-efficient LED-lightning has been installed in many buildings across our sites.
- Ovako supports the project FerroSilva, which explores the opportunities in using biogas to create sponge iron. This project won the KTH Innovation prize 2020 for best idea to reduce greenhouse gases. Ovako is joined by Uddeholm, Sandvik Materials Technology, Sveaskog and Lantmännen, as industrial stakeholders in the project.
- New ventilation in Hällefors has improved the work environment and saved 173 MWh/year.
- A new roof in Molinella has saved energy and improved the working environment.
- The scrap handling in Smedjebacken was featured in a video encouraging children to recycle.
- In Hofors, we have changed the transport setup for refurbishing production equipment in one of our main flows, resulting in a CO_2 saving of 58 %. This was achieved by utilizing higher payloads and combining road and rail transports.
- Ovako is implementing monitoring systems for onsite vehicles in order to improve safety and save energy.
- An efficiency project in Hofors has reduced water usage in one process flow by 20 %.

PRODUCTS AND SERVICES

From recycled steel to climate-smart products

Demand is growing for climate-smart products that have a low environmental impact over their entire lifecycle. In practice, this means using high-quality steel for long-lasting components and reducing the carbon footprint of the steelmaking process.

At Ovako, we are working closely with our customers and suppliers to achieve both aims. We also partner with several stakeholders within the industry. Together, our target is to achieve the vision of a sustainable steel industry while raising awareness of how high-performance steel contributes to a climate-conscious circular economy.

Product use

Ovako's steel can be found in some of the world's most demanding applications. We minimize inclusions and other defects during our production processes, resulting in clean steel with better fatigue strength than conventional steel.

Our steel makes customers' end products more resilient and extends their useful life. This enables customers to produce solutions that are lighter, stronger and have lower environment impact than if they used conventional steel. For example, Ovako steel is used in the large bearings of wind turbines, and these bearings last as long as the turbines themselves. Another example is our IQ-steel, which is used to make injectors that withstand high-pressure cycling loads in diesel engines. These are just two examples of how high-quality clean steel enables climate-smart solutions.

Climate conscious purchasing

We have published a set of Environmental Product Declarations (EPDs®) covering our three main production flows. The declarations are a transparent and independently verified source of information for customers to evaluate and compare the environmental impacts of steel products.

The EPDs cover the full environmental impact based on a lifecycle analysis of hot-rolled bar from "cradle-to-gate". They account for all of the recycled scrap and alloying elements, transport, energy and waste products in the production process, and include all yield losses to final product.

EXAMPLES OF ACTIVITIES IN 2020

- Environmental Product Declarations® developed for our three main production flows.
- Refining of the Carbon Footprint Calculator. The Carbon Footprint Calculator provides specific environmental data on all the products we produce, including further processing and alloying specification.
- Developing higher levels of purity and fatigue strength in our steel.
- Continuing the collaboration with leading vehicle manufacturers to improve transmission solutions for internal combustion engines and electric motors.


Image from Olofsfors

The steel's carbon footprint is included in the climate declaration section of each EPD and is presented as equivalent carbon dioxide emissions per kilogram of finished hot-rolled bar. Customers can use this data in their own carbon footprint calculations, helping them make informed decisions on steel procurement.

Our hot-rolled steel bar has a carbon footprint of 389-467 kg of CO_2e per tonne (2019). This is just one sixth of the global average.

GRINDING DOWN CARBON EMISSIONS

Certain players in the automotive industry have understood that engine crankshafts should be manufactured from ore-based steel. They believe that recycled steel does not perform as well during the grinding used to create high-quality bearing surfaces. This is because it is considered to be more susceptible to "grinding burns". This is a type of thermal damage that decreases surface hardness, introduces tensile residual stress and shortens fatigue life.

Some major players in the industry decided it was time to challenge this belief. Because using recycled steel for crankshafts offers the potential for significant reductions in carbon dioxide emissions.

To investigate, the Swedish government financed a 3-year project: Grindability of recycled steel: automotive crankshafts (CRANK-STEEL). It was coordinated by Chalmers University of Technology, with project members including: Volvo Group, Volvo Cars, Scania, Bharat Forge, Ovako and RISE IVF.

The project benchmarked recycled steel against iron-ore based steel. The key conclusion was that "the steel sources, whether from recycled steel or ore-based steel, are equally good".

This removes any remaining barriers for earlier hesitant industrial actors to using recycled steel. What could that mean for sustainability? We do not know exactly, but with around 90 million internal combustion engine vehicles produced each year, we estimate that the annual use of steel for crankshafts is in the order of several million tonnes, most of it ore-based.

The footprint of ore-based hot-rolled bar is well over 3,000 kg of carbon dioxide (CO_2e) per tonne, as the Ovako Technical Report "Cradle-to-gate – understanding CO_2 footprint of hot-rolled bar steel products" demonstrates. In contrast, our bar steel from the Smebox mills generate just 389 kg of CO_2e. Even though other suppliers of recycled steel have higher values, a switch to recycled steel could save millions of tonnes of CO_2e per year.

ANTI-CORRUPTION

Zero tolerance

Ovako conducts business in an ethical and honest way and has zero tolerance for any form of corruption, bribery, anti-competitive action or similar conduct. Suppliers and partners are also required to prevent all forms of corruption and comply with policies that Ovako has drafted in this area.

Ovako has two main targets in regard to anti-corruption: first, relevant employees must have knowledge of anti-corruption and bribery and must have passed our internal training. Secondly, we are aiming to have no confirmed incidents of corruption or bribes from external and internal sources.

Training is a fundamental part of Ovako's proactive measures for compliance. We provide mandatory training in areas such as anti-corruption, competition law and IT security for all relevant employees.

We had no known incidents of corruption or anti-competitive behavior during the year. This meets our objective of zero internal or external incidents related to corruption.

SUPPLIERS

Long-term relationships with our suppliers

Ovako's suppliers are largely located in Sweden and Finland. Others are based throughout Europe, and some production materials are bought from countries like China and Ukraine. All of the steel scrap that we purchase is accompanied by a certificate of origin that guarantees the content of the material.

Ovako has a Supplier Code of Conduct that is included in all new contracts. This imposes standards on suppliers in areas such as legal compliance, business ethics and anti-corruption, working conditions and human rights, health and safety, and the environment.

Ovako has a target to classify and evaluate the suppliers with the highest impact with the aim to reduce the CO_2e footprint from suppliers with 20 % by 2030. Suppliers are qualified and assessed by a standardized purchasing process based on cost, quality, delivery and sustainability. These evaluations are conducted using a self-assessment form which, is completed by the supplier.

HYDROGEN FOR CO_2-FREE HEATING

In March 2020, we completed the world's first successful full-scale production trial of using hydrogen as a fuel to heat steel before rolling, at our rolling mill in Hofors.

Today in the rolling mill we use a mix of liquefied petroleum gas (LPG) and oxygen for heating in an oxyfuel process. The oxyfuel process increases the uniformity of temperature and reduces energy as well as emissions of NOx. Changing to hydrogen will eliminate CO_2 emissions with 35,000 tonnes at the Hofors site alone.

Inside a pit furnace, steel is heated in the same chamber as the burning fuel and its exhaust gases. Therefore, switching to hydrogen creates a significant change to the atmosphere. We wanted to evaluate the effect of the CO_2-free atmosphere on steel quality, heating performance, safety and emissions of nitrogen oxides.

During the test, identical ingots were heated in separate batches using LPG and hydrogen. Monitoring of the steel during the subsequent rolling found no difference in the rolling forces, dimensions or quality of the steel.

Göran Nyström, EVP Group Marketing & Technology, said: "This is a major development for the steel industry. It is the first time that hydrogen has been used to heat steel in an existing production environment. Thanks to the trial, we know that hydrogen can be used simply and flexibly, with no impact on steel quality." Ovako is now planning to implement the world's first testbed with the hope that our learnings will be useful for the rest of the steel industry. If the outcome is as significant as we expect, the potential global CO_2 savings could be up to 300 million tonnes.

During 2020, Ovako became part of the Mid Sweden Hydrogen Valley initiative. This initiative combines industry, the transport sector, academia and the public sector in Mid Sweden to take the lead in the development of an integrated hydrogen society. The ambition is to create fossil-free industrial production, green transport and a stable, regional energy system for a sustainable future.

EMPLOYEES, HEALTH AND SAFETY

The importance of engagement

Ovako has a long and solid history as a socially responsible business. We take pride in producing clean, strong and sustainable steel for the future. Our employees are the core of our business and we have a culture of openness and inclusiveness. We are guided by our values - skilled, innovative, and responsible - in everything we do.

Protecting the health of our employees in a pandemic
As a consequence of the Covid-19 pandemic the world experienced a new health threat. The pandemic did not just affect how we run our operations and our financial situation, but also had a significant impact on our daily lives. The new unknown situation was also a cause of stress which could and can lead to negative impact on mental and physical health.

In order to limit the spread of the virus and the negative effects of the pandemic, Ovako implemented a number of countermeasures and strict safety precautions, in line with the recommendations given by recognized health authorities such as the World Health Organization (WHO) and other relevant local health authorities.

In this situation we have learnt how to manage many things digitally, from everyday meetings, management conferences, training and customer events to sessions with simple movements for office workers. We have also measured and followed up on our employees' wellbeing during the year, as well as their experience of how Ovako has handled the effects of the pandemic.

One key insight and success factor is our structured information flow, with frequent and consistent communication to all managers and employees as guidance through this unknown situation.

EXAMPLES OF ACTIVITIES IN 2020

Covid-19 countermeasures

- Risk analysis at all workplaces, for visitors, for those working from home and planning business travels
- Extra dedicated Covid-19 safety rounds
- Restrictions for employees
- Travel restrictions
- Restrictions for visitors
- Weekly information sessions for managers
- Weekly information updates for employees
- Compiled questions and answers for managers
- Use of government funded financial support for measures such as temporary lay-offs
- Digital training for managers – how to lead through a crisis
- For employees working from home we have provided prerequisites for home offices
- Promotion of simple physical exercises for office-based employees
- Other measures
  - Outdoor shift handover
  - Plexiglass installed at selected areas
  - Restrictions of number of employees in common areas
  - Information sheets with specific instructions
  - Information material at all entrances
  - Sanitation of common equipment
  - Safety markings on the floor to ensure social distancing

Towards zero accidents

Employee safety is a main priority at Ovako and our long-term target is a workplace with zero accidents and occupational illness. Through dedicated and systematic safety work we have seen great improvements in our safety records. We are proud that our number of lost time injuries (LTI) has decreased by 90 % since 2015, and our LTI frequency 2020 was 1.9, which is one of the best records in the Nordics.

We have a group-wide Safety at Work program, aiming to further integrate safety practices into our daily operations. To take the next step in our safety work, we launched an Ovako Safety Standard as guidance for all managers and employees. The standard is based on Ovako's policies and objectives regarding health and safety, as well as applicable laws and regulations. One important aspect is to improve and strengthen our safety culture to make sure that safety is always considered in everything we do.

Safety investments are prioritized and made systematically throughout the organization. Risk reporting is another key element of our improvement work. When all employees report risks, they can be addressed and eliminated. One of the main drivers for our safety result is the 66 444 safety measures that we have implemented.

Our journey towards zero accidents will depend on how we act and behave as managers and employees in our daily work. To become a safer work place, we will continue our strong safety focus and drive cultural changes to involve all employees.

EXAMPLES OF ACTIVITIES IN 2020

- Ovako Safety Standard was launched, as a development of Ovako's safety program. The standard provides support for all managers and employees to reach our long-term goal of zero accidents.
- Implementation of a new mobile app with the purpose of efficiently handling crisis management, including information flows during an ongoing crisis.
- The annual steel safety day was recognized with a video featuring Ovako´s safety ambitions.
- The focus on the organizational and social working environment has continued with safety briefings at all workplaces.
- The top five risks at each business unit were identified and the focus this year has been on implementing measures to reduce or eliminate these risks. One example in Imatra is the construction of a new maintenance access platform for an overhead crane, resulting in a safer way to enter the crane wherever it stops.
- Many safety measures have been implemented during the year. Some examples are:
  - We eliminated a risk of ergonomic injury in the inspection line at Smedjebacken's rolling mill with partial automation of a process step.
  - A new crane was installed at Boxholm's fine rolling mill to improve the work environment. The new lifting equipment was developed together with the employees.
  - A new robot for handling cuts has been installed in Hällefors for safer production.
  - In Hällefors, an extra blue warning light has been tested on larger trucks to increase visibility. The result has been positive, especially in the evening when the blue light is best seen.
  - New teeming cars were installed in Hofors to increase production efficiency as well as to improve the safety and work environment for the operators.
- New digital training sessions were held, focusing on leadership and communication in a crisis.
- Measures to improve and strengthen the results from the employee survey in all teams.

Leadership drives engagement

Ovako's strategy has a clear focus on employee engagement and leadership. During the year we had a special emphasis on how to lead in challenging times, including areas such as communication, expectations and feedback.

For the fourth consecutive year we executed a global employee engagement survey to get insight on our strengths and areas of improvement, at both group and team levels. This year's results showed improvement for all indexes; leadership, engagement, team efficiency and a strong stable result for organizational and social work environment.

Inclusion and diversity

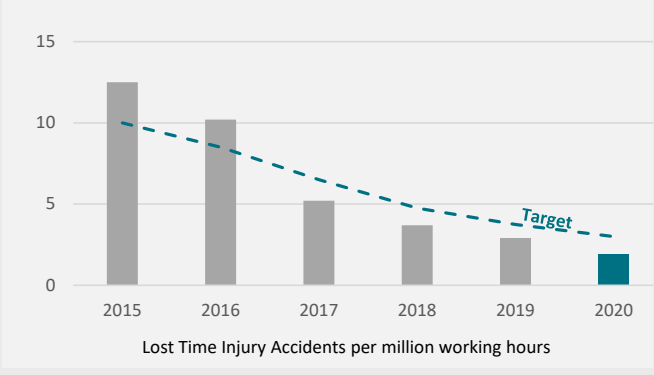
Ovako's ambition is to have the right competence at the right place with people who reflect the societies where we are located. Everyone shall have equal opportunities and we have zero tolerance for any form of discrimination or harassment.

There are several ongoing initiatives to encourage more women to work at Ovako. We require external recruitment firms to always present women candidates for potential employment and we focus on featuring female employees in our communications. In addition to gender equality, we are working actively to achieve greater inclusion and diversity in all areas.

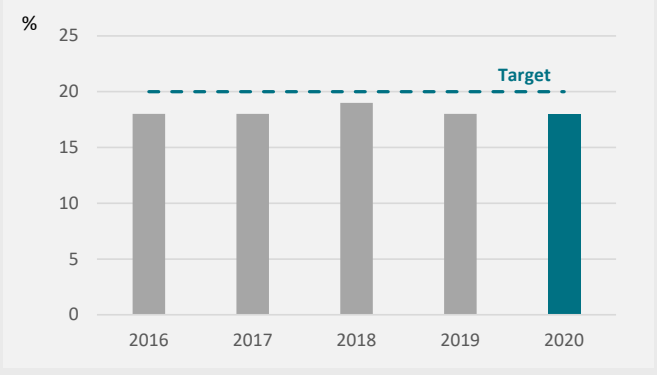
Right skills for the future

The Ovako Academy concept includes leadership development training for managers to provide them with the right skills to drive engagement, develop performance and act as great Ovako leaders. We also offer professional development to all employees, depending on individual needs and role, both digital and classroom trainings. By working with skills development, we provide our employees with new opportunities while ensuring we will meet our future needs for the right skill sets. One challenge is to ensure that future expertise will be available in the locations where we operate. Ovako therefore places great emphasis in cooperating with education institutions.

LTIFR (Lost time injury frequency rate)



Women in the organization



GOVERNANCE AND MONITORING

Operations driven by frameworks and policies

Ovako works in accordance with the legal framework provided by the International Labour Organisation (ILO) Declaration on Fundamental Principles and Rights at Work, the Rio Declaration, the Ten Principles of the UN Global Compact, and the UN Universal Declaration of Human Rights.

Laws and regulations are our minimum allowable standards and we systematically look to identify new and amended laws to adopt and enact where necessary. Ovako was not accused of any legal violations during 2020.

We require all of our employees to comply with our Code of Conduct as the basis of all our business operations. Employees can anonymously report suspected violations through a whistle-blowing function on our intranet site. During the year we had zero reported incidents.

In terms of environmental certification, all of our production units hold certification according to the ISO 14001:2015 standard. During 2020 we have also re-certified our work environment from OHSAS 18001 to the new standard of ISO 45001 for Hällefors and Hofors. Imatra and Tampere have already been certificated according to ISO 45001. We have also re-certified all our Swedish sites according to energy standard ISO 50001:2018.

SOCIAL ENGAGEMENT

An important player in society

As the largest employer in many of the locations where we operate, it is essential that we are engaged in the local communities. This involves contributing to maintaining a vibrant community where people can thrive and want to live. Not only does this improve the daily lives of our employees and their families, but it is also an investment in the workforce for the future.

We work closely with local governments, business networks, sports clubs and similar organizations. We source services such as maintenance and other support from local suppliers and contractors around our facilities to contribute to sustainable communities. We also contribute to sustainability initiatives, such as transferring residual heat from our production to greenhouses in a community project in Hofors, as well as to a swimming area in Lake Barken in Smedjebacken.

Skills development is another important area of focus. We have close cooperation with schools and other education providers to help them train the upcoming generation of young people. An example is our collaboration with Rinman Education, a technology college in Hällefors, which runs a program that is adapted to develop the skills we need, with students engaging in practical work at our site. Another is our close cooperation with the technology college in Hofors, where we prepare young students for industrial work.

HUMAN RIGHTS

A responsible employer

Code of Conduct for employees and suppliers
Our commitment to human rights is established in Ovako's Code of Conduct and we ensure that our employees understand all aspects of human rights through an ongoing training program. The Code of Conduct covers areas such as equal treatment, prevention of discrimination and harassment, the requirement to offer market-based salaries, anti-corruption and good working conditions.

We also condemn all forms of forced or child labor and all of our suppliers and partners must ensure that these do not occur. All employees participate in an e-learning program covering Ovako's Code of Conduct every three years, covering matters such as human rights. We also extend our requirement regarding human rights to our supply chain through a Code of Conduct for Suppliers.

Zero tolerance of conflict minerals
Ovako does not use conflict minerals such as tin, tantalum, tungsten or gold. Conflict areas refer to the Democratic Republic of Congo and neighboring countries, as defined in the Dodd Frank Conflict Mineral Legislation. Ovako also places demand on suppliers regarding responsible extraction of raw materials and does not accept activities that contribute to conflicts in extraction areas. Neither does Ovako use the mineral cobalt as an alloying substance.

The company supports the Responsible Business Alliance (RBA) and the Global e-Sustainability Initiative (GeSI), which, among other things, has drawn up a program for conflict-free materials and a framework for reporting on the use of conflict minerals. Ovako also supports the Responsible Minerals Initiative.

VACUUM TANK DEGASSING MAKES SUSTAINABILITY AND QUALITY SENSE

In 2020, we added a new €11 million Vacuum Tank Degassing facility to our mill at Smedjebacken. The new process is an important quality procedure for customers in the automotive industry. It applies a vacuum to molten steel to suck out dissolved gases such as hydrogen, oxygen and nitrogen. This reduces the risk for "hydrogen embrittlement", a localized loss of ductility that can lead to the early failure of critical components.

Adam Hylén, Business Development Manager at Ovako Bar says: "Historically, we have removed hydrogen with an annealing stage. This involves putting the steel bar into a furnace at around 600°C for prolonged periods of many hours. But now with vacuum degassing we can achieve the same high quality in much less time as part of our main steel production process."

The new process has reduced our heating gas consumption by 1,100 tonnes annually. In addition, it has cut the emissions of the resultant steel by 47 kg of CO_2 per tonne. The investment is already attracting new customers, with the first being a major European supplier to the automotive sector.

Risk analysis

Ovako continuously evaluates risks that may be associated with the identified material aspects and prepares action plans to address them.

MATERIAL ASPECT	RISK	MANAGEMENT
Employees, health and safety	*Employees´ health and safety* The risk of serious accidents and illnesses that affect employees, visitors or contractors.	Ovako has a group-wide Safety Standard. Our long-term goal is to have zero accidents and work related illnesses. The dedicated and systematic safety work involves strengthening the culture in which safety is prioritized in all situations. The work is structured by yearly focus areas and followed-up with different KPIs.
	Ability to recruit the right skills The risk of being unable to continue operating a value-creating business due to skills shortages in the locations where Ovako operates.	We take an active approach by engaging with schools and other education providers to ensure that future skills will be available in the locations where we operate. The skills that are particularly important for Ovako are engineers, technicians and operators. We employ a large number of measures to promote education in these areas, and to get young people to return to their communities.
	Diversity and gender equality The risk of limiting and missing current and future business opportunities due to an organization that is too homogeneous.	The steel industry has traditionally been male-dominated and we are working continuously to increase the share of women in the workforce as well as a diversity that reflects society.
Environment	*Negative environmental impact* The risk that Ovako's operations or those of suppliers will cause serious environmental damage, locally or regionally.	All Ovako operations have the necessary permits and licenses, and work proactively and long-term to renew these as required. Robust monitoring systems are in place and continuous investments are made to reduce our environmental impact. Ovako has a Supplier Code of Conduct that is included in all new contracts. This imposes standards on suppliers in areas including legal compliance, business ethics and anti-corruption, working conditions and human rights, health and safety, and the environment.
	Impacts from climate change The risk that Ovako´s operations will be affected by climate change.	Ovako continously assess the risks and, when necessary, takes the appropriate actions to handle the effects of climate change. The main risks in the areas where Ovako operates are forest fires and change of weather with heavy rain/snowfall that can lead to flooding.
Anti-corruption	*Corruption and bribery* The risk that employees will engage in criminal activity that has a long-term impact on the company's financial position and brand.	Ovako's Code of Conduct and Anti-corruption Policy address anti-corruption and human rights. All employees at risk of encountering corruption and bribery must complete special training on the subject. Executive management and relevant employees have been trained in how corruption can be discovered and prevented.
	Cartels The risk that employees participate in discussions with competitors about prices and conditions, and thus jeopardize the competitive situation.	We have an e-learning module on competition law and anti-competitive behavior in order to ensure full compliance with relevant laws.
Human rights	*Respect for human rights* The risk of non-compliance with internationally established human rights in Ovako's value chain. Assessed as most relevant to the supply chain.	We are committed to respecting human rights in all areas and the company imposes stringent demands on collaborative partners to do the same. Our positions on matters including human rights are set out in the Supplier Code of Conduct. The scrap that Ovako purchases is always accompanied by a certificate of origin. These certificates guarantee that the material contains what it is supposed to contain. Steel from Ovako contains no conflict minerals, and in accordance with the Code of Conduct, suppliers commit to ensuring that the materials they supply come from conflict-free areas.
Other	*Other Trade policy measures* Risk of political decisions causing difficulty for operations. Various forms of trade policy action such as tariffs and sanctions have changed the possibilities of doing business between certain countries.	Ovako actively monitors developments in world markets to handle unforeseen changes in terms of opportunities for import and export from and to different countries.
	Pandemics Risk of new pandemics that will affect the global economy as well as the health of employees.	The Covid-19 pandemic has shown the negative impact that a global pandemic can generate. Ovako has therefore implemented measures to handle this pandemic, as well as be prepared for potential future pandemics.

LEARN MORE ABOUT OVAKO AND OUR SUSTAINABILITY EFFORTS

Visit our website for further information.

www.ovako.com