

# SUSTAINABILITY REPORT





*The four elements: Air • Earth • Water • Fire*

### About the report/publication credits

This report seeks to consolidate the various sustainability activities of the SHS Group and to present them transparently for all stakeholder groups. It covers the 2018 financial year. The reporting date for all data and facts from the attached fact sheet is 31 December 2018. The statements pertain to the companies SHS – Stahl-Holding-Saar, Dillinger and Saarlouis as well as the affiliated companies. These companies are collected in this Sustainability Report under the name SHS Group.

The various measures and activities in the areas of environmental protection, sustainability and corporate responsibility had been reported in the respective financial statements of the Group companies. These are now summarized in this joint report and are covered in much greater detail and comprehensiveness. With this report we follow a holistic approach that applies to all business areas.

The individual chapters describe the basic approach, the measures applied, and the goals as well as their achievement, including documentation of all key performance indicators. These key performance indicators are summarized in a separate fact sheet and are updated annually in the middle of the financial year. The Sustainability Report thus represents a valuable addition to the financial statements and adds to corporate transparency and comparability. The general section of this report is to be published every three years unless substantial changes necessitate a different publication frequency.

The report is published in German and English. The report is published online together with the financial statements (see links below).

The Sustainability Report is also intended to promote dialogue and to clearly define the requirements for today and for the future. The SHS Group is interested in expanding this dialogue. If you have any questions, comments or suggestions, please write to us:

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Further information on the Global Reporting Initiative and GRI Standards can be found at: [www.globalreporting.org](http://www.globalreporting.org). The GRI Content Index can be found in the appendix to this report.

For all additional data and company-relevant information and activities, please see below:

[www.stahl-holding-saar.de](http://www.stahl-holding-saar.de)

[www.dillinger.de](http://www.dillinger.de)

[www.saarstahl.com](http://www.saarstahl.com)

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## FOREWORD

*Dear Reader,*

*With this first Sustainability Report, SHS – Stahl-Holding-Saar (SHS) and its two majority-held subsidiaries Aktien-Gesellschaft der Dillinger Hüttenwerke (Dillinger) and Saarstahl AG (Saarstahl) as well as the affiliated companies are documenting their responsibility and their economic, ecological and social efforts with respect to relevant stakeholder groups.*

*The report is based on the GRI Standards of the Global Reporting Initiative (GRI). Dillinger and Saarstahl, as principle companies of the SHS Group, have established themselves as international premium manufacturers and strong brands in the high-quality segment for heavy plate, bar steel, wire and forged products. Sustainable action and a long-term corporate policy are essential to achieve and strengthen this position. For generations, ecology and sustainability have defined this policy as well as the growth and development activities for safeguarding the company in terms of economic and resource-efficient processes and end products. Strategic actions are defined by*

*continuous development of the value chain, most recently with the establishment by Dillinger of the subsidiary Steelwind Nordenham in the area of manufacturing foundation structures for the offshore wind sector.*

*Dillinger and Saarstahl have received a silver award for their sustainability activities from the international rating agency EcoVadis. The assessment considered the sustainability of the business activities and ecological efforts as well as the needs and expectations of employees and the openness and transparency of the communication with all other internal and external stakeholders. The achieved results show the company performing among the top 30 percent of companies in the category "Manufacture of basic iron and steel".*

*As a corporate group with international operations, we are part of the global production chains. Only a common standard of ethical values and legal requirements within the supply chain makes it possible for us to make sustainable and successful*





products. Our standards for sustainable management are therefore written into the Code of Ethics SHS Group as well as in the vision of Dillinger and in the company guidelines of Saarstahl. We are likewise guided here by the fundamental freedoms of international conventions as well as the standards of the UN Global Compact.

The comprehensive sustainability approach, which this report now formulates and publishes for the first time primarily for SHS, Dillinger and Saarstahl, gives us a clear definition of the task:

**We accept our responsibility to current and future generations of employees and stakeholders and we want to manufacture steel products in the most modern and sustainable way. We are committed to the Paris Agreement and want to do our part for low-carbon steel production.**

With the strategy process started in 2019, a movement for change has started in the SHS Group that continues to focus on the responsibility for people and the environment today and in the future. The carbon strategy and its associated opportunities and risks are key points we examine in all their facets in order to develop further solutions.

Based on what has been achieved so far, further potential for improvement has been identified and ambitious goals have been redefined with a view to a future worth living for everyone. This primarily concerns issues which, according to our analysis, will become even more important for the steel industry in the coming years. These include the significant reduction of carbon dioxide emissions and compliance with environmental and social standards in the supply chain. Important investments and measures have been initiated to this effect in recent months and are currently being implemented.

We are pleased that you are following our achievements and hope you will find our report interesting and informative.

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Saarstahl Aktiengesellschaft  
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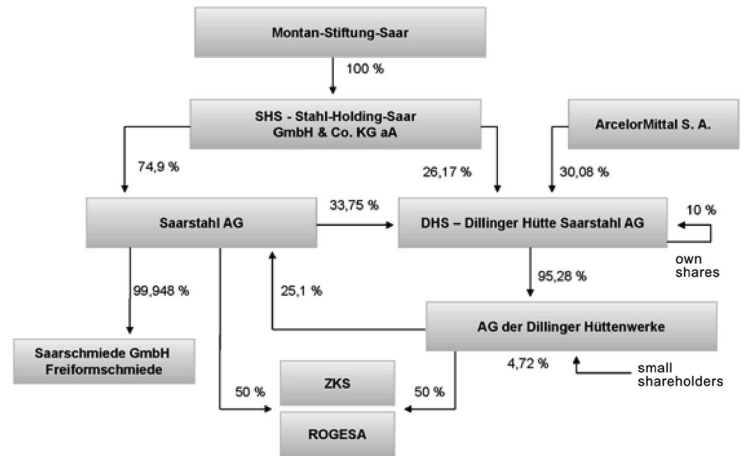




# 1 Company profile

## 1.1 Ownership structure, sales revenue, employees, locations

The SHS Group is based on a private foundation model. The Montan-Stiftung-Saar with its headquarters in Völklingen is the sole shareholder of the operational management holding company SHS – Stahl-Holding-Saar GmbH & Co KGaA, which is headquartered in Dillingen. SHS holds a majority interest in Saarstahl AG, Völklingen, and the intermediate holding company DHS – Dillinger Hütte Saarstahl AG, Dillingen, which in turn holds a majority interest in Aktien-Gesellschaft der Dillinger Hüttenwerke, headquartered in Dillingen.



Structure of the SHS Group

The Montan-Stiftung-Saar is a private industrial foundation whose foundation model is based on preserving and strengthening the two large steel-producing corporate groups in Saarland – Dillinger and Saarstahl – and thus securing jobs in the region. The shareholder structure ensures that corporate management and control – and thus the important economic decisions as well as the strategy and structural orientation – remain in the hands of the companies themselves. The focus of the foundation model is also on promoting scientific research and vocational qualification as well as on fostering environmental protection projects.

### SHS – Our heart beats for steel

The two large companies of the SHS Group, Dillinger and Saarstahl, look back on a long and proud tradition dating back in part to the 16th century (at the Neunkirchen location of Saarstahl) and the 17th century (Dillinger). Today, the companies of the SHS Group (SHS-Holding, Dillinger, Saarstahl and all affiliated companies) with their high-tech plants are an important economic factor in the region and they feel a duty to their long history: The SHS Group, with sales revenue of around EUR 5 billion, currently accounts for around 20 percent of the total revenue of the manufacturing industry in Saarland. With around 11,000 employees in Saarland (14,000 worldwide) and over 500 apprentices, it is by far the largest employer and trainer in the region and is a key industry in Saarland's economy. The companies of the SHS Group have traditionally been engaged in the social and societal concerns in the region and beyond. They assume a special re-





sponsibility for the employees and their families and offer their employees skilled jobs, thus providing the opportunity for a secure, long-term livelihood.

As an operational holding company, SHS has been performing central functions for Dillinger and Saarstahl since 2010, including strategic management, finance, human resources, communication, purchasing and logistics. The two subsidiaries Dillinger and Saarstahl are however directly and independently responsible for the essential functions of steel production and sales. The SHS holding company itself has around 500 employees.

Dillinger and Saarstahl are interlinked in many ways and, since the restructuring of the steel industry in Saarland in the 1980s, have shared their hot metal and coke production, which has been concentrated at the Dillingen site in the operation of a coking plant and two blast furnaces. This first part of the value-adding process is performed by Zentralkokerei Saar GmbH (ZKS) and ROGESA Roheisengesellschaft Saar mbH (ROGESA), both based in Dillingen. Dillinger and Saarstahl each have a 50 percent share in these companies and are supplied with hot metal from them for use in producing various steel products in their respective steel and rolling mills.

Saarstahl produces bar steel and wire rod at three sites in Saarland: in Völklingen (steel mill and 2 rolling mills), in Burbach (1 rolling mill) and in Neunkirchen (2 rolling mills). Dillinger produces heavy plate at its integrated steel plant in Dillingen and operates a steel plant, rolling mill and heavy fabrication plant in addition to the coking plant and blast furnace jointly held with Saarstahl, as stated above. Dillinger is also the sole owner of Dillinger France S. A. with its headquarters in Dunkirk (France), which operates a rolling mill. Both steel producers are active worldwide and highly regarded as manufacturers and reliable suppliers of high-tech and premium-quality products. Over the last few years, they have each invested an average of EUR 80 million annually in the construction of new plants and processes or in the modernization of existing ones, in their own innovation management, and in in-house research and development activities for the marketing of new products as well as for the improvement of processes and procedures. This includes working with internal interdisciplinary teams of experts and various research

institutes and universities. On average, about 10 percent of all investments go to environmental protection measures and serve to improve the noise or emission situation as well as to enhance the conservation of resources or energy efficiency. The companies invest equally in socially compatible and responsible human resources efforts, in the initial qualification and continued training of their skilled employees and managers, and in the know-how and requirements resulting from developments in digitalization and Industry 4.0.



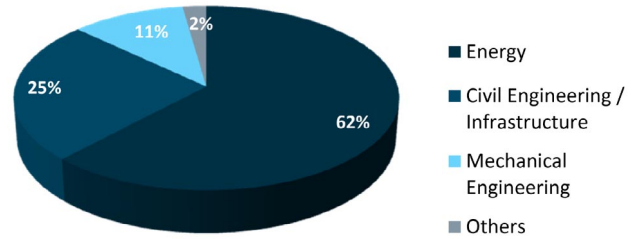


## 1.2 Divisions, product groups and customer groups

The main customer industries of the Saarland steel industry are presented comprehensively: the energy sector, the automotive and construction industries and machine construction. Saarlust is more focused on the automotive, machine construction and construction industries, while Dillinger primarily supplies steel construction, offshore construction, wind and tidal energy, line pipe construction, machine construction and construction machinery. With steel solutions from Saarlust and Dillinger, customers all over the world are able to produce better, lighter, more reliable and more efficient products using sustainable processes and construction methods.

### *Dillinger – the heavy plate producer that sets standards worldwide*

Dillinger is a leading worldwide manufacturer of innovative and high-quality steel products. The company's success is based on its consistent focus on the needs of its customers and on its efforts to continuously develop together with its partners. Germany and Europe are Dillinger's core markets. Dillinger's trading, flame-cutting and treatment operations offer additional downstream services and customized solutions in sales for the processing of heavy plate and other steel products. Dillinger also operates its own heavy fabrication division with a wide range of services for heavy plate: In addition to edge finishing and sheet metal blanks, single-piece or multi-piece pressure vessel heads, spherical segments, shells or longitudinally welded shell sections are produced. In 2014 Dillinger opened its wholly owned subsidiary Steelwind Nordenham GmbH, a plant that manufactures monopile foundations for the offshore wind market. As a consequence, Dillinger itself and Steelwind Nordenham are important suppliers of high-quality steel for foundation structures and manufacturers of foundation structures for the offshore wind sector. The steels supplied must meet the toughest standards for strength and processing and are therefore indispensable for the energy transition and mitigating climate change.



*Average breakdown of Dillinger sales revenue by sector (2016 – 2018)*

The versatility of Dillinger's high-tech steel plate can be seen in the works of its customers. These range from aesthetic bridge structures and towering skyscrapers to gigantic offshore platforms, wind power plants, hydroelectric power plants and special buildings like the recently completed Louis Vuitton Museum in Paris, which displays breathtaking architecture made from steel and glass. Thanet, the world's largest offshore wind farm to date located in the southwestern North Sea off the Thames estuary, is just one of many examples of how "cleaner" energy can be generated with innovations made from Dillinger steel.

In addition, valuable by-products produced in the course of creating the finished heavy plate represent ideal solutions for other industries – from chemicals and agriculture to cement.

### *Saarlust – premium quality wire and rod*

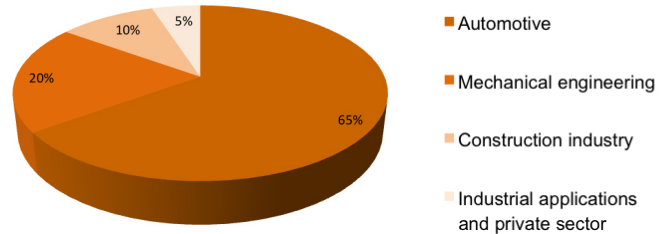
The Saarlust Group has enjoyed an excellent reputation for quality steel throughout the world for many decades and has specialized in the production of wire rod, bar steel and semi-finished products including tire cord, spring steel, free-cutting steel, prestressing steel and much more. Saarlust products are used in a wide array of applications, sometimes under the most extreme conditions: Saw wire for resource-efficient production of solar modules, high-strength steels for demanding infrastructure projects such as prestressing steels in bridge and rail construction, cable armouring wire for energy transmission or innovative steel solutions for the requirements of future mobility concepts including electric mobility, to name just a few applications.





The wholly owned subsidiary Saarschmiede GmbH Freiformschmiede, based in Völklingen, specializes in the manufacture of premium-quality forged products for power generation machinery and general machine construction as well as for the stainless steels and special alloys applications segments. Saarlust is capable of producing more than 1,500 steel grades for a wide variety of requirements and, with innovative products and intelligent technologies, helps find answers to global challenges such as mobility, energy efficiency and safety.

As a company with international operations and a well-developed sales network, Saarlust is able to serve customers



*Average sales of Saarlust by sector (2018)*

worldwide and supply steel to more than 40 countries via a worldwide transport network. Furthermore, a number of subsidiaries in the field of heavy fabrication, including the wire and bright steel sector, belong to the Saarlust Group.





## 2 Vision, strategy, management

### 2.1 Stakeholder groups and materiality analysis

The productivity and success of the SHS Group are defined through sustainable and responsible treatment of employees, the environment, the public and the region. The interests of various stakeholder groups are influenced in different ways by our business activities. As part of the preparation of our first Sustainability Report, the following interest groups were identified as key stakeholders through intensive discussion with the specialist departments by means of a vote:

- Customers
- Suppliers
- Applicants and employees
- Region, neighbors
- Works Council and Supervisory Board
- Associations
- Legislators
- NGOs, interest groups and platforms
- Banks, investors
- Research institutions and universities

As a key industry, the Saarland steel industry around the SHS Group is strongly networked with its stakeholders and aims to achieve open, fast and transparent communication. Continuous dialogue with stakeholders is ensured through the various corporate divisions of the SHS Group. It also provides appropriate forums for identifying risks and opportunities and for identifying common goals with respect to key sustainability issues. This is done regularly and very concretely through such measures as customer days and satisfaction analyses, visiting and participating in trade fairs, supplier audits and surveys, employee performance reviews, and various public events. Both companies, Dillinger and Saarlühl, open their doors for numerous company tours with several thousand visitors per year and with very different groups of participants including pupils and university students. Employees and their families also get an opportunity to visit their company on special occasions like the celebrations for the 333rd anniversary of Dillinger and the 425th anniversary of Saarlühl Neunkirchen.

The companies regularly take part in the "Long Night of Industry" in Saarland, when interested parties can visit the companies and talk to the people in charge about training and career opportunities as well as about environmental aspects or other company-related topics. Saarlühl and Dillinger hold an apprenticeship training day every year, when interested parties can visit the training workshops and learn about an industrial or commercial apprenticeship by talking directly with apprentices and trainers. In 2018, Dillinger invited interested visitors, pupils, students, politicians and the general public to their second Innovation Days event in Dillinger, where the company presented the results of current innovation activities as well as research and development through lectures and public discussions. Here, too, the focus of many projects, including those in energy and raw materials management, was on sustainability. In the future, a joint innovation event will be held for Dillinger and Saarlühl.

An intensive stakeholder dialogue has also been underway for many years within the context of energy and climate policy. Especially in view of the current issues of decarbonization and the central role of the steel industry in the energy transition and mitigating climate change, discussions with politicians in Brussels and Berlin are held frequently as direct, face-to-face meetings, at an association level or in various forums. The main goal is to bolster the steel industry's positions in favor of a fair energy transition that does not jeopardize the competitiveness of the steel industry in Europe but that instead stands for support in the form of adequate political conditions flanking the necessary technological transformations toward low-carbon steel production. It is also of central importance for steel companies in Saarland to advocate for a global ecological footprint for steel and for a carbon import tax that adequately considers global climate change.



Against the backdrop of this political and economic debate, three major supraregional events dealing with the topic of steel have already taken place in Saarland with support from the SHS Group, the most recent being the “National Steel Summit” in Saarbrücken in December 2018, where participants came from all over Germany and company representatives talked with the various stakeholders. At the same time, the companies of the SHS Group frequently take part in discussion forums on the topics of steel, energy, sustainability and carbon, including the regular “Steel Dialogues” held in Berlin, which are also attended by representatives from politics, business and NGOs. The companies of the SHS Group are also active in discussion events with pupils, students and the scientific community, including various research partnerships such as its cooperation with Saarland University. In 2019, contacts and exchanges are to be further strengthened with NGOs and climate protection activist groups such as “Fridays for Future” and representatives of the Saar Climate Protection Alliance. Discussions with public policymakers are being continued at their already intensive level.

### *Materiality analysis – sustainability issues*

For our first sustainability report, we used a materiality analysis based on analysis of the content of discussions with all stakeholders to identify the following topics of relevance to us:

- Sustainable research and development
- Sustainable production
- Employees
- Environment
- Energy
- Compliance

These identified topics form the basis of this Sustainability Report and have been supplemented with some useful information. To define the content of the report, a comprehensive benchmark analysis was first carried out. The key topics of our competitors were identified, prepared and compiled for this purpose. After consultation within the sustainability project team, the GRI Standards was chosen as the basis for the project and the material topics were determined on this basis. Because the concerns of our stakeholders are important to us, we also want to adapt our future reporting to the key interests of these groups.

The productivity and success of the SHS Group are defined through sustainable and responsible treatment of employees, the environment, the public and the region.

The sustainable corporate policy of the SHS Group is distinguished by:

- Efficient and resource-saving activities employing numerous measures and investments to improve environmental protection and efficient use of energy, recycling of by-products and reduction of emissions.
- A responsible approach to occupational health and safety as well as human resources work in line with high social standards.
- The company's internal improvement processes, which bring the principles of sustainable and safe behavior to every workplace and every employee.
- Safeguarding and enhancing the technological leadership of Dillinger and Saarlust through investing in new facilities and modernizing existing ones as well as through developing innovative products and processes.
- The establishment of our own Group-wide innovation management system.
- Procurement geared toward security of supply and ecologically beneficial modes of transport.
- Securing know-how through knowledge transfer and strong apprenticeship and in-service training programs.

### *Steel contributes greatly to environmental and climate protection*

The goals of climate policy can only be achieved with the steel industry and its products. The industry is of particular importance as a supplier of input material for many value chains.

Steel produced by Dillinger and Saarlust fulfills the principle of sustainability more clearly than almost any other material: As the most frequently used industrial base material, it contributes significantly through a wide range of applications to protecting the environment and climate through a wide range of applications. No other material is as sustainable as steel. At the end of their useful lifetimes, products made from steel can be completely recycled as often as desired and reintroduced into the economic cycle with virtually no waste or loss of quality. In addition, the production of steel in Germany meets high standards for environmental and climate protection, not least in terms of global comparison.



*The perpetual cycle – steel recycling  
(source: German Steel Industry Federation)*

Sustainable production of renewable energy from wind, water and the sun is inconceivable without steel. Innovative steel products like wind turbines, hydroelectric power plants and other modern power stations save six times the amount of carbon dioxide released in their production, as shown in a study by the Boston Consulting Group. Use of high-strength steels in highly stressed structures can often reduce the amount of material used by up to 50 percent. Applications for steel produced by the Saarland steel industry include off-shore and onshore wind energy, hydraulic steel construction, high-strength steels for efficient use of resources and lean designs in advanced infrastructure projects, innovative steels that reduce weight and boost efficiency in the automotive and photovoltaic industries, and many more.

## 2.2 Values, vision and strategy

Our actions, both internally and relative to third parties, are consistent with the SHS Group Code of Ethics (revised in 2019), which was drawn up and approved by the management of SHS and the management boards of Dillinger and Saarstahl. We also act within the framework of an integrated corporate concept that includes the assumption of social responsibility with social, environmental and economic contributions from our Group.

The strategy of the SHS Group is undergoing a future-focused and sustainable change process to increase competitiveness and efficiency and to strengthen customer focus. This is intended to ensure the sustainability of the SHS Group. The emphasis here is on five building blocks: the Business Segment Policy 2020, the portfolio structure, the carbon strategy, Cost Reduction 2022 and the topic of “a Saarland steel industry/management and structures.” The senior management and Management Board of SHS, Saarstahl and Dillinger want to initiate new processes for cooperation, bring corporate cultures closer together, reduce duplicate structures and leverage synergies. Environmental protection, the health and safety of employees and corporate social policy – even in times of crisis – continue to be given top priority and are seen as an essential part of the contract between generations.

## 2.3 Corporate governance and control

### *Governance structure*

Within the framework of the ownership structure, there are directly responsible managing directors or board members for all companies below the Montan-Stiftung Saar, who bear overall responsibility for all topics and decisions. Larger companies such as Saarstahl AG and AG der Dillinger Hüttenwerke have rules of procedure and a business allocation plan that subdivides overall responsibility into departments, each of which is assigned to a member of the Management Board or the management in charge. Such business allocation plans have been approved by the respective supervisory boards of the companies.

The management of SHS and the Management Boards of Dillinger and Saarstahl are essentially identical, with the exception of the sales divisions. They have overall responsibility for a future-focused sustainability strategy for all economic, ecological and social issues and are supported by the specialist departments. All management board departments are committed to the principles of sustainability and sustainable action, with environmental protection assigned to the chief technical officer, and social matters, human resources, health and safety assigned to the chief human resources officer and labor director. Important investments and measures are decided during weekly joint management and board meetings.





### Controlling bodies

The Board of Trustees of Montan-Stiftung-Saar is the highest decision-making body of the SHS Group. In accordance with the statutory regulations, Dillinger and Saarlöhle have supervisory boards that function as the supreme controlling bodies and are composed of equal numbers of members in accordance with the German Coal and Steel Codetermination Act. SHS also has a supervisory board as required by the German Stock Corporation Act. As a rule, the affiliated companies have advisory boards that advise the management and whose approval is required for implementation of certain operational measures. Some affiliated companies have material supervisory boards that decide on the appointment and dismissal of managing directors, among other things.

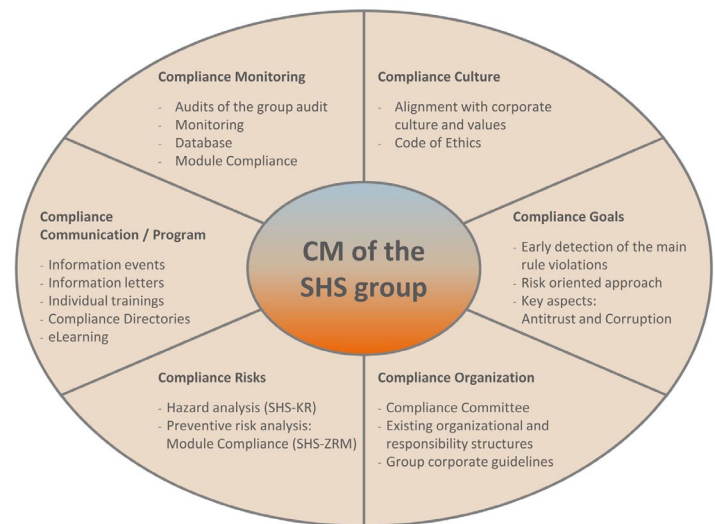
## 2.4 Compliance

One central aspect of our corporate governance is ensuring that, in addition to high quality standards, economic success is not achieved at the expense of fair competition or our responsibility for environmental and social concerns. Compliance with all legal and contractual requirements, standards, ethical values and internal guidelines applicable to the entire SHS Group in all countries in which we operate has always been a matter of course for us, and remains so. The SHS Group Code of Ethics forms the basis for this.

### Compliance management

Our commitment to compliance management originates from the company management. An interdisciplinary compliance committee coordinates predominating implementation across all divisions of a Group-wide corporate compliance concept for the SHS Group. This primarily includes not only the preventive tasks of consulting and communication but also reactive tasks such as reporting to the management of SHS and the boards of Dillinger and Saarlöhle. In systematically implementing the goal of compliance management (CM) to ensure that the actions of legal representatives, employees and business partners are in accordance with the rules and values, especially in matters of corruption and bribery, donations and sponsoring, we have developed our CM with various basic elements and laid down the essential compliance standards in written frameworks.

The compliance standards apply to the entire SHS Group. Compliance is a central task of the top management of the respective Group companies (executive responsibility). Each individual company has an obligation to draft additional, more far-reaching regulations if needed due to national and/or business-specific peculiarities.



### Compliance management of the SHS Group

Compliance with internal and external rules is checked systematically and according to a schedule in the form of internal audits. Violations are monitored within the framework of applicable labor law according to the “zero tolerance principle.”

### Code of Ethics and Corporate Compliance Guidelines

The authoritative standard is formed from our values together with national and international laws relating to corruption and compliance requirements such as those stipulated in the US Foreign Corrupt Practices Act (FCPA), the UK Bribery Act and the French Loi Sapin II. Protecting and respecting human dignity is a matter of course for us and forms the basis of our actions. We also align ourselves with the standards of the United Nations Global Compact. In addition to legality, our understanding of values also includes principles such as, most importantly, the rejection of child or forced labor, the





prohibition of discrimination, the protection of privacy rights, respectful treatment of each other and our business partners, the prohibition of party donations, the right to equal treatment, and the freedom of association and assembly. Additional corporate compliance guidelines on specific topics supplement the Code of Ethics. In addition, our corporate principles, works agreements and employment contracts contain many stipulations that protect employees, including remuneration, health and occupational safety.

### *Awareness measures and prevention*

The CM of the SHS Group follows a risk-oriented preventive approach. Awareness measures are aimed at all corporate management and employees with a special risk profile as well as at our apprentices. Measures include workshops as well as internal and external classroom and online training on specific subjects including preventing money laundering and protecting data, and cover the content of our corporate guidelines as well as the provisions of antitrust and competition law. They are constantly being further developed in accordance with the current legal environment. While we present the Code of Ethics to our employees when they are hired, our business partners – in recognition of our responsibility within the supply chain – receive not only the Code of Ethics but also the SHS Group Code of Conduct for Sustainable Procurement and are subject to due diligence processes when their business is established.

The whistleblower system, which is currently being designed, is also intended to help detect and prevent violations of laws and directives at an early stage. This is intended to ensure implementation of national legal requirements and the recognizable requirements of the European Whistleblowing Directive by means of a uniform and systematic processing of evidence from employees, business partners and third parties.



## 3 Goals

The goal of SHS, Dillinger and Saarlund is to be able to work together to grow, to operate flexibly and to strengthen competitiveness in their respective markets. To this end, customer-focused innovations that represent a competitive advantage are expedited. The SHS Group is convinced that these goals can only be achieved sustainably in line with economic and environmental interests and will lead to measurable sustainability. Comparable figures are provided in the attached fact sheet and are presented over several years. They are discussed and explained in the respective chapters. Many of the overriding goals, depending on the company and the department, cannot be furnished in absolute figures. However, in addition to the goals defined in the context of the respective management systems, we would also like to discuss some individual goals in relevant sustainability areas.

### 3.1 Goals and measures

It is our goal to further advance our companies in the coming years through sustainable action and thus to expand this Sustainability Report to include additional relevant points and sustainable topics. The following projects are currently ongoing in relevant sustainability areas:

#### *Environment and energy*

■ With the founding of the ESTA (Energieeffizienz mit STAHL) energy efficiency network on 1 June 2017, Saarland's steel industry is actively supporting this government initiative.

ESTA aims to cut more than 30,000 metric tons of its carbon dioxide emissions within three years. In addition to Dillinger and Saarlund, Saarschmiede, ROGESA and ZKS also participate in ESTA.

■ Also in 2017, Dillinger launched the ECO 5 energy cost optimization program with the goal of reducing energy costs by 5 percent. ECO 5 aims to raise awareness and leverage energy saving potential through improvements. In 2018 there were 115 ECO5 measures underway. The ideas have a savings potential of EUR 8.4 million per year, and EUR 6 mil-

lion will be effective by the end of 2020. Measures already implemented will in the future save around EUR 1.3 million per year.

■ Dillinger and Saarlund are currently (2018/2019) planning or implementing a total of EUR 70 million in environmental investments that have been approved by the supervisory bodies. These are:

- Construction of a new dust collection system for the circular coolers of ROGESA sinter plant 3 for EUR 28 million, aimed at achieving a significant reduction in dust in the sinter plant area.
- Modernization of slag granulation at ROGESA blast furnace 4 for an investment volume of EUR 20 million. This ensures the production of slag sand as a valuable by-product and significantly reduces unpleasant odors.
- Construction of a coke gas injection plant at ROGESA for EUR 14 million, in which carbon is partially replaced as a reducing agent by hydrogen, resulting in a significant reduction in carbon dioxide emissions.
- Construction of a pressure storage facility for pure natural gas and conversion of the walking beam furnaces to natural gas at the Saarlund Neunkirchen plant for an investment of around EUR 8 million. This is connected with a 5 percent reduction in energy consumption as well as the shutdown of the existing gas meter as an emergency operation.

#### *Labor/social affairs*

■ A Group-wide sick leave analysis with measures derived from it and workshops involving company integration management is intended to help to reduce sick leave.

■ With Prev@work we are pursuing addiction prevention, providing addiction counseling and offering lectures that are specifically geared to apprentices in order to provide information and raise their awareness.

■ On the basis of Group-wide talent management, a talent pool is being developed within the SHS Group to systematically identify and foster prospective managers.

■ Group-wide transfer coaches provide support in safeguarding succession planning and know-how.



■ Occupational safety has the highest priority and aims to achieve accident-free operation. Measures to further reduce accident figures – as in previous years – include the safety quarter-hour, the daily safety meeting and the “Come with Dillinger” seminar series that was rolled out at Dillinger in 2018.

### 3.2. Integrated management system

The companies have an integrated management system (IMS) that comprehensively and regularly reviews goals and levels in the area of sustainability. The system combines quality management (ISO 9001 & IATF 16949 at Saarlouis) and, for Dillinger and Saarlouis, environmental protection management (ISO 14001), occupational health and safety (ISO

45001), energy management (ISO 50001) and safety management in accordance with the German Hazardous Incident Ordinance (StöV). The IMS governs strategic responsibility and operational practices for these task areas across all company operations. All areas are regularly checked with internal and external audits. The overriding intentions and aims of the company are formulated for each management system in policy statements and guidelines.

The management systems are described in detail in the manuals for integrated management and involve all employees of the companies. Company facilities are certified in many areas according to the above-mentioned standards.



## 4 Employees

We are creating an employee-focused corporate culture with which we require and foster trust, diversity, change and the assumption of responsibility. We are continuously developing this culture as an expression of the Group-wide identity. We value the individuality of all our employees and their abilities, regardless of gender, age, origin, religion, sexual orientation or any impairment, and we create the conditions for equal opportunity and work that maintains good health and is oriented to the phase of life.

### 4.1. Employment/work conditions/ employee rights

In addition to state-of-the-art equipment and processes, as manufacturers of technical and premium-quality products, qualified and motivated employees are an important success factor for Dillinger and Saarstahl. The companies therefore invest specifically in social and future-focused human resources efforts. These are intended to offer employees a safe workplace and fulfilling work through suitable measures and thus also to ensure the long-term productivity of the company. The central topics for many years now have been continued improvement of occupational safety and promoting





good health as well as fostering young employees, with which we are countering a possible shortage of skilled workers due to demographic change.

The success of our human resources efforts is reflected in the high number of applicants for training at Saarlust and Dillinger, a low employee turnover rate as well as the long-term company affiliation of employees with monthly service anniversaries in the three-digit range that grow annually.

For employees in the Saarland steel industry, the collective bargaining agreement for blue-collar and white-collar workers in the iron-producing industry of Saarland applies. In addition, certain issues are governed by company agreements between employee representatives and the employers. Every employee has the right to visit the works council, the representative body for severely disabled persons or the youth representative body during working hours after consulting with his or her superior. No reasons for the visit need

to be given. Corporate codetermination is governed by the Works Constitution Act, and the Coal and Steel Codetermination Act applies to the composition of supervisory boards. The Dillinger and Saarlust companies each have works councils and Group works councils, while SHS has a Group works council. The works councils and management are in close dialogue. Every employee has the freedom and right to join trade unions.

As a family-friendly company, fostering the compatibility of family and career is important to us. Since 2013, employees of the SHS Group have been able to use the childcare services of three company-initiated day care centers built and financially supported by the company near the company's premises.

The companies contribute significantly to their employees' retirement pension benefits by co-financing a company pension plan and with a program that allows employees to divert







part of their gross salary to their pension plan. A company occupational disability insurance policy designed especially for the Group with advantageous collective conditions protects members in the event of occupational disability and is subsidized by the company with an employer contribution. To provide employees with reasonably priced meals near their workplace, the SHS Group operates five employee restaurants and provides a financial subsidy for the food served.

## 4.2 Career planning and training

The SHS Group has relied for many years on training its own strong supply of young, skilled workers. With their two modern training centers, Dillinger and Saarlouis are among the largest training providers in the region. Every year, around

160 apprentices, interns and cooperative students (dual studies) are employed. Dillinger and Saarlouis provide training in more than 15 career fields and generally hire their apprentices after they have completed their training. Our apprentices regularly complete their training as the best at the state or even federal level.

To support their professional development options, we offer our employees a wide range of continued training programs focusing on the future-oriented topics of digitalization/Industry 4.0 as well as lean and shop floor management. Especially high-performing and talented employees are identified at an early stage with the newly installed "SHS Talent Management" process, which provides targeted support and development for assuming responsible management positions.





For many years, the employee performance review has been an important instrument for improving the corporate culture and cooperation. The collaborative face-to-face meeting between employees and their superiors is held once a year, independent of any reason, and serves to align employees with the company's goals and to foster employee development. The employee performance review is conducted with all salaried employees and, in the technical area, up to foreman level.

### 4.3 Diversity and equal opportunity

The companies of the SHS Group take steps at various levels to continuously increase the share of female employees, which is relatively low due to sector-specific, historical and sociocultural circumstances. These steps include a wide range of part-time employment opportunities, the company's own child daycare facilities located close to company premises, participation in the nationwide Girls' Day and a continuous increase in the share of female apprentices.

A substantial share of female employees and managers are represented in the holding company as part of the assumption of operational tasks by the majority holding company SHS – Stahl-Holding-Saar, such as in the area of central staff functions. The share of female employees in the total workforce here is around 45 percent. To increase the proportion of women in the first and second levels of management and to intensify the concept of promoting women, the companies of the SHS Group have set themselves appropriate target quotas. A target quota of 30 percent women on supervisory board committees exists for all companies in the Saarland steel industry.

Since 2016, Dillinger and Saarlust have been offering the intercultural "Saarland Steel Industry Career Entry Program" (BEST 2.0) for refugees and young Germans who have not obtained a vocational training slot. Every year, 40 new participants receive theoretical and practical training as part of this measure to prepare them for entering the job market. If suitable, graduates of BEST 2.0 have the option to train in our companies.

Integration and equal opportunity for severely handicapped people is a practiced reality in the companies of the SHS Group. The ratio of severely disabled employees to the total workforce is over 5 percent.

### 4.4 Occupational health and safety

Maintaining the good health of our employees and ensuring their safety are central goals that are firmly anchored in our mission statement and corporate culture as well as in all processes. All locations of the SHS Group are certified according to DIN ISO 45001. An Integrated Management System (IMS) governs operational practices relating to occupational health and safety across all companies. In addition, all areas are regularly checked in internal and external audits. The overarching goals of the company are clearly and unambiguously formulated in policy statements and guidelines.

The accident figures in the companies of the SHS Group have continuously trended in a positive and decreasing direction over the last few years. All employees throughout the Group receive regular training on occupational health and safety topics and daily safety meetings and regular safety quarter-hours are also held. Internal training courses and guidelines ensure that employees of external companies also have adequate safety knowledge. To minimize possible safety risks for our employees prior to the start of operation of a new plant, we carry out efficient hazard assessments in all plants. In the course of this, the main risks are identified and assessed, and proposals are developed for appropriate measures. If an accident nonetheless occurs, internationally recognized methods for accident analysis are used. The causes of the event are described and then countermeasures are introduced to avoid a recurrence.

When dealing with personal problems, our employees have access to qualified social counseling within the company, which also offers addiction prevention measures.

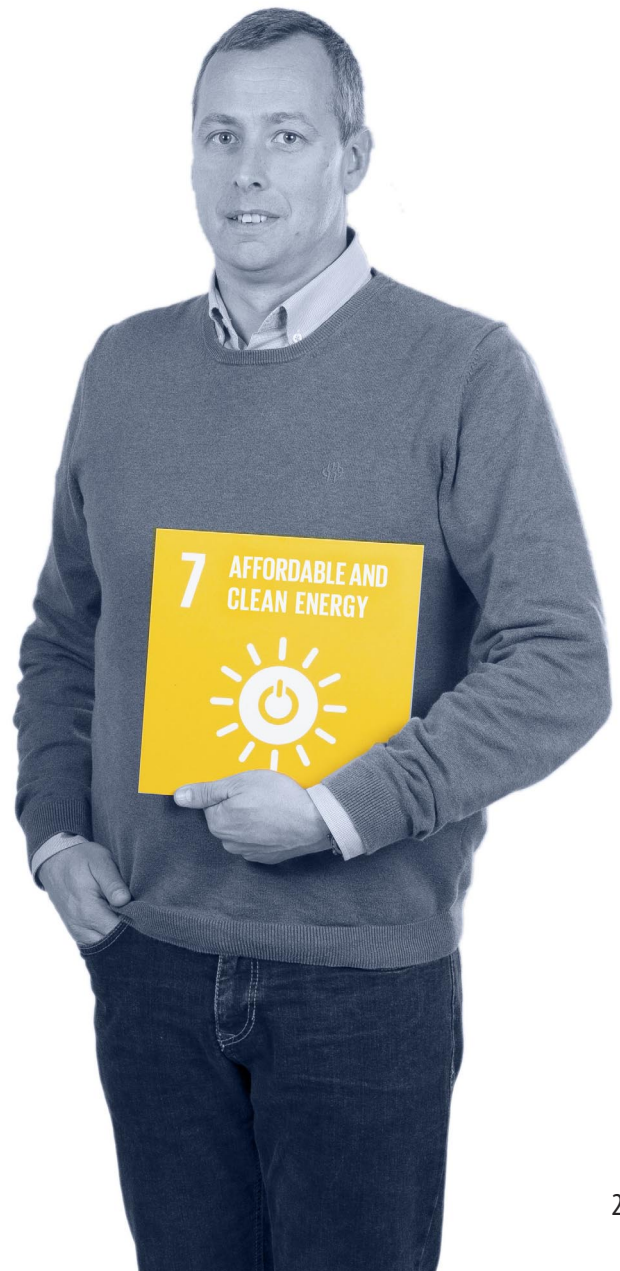


## 5 Climate protection targets and EU Emissions Trading System

Parties to the December 2015 Paris Agreement have agreed to keep the rise in the global average temperature significantly below two degrees Celsius compared with preindustrial levels. The aim is to achieve greenhouse gas neutrality worldwide during the second half of this century. Climate protection policy in the European Union (EU) and in Germany is ambitious, with the central instruments being EU emissions trading and Germany's Climate Action Plan 2050. The steel industry in Germany, including the steel industry in Saarland, stands by the Paris Agreement and intends to contribute decisively to the political and societal goal of reducing carbon dioxide emissions by 80 to 95 percent by 2050. Achieving the ambitious carbon reduction targets will require massive investment in technical innovations and thus will also require fundamental changes to the political framework conditions. The SHS Group intends to consistently use all methods for carbon reduction and will increase its research and development activities in order to leverage additional potential and ultimately achieve the climate targets stated above. Given the technical challenges the company faces, it is dependent – like all steel manufacturers – on support from subsidies. In addition, a reasonable time frame is needed to complete the conversion from carbon to other carbon-free reducing agents. At the same time, the international competitiveness of future low-carbon steel production in Germany must be guaranteed.

Reforms to the EU Emissions Trading System (ETS) were agreed in 2017 as the most important element in achieving the climate targets for the fourth trading period from 2021 to 2030. The steel industry, among other sectors, is obliged to pay each year for enough certificates to offset each emitted

metric ton of carbon dioxide. The partially cost-free allocation is based on benchmarks, which unfortunately is far from adequate for even the most efficient plants like those of the SHS Group. Extensive certificates therefore had to be purchased on the market during the current, third trading period from 2013 to 2020, and about 1.4 million certificates will have to be purchased each year in the fourth trading period.







### *Holistic carbon strategy*

The SHS Group is committed to climate protection. The holistic carbon strategy for 2025/2030 also plays a central role in the ongoing strategy process. All carbon-related framework conditions for 2030 are being analyzed in scenarios, as are the resulting risks from the additional carbon-related costs. From this, options are being derived for actions to reduce carbon as well as the associated investment requirements, which also result in a significant reduction of carbon costs.

Dillinger and Saarstahl are operating with the traditional blast furnace/converter route at the technical process-related limit of carbon savings in hot metal production. Only minor improvements can be achieved here. In a continuous improvement process, the energy efficiency and the energy effectiveness of our systems and processes are constantly being

enhanced to reduce our specific energy consumption and conserve resources.

We are intensively working on and studying various solutions for the use of marketable carbon-minimized steel production routes. These methods include a process in which iron ores are reduced with hydrogen instead of carbon and then processed into steel as well as a process in which carbon can be reused and recirculated in the industrial value creation system up to its separation and storage. An investment project with an investment volume of EUR 14 million is currently being implemented to reduce carbon by injecting coke gas into ROGESA's blast furnaces.

Other possible new technologies and higher reduction potentials must first be developed and tested on an industrial scale before being used in industrial applications that will enable noticeable reductions in emissions.





## 6 Environment

Environmentally friendly production and environmentally compatible products are preconditions for securing the long-term existence of the SHS Group. This requires actively planned and ecologically sound management. Environmentally conscious behavior, conserving resources and avoiding burdens for the people in the region are important parts of the corporate culture of the SHS Group.

The focus of environmental activities is on increasing energy efficiency by saving energy, reducing emissions, reducing noise and improving water protection. At Saarstahl locations, a total of EUR 212 million has been invested in environmental protection projects over the last 15 years, with around EUR 8.7 million flowing to noise control measures alone since 2014. At Dillinger, ROGESA and ZKS, EUR 528 million has been

invested in environmental protection projects over the past 20 years, which represents about 35 percent of the total investment sum at the Dillingen site.

### 6.1 Energy

Optimal steel production requires a safe and economical energy supply as well as effective and environmentally compatible use of energy. Thus, the SHS Group philosophy is: "We want to constantly improve the energy efficiency and the energy effectiveness of our systems and processes in order to reduce our specific energy consumption and to sustainably conserve resources."







### *Efficient energy use*

The paramount goal of rational and therefore efficient use of energy is utilizing the process gases produced during steel production completely and with the greatest possible efficiency. Waste heat and blast furnace gases that cannot be used in our own processes are converted into electricity. Generating our own electricity from the co-products protects the environment by reducing the use of fossil fuels (outside the energy balance boundaries) that would otherwise have to be burned to generate electricity. The energy network system of SHS Group steel plants also contributes to the extensive use of blast furnace gases. A centralized energy and media dispatching system optimizes energy and media flows between generating and consuming facilities across locations and thus ensures the highest possible and cost-optimized use of internally generated as well as purchased energy and media.

### *Energy management systems and energy efficiency programs*

All locations have a certified energy management system (DIN EN ISO 50001) and are therefore required to demonstrate continuous improvement of energy-related key performance indicators and processes. There are also economic and ecological reasons for implementing energy efficiency measures. The companies have initiated various site-specific cost-cutting programs for this purpose that focus on energy costs and thus energy consumption. One example of this is the ECO 5 energy cost optimization program at Dillinger. This program targets a five percent reduction of energy costs (based on a defined base period).

An agreement between the German government and a number of industrial associations called for the establishment of 500 energy efficiency networks nationwide. These are expected to use energy efficiency measures to help achieve the climate goals of the Federal Republic of Germany. Five companies of the SHS Group have joined forces as an ESTA energy efficiency network. They want to employ energy efficiency measures to achieve a total reduction of at least 32,500 metric tons of carbon by mid 2020.

## 6.2 Emissions

SHS has undertaken voluntary verification and reports direct and selected indirect greenhouse gas (GHG) emissions using the corporate carbon footprint. Reporting is based on the ISO 14064 standard. This is useful for organizations, governments, project applicants and stakeholder parties worldwide in that it achieves clarity and consistency in the quantitative definition, monitoring, reporting and validation or verification of greenhouse gas balances or climate change projects.

In addition to carbon dioxide (CO<sub>2</sub>), the main air emissions generated during steel production are sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and dust. We strive to minimize these even more than legally required. Our emissions into the air are documented and regularly reported to the responsible authorities.

### *Greenhouse gas emissions*

Coke is used as a reducing agent in the traditional blast furnace/converter route for producing steel from hot metal. Coke provides the carbon required to extract oxygen from the iron ore. The use of coke leads to process-related and therefore unavoidable carbon dioxide emissions.

The qualitative identification and reporting of greenhouse gas emissions primarily includes the following emission sources:

#### **Scope 1** - Direct GHG emissions from plant operation:

- Input materials (coal, ores, scrap, aggregates, etc.)
- Fuel supply and consumption (natural gas, heating oil and liquid gas)
- Coolant consumption
- Internal traffic and transport
- Business trips with company car

#### **Scope 2** - Indirect energy-related GHG emissions:

- External power supply
- District heating supply

#### **Scope 3** - Other indirect GHG emissions:

- Business trips (airplane, private car and rental cars)



### *Air emissions and air pollution control*

One paramount task in the area of technical environmental protection is to reduce emissions from the various sources. Numerous large projects including the construction of a sinter exhaust gas subsequent treatment plant have significantly improved the emissions situation in recent years. At the end of 2018, the construction of a new dust collection system for the circular cooler of sinter plant 3 at the Dillingen site was approved. The plant is currently under construction and will help to further reduce dust emissions at the site. The heat extraction system connected to the plant also helps increase efficiency and reduce carbon in that the heat is used at the location.

#### *Dust*

Extensive measures to reduce dust have been implemented in recent years. Over the last ten years, a significant reduction in dust loads has been achieved. One of the most important measures in this period is at the Dillingen site the construction of the process exhaust treatment plants (PAN 1+2) for the sinter plants with highly efficient dust removal technology. The special capability of this plant is the simultaneous separation of dust, sulfur dioxide (SO<sub>2</sub>), the halides HCl and HF, dioxins and furans.

#### *SO<sub>2</sub>*

Emissions of SO<sub>2</sub> are very strongly dependent on the quantity and quality of the coke gas used. Consequently, the reduced use of coke gas made it possible to cut SO<sub>2</sub> loads. Rehabilitation of the cleaning stage currently underway on the high-pressure side of the coking plant is another measure that promises to further cut SO<sub>2</sub> loads.

#### *NO<sub>x</sub>*

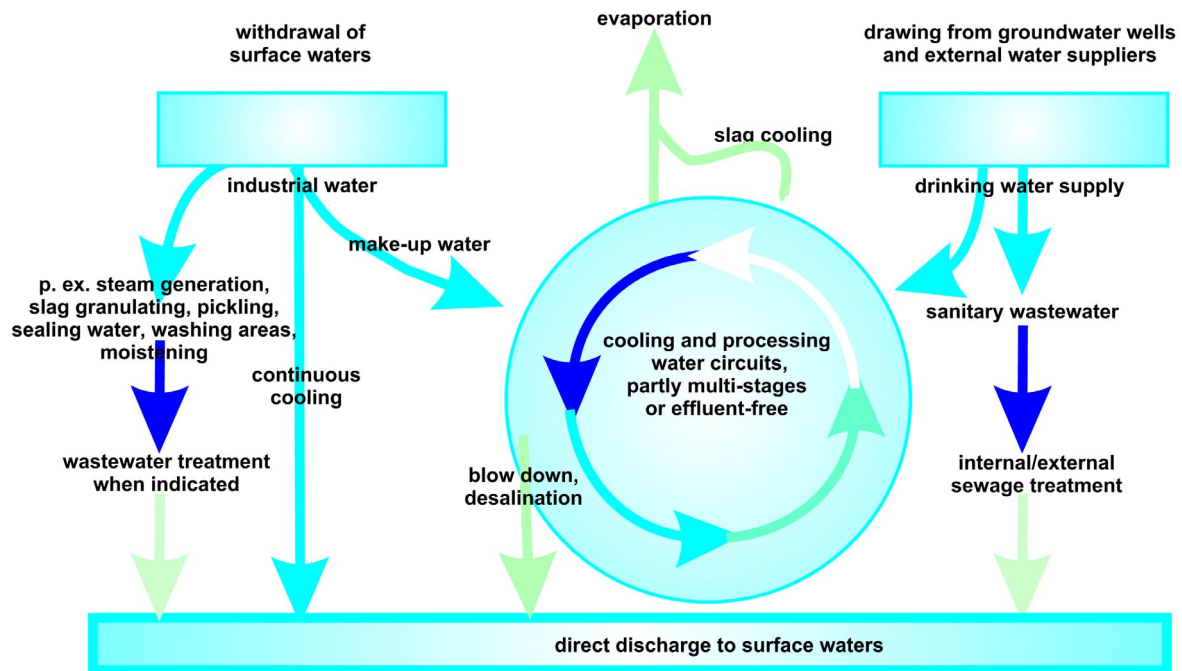
The use of new burner technology has also made it possible to reduce NO<sub>x</sub> emissions. However, specific emissions can vary greatly depending on the product. Use of state-of-the-art exhaust gas collection and cleaning technologies will further improve the emissions situation at the sites in the future.

### 6.3 Use of raw and other materials

The most important raw materials for steel production are iron ore, coal, limestone, alloys and scrap. These materials are used in the SHS Group to manufacture long products and steel plate. In addition to the products of the main production lines, iron and steel production under defined conditions results in iron and steel slags as mineral by-products that are marketed as quality-monitored products throughout the Saar-Lor-Lux region or used internally as raw materials. As a result, they contribute significantly as substitute raw materials to the conservation of resources.

Great attention is paid to recycling management at all locations of the Saarland steel industry. The aim is to develop and sustainably maintain a closed material cycle in the interest of resource efficiency and a circular economy.





General overview of the water cycle

## 6.4 Water management

The main use of water is for the cooling of production plants. The consistent goal here is optimization in the form of multiple uses and deploying water-saving techniques. The vast majority of the process and cooling water required is fed into process water circuits, which minimize both the required water abstraction and the discharge of wastewater. This intensive multiple use means that only a small proportion of the fresh water used is returned to receiving waters in the form of treated effluents.

Rainwater and seepage water from the landfills are also used for processes. As a result of their location directly next to the receiving waters, all sites have a high number of direct discharge points, which are all monitored from an environmental standpoint. Zentralkokerei Saar in Dillingen operates its own three-stage biological wastewater treatment plant and the sewage sludge from the plant is completely recycled in the coking process.

14 LIFE BELOW WATER





## 6.5 Waste management

Waste recycling and avoidance are essential measures for achieving sustainability in waste management. These measures reduce material flows and conserve energy resources. The primary aims of operational waste management are to avoid waste, reduce its harmfulness and decrease the amount of waste. This is achieved with a waste management concept that has been tried and tested over many years and is adapted promptly to constantly changing legislation. The SHS Group strives to use by-products and production residues for material purposes and, wherever possible, to use them internally in a resource- and environmentally friendly way to replace raw materials. If it is not possible to use them as recycled materials in our own plant facilities, external cycles for material recycling are used in various industry segments.

## 6.6 Incident management

Companies such as Dillinger and Saarstahl as well as ROGESA and ZKS are subject with certain facilities to the national Hazardous Incident Ordinance. Our plants meet high safety standards and are regularly monitored by our own specialist personnel, independent experts and the responsible authorities. A written concept for preventing incidents as well as safety reports and operational hazard and defense plans have been compiled for the operation of the plants. All necessary safety measures have been implemented by the companies, so that the probability of an incident is very low due to the measures taken. In addition, we are obliged to inform the population regularly about what to do in the event of incidents. We are fulfilling this obligation, together with all affected companies in Saarland, with a brochure. This brochure provides information about precautionary measures and recommendations for action in the event an incident occurs despite all safety precautions taken.

This brochure can be found under the following links (only available in German):

[http://www.Saarstahl/Medien/Publikationen/Information für Anwohner](http://www.Saarstahl/Medien/Publikationen/Information_für_Anwohner)

[http://www.rogesa.de/rogesa/informationen/Information für Anwohner](http://www.rogesa.de/rogesa/informationen/Information_für_Anwohner)

[http://www.zentralkokerei.de/zks/informationen/Information für Anwohner](http://www.zentralkokerei.de/zks/informationen/Information_für_Anwohner)

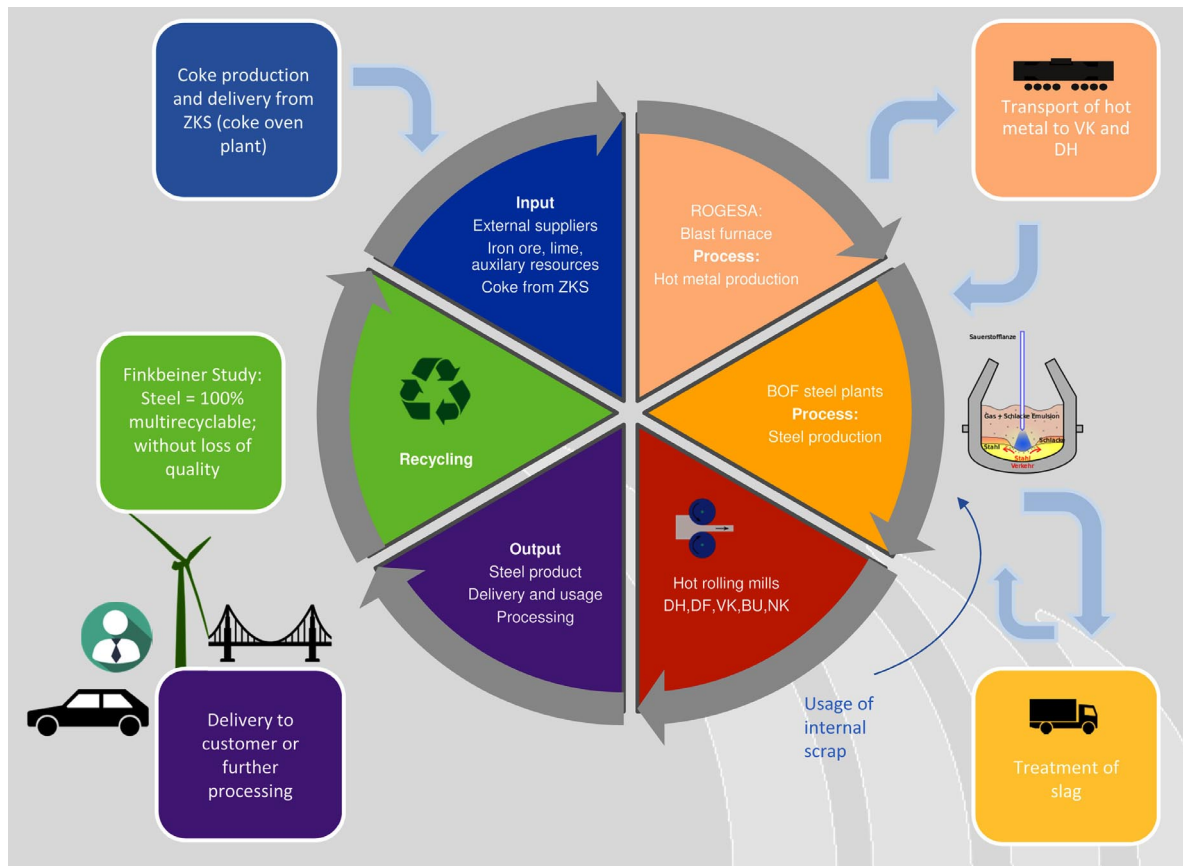
## 6.7 Biodiversity

The actual plant area at the Völklingen, Dillingen, Neunkirchen and Burbach sites covers 8.37 million square meters (m<sup>2</sup>). Within these plant areas, 1.58 million m<sup>2</sup> of green spaces with a wide range of varieties are maintained, cultivated and developed at the Dillingen site alone and thus directly contribute to biodiversity. Small areas with varying living conditions foster special habitats here and rare regional species.

The SHS Group is also the owner and manager of around 4 million m<sup>2</sup> of private forest. The "Hüttenwald" forest at the Dillingen site is the most significant area here, with 3 million m<sup>2</sup>. The forest is managed in harmony with nature and is certified in accordance with the provisions of the Programme for the Endorsement of Forest Certification (PEFC). The success of the SHS Group's special voluntary commitment to fostering biodiversity is documented by the listing of the forest as one of ten positive examples nationwide in the BUND Forest Report 2016. Accompanying environmental conservation plans are consistently used to avoid or assess and compensate for possible negative influences due to investments or processes at the plant in approval procedures under construction laws or federal emission control laws in compliance with infringement compensation regulations of the Federal Nature Conservation Act.

## 6.8 Life cycle assessment

To more precisely quantify the environmental impact of the production of our steel products, a life cycle analysis, also known as a life cycle assessment, is prepared in accordance with the standards DIN EN ISO 14040 and 14044. This involves systematic analysis of the environmental impacts of products through a comprehensive review of energy, material and emission flows. The goal is to obtain a product-independent diagram of our production processes that clearly shows the main aspects within the cycle.



Life cycle assessment (LCA) overview of the SHS Group





## 7 Innovation/research and development

Continuous investment in its own research and development as well as an innovation management system firmly embedded in the corporate organization enables the SHS Group to manufacture innovative products economically and in a resource- and energy-efficient manner. Steel production nevertheless remains an energy-intensive process. We therefore see it as our duty to continuously research innovative methods that keep energy consumption as low as possible and to optimize our products and production processes accordingly.

### *Innovation in the blast furnace process*

The research and development activities of the SHS Group include the entire production process from the coking plant and hot metal production, through the steel and rolling mills, and to the finished product. In light of the issue of carbon and efforts to reduce carbon dioxide emissions, a strong focus continues to be placed on research and innovation activities relating to the blast furnace process. ROGESA blast furnaces are already among the most modern and efficient in Europe. Nevertheless, the processes are constantly being optimized for even greater efficiency and quality, such as through very high coal injection rates and the injection of hydrogen-rich blast furnace gas (coke gas). Both measures aim to conserve coke that requires energy-intensive production. The use of coke gas also leads to a significant reduction in carbon dioxide emissions. To meet future requirements, a coke pilot furnace plant is currently being built that will enable us to intensively test new coal and coke mixtures before they are used in the ZKS coking plant. This ensures that coke of the highest quality can be produced at low cost.

### *Product innovation*

The principle of sustainability is an intrinsic part of the research and development activities of Dillinger and Saarstahl in the area of product innovation.

One focal point at Dillinger is the reduction of alloying agents and thus the conservation of resources. Activities here are also focused on adjusting mechanical-technological properties through selective control of the rolling mill process and the cooling process that immediately follows.

In addition to conserving alloying elements, this also makes it possible to avoid additional energy-intensive heat treatments. The focus of basic research at Dillinger is therefore on systematically expanding the microstructure-based material design and developing data-based prognosis models for calculating mechanical-technological properties on the basis of machine learning. Networking and research projects with external scientific partners constitute an important pillar of these activities.





By increasing the strength of the high-strength heavy plate produced by Dillinger while also maintaining its high toughness, it is possible to reduce the amount of material used and thus conserve resources. These steels therefore require less welding and weigh less, which ensures improved cost-effectiveness over the entire life cycle. Less steel is required for the same function, which can lead to weight reductions of up to 50 percent. The unladen weight of construction machinery can be reduced as a consequence to such an extent that fuel consumption is reduced and pollutant emissions fall accordingly, to name just one example. The challenge of reducing carbon dioxide emissions affects one of Saarlust's largest customer areas: the automotive industry. An important starting point is reducing the weight of vehicles and thus that of the individual components. To this end, Saarlust participated in the Lightweight Forging Initiative ("Initiative massiverLEICHTBAU") established in 2013 and concluded in 2018, which investigated possible weight reductions in various vehicle types using components made from forged or long products. The cross-sector consor-

tium has developed a total of more than 1,400 lightweight construction concepts, some of which have already been put into practice. One of these outstanding product innovations is the thermomechanically rolled spring steel at the Neunkirchen site. This highly advanced rolling process improves the microstructure and mechanical properties so that the end product – the suspension spring – can potentially be made up to 20 percent lighter. This in turn has a positive effect on the consumption and emission values of vehicles. But higher-strength steels, with which components can be made smaller and lighter, are not the only thing contributing to climate protection. In recent years, bainitic steels have established themselves as alternative materials to traditional heat-treatable steels. Since these are only air-cooled in a controlled process after forging, heat treatment processes and thus energy and carbon dioxide emissions can already be reduced during production. The bainitic steel 32MnCrMo6-4-3 developed by Saarlust is put to use here as an all-rounder in steering knuckles and common rails or as a material for rolling bearings.



## 8 Responsibility in the supply chain/supply chain

It is important for the companies of the SHS Group to fulfill their role as economic and social stakeholders and to distinguish themselves with procurement practices that demonstrate prudence, responsibility and integrity.

Suppliers and service providers are selected not only according to economic and technical criteria but also according to sustainability criteria. We therefore continue to develop our business processes in order to increase transparency in the supply chain and to identify risks at an early stage. The SHS Group and its employees are committed to sustainable and ethical behavior, which we also expect from our suppliers. For this reason, our contracts, terms and conditions of purchase, Code of Ethics and the "Code of Conduct for Sustainable Procurement" contain the key principles and reflect our commitment to responsible procurement.

Risks are identified and mitigated with the aid of the SHS Group's risk management system and within the framework of supplier assessments. This risk management is embedded within Group-wide process instructions.

### 8.1 Description and analysis of the supply chain

Within the SHS Group, purchasing is structured as follows: The central task of ROGESA and ZKS Procurement ("ROGESA und ZKS Beschaffung") is the long-term and competitive supply of raw materials for the plants of ROGESA and ZKS. SHS SERVICES Purchasing ("SHS SERVICES Einkauf") handles the commissioning of services and the purchase of materials (consumables, spare and replacement parts, auxiliary and operating materials as well as refractories and alloys) for Dillinger and Saarstahl. ROGESA and ZKS Procurement and SHS SERVICES Purchasing pursue the goal of regularly assessing all their suppliers and service providers with respect to sustainability standards.

### 8.2 Logistics and transport

Transport within the SHS Group is primarily carried out using the environmentally friendly transport modes of rail and inland waterways, with raw materials being transported almost exclusively in this manner. In shipping, the proportion of transport volume made up by truck transport is well below 20 percent.

Where possible, transport vehicles are loaded for outward and return transport to avoid empty runs. This is 100 percent possible for inland waterway vessels and is also achieved with truck transport by actively marketing cargo space through the third-party business of SHS Logistics. This is only possible to a very limited extent for Dillinger in the case of rail transport due to the oversized plates and the very high degree of customization of the types of wagons involved.

### 8.3 Responsibility in the supply chain

#### *Statement about the Code of Conduct for Sustainable Procurement*

The SHS Group Code of Conduct for Sustainable Procurement is a key element of our commitment to sustainability. It reflects our sustainability strategy for creating added value for our companies while also reducing our ecological footprint. Our suppliers are among our most important strategic resources. As a consequence, we plan to further develop and maintain supplier relationships that are ethical, based on mutual benefit on a shared commitment to better meet our customers' needs. We are therefore expressly committed to greater transparency in our supply chains.

Germany imports most of its raw material requirements. This is also true for the Saarland steel industry, which involves a worldwide network. The aim is to ensure sustainability-oriented management of the supply chain in both raw materials purchasing by ROGESA and ZKS Procurement and in SHS SERVICES Purchasing.

Our supply chain process focuses on ensuring that all our suppliers comply with our defined sustainability standards and on continuously improving the sustainability standards in our value chain, such as through knowledge transfer and ongoing employee training in process optimization, resource efficiency, and environmental and social standards.



Regular audits are carried out at new and existing suppliers to ensure continuous improvement and for the corresponding assessment. In this way, we incorporate potential suppliers directly into our sustainability strategy and ensure compliance with the specified environmental and social standards. We place particular importance on implementing closed-loop concepts since these significantly help protect the environment and resources, and because recycling mineral raw materials offers advantages over the use of primary raw materials including lowering requirements for primary raw materials, reducing dependency on imports, conserving natural resources and lowering energy requirements compared to primary production, as well as other benefits.

### *Statement regarding conflict minerals*

The SHS Group treats the topic of “conflict minerals” with great care and, as far as possible, ensures that no material is procured from conflict countries that directly or indirectly finance or benefit armed groups (such as in the Democratic Republic of Congo or neighboring states including the Central African Republic, Sudan, Rwanda, Burundi, Tanzania or Zambia). Appropriate procedures have been established for follow-up analysis such as querying the smelter ID according to RMI.

A separate guideline for conflict minerals has also been developed, which can be viewed on the company's website.







## 9 Society

### 9.1 Regional responsibility as an investor, employer, customer and supplier

The Saarland steel industry lives in, with and for its region. Consequently, SHS, Saarstahl and Dillinger and their subsidiaries have been providing targeted support for many years for projects and events in Saarland, in the greater Saar-Lor-Lux region and in the areas surrounding the respective locations. Activities include the areas of culture, social concerns, education and sport – with a special focus on supporting children and young people.

The annual budget for the sponsorship and donation activities of the SHS Group is determined by the Management Board and is closely linked to the compliance guidelines of the SHS Group. Individuals and political parties may not be supported.



Time-tested and current examples of the SHS Group's activities in the region include the annual awarding of financial assistance in the area of sport and culture in cooperation with the cities of Völklingen and Dillingen, support for the Dillingen and Völklingen food banks, the foundation for the new Max Ophüls Film Festival Audience Award for documentary film, the educational sponsorship with the Saarlouis Student Research Center, and support as the main sponsor of the Dillingen B2Run company run, in which several hundred SHS Group employees always take part. There are also various co-operations and funding programs with the University of Applied Sciences and various departments at the University of Saarland, both in Saarbrücken.

The Saarland steel industry also fulfills its social responsibility in the region with the nearby daycare centers described in Chapter 4, for which Dillinger and Saarstahl (with latter still in the awarding process) have been awarded the "Family-Friendly Company" seal of approval from the "Working and Living in Saarland" service center, as well as by providing local recreational areas such as the "Dillinger Hüttenwald" (Chapter 6), which also serves as an environmental conservation area for the generation of drinking water.

#### *Concerns in the surrounding community*

In addition to sustainable and climate-protection-oriented activities, dealing professionally with the concerns of the surrounding community is also part of the responsibility of a modern industrial company. The Saarland steel industry has created a special complaint management system (part of the Environmental Protection department), which is a central contact point for all environment-related concerns of residents, citizens and employees. It represents an additional component of the constructive and continuous dialogue with our stakeholders, which bolsters mutual trust.

#### *Proportion of spending on local suppliers*

Between 2014 and 2018, the Saarland steel industry (Dillinger and Saarstahl Group) placed orders worth around EUR 2.4 billion with companies in Saarland. This equals almost one fifth of the total revenue of the manufacturing industry at the Saar.



# 10 Appendix

## 10.1 GRI Content Index

GRI Standard	Description	Page	Comment
GRI 102	General disclosures		
<b>Organizational profile</b>			
102-1	Name of the organization	6	
102-2	Activities, brands, products and services	7,8,9	
102-3	Location of headquarters	6	
102-4	Location of operations	6,7	
102-5	Ownership and legal form	6	
102-6	Markets served	8,9	
102-7	Scale of the organization	2	Fact sheet
102-8	Information on employees and other workers	4	Fact sheet
102-9	Supply chain	31,32	
102-11	Precautionary principle or approach	27	
102-13	Memberships in associations and interest groups	37	
<b>Strategy</b>			
102-14	Statement from senior decision-maker	4,5	
102-15	Key impacts, risks, and opportunities	4,5	
<b>Ethics and integrity</b>			
102-16	Values, principles, standards, and norms of behavior	12	
102-17	Mechanisms for advice and concerns about ethics	13,14	
<b>Governance</b>			
102-18	Governance structure	12	
102-20	Executive-level responsibility for economic, ecological, and social topics	12,13	
102-23	Chair of the highest governance body	13	
<b>Stakeholder engagement</b>			
102-40	List of stakeholder groups	10	
102-41	Collective bargaining agreements	18	
102-42	Identifying and selecting stakeholders	10	
102-43	Approach to stakeholder engagement	10,11	
102-44	Key topics and concerns raised	11	
<b>Reporting procedure</b>			
102-46	Defining report content and topic boundaries	11	
102-47	List of material topics	11	
102-50	Reporting period	2	
102-54	Claims of reporting in accordance with the GRI Standards	4	
102-55	GRI Content Index	34	
<b>GRI 201: Economic Performance</b>			
103	Management approach (including 103-1, 103-2, 103-3)	6	
201-1	Direct economic value generated and distributed	2	Fact sheet
<b>GRI 204: Procurement Practices</b>			
103	Management approach (including 103-1, 103-2, 103-3)	31	
204-1	Proportion of spending on local suppliers	11	Fact sheet



GRI Standard	Description	Page	Comment
<b>GRI 205: Anti-corruption</b>			
103	Management approach (including 103-1, 103-2, 103-3)	13,14	
205-2	Communication and training about anti-corruption policies and procedures	14	
	Number of training courses on compliance topics	3	Fact sheet
<b>GRI 301: Materials</b>			
103	Management approach (including 103-1, 103-2, 103-3)	25	
301-1	Materials used by weight or volume	9	Fact sheet
301-2	Recycled input materials used	9	Fact sheet
<b>GRI 302: Energy</b>			
103	Managementansatz (inklusive 103-1, 103-2, 103-3)	23,24	
302-1	Energy consumption within the organization	7	Fact sheet
302-4	Reduction of energy consumption	23,24	
<b>GRI 303: Water and Effluents</b>			
103	Management approach (including 103-1, 103-2, 103-3)	26	
303-3	Water withdrawal	10	Fact sheet
303-4	Water discharge	10	Fact sheet
303-5	Water consumption	10	Fact sheet
<b>GRI 304: Biodiversity</b>			
103	Management approach (including 103-1, 103-2, 103-3)	27	
304-2	Significant impacts of activities, products, and services on biodiversity	27	
<b>GRI 305: Emissions</b>			
103	Management approach (including 103-1, 103-2, 103-3)	21,22,23,24,25	
305-1	Direct (Scope 1) GHG emissions	8	Fact sheet
305-2	Energy indirect (Scope 2) GHG emissions	8	Fact sheet
305-3	Other indirect (Scope 3) GHG emissions	8	Fact sheet
305-5	Reduction of GHG emissions	21,22	
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions	8	Fact sheet
<b>GRI 306: Effluents and Waste</b>			
103	Management approach (including 103-1, 103-2, 103-3)	27	
306-2	Waste by type and disposal method	10	Fact sheet
<b>GRI 403: Occupational Health and Safety</b>			
103	Management approach (including 103-1, 103-2, 103-3)	20	
403-1	Occupational health and safety management system	16,20	
403-2	Hazard identification, risk assessment and investigation	20	
403-3	Occupational health services	20	
403-4	Worker participation, consultation, and communication on occupational health and safety	17,18,20	
403-5	Worker training on occupational health and safety	20	
	Number of training courses on occupational health and safety topics	6	Fact sheet
403-6	Promotion of worker health	15,17,18	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	20	



GRI Standard	Description	Page	Comment
403-8	Workers covered by an occupational health and safety management system	16,20	
403-9	Work-related injuries	6	Fact sheet
<b>GRI 404: Training and Education</b>			
103	Management approach (including 103-1, 103-2, 103-3)	19,20	
404-1	Average hours of training per year per employee	5	Fact sheet
404-2	Programs for upgrading employee skills and transition assistance programs	19,20	
404-3	Percentage of employees receiving regular performance and career development reviews	20	
<b>GRI 405: Diversity and Equal Opportunity</b>			
103	Management approach (including 103-1, 103-2, 103-3)	14,17,18	
405-1	Diversity of governance bodies and employees	5	Fact sheet
<b>GRI 415: Public Policy</b>			
103	Management approach (including 103-1, 103-2, 103-3)	13	
415-1	Political contributions	14	





## 10.2 Memberships in associations and interest groups

Free and fair competition is of fundamental importance for all companies in the SHS Group. Participation by our companies in any association work therefore only occurs if it consistently complies with national and European antitrust law.

To realize this self-imposed standard, we implemented and communicated a company-wide compliance procedure in 2018. With this procedure, we aim to obtain the greatest possible overview of our employees' association activities so that we can respond to incidents in the shortest possible time.

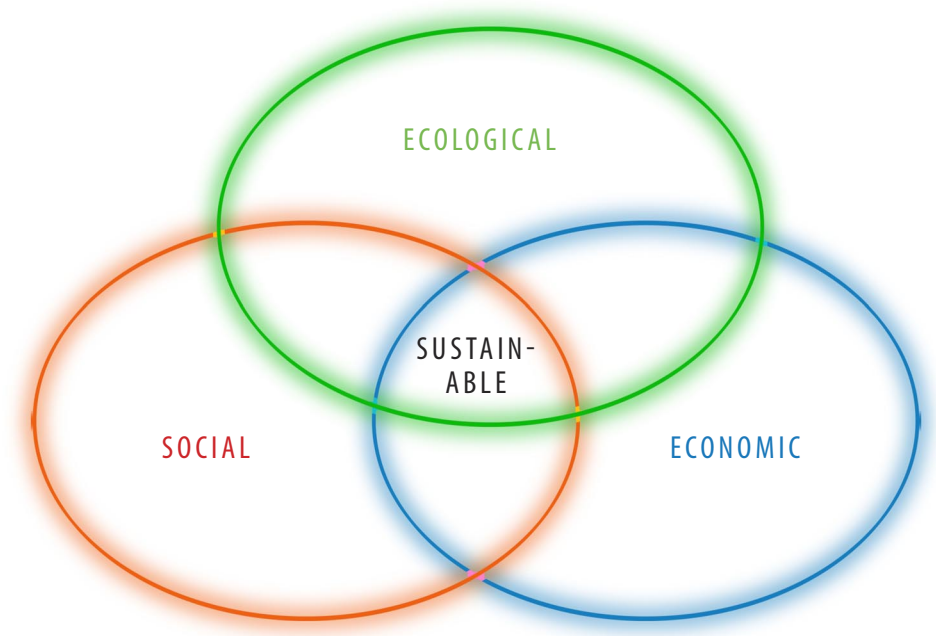
Association	Country
Wirtschaftsvereinigung Stahl Deutschland (German Steel Federation)	Germany
VDeh – Verein Deutscher Eisenhüttenleute (Association of German Steel Manufacturers)	Germany
Eurofer (European Confederation of Iron and Steel Industries)	Europe
VDSI – Verband für Sicherheit, Gesundheit und Umweltschutz bei der Arbeit (Association for Workplace Safety, Health and Environmental Protection)	Germany
Industrieverband Massivumformung e.V. (German Forging Association)	Germany
VDE – der Technologieverband (the Technology Association)	Germany
VDBW – Verband Deutscher Betriebs- und Werksärzte (Association of German Company and Works Doctors)	Germany
BDI – Bundesverband der Deutschen Industrie e.V. (Federation of German Industries)	Germany
VDS – Verband der Saarlöten (Saarland Iron and Steelworks Association)	Germany



Notes



## Notes



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