



STEULER | Linings

Sustainability Report 2021
Steuler Linings

Dear Reader,

Sustainability is becoming increasingly important. In politics, in business relationships and for the long-term viability of a company. As a company that earns a significant proportion of its revenue with environmental protection technology, the topic has a special relevance for us and has long been a key consideration. With this in mind, we are very pleased to present the first Steuler Linings Sustainability Report. The purpose of this report is to show our business partners, our employees and anyone interested in Steuler Linings where we stand with regard to sustainability, what steps we are taking and what challenges we face. But not only is the Sustainability Report itself new. We have also restructured our sustainability management system. Responsibilities have been clarified and in some cases completely redefined. The fact-finding required for this was conducted with the preparation of the Sustainability Report you see before you. We were naturally already aware of the individual topics; what is new is the perspective and overview of the environmental and social aspects of our company.

The war in Ukraine is causing terrible suffering and will have consequences that are difficult to predict. The other crises we face have receded from the public eye as a result. This applies to climate change too. The catastrophic flooding in the Ahr Valley in Germany and the increasing number of floods, droughts and forest fires around the world are alarming developments. Greenhouse gas emissions and energy consumption must be reduced. As a company working in an energy-intensive industry, we have long had an eye on our energy consumption, not least as it is associated with emissions and high costs. We took a major step forward with the investment in a new tunnel kiln, which has now replaced the previous central kiln at our Höhr-Grenzhausen site. It enables us to reduce our gas consumption by 8,000 MWh and CO₂ emissions by 1,500 tons per year while maintaining output levels. It is planned to replace the batch kilns with another very efficient high-temperature tunnel kiln (HTTK), which will contribute to additional energy savings and reductions in CO₂ emissions. In order to increase the share of electricity generated from renewables, an additional photovoltaic system is to be constructed in 2022, this time at our Höhr-Grenzhausen site.

Our products and services help to reduce the environmental footprint of our customers too. The transition to a low-carbon economy in the context of the Climate Protection Act and the goal of climate neutrality by 2045 involves embracing new approaches. In some industry sectors, this will mean switching to hydrogen as the energy source. To companies taking the first steps in this direction we offer engineering services and refractory bricks for producing "green steel" in direct reduction plants, among other things.

We have achieved a great deal in the past three years and, contrary to initial fears, have weathered the Covid pandemic well. Sadly, we also have distressing news to report in one area: In February 2020, there was a fatal work accident at one of our Spanish subsidiaries. Although our immediate investigation indicated that all mandated safety measures were observed, this is of little consolation. The number of industrial accidents is up as a whole. Our analyses were unable to identify specific factors that have led to this rise. At the present time, suspicion lies on the pandemic-related changes to work procedures. In order to quickly reduce the number of work accidents, we have revised the occupational safety management concept and are introducing a new and more powerful software system this year.

The European Union and Germany have already set ambitious climate protection goals, and will presumably continue down this road. The other international markets are still lagging behind, however. So it will be important for Steuler Linings to adapt to meet the highly disparate requirements. A key factor in this will be to continue to impress in all markets with innovative products.



Michael Steuler, Andreas Grimm, Arne Pochert (f.r.t.l.), Steuler Korrosionsschutz Holding GmbH Management

Within the Steuler Group, which includes the Equipment Engineering and Tile Divisions in addition to Steuler Linings, the sustainability management concept is being developed further. Due to its strategic importance, the Supervisory Board and Shareholders' Committee have decided to include the topic of sustainability as a separate agenda item at least once a year from now on. Important developments that occur over the course of the year will naturally be dealt with on an ad hoc basis as before.

We hope you find our first Sustainability Report as informative, understandable and transparent as we do, and we look forward to your comments and suggestions.

Handwritten signatures of Michael Steuler, Andreas Grimm, and Arne Pochert in blue ink.

Michael Steuler, Andreas Grimm, Arne Pochert



Vision

Our vision

Since its foundation in 1908, the Steuler Group has been an innovator that develops new technologies, optimizes material combinations and adopts improved practices – and we will continue to embrace this philosophy in the future too.

We will be carbon neutral by 2045 at the latest.

In order to achieve this goal, we are increasing our material development activities, optimizing the technologies for (amongst other things, thermally) treating materials and placing a greater focus on new applications. This includes further expanding our own electricity generation capacity and steadily increasing our recycling rates. For the benefit of our employees and to ensure quality remains consistently high, further digitalization measures will help in optimizing resource usage.

Everything we do to avoid carbon emissions, improve occupational safety and reduce energy consumption brings us another step closer to our goals.



The Plastic Linings Division specializes in the engineering, manufacture and assembly of large-scale vessels and process equipment. The picture shows an HCl absorption column made from PVDF/GRP being lifted into place.



Sustainability Report 2021

Steuler Linings

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Company

Steuler Linings

The Linings Division of the Steuler Group develops, manufactures and installs corrosion-resistant and refractory materials. Special lining technologies from industry partners are also used for customer-specific requirements. The Linings Division comprises STEULER-KCH GmbH as the core company together with other manufacturing and sales subsidiaries based in Germany, other European Union countries and overseas. With the help of these subsidiaries and overseas offices, Steuler Linings manages projects and constructs large-scale plants in a variety of industry sectors throughout the world. Steuler Linings is a global leader with its proprietary turnkey solutions for highly complex industrial corrosion protection projects.

Steuler can supply suitable lining systems for plant components and facilities that require reliable, long-lasting protection against corrosion and the extreme chemical, thermal and mechanical loads encountered in the chemical, hazardous waste incineration, iron & steel, ceramic and power generation industries. Our portfolio covers everything from coatings, rubber linings, acid-resistant tiles, bricks and mortars through kiln furniture and refractory linings to process equipment, vessels and piping systems made from plastics. These material systems are installed in industrial facilities on behalf of our customers. In some cases, entire plant sections are constructed by Steuler Linings. Typical orders include linings of entire production areas with corrosion-resistant tiles, fitting hazardous waste incineration plants with refractory linings, constructing wet electrostatic precipitators and applying industrial floor coatings.

Two noteworthy projects from the last two years include the corrosion protection system for two sulfuric acid plants at the Chuquicamata copper mines in Chile and collaboration in the construction of a large fertilizer factory in Saudi Arabia for the company Ma'aden. Steuler Linings is also active in the pool construction sector. We not only line the pools of large swimming centers in the public sector, but construct pools for the hotel, wellness and private sectors using a modular system too. Around 50% of revenue is generated in Germany, 30% in other European Union Member States and 20% outside of Europe. Steuler Linings has almost 1,900 employees, of which roughly 650 work abroad. *Additional information can be found in the chapter "Responsibility for Employees".*

The Steuler Group

Steuler Linings is a part of the Steuler Group, which also includes the Steuler Tile Group, one of the biggest tile manufacturers in Germany. With its various brands, it manufactures approximately 13 million square meters of tiles for the German and international markets annually. The third division of the Group is Steuler Equipment Engineering. The companies in this division design and supply turnkey plant systems for processing metal surfaces and the catalytic, thermal, physical or chemical removal of pollutants from exhaust gases, as well as regeneration and treatment plants for process media and industrial wastewater.

Linings Division business segments

The products and services provided by Steuler Linings originate from four specialized business segments:



Steuler Surface Protection Linings

Steuler Surface Protection Linings maintains a complex portfolio of services in the fields of acid protection and industrial surface and corrosion protection. Product development, manufacturing and application are all carried out in house, allowing access to every stage of the production process. Application engineering plus project planning and development services complete the portfolio, making turnkey projects possible.



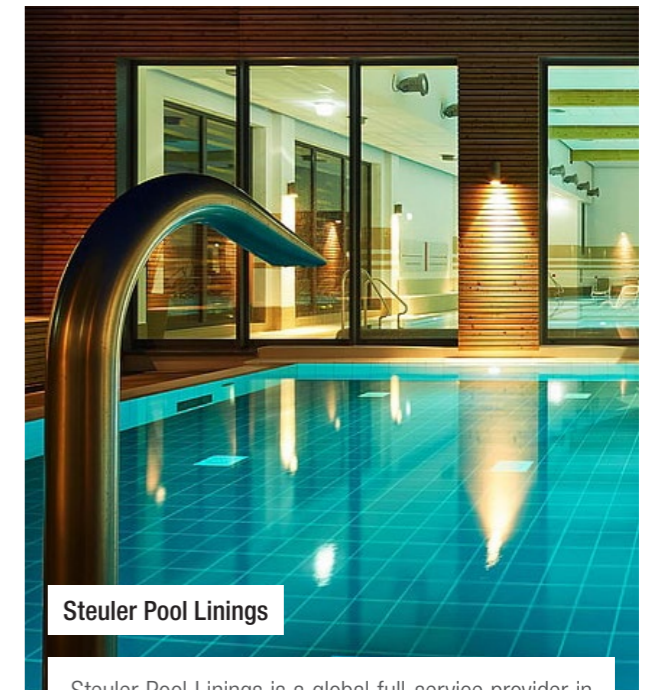
Steuler Plastic Linings

Steuler Plastic Linings supplies pipes, vessels and process equipment that can withstand exposure to high chemical, thermal and mechanical loads. Components are made from pure thermoplastics, glass-fiber reinforced plastics or phenolic resin materials. They ensure reliable and long-lasting resistance to chemical attack.



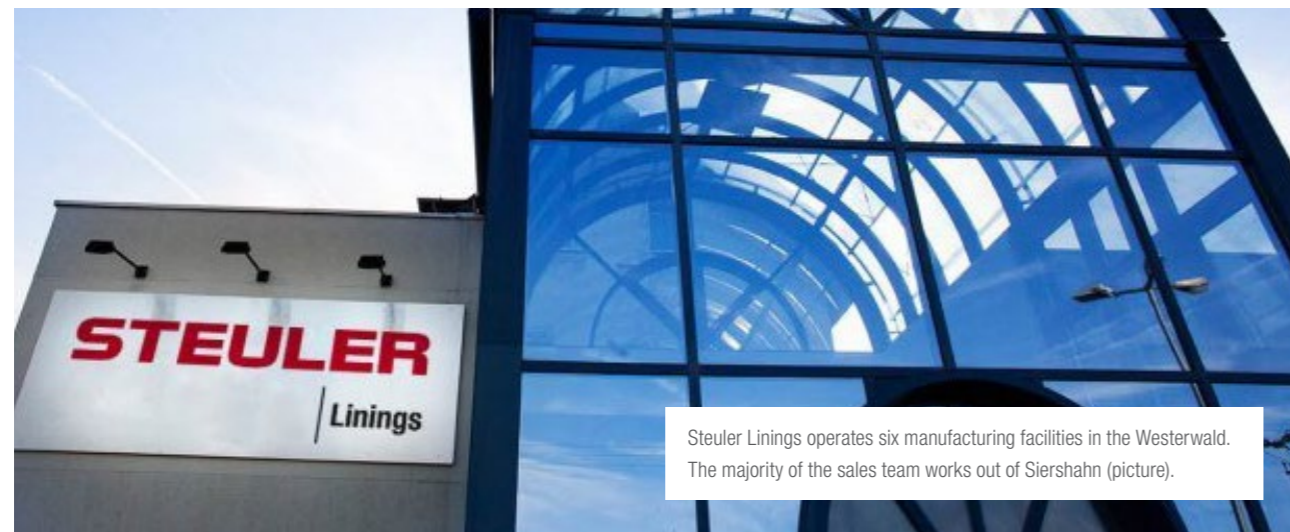
Steuler Refractory Linings

Steuler Refractory Linings is a global innovation leader in the field of refractory lining systems. Whether the primary requirement is thermal protection, or chemical and mechanical resistance is also a requirement – as a full-service provider, Steuler Refractory Linings can supply all the materials necessary for a refractory lining. As in the other business segments, services include providing application-specific advice and, if desired, complete engineering concepts for all lining details and processes.



Steuler Pool Linings

Steuler Pool Linings is a global full-service provider in the pool construction sector. In addition to planning, 3D visualization and project management, the range of services offered includes performing waterproofing and tiling work, constructing pools using prefabricated elements and lining waterslides.



Steuler Linings operates six manufacturing facilities in the Westerwald. The majority of the sales team works out of Siershahn (picture).

Products and Services

Steuler Surface Protection Linings

Steuler Surface Protection Linings manufactures and processes

- bricks, tiles and shaped parts for the construction of brick and tile linings
- rubber linings for on-site and workshop application
- coatings for mineral-based substrates and steel
- mortar systems for installing brick and tile linings
- lining systems certified in accordance with the German Water Resources Act
- lining systems made from stainless steel
- lining systems made from special plastic anchor plates

An extensive portfolio of materials allows solutions to be optimized specific to the project. The focus here is on chemical, mechanical and thermal durability, with the goal of achieving the longest possible service life through the ideal combination of materials to form comprehensive protective systems. This makes a significant contribution to maximizing the useful life of plants. A variety of different material systems are used wherever aggressive media is manufactured and handled. That is often – but not only – the case in the chemical industry.

Brick linings

Steuler Linings is an experienced industry partner and specialist in brick linings. This is true for pickling and regeneration plants, process vessels, flue gas ducts, reactors, venturi scrubbers, autoclaves and absorption towers. Brick linings are often subjected to extreme stresses as a result of exposure to specific media or a combination of different media – whether in a liquid, gaseous or solid state, at high temperatures or varying temperature distributions. The same applies to mechanical influences, such as differing pressure ratios, vibrations, abrasion, shock loading or being driven on.

Tile Linings

Tile linings are used wherever coating systems alone are not sufficiently able to withstand the stresses they are subjected to, but a substantially thicker brick lining is unnecessary. This is typically the case in areas with heavy vehicular traffic or in containment basins underneath plant areas that handle hot process media. Tile linings are frequently used in combination lining systems certified by the German Institute for Civil Engineering.

Rubber linings

Rubber linings are the ideal choice for providing optimal protection in environments constantly exposed to aggressive media and where resistance to permeation processes has to be considered. This is particularly relevant for chemicals with small molecular sizes and operating temperatures above ambient temperatures. Rubber linings from Steuler Linings are used to protect steel structures and concrete elements. Process vessels, pipework, reaction towers and gas scrubbers are typical steel structures that are protected in this way. Examples of concrete structures include wastewater pits and tanks. Rubber linings are also used in drinking water treatment plants and the tanks of road tankers. The rubber lining can be applied either at the Steuler workshop or at the customer's site.

The material, i.e. the rubber membrane, can be made from either natural or synthetic rubber. The special physicochemical properties are obtained during the processing of the rubber through the addition of so-called functional fillers (such as soot, vulcanizing agents, catalysts and additives).

Coatings

Our coating systems are used as an impervious layer to seal structures or protect concrete and steel process equipment against corrosion. Examples include chemical reactors and storage tanks. A variety of different binder matrices are used, including polyurethane made from castor oil epoxy resin, polyester resin, vinyl ester resin, phenolic resin and custom formulations. The coating systems represent best-practice solutions that provide long-term peace of mind.

Coating systems are also used for industrial flooring. They can reliably withstand the stresses caused by temperature fluctuations, moisture, exposure to chemicals, the movement of heavy loads and abrasion in production environments and during maintenance work. Special surface properties, such as evenness and good grip, improve factory processes and increase occupational safety. Additional properties include safe static-electrical dissipation, impermeability to liquids, color variety, physiological inertness, high crack-bridging capability and water vapor permeability or impermeability.

Mortar Systems

Our lining systems are complemented by special mortars for brick linings, tile linings, trench connections and construction as well as sealing features on foundation plinths and production buildings. Acid-resistant mortars, which is what Steuler was founded on, are still an important part of the product portfolio.

Contribution to environmental protection and occupational safety

The services provided by the Surface Protection Linings division protect against exposure to aggressive environments. In some cases, effective protection is what makes it possible to operate a plant in the first place. The thermal treatment of waste or flue gas desulfurization, for example, would not be possible without functional protective systems, the consequences of which would be disastrous for our environment.

Protective systems have a positive impact on a plant's useful life too. By obviating the need to perform repairs and make replacement investments, a long service life helps conserve resources too. Another consideration is reliably sealing the fabric of the building against penetration and permeation by substances hazardous to water. Doing so effectively protects both the environment and the workers. Production methods and the products needed are constantly changing. As a consequence, it must be possible to adapt the protective systems to the changing processes and to very specific operating conditions.



In order to provide components with long-term protection against corrosion, at Steuler Linings they are professionally rubber lined and further treated in an autoclave. The cover photo of this Sustainability Report depicts a glimpse inside the autoclaves.

Steuler Refractory Linings

Steuler is a global innovation leader in the field of refractory lining systems. We produce, design and install refractory linings for special thermal processes for our customers and manufacture the required refractory materials at our factories in Höhr-Grenzhausen and Breitscheid. Our manufacturing program includes shaped, non-basic refractories based on raw materials ranging from refractory clay to corundum, including chromium corundum, zirconium and SiC materials as well as unshaped products.

The services we offer in this area include:

- Engineering: detailed refractory design concepts, complete refractory layout with assembly drawings and thermal conductivity calculations
- Production: manufacture of tried-and-tested standard shapes and custom geometries
- Installation: full installation service or installation supervision by Steuler construction supervisors
- Research and development with an eye to changing customer requirements
- Full-service packages: development, engineering, manufacturing and installation all from a single source

Complex refractory lining solutions require in-house research and development departments. In our laboratories, we develop reliable materials and test them in accordance with international standards. To ensure that the refractory material development process is successful, we conduct all the necessary investigations beforehand, including exhaustive raw material selection processes and wear and slagging analyses. We develop detailed lining concepts and refractory designs based on the respective process conditions. Having our own manufacturing facilities staffed by trained specialists in the fields of mold making and manufacturing allows for maximum flexibility. We manufacture everything from individual shaped bricks to entire linings exactly according to the job specifications.



Refractory pipes and vessels made from special material grades allow high-quality steels to be produced using the bottom pouring method.

Steuler Plastic Linings

Steuler Plastic Linings manufactures custom-made

- piping systems
- vessels and process equipment
- components for wet electrostatic precipitators

made of glass-fiber reinforced plastics and thermoplastics.

Piping systems

Plastics offer convincing alternatives to traditional materials wherever high safety standards must be met and extreme physical or chemical stresses coped with. The materials used by Steuler Plastic Linings can withstand temperatures of up to 160°C. The glass-fiber reinforced composite materials are highly resistant to chemicals thus obviating the need for additional corrosion protection measures. Steuler's portfolio includes pipes, elbows, T-pieces, reducers, flanges and special components. Vacuum resistant and electrostatically dissipative versions are also available.

Vessels and process equipment

The manufacture of vessels, process equipment and special constructions made of glass-fiber reinforced plastic is one of Steuler's core competencies, whether as a composite structure with a thermoplastic lining or made from reinforced phenolic resin. The composite material polytetrafluorethylene M (PTFE-M) has proved itself in the process engineering sector, most notably in columns and reaction vessels of all sizes and specifications. We manufacture thermoplastic vessels and plant equipment for the metal finishing industry, too. We can also fabricate very unusual form. The material demonstrates outstanding resistance to a wide variety of chemicals, and in particular, non-oxidizing acids and many solvents.

Components for wet electrostatic precipitators

Wet electrostatic precipitators are used to separate aerosols, like sulfuric acid, titanium dioxide or tars as well as fine particulates from gaseous mixtures. Such precipitators are used in the flue gas desulfurization units of coal-fired power stations, for example. In order to separate out the hazardous particles, they are first electrostatically charged within the tubes of electrostatic precipitators and deposited on the oppositely charged tube surface. The tube bundles that form the heart of the wet electrostatic precipitators are custom-made by Steuler Plastic Linings. The advantages of the tube bundles include their modular, building-block design, the ability to use tubes with specific properties and a special grounding system that meets the most stringent of safety standards.



Plastic internals for wet electrostatic precipitators are installed wherever aerosols and fine particulates need to be separated out from flue gases with high degrees of efficiency.

Steuler Pool Linings

Steuler Pool Linings specializes in the planning, 3D visualization, water circulation system design, project management, waterproof lining and tiling of pools. The lining systems and constructions are always custom-designed and find use in public pools, hotel complexes and private spas.

- Seven-layer system
- Composite system
- Flexible lining

Seven-layer system

A seven-layer system that has proven itself in the field for 40 years is used in all imaginable shapes of pool. Possible surfaces range from traditional ceramics and glass mosaics to natural stone linings. The system enables a myriad of design possibilities and near endless special constructions and requests of the client to be realized. Even pools located on upper floors or above sensitive rooms can be reliably waterproofed using the system. Thanks to its flexibility and predictable installation, the tried-and-tested layered system is suitable for renovations too; especially where pool shapes are being changed or overflows optimized for energy efficiency.

Composite system

Steuler offers another construction concept for pools in the form of a composite system comprising precast concrete elements with an integrated lining. A highly durable plastic lining material is permanently mechanically attached directly to the tried-and-tested structural building material, concrete. Individual ready-to-install segments are fully prefabricated for each project, transported to the construction site and installed in just a short space of time. The prefabricated sections already make allowance for pool equipment and fixtures, such as inlets and overflows, detailing elements and integrated components, which then just need to be connected up on site. Short construction times, a testable lining and re-usable components are the key advantages this building method offers.

Flexible lining

Steuler offers a third system that features high-end coatings for waterslides, channels and pools. Irrespective of the geometric shape and color desired, Steuler's special lining transforms bare concrete into an exciting bathing experience. We coat channels and pools in exacting detail, creating a permanently waterproof, long-lived, UV and wear-resistant surface that is available in smooth or non-slip finishes and any color desired.



Hotel pool, custom built using the composite construction method according to the owner's wishes.

Sustainable Approaches to Product Development

Steuler Lining's product development goals are:

- to increase the service lives of the applied systems to the extent technically possible,
- to develop products for new fields of application,
- to use chemicals that present a low potential hazard to the environment,
- to lower the potential risk with respect to occupational safety during production and processing of the products, and
- to use the most sustainable components possible.

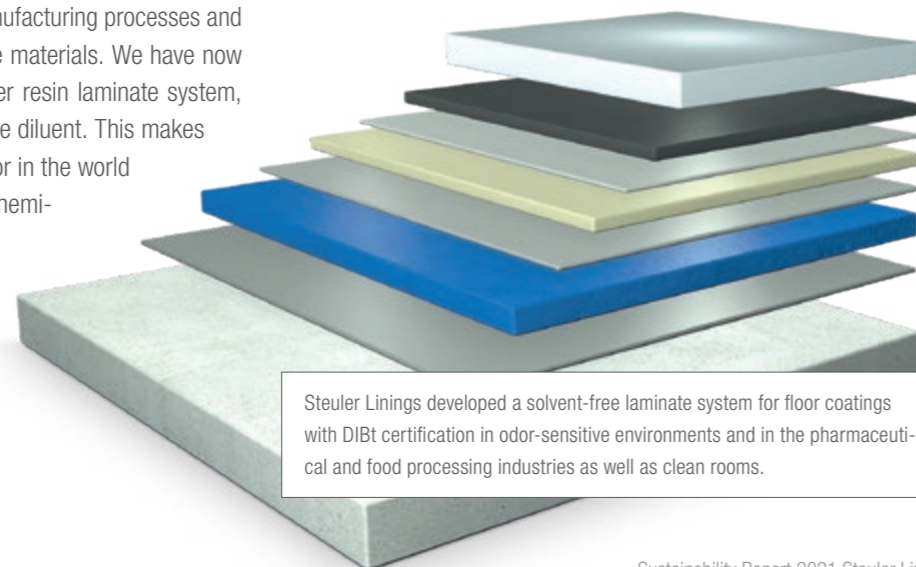
Every business segment within Steuler Linings is working to achieve these goals.

Reduction of solvent emissions

Thanks to the development of new coating materials, it has been possible to reduce the emission of harmful substances during their manufacture, processing and use in recent years. Hardly any of our formulations contain nonylphenol, and we do not use paraformaldehyde at all. Numerous AgBB tests, short for Ausschuss zur gesundheitlichen Bewertung von Bauproduktenmissionen (Committee for Health-related Evaluation of Building Products) and VOC tests, short for Volatile Organic Compounds, confirm that our coatings are harmless to health. Because of this, they are used in clean-room production environments, food processing facilities and private premises, among others.

Development of a solvent-free laminate system

Like the rest of the industry, we have been using styrene as a reliable reactive diluent for decades. This environmentally relevant solvent is released both during the manufacturing processes and most notably, during application of the materials. We have now developed an epoxy novolak vinyl ester resin laminate system, which contains no styrene as a reactive diluent. This makes us the first manufacturer and processor in the world able to use this solvent-free, highly chemically resistant laminate system. And we are conducting research into other formulations.



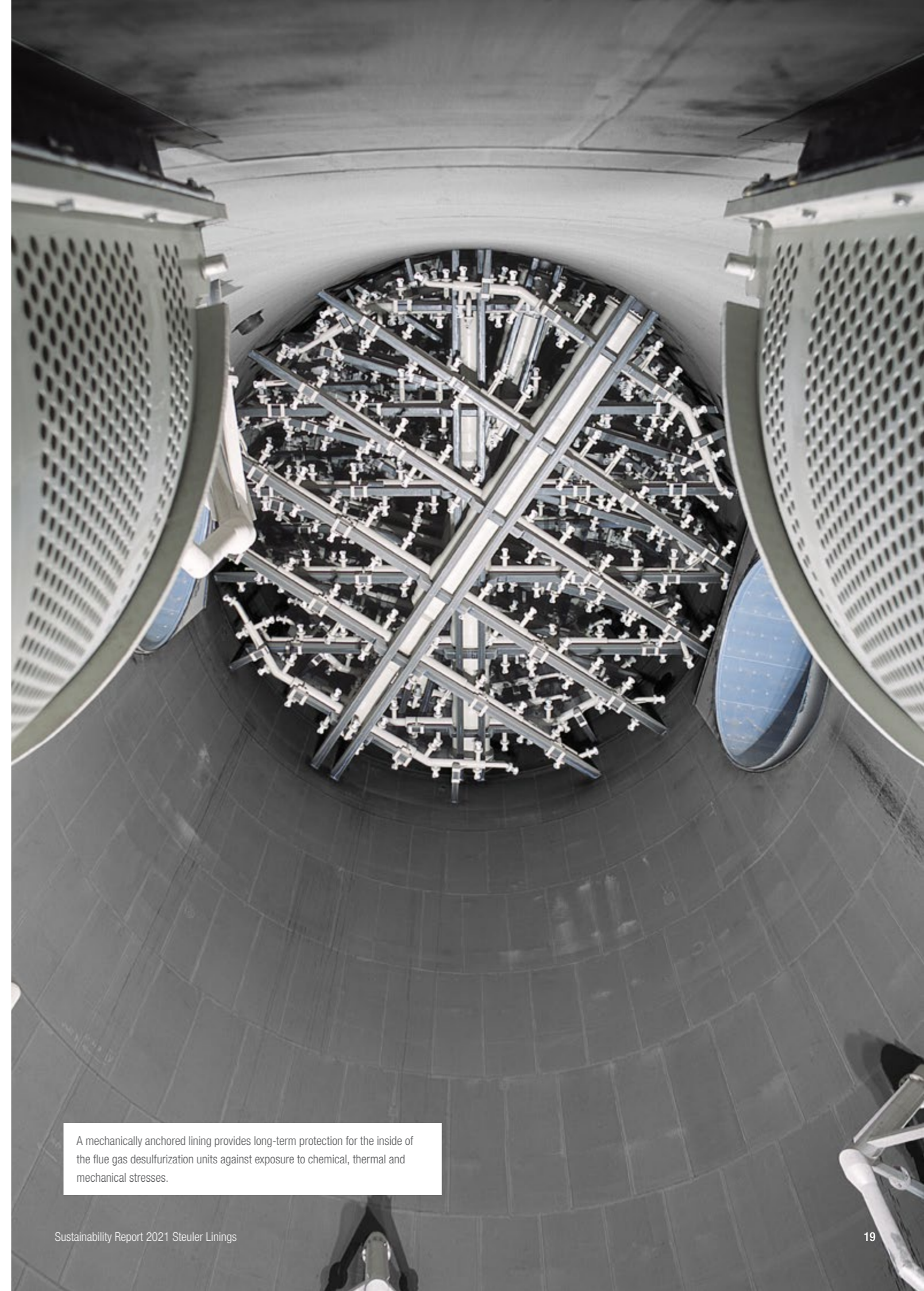
Steuler Linings developed a solvent-free laminate system for floor coatings with DIBt certification in odor-sensitive environments and in the pharmaceutical and food processing industries as well as clean rooms.

Refractory pipes and vessels for higher grade steels

A prerequisite for making high-quality steel – catchword "clean steel" – is for ceramic inclusions to be precluded that could prevent or hinder the subsequent processing of the cast metal blocks by means of rolling or forging. Inclusions are primarily caused by SiO₂-containing particles that originate from the ceramic production apparatus (e.g. vessels and molds). In order to minimize the SiO₂ content in the ceramic, Steuler can already supply materials with 5-7% SiO₂ as standard today, e.g. for casting wheels for high-speed trains. This development represents a halving of the SiO₂ content compared with earlier materials. We currently have materials that are almost ready to move from the lab to series production whose SiO₂ content is under 0.5%.

Reducing the firing temperature required to manufacture refractory bricks

In many fields of application, like hazardous waste incineration plants or blast furnaces, materials based on synthetic mullite are used due to the exceptional resistance of these minerals. Until now, however, they have needed to be fired at temperatures of up to 1,750°C in order to bind sufficiently. To reduce energy consumption, new formulations have been developed that can be fired at lower temperatures: nowadays, around 20 percent of the mullite materials manufactured by Steuler are fired at temperatures below 1,600°C. The result is a reduction in CO₂ emissions by around one ton per ton of product.



A mechanically anchored lining provides long-term protection for the inside of the flue gas desulfurization units against exposure to chemical, thermal and mechanical stresses.



In the new tunnel kiln at the Höhr-Grenzhausen site, refractory bricks are fired at a temperature of around 1,350°C.

Decarbonizing steel production

In order to achieve the goals of the Paris Climate Agreement, the economy has to be decarbonized. With this in mind, companies are looking at how hydrogen can replace carbon as the energy source in the steelmaking industry. As hydrogen can be generated in a climate-neutral way using "green" electricity, it is considered a sustainable source of energy. The switch from coal to hydrogen raises new technological challenges – and not just for the refractory lining of blast furnaces. The materials that have been used in this area up to now are attacked by hydrogen and destroyed as a result of the binding component silicon dioxide breaking down. This direct reduction process is already to some extent standard practice, where reformed natural gas is used as the reduction gas. The proportion of hydrogen in the reduction gas is limited to around 40 percent, however. As such, conventional direct reduction plants could already halve the CO₂ emissions of the steel industry.

Over the past two decades, we have lined 35 of these conventional direct reduction plants with refractory materials and have accumulated a wealth of experience as a result. It was necessary to develop new lining materials for this which, based on our

current knowledge, should be able to withstand the new process conditions too. This is why Steuler was the partner of choice for the world's first direct reduction plant powered solely by green hydrogen in the Swedish city of Lulea, which was lined with our refractory materials. This pilot plant with an annual capacity of roughly 10,000 tons of pig iron shows that the new process is feasible on an industrial scale as well.

China's first "hydrogen boosted" direct reduction plant is to be built in Zhangjiakou/Xuanhua in 2022, which – depending on hydrogen availability – will operate using up to 75 percent hydrogen in the reduction gas. This plant is also being lined with refractory materials by Steuler. With an output of around 550,000 tons of reduced iron ore a year, it is the first plant of its kind to operate on an industrial scale, and on completion should reduce carbon emissions by around 90 percent. Thanks to its exceptional expertise in this process area of the steelmaking industry, Steuler is also participating in a number of research projects, such as the European CESAREF project (Concerted European Action on Sustainable Applications of Refractories), in order to disseminate knowledge about the hydrogen corrosion of refractory materials as widely as possible.

Kiln furniture for manufacturing electroceramic components

In the wake of the transformation in the automobile industry, more and more electroceramic components are being installed in vehicles. Examples include resistors and piezoceramics. They are manufactured using thermal sintering processes that Steuler supplies the necessary kiln furniture for – manufactured from the energy-efficient mullite materials described above. In addition, we are working to reduce the weight of individual pieces of kiln furniture, because the lower their mass, the less energy is required for the customers' firing processes.

Supports, racks and trays for manufacturing batteries for electric vehicles

The active cathode and anode materials used to make batteries are manufactured using thermal processes, which in turn require refractory sintering supports and racks. We offer support racks made from tried-and-tested materials for manufacturing active anode materials. The main novelty here is the geometry of the racks. The manufacture of active cathode materials requires sintering trays that ideally do not transfer any substances to the cathode material, because any contamination can negatively impact the perfor-

mance of the battery. For this application, we developed a new cordierite-based material. The sintering trays made from this material make high-purity production possible. Our next development goal is to substantially improve the longevity of these sintering trays so that they have to be replaced less frequently.



Refractory supports, racks and trays are required to manufacture batteries for electric vehicles. Steuler Linings is developing new geometries and materials to optimize these processes.

Corporate Environmental Responsibility

Manufacturing Processes and Plants

The Steuler Linings Division has manufacturing operations at four locations in Germany. It has additional factories in Spain, Belgium and China.

It operates kilns for manufacturing refractory and acid-resistant ceramics and kiln furniture in Breitscheid and Höhr-Grenzhausen. The products are fired in continuously operated tunnel kilns and shuttle kiln at temperatures of between 1,000 and 1,740°C. In 2020, a 96-meter-long tunnel kiln was built to replace the old tunnel kiln dating from 1951. Thanks to its intelligent heat recovery system, the waste heat from the new kiln – which operates at 1,350°C – is used for drying, heating the production buildings and producing hot water. Altogether, there is kiln capacity for a production volume of around 55,000 tons a year.

At the sites in Mogendorf and Figueres (near Girona) in Spain, vessels, process equipment and pipes are manufactured for the Plastic Linings Division from glass-fiber reinforced plastics based on polyester, phenolic or furan resins. In Mogendorf, process equipment is molded and cured to create a thermosetting plastic (KERA®).

At the Siershahn and Höhr-Grenzhausen factories, there are also production operations for manufacturing rubber sheets and components for coatings and brick liners. Siershahn is home to one of the largest autoclaves in Europe, which is used for lining and vulcanizing vessels with rubber sheets. This is supplemented by a smaller one in Siershahn and another in Mogendorf.

Steuler Linings Facilities

Site	Manufacturing Operations and Plants
Höhr-Grenzhausen (D)	<ul style="list-style-type: none"> • Manufacture of refractory and acid-resistant ceramics as well as kiln furniture in a tunnel kiln, three high-temperature and two conventional shuttle kiln • Manufacture of wet electrostatic precipitators and other process equipment from thermoplastics • Manufacture of linings from thermoplastic materials • Manufacture of mortars and coating systems
Weitersburg (D)	<ul style="list-style-type: none"> • Blasting and coating work as well as rubber lining of steel and concrete structures
Breitscheid (D)	<ul style="list-style-type: none"> • Manufacture of refractory ceramics and kiln furniture in a tunnel kiln
Siershahn (D)	<ul style="list-style-type: none"> • Manufacture of rubber sheets, application of rubber linings including using autoclaves • Manufacture of mortars and coating systems
Siershahn (D) / Rubber Lining Workshop	<ul style="list-style-type: none"> • Application of rubber sheets
Mogendorf (D)	<ul style="list-style-type: none"> • Manufacture of vessels, process equipment and pipes based on polyester, phenolic and furan resins
Gent (BE)	<ul style="list-style-type: none"> • Manufacture of electrolysis baths
Shanghai (CN)	<ul style="list-style-type: none"> • Manufacture of rubber sheets
Girona (ES)	<ul style="list-style-type: none"> • Manufacture of vessels, process equipment and pipes based on polyester and vinyl ester resins



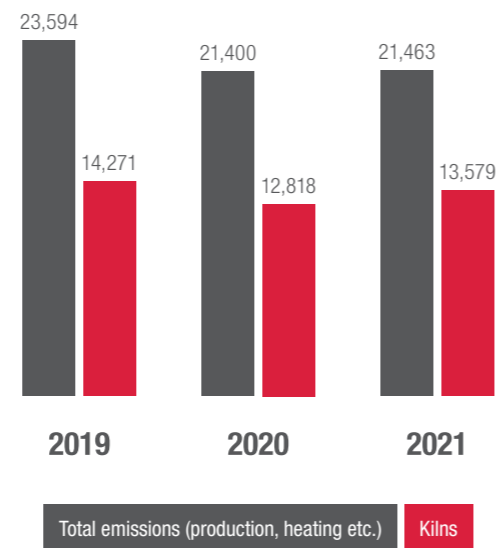
The 35-meter-tall chimney is part of the flue gas scrubbing plant at the Höhr-Grenzhausen site, to which all the high-capacity kilns of the "Ceramic Materials Production" unit can be simultaneously connected.

Energy consumption and greenhouse gas emissions

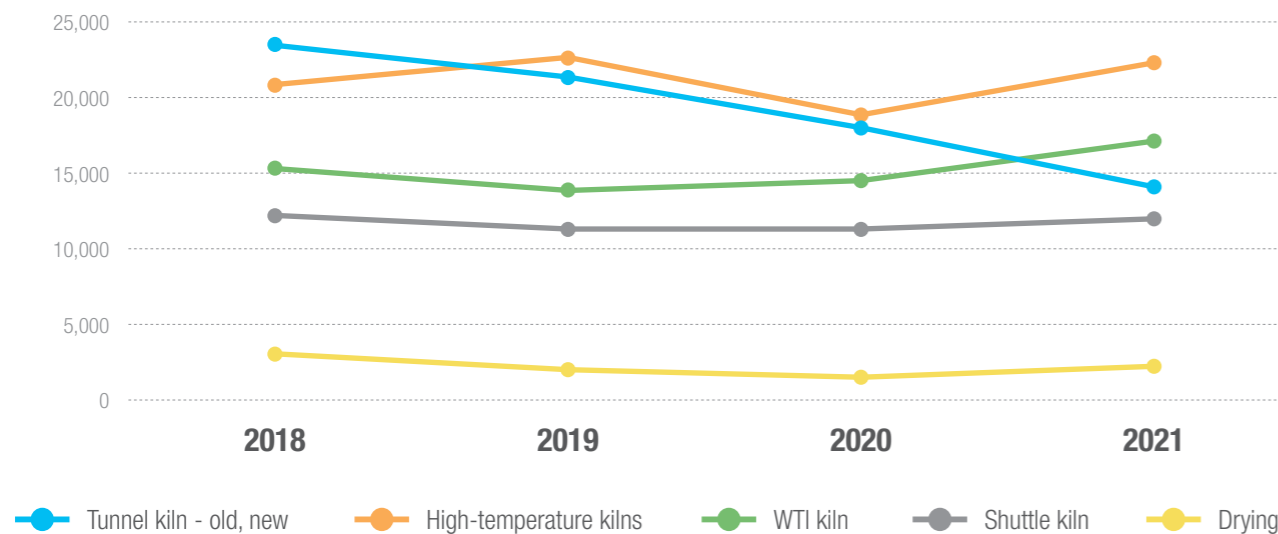
As in the ceramics industry as a whole, by far the greatest environmental impact of our production processes is due to CO₂ emissions. Most of these emissions are generated by our kilns, which operate using natural gas in order to reach the temperatures of between 1,000 and 1,740°C required to manufacture the ceramics. Indirect CO₂ emissions due to electricity consumption are substantial too.

Measures have repeatedly been taken to save energy and at the same time reduce CO₂ emissions. Examples include the installation of heat recovery systems and optimization of the kiln cars. A significant reduction in consumption and emissions was achieved in 2020 by replacing the aforementioned old tunnel kiln in Höhr-Grenzhausen. The new kiln requires around 40 per cent less energy than its predecessor.

CO₂ Emissions - Linings (tons)



Gas consumption - kilns (MWh)



In addition to natural gas, significant quantities of electricity are needed too: Annual power consumption is approximately 13,000 MWh. This corresponds to the average consumption of 4,200 German households.¹ When the new Mogendorf factory was built in 2015, a photovoltaic system was installed on the roof. In the reporting year, this plant generated 541 MWh of electricity and met around 45 percent of this site's power requirements. Around four percent of the total power consumed

by the production facilities is generated on site. This is an aggregated view, as roughly 15-25 percent of the generated power is fed into the grid because it is not used internally – for instance, at weekends. In addition, STEULER-KCH Polska has a building with a 43 kWp photovoltaic system. The data are not contained in this table, because STEULER-KCH Polska is an assembly operation, and the environmental indicators are only collected for the manufacturing companies.

¹ In 2019, the average electricity consumption per German household was 3,106 kWh. (Source: destatis)

Energy (MWh)

	2019	2020	2021
Electricity purchased (external)	12,503	12,556	12,135
Internal generation from PV	551	592	541
Gas	80,536	72,971	78,546
Heating oil	1,239	871	821
Saturated steam	781	871	497
Fuels – gasoline	67	25	29
Fuels – diesel	2,096	1,951	2,527

The majority of production buildings, warehouses and offices in Germany and Spain are heated using natural gas. In 2019, a tent was in temporary use at the Siersshahn site that was heated by an oil furnace. An oil heating system was used at the Gent site too. Saturated steam is used at the Shanghai site.

Air pollution control

When firing ceramics, compounds bound in the mineral raw materials are released that are removed from the exhaust gases using suitable filters. In 2019, a new packed bed filter, a so-called cascade absorber, was commissioned in Höhr-Grenzhausen for this purpose. It uses lime granules to clean the waste gases from the kilns. The filter material is repeatedly regenerated so it can be continually reused. The minimal amount of residues can be disposed of in the regular garbage without reservation. And: The plant can be operated continuously – i.e. without downtimes – because maintenance and repair work can be performed during live operation.

When manufacturing vessels, process equipment and pipes made of glass-fiber reinforced plastics that use polyester, phenolic or furan resins, volatile organic compounds (VOC) are released that at too high concentrations are harmful to health and the environment in general. We are striving to lower these emissions with new formulations. Nonetheless, we have been releasing roughly 4,400 kg of these volatile organic compounds at our German facilities each year. To protect the health of our workers, extraction units are installed in the production buildings concerned.

Steuler manufactures rubber linings for on-site and workshop installation at its Siersshahn site.

Water consumption and groundwater protection

Water (m ³)	2019	2020	2021
Water abstraction from the drinking water network *	4,313	4,493	5,788
Discharge into the sewer system	2,979	3,227	4,234

* The fresh and waste water figures only relate to the Breitscheid and Höhr-Grenzhausen sites including Weitersburg (Sheram).

5,788 m³ of water were used at the Höhr-Grenzhausen and Breitscheid sites in 2021. 4,234 m³ of which were discharged into the sewer system. A significant proportion of the water is used in ceramic mixtures and is therefore not discharged into the sewer system.

Many of our raw materials and products are classified as hazardous to water as defined in the Ordinance on Facilities for Handling Substances Hazardous to Water (AwSV). As such, they have to be handled with extra care. Specially licensed facilities are required for their storage, and this includes our work gas station and production facilities. Our hydraulic presses in the ceramic production unit, for example, are equipped as plants in accordance with the AwSV.

Moreover, our warehouse in Siershahn (Germany) is subject to the "Störfall-Verordnung" or Hazardous Incident Ordinance. Pertinent information for employees and residents is published on our website at <https://linings.steuler.de/de/sicherheit>.

Waste management

Steuler considers avoidance better than recycling and recycling better than disposal. The majority of our waste is harmless. Only around 25 percent is classified as hazardous waste, whose storage and disposal are subject to special conditions. Even some of the waste subject to special monitoring is recycled. One example being hydraulic oil.

Our waste management is supervised by waste management officers and monitored as part of our integrated waste management system. The significant rise in the volumes of waste in 2020 and 2021 are due to the demolition of the old tunnel kiln, which accounted for around 600 tons of hazardous and non-hazardous waste.

Waste (tons)	2019	2020	2021
Volume of waste (total)	2,085	2,459	2,722
Hazardous waste	587	592	1,289
Non-hazardous waste	1,498	1,868	1,432
Waste sent for recycling (recovery)	1,163	1,781	1,587

Recycling of refractory linings

Some of our customers' manufacturing processes require the refractory bricks in their kilns to be replaced at regular intervals. This generates substantial quantities of used bricks. While the surfaces that were in contact with liquid steel, for instance, are partially contaminated with slag, the back sides of the bricks remain chemically unaltered. It is therefore common nowadays to reprocess used refractory bricks by removing the contaminated front face and cleaning and grinding the other sections.



This reprocessing work is performed by specialist companies. We contribute to this closed loop by purchasing the reprocessed material and using it as a feedstock in our processes. For certain products, we have initiated a closed loop of our own. A notable example being corundum bricks containing chromium oxide that are used to line hazardous waste incineration plants. In all other cases, we have developed formulations that allow the inclusion of recyclates.

We also recycle a large proportion of the factory rejects and scrap produced during the manufacture of refractory bricks. As a result, 25 percent of all the feedstock used in the refractories sector is regenerated material. Moreover, we use approximately 500 tons of renewable raw materials every year. The biggest item by far here is natural rubber, which is used to manufacture rubber linings.

Raw materials used in production (tons)	2019	2020	2021
Total	49,035	47,956	57,920
of which recycled raw materials	9,793	10,623	11,525
of which renewable raw materials	560	525	480

Major projects in the past few years

2015–2019 Replacement of factory lighting in Höhr-Grenzhausen and Mogendorf:
Lower energy consumption, increased light output

2019–2020 Construction of a modern tunnel kiln:
Replacement for the no-longer-serviceable kiln, improved energy efficiency

2019 Commissioning of the new packed bed filter:
Improvement in precipitation efficiency of the emissions

2019 Aggregation of the emission sources in the ceramic raw materials processing area:
Reduction in fine particulate emission sources

Responsibility for Employees

Composition of the Workforce

The Steuler Linings Division currently employs just under 1,900 people, 650 of which work at our overseas subsidiaries. Our employees are supported by 165 contract workers.

Workplace safety is of key interest to all employees – for both economic and emotional reasons. Experienced, qualified and motivated workers are crucial for Steuler's productivity; a fact brought home by the current shortage of skilled workers. There are therefore several good reasons why we place such an emphasis on retaining our employees and developing and training them further. During the corona pandemic, we were able to avoid having to make layoffs by instigating brief periods of reduced working hours and thus continue to employ our workers.

As a family-run business in its fourth generation, it is not uncommon for employees to stay with us for 20, 30 or sometimes even 50 years – often from the time they joined us as apprentices.

Employees (FTE, full-time equivalent)	2019	2020	2021
Employees	1,834	1,763	1,758
Entrants	155	92	125
Leavers	147	147	122
Temporary staff employed on service contracts restricted to the duration of the individual project	229	187	242
Contract workers	177	158	165

Apprenticeships in Germany (FTE)	2019	2020	2021
Female trainees	19	14	13
Male trainees	41	41	32
Total	60	55	45
Trainee ratio (%)	4	4	3

The Steuler Linings companies engage on average 45 apprentices in Germany; in the Steuler Group, there are a total of 53 apprentices. We train laboratory technicians, industrial ceramics specialists, process engineers, electronics engineers as well as IT and industrial management assistants as the need arises. Over the course of their apprenticeship, the trainees are posted to various sites and companies within the Linings Division so that they become familiar with the entire spectrum of Steuler Linings' products and processes.

During their training, aspiring industrial management assistants for Europe get to do an overseas work placement at one of the Steuler Group's international subsidiaries. Shop classes and IT courses are a standard part of the training. All trainees at Steuler are paid according to the collective labor agreement. After successfully graduating, we offer the trainees a three-month employment guarantee.



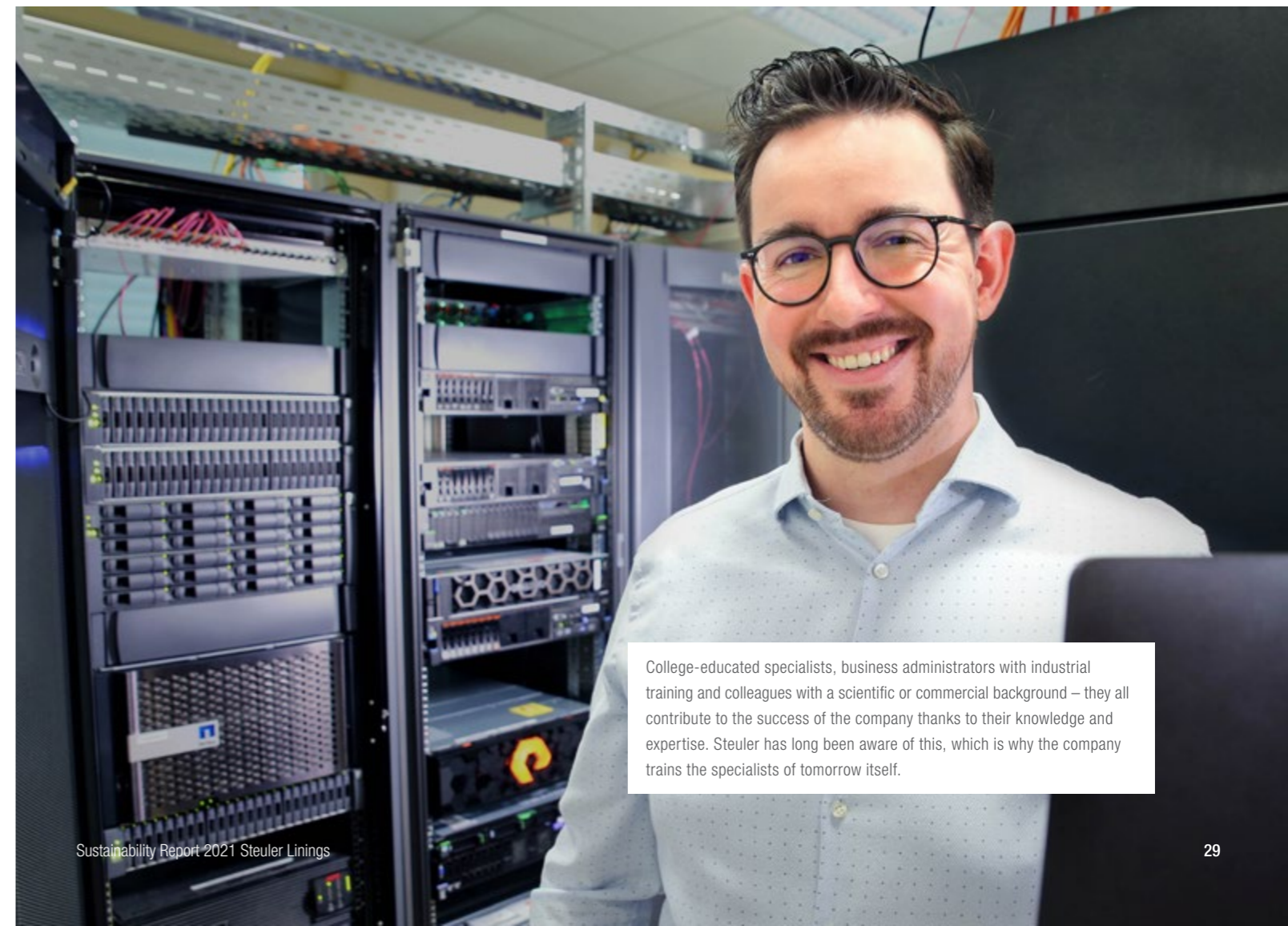
Steuler has once again received the Koblenz Chamber of Commerce and Industry's "Best apprentices – trained by us" award – in 2021 too. This seal of approval is conferred on companies whose trainees achieve an overall finishing grade of "very good". Employees are trained at some of Steuler Linings' international sites too – specifically, at our two subsidiaries in China and Poland. The form this training takes is determined by the respective national education systems. In order to make individual contributions to climate protection, in 2021, eight trainees took part in a voluntary two-day course to train as energy scouts. Their role is to identify potential areas where energy consumption can be reduced and make improvement suggestions. The Energy Scouts project was launched by the Chamber of Commerce and Industry as part of the SME initiative "Energy Transition and Climate Protection". Due to demographic change and the continuing interest in studying, Steuler has put in place a systematic recruitment strategy. Student internships, "taster" work placements and the application for training places from within our workforce are cornerstones of the program.

School internships

The Linings Division offers internships to all young people who want to get an early taste of the world of work and a variety of vocational training courses. Pupils from the 9th grade and up can participate in a work placement to acquire practical experience – and can do so in any of the trades or professions Steuler Linings offers training in.

Vocational school placement year

The Steuler Linings Division offers at least two internships for vocational school students each year. The students need this internship to qualify for technical college entrance. Three times a week over the course of a year, they get insights into different recognized technical and scientific trades at the Steuler Group. In this way, they can discover the occupation that fits them best and combine theoretical learning with practical experience.



College-educated specialists, business administrators with industrial training and colleagues with a scientific or commercial background – they all contribute to the success of the company thanks to their knowledge and expertise. Steuler has long been aware of this, which is why the company trains the specialists of tomorrow itself.

By offering a wide range of dual study and cooperative degree courses, Steuler promotes the development of new talent with comprehensive knowledge about the company and products.



Training students enrolled in dual study programs

Dual study programs combine academic studies with vocational training. Students acquire in-depth knowledge of the subject matter by applying and consolidating their new-found theoretical knowledge during the practical phase at a company. Thanks to the close relationships between the company, vocational college and university, the students quickly develop to become the highly qualified specialists and management executives of tomorrow.

In 2021, Steuler trained ten students from the Mainz University of Applied Sciences, the VWA Koblenz and the DHBW Mannheim enrolled in dual study programs. The previous year (2020), it was eleven.

Cooperative study program

So-called cooperative study programs also combine a college education with practical training. In this case, students are offered a contract for the rest of their time at college. The students then work at Steuler Linings, usually outside the lecture periods.

In return, the company assumes the costs of the degree course and pays an additional remuneration. Steuler Linings is currently training four students at Koblenz University via this model. Last year, there were three students.

Further education and training

A broad range of capabilities, competencies and personal skills are required in today's workplace. Given the pace of technological progress, employees have to keep learning more. The range of further education and training programs offered by Steuler includes

- job-related training, such as courses on sales and marketing, contract and labor law, IT, project management and the annual installation technician training courses on new technologies, products and practices,
- cross-discipline training, such as personality development courses and language courses,
- in-house training of new installation technicians over a four-month period with an in-house instructor,
- junior staff development program for young employees being groomed for management roles,
- support for advancement programs for training master craftsmen, mechanics, etc.,
- brainstorming and networking for young employees: "Junge Wilde",
- management training,
- training for aspiring construction supervisors,
- in-house training and development of safety officers,
- regular mandatory training courses relating to occupational safety, such as first aid, SCC (Safety Certificate for Contractors) and training on the Water Resources Act.

Further education and training (hours)

	2019	2020	2021
Women	797	714	1,138
Men	11,152	7,612	25,909
Total	11,949	8,326	27,047

In 2020, education and training measures were cut significantly. The main reason was the reduced working hours due to the pandemic and the associated necessity to cancel almost all on-site training. In the industrial area, where the workforce is predominantly men, compulsory training still had to be completed as it is a prerequisite for working on construction sites.

E-Learning System

It is no longer possible to deliver the large number of required training programs solely via classroom-based courses. This is why Steuler has been using an e-learning system for the past few years. It currently offers Steuler employees 39 different courses plus industrial safety training, some of which are compulsory.

Scientific studies have shown that a combination of e-learning and classroom training achieves significantly better results. Because of this, hybrid courses tailored to the subject matter are also being offered.

Training of new installation technicians in the acid protection field

Around 485 installation technicians from the German companies of the Steuler Linings Division work on our customers' sites. Newly recruited technicians are given 16 weeks of training at our training centers in Höhr-Grenzhausen and Schwedt. There, they also receive background knowledge about how the products work. There are also installation technicians that initially work on "normal" jobs, and only attend this installation technician training later on.



Brainstorming without limits, creative inspiration, thinking outside the box and networking with all and sundry – at the "Junge Wilde", this is not just allowed but expressly encouraged.

Junior staff development program

Steuler has been running the "High Achievers of Tomorrow" program since 2016. The long-term goal of the program is to help promote technical specialists and management staff from within the company. The participants take part in a variety of training courses and practical phases. Among other things, they develop their communication and presentation skills, and learn about time, project and change management. They practice working in a team and how to lead teams.

Junge Wilde

The purpose of the "Junge Wilde" program is to further improve interaction and interdepartmental co-operation and make it easier for new employees to network within the company.



The program is aimed at all Steuler Group employees under 35 years of age who have been with the Group for less than six years and are based in the Westerwald. It creates a fertile environment for creative and unconventional ideas that challenge conventional wisdom.

Equality, family, career and working hours

Equality and reconciling family life and career are of equal importance to both men and women today. Even people that do

not have a family of their own often want to work flexible hours or from home. The topics "family and career" and "work/life balance" have merged to become "work/life integration". Steuler offers part-time models that are developed in collaboration with the employees, managers, the Works Council and the HR Department. We also offer solutions for employees caring for relatives that go beyond the statutory possibilities. Mobile working or "working from home" is becoming more prevalent – not least as a consequence of the COVID-19 pandemic.

The company regularly puts together individual training and development programs, the hours for which can be built up in advance and/or worked off afterwards. It is also possible to take special leave or training leave even if the courses are not recognized under the Educational Leave Act (Bildungsfreistellungsgesetz). The junior staff development program and associated transfer of management skills is aimed at everyone irrespective of gender and takes into account the different life circumstances of the employees. And: An employee's personal life situation is also taken into consideration in their personal development plan and in-house mentoring scheme in order to best reconcile private interests, family and career. We have set up an emergency daycare service with flexible and dedicated child minders for employees at our Westerwald sites. If there is a problem with their own childcare arrangements, employees with children aged between two months and 16 years can use this free service on an hourly or daily basis.

Steuler Técnica S.L.U. based in Zamudio (near Bilbao) with a subsidiary in Huelva (near Seville) is primarily active in the surface protection segment of the chemical industry and food processing industry. In 2019, flextime was introduced for all

office workers. Since 2021, they are able to work one day a week from home (including after the end of the pandemic). In the summer, when it gets very hot in the south, office hours are shifted forward to the early morning and shortened by an hour. These deficit hours are made up for in the winter. A framework agreement was agreed with an insurance company that allows all Steuler Técnica employees to take out an affordable supplementary health insurance plan.

Another Spanish subsidiary – Técnicas de Refractorios S.A.U., which is based in Bilbao and has additional sites in Madrid, Andalusia, Asturias, Cantabria, Galicia and San Ciprián – primarily supplies and installs refractory linings. It holds regular training courses on Autocad (software). In addition, the employees have access to online courses on personnel management, risk prevention and foreign languages. In order to offer unemployed people new career perspectives, the company has been providing refractory installation training in co-operation with the job center since 2022. These courses are held at a training center in the City of Bilbao.

Measures to ensure equal pay for women and men

The unions and management in the refractory and acid protection industry negotiated a collective agreement back in 1996. It groups workers into pay categories according to their job function and thus establishes the basis for pay equality and equity. It should be stressed that the classification is completely gender neutral and meritocratic, i.e. based on tasks and job function. Within this framework, all that is relevant is the occupation of the worker, which is based solely on the job characteristics of the umbrella category and the respective reference examples listed for the pay categories. If an activity cannot be matched to a corresponding umbrella category, it is assigned to the pay category most similar to the occupation. Moreover, all classifications and re-classifications are carried out in observance of the right of codetermination. The HR department oversees matters and intervenes if there is a disparity.

Health promotion

All measures to promote the health of the Steuler Group employees are consolidated in the SIGA health program. This includes such traditional measures as free eye examinations, flu jabs and various health programs from anti-stress seminars to circuit training. In 2021, employees were given 12 months' free access to a fitness app in co-operation with a



health insurance company. The app offers a choice of different fitness programs that can be used to train during breaks or leisure time. In addition, we are currently offering a back check-up using the so-called MediMouse. This assesses the mobility and functionality of the subject's spinal column. A specialist then recommends specific exercises to strengthen the spine. At some overseas sites, there are measures in place to promote the health and team spirit of the workforce. At our Chinese subsidiary Shanghai STEULER-KCH Anticorrosion Engineering, for instance, they hold regular exercise sessions during breaks.

Personal counselling by specialists

Steuler Linings cooperates with the Median Health Service and the AMD (Arbeitsmedizinischen Dienst TÜV Deutschland) to provide employees with a comprehensive health and counselling service for matters relating to life in general, the work environment and especially psychological problems and dependency issues. Employees can take advantage of the confidential, personal counselling by specially trained experts free of charge. It covers such things as improving problem solving skills, activating your inner resources and dealing with competing priorities. As a rule, five separate appointments are offered that can be supplemented with additional measures or recommendations as need be. The counselling sessions are organized by the HR Department on request of the employee and conducted with absolute discretion. This offer is available to all German sites of the Linings Division.

Covid-19 pandemic

In February 2020, shortly after the outbreak of the COVID-19 pandemic, a crisis unit was established that in just a few days made it possible for a significant portion of the office workers to work away from the office, including from home. The production floor workers were divided into fixed groups – catchword "split operations" – so that in the event of an infection, only a clearly defined group of people would have to quarantine.

When vaccines became available from May 2021 and prioritization was abolished, an in-house vaccination service was established at the Westerwald facilities. Vaccinations took place on different Saturdays at Steuler's Höhr-Grenzhausen and Siershahn sites. 250 Steuler Group employees took advantage of the service, and together with those who got vaccinated elsewhere, a high vaccination rate of 90% was achieved by the end of 2021. The Linings Division is not aware of any outbreaks caused by contact in the production environment. Sadly, there was one corona-related death at our North African subsidiary STEULER-KCH Maroc SARL. The employee was not infected in the course of his work for the company, however. COVID mea-

asures similar to those at the German factories were implemented at the overseas sites too: Split operations, mobile working and adherence to the safety precautions.

Occupational safety

The number of industrial accidents at the Steuler Linings companies has risen since 2019. With an accident rate in 2021 of 34.62, we now lie above the average in the construction industry, which was 32.78 in 2020. It appears that activities involving hand-held machinery are responsible for this increase in the period under review between 2019 and 2021. Analyses have thus far not been able to identify specific factors that have led to this rise. It is conceivable that pandemic-related changes to work routines as well as the stress caused by lockdowns and home quarantines may play a role

here. In order to raise the safety level, accident reports are being evaluated even more systematically and supervisors more actively involved in order to identify areas safety work should focus on. From 2022, a new software system will reduce the associated administrative overhead and improve analytical capabilities. The management system for occupational safety is also to be upgraded with a view to preventing work accidents.

The Commune of Gerenzano north of Milan is home to our Italian acid-resistant engineering company CIMA S.r.l. In 2021, the company took part in the Safety and Environment Training Project run by the company ENI Rewind. In this context, it revised its occupational safety and environmental protection training program, and for a period of 12 months gave safety and environmental briefings on construction sites.

Fatal work accident

Sadly, there was a fatal accident at our Spanish overseas subsidiary TÉCNICAS DE REFRACTARIOS, S.A.U. (TECRESA) in 2020. While working with a crane on a construction site, a forty-year-old employee received a severe blow to the chest from a moving construction element. Our investigations have shown that the relevant occupational safety measures had been implemented and those involved were trained. Steuler Linings has naturally been assisting the competent authorities with their investigation of the case.

At TECRESA, the existing measures and training courses have been supplemented with risk assessments. Additional preventive measures have been taken to further minimize the risk of falling objects too. Load handling gear and slings to stabilize raised loads have likewise been upgraded. Crane operators and installation workers have been re-trained in view of the risk assessments and the accident discussed with them in depth.

Work accidents	2019	2020	2021
Work accidents (Number of accidents resulting in an absence of more than one day – LTI)	65	74	99
Fatal work accidents (number)	0	1	0
Accident rate (Work accidents with loss of work time per 1,000,000 man hrs.)	21.95	26.64	34.62
Days of absence due to work accidents	1,017	1,686	1,912

In order to achieve and maintain the highest possible standards of safety, all statutory measures, and even some that exceed them, are being implemented. The safety measures include the following:

- Checking the substitution of hazardous substances
- Technical safety equipment
- Suitable work equipment
- Suitable personal protective equipment
- Regular safety briefings including regular safety awareness check
- Safety equipment including regular functionality check

All of the companies within the Steuler Linings Division have their own occupational safety organization comprising occupational safety professionals, safety officers, first aiders, fire and evacuation wardens.

We investigate work accidents in a timely manner using the 5W information-gathering method. At the end, the necessary measures are defined, put into practice and reviewed to ascertain their effectiveness. The focus of the measures is on ensuring that risk assessments and briefings are systematically carried out.

We have implemented policies within the management system for engaging sub-contractors and contract workers to verify their qualification for the job, occupational safety standards and reliability. Identical requirements with respect to working conditions and safety apply to everyone who works for Steuler Linings. This applies to briefings, instructions, personal protective equipment and occupational medical care.

The Steuler Linings occupational safety system is characterized by two disparate areas of activity: on-site installation and in-house production.

Assembly

Our occupational safety processes and standards in the assembly area have been certified in accordance with the occupational safety management system SCC** (Safety Certificate for Contractors) since 1998. The territories covered by the SCC** certification include Germany, Austria and the Benelux countries. With the development of our structured health, safety and environment organization (HSE), our focus is on improvement processes in this area as well as reducing accidents, work-related health issues, unsafe situations and environmental and property damage. These measures apply equally to contract workers.

Companies that work for us on building sites as sub-contractors must be reviewed according to the SCC criteria "occupational

safety organization and qualification of the workers" or prove that they are SCC** certified themselves.

Travel accidents are recorded internally by the company, but are not contained in this report.

Production

We pursue these goals at our production facilities too, and have established a corresponding occupational safety organization.

Regular occupational safety committee meetings are held, in which managers, Works Council members, safety officers, company doctors, occupational safety professionals and if required other experts discuss issues and exchange views. The goal is to raise awareness among the managers and workers for safe working conditions and practices, identify areas where action is needed and reach decisions by mutual agreement. Regular occupational health checks and workplace inspections and evaluations by company doctors are also part of the remit. Other HSE success factors include systematically organizing and performing risk assessments as well as job-specific training and briefing of all employees.

It is planned to establish a occupational safety organization that conforms to the internationally recognized ISO 45001 standard for the assembly and production areas. The roll-out is to begin in 2022 in Italy (CIMA).

Employee rights and the equal treatment of contract workers

Works Council and co-determination

In order to represent workers' interests and exercise their right of co-determination, we have a group Works Council for all the German companies. There are also Works Councils for the production sites and individual companies that meet on a regular basis. Works meetings for all employees are held regularly at each site. The Works Councils are involved on behalf of the workforce in management decisions concerning the following:

- Social affairs
- Personnel affairs
- Economic affairs
- occupational safety and environmental protection
- Workplace design
- Work routine and work environment

A whole host of works agreements have been concluded with the Works Councils, including the payment of holiday money, the pro-

vision of workwear and equipment and additional benefits during training. These were supplemented in response to the corona crisis by a works agreement for mobile working in 2021.

The establishment of bodies to represent employees at the Steuler Lining Division's overseas sites is governed by the laws of the respective country. Some of the Spanish facilities, for instance, which have a relatively large workforce have elected workers representative bodies comprising up to five members. At our Italian subsidiary CIMA, there is an employee representative body for safety that is elected by the workers.

Equal treatment of contract workers

Contract workers are subject to the same working conditions when performing their job as our own employees. And: If suitable, contract workers are frequently offered a permanent position in the company after a short period of time.

Code of Conduct and management guidelines

The Steuler Group has a Code of Conduct that applies to all employees. It reflects Steuler's culture, which has continually evolved over the firm's more than 100-year history. This Code of Conduct is intended to give all Steuler Group employees the confidence to

know what behavior is appropriate and what is inappropriate – even if not every conflict of interest can be individually addressed. *Further information can be found in the chapter on "Compliance".*

In addition to the Code of Conduct, there are management principles that are intended to establish a common understanding of leadership:

- Managers serve as role models and are expected to set a good example.
- Co-operation is our preferred way of working with one another.
- Transparency is the product of communication.
- Strategies and new ideas move our company forward.
- We continually maintain and increase our competitiveness.
- Employee development is a key success factor.
- Delegating tasks frees up time for leadership.
- Decisions should be made expeditiously, transparently and be justifiable.
- Agreed goals form the basis for shared commitment.



Great importance is attached to professional and personal development. Over 100 managers from different sites were recently trained over several days of intensive seminars – benefitting not only the management culture, but the networks within the company.



Trainees at Steuler Linings are fostered and challenged – as at this team event at a high ropes course near Höhr-Grenzhausen.

Responsible Procurement

Our customers and the legislator are setting ever higher standards with respect to sustainable business practices. This has an impact on our supply chain management too. Purchasing is thus an important sustainability topic for Steuler Linings.

Procurement in practice

Steuler Linings' Central Purchasing Department is responsible for procurement for the German companies. The companies located outside Germany have their own purchasing departments. At the Central Purchasing Department of the German companies, twelve employees coordinate the procurement of over 40,000 articles from around 3,000 suppliers. This includes raw materials, such as chemicals, rubbers and refractory materials as well as semi-finished goods made from metals and plastics. In addition to this, there are subcontractor services, finished goods, packaging, energy, waste, vehicle fleets and other consumables and supplies.

With a purchasing volume of over 100 million euros, the Steuler Linings Purchasing Department bears a huge responsibility for the cost and cashflow situation of the company. This is why the Purchasing Department works with its partners to secure the best prices and availabilities at the start of production. The competitiveness of our suppliers, who are primarily located in Germany and other countries in Europe, Asia, North and South America, plays a key role here. Nowadays, an increasing number of customers not only insist that we take environmental protection and working conditions into account in our own manufacturing operation, but when it comes to procurement too.

Moreover, the German Supply Chain Due Diligence Act (Lieferkettensorgfaltspflichtgesetz or LkSG) was passed in 2021, and we will have to apply it from 2024.

And: The European Union is also working on a supply chain directive. Moreover, it is in our own interest to actively ensure that environmental protection and good working conditions are observed in our supply chains. Violations of laws, regulations or standards on the part of our suppliers could negatively impact us and our image. This could lead to supply disruptions, drops in quality and higher costs.

Modern procurement processes and supplier management

With this in mind and in order to further improve cooperation with our suppliers, we have modernized our procurement processes and rolled out a supplier management system over the past two years.

The aims of the new supplier management system include

- optimization of the supplier base,
- risk minimization and sustainability,
- even greater access to innovations,
- creating competition and
- general economic considerations.

The reach of suppliers in general is increasing from regional to international procurement markets – and the effect of increasing globalization can be observed on our end too. The reason we maintain a base of strategic suppliers is because they have a track record of delivering high quality and reliability. We use a supplier self-assessment form to gather information on potential new strategic suppliers.

Building on this, these suppliers undergo a multi-stage process that generally speaking always includes four steps:

1.	Supplier selection	
2.	Supplier evaluation	
3.	Supplier classification	
4.	Supplier development	

Purchasing policy, guidelines and procedures

In order to systematically factor in the requirements with respect to environmental protection and working conditions when making purchasing decisions, a purchasing policy, purchasing guidelines and "Purchasing" and "Supplier Management" procedural instructions have been drawn up. These guidelines are integral to the procurement process and are observed in day-to-day purchasing activities.

Suppliers with a sustainability concept

As part of the supplier management process, information and data on quality, logistics, communication and now on sustainable business practices as well is regularly collected from all strategic suppliers. Relevant performance indicators and information are both requested from the suppliers themselves and determined over the course of the supply relationships.

As part of the periodic survey conducted in 2021 on the management systems ISO 9001, 14001 and on occupational safety, we recorded for the first time whether the strategic supplier has implemented a sustainability concept. The results of the survey showed that of the 137 strategic suppliers, 56 percent already had a sustainability concept. Of those without a concept, 53 percent said they intended to introduce one.

Strategic suppliers must agree to observe this Code of Conduct. Since 2022, strategic suppliers have been contacted and asked to confirm their agreement to do so in writing. The Purchasing Department is in the process of requesting these written confirmations. The Supplier Code of Conduct is available for download from the Steuler Linings website.

Adherence to the principles and requirements of the Steuler Supplier Code of Conduct is compared against the supplier self-assessment form. In addition to this, on-site audits can be conducted – in coordination with the supplier – by Steuler employees or third parties appointed by Steuler.

Supplier Code of Conduct

Our Supplier Code of Conduct contains provisions concerning the following topics:

- Human rights: Prohibition of forced or child labor, promotion of equal opportunities, protection against discrimination, freedom of association
- Working conditions: Working hours and vacation, health and occupational safety
- Prohibition of corruption and bribery
- Fair and free competition
- Data protection and confidentiality
- Environmental and climate protection

On accepting our Code of Conduct, our suppliers commit to enforcing our conditions within their supply chains too.



<https://linings.steuler.de/en/about-us/purchasing-department.html>

Supplier audits

Should our suppliers fail to adhere to the stipulated social and environmental standards, it could have negative consequences for Steuler in the form of supply disruptions, quality and cost issues or damage to our reputation, to mention a few. Enforcing our standards on our suppliers and verifying that they are being observed thus reduces risk for us. Moreover, experience has shown that suppliers that demonstrate a lasting commitment are often the partners that are more reliable and innovative too. Since 2022, existing strategic suppliers have been subjected to random and, if necessary, event-driven supplier audits.

Supplier Code of Conduct

In 2021, Steuler Linings created a Code of Conduct for suppliers. The document sets out basic requirements regarding sustainability topics including environmental protection. In this context, Steuler also expects its suppliers to observe fundamental workers' rights and the respective national and international laws as well as recognize the core labor standards of the International Labour Organization, ILO. All of Steuler Linings' strate-

Purchasing figures

Procurement volumes:
over 100 million euros in 2021
Suppliers:
around 3,000
Strategic suppliers:
137 (30% of purchasing volume)

For us, strategic suppliers are those who play a pivotal role in our success as a consequence of our purchasing volumes with them. Our working relationships with these suppliers are correspondingly close as a result. We intend to further improve our cooperation with them over the next two years.



At Steuler Linings, the procurement of hazardous and toxic substances is subject to strict guidelines.

We wanted to start conducting these audits back in 2020, but the corona pandemic understandably led to delays. And: From 2022, random supplier audits will be performed as part of the preparation for establishing business relationships with new strategic suppliers.

In order to reduce the workload and errors, Steuler Linings has created a tool for the Purchasing Department that systematically guides the user through the audit. At the heart of the tool is a set list of questions. The evaluation of the supplier is done on site, and the company receives the outcome the same day. Information is requested on the supplier's management systems, e.g. for quality assurance and environmental protection. There is a separate section that addresses sustainability matters. Besides the evaluation itself, the regular supplier audits performed by Steuler are also intended to continually improve processes and workflows with suppliers. To this end, and having documented any weaknesses and deficiencies, an action plan is drawn up with the respective supplier that sets goals and means for resolving the issues. The procurement processes also contain mechanisms to ensure that the use of toxic or otherwise hazardous substances is avoided wherever possible.

Hazardous and toxic substances

At Steuler, the following substances may only be entered into the system and released for future procurement with the special permission of the management:

- Materials classified as acutely toxic or carcinogenic, mutagenic, toxic for reproduction labelled H350 or H360
- Substances that are classified as extremely hazardous to waters (WGK 3)
- Substances that are subject to the Hazardous Incident Ordinance
- Substances subject to the RoHS Directive
- Substances that require a license in accordance with the REACh regulations

In the case of products that have or could have a significant impact on energy consumption, the lifecycle costs are calculated prior to purchasing. In this way, we ensure that the energy costs, whether for vehicles or technical systems, are taken into account during the decision-making process.

Social Commitment – Donations and Sponsoring

Like other companies, we regularly support charitable projects with financial and non-monetary assistance. The board allocates a budget for donations and sponsoring activities, which is reassessed each year. There is an internal guideline to ensure that the selection process for projects is conducted fairly. Among other things, it stipulates that all donations and sponsoring activities must have some connection with our company sites and thus promote the regional identity. Priority is given to initiatives and clubs in which our employees are involved in a voluntary capacity. Donations should be tax deductible and recipients must be able to demonstrate that the funds are being used for the intended purpose at any time. Excluded are donations to

- politically active persons, parties or organizations,
- individuals,
- for-profit organizations, and
- organizations whose goals are incompatible with our Code of Conduct.

Sponsoring

We understand sponsoring to be activities with a commercial interest for the purpose of advertising or building customer loyalty. Examples include so-called "good will" ads in club or educational establishment publications, perimeter advertising at events, jersey advertising and the like.

The Georg-Steuler-Unterstützungsverein e. V.

Whether due to illness, accident or major natural disasters – anyone can be the victim of misfortune. The Georg-Steuler-Unterstützungsverein was founded in 1948 to assist employees who find themselves in financial distress through no fault of their own. The registered charity provides support with things like performing conversion work in cases of invalidity, subsidizes essential aids and covers the patient's share of recuperation stays. In 2021, 29 employees received financial support totaling 20,300 euros. In 2021, 36 employees received a total of 22,124 euros.

Assistance for those impacted by the flooding in the Eifel

Steuler Group employees were affected by the flooding in the Eifel in the summer of 2021 too. In keeping with the maxim "We are Steuler", those affected were given immediate assistance. They were granted time off work, equipment from the company inventory was made available and colleagues helped on the ground. A fundraising campaign was organized via the Georg-Steuler-Unterstützungsverein as well. The local bakery in Bad Neuenahr-Ahrweiler, Bäckerei Brand, whose business was completely destroyed by the flash flood, received financial support from the fundraising campaign. The Brand family and their employees had already done a lot during the corona pandemic. Including providing supplies to the needy and risk groups free of charge. As a family company in its fourth generation, the Steuler Group can identify with such acts, and therefore decided to help the Brand family to rebuild its business.



Supporting the reconstruction of a long-established family business by the Ahr river was a matter dear to the employees and decision-makers at Steuler too.

Help reforesting the Westerwald

Climate change has left its mark in the Westerwald too: Barren patches and dead trees can be found in many areas. The Westerwald-Kinder initiative (www.westerwald-kinder.de) supports reforestation work and by way of information aimed at children and awareness-raising measures, seeks to ensure that our children and grandchildren will be able to roam through a healthy forest again in the future. The idea originated at the Kinderschutzbund Ortsverband Höhr-Grenzhausen (Child Protection League), and the project launched with the help of the "Zweite Heimat" youth and culture center and the seniors' committee. Together with other companies in the neighborhood, Steuler is supporting the "Westerwald-Kinder" initiative with a donation. Over 10,000 trees have been planted so far.

Compliance

Steuler undertakes to abide by all laws that affect our company group – both national and international. It goes without saying that we adhere to all relevant internationally recognized standards and guidelines too – including those of the United Nations and International Labour Organization (ILO).

We strictly comply with the laws and material international standards when entering into contractual agreements with suppliers and customers as well. In turn, we expect our suppliers to observe the same standards that we set for ourselves. *Additional information can be found in the chapter "Responsible Procurement".*

We also exert influence on the conduct of our employees in this regard. To this end, we have enshrined the values that have evolved over the company's more than 100-year history in our Code of Conduct, which includes, among other things, the observation of laws, recognized standards and guidelines, and the prohibition of bribery and corruption.

Should our employees have reasonable grounds to suspect that there has been a breach of our principles, they are urged to inform the responsible manager.

Relevant areas include:

- Compliance with laws, recognized standards and guidelines
- Bribery and corruption
- Accounting
- Anti-trust and competition law
- Confidentiality and data protection
- Treatment of company property
- Work hours
- Remuneration
- Child and juvenile labor, forced labor
- Diversity and equal opportunities
- Environmental protection

The complete Code of Conduct is available for download in German and English from the Steuler Group website. Should employees not wish to go to the relevant manager, they can contact one of the ombudspersons listed in the Code of Conduct. Serious breaches of the Code of Conduct can expressly lead to disciplinary action.

Ultimately, we encourage compliance through a culture in which every employee has the right and duty to identify and address irregularities that are damaging to the company. There are management guidelines in addition to the Code of Conduct. *Further information can be found in the chapter "Responsibility for Employees".*

Sustainability Management

Wanting to minimize the negative consequences of our business operations while simultaneously having a positive impact is in our DNA. But the environmental and social challenges are growing and becoming more complex too. Until now, such matters were dealt with locally by the various departments and via their own management systems. Building on this, we have now established a dedicated sustainability management system, the purpose of which is to

- further integrate sustainability into our business operations and strategic direction,
- drive innovations that promote sustainability and above all climate protection,
- support anticipatory action, for example, with a view to future regulations, and
- increase the attractiveness of the company for employees and job applicants.

In short, sustainability management serves to increase the competitiveness of the business. In terms of organization, the sustainability management system will be implemented through the assignment of additional responsibilities. This will ensure its integration into the existing management structures. The Chief Operating Officer (COO) is the Steuler Linings Division management executive responsible for sustainability.

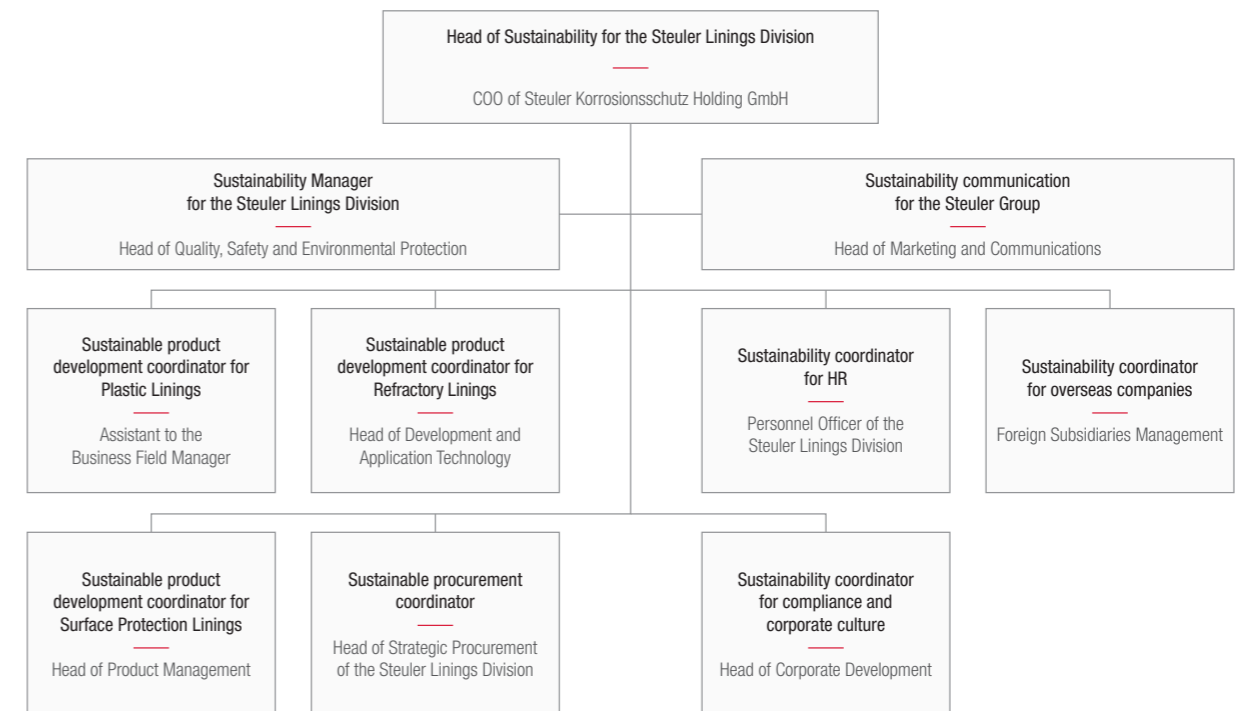
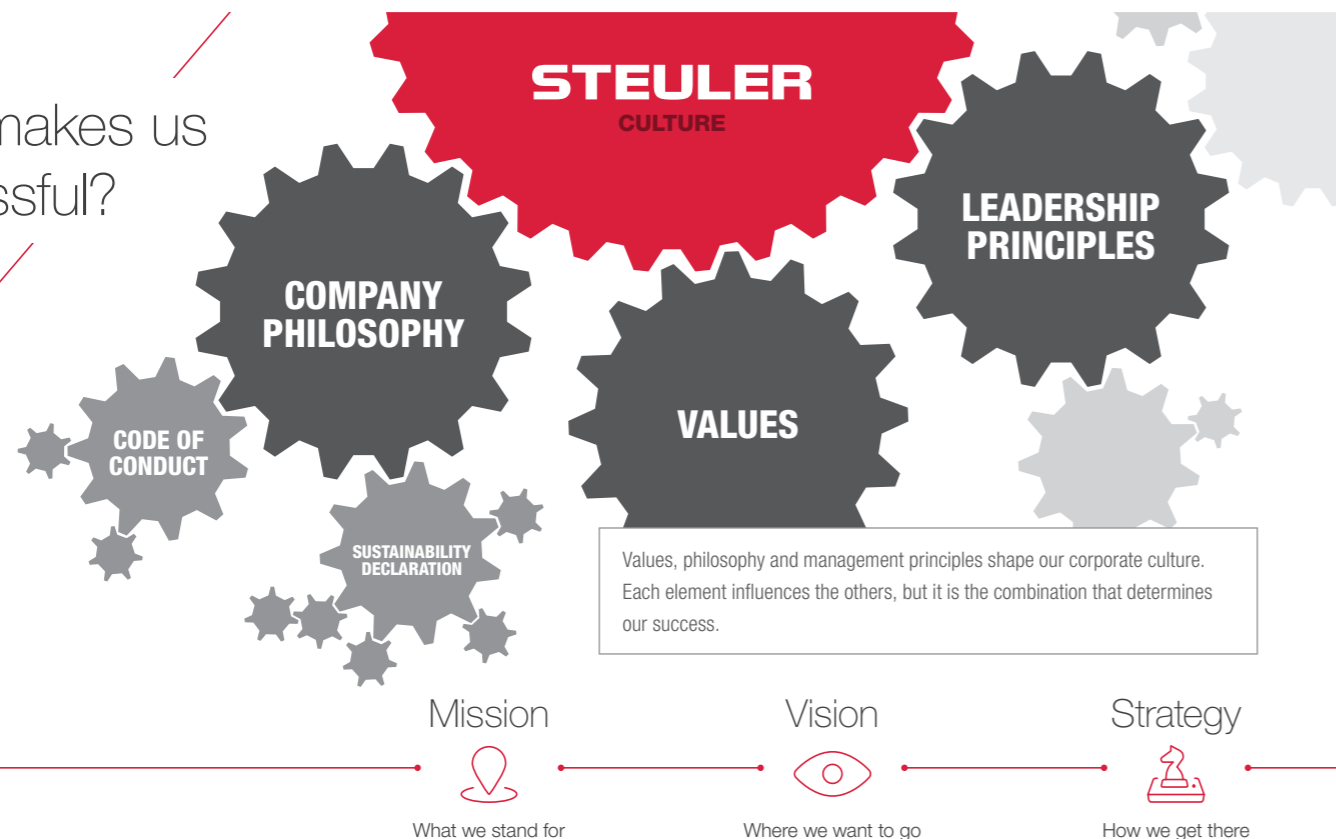
The organizational and coordinating tasks lie within the remit of the Head of the "Quality, Safety and Environmental Protection" Department, who thus assumes the role of Sustainability Manager for the Linings Division.

Team and committees

Sustainability coordinators have been appointed in the other departments relevant to sustainability. The Head of Communications of the Steuler Group is responsible for sustainability communication. Together, this group of people forms the Sustainability Team. The Sustainability Team convenes twice a year to discuss external developments, implementation of the sustainability program and ideas for new projects. A Sustainability Council is being established to discuss broad policy outlines and the experiences of the various Divisions of the Steuler Group at the board level.

Finally, the topic of sustainability is included once a year as a separate item on the agendas of the Supervisory Board and Shareholders' Committee of Steuler Holding GmbH. Relevant developments that arise over the course of the year will continue to be dealt with on an ad hoc basis.

What makes us successful?



Management systems

All of the Linings Division's German companies have implemented an integrated management system for quality, occupational safety and environmental protection. This management system incorporates key requirements of the ISO 14001 environmental management systems and ISO 9001 quality management systems. These include clearly defined responsibilities, an environment and energy team with representatives at each site and an action program that is continually updated.

15 of the Linings Division companies are ISO 9001 certified (quality management). The environmental management system at STEULER-KCH Materials GmbH is certified in accordance with ISO 14001, because this company operates the majority of the relevant plants. STEULER-KCH Polska Sp.z o.o. and Shanghai Steuler-KCH Anticorrosion Engineering Co. Ltd. also have certified environmental management systems.

The findings from the external audits performed to achieve certification are used for the entire integrated management system. Universal ISO 14001 certification would cause significant additional administrative overhead – without achieving improvements in environmental protection. Instead, we perform internal audits at all German production facilities and on customer building sites to ensure that our standards and the statutory provisions regarding health, safety and environmental protection are being observed.

Four of our German companies have large installation departments and hire subcontractors too. These companies are certified in accordance with the Safety Certificate for Contractors, or SCC for short. In addition to this, our Spanish subsidiary Tecresa and the Chinese company Shanghai Steuler-KCH Anticorrosion Engineering Co. Ltd. have implemented a occupational safety management system that is ISO 45001 certified.

Audits – internal and external

Ten external audits were conducted at the Steuler Linings Division's German companies in 2021 relating to environmental protection, occupational safety and sustainability. In 2020, eight audits were performed. Due to the Covid-19 pandemic and the travel restrictions that were imposed, on-site audits could not be carried out at all locations and construction sites. This was true not only for external audits, but our internal ones too.

Key sustainability aspects

The key sustainability aspects for Steuler Linings, which form the basis of the sustainability management system, were determined during an internal workshop in 2021. Because many of the manufacturing processes at Steuler Linings are energy-intensive and a significant proportion of the product portfolio is used in energy-intensive industries, "climate and energy" are the most pressing topics. The effects of climate change are becoming increasingly obvious and the political measures for achieving the EU climate goals will impact us and major customers of ours. An additional factor at the time of preparing this report is the war in Ukraine and the desire expressed by relevant sections of the political establishment and society to reduce our dependency on Russian energy.

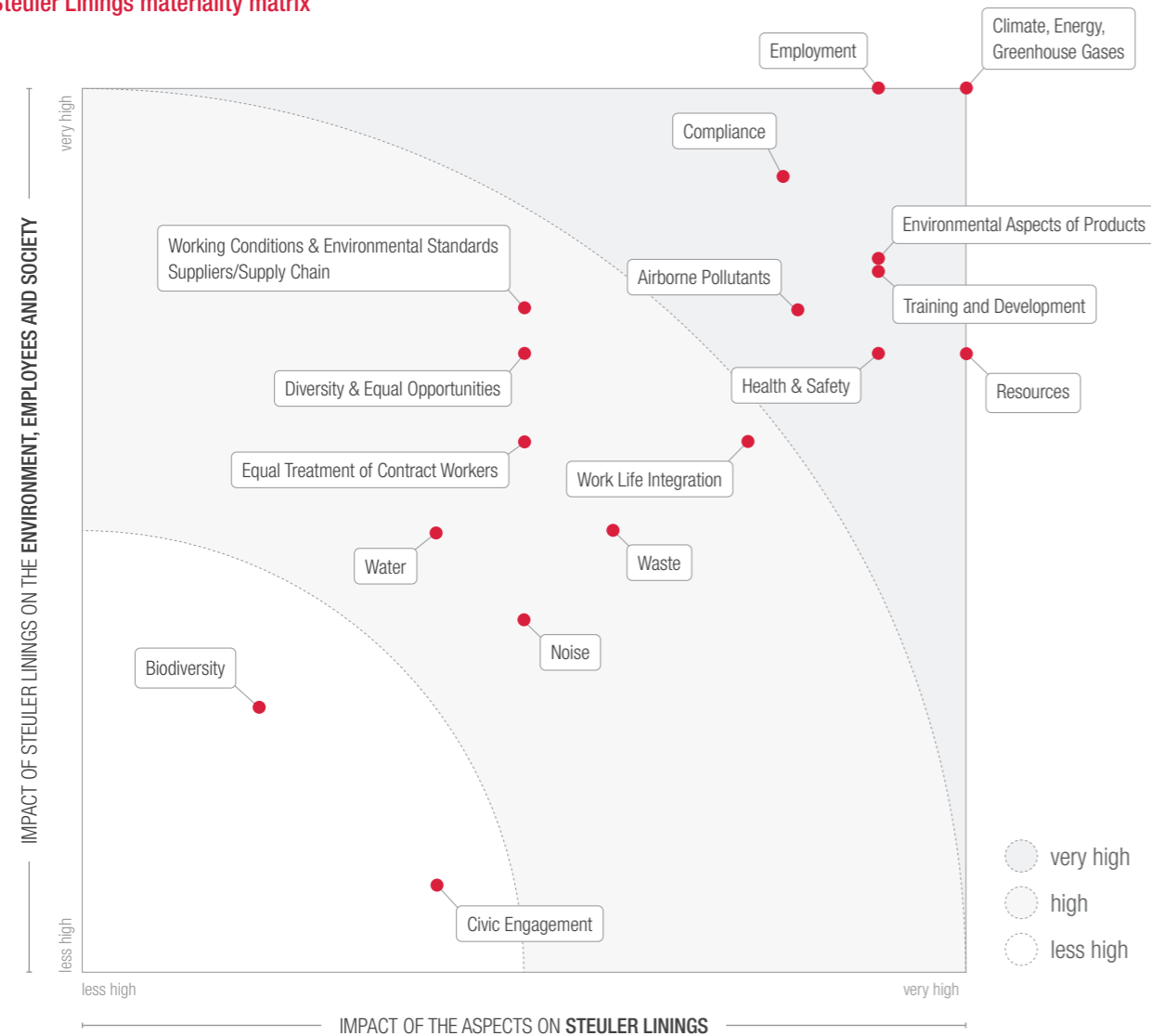
The long-term protection of jobs is another important consideration – both for our workers personally and for the success of our company. This was brought home to us by the COVID-19 pandemic, the consequences of which we successfully weathered in 2020 and 2021.

The materiality matrix gives a full picture of the key sustainability aspects for Steuler Linings. This does not mean that topics not classified as very important are ignored, however. The materiality analysis just makes it clear which aspects require and, of course, receive, the special attention of the management.



Plastic internals for wet electrostatic precipitators are used to treat the exhaust gases emitted by power stations and chemical plants. Filtering efficiency is determined by the number and length of the tubes.

Steuler Linings materiality matrix



Notes on selected materiality matrix topics

Climate and Energy

Up to now, energy consumption has generally resulted in the emission of CO₂. Even if we will predominantly be using renewable energies in future, it will still be necessary to reduce energy consumption in our economies, because the more energy that is used, the more difficult it will be to satisfy demand entirely from CO₂-free sources.

While policymakers have for a long time passed rather weak climate protection regulations, it now seems likely that much tougher measures will have to be taken in the next five to ten years. Should this come to pass, it will impact both our manufacturing operations and the production processes in our customers' industries, which will affect demand.

Summarized under "Climate and Energy" are:

- Climate protection and energy efficiency in own factories
- The impact of the entire value chain on the climate
- The potential effects of an ambitious climate protection policy on our production operations and the demand for our products

See the chapters on "Corporate Environmental Responsibility", "Sustainable Approaches to Product Development" and "Sustainability Program".

Airborne pollutants

Airborne pollutants are the hazardous emissions in the air generated by our manufacturing activities. CO₂ emissions are not included here. They are already taken into account under "Climate and Energy".

See the chapters on "Corporate Environmental Responsibility" and "Sustainable Approaches to Product Development".

Environmental Aspects of Products

In environmental management – e.g. according to ISO 14001 – the environmental impacts throughout the entire product lifecycle are taken into consideration. This includes impacts in the supply chain, the impacts during manufacture, during use and finally during disposal. The purpose of environmentally friendly product development is to reduce these impacts on the environment. One example of this is the development of a solvent-free laminate system that does not use any noxious styrene.

See the chapter "Sustainable Approaches to Product Development".

Resources

Conservation of resources has long been associated with environmental protection. The availability of resources is critical to the commercial success of Steuler Linings.

See the chapter "Corporate Environmental Responsibility".

Water

This topic concerns the sourcing and use of water, the closed water cycle and the responsible management of wastewater. Concerns are emerging that as a consequence of climate change, the availability of water will become an important issue in Europe too. This applies in particular to regions that are already dry.

See the chapter "Corporate Environmental Responsibility".

Employment

Employment means the availability and long-term preservation of jobs. It is important for the employees that their jobs continue to exist – after all, their income and life satisfaction depend on them. It is important from an economic perspective for the Steuler Linings' companies to preserve jobs without interruption, because even a temporary reduction in the workforce could result in the loss of skilled workers and specialist knowledge.

See the chapter "Responsibility for Employees".

Work Life Integration

More and more applicants ask about work hours and flexibility – catchword "working from home". There is a growing interest in being able to successfully reconcile private goals and desires with the job. What was previously referred to as "reconciling work and family life" has evolved to become what we now call "work life integration".

See the chapter "Responsibility for Employees".

Equal Treatment of Contract Workers

Contract workers should not be disadvantaged compared to permanent employees. Pay and working hours are important examples here.

See the chapter "Responsibility for Employees".

Compliance and anti-corruption

Anti-corruption was allocated to the area of compliance when creating the materiality matrix.

See the chapter "Compliance".

Working conditions, environmental standards, suppliers and supply chains

Working conditions and human rights in company supply chains have been a topic of public debate for years now. Serious environmental shortcomings in supply chains are criticized on a regular basis too. Examples include environmentally relevant mining accidents, such as Samarco in Brazil, the Baia Mare cyanide spill in Romania and the Ajka alumina plant accident in Hungary. That said, companies only have contractual relationships with their direct suppliers. This is the first and usually most important starting point for avoiding risks and realizing improvements. The German Supply Chain Due Diligence Act makes corresponding provisions and will apply to Steuler from 2024 too. Relevant steps have already been taken by Steuler Lining's Purchasing Department.

See the chapter "Responsible Procurement".

Civic Engagement

We donate to non-profit organizations, sports clubs and a variety of projects – often in the region, and involving a leave of absence of employees.

See the chapter "Social Commitment – Donations and Sponsoring".

Sustainability Program

Environmental protection

Goals and Activities	Deadline
GOAL: Reduce greenhouse gas emissions by 4,000t of CO₂/a compared to 2021	2025
Upgrade and optimize the heat recovery system for the drying chambers at the Breitscheid plant	2022
Replace the gas-operated heat-shrink oven with a stretch-wrap unit at the Höhr-Grenzhausen site (CO ₂ saving: 30t/a)	2022
Energy Scout project for apprentices in collaboration with Koblenz CCI. The project began in June 2021	2022
Install a photovoltaic system at the Höhr-Grenzhausen site (CO ₂ saving: 1,300 t/a)	2022
Check whether there are areas at the production sites suitable for photovoltaic or solar-thermal systems and whether such systems can be operated cost-effectively under the prevailing national framework conditions	2022
Hold an innovation workshop with a view to generating process and product innovations in the manufacturing area	2022
Improve energy efficiency at the Breitscheid and Höhr-Grenzhausen sites (e.g. drying chambers)	2022
Purchase a new high-temperature tunnel kiln (CO ₂ savings: >2,000 t/a)	2023
Reduce firing temperatures for refractory ceramics with corresponding changes to formulations (the aim is to save 500 t/a of CO ₂ by 2025)	2025
Increase procurement levels of local and/or European raw materials instead of materials from overseas with corresponding changes to formulations (impact on scope 3)	2025
GOAL: Continue building our market leadership position in the direct reduction plant refractory linings sector (green steel)	2025
GOAL: Further increase the ratio of recyclates used in the manufacture of refractory materials to 30% in 2025	2025
GOAL: Reduce solvent emissions during production and processing	2022
Increase the use of the OXYDUR iVE family from 5t to 25t as a replacement for solvent-containing monomer-releasing systems (standard VE, furan and phenolic resins)	2022

Employees

Goals and Activities	Deadline
GOAL: Reduce the accident rate to below 20 LTIF (work accidents with loss of work time per 1,000,000 man hrs.)	2022 + following years
Appoint an additional specialist in the field of sustainability, occupational safety, environmental protection and quality	2022
Launch a digital information platform for collecting, documenting and statistically analyzing accident notifications and reports	2022
Launch an ISO 45001-compliant occupational safety management system with a focus on the German factories	2023
Launch an ISO 45001-compliant occupational safety management system at the Italian subsidiary CIMA S.r.l.	2023
GOAL: Expand the health promotion services	2025
Implement the health program "Strong in turbulent times" in cooperation with a GEK (health insurance)	2022
GOAL: Improve training	ongoing
Launch an event calendar with automated workflow for training course application authorization	2022
Launch a new training course on project management	2022
Launch a digital feedback system for training courses and staff surveys	2022
Complete the management training for level 2 managers and supervisors	2024
GOAL: Improve recruitment process	2023
Modernize recruitment ads	2022
Optimize on- and offboarding processes	2022
Launch additional social media channels for employer marketing to college graduates	2023
GOAL: Increase employee satisfaction	ongoing
Complete the roll-out of mobile time tracking in the assembly area	2022
Roll out work-time accounts in the industrial area	2023
Launch the "JobRad" bike scheme: In future, employees are to be offered a bike for private use. The leasing costs will be financed via deferred compensation.	2022

Purchasing

Goals and Activities	Deadline
GOAL: Even more effectively exclude irregularities in working conditions and environmental protection at suppliers	2023
Train purchasing staff on the new due diligence obligations in the purchasing area	2022
Perform supplier audits (depending on the corona situation)	2022
Check the supplier base in all product categories to verify compliance with the Supply Chain Due Diligence Act (LkSG)	2023
Develop a monitoring system for implementing the Supply Chain Due Diligence Act	2023

Imprint and Information about the Report

This is the first sustainability report published by the Steuler Linings Division, which is part of the Steuler Group.

The information on developments and projects relates to the business years 2020 and 2021. The figures given generally relate to the years 2019-2021. The report was compiled based on the standards of the Global Reporting Initiative (GRI).

Insofar as not otherwise indicated, the information contained in the report relates to the whole Steuler Linings Division, i.e. all of the companies controlled by Steuler Korrosionsschutz Holding GmbH. Apart from overall employment numbers, the employee-related figures are based on all companies in the division that employ over 50 people. The environmental data relate to the Steuler Linings production facilities, i.e. the Höhr-Grenzhausen, Weitersburg, Siershahn, Mogendorf and Breitscheid sites in Germany as well as Gent in Belgium, Figueres in Spain and Shanghai in China.

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This report is available for download on our website:
<https://linings.steuler.de/en/about-us/sustainability.html>

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STEULER

Linings

Cover photo

Six meters in diameter, 15 meters long: Steuler Linings operates one of the largest autoclaves in Europe at its Siershahn site. The combination of high pressure and temperatures of up to 160°C causes the materials applied to protect the components to react.

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