MATERIALS SERVICES

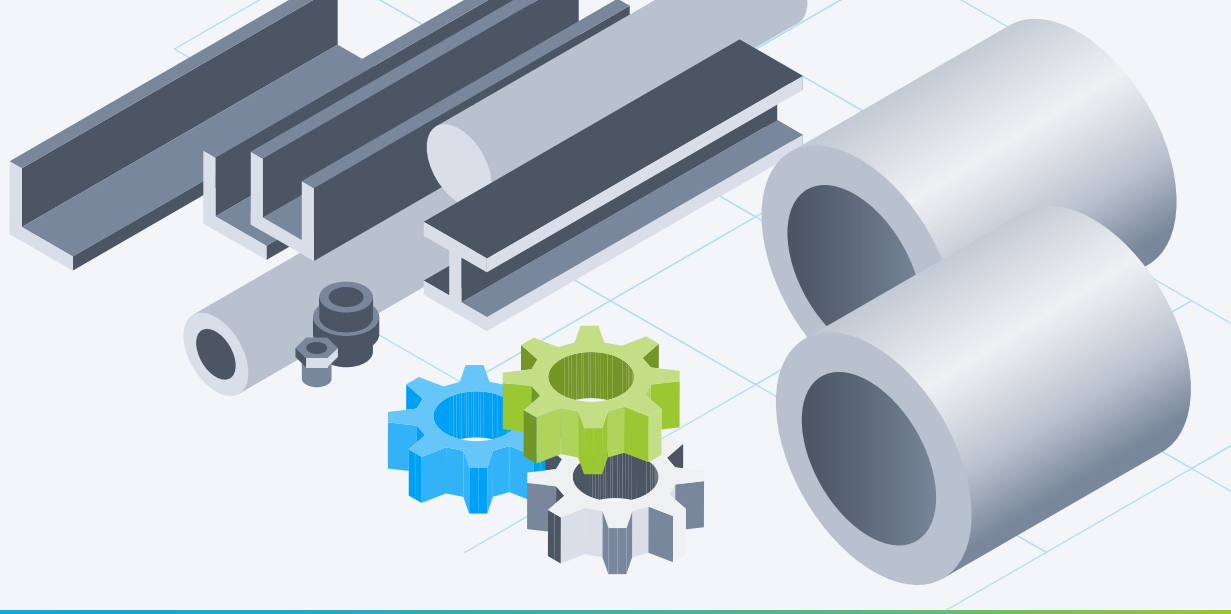
CO_2 REDUCTION IN MEDICAL TECHNOLOGY INDUSTRY

Innovative solutions for decarbonised supply chains

statista

thyssenkrupp

Contents

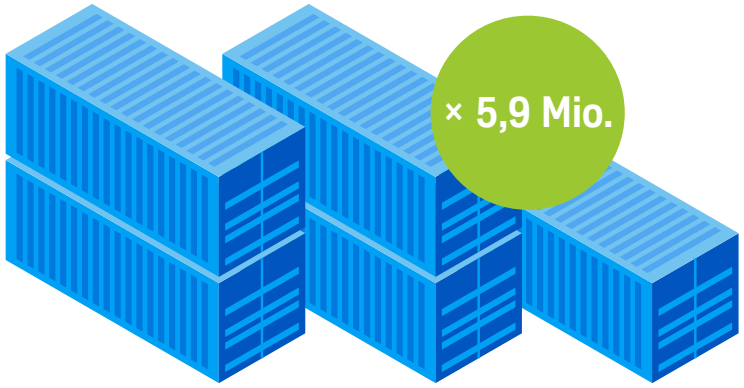


1

THE INDUSTRY MUST BECOME MORE TRANSPARENT

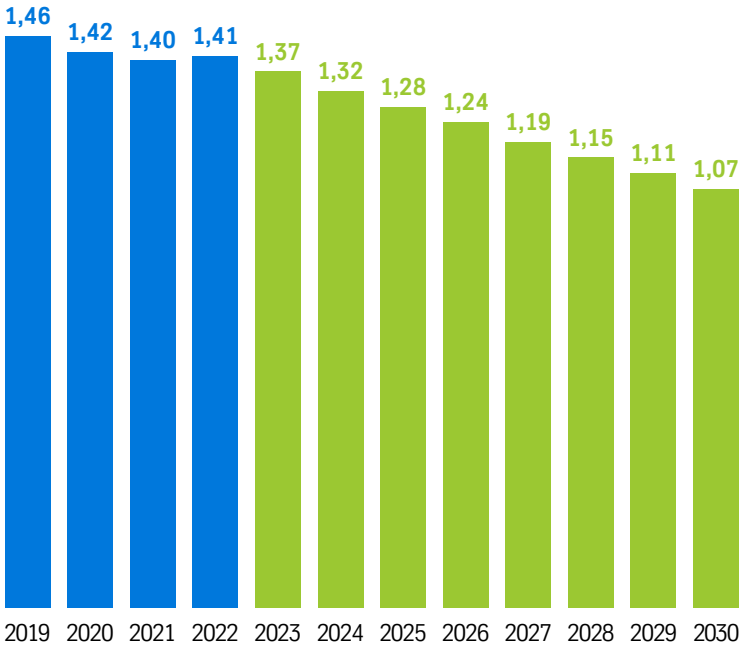
The steel industry bears great responsibility. It is responsible for 5% of CO_2 emissions in the European Union and 7% of global CO_2 emissions.[1] It is therefore necessary to drive change in the industry - and this is only possible with transparency. Companies must increasingly take responsibility for their environmental footprint and focus on sustainability. Sustainability must meet the requirements of customers, investors and legislators without jeopardising their own competitiveness.

For these reasons, product carbon footprints (PCFs) are becoming increasingly important. A PCF measures all greenhouse gas emissions that occur throughout the entire life cycle of a product, from the extraction of raw materials to production, transport, use and disposal. At thyssenkrupp materials services our PCFs are calculated according to the cradle-to-gate scheme, excluding use and disposal as metal can be used to manufacture countless products whose final utilisation is vastly different and therefore no longer measurable for us.



5% of the European Union's CO_2 emissions are caused by the steel industry. That is more than 150 million tonnes of CO_2 equivalent which could fill more than 5.9 million 20-foot containers.[2]

Direct CO_2 intensity of the iron and steel sector worldwide from 2019 to 2022, with forecast to 2030 (in tonnes of CO_2 per tonne of steel)[3]



With our PCFs, companies can comply with regulations and guidelines relating to their emissions and fulfil the desire of many customers for transparent information on the environmental impact of their products. With increased transparency, you can fulfil the great responsibility of the industry and create a baseline for a sustainability strategy with a clear view into the future.

[1] As of 2022; source: EU Joint Research Centre [2] Source: iContainers [3] The forecast shows the CO_2 intensity required to achieve the goal of climate neutrality by 2050; source IEA

2

SUSTAINABILITY BECOMES A COMPETITIVE FACTOR

The 27 member states of the European Union want to become climate-neutral by 2050; this goal was set out in the European Green Deal. By 2030, greenhouse gas emissions are to be reduced by at least 55% compared to 1990 levels. The EU wants to achieve its targets and exert pressure on industry with various packages.

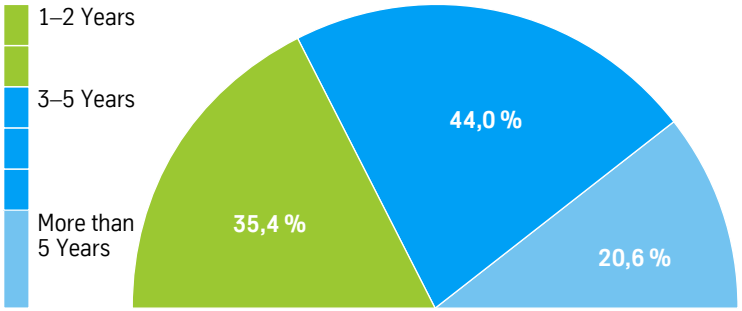
The Corporate Sustainability Reporting Directive (CSRD) obliges companies to submit detailed sustainability reports to provide transparent information on their CO_2 emissions and energy consumption. Similarly, the Carbon Border Adjustment Mechanism (CBAM) ensures that CO_2 emissions must be verified when importing certain groups of goods (including iron and steel) across external EU borders.

The Corporate Sustainability Due Diligence Directive (CSDDD) was also adopted to ensure that companies comply with environmental and human rights standards in their supply chains.

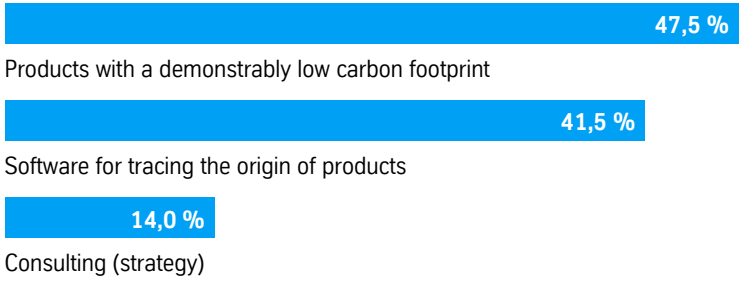
These laws will have the greatest impact over the next few years and will force the industry to reorganise. Companies will soon have to adjust to reporting deadlines, which will significantly impact existing supply chains. Hence, now is the right time to invest in sustainable solutions. Not only to forge a strategy for the coming years, but also to gain an immediate market advantage.

Number of companies in the EU that have to publish sustainability reports[1]

Expected timeframe in which sustainability will be an important factor in purchasing decisions[2] n = 421



Most important products and services in the context of sustainability[2] n = 2.367



Over 35% of customers surveyed already consider sustainability to be a relevant factor in their purchasing decisions. External pressure is also increasing; by 2024, the number of companies subject to CSRD reporting requirements will rise by 322%. To document product emissions, high-quality, production-related data (GHG Scope 3) is required above all.

[1] Estimate; source: CSR in Germany

[2] Source: Survey of thyssenkrupp Materials Services customers in Europe between 2022 and 2024

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INNOVATION FOR A SUSTAINABLE FUTURE: WE THINK AHEAD AND OFFER YOU THE TOOLS FOR CHANGE

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greenability transparency - Our PCF reports ensure transparency

Companies can only achieve their environmental goals with transparency. A detailed insight into the carbon footprint of your own products is essential for optimisation decisions. Our PCF declarations and reports provide precise information on the CO_2 emissions of materials, from production to delivery to you. You receive the necessary data at asset level[1], which is required for reporting in accordance with CSRD and, in some cases, CSDDD guidelines. With our PCF reports, you can ensure that your products comply with the applicable environmental and sustainability laws.

We deliver precise and high-quality emissions data, including Scope 3

You receive essential data for your reporting in accordance with CSRD guidelines

We create a baseline that you can use for optimisation decisions and material selection

greenability services - Sustainable optimisation with our expertise

We support you in the sustainable optimisation of your company. We already offer our comprehensive sustainability consulting services today so that you are optimally prepared for the changes in the coming years. Our sustainability workshops provide you with the knowledge and tools you need to achieve your sustainability goals and increase economic efficiency. You benefit from our practical tips and best practices from the industry.

We provide you with knowledge and tools through our sustainability consulting services

You benefit from our best practices from the industry

[1] We only use regional and global averages as a fallback.

3

MATERIAL EXPERTISE, TRANSPARENCY, SUCCESS: OUR EXPERTISE SETS YOU APART FROM THE COMPETITION

thyssenkrupp

greenability materials - We offer CO_2-reduced materials of the highest quality

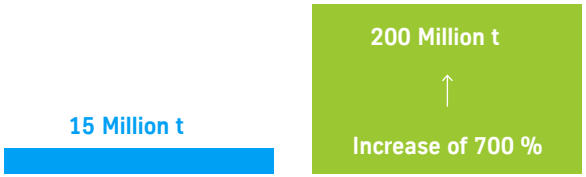
Sustainable materials play a crucial role in the quest for a more environmentally friendly industry. By using CO_2-reduced materials, the total CO_2 emissions of a project or product are reduced, which has a positive impact on the ecological rating. We offer CO_2-reduced variants of steel, aluminium and copper without compromising on quality. Our bluemint steel, for example, satisfies the ever-increasing demand for CO_2-reduced steel. With our CO_2-reduced materials, you can not only make an important contribution to reducing your CO_2 footprint, but also strengthen your market position by positioning yourself as a leader in sustainability.

We offer steel, stainless steel, aluminium and copper CO_2-reduced

By using CO_2-reduced materials, you will demonstrably reduce your footprint

Strengthen your market position with sustainable materials

Demand for CO_2-reduced steel worldwide in 2021 and forecast for 2030[1]



→ **We are able to deliver, even if demand is currently rising very strongly.**

[1] Quelle: McKinsey

We are your partner for the decarbonization of your supply chain: Our range offers comprehensive services and products - from the calculation of a baseline to the choice of material and the marketing of your emission-optimised products. We are at your side!

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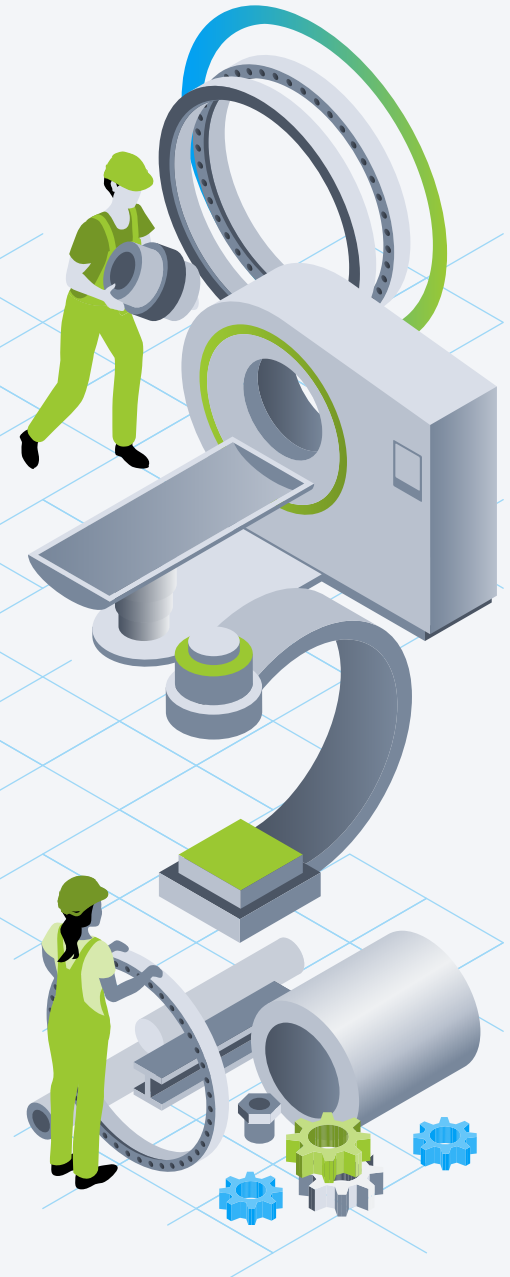

HOW GREENABILITY IS MAKING THE MEDICAL TECHNOLOGY INDUSTRY MORE SUSTAINABLE

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Scope of healthcare emissions in Europe in 2019[1]

Scope 1 Scope 2 Scope 3

75% of the total emissions from the European healthcare sector in 2019 were Scope 3 emissions. We contribute to these through relevant materials such as stainless steel, aluminium and titanium.

For many companies in the medical technology industry, reducing their carbon footprint is a major challenge. The majority of emissions generated during production and in the supply chains in this industry are Scope 3 emissions. In 2019, these emissions, which are difficult to measure, accounted for 75% of the European healthcare sector's total emissions. To create a baseline for sustainable realignment, companies therefore first need accurate Scope 3 data.

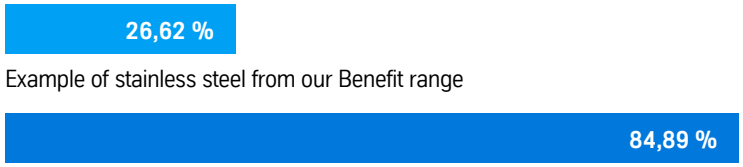
Our PCF reports provide this emissions data. We are even able to issue PCF declarations for highly specialised stainless steels and titanium alloys. This enables companies to identify potential for improvement and take further steps towards a sustainable future on this basis.

The use of sustainable materials in production is also extremely important for the medical technology industry. The many regulations make recycling processes in medical technology, which was responsible for almost 1.8 million tonnes of waste in Germany in 2020, more difficult. Designing products according to Cradle to Cradle is not easy in this context, especially because the quality and material properties of metals can sometimes change as a result of downcycling. We support you in identifying the specific use cases for CO_2-reduced materials. In doing so, we combine sustainability knowledge with material expertise.

Waste generated by the medical technology industry in Germany in 2020, by sector[2]

72.000 t	246.000 t	1.464.000 t	1.782.000 t
Directly in the medical technology industry	indirectly in the german Supply chain	indirectly in the global supply chain	total

Potential emissions savings by choosing a CO_2-reduced alternative material from our Benefit or Advance range, with the same usability[3]



Example of stainless steel from our Benefit range

Exemplary stainless steel from our Advance range

You can use our data to identify sustainable stainless steels and save emissions.

[1] Source: Health Care Without Harm [2] Source: WifOR; BVMed [3] Source: Thyssenkrupp Materials Services Insights

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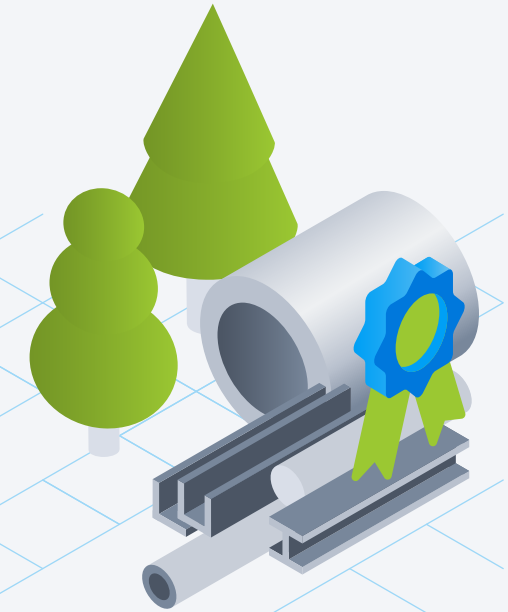
YOUR SUSTAINABILITY JOURNEY, OUR PRIORITY: SHAPING A MORE SUSTAINABLE FUTURE TOGETHER



Your Contact

Jan Daumann
Sustainability Manager

Phone:-+49-173-5335469
E-Mail: jan.daumann@thyssenkrupp-materials.com

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