

# “Green steel can be a strong business tool”

Global warming has been in the spotlight since the late 1980s but in the last few years, it has become a holistic responsibility of society to take climate action. The European Union is playing a major role, having already formulated numerous programs and regulations aimed at reducing CO<sub>2</sub> emissions, particularly in the industrial sector. Compared to 1990 levels, CO<sub>2</sub> emissions in the EU are to be reduced by 55% by 2030, with the aim of achieving climate neutrality by 2050. Green Steel World discussed such pressing matters with Mr Christophe Le Rigoleur, the Managing Director of Mannesmann Stainless Tubes. Mr Le Rigoleur spoke about the opportunities, obstacles and a new strategic direction needed to rise to the challenge of decarbonisation in the steel industry.

By David Sear and Tanya Rudra



Christophe Le Rigoleur is Managing Director of Mannesmann Stainless Tubes

## **GSW: Mr Le Rigoleur, how is Mannesmann Stainless Tubes responding to the call for decarbonisation in the steel sector?**

CLR: “MST has been taking steps to decarbonise for quite some time now and green steel is a key part of our MST 2025 strategy. What is important is to develop a coherent approach that embraces all our factories. Hence, we are reflecting on how to best establish a coordinated action to emit less carbon dioxide. For instance, we have as part of that endeavour set out to establish

agreements with metal recyclers, steel suppliers, customers etc. Also, a new cogeneration plant (Combined Heat and Power -CHP) has been installed in our Costa-Volpino plant with a reduction of carbon dioxide emissions of approximately 3,000 tonnes per annum.”  
“Further, thanks to this reflection I have increasingly realised that green steel is a very complex matter which ideally should be considered in the context of ESG – Environment, Social, and Governance factors.”

## **GSW: What are some of the decarbonisation challenges the steel industry is facing?**

CLR: “A major hurdle concerns the lack of definitive norms and standards. As a result, steel mills and others in the supply chain who wish to develop a green steel business model can encounter uncertainties over how to proceed. And when companies do take positive steps to reduce carbon dioxide emissions, they may be unsure how this can be properly communicated to the market.”  
“There are of course organisations which can rank

a company’s performance as regards emissions. However, the rankings may not be compatible making it harder for purchasers to properly assess the relative performance of each steel mill. There is also talk of inappropriate claims or green washing, which is not helpful. Better and stricter definitions would enable us all to channel our resources to make real improvements as regards green steel.”

## **GSW: Who would have the authority to develop such a norm?**

CLR: “In Europe, I can point to some well-known organisations such as the European Committee for Standardisation. I believe that a green steel norm in Europe could actually become a business tool. It would also help in creating transparency as regards overseas trade.”  
“Companies located in areas where democratic principles are less well established may find green steel a more challenging topic as they may be less accustomed to dealing with societal and governance aspects”

## **GSW: Do you think MST is ahead of the green steel curve?**

CLR: “MST has established

many good initiatives and is determined to achieve more but given our relative size these will have but a small impact on total carbon emissions in

## **“Our Costa Volpino, Italy CHP plant reduced CO<sub>2</sub> emissions by around 3000 tonnes per annum”**

the steelmaking business. However, I am very proud of what our parent company, Salzgitter AG, is doing as regards its SALCOS® initiative. Not to mention the Salzgitter 2030 Strategy that focusses on circular economy solutions with innovative products and processes.”

“Salzgitter has put green steel on the MST road map

but being the only stainless-steel company within in the group we have to use our own methodology. The production route for corrosion resistant alloys is significantly different from carbon and alloy steels. Nevertheless, I am sure we can learn from the feedback that will emerge as the carbon steel sector undergoes its own transition.”

## **GSW: How widespread is societal pressure to produce green steel?**

CLR: “Here at MST we have not yet experienced any significant demand for green steels. That’s probably because our alloys are used

## **What is SALCOS?**

SALCOS® stands for Salzgitter Low CO<sub>2</sub> Steelmaking. Together with partners from industry and research, Salzgitter AG have laid the foundations for an almost CO<sub>2</sub>-free steel production. Generating electricity from renewable sources and using it in the production of hydrogen by means of electrolysis are the most essential steps in ensuring the success of this initiative. The vision is to replace coal, that is currently being used, with green hydrogen in the conventional blast furnace process. SALCOS® is based on Carbon Direct Avoidance strategy that stands for avoiding the generation of CO<sub>2</sub> in steel production from the outset. Overall, with SALCOS, the German steel company aims to reduce CO<sub>2</sub> emissions in production by over 95% by 2033. The program envisages gradually replacing blast furnaces with direct reduction plants with the first of these units expected to go into operation in 2026.



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## ESG implies Environmental, Social, & Governance

The Financial Times describes ESG as a subset of non-financial performance indicators which include sustainable, ethical, and corporate governance issues such as managing a company's carbon footprint and ensuring there are systems in place to ensure accountability.

The environmental factors indicate how responsible a company is as far as climate action is concerned. Reducing carbon footprint, water conservation, waste management and energy efficiency are some of the determinants for environmental consciousness.

The social factors tell us how a business interacts with communities where it operates. A company's internal policies related to child labour, working conditions, diversity and inclusion are taken into consideration when evaluating performance.

Governance refers to a set of rules or principles defining rights, responsibilities, and expectations between different stakeholders in the governance of corporations. It includes internal practices and policies that lead to effective decision making and legal compliance.

## Meet Mr Christophe Le Rigoleur

Christophe Le Rigoleur is one of the Managing Directors of Mannesmann Stainless Tubes, headquartered in Mülheim an der Ruhr, Germany.

The Columbia Business School alumni was appointed as the MD of Salzgitter Mannesmann Stainless Tubes (SMST) with a specific focus on sales and marketing, effective 1 January 2012.

He rose through the ranks at the company where he has spent almost 30 years.

In the past, Mr Le Rigoleur had been responsible for various products and geographical sectors as the Vice-President of Sales and Marketing for the group.

In 2017, the company was renamed to Mannesmann Stainless Tubes, which also produces its tubes in state-of-the-art facilities in France, Italy, and the USA.

in capital projects such as refineries or power plants and are hence quite removed from the public eye. And in

any case, the production technologies typically deployed in the stainless-steel sector have a lower carbon footprint

than steels made via blast furnaces."

"Things are quite different in the carbon steel sector though. As you may have read in recent press releases issued by Salzgitter, clients such as BMW, Volkswagen and Miele are actively pursuing suppliers that are committed to lowering carbon emissions."

**GSW: Final question: how important is decarbonisation in the steel industry to you personally?**

CLR: "That depends on the hat I am wearing. At work I am the MD of a steel company looking

to make products that are technically and commercially attractive. At home I am a father and want to leave the

"This means that as an MD I have to be able to cope with ambiguity and constraints and accept that from time to

time my priorities may have a different slant to those of other citizens. But thanks

***"I am very proud of what our parent company, Salzgitter AG, is doing as regards its SALCOS® initiative."***

world a better place for the generations to come. And as a citizen of Europe I am concerned of course about climate change but equally about the stability of European businesses."

to my long experience in this industry, I am convinced that the transition to green steel can be both a strong business tool as well as a powerful instrument that can bring real benefits for our environment."

## More about Salzgitter AG

Salzgitter AG started with the idea of making iron and steel from ore sourced in Lower Saxony more than 150 years ago. Riding on innovation and sustainability, the company with over 150 subsidiaries, is now globally present and well positioned. Under the management of Salzgitter AG as the holding company, the structure of the group is divided into four divisions: Steel Production, Steel Processing, Trading and Technology. Recently, Salzgitter AG and Volkswagen Group signed a Memorandum of Understanding on supply of low-CO<sub>2</sub> steel from the end of 2025. By the end of 2022, both parties, who have enjoyed a close partnership for over 60 years, intend to concretise and contractually agree on purchase quantities for the low-CO<sub>2</sub> steel in the period 2025 to 2030.