



September 2, 2022

The Secretary, Listing Department  
BSE Limited  
Phiroze Jeejeebhoy Towers,  
Dalal Street,  
Mumbai – 400 001, India  
**Scrip Code: 500470/890144\***

Dear Sir,

**Re: News Clarification**

This has reference to clarification sought from the Company on the news article captioned “**Tata Steel to invest over 65 million euros for hydrogen-based steel manufacturing in Netherlands**” dated August 31, 2022, published online on [www.economictimes.com](http://www.economictimes.com)

In this connection, please find below our response:

1. We confirm the above-mentioned news article. Tata Steel Nederland, a wholly-owned foreign subsidiary of Tata Steel Limited (the ‘Company’), had on August 29, 2022, issued a news release titled “*Tata Steel invests 65 million euro in next phase hydrogen route*”. The news release is enclosed as **Annexure A**.
2. Tata Steel’s philosophy of steel production is deep rooted on the principles of zero harm, resource efficiency, circular economy, minimizing ecological footprint and care for community & workforce. The Company has adopted the United Nations Sustainable Development Goals (‘UN SDGs’) and linked it with its long-term strategy. In pursuit of achieving its net zero ambition and attaining leadership in sustainability, Tata Steel has made focused interventions across the value chain and is committed towards reducing its carbon footprint in production and through the life cycle of the product.

The proposed investment of the Company for hydrogen-based steel manufacturing in Netherlands is one such initiative of the Company towards creating a sustainable future. The Company has, at regular intervals, disclosed to its stakeholders’ details with respect to its sustainability initiatives, goals, and targets. Details with respect to these are already in the public domain through our Integrated Report and Annual Accounts of the current & past years, investor/analyst presentations, investor/analyst conference calls and through other stock exchange filings.

**TATA STEEL LIMITED**

Registered Office Bombay House 24 Homi Mody Street Fort Mumbai 400 001 India  
Tel 91 22 6665 8282 Fax 91 22 6665 7724 Website [www.tatasteel.com](http://www.tatasteel.com)  
Corporate Identity Number L27100MH1907PLC000260



3. We wish to impress upon you that the Company has robust process to comply with its disclosure obligations and is committed to making accurate and adequate disclosures in a timely manner as required by Regulation 30 of the SEBI (Listing Obligation and Disclosure Requirements) Regulations, 2015 read with the Company's Policy on Determination of Materiality for Disclosure.

Trust to have clarified the matter. Should you need any further information or clarification, please do get in touch with the undersigned.

Thanking you.

Yours faithfully,  
**Tata Steel Limited**

**Parvatheesam Kanchinadham**  
Company Secretary &  
Chief Legal Officer (Corporate & Compliance)

Enclosed: Annexure A

*\*Securities in scrip code 890144 stand suspended from trading effective February 17, 2021*

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29 August 2022

## **Tata Steel invests 65 million euro in next phase hydrogen route**

**29 August 2022.** Tata Steel Nederland has signed contracts with three companies – McDermott, Danieli and Hatch – for the further technical preparations of the hydrogen route. Tata Steel wants to transfer to green steel manufacturing in a clean environment as fast as possible. All three companies have their own specific expertise that collectively is needed to help Tata Steel shape and deliver the hydrogen based steel manufacturing. The cost for this first development step are in excess of 65 million euros and will result in an engineering package that forms the basis for a final permitting and project planning.

The overall project is led by the Tata Steel internal project and sustainability team, in close support of the main delivery partners. McDermott is responsible for the construction input and support of the technical project management. Danieli is responsible for the engineering design for the plant and technology that delivers the Direct Reduced Iron (DRI), the 1st step in the iron making process. Hatch is the technology licensor of the electric furnaces (REF) that melt the DRI and help to reduce the oxygen content further thereby improving the final steel quality. The REF and DRI plant are closely coupled to form an integrated production system.

### **Climate neutral before 2045**

“We recently signed agreements about our future with two ministries and the province of North Holland. In doing so, we have committed to being CO<sub>2</sub> neutral before 2045 and emit between 35 to 40% less CO<sub>2</sub> before 2030. This will primarily be achieved via the hydrogen route where the blast furnaces are replaced with modern clean steel making technology that uses hydrogen or gas instead of coal”, explains Hans van den Berg, CEO of Tata Steel Nederland.

### **Unique operation on the Tata Steel site**

“What we do is a complicated and unique operation,” explains Annemarie Manger, sustainability director of Tata Steel. “The new plants will be built on our site while all the current plants will remain in operation until the new installations are up and running. That requires intense integration between facilities and close collaboration between all parties and our people. The coalition that is now formed with McDermott, Danieli and Hatch marks the start of the basic engineering to define our plans more specifically.

## **A lot happened in one year**

The switch to green steel is the biggest change in the company's more than 100-year history. It is a technological tour de force with many deep consequences. In the past year, a lot of hard work has been done in various areas to prepare for this transition. For example, Tata Steel has signed an agreement with the national grid operator TenneT for a direct connection to the national electricity grid in order to be able to use green energy in her future operations. The layout of the new facilities and the physical integration inside existing plant as especially challenging, and has strong impact on the project execution, the overall operational logistics and the environmental impact.

Talks have started with the unions and potential impacted employees about the change to ensure all employees are fully included. During the summer, we organised a first information event that was attended by over 80 companies and suppliers. These companies are typically part of the Tata Steel operations and take care of a large part of the operational maintenance on our site in IJmuiden. The early information and inclusiveness helps them to better assess the impact of our change. The Tata Steel Academy (the company's own training institute) has set to work to determine which competencies and qualifications our employees need and is developing new teaching modules. The Academy is also preparing lessons for secondary school students in the region by offering a practical module on how to make hydrogen.

## **About the technology**

DRI (direct reduced iron) technology is a relatively new production technology, in which iron ores are directly reduced using natural gas or hydrogen, rather than coal. The reduction of iron ores takes place in a DRI plant in a shaft reactor at a relatively low temperature of up to about 1000°C. The reduced iron is then further processed into hot metal in an electric furnace (REF). During this step the right amount of carbon is being added to create a very precise and high quality feedstock for our steel plant.

The DRI-REF technology offers several advantages. By using green electricity and a predominant hydrogen stream, the CO<sub>2</sub> emissions from the process are much lower than when using blast furnaces. The new process can also accommodate higher percentages of circular steel, where scrap can be added to the REFs or the induction furnaces. In addition, production with DRI technology offers more operational flexibility, without compromising our high quality steel that IJmuiden is already known for.

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More information, please contact: Ariane Volz, Spokesperson Tata Steel Nederland +31 6 11623456/  
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## **About Tata Steel Nederland**

Tata Steel Nederland is one of Europe's leading steel producers. The company supplies high-quality steel products to the most demanding markets, including construction, automotive, packaging and engineering. Tata Steel Nederland works with customers to develop new steel products that give them a competitive edge. Tata Steel Nederland has sites in the Netherlands, Belgium, Germany and elsewhere in Europe and is part of the Indian Tata Steel Group, one of the world's largest steel companies. Tata Steel Nederland recorded a turnover of 6.9 billion euros in the financial year ending 31 March, 2022. Tata Steel Nederland is working on producing steel with zero carbon emissions by 2045. It will do so by switching to producing steel by using hydrogen instead of coal.

### **About Hatch**

Whatever our clients envision, our teams can design and build. With over six decades of business and technical experience in the mining, energy, and infrastructure sectors, we know your business and understand that your challenges are changing rapidly. We respond quickly with solutions that are smarter, more efficient and innovative. We draw upon our 9,000 staff with experience in over 150 countries to challenge the status quo and create positive change for our clients, our employees, and the communities we serve.

Find out more on [www.hatch.com](http://www.hatch.com)

### **About Danieli**

Danieli designs, manufactures and installs metal producing plants and equipment worldwide, either on a turnkey basis or supplied as individual units, covering, with company-owned technology, the whole process cycle, from ore and scrap processing to finished flat, long, tube and extruded products, for ferrous and non-ferrous metals. Danieli plants are run by Danieli Automation process control, power and instrumentation systems, robotics, and include DIGI&MET smart manufacturing solutions (Industry 4.0). Sustainable production is guaranteed by energy-saving processes, hybrid plants using renewable energies, and hydrogen-based processes, as well as Danieli Environment solutions.

10,000 people operate in the Group companies located in Italy, Germany, Sweden, Austria, France, The Netherlands, Spain, UK, USA, Brazil, Thailand, Vietnam, China, India and Japan.

Danieli Group average annual turnover is over 3 billion Euro. Investments in R&D amount to 150 million Euro per year (average for the last five years)

### **About McDermott**

McDermott is a premier, fully-integrated provider of engineering and construction solutions to the energy industry. Our customers trust our technology-driven approach engineered to responsibly harness and transform global energy resources into the products the world needs. From concept to commissioning, McDermott's innovative expertise and capabilities advance the next generation of global energy infrastructure—empowering a brighter, more sustainable future for us all. Operating in over 54 countries, McDermott's locally-focused and globally-integrated resources include more than 30,000 employees, a diversified fleet of specialty marine construction vessels and fabrication facilities around the world. To learn more, visit [www.mcdermott.com](http://www.mcdermott.com)



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