



VALE AND GRAVITY SIGN A MEMORANDUM OF UNDERSTANDING TO DEVELOP A PLANT DEDICATED TO THE PRODUCTION OF HOT BRIQUETTED IRON (HBI) IN FOS-SUR-MER

Supported by EIT InnoEnergy, Engie New Ventures, FORVIA, GROUPE IDEC, Plug Power, and Primetals Technologies, GravitHy has been committed since July 2022 to developing the market and building its first low-carbon DRI/HBI plant in France, located in Fos-sur-Mer (13). The company has just signed a strategic Memorandum of Understanding with VALE, a global mining company.

A First Plant in Fos-sur-Mer by 2027

GravitHy and Vale have signed an MoU to explore solutions aimed at producing low-carbon steel using Vale's innovative iron ore briquette technology.

Under this agreement, Vale and GravitHy will jointly assess the parameters for constructing the future Fos-sur-Mer plant to produce direct reduction briquettes from Vale's high-quality iron ore.

GravitHy's first Direct Reduced Iron (DRI) plant is expected to start production in 2027 in Fos-sur-Mer. The plant is designed to produce iron through direct reduction using low-carbon hydrogen as the reducing agent, significantly cutting carbon emissions in the steelmaking chain compared to traditional blast furnace-basic oxygen furnace (BF-BOF) routes.

The plant to be built by GravitHy will have a production capacity of 2 million tonnes per year, with investments exceeding €2 billion. The company is advancing its engineering and permitting studies, and subject to obtaining all necessary approvals, construction is scheduled to begin in 2024.



A memorandum of understanding that strengthens GravitHy's position as the pioneer of the sustainable low-carbon iron market



"Decarbonizing steel production is a major challenge that requires innovative solutions—not only in terms of technology, but also in products and new business models. We are very pleased to begin this collaboration with Vale, a global leader, to evaluate its unique and cutting-edge briquetting technology that can be a game-changer in the low-carbon solutions offered by the mining sector".

José NOLDIN, CEO of GravitHy

« Vale is committed to providing low-carbon solutions for the global steel industry. GravitHy is a great example of the evolution of the steel market, where new players are taking on this challenge by using hydrogen in their DRI/HBI production to supply the growing capacity of electric steelmaking. We are pleased to work with a pioneer in hydrogen-based DRI production, as we are confident in the outstanding characteristics of our iron ore briquettes for DRI manufacturing.»

Rogério Nogueira, Product & Market Development Director of VALE

This Memorandum of Understanding reinforces Vale's confidence in the direct reduction route and the use of hydrogen to enable the decarbonization of the steel industry. Vale is committed to reducing its Scope 3 net emissions by 15% by 2035. Since 2021, Vale has engaged with more than 30 steel industry customers, representing about 50% of the company's Scope 3 emissions. In addition, Vale aims to reduce its absolute Scope 1 and 2 emissions by 33% by 2030 and achieve net zero by 2050, in line with the Paris Agreement, paving the way for sustainable mining.

On May 3, Vale announced that it had successfully tested a new type of iron ore briquette suitable for direct reduction, which will contribute to decarbonizing steel production. This new briquette type emits about 80% less CO₂ compared to pellets during its manufacturing process, thereby reducing the company's direct and indirect emissions (Scopes 1 and 2).

What is DRI ?

GravitHy will produce decarbonized DRI (Direct Reduced Iron) by reducing iron ore using hydrogen produced on-site. The DRI can be used by nearby steelmakers or transformed into Hot Briquetted Iron (HBI) for transport to steel plants across Europe, thereby helping to decarbonize their production.

www.gravithy.eu

ABOUT GRAVITHY

Launched in June 2022, GravitHy is a sustainable steel company whose first plant will be located in Fos-sur-Mer, in the Provence-Alpes-Côte d'Azur region. GravitHy will serve the growing market for green, decarbonized steel. Its goal: to reduce sector emissions by producing and using green and low-carbon hydrogen to manufacture DRI. This DRI will be used as a raw material for low-carbon steel production or marketed globally in the form of HBI. The company's shareholders include EIT InnoEnergy—the innovation engine for sustainable energy driven by the European Institute of Innovation and Technology, a body of the European Union (EU)—as well as Engie New Ventures, FORVIA, GROUPE IDEC, Plug Power, and Primetals Technologies.

ABOUT VALE

Vale is a global mining company whose purpose is to improve lives and transform the future together. Vale is one of the world's largest producers of iron ore and nickel and a leading producer of copper. The company is headquartered in Brazil and operates across five continents. Its operations include integrated logistics systems, comprising approximately 2,000 kilometers of railways, maritime terminals, and 10 ports worldwide. Vale's ambitions are to be recognized by society as a benchmark in safety, the best and most reliable operator, a talent-driven organization, a leader in sustainable mining, and a reference in creating and sharing value.

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