

Press release



SmartSheetPile from ArcelorMittal: Sheet piles go digital – measure, analyze, troubleshoot

- **First intelligent steel sheet piles provide data in real time**
- **Tailor-made solutions already available today, industrial launching in the next years foreseen**
- **Live presentation at Bauma**
- **Development project with Bielefeld University of Applied Sciences**

Munich, 27 October 2022 – Innovation for the construction industry: ArcelorMittal will present its first intelligent sheet piling solution "SmartSheetPile" at Bauma in Munich from 24 to 30 October. SmartSheetPile provides data in real time and detects potential structural usage weaknesses at most early stages. The goal of the next generation's sheet piling solution is to enable preventive maintenance and extended project lifetime.

The signal light in the car, the push message on the smartphone or the warning message on the computer: if danger is imminent or there is a malfunction, then these days we receive a message immediately and take preventive measures to avoid any risks and enhance comfort in usage.

For important infrastructure and construction projects, for example quay walls, bridges or flood protection walls, such functions will be easily feasible in future thanks to

SmartSheetPile. ArcelorMittal has developed an innovative solution that makes infrastructure installations safer and more cost-effective. With this technology, sensors built into the sheet pile collect high quality and precise data that can be analysed and used for informed decision-making. Relevant information on the structural condition of the sheet pile wall, for example regarding corrosion, deformation or inclination, can be displayed on online monitoring dashboards or even fed into the asset's digital twin. The SmartSheetPile is able to identify accidental or weather-related damage and sound an alarm in the event of a disaster. For example, potential flooding could be prevented.

"Monitoring the infrastructure in real time will enable early warning of potential failure risks so that preventive measures can be taken. This reduces maintenance costs, prevents failures and increases the life of the structure. We already offer such tailor-made solutions today. Beyond that we are developing SmartSheetPile further for a standardized industrial launching in the next years", Tapas Rajderkar, Chief Marketing Officer of ArcelorMittal Europe – Long Products, explains the benefits of the technology.

"The SmartSheetPile presents a high added value for our customers and allows a massive return on investment", Rajderkar points out. In addition, the data collected provides further insights for designers, which in turn could be used in the development of new optimized design models – with potential, positive effects on material consumption and CO₂ footprint. ArcelorMittal offers its sheet piles in XCarb® recycled and renewably produced, via a dedicated product, EcoSheetPile™ Plus – meaning the product is made with 100% steel scrap and 100% renewable energy, resulting in sheet piles made with 30% lower emissions than with a conventional energy mix.

Visitors to Bauma can see the technical concept of SmartSheetPile for themselves and experience a live demonstration at the ArcelorMittal Sheet Piling stand in Hall C5-338.

In keeping with the theme, ArcelorMittal is also involved in a large-scale research programme at Bielefeld University of Applied Sciences, which aims to develop an AI-based data model to assess in first place appropriately the corrosion process, and provide clear guidelines for design purposes of steel sheet piles. In addition to ArcelorMittal, partners in the project, which is funded by the Federal Republic of Germany, including the ports in Hamburg, Bremen and Rostock.

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About ArcelorMittal

ArcelorMittal is the world's leading steel and mining company, with a presence in 60 countries and primary steelmaking facilities in 16 countries. In 2021, ArcelorMittal had revenues of \$76.6 billion and crude steel production of 69.1 million metric tonnes, while iron ore production reached 50.9 million metric tonnes.

Our purpose is to produce ever smarter steels that have a positive benefit for people and planet. Steels made using innovative processes which use less energy, emit significantly less carbon and reduce costs. Steels that are cleaner, stronger and reusable. Steels for electric vehicles and renewable energy infrastructure that will support societies as they transform through this century. With steel at our core, our inventive people and an entrepreneurial culture at heart, we will support the world in making that change. This is what we believe it takes to be the steel company of the future.

Decarbonisation is the most important aspect of ArcelorMittal's long-term strategy. We are aligning with the Paris Agreement's goals and the European Green Deal by committing to reduce European CO₂ emissions by 35% by 2030 and be net-zero by 2050.

ArcelorMittal is listed on the stock exchanges of New York (MT), Amsterdam (MT), Paris (MT), Luxembourg (MT) and on the Spanish stock exchanges of Barcelona, Bilbao, Madrid and Valencia (MTS). For more information about ArcelorMittal please visit: <http://corporate.arcelormittal.com/>