Press release
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ArcelorMittal partners with Orange Business Services and Ericsson to launch the largest industrial 5G network in France: 5G Steel

- **5G Steel, the 4G/5G network in industrial and critical environments, led by ArcelorMittal**
- **A project requiring very high performance mobile broadband across several sites focused on industrial use cases, from mobile remote maintenance to autonomous vehicles**
- **Built with the expertise of Orange Business Services, operator integrator, and a partnership with Ericsson, a technology leader of 5G private networks**

ArcelorMittal France, Orange Business Services and Ericsson today announced the launch of 5G Steel to test 4G/5G connectivity at ArcelorMittal's industrial sites in France over the next three years. The French government supports this initiative as part of the France Recovery plan. The Grand Port Maritime de Dunkerque, EasyMile and the Caisse des Dépôts are also among the project partners.

Orange Business Services, Ericsson and ArcelorMittal France have developed this project together, including the design of industrial use cases adapted to ArcelorMittal's challenges and business requirements. The project is based on Ericsson's technology leadership within 4G/5G private cellular networks suited for advanced industrial use cases and high-risk sites and Orange Business Services' integration and support expertise.

This deployment will meet the needs for industrial network performance and connected workers and operations in a production environment on complex industrial sites. The benefits include better energy efficiency and worker safety.

The 5G private network provides:

- Extensive coverage: to cover all of ArcelorMittal's complex industrial sites, both outdoors and indoors. Workers and machine operators can move freely with reliable connectivity anywhere on-site.
- High throughput: to meet the high-performance requirements of modelled processes, connected devices, production data, etc.
- Low latency: to support the deployment of autonomous vehicles and remote-controlled machinery as well as security in high-risk areas.
- Network slicing: to tailor services to each business process and needs.
- Data security: to protect sensitive industrial data on-site.

5G Steel will enable ArcelorMittal's plants, starting with Dunkirk, followed by Mardyck in Hauts-de-France and Florange in the Grand Est area, to deploy use cases requiring high-speed cellular connectivity.

Targeted to different business operations (production, maintenance, logistics, etc.), these industrial use cases include better worker flexibility and mobility in different situations. In addition, autonomous rail vehicles in Dunkirk and Florange, autonomous road vehicles, remote maintenance with feedback from the field, virtual or augmented reality and safety devices are also relevant use cases.

The objective is also to enable the digital transformation of the French value chain ecosystem for industrial use cases. From the outset, 5G Steel will cover the Grand Port Maritime de Dunkerque and ArcelorMittal's Digital Labs in Dunkerque and Florange, and tests are being conducted to extend the network to the Hauts-de-France and Grand Est regions.

David Glijer, Director of Digital Transformation at Arcelor Mittal France, commented: "ArcelorMittal is firmly committed to its digital transformation and is positioning itself as a leader in the digitalization of the steel industry. In production, maintenance, logistics and development, digital technologies have already begun to transform our processes, increase the reliability of our operations and improve the comfort and safety of our teams. The opening of our two Digital Labs in Dunkirk and soon in Florange is another illustration of ArcelorMittal's desire to create an ecosystem at the crossroads of industry and digital."

Valérie Cussac, Executive Vice President, Smart Mobility Services, Orange Business Services, said: "We are delighted to support ArcelorMittal in its digital transformation project. Within the framework of 5G Steel, we have worked with a use case approach. The project is co-piloted with ArcelorMittal using an agile method based on the collective intelligence of technical and functional experts. In addition, thanks to our dual expertise as an operator-integrator, ArcelorMittal will benefit from this solid private network, allowing maximum and secure critical data performance and improved productivity."

Franck Bouétard, Head of Ericsson, France, said: "With 5G Steel, Ericsson is pleased to support ArcelorMittal in testing new industrial use cases based on 4G/5G cellular technologies. Ericsson once again demonstrates our expertise and technological leadership with private networks in a complex industrial environment."

5G Steel, a network that enables new industrial use cases

With 5G Steel, ArcelorMittal will develop key industrial projects. Two examples:

- Remote maintenance: equipped with tablets, maintenance teams can support operations and access the necessary documentation. Once the maintenance operation has been carried out, they validate it and record it directly in the company's information systems. With augmented reality, the teams can also access documents, images or call on an expert remotely and live.
- Autonomous vehicles: transport by rail is essential at ArcelorMittal's large sites. The Dunkirk site, for example, has 44 kilometers of track to transport products between the various manufacturing stages. With EasyMile, ArcelorMittal will launch the first autonomous train on an internal private network, which will be put

into service in 2023. ArcelorMittal is also working on a heavy-duty road vehicle capable of transporting up to 120 tons of steel coils.

About Orange Business Services

Orange Business Services is a network-native digital services company and the global enterprise division of the Orange Group. It connects, protects and innovates for enterprises around the world to support sustainable business growth. Leveraging its connectivity and system integration expertise throughout the digital value chain, Orange Business Services is well placed to support global businesses in areas such as software-defined networks, multi-cloud services, Data and AI, smart mobility services, and cybersecurity. It securely accompanies enterprises across every stage of the data lifecycle end-to-end, from collection, transport, storage and processing to analysis and sharing.

With companies thriving on innovation, Orange Business Services places its customers at the heart of an open collaborative ecosystem. This includes its 28,500 employees, the assets and expertise of the Orange Group, its technology and business partners, and a pool of finely selected start-ups. More than 3,000 multinational enterprises, as well as two million professionals, companies and local communities in France, put their trust in Orange Business Services.

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Orange is one of the world's leading telecommunications operators with revenues of 42.3 billion euros in 2020 and 266 million customers worldwide at 30 September 2021. Orange is listed on the Euronext Paris (ORA) and on the New York Stock Exchange (ORAN). In December 2019, Orange presented its new "Engage 2025" strategic plan, guided by social and environmental accountability. While accelerating in growth areas, such as B-to-B services and placing data and AI at the heart of innovation, the entire Orange Group will be an attractive and responsible employer.

Press contact:

Elizabeth Mayeri, Orange Business Services, elizabeth.mayeri@orange.com, +1 212 251 2086