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PRESS RELEASE

# SNCF PAVES THE WAY FOR INDUSTRIAL 5G IN FRANCE

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Building on the success of the first 5G test platform in Rennes Station since 2019, SNCF and its partners – Orange, Nokia and the Institut Mines-Telecom (IMT) – are announcing, alongside the Secretary of State Cédric O, a "5G Living Lab" devoted to industrial practices. Located in two Technicentres in Rennes, these platforms will extend the 5G tests in Rennes Station to support the modernization of the SNCF group's industrial entities and fast-track their transition to an ultra-high-speed wireless network.

## OPERATIONAL SINCE 2019, THE 5G LIVING LAB IN RENNES STATION

SNCF previously joined forces with operator Orange and OEM Nokia in 2019 as part of a call for innovative platforms by Arcep (The Regulatory Authority for Electronic Communications, Postal Affairs and Print Media Distribution). The aim was to test new 5G frequencies, known as millimeter waves (26GHz frequency range), which provide speeds similar to fiber, and the emergence of new use cases both for the general public and businesses.

By opening this platform up to third parties, which was requested by Arcep, the three companies were able to work with many partners, including Qualcomm Technologies Inc., Sony and Lenovo and SME's such as FASTPOINT and AMA. Over a period of 18 months, SNCF, Orange and Nokia tested various services and use cases that simultaneously met the needs of **passengers** (instant media downloads (films, series, documentaries) with FASTPOINT), **professionals** (video-conferencing on a Lenovo 5G computer), **maintenance technicians** (immersive assistance with connected glasses by Rennes-based company AMA) and even **journalists** (filming and broadcasting 4K videos live using Sony devices).

## FROM 2021, AS PART OF THE RECOVERY PLAN, THE 5G LIVING LAB IN RENNES WILL ALSO COVER INDUSTRIAL PRACTICES

While 5G on the 26GHz band has shown it offers innovative uses for the general public, it is above all for businesses that this connectivity promises a huge leap forward in terms of the performance of digital services. Having received a label for their 5G Living Lab platform in Rennes Station from the French Digital Infrastructure strategic committee - General Directorate for Enterprise's (CSF), SNCF, Orange, Nokia and the Institut Mines-Telecom submitted a funding request as part of the State's recovery plan.

With this support from the government, the consortium will extend the 5G platform to two Technicentres (industrial facilities devoted to maintenance) in Rennes. The "Industrial Technicentre of Rennes" focuses on braking system maintenance for all rolling stock in France, and near Rennes

Station, on a huge 22-hectare site, the "Technicentre of Maintenance Brittany" services, cleans and repairs all of the regional trains.

In terms of industrial use cases, workshops will be held in a few weeks with some specific needs that have already been identified:

- + very high speeds to download operational data,
- + real-time connectivity for process control and to remotely control logistics,
- + the use of mobile cameras to monitor the movement of equipment,
- + and real-time video analysis to improve operational efficiency, such as detecting graffiti or hatches that have been left open following maintenance.

## OPEN AND RELIABLE PLATFORMS

These test platforms, the "5G Living Labs", have been designed to be open to third parties to enrich the use cases and benefit from initiatives in the local digital ecosystems, notably those in Brittany.

As part of this ambitious partnership, Orange will provide the telecom network services, and the OEM Nokia will be in charge of connectivity technologies, including private network solutions. The Institut Mines-Telecom, through its Values and Policies of Personal Information Chair will look at the notions of trust and sovereignty applied to telecommunications and more specifically the issue of hosting data at the edge of the network (edge computing). The researchers at Institut Mines-Telecom (Télécom Paris) will also work on the social impacts through multidisciplinary research: economic, legal, management and design. The aim is to meet the general public's expectations and foster real digital inclusion with the implementation of a charter of trust.

The 5G Living Labs in Rennes have been designed as part of SNCF's Digital Responsibility policy. These platforms will help anticipate new energy approaches, new radio environment designs, and test cybersecurity, for instance, or ensure that the digital services of the future comply with the GDPR.

Christophe Fanichet, Chief Digital Officer of the SNCF Group and CEO of SNCF Voyageurs: *"SNCF has always been a hub of innovation, both in terms of services for our customers and industrial excellence, and the 5G Living Labs initiative reflects that objective. Extending these tests to our industrial activities is strategic as it paves the way to potentially decisive innovations and gives us a head start, especially in terms of the reliability and competitiveness of our maintenance."*

Francis Jutand, Deputy Executive Director of the Institut Mines-Telecom (IMT): *"Having expertise in 5G is an essential aspect of communication network sovereignty and the dissemination of digital throughout all sectors: industry, networks and services. The Institut Mines-Telecom is actively involved in the entire range of skills: radio, communication networks, cloud, data spaces, uses and regulation. It is active within communities of industrial partners able to address the challenges posed by future networks to ensure our digital sovereignty. The IMT won the CSF's call for projects with "Beyond 5G", a project combining performance, security and orchestration of 5G services. The project with SNCF and its partners gives us a unique opportunity to test 5G's potential for innovation for professional and consumer applications, to develop new uses and provide a better passenger experience. We are proud to be involved in such disruptive projects with SNCF to accelerate the deployment of 5G applications with high use value."*

Matthieu Bourguignon, Vice President Enterprise Europe Sales at Nokia, said: *"We are delighted to continue our collaboration in Rennes with SNCF, Orange and everyone involved in this platform. 5G will*

*be the foundation of Industry 4.0 and it is essential to develop use cases to speed up the adoption of this technology. 5G is also an essential technology for regional development and is proof of these regions' competitive edge at a national, European and global scale, thanks to the innovations it supports. Nokia is already supporting many regions, including the Rennes metropolitan area, through projects addressing a wide range of sectors."*

Michäel Trabbia, Chief Technology and Innovation Officer at Orange said: "At Orange, we believe in 5G's potential for industry. Therefore we are happy to be continuing to develop industrial 5G with SNCF. This innovative project allows us in particular to test 5G use cases and performance in the 26 GHz band. This frequency band is particularly well-suited to additional, very localized deployments in areas requiring a very high capacity, such as industrial sites or very busy locations."

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