



Orange Belgium launches its Orange 5G Lab in Antwerp and reveals new use cases of the technology

Orange Belgium officially opened its first Orange 5G Lab in Antwerp this morning, inviting companies to discover, test and develop new innovative use cases on 5G Stand Alone network technology. The Lab will join the Orange's international network of seven other Labs across Europe, fostering collaboration and innovation on an unprecedented level.

Following the co-innovation initiatives in 2020 with partners and large companies on the Orange 5G SA campus in the Port of Antwerp, Orange Belgium takes a new important step to unlock the full potential of 5G, by opening its first permanent Orange 5G Lab in the City of Antwerp. The new Orange 5G Lab consolidates the knowledge and expertise gathered from Orange Belgium on 5G Industry 4.0 as well as the initial co-innovation use cases delivered in the Port of Antwerp to help develop and test new and inspiring Industry 4.0 use cases. During the process Orange is permanently expanding its ecosystem of partners, customers and also startups. In April 2021, the first three start-ups that are active on 5G have been recruited through the Orange Fab acceleration program, to join the Orange 5G Lab program and community. In this brand-new installation, situated in The Beacon in Antwerp, the operator will demonstrate the capabilities of the new 5G SA telecom standard and how it will help companies to innovate and to digitize.

More than ever, businesses are expecting telecom providers to not only offer connectivity but also a broader range of services, as well as guidance on new technologies.

Discovering, developing and testing 5G SA

In that context, the Orange 5G Lab is a service offer for customers, prospects and all economic players interested in 5G technology and is based on:

1. A program for discovering 5G and its various usages whereby experts provide key knowledge through explanation, demonstration, and animation.
2. A program to develop and test new and innovative use cases or new products and services, in real-life conditions, using the 5G SA network technology.

Since the Orange 5G Lab's radio network is directly connected to the Orange 5G Core system, the development of new use cases in the Lab allows it to deploy and easily scale them to the customers' premises.

In addition, the Orange 5G Lab site also hosts various types of certified 5G devices: routers, smartphones, tablets, smart glasses and cameras, that work on a 5G SA network and are tested and validated by Orange engineers.

Human-robot co-working and autonomous driving on rails

During the opening of the Orange 5G Lab, in the presence of Benjamin Dalle, Flemish Minister of Youth, Brussels and Media, Orange Belgium showcased several new 5G use cases that were developed with a broad range of partners. Specific attention was given to two new use cases:

- A robotic arm, demonstrating a human-robot co-working, using the ultra-reliability of the 5G SA network as well as the low latency. The use case is developed together with Robotics supplier Staubli and Mixed Reality solution provider Mr Watts. The robot is remotely controlled via smart glasses connected to the Orange 5G network and uses augmented reality to visualize the interactions with the robot. Collaboration between humans and robots is generally accepted as the future of manufacturing and will become mainstream in production facilities in the coming years. These types of use cases will definitely benefit from the highly performant and ultra-reliable 5G networks
- A first step towards autonomous driving on rails, developed with OTIV, a startup selected via the Orange Fab acceleration program. In this case, a train is equipped with cameras and sensors and an AI engine that provides assistance to the driver by automatically detecting obstacles in front of the train and by alerting or stopping the train. This use case is of particular interest to large industrial plants with rails and where multiple wagons are pushed by trains which have poor visibility at the front wagon. 5G networks provide the necessary bandwidth, reliability and latency to connect both the front cameras and the drivers console to operate safely.

The event was also an occasion to showcase other concrete use cases in an industrial context, such as the augmented field worker who is executing remote maintenance or a repair with augmented reality glasses that provide the worker with real-time information during the intervention; or the condition-based monitoring of machines whereby sensor data is projected in augmented reality when observing the parameters of a machine; or the mission-critical Push-to-X communication for emergency services in case of incidents that benefits from the ultra-reliability of the 5G SA slicing capability.

Unlocking the full potential of 5G SA in Antwerp

Werner De Laet, Chief Enterprise, Wholesale and Innovation officer of Orange Belgium, commented: “The opening of this 5G Lab is an important new step towards unlocking the full potential of 5G SA technology and delivering concrete business value. By inviting customers, prospects and partners to use the Lab to discover, develop and test 5G solutions, Orange Belgium will foster digital innovation and create value for the whole Belgian economy and even beyond.

Karine Dussert-Sarthe, EVP Orange Innovation Marketing and Design of the Orange Group, said: “Our growing network of Orange 5G Labs unlocks innovation from Paris to Bucharest and fosters collaboration across the ecosystem. 140 businesses have explored 5G in details with us. More than 40 have benefited from complimentary customized support to prototype how 5G can support their own products or services to unlock value. We are thrilled to open our latest hub for co-innovation in Belgium - a market fully immersed in building ground-breaking 5G use-cases that will change how businesses operate.”

Benjamin Dalle, Flemish Minister of Youth, Brussels and Media: “The fact that I can open this lab today makes me very proud. Not only is this one of Orange's first labs outside of France, this lab is unique in Belgium. It is the result of the extensive collaboration between the ecosystem in the port of Antwerp. It combines the best of two worlds: the full potential

of Orange's 5G test network can be used to valorize industrial processes and the economic know-how of the port companies in very specific use cases. With this, Flanders shows that we have a strong ecosystem at our disposal to valorize new technological applications as well. This is only possible due to the strong partnerships here at the port. That is also one of the objectives of the Flemish government: to further expand 5G in Flanders and put it on the map as a smart region with high-performance physical and digital infrastructure. It is one of the spearheads of our economic policy: ensuring that Flanders takes the lead in the transition to a digital society.”

About Orange Belgium

Orange Belgium is one of the major telecommunication operators on the Belgian market, with over 3 million customers, and in Luxembourg, via its subsidiary Orange Communications Luxembourg.

As a convergent player, it provides next generation connectivity services to residential customers through multi-gigabits mobile, cable and optic fiber networks, also relating to the Internet of Things. Its high-performance mobile network is equipped with the latest technologies and benefits from continuous investments preparing for the arrival of 5G. As a responsible operator, Orange Belgium is also investing to reduce its ecological footprint and promote sustainable and inclusive digital practices.

Orange Belgium is a subsidiary of the Orange Group, one of the main operators in Europe and Africa for mobile telephony and internet access and a world leader in telecommunication services for companies.

Orange Belgium is listed on the Brussels Stock Exchange (OBEL).

For more information go to: corporate.orange.be, www.orange.be or [follow us on Twitter: @pressOrangeBe](#).

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