

Orange is bringing together French companies to test and develop 5G uses

At the Orange Business Summit, which has brought together more than 1,000 enterprise-customers of Orange Business Services, Stéphane Richard, the Orange Group's Chairman & CEO, presented Orange's ambition and commitment to work with businesses to develop future uses of 5G. The event took place in the presence of Agnès Pannier-Runacher, Secretary of State to the Minister of the Economy and Finance, and Philippe Varin, President of France Industrie, who respectively underlined the challenges that 5G will represent for the competitiveness of France's economy and its industry.

"5G will not be just another new development in mobile uses. This is a technological leap that announces a significant transformation of business models for all companies and in all sectors of activity. To take advantage of the opportunities available, companies must anticipate their application cases without delay, and we, operators, must be fully mobilized to support them and develop solutions that meet their needs. The story of 5G has to be written together. More broadly, we must make every effort to make France one of the leading countries in the development of 5G. This future network is an opportunity to unite and consolidate all our resources, our know-how, our advanced industries, our French Tech and our talents at the service of our country," said Stéphane Richard, Chairman & CEO of the Orange Group.

This approach based on anticipation and support was illustrated through the announcement of several joint innovation projects with companies that are market leaders in key sectors of the economy, such as the manufacturing industry, energy or transport, and that have an eye on the future.

Building the electronic factory of the future with the LACROIX Group

The hi-tech manufacturer and SME with an international reach, <u>LACROIX Group</u>, and Orange are entering into a joint innovation partnership to explore how 5G can be used within "Symbiose", the ground-breaking prototype factory project from the LACROIX Group. In this way, the manufacturer is positioning itself at the cutting edge of technology by carrying out trials on uses of 5G in partnership with Orange. These trials will involve setting up an indoor network to test ambient connectivity on the industrial site or optimising production using automated vehicles and other vehicles connected through 5G.

Testing 5G opportunities at the heart of industrial processes with Schneider Electric Schneider Electric, a leader in the digital transformation of energy management and automated processes, and Orange are working together to evaluate the feasibility of opportunities brought by 5G in industrial production processes. From the end of 2019, an initial test will assess the value of 5G for real-time augmented reality solutions used by maintenance technicians at the Schneider Electric factory in Vaudreuil (Eure).

Developing co-operation between intelligent vehicles with Renault

Renault, Orange and Ericsson are announcing their ambition to work together on connected vehicles and 5G. This cooperation project will aim to measure the capacity of 5G to enrich

communications between vehicles and their environment, i.e. other vehicles, highway infrastructure such as traffic lights, or road users for example. By providing vehicles with more information about what is around them, mobile networks will contribute to keeping traffic moving and improving road safety. Performance tests are planned on a system based on a hybrid V2X (vehicle to anything) architecture, including network slicing (a feature of 5G that assigns a slice of network to a specific use) and Mobile Edge Computing technologies to improve cloud performance.

Imagining new in-station services with SNCF

Orange is working in partnership with <u>SNCF</u> and <u>Nokia</u> within the framework of a 5G experiment to provide a high-speed, HD video download service for passengers at the Rennes train station. Orange will launch the service in 2020 once the French regulator Arcep has delivered the requisite authorization. Once operational, passengers travelling through the station will be able to connect to the 5G access point deployed there. They will be able to download videos to their mobile or tablet in a few seconds, enabling them to watch the film during their train journey. The experimental network will use frequencies in the 26 GHz band. The aim is to assess the benefits of the 5G network and to collect feedback from passengers who have taken part in the test. At a later stage, additional services will also be tested locally, either for the general public or for businesses, as part of this experiment.

Also in the mobility sector, <u>RATP</u> (the public transport operator in Paris) and Orange will launch, for the first time in France, a 5G experiment for autonomous and connected public transport vehicles in the Paris region during 2019. This experiment is being carried out within the framework of the joint innovation agreement between the two companies.

In parallel to developments carried out in partnership with other companies, the Orange Group will continue to implement its 5G deployment strategy. 5G connections will be installed in 17 towns and cities in Europe in 2019, ready for commercial release in 2020.

About Orange

Orange is one of the world's leading telecommunications operators with sales of €41 billion in 2018 and has 151,000 employees worldwide at 31 December 2018, including 92,000 employees in France. The Group has a total customer base of more than 264 million customers at 31 December 2018, including 204 million mobile customers and 20 million fixed broadband customers worldwide. The Group is present in 27 countries. Orange is also a leading provider of global IT and telecommunication services to multinational companies, under the Orange Business Services brand. In March 2015, the Group presented its new strategic plan Essentials2020, which places customers' experience at the heart of its strategy with the aim of allowing them to benefit fully from the digital universe and the power of its new generation networks.

Orange is listed on Euronext Paris (symbol ORA) and on the New York Stock Exchange (symbol ORAN). For more information (online and from your mobile): www.orange.com, www.orange-business.com or follow us on Twitter: opresseorange.

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