

Unleash the Capacity and Coverage Potential of 5G through 26GHz Spectrum Availability to Reap Benefits for European Economy and Society

Plum Consulting report, commissioned by Qualcomm and Nokia, calls on European governments and regulators to make 26GHz spectrum available as a priority to accelerate 5G rollout and unleash its full potential.

London, UK, and Brussels, Belgium 13 July, 2021: Today, Plum Consulting, launched a report that calls for European governments and regulators to prioritize the supply of 26GHz spectrum to accelerate the much needed rollout of 5G services across the European region and to enable its full potential. Commissioned by Qualcomm Technologies Inc., and Nokia the report finds that incentivising innovation by ensuring mmWave spectrum availability will provide an important basis for economic growth over the next decade.

5G is predicted to provide benefits to consumers, transform industry and generate extensive economic value. The GSMA estimates that 5G is expected to yield \$2.2 trillion in GDP between 2020-2034. mmWave applications will make up an increasing proportion of the overall 5G contribution to global GDP, achieving around 25% of the cumulative total by 2034, which amounts to \$565 billion in GDP¹.

Plum Consulting research shows that 5G services based on mmWave will be deployable quickly and effectively once more spectrum is made available. The consultancy is recommending national regulatory authorities to stimulate the market by making available 26 GHz spectrum with the right licensing conditions to Mobile Network Operators and for private industrial use.

Recommendations in the report from Plum Consulting include removing the barriers of entry to promote the use of 26GHz, including lowering its cost compared to other mobile bands, implementing tax incentives, tax deductions or special depreciation schedules for investments by MNOs and private network developers and including the use of award mechanisms that seek to encourage investment.

mmWave has a short range but supports very high bandwidths and low latency. It is ideal where a cell radius of 500 metres or less is sufficient and the smaller physical size of network equipment provides advantages for site acquisition and deployments and indoor use.

Demand for mmWave trials and projects are increasing and there are already a number of experiments, commercial operations planned or live across Europe. This includes a 26GHz trial at Rennes train station in France to improve both services for the public and supporting train maintenance and repairs. In the UK Qualcomm Technologies will be supplying high frequency mmWave modules to test the efficacy in agritech for 5G connected robotic farming. Commercial deployment of 5G mmWave for FWA has also started in Italy since December 2020 in 50 cities and targeting 500 by the end of 2021.

On the industrial front, a 26GHz trial in Le Havre seaport in France is working with smart grids management, electric vehicle charging, port logistics, container machinery operation, mobility analysis and more. 26GHz trials for a range of commercial uses have also taken place in a number of locations in France, Germany, Finland, UK, Romania, Sweden and several other countries. The number of mmWave devices is expected to grow significantly over the next 12 months.

¹ The WRC series: Study on Socio-Economic Benefits of 5G Services Provided in mmWave Bands. December 2018

Tony Lavender, Managing Partner from Plum Consulting says: “Mobile communication has contributed significantly to economic and social progress in Europe and other parts of the world. The features supported by 5G will enable new devices, applications and business models. However, delivery of the full benefits of 5G for consumers, industry and enterprise sectors requires access to mmWave spectrum. It is therefore important that national regulators consult on and define and implement the most appropriate regulatory framework, including spectrum sharing, as a priority to unleash the full potential of the 26GHz band.”

Wassim Chourbaji, Senior Vice President, Government Affairs EMEA, Qualcomm Communications S.A.R.L., commented: “5G mmWave has the potential to be the catalyst to revolutionise ultra-fast connectivity to all – be it consumers, enterprise, auto, factories, agriculture, and more. It has the potential, with Fixed Wireless Access, to finally bridge the digital divide, which has become particularly evident during the COVID-19 pandemic. Putting a comprehensive framework in place by national regulators to make 26GHz available is urgently required. It will form the basis of economic recovery and digital transformation.”

Jan van Tetering, Senior Vice President, Head of Europe, Nokia: “5G mmWave holds the key to unlocking a new category of user experience in dense urban areas as well as new, value-creating use cases across various industries. Nokia’s latest AirScale product portfolio delivers the performance associated with 5G, providing high-capacity, super-fast connectivity. Europe must act quickly in order to close the gap to other geographies where the technology is already being deployed.”

About Qualcomm

Qualcomm is the world’s leading wireless technology innovator and the driving force behind the development, launch, and expansion of 5G. When we connected the phone to the internet, the mobile revolution was born. Today, our foundational technologies enable the mobile ecosystem and are found in every 3G, 4G and 5G smartphone. We bring the benefits of mobile to new industries, including automotive, the internet of things, and computing, and are leading the way to a world where everything and everyone can communicate and interact seamlessly.

Qualcomm Incorporated includes our licensing business, QTL, and the vast majority of our patent portfolio. Qualcomm Technologies, Inc., a subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of our engineering, research and development functions, and substantially all of our products and services businesses, including our QCT semiconductor business.

About Nokia

We create technology that helps the world act together.

As a trusted partner for critical networks, we are committed to innovation and technology leadership across mobile, fixed and cloud networks. We create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs.

Adhering to the highest standards of integrity and security, we help build the capabilities needed for a more productive, sustainable and inclusive world.

About Plum Consulting

Plum Consulting is an independent consulting company providing advice to governments, regulators, vendors, investors and operators around the world on the telecommunications, media, technology, and adjacent sectors. Plum has an extensive track record providing advice on strategy, policy, regulation, technology, communications network evolution and spectrum policy and management.

¹ The WRC series: Study on Socio-Economic Benefits of 5G Services Provided in mmWave Bands. December 2018