BLOGPOST

5G: a new world, not a new word

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The year of 2020 has seen 5G roll-out and uptake on the rise in Europe, being deployed commercially in different corners of the continent. 5G should not be a new word to you by now. Wherever you are reading this from, 5G related information is very likely to have been delivered to you across a diverse range of channels: according to our latest survey on 5G sentiment across Europe, 96% of Europeans are aware of 5G. But what is 5G in concrete terms and what can it do for you and society?

5G Users Forum: a dialogue series

At ETNO, we believe that dialogue is a good ambassador to bring together European citizens, policy makers and technical experts, with one goal in mind: to better understand what 5G can do for all of us and what benefits it will have to the society. This is why earlier this year we launched the "5G Users Forum" dialogue series.

The first chapter was launched in September with a spotlight on how 5G can empower European healthcare, with examples from Italy, the UK and Norway. One month later, we took a closer and practical look at another key sector for European citizens and businesses: manufacturing.

To do that, we partnered with Orgalim, representing Europe's technology industries and discussed different angles with guests from the European Commission, European Parliament, and the European Agency for Safety and Health at Work. Moreover, we gathered ETNO members from France, Spain, and Germany to present in practical terms existing use-cases from their respective markets.

Smartening the manufacturing

Based on the discussion during the webinar, it is clear that there is a rich potential to citizens and businesses from having 5G at the heart of manufacturing.

One such area is safety and health at work. The nature of some manufacturing jobs implies hazardous situations for employees which put in danger their physical and mental health. In that regard, smart

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and personal protective equipment connected to a 5G private network allow for real time monitoring of work hazards and provide early warnings on stress, health problems and fatigue. The real time advice is tailored to individual needs, prompting workers to intervene at an early stage.

Augmented Reality (AR) solutions also do make a difference in manufacturing. A factory in Vaudreil, France, is using an Augmented Operator Advisor that enables real-time status monitoring by creating a digital twin of an object, machine or entire plant. This allows for the optimization of working time and intervention, as 5G minimizes latency and maximizes throughput.

In Ferrol, Spain, AR remote assistance helps ship builders to diagnose, repair and do maintenance only when and where needed. Ship construction in AR over a 5G private network also allows for millimetric precision, potentially saving lives where microscopic errors could not have been anticipated in real-life. We also learned that thanks to an edge server, different blocks of a ship will be virtually assembled and looked for inconsistencies before physical assembly, hence optimising the entire process and allocation of resources.

Autonomous material handling is now happening at a factory in Schwabmünchen, Germany, allowing for a high degree of autonomy, seamless integration into production processes, as well as asset detection and automated inventory taking. Altogether, the cost and energy efficiency of the factory have been improved.

Agility and tech leadership

Let us now take the thread from European citizens. As we head towards an economic recession, it is important to understand the general expectations on how 5G can make a difference for businesses and SMEs in their home markets. The IPSOS 5G survey revealed a valuable point: 85% of Europeans see 5G as an important component for business, with 51% intending to implement it. But how do we get there?

First, Europe's ability to digitalise depends on solid 5G networks and wide-spread connectivity. These are important prerequisites for Europe's agility to transform its industries in the long term. Getting it right will send a strong signal that Europe is back in the global tech leadership picture.

Second, the degree of flexibility in terms of connectivity brought by 5G will benefit not only smart manufacturing - an industry representing 23 million European jobs - but an entire ecosystem of technologies from virtually all facets of the European economy. The multiplier effect promises to benefit European citizens in their day-to-day life, enabling access to more innovative products and services.

Third, Europe's strong industries and telecom operators must come together to collaborate and form a competitive advantage for the EU. Although fragmentation has been a historic bottleneck for Europe, borders do not apply in the digital ecosystem. We must work together to keep it that way.

Next steps

Going into next year, the 5G opportunity is becoming clearer, but important challenges still persist. The uncertainty related to the pandemic is likely to stay for a while and parts of our personal and professional lives will continue to stay digital.

In parallel, demand for 5G enabled services is taking off across industries and different user groups. From the operators' perspective, we welcome the European Commission's intentions to review Europe's 5G Action Plan and Radio Spectrum Policy Programme. Finding the right balance between political ambitions and practical considerations will be key in accelerating further uptake of 5G services.

In the spirit of promoting and showcasing Europe's tech leadership, we invite you to close year 2020 with the final chapter of the 5G Users Forum trilogy on 7 December. On this occasion, we will look at the empowering role played by 5G in Smart Cities. Stay tuned for updates!