



Munich, 10 February 2014

## **ETNO'S CHAIRMAN SPEECH AT 5G EUROPE SUMMIT**

Dear representatives from Huawei,

Dear colleagues,

Dear friends,

First of all, let me thank Huawei for having invited ETNO for the opening of this panel about the “opportunities of 5G”. As many of you know, Huawei is one of our most prominent observers, and ETNO is proud to have such an important global player on board. Huawei's corporate spirit and vision are aimed at helping telecom operators enable the communications of the future. This means that not only many of our companies are commercial partners with Huawei, but also that we share a common view of how to build a smarter society.

### **Where we are**

When I was first asked to address this audience on the opportunities of 5G, I immediately responded with enthusiasm: the reason is that today we are talking about the future. This future is not something undefined and highly uncertain, but it is within the grasp of those engineers and those thinkers who, in our companies, are working around the clock to build the next generation technologies.

But let me be specific and start from where we are today. We all recognize that tablets and smartphones brought about a revolution that is changing people's lives. We know that this is not only about fancy apps, but it is mostly about how the mobile ecosystem and the app economy are changing the way in which we do things.

Not only the things we used to do on laptops are now going mobile, but also we are able to do new things: simple actions like checking our bank account, more complex actions like monitoring remotely heating systems or things as personal as keeping our health records.



These huge opportunities, and the fact that consumers and businesses enjoy them so much, are represented very clearly by the numbers that Ericsson highlighted in their latest mobility report<sup>1</sup>.

In 2013 we reached a total of 1.3 billion smartphone subscriptions, to which we can add an additional 300 million subscriptions for tablets alone.

But if we look at all types of mobile subscriptions, in 2013 we reached a total number of 6.6 billion, which is expected to grow steadily and touch the impressive number of 9.3 billion subscriptions by 2019.

These numbers are clearly reflected in mobile data traffic, which is due to explode and grow tenfold between 2013 and 2019. If total monthly smartphone traffic is 1 exabyte today, in 2019 it will be 10 exabytes.

In a nutshell, at ETNO we believe in a future that is increasingly going mobile, thanks to wi-fi, wireless and a solid backbone that provides the capacity needed. We predict a future where platforms will converge and where 5G will play a transformational role in how we experience connectivity together.

### **The vision: towards a converged ecosystem**

But what is the vision we are moving towards, then? I believe that 5G will be part of an exciting picture, in which we build a truly convergent environment, where ultra fast broadband connectivity is ensured across one integrated fixed-mobile network.

Content and other demand-drivers will be a pivotal part of this picture. People will be able to seamlessly access content from wherever they are, from different handsets and access points.

On the one hand, this will make it even more convenient for people and businesses to get access to what they need and want. On the other hand, it will create more opportunities for businesses, both in terms of how they distribute and make content available and in terms of how they deliver services, organize work flows and internal processes.

The evolution towards convergence and the increasing stress on empowering people to access content everywhere will also impact the discussions on spectrum allocation. In a converged

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□ <http://www.ericsson.com/res/docs/2013/ericsson-mobility-report-november-2013.pdf>



world, will the traditional competition between broadcasters and mobile operators still make sense? Or can a converged 5G world create more opportunities for all, by overcoming traditional boundaries with a technological leap?

The same questions could be asked about the relationship with the Over-The-Top players. 5G will be part of the industry's move towards an all-IP environment, which will unlock further business opportunities in the area of differentiated premium offers and specialized services. How will this shape collaboration among the different players of the digital value chain? Will there be increased scope for mutual collaboration and for building greater opportunities for all?

While some of these questions are open for debate, there is one thing that I want to underline: at ETNO, we are firm believers in the benefits that allocating spectrum to mobile internet will bring to our societies. And for this to happen, we believe that – also when thinking of 5G – it is important to stress that spectrum is the lifeblood of the mobile revolution. Without spectrum availability, we wouldn't be speaking of the app economy or of the transforming power of mobile today.

### **The future, today**

But all these talks about the future might lead you to think that 5G is still very far from becoming a reality. On the contrary, there are already numbers, commitments and objectives that help us see how this near future is being built today.

South Korea, which as you all know is already one of the most connected countries on earth, announced already in January that it will invest 1.5 billion dollars in a plan to roll out a next-generation 5G wireless network<sup>2</sup>.

The objective is to achieve a service that is quick enough to download full-length films in a second. Their science ministry said it aims to implement the technology - about 1,000 times faster than the 4G services currently available - within six years.

As most of us know, Huawei – our host today – has announced in November that it was looking at a 5G commercial rollout by 2020, with a minimum investment of \$600 million to develop the technology.

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□ AFP,

<https://www.google.com/hostednews/afp/article/ALeqM5jBekWxsCFgE3HrGBOGdNi-QsFuJw?hl=en>



The speeds that we are aiming at are mind blowing: the current projections say that we will be able to get up to 1,000 Gbit/s. With such a powerful tool, we will be able to use ultra-HD and hologram transmission, as well as cutting-edge social networking services.

This will unlock unprecedented businesses opportunities for most players in the value chain. Again, I was struck by the estimates made by the Korean Science Ministry, who says that related industries will be able to make sales of 5G-related devices and infrastructure equipment worth 331 trillion Won from 2020 to 2026.

### **Where is Europe?**

These figures give us a clear signal that the global race is on. And, for this reason, we – as European operators – are looking forward to working with all those partners who can help us stand at the forefront in the development of new infrastructures, services and offerings.

Historically, the European telecommunications industry has been at the forefront of global competition, since the early days of the GSM technology. And, in 2012, it still represented approximately 40% of the worldwide market of nearly €200 billion in terms of network infrastructure supply.

When it comes to 5G, the challenge is to secure Europe's leadership in the particular areas where

Europe is strong and where there is the potential for creating new markets and opportunities. Just think at smart cities, e-health, intelligent transport, education or the revolution we mentioned in the field of entertainment & media.

In this context, and in addition to the commitment of our companies, we welcome the projects that the European Commission has put in place in order to promote and sustain the common efforts on 5G. These efforts are timely.

As some of you might know, 5G research won fresh support last December as the European Commission and the 5G PPP Association signed a contract to create a 5G public-private partnership.

The 5G PPP, which is funded by Europe's Horizon 2020 Programme, aims to further develop 5G technology and prepare for the future standardization of the system and components that are expected to be deployed in the next decade.



The total budget that the Commission threw behind this project is expected to be around 700 million euros, which is mirrored by another 700 million euros commitment from the private sector. In addition to this, estimates indicate that the telecommunications industry will invest outside the partnership five to ten-times this amount in activities contributing to the objectives of the PPP<sup>3</sup>.

As we know, research & development, along with commercial partnerships, are just some of the enablers of the 5G revolution. Among them, there is also the work of standardization bodies, policy makers and regulators.

For example, economies of scale and scope will be boosted by standardization processes. Furthermore, the availability of spectrum will be a pillar of this revolution. But there will be other important leverages: allowing our Continent to unlock all the benefits of the pan-European scale from day one, with the aim of sustaining the delivery of widespread access to ultra fast broadband.

While these are only some of the examples of how policies can help, I can already say that we will be strong supporters of all the policymakers who decide to be bold, to think out of the box, and who help create an innovation friendly environment, in which policy decisions are aimed at helping Europe invest in this vision and deliver it.

But the work of policy makers to build a more connected Europe has already started. While ongoing legislative procedures might seem far from the visionary talks we are having today, I believe that it is important to stress how the technologies of the future will also be influenced by the policies that we are discussing today.

As many of you might know, Commissioner Neelie Kroes has proposed positive measures for developing a bolder and more harmonized spectrum policy in Europe. At ETNO, we believe that the Commission's proposals in this field provide a positive starting point for supporting investments in mobile broadband. This is the reason why, in the framework of the current legislative process, we are very supporting of those who believe that it should be further strengthened.

In a 2013 study that we released with the Boston Consulting Group, we called for a modernization of spectrum policy across Europe, with the aim of creating a sustainable infrastructure for competition that incentivizes network investments. According to BCG's figures, such a revised

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□ [http://ec.europa.eu/research/press/2013/pdf/ppp/5g\\_factsheet.pdf](http://ec.europa.eu/research/press/2013/pdf/ppp/5g_factsheet.pdf)



policy would unlock roughly 10 billion euros of free cash flow that could be poured into new investments.

### **Conclusion**

I discussed impressive numbers in my speech today: Those describing the skyrocketing speeds that 5G can bring us; Those pointing to the magnitude of the evolution of mobile traffic that we expect to happen in the coming years. I also cited numbers which gave you a better idea of how much money investors are pouring into the exciting development of 5G in various parts of the world. And, finally, numbers about the investments that we could unlock today to build the networks of tomorrow.

But what matters the most is that 5G will rather be about people. It will be about those people enjoying new services and starting new businesses thanks to this technology. It will be about the people who will make it happen in our companies, by innovating and working hard on bringing new services to consumers. It will be about us, and our debate in this room today, because we are discussing how to turn a concrete vision into reality.

Thank you.

Luigi Gambardella

ETNO Executive Board Chair