**Thibaut Kleiner Speech – EUCNC 2025 – 4th June – Opening Session.**

Ladies and gentlemen, it is my pleasure to address you today in this new edition of the **EUCNC and 6G Summit.**

Unfortunately, I could not come in person this year, alongside other staff from the **European Commission** present today. But I wanted to express through video my support for this important conference, in my capacity of General Chair of the conference.

This is a conference I participated to several times in the past, when I was in charge of the **5G PPP** from the European Commission side. It is a key conference for our European research ecosystem.

I will take this opportunity to share with you today my views on advanced connectivity and its role in the future for European competitiveness and sovereignty.

First, let me start by saying some words about the international context, which present major challenges:

- **Firstly,** security challenges, with tensions between global powers, rise of multipolarity and a conflict on our own continent.
- **Secondly,** economic security challenges including risks for technology and energy supply chains, tariffs and sanctions. That is related to rising gaps in industrial competitiveness and technology advances, as the US and Asia forge ahead in critical technologies such as IA, robotics, quantum, connectivity and 6G, Electronic Vehicles and microelectronics.
- **Thirdly,** the EU is facing specific challenges related to its digital infrastructures, including: slow deployment, fragmented markets, lack of investments, lack of skills, dependency on cloud capacities and micro-electronics, difficulties in stimulating demand for advanced connectivity services.

**Let's face it:** Europe is behind some of its trading partners in most critical technologies, with some exceptions like in connectivity, where there are European industrial champions in 5G and tomorrow 6G technologies. But we can see risks also there and cannot be complacent.

In this regard, the **Draghi report underlines** that: **"The telecommunication equipment and software sector are also key for the EU's cyber-resilience, security of strategic infrastructures, and protection of citizens' and business data".** This means also maintaining EU vendors leadership in connectivity equipment and notably RAN equipment.

In view of the challenging context I just described, the next **EU Multiannual Financial Framework (MFF),** and the Research and Innovation policies that it will support, will be key for Europe positioning in the worldwide industry and technology landscape.

Discussion are going on, notably about programs' integration, simplification or different approaches to allocate **EU Member States' budget.**

It is currently being considered to have at the core of next MFF a Competitiveness Fund to **"support strategic sectors and technologies critical to the EU competitiveness,"** including research and innovation. The Fund's comprehensive architecture will allow it to accompany European projects along the entire investment journey, from research, through scale-up, industrial deployment, to manufacturing.

It is not yet confirmed if there will be a dedicated research **Framework Program 10**, succeeding to the current **Horizon Europe Program**. Similarly, the discussion is open about the future of programmes like the Connecting Europe Facility or Digital Europe Program, both supporting deployment. And we don't know yet what will be the future approach to Joint Undertakings.

In any case, the Commission intends to simplify and reduce the number of instruments to enable **"a true policy-based budget."** This contrasts with the current budget, which is too much driven by the structures of spending programmes, resulting in overlapping programmes and delays due to an over-abundance of programming documents.

Now turning to the technology and market landscape, in particular regarding connectivity, we can already identify trends and priorities.

Digital technologies are more than ever crucial for innovation and productivity in all sectors of the economy, and thus for competitiveness. In turn, state-of-the-art connectivity remains a key enabler for all digital technologies such as cloud and AI.

Second, the explosion of data (from AI, IoT…) requires more processing, transmission and storage resources. We see new business models and entirely new markets emerging from technological developments around the **App Economy, IoT, Data Analytics, AI** or new forms of content delivery.

Third, virtualisation and cloudification technologies bring a paradigm shift by decoupling the physical layers from the control plane in a massive way.

Furthermore**, Telco-Edge-Cloud** convergence paradigm and the disruptive trends in openness, AI, disaggregation and softwarisation of networks will challenge the traditional connectivity architectures. This is a challenge for Communication Service Providers, which entails, like every challenge, both threats and opportunities.

The European Commission is ready to accompany this evolution through funding support, which I mentioned before, and also legislative initiatives.

The Commission will propose an **EU Cloud and AI Development Act**, aiming to mobilise public and private efforts that leadership in AI development requires.

Regarding the telecom sector in particular, the Commission will propose a Digital Networks Act to adapt the regulatory framework to emerging needs and opportunities, notably those related to 6G and advanced networks.

Indeed, 6G development is instrumental for maintaining EU's competitiveness in the global tech landscape, contributing to achieve the EU's Digital Decade targets on gigabit coverage, and support EU's digital sovereignty.

**6G can be a game changer but it still requires:**

1) substantial research efforts in fields such as radio interface, resilience and security, AI and automation, openness and softwarisation, to name a few.

2) Successful global standardisation with strong positions from our Industry in the next three years.

3) Pre-deployment trials and pilots, and later deployment support.

4) Spectrum allocation.

The **Smart Networks and Services Joint Undertaking (SNS JU)** is the EU's instrument to bring together the key stakeholders to develop the **R&I for 6G technology,** the testbeds and, very importantly, the standards. It has a key role to play in addressing the telco-cloud convergence.

SNS JU has been very successful so far, as it was emphasised by the **Horizon Europe Mid-Term evaluation report** of the SNS JU.

Now it is time to look forward, drawing the **lessons from 5G** regarding technology development but also technology uptake.

5G in Europe remains an incompletely fulfilled promise, notably regarding **Verticals usages and 5G SA deployment.** So, what do to for 6G not repeat the same pattern, how to better align supply and demand in future?

For that, it is important to approach connectivity technologies not as a silo but increasingly as the "glue" of other technologies that link humans, machines and intelligence. Future connectivity systems will be part of a continuum covering cloud, core, edge and far edge computing.

**AI will improve network performance and there will also be AI as a service to novel applications.** Quantum technologies will provide advanced security and improved networking solutions. Also advances in microelectronics are expected to play a critical role for new Radio Frequency and network components, chipsets for cloud specific solutions and new 6G and IoT devices for various vertical industries.

Therefore, synergies with other critical technologies and their instruments will be crucial. That includes also Resilience and security, Non-Terrestrial Networks, optical technologies and AI at the core.

**The start of next MFF** will coincide with 6G maturing close to deployment. A priority will be to support take up of 6G and Telco Edge Cloud and AI technologies through trials and pilots.

Stimulation of demand will be needed with pre- deployment measures to support infrastructure responding to European socio-economic drivers. This should be done together with R&I investment in sustainable, secure and resilient networks, as well as R&I and trials for verticals.

It will be also key to address the lack of skills and Innovation through actions such as, PhDs training, international exchanges of researchers, **support to SMEs, start-ups, innovation and incubation initiatives.**

All it all, it is necessary to make a bold effort on the next cycle of advanced connectivity technologies; to support R&I&D deployments, and investments, in view to improve our competitiveness and technological sovereignty.

We can be proud of Europe's achievements in connectivity technologies so far, but we should be above all aware of the challenges ahead and act to address them.

This important European conference has an important role in this regard: gathering key players, showcasing developments, identifying key trends.

I'm grateful to the organizing team (with special thanks to the Poznan University this year), to the patrons and to all the participants for their commitment and support.

I wish, actually I am sure, this will be a very interesting and successful conference, one year more.

**Thank you very much for your attention**