Summary of the Joint Telecom Industry Response to the EU consultation on **"The future of the electronic communications sector and its infrastructure"**

The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry, and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

We invite you to find out more at gsma.com

Follow the GSMA on Twitter: @GSMA and @GSMAEurope

ETNO has been the voice of Europe's telecommunication network operators since 1992 and has become the principal policy group for European electronic communications network operators. Its 40 members and observers from Europe and beyond are the backbone of Europe's digital progress. They are the main drivers of broadband and are committed to its continual growth in Europe.

ETNO members are pan-European operators that also hold new entrant positions outside their national markets. ETNO brings together the main investors in innovative and high-quality e-communications platforms and services, representing 70% of total sector investment.

ETNO closely contributes to shaping the best regulatory and commercial environment for its members to continue rolling out innovative and high quality services and platforms for the benefit of European consumers and businesses.

We invite you to find out more at www.etno.eu

Follow ETNO on Twitter: @ETNOAssociation

Our key messages:

- By 2030, digital technologies and connectivity will be the very fabric of our societies and economies: 5G, IoT and edge computing have already started shaping our digital decade and empowering sustainable economies and societies.

- Europe is in a "lead or lose" situation. We must develop our own technology solutions and our strategic interest is to lead the future of connectivity. As European telecom operators, we work to stay ahead of the curve in roll-out of 5G and FTTH, development of new network and cloud technologies, digital inclusion and the twin green-digital transition.

- Networks will be increasingly virtualised and cloudified, with 'telcos' transforming into 'tech-comm' companies and delivering Network-as-a-Service (NaaS) by making connectivity functions available to customers and developers based on standardised APIs.

- European operators, who have a national base, will increasingly compete across markets with a range of players, such as tech giants or specialised software companies. The gap in scale will become an even more relevant barrier in 5G ecosystems, impacting the EU's Open Strategic Autonomy.

- Today, we are not where we should be: Europe witnesses underinvestment in telecom networks and services (i.e., a €174 billion investment gap as estimated by the EC), with overall declining or flat revenues in the sector, returns below the cost of capital, weak market valuations and high levels of debt.

- In our view, policy change can help shape a future in which Europe innovates, grows and stays in control of its connectivity.

As European members of GSMA and ETNO, we call for:

- Addressing barriers to the European telecom single market by simplifying regulation, including for telecoms rules, spectrum policy, consumer protection, taxation;

- Urgently building scale through in-market consolidation, as well as cooperation on innovative technologies, as a fundamental steppingstone for creating European telecom operators that are globally competitive;

- Introducing a fair contribution based on a framework that allows balanced negotiations between telcos and large traffic generators who obtain the most benefit from telecom investment, while creating a high cost burden with their traffic and exerting disproportionate power across markets. There is precedent for this, for example with the Copyright Directive, which addressed imbalances affecting creators and rightsholders.

- Addressing the policy challenges above will help accelerate the achievement of the EU Digital Decade targets, while empowering sustainable economies and creating more homegrown opportunities in the digital space for European citizens, SMEs and for society at large.

Technological And Market Developments

European telecom operators are transforming into sophisticated tech-comm companies playing a proactive role in the new digital era.

Today, telecom services are characterised by speed, security and mobility. Tomorrow, services will also be defined by improved processing capabilities, capacity, reliability and, above all, customisation.

The following trends are driving change:

Technology

Trends from industry reports clearly show a rapid acceleration of data-driven technologies and use cases (e.g. AI, the metaverses, Web 3.0), which are driving a re-design of network operations.

- We expect a 'metaversification' across use cases, Virtual Reality and immersive technologies to become increasingly common, a massive shift from SD video to HD (incl. from 4K to 8k), and an acceleration of AI-generated content.

- Upcoming trends require investment-intensive deployment of new network technologies, including: FTTH and FTTx, 5G standalone, edge computing, open RAN and increased integration of terrestrial-satellite communications.

- The transition to new generations of connectivity means that the network of the future is software-defined and virtualized – which makes it highly programmable, disaggregated and cloud-native. This also increases vulnerabilities. Staying ahead of the network security game will require increased investment, including in security automation and quantum encryption.

- Business models evolve accordingly, with application programming interfaces (APIs) enabling Network-as-a-service (Naas) and telecom operators becoming orchestrators more and more.

- The climate change challenge requires telecom operators to achieve two goals: the greening of our networks, by switching off older, less energy efficient networks, while achieving full use of renewables (today, 83% of energy used by telcos is from renewable sources); and greening by our networks, as 15% of global carbon emissions can be slashed if all sectors of the economy and society adopt connectivity-enabled solutions (BCG, 2021).

Markets

We expect telecom operators to face increasing competition, both on the network and on the service layer. Tech conglomerates with global scale and market power will compete with telecom operators in fragmented European markets. This will put further pressure both on the profitability of the sector in Europe and on its overall strength in terms of innovation, investment capacity and strategic focus.

- On the network layer, we are witnessing the creation of more and more infrastructure companies in the form of NetCos and TowerCos. Such companies are an attempt to create fresh value in EU telecom markets plagued by decades of slow growth, restrained by high levels of regulation.

- On the service layer, hyperscalers and content providers will increasingly leverage their market power and global scale in selected markets such as cloud as well as Wide Area Networks (WAN) and (Content Delivery Networks) CDN infrastructures, to compete against European telcos in Business-To-Business markets.

- Telecom companies have been proactive and are transitioning towards a "Network-as-a-Service", with value-creation shifting from simply selling connectivity to becoming more and more "orchestrators" of highly customised network needs.

- A key challenge in achieving this the creation of a uniform standard for network APIs, with initiatives such as CAMARA and the Open Gateway.

- In terms of revenues, the monetization of 5G and fibre networks will be key, with business models relying on the provisioning of new connectivity services. In order to continue generating growth, operators will also have to increasingly invest in markets adjacent to connectivity, such as cyber security, edge-cloud and others.

- Vertical industries (e.g., automotive, manufacturing) will be more and more important in terms of collaboration aimed at optimising the deployment of new innovative services, rather than deploying and operating networks directly.

- Geopolitics also plays a role in today's markets, with new supply chains bottlenecks (e.g., network equipment) as well as strategic considerations on security and strategic autonomy (e.g., the need of developing European leadership in certain technology segments).

- In light of the trends above, scale continues to be a major challenge in European telecom markets, both in terms of ability to compete with hyperscalers and in terms of innovation capacity. In addition, cooperation within the telecom industry will also become increasingly important for global competitiveness, as European players face the disadvantages coming from lack of scale.

Fairness For Consumers

Whether they are residential, business or government, our users are and will remain at the centre of the provision of innovative networks and services. We are a customer-facing industry characterised by high levels of competition and innovation, driven by purpose and strongly motivated by social impact and responsibility.

Successfully serving users is a multi-dimensional challenge, implying high levels of network investment, inclusive availability of the latest technologies, great quality of service and good prices.

Our views on policies ensuring fairness for all consumers are as follows:

Affordability

Net of inflation, prices for telecommunication services in Europe have decreased or remained flat for the past decades – unlike those of electricity, fuel, or water. Competition is thriving at both the retail and infrastructure level. When looking at trends for the next decade, we believe price levels are likely to remain the same for most broadband packages, or even to decrease in some cases (e.g., speeds <30Mbps).

Social tariffs through social security mechanisms have, and will continue having, an important role in helping those in need to stay connected. Voucher mechanisms also continue being desirable, both in social terms and in terms of demand stimulation.

Availability

Availability of advanced telecommunication networks and services was mainly driven by the market. Broadband coverage and inclusion were boosted by the advent of 3G and 4G technology, rather than by universal service policies. When looking ahead, this trend will be further strengthened by the availability of 5G, Fixed Wireless Access (FWA) and terrestrial-satellite integration.

Accessibility

Accessibility for physically or cognitively impaired users is and will remain a priority of our sector. Innovation as well as the advent of the smartphone and app era have boosted the development of, and access to, solutions for disabled users. Continued dialogue between telcos, mobile phone manufacturers and disability groups will remain crucial.

Funding

In Europe, Universal service funds have lost their "raison d'etre" in light of the market-drive dynamics described above. While partly useful and appropriate in the past, it is no longer fit-for-purpose. Efficient private investment in network roll-out is and remains the main tool expected to deliver the EU Digital Decade targets on connectivity.

However, a targeted role for Member States funds still exists in some cases. For example, it could be envisaged for those limited areas in which private investment is not economically viable, or where demand-side measures will support low-income families, or to improve uptake (e.g., voucher schemes). Such funds, based on the general state budget, should be handled in a timely, proportionate and non-discriminatory manner.

Trade-offs

European policymakers should remain aware of the intrinsic trade-offs between affordability objectives and quality, innovation and strategic autonomy objectives. The European telecom sector, when compared to global peers, has been suffering from historically low ARPUs (Average Revenue Per User) and returns below the cost of capital, which severely limited the pace of investment and roll-out in new generation networks in Europe. Arguably, it also contributed to a weaker telecom ecosystem, with effects on Europe's innovation capacity and on the industrial strength of vendors.

Barriers to the Single Market

With users excited about new digital services and our companies heavily investing in future technologies, the vision of our sector is full of opportunity. However, the reality is that the European telecommunications sector is weak, held back for too long by excessive regulatory costs, market fragmentation and lack of sufficient scale.

With so much of Europe's competitiveness, innovative potential and strategic autonomy objectives depending on leadership in telecom networks and services, this is relevant for the whole of society, and not just for one sector. Succeeding at the network virtualization and cloudification game – which is one with a pan-European as well as global nature – requires scale.

The creation of a real European telecom single market can help, as follows:

Market and regulatory fragmentation

In 2021, the number of operating groups with more than 500.000 customers was 38 in Europe, as opposed to 3 in China, 4 in Japan and 7 in the US. Similarly, Europe counts over 580 MVNOs (mobile virtual operators) compared with 162 in US and Canada, and 127 in China, Japan and South Korea. This plainly asymmetrical situation is no longer tenable and should be urgently addressed.

When it comes to regulation, we see the need of a simplified European regulatory framework, including removal of regulation where appropriate, and of a fully harmonized implementation. Introducing further EU-wide best practices in areas such as telecoms regulation, consumer protection, taxation and other areas would make investment in telecom markets more attractive.

Scale within markets

With economies of scale in the sector being mostly local (e.g. efficient non-duplicated investment, optimised used of assets, spectrum efficiencies, …) fragmentation of telecom markets at the national level remains a key issue for the sector. We propose a re-evaluation of EU merger policy that acknowledges the role of minimum viable scale in markets with high fixed costs, as well as evaluations that take longer time horizons and also appropriately weigh quality and efficiency benefits. Prices are important, but they cannot be the sole measure of regulatory success for the telecom sector.

Scale across EU markets

With the markets and technology dynamics described in previous paragraphs, a strong, European telecom sector is of vital importance if the EU is to win at the network virtualization game and stay in control of its strategic assets. Building scale within national markets is a steppingstone for cross-border consolidation. Ensuring that synergies can be gained from greater cross-border scale in the telecoms sector would be in the strategic interest of the EU and it is likely to bring benefits mostly in the long-term.

Spectrum policy

We support a more harmonized and investment-friendly approach to spectrum auctions across Europe. Better aligning licensing conditions to best practices is key. However, we do not support EU-level spectrum licenses, which would carry a number of unintended consequences: forcing the use of certain bands only, for example, could create even more fragmentation, or timing of the auctions might become difficult to coordinate.

Digital single market and future technology

If done right, network virtualization and cloudification can contribute to integrating markets across borders and reduce EU fragmentation. However, such cross-border integration is likely to be costly if it encounters intra-EU limits to data sovereignty and security limits. What is more, involvement of non-EU actors (e.g., neutral hosts infrastructure, hyperscalers) poses questions of strategic independence and security, which require a clear and stable ruleset.

Fair Contribution by All Digital Players

An EU regulation is required to ensure that, according to the European Declaration on Digital Rights and Principles, "market actors benefiting from the digital transformation assume their social responsibilities and make a fair and proportionate contribution to the costs of public goods, services and infrastructures, for the benefit of all Europeans."

Today, the total annual investment by European telecom companies in 2021 amounted to €56.3 billion, which goes into deployment of advanced networks and services reaching over 500 million citizens.

Regulatory intervention to ensure large traffic generators fairly contribute to network deployment would bring about significant improvements for European users and for our economies and societies as a whole, including:

- A fairer deal for consumers, as today their internet bills effectively cross-subsidize the revenue models of large traffic generators;

- Gains in network quality, resulting in improved users' online experience;

- More resources for a faster, more inclusive roll-out of 5G and FTTH networks as well as innovative services with edge-computing and network slicing;

- Better incentives for large traffic generators to reduce the energy consumption linked to heavy data traffic loads, with positive environmental impact.

Regulatory Intervention

Today, the situation is not balanced: on one side, a small number of large digital platforms with asymmetric market power are responsible for most traffic growth. They generate enormous revenues for themselves through digital access to European citizens, whilst creating significant costs for telecom operators. Yet, most of the investment burden needed to meet the requirement of these large digital players falls on the shoulders of European operators. Due to significant differences in bargaining power, operators are currently not in a position to reach fair commercial agreements with those creating the greatest cost burden.

This calls for harmonized EU regulatory action, which we believe should be informed by the following principles:

Private investment

The achievement of the EU Digital Decade targets is expected to come mainly from private investment, rather than public funds. Today – with the annual telecom investment per capita in Europe being 50% less than in peer markets such as the United States (Analysys Mason, 2023) – the main problem of the EU is the lack of adequate incentives for private investment. Therefore, regulatory measures should address investment conditions, rather than increasing the size of existing public funds or universal service funds, which are often inefficient. We need a framework that re-establishes fairness in the relationship between Large Traffic Generators and telecom operators, so that we allow adequate prices for data transport services..

Obligation to negotiate

A contribution mechanism should be based on commercial negotiations enshrined in a framework that obliges the parties to negotiate, in good faith and based on common EU principles, a fair and reasonable contribution for traffic delivery.

Arbitration mechanism

If no agreement among parties is reached, dispute settlement mechanisms should be foreseen, with a third, neutral party adjudicating the negotiation based on EU guiding principles (e.g., final offer arbitration).

Targeted and limited scope

We propose a clear threshold to ensure that only large traffic generators (LTGs), who impact substantially on operators' networks, fall within the scope. LTGs would only be those companies that account for more than 5% of an operators yearly average busy hour traffic measured at the individual network level. Other criteria could also be envisaged cumulatively to the 5%, such as the need of meeting the threshold in at least three EU Member States, to reflect the overall impact on European networks.

Exclusions

The proposal for a targeted and limited scope outlined above would prevent any unintended harm to innovation and competition. Smaller traffic generators would be exempt, for example actors such as public broadcasters, who also have an overarching social obligation to provide content to end users. Similarly, intermediaries like commercial content delivery networks (CDNs) should not be considered LTGs, but the traffic conveyed via such intermediaries should count toward the LTG designation threshold.

Beneficiaries

Competition in EU telecom markets should not be disrupted: all telecom companies who invest in infrastructure for connectivity – no matter big, small, traditional or challengers – should benefit from the new rules.

Transparency and accountability

The financial resources resulting from the new rules would correct the current imbalance and ensure that LTGs start to adequately contribute to the achievement of network roll-out, including in the context of the EU Digital Decade targets. Additional transparency and accountability measures could be foreseen to ensure that the resources are effectively invested in network deployment as well as improved capacity and efficiency of networks.

GSMA

etno