

POSITION PAPER ON THE EXPLORATORY CONSULTATION ON THE FUTURE OF THE ELECTRONIC COMMUNICATIONS SECTOR AND ITS INFRASTRUCTURE

Network fees are unjustified and would harm Europeans

15 May 2023

CCIA Europe welcomes the opportunity to participate in the European Commission's exploratory consultation on the future of the electronic communications sector and its infrastructure. CCIA fully supports the EU's 2030 Digital Targets,¹ which set ambitious goals for Europe's connectivity and digital transformation. The tech industry is fully committed to achieving these targets. We caution, however, that a possible introduction of network fees – regardless of the form – would seriously slow down Europe's digital transformation and greatly damage the European internet ecosystem.

I. Network fees address a non-existent problem

The debate around network usage fees has been driven by the demands of a few incumbent European telecom operators. However, none of these ISPs' claims stand up to scrutiny. Network fees are a solution to a problem that doesn't exist.

Key takeaways:

1. The IP interconnection market is competitive
2. Funding for investment in network infrastructure is already available
3. Telecom operators are in a profitable business

II. The “fair share” premise is flawed

Many of the claims made by proponents of “fair share” payments are built on false assumptions. Any serious debate about network fees must be evidence-based.

Key takeaways:

4. ISPs and CAPs have a symbiotic relationship
5. CAPs invest massively in Europe's connectivity, and telcos benefit from it
6. Consumers drive data traffic
7. Traffic growth is steady
8. Traffic growth is good for ISPs, and network costs remain stable

III. Network usage fees would harm Europeans

The introduction of any mandatory financial contribution from certain CAPs to incumbent ISPs would be detrimental to Europe's internet ecosystem and competitiveness. That's also the evidence from the only country that has implemented a similar system, South Korea.

Key takeaways:

9. Treating data differently would undermine net neutrality
10. Imposing a fee on traffic would harm Europe's digital transformation
11. Evidence from South Korea's failed experiment

¹ Europe's Digital Decade: digital targets for 2030, available [here](#).

Introduction

The Computer & Communications Industry Association (CCIA Europe) welcomes the opportunity to contribute to the European Commission’s exploratory consultation on the future of the electronic communications sector and its infrastructure.

We appreciate the choice of an “exploratory consultation”. According to the EU’s Better Regulation toolbox, exploratory consultations “may provide insights to determine if any problem exists”, and can be carried out “before stakeholder consultation linked to a concrete initiative takes place”.² This underscores the preliminary nature of the current debate, given that it still has to be determined whether any problem exists at all.

CCIA is a staunch supporter of Europe’s 2030 Digital Targets – such as 75% of EU companies using the cloud, AI, and big data – and welcomes the European Commission’s ambition to speed up the deployment of gigabit connectivity across the EU. That is exactly why CCIA Europe cautions against calls for regulatory intervention that would end up hindering the EU in reaching its 2030 goals and introduce harms to Europe’s digital ecosystem.

We are particularly concerned with certain incumbent EU telecom operators’ campaign for the introduction of mandatory network fees. These telecom operators want to charge the same internet traffic twice. ISPs are already paid by their customers for internet access, but now also want to get money whenever tech firms respond to users’ requests for data.

CCIA urges the European Commission to refrain from introducing any regulation that would mandate content and application providers (CAPs) to financially contribute to internet service providers’ (ISPs) network infrastructure – regardless of the form.

This paper demonstrates the absence of any evidence supporting demands for network fees. Network usage fees would seriously endanger Europe’s digital targets, harm European internet users, and undermine existing EU net neutrality protections.

I. Network fees address a non-existent problem

The debate around network usage fees has been driven by the demands of a few incumbent European telecom operators. However, none of these ISPs’ claims stand up to scrutiny. Network fees are a solution to a problem that doesn’t exist.

1. The IP interconnection market is competitive

European telecom incumbents claim to be in a position of disadvantaged bargaining power compared to CAPs.³ However, evidence shows that the European IP interconnection market is competitive, balanced, and flexible. The only actors who enjoy preferential treatment are, indeed, the incumbent ISPs.

² European Commission, *Better regulation toolbox*, November 2021 edition, available [here](#), p. 465 et. ss.

³ Financial Times, *Letter: Europe’s telecoms market risks falling behind rivals*, February 2022, available [here](#).

The IP market is a highly adaptable ecosystem that over time has allowed for the development of traditional actors such as ISPs and CAPs, as well as the entry and growth of alternative actors such as providers of cloud services and content delivery networks (CDNs). Probably the clearest indicator of the efficient functioning of the IP interconnection market is the fact that, by and large, the most common arrangements are settlement-free peering agreements. That is to say, agreements for the exchange of data that are based on handshakes, and involve no payment of fees (in 99% of cases^{4, 5}).

Most actors in this market recognise the mutual benefits of such agreements and voluntarily settle on this standard. However, ISPs with a dominant position do not. In France for example, 48% of peering traffic is not settlement-free.⁶ In Germany, “Deutsche Telekom peers only with Tier 1 backbone operators. It only offers transit to CAPs and does not allow any on-net CDN servers.”⁷ Showing little concern for the performance of their services and efficient traffic routing, such ISPs refuse to peer directly and impose stricter requirements to peer, with benefits only for themselves.

The few competition disputes reported within the IP market are only related to the practices of incumbent ISPs seeking to impose fees for interconnection, not CAPs. Examples are the dispute between the backbone ISP Init7 and the telecom incumbent Swisscom, as well as the dispute that arose from the behaviour of T-Mobile in the Netherlands in 2019.⁸

Clearly telecom incumbents are not suffering from a lack of bargaining power. On the contrary, as put by the Body of European Regulators for Electronic Communications (BEREC), enhancing incumbent ISPs’ power through network fees would “provide [them] the ability to exploit the termination monopoly and it is conceivable that such a significant change could be of significant harm to the internet ecosystem.”⁹

2. Funding for investment in network infrastructure is already available

Another recurring claim that incumbent telecom operators use to justify the introduction of network fees relates to a purported lack of capital to invest in network infrastructure. However, that does not seem to be the case.

Alternative broadband providers, for example, have stressed that there currently is a strong momentum for fibre deployment, with “sufficient capital available for investments in fibre networks, especially by private investors”.¹⁰ Similarly, the French regulator ARCEP stated that “in France, investments in networks have never been as high as since 2015, the date of adoption of the regulation on Net Neutrality.”¹¹

BEREC has also emphasised that “the attractiveness of access network investment is reflected in the annually increasing capital investors’ investments in fibre access

⁴ WIK-Consult, *Competitive conditions on transit and peering markets*, February 2022, available [here](#).

⁵ Plum, *Analysis of the FFT Sender Party Network Pays proposal*, February 2023, available [here](#).

⁶ Ibidem.

⁷ WIK-Consult, *Competitive conditions on transit and peering markets*, February 2022, available [here](#).

⁸ Ibidem.

⁹ BEREC, *BEREC preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs (BoR (22) 137)*, October 2022, available [here](#).

¹⁰ BREKO, *Public consultation on the draft BEREC Guidelines on the Implementation of the Open Internet Regulation*, April 2022, available [here](#).

¹¹ Plum, *Analysis of the FFT Sender Party Network Pays proposal*, February 2023, available [here](#).

networks.”¹² The European Commission, in June 2022, recognised that “industrial and financial investors have developed a strong appetite for digital infrastructures.”¹³

In addition to private investment, there is also no shortage of public funding for network infrastructure. At the EU level alone, there are plenty of examples in this regard. The European Recovery and Resilience Facility (including €130 billion for 5G and fibre), the Connecting Europe Facility-Digital (€2.06 billion) and the Digital Europe Programme (€7.59 billion) all allocate significant resources for projects related to connectivity, which telecommunications companies can utilise to sustain their network investments.

3. Telecom operators are in a profitable business

Telecom incumbents continue to assert they cannot make viable returns on their investments.¹⁴ However, “the telco sector is still among the most profitable sectors in Europe,”¹⁵ even though telcos are no longer experiencing the surge in revenue they saw when mobile networks were first being established. In particular, incumbent ISPs have the privilege to operate in a market with restricted access, which allows them to enjoy very low cost capital and high EBITDA margins.¹⁶

Since 2016, both Deutsche Telekom and the Orange group’s revenue increased, which was also reflected in higher dividend payouts (up 33% for Orange). Telefonica’s profits also went up sharply in recent years, with dividend payouts increasing by 24% between 2016 and 2021.¹⁷ Indeed, the dividend payments of Europe’s incumbent telecom operators are several times higher than the average of European listed companies, and in the case of Telefonica and Orange nearly five times higher.¹⁸

Could it be that incumbent ISPs’ demand for funding is actually a question of capital allocation? It appears that they consistently prioritise dividend payouts over infrastructure investments. Higher profits will not change this dynamic.

II. The “fair share” premise is flawed

Many of the claims made by proponents of “fair share” payments are built on false assumptions. Any serious debate about network fees must be evidence-based.

4. ISPs and CAPs have a symbiotic relationship

The most surprising claim made by telecom operators is that CAPs are free riding on their network investments, and apparently do not contribute to Europe’s network capacity.¹⁹ In

¹² BEREC, *BEREC preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs* (BoR (22) 137), October 2022, available [here](#).

¹³ European Commission, *A study on investing in local and regional Gigabit broadband deployment: Opportunities and challenges for market investors in the EU*, June 2022, available [here](#).

¹⁴ Financial Times, *Letter: Europe’s telecoms market risks falling behind rivals*, February 2022, available [here](#).

¹⁵ Research ICT Solutions, *Competition and Investment in the Internet Value Chain in Europe*, October 2022, available [here](#).

¹⁶ Ibidem.

¹⁷ Ibidem.

¹⁸ Ecipe, *Sender-Pays: Rethinking incentives for infrastructure investments*, September 2022, available [here](#).

¹⁹ Axon Partners Group, *Europe’s internet ecosystem: socio-economic benefits of a fairer balance between tech giants and telecom operators*, May 2022, available [here](#).

doing so, incumbent telcos seem to ignore the fact that they have a symbiotic relationship with CAPs and benefit from one another.

The diverse range of content and applications that is available online drives demand for ISPs' access services, allowing them to expand their customer base and increase revenue. As BEREC puts it: "the ISPs are 'using' the content of CAPs in order to increase revenues. [...] Ultimately, it is the success of the CAPs [...] which lies at the heart of the recent increases in demand for broadband access."²⁰ Indeed, without any content to access or services to use, consumers would have significantly less incentive – or none at all – to pay ISPs for internet access.

CAPs and ISPs also collaborate closely on a daily basis. Numerous partnerships are already in place when it comes to investing in network infrastructure, managing traffic, and working together on a wide variety of technical issues (such as break fixes, traffic analysis, routing optimisation, and security). ISPs' network capacity is also improved thanks to the caches and CDNs provided by CAPs.

5. CAPs invest massively in Europe's connectivity, and telcos benefit from it

On top of their investments in content, many CAPs understand the importance of network infrastructure. Over the last decade (2011-2021) CAPs' investment in European network infrastructure amounted to €183 billion, including hosting (e.g. data centres), transport (e.g. submarine and terrestrial cables), and content delivery networks (e.g. peering and caching).²¹

In the last five years, CAPs increased their annual investment by 50% compared to the 2014-2018 period, spending on average €22 billion per year on EU digital infrastructure. All these investments do not only benefit CAPs and their users, but also ISPs. As estimated by Analysys Mason, as a result of these investments, ISPs save nearly €1 billion per year in network and transit fees in the EU.²²

Investments by CAPs also concretely help ISPs in the delivery of data to end-users, by bringing content as close as possible to customers and reducing the distance that data has to travel. On-net caches reduce the backbone and backhaul capacity that ISPs have to support to reach consumers. CDNs help reduce latency for consumers and offer different pathways to deliver content requested by consumers, thereby significantly reducing the likelihood of congestion, with clear benefits to all participants in the digital ecosystem.²³

6. Consumers drive data traffic

While telecom operators repeatedly claim that CAPs drive growth in data traffic, they are well aware that this contradicts how the internet works in practice. It is not CAPs who generate data, but ISPs' own customers.

²⁰ BEREC, *BEREC preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs* (BoR (22) 137), October 2022, available [here](#).

²¹ Analysys Mason, *The impact of tech companies' network investment on the economics of broadband ISPs*, October 2022, available [here](#).

²² Ibidem.

²³ Please find additional data on the positive effects of CAPs' network investment [here](#).

As explained by BEREC, “the request for the data flow usually stems not from the CAP but from the retail Internet access provider’s own customer (who ‘pulls’ content provided by the CAPs, and from whom the ISP is already deriving revenues).”²⁴

Analysys Mason also found that “proponents of network usage fees [...] tend to characterise traffic as being driven by CAPs, ignoring the fact that it is ultimately the choices made by end-users that determine traffic volumes.”²⁵ In short, it is ISPs’ own consumers that are requesting data, and they have already paid telcos to receive it.

This also explains why the use of the term “large traffic generator” in the European Commission’s exploratory consultation is misleading and factually incorrect. The loaded term echoes telecommunications companies’ narrative of CAPs being the cause of data growth, and does not reflect the facts.

7. Traffic growth is steady

As part of the debate on network usage fees, telecom operators have often pointed at ostensible “exponential traffic growth” as the main cause of their financial struggles.²⁶ The reality is far from that. Traffic is not growing exponentially, it is stable at best – as reported by multiple reports, such as BEREC’s preliminary assessment and the WIK Consult study for the German Federal Network Agency.²⁷

In the abovementioned study, WIK asserted that traffic “growth is stable, which is explained by a relative market saturation for streaming services.” And in October last year, BEREC concluded that “internet traffic has grown steadily over the years. [...] There has been no fundamental change in the general growth tendency.”²⁸

Thus, the available evidence does not support the claim that traffic will increase exponentially in the near future, nor that a sudden increase in traffic would require exponential capacity and cost increases on the part of ISPs. Despite hearsay, there is no evidence that virtual worlds will lead to capacity constraints on mobile networks, as their deployment will be based on fixed networks through Wi-Fi.²⁹ So, none of these erroneous claims should be used to justify network usage fees either.

8. Traffic growth is good for ISPs, and network costs remain stable

Traffic growth is good for telcos, it is of vital importance and benefit to their business model. As Ofcom, for example, clarified: “traffic growth is important because network investment is driven by the amount of traffic that needs to be carried.”³⁰ Similarly, Ericsson has stated that “growth in mobile traffic is among the foremost economic drivers of next-generation wireless networks.”³¹

²⁴ BEREC, *BEREC preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs* (BoR (22) 137), October 2022, available [here](#).

²⁵ Analysys Mason, *The impact of tech companies' network investment on the economics of broadband ISPs*, October 2022, available [here](#).

²⁶ Axon Partners Group, *Europe's internet ecosystem: socio-economic benefits of a fairer balance between tech giants and telecom operators*, May 2022, available [here](#).

²⁷ WIK-Consult, *Competitive conditions on transit and peering markets*, February 2022, available [here](#).

²⁸ BEREC, *BEREC preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs* (BoR (22) 137), October 2022, available [here](#).

²⁹ Meta, *Network Fee Proposals Are Based on a False Premise*, March 2023, available [here](#).

³⁰ Ofcom, *Net neutrality review*, October 2022, available [here](#).

³¹ Ericsson, *Understanding the Economics of 5G Deployments*, June 2020, available [here](#).

Moreover, it is clear that traffic growth does not lead to increased costs for telecom incumbents. The absence of this direct relationship is exemplified by Analysys Mason, which reports that while between 2018-2021 traffic volumes have grown significantly, ISPs' costs have remained stable. In particular, compared to a total increase of global traffic of more than 160%, ISPs' network-related costs increased by only 3%.³²

BEREC has clarified that “increasing traffic volumes do not directly lead to significant incremental costs” for telecom operators.³³ In addition, as reported by Communications Chambers,³⁴ network costs per data unit are declining due to technology advances and productivity gains, which is why overall network costs remain stable even in presence of a steady increase in data traffic. The adoption of fibre networks will also further decrease ISPs' costs, because these networks are significantly more efficient than copper-based networks as well as more easily upgradeable.

Coupled with the absence of a correlation between volume and cost, is the fact that costs for network deployment and upgrades of access networks are generally already covered by the subscription fees that customers pay to ISPs.³⁵ Finally, WIK Consult found that technological innovations have led to a significant decrease in equipment costs, which of course has benefits for telecom operators.³⁶

III. Network usage fees would harm Europeans

*The introduction of any mandatory financial contribution from certain CAPs to incumbent ISPs would be detrimental to Europe's internet ecosystem and competitiveness. That is the evidence from the only country that has implemented a similar system, South Korea.*³⁷

9. Treating data differently would undermine net neutrality

Any form of mandated payments, as proposed by telecom lobbyists, would be in stark contrast with EU Regulation No 2015/2120.³⁸ Simply put, the principle of net neutrality established by this Regulation requires ISPs to treat all internet data equally.

Yet, ISPs' demands for “fair share” payments are inherently about treating data traffic differently and strengthening their control over users' access to the internet. The introduction of network fees will *de facto* lead to the creation of a two-tiered internet.

Companies who can pay ISPs to reach their customers will be treated preferentially, for example with better services, *de facto* cementing their position at the top. By contrast, CAPs that cannot – or refuse to – pay, will be discriminated against. Smaller CAPs will thus

³² Analysys Mason, *The impact of tech companies' network investment on the economics of broadband ISPs*, October 2022, available [here](#).

³³ BEREC, *BEREC preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs* (BoR (22) 137), October 2022, available [here](#).

³⁴ Communication Chambers, *An internet traffic tax would harm Europe's digital transformation*, July 2022, available [here](#).

³⁵ BEREC, *BEREC preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs* (BoR (22) 137), October 2022, available [here](#).

³⁶ WIK-Consult, *Competitive conditions on transit and peering markets*, February 2022, available [here](#).

³⁷ For an analysis of the situation in South Korea, please see: Internet Society, *Internet Impact Brief: South Korea's Interconnection Rules*, May 2022, available [here](#); and Internet Society, *Sender Pays: What Lessons European Policy Makers Should Take From The Case of South Korea*, October 2022, available [here](#).

³⁸ Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015, available [here](#).

be relegated into second class networks, with less possibilities to grow and reach consumers. Such payments, if more broadly sought, would have significant consequences for other providers of infrastructure and interconnection, in particular internet exchange points which support smaller competing CAPs and the wider ecosystem of digital businesses.

BEREC recognised in October 2022 that the “ETNO proposal could present various risks for the internet ecosystem.” Net neutrality would even be impacted in the case of mandated negotiations, as BEREC already clarified that interconnection agreements can also be in violation of net neutrality protections.³⁹

Moreover, with the introduction of network fees, the EU would likely risk breaching its WTO GATS Commitments, under Article V of Annex on Telecommunications.⁴⁰ Based on these obligations, the EU committed to ensure that service suppliers from other WTO countries would be accorded non-discriminatory access to EU Member State networks. Any EU measure that results in the differential treatment of specific CAPs from other WTO countries, based on arbitrary distinctions such as traffic volumes, would likely be inconsistent with such non-discrimination obligations.

10. Imposing a fee on traffic would harm Europe’s digital transformation

Charging data traffic will distort digital markets and make the EU 2030 Digital Targets more difficult to attain. These targets include the goal of 75% of EU companies using the cloud, AI and big data, the growth of EU tech startups and unicorns, but also gigabit-speed internet for everyone and more than 90% of SMEs reaching a basic level of digital intensity by 2030. Introducing a fee on the very technologies that will enable the reaching of these goals, such as cloud computing, will inevitably slow down Europe’s digital transformation.

European CAP startups, for example, would be disincentivised from growing, as success would mean being subject to a new set of fees. Network fees would likely also hit cloud and CDN providers, thus raising costs for businesses and consumers alike.⁴¹ This would, in turn, disincentive European SMEs from making the shift to the cloud, and result in them missing out on important efficiency gains.

Oxera reports that the transaction and regulatory costs connected with the introduction of network usage fees would be significant. And this would come on top of additional costs related to the “degradation of internet quality [...], reduced investment incentives for CAPs, and competitive distortions between CAPs caught by the charges and those that are not.”⁴²

Apart from the big telecom operators that are campaigning for EU network fees, all other relevant stakeholders have firmly rejected the idea of mandated payments. The entire internet ecosystem⁴³ came out against this idea, sounding the alarm bell about the

³⁹ BEREC, *BEREC Guidelines on the Implementation of the Open Internet Regulation, BoR (22) 81*, June 2022, available [here](#).

⁴⁰ WTO Annex on Telecommunications, available [here](#).

⁴¹ Plum, *Analysis of the FFT Sender Party Network Pays proposal*, February 2023, available [here](#).

⁴² Oxera, *Proposals for a levy on online content application providers to fund network operators*, February 2023, available [here](#).

⁴³ Epicenter.works, *Joint Industry, NGO, Consumer, Telecom, MEPs and Rightsholder Statement against Network Fees*, May 2023, available [here](#).

detrimental impact it will have on net neutrality,⁴⁴ consumers,⁴⁵ media pluralism,⁴⁶ and the resilience of Europe's internet infrastructure.⁴⁷

11. Evidence from South Korea's failed experiment

In 2016, South Korea introduced a mechanism similar to the network fees proposed by European ISPs, and has been revising its regulation ever since.⁴⁸ "The case of South Korea demonstrates that a [sending party network pays] (SPNP) regime has the opposite effect to the intended objectives. It reduced investment (fewer CDNs, not more), led to lower quality of service (the result of fewer CDNs) and increased the prices for the end-user".⁴⁹ Curiously, these negative consequences are rarely mentioned by proponents of EU network fees.

As a direct result of being pressured to pay high network fees to ISPs, numerous South Korean and foreign content providers degraded their services⁵⁰ or simply exited the market.⁵¹ This led to higher latency rates,⁵² with South Korean internet users now having the worst latency experience of all OECD countries. For the same reason, smaller Korean CAPs and startups increasingly encounter difficulties entering the market or expanding their market share.

This has greatly reduced competition for internet access services in South Korea and led to sharp decreases in the level of services and content available to consumers. Surprisingly perhaps, the roll-out of 5G networks in South Korea is also slowing down,⁵³ even though the country is often perceived as a mobile tech champion by many abroad.

Conclusion

Demands for network usage fees do not stand up to scrutiny. There is no obvious problem that needs to be solved in the European IP interconnection market. Evidence shows that network fees would in fact lead Europe further away from achieving its 2030 Digital Targets. They would also undermine critical net neutrality protections and impose significant extra costs on all Europeans that today benefit from online content and applications.

CCIA welcomes the European Commission's exploratory consultation. We encourage the Commission to fully adhere to the EU's Better Regulation toolbox, including its responsibility to undertake a thorough impact assessment and, *if* evidence of a clear problem requiring regulatory intervention is found, to commission studies and consult all stakeholders through a regular public consultation.

⁴⁴ Epicenter.works, *Net Neutrality: Myths from the Telecom Industry and Responses from Civil Society*, November 2022, available [here](#).

⁴⁵ BEUC, *BEUC preliminary position on possible introduction of network infrastructure fees*, September 2022, available [here](#). On the impact on consumers, see also: ITIF, *Consumers Are the Ones Who End Up Paying for Sending-Party-Pays Mandates*, November 2022, available [here](#).

⁴⁶ Vaunet, "Sending network party pays" - a model that endangers media pluralism, October 2022, available [here](#).

⁴⁷ European Internet Exchange Association, *Fair share debate and potential impact of SPNP on European IXPs and Internet ecosystem*, January 2023, available [here](#).

⁴⁸ WIK-Consult, *Competitive conditions on transit and peering markets*, February 2022, available [here](#).

⁴⁹ Research ICT Solutions, *Competition and Investment in the Internet Value Chain in Europe*, October 2022, available [here](#).

⁵⁰ Carnegie Endowment for International Peace, *The Korean Way with data*, August 2021, available [here](#).

⁵¹ WIK-Consult, *Competitive conditions on transit and peering markets*, February 2022, available [here](#).

⁵² OECD, *Broadband networks of the future, OECD Digital Economy Papers*, No. 327, July 2022, available [here](#).

⁵³ Reuters, *Analysis: South Korea's high-speed 5G mobile revolution gives way to evolution*, May 2022, available [here](#).

CCIA's Members are committed to help the EU achieve its 2030 Digital Targets. We therefore urge the European Commission to acknowledge the evidence base and take a more holistic approach to achieving these goals, by focusing on fostering consumer demand for connectivity. The European Commission should encourage regulators to address the actual bottlenecks in infrastructure rollout, starting with removing red tape and addressing Europe's shortage of civil engineering capacity.

The European Commission should also consider the bigger picture of connectivity, for example by including satellite connectivity and spectrum in the conversation. There is plenty of low-hanging fruit that, if addressed by European regulators, could deliver major leaps in the deployment of gigabit connectivity across the EU. But mandating network fees definitely is not one of them.

About CCIA Europe

The Computer & Communications Industry Association (CCIA) is an international, not-for-profit association representing a broad cross section of computer, communications, and internet industry firms.

As an advocate for a thriving European digital economy, CCIA Europe has been actively contributing to EU policy making since 2009. CCIA's Brussels-based team seeks to improve understanding of our industry and share the tech sector's collective expertise, with a view to fostering balanced and well-informed policy making in Europe.

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