

European Commission's Consultation on the White Paper on How to Master Europe's Digital Infrastructure Needs

CCIA Europe Response

June 2024

The Computer & Communications Industry Association (CCIA Europe) welcomes the opportunity to participate in the European Commission's consultation on the white paper 'How to master Europe's digital infrastructure needs'.

While being a staunch supporter of Europe's 2030 Digital Decade policy programme, CCIA Europe warns that some of the paper's proposals may in fact harm EU businesses and consumers. CCIA Europe respectfully asks the Commission to refrain from proposing such detrimental policies and to abide by its regulatory standards. That is, legislate only in cases of market failures, with the ultimate goal of promoting competition, protecting consumers, and the open internet.

I. No justification for regulatory intervention in cloud or IP interconnection

Cloud service providers and telecom operators provide different services. Any extension of the European Electronic Communications Code (EECC) to cloud and digital service providers is unjustified, detrimental to Europe's connectivity goals, and leads to the introduction of network usage fees (a policy that has been overwhelmingly rejected). The IP interconnection market works well and no regulatory intervention is necessary.

Key takeaways:

1. Cloud service providers differ from telecom operators
2. Extending the EECC to cloud and digital service providers is detrimental to Europe's connectivity goals and would lead to network fees
3. Europe's IP interconnection market works well

II. Europe is on track to meet its 2030 connectivity targets

CCIA Europe respectfully disagrees with the negative framing of the European telecoms sector. In fact, we are convinced that Europe is well equipped to meet its 2030 connectivity targets, and will be able to do so with the right policies and incentives.

Key takeaways:

4. The alleged investment need is within reach
5. Demand-side measures and technological neutrality can boost the telecoms sector
6. New technologies enable substantial environmental progress
7. Satellite connectivity can help reach underserved and remote areas
8. Harmonise spectrum to reduce bureaucratic procedures
9. Undersea cables ensure Europe's connectivity resilience

Introduction

The Computer & Communications Industry Association (hereinafter 'CCIA Europe') welcomes the opportunity to contribute to the European Commission's consultation on the white paper on 'How to master Europe's digital infrastructure needs'¹ (hereinafter the 'white paper').

CCIA Europe commends the European Union's ambitious digital decade policy programme for 2030², of which it has always been a staunch supporter. We believe that Europe is well on track to meet its connectivity targets, provided that new policies focus on fostering consumer demand, competition, and are based on a technology neutral approach³.

However, we believe that the white paper presents an overly negative picture of Europe's telecom and digital ecosystem, proposes scenarios which are not rooted in facts but speculation about how markets might evolve, and does not seem to consider the negative repercussions of some of its proposals on Europe's businesses and consumers, as well as its digital ambitions at large.

Thus, in response to the consultation on the Commission's white paper, we respectfully offer the following recommendations:

1. Do not extend the European Electronic Communications Code to cloud and other digital service providers
2. Do not implement scenario 4 of the white paper, instead focus on measures to foster widespread cloud and digital services' adoption
3. Do not regulate the IP interconnection market
4. Increase transparency for public funds dedicated to network infrastructure deployment
5. Adopt a technological neutral approach and stimulate demand-side measures to increase consumer demand for fast connectivity
6. Recognise the continuous efforts of cloud service providers and content and application providers (CAPs) to ensure and improve the sustainability of their operations
7. Adopt a technology neutral approach to reach underserved and remote areas
8. Reduce and simplify bureaucratic procedures for spectrum allocation and management
9. Implement policies which foster competition and ensure resilience of submarine cables

¹ European Commission, 'White Paper - How to master Europe's digital infrastructure needs?', 21 February 2024, available [here](#).

² European Commission, Europe's Digital Decade: digital targets for 2030, available [here](#).

³ As for example shown in CCIA Europe's own 'white paper' 'Ensuring Europe Achieves its 2030 Connectivity Targets', 30 January 2024, available [here](#).

I. No justification for regulatory intervention in cloud or IP interconnection

Cloud service providers and telecom operators provide different services. Any extension of the European Electronic Communications Code (EECC) to cloud and digital service providers is unjustified, detrimental to Europe's connectivity goals, and leads to the introduction of network usage fees (a policy that has been overwhelmingly rejected). The IP interconnection market works well and no regulatory intervention is necessary.

1. Cloud service providers differ from telecom operators

In section 2.3.4 and in scenario 4, the white paper conveys the idea that telecom operators and cloud service providers are converging. Thus, the regulatory framework intended for telecommunication operators – i.e. the European Electronic Communications Code (hereinafter referred to as ‘the EECC’) – should be extended to cloud service providers, thereby creating a “level playing field”.

The reality is that today, cloud service providers and telecommunications operators coexist, but do not converge, and the white paper’s assumptions about this alleged convergence are mostly based on speculations on how the markets may evolve. The proper way to describe the relationship between telecommunication operators and cloud service providers is that of a reciprocal customer-supplier relationship.

While telecom companies mainly provide connectivity services, cloud providers offer computing resources – allowing telecom operators to better monitor, analyse, and manage their networks. Telecom operators pay cloud service providers for these computing resources, and cloud service providers pay telecommunication companies for internet access. Just like telecom operators provide the same connectivity services to all their customers, cloud service providers provide the same services to all their customers.

In other words: cloud service providers support telcos’ in the same way they support all their other customers to reduce costs and foster innovation.⁴ The so-called ‘cloudification’ phenomenon is happening in all industries that use cloud services, such as automotive, healthcare, energy, e-learning, retail, and telecommunications.⁵

Hence, cloudification as such does not warrant any regulatory consideration. No regulation parity is thus needed for cloud service providers and telecom operators, as the two businesses remain fundamentally different, and their markets separate.

Furthermore, CCIA Europe stresses the absence of any market failure that would justify extending the EECC to cloud service providers. Neither did the Body of European Regulators for Electronic Communications (‘BEREC’) identify any in its latest Report on Cloud and Edge Computing Services⁶, nor did the European Commission in its white paper. As explained above, the use of cloud services in the telecom sector does not differ from the use of cloud

⁴ Dean Bubley, ‘Cloudcos & Telcos: No, not the same at all’, 30 May 2024, available [here](#).

⁵ Plum Consulting, ‘Study on the trends and cloudification, virtualization, and softwarization in telecommunications’ 7 December 2023, available [here](#).

⁶ BEREC, ‘BEREC Report on Cloud and Edge Computing Services’. 7 March 2024, available [here](#).

services in other sectors and does not trigger any unaddressed regulatory concerns from an economic, legal, or security point of view.

What is more, potential regulatory concerns related to cloud service providers are already addressed in existing EU laws, especially considering all recently passed regulations, yet to be implemented and spur their effects. Examples include: the NIS2 Directive, Cybersecurity Act (including the upcoming EUCS), and Cyber Resilience Act from a security point of view; the Data Act and European Interoperability Framework, for switching and interoperability obligations; the Digital Services Act, Product Liability Directive, Digital Content Directive, Consumer Rights Directive, Omnibus Directive and the Unfair Commercial Practice Directive for obligations towards consumers.

In this respect, CCIA Europe suggests the European Commission to:

- Refrain from extending the scope of the EECC to cloud service providers (scenario 4) given the absence of any convergence
- Abide by its Better Regulation standards and regulate only based on presence of clear market failures – absent in the present case
- Focus on implementation of the recently passed legislations on cloud services
- Avoid overregulation and the consequent stifling effect on innovation and Europe's digitalisation

2. Extending the EECC to cloud and digital service providers is detrimental to Europe's connectivity goals and would lead to network fees

On top of the lack of justification for the extension of the EECC to cloud service providers, this potential regulatory intervention will have a huge snowball effect on Europe's businesses and ability to reach the 2030 digital targets, and would automatically lead to the introduction of network usage fees. It should be thus critically avoided.

CCIA politely requests the European Commission to differentiate between different providers, such as telecom operators, cloud service providers, content delivery network ('CDNs') providers, and the vast array of digital service providers.

For example, a further clear distinction can be drawn between telecom operators and CDN providers, who operate at significantly different layers of the internet's infrastructure. While telecom operators provide the underlying connectivity and physical infrastructure, CDNs allow a secure, sustainable and efficient delivery of content requested by the telecom operators' customers, through distributed caches and points of presence. Respectfully, we do not see the merit of the extension of the EECC to such different services, when there is no similarity of services, nor any identified market failure.

Indeed, the unjustified extension of the EECC to cloud service providers, content delivery networks ('CDNs') and digital service providers will create a significant snowball effect on Europe's businesses and consumers.⁷ Potential consequences include an increased legislative complexity, higher market fragmentation, and a deterrent effect on the competitiveness of European businesses. Cloud and CDNs' services will become more expensive, the thousands of European companies that are using cloud and CDNs' services

⁷ Plum Consulting, Consequences of EC proposals to extend regulatory scope to the entire digital economy, June 2024, available [here](#).

will have to shoulder increased costs, and the companies that have yet to move to the cloud will be disincentivised to do so.

All of these negative impacts will impair Europe's competitiveness, deter the uptake of cloud and digital services, reduce the chance to meet the goal of 75% of EU companies using cloud technologies, and ultimately that of reaching all of the 2030 digital targets.⁸

What is more, the extension of the arbitration mechanism foreseen in Article 26 EEC to cloud, CDNs and digital service providers is precisely what telecom lobbying group ETNO proposed as one of the "possible tools for a direct compensation"⁹ i.e. network usage fees.

As Stanford law professor Barbara Van Schewick explains: "an arbitration mechanism is just another way of introducing network usage fees on multiple sectors and consumers." Indeed, "the negotiation determines how much the specific content provider has to pay the specific ISP, not if it should pay at all", thus inherently breaching net neutrality.¹⁰

As a reminder, network fees are a highly detrimental policy that was overwhelmingly rejected¹¹ by stakeholders in the 2023 exploratory consultation¹², which would undermine net neutrality and create a two-tiered internet, with prioritised traffic on one hand for those who are obliged to pay, and slower access for others.

Network fees would create barriers to entry to new and smaller content and application providers ("CAPs"), disincentive them from innovating, and relegate them into second class networks. European consumers will face higher costs and lower internet quality, as has happened in South Korea since 2016.¹³

Extending the EEC to cloud service providers, CDNs and digital service providers is detrimental to Europe's consumers, businesses and 2030 goals, and should thus be disregarded. For these reasons, CCIA Europe urges the European Commission to refrain from implementing the suggestions foreseen in scenario 4 of the white paper, and instead focus on measures that foster the adoption of cloud and digital services.

⁸ European Commission, Europe's Digital Decade: digital targets for 2030, available [here](#).

⁹ Axon partners group, 'Europe's internet ecosystem: socioeconomic benefits of a fairer balance between tech giants and telecom operators', page 44, May 2022, available [here](#).

¹⁰ Barbara Van Schewick, 'Eu telecoms' newest proposal to force websites to pay them is just as terrible as their previous one', 8 July 2023, available [here](#).

¹¹ The Internet Society, 'Network Usage Fees: The European Commission Plays Politics with the Global Internet', 19 October 2023, available [here](#).

¹² European Commission, exploratory consultation on the future of the electronic communications sector and its infrastructure, 23 February 2023, available [here](#).

¹³ See for example: The Internet Society, 'Internet Impact Brief: South Korea's Interconnection Rules', 11 May 2022, available [here](#).

3. Europe's IP interconnection market works well

All studies and evidence produced¹⁴ so far point to the lack of any problem in the IP interconnection market. The European Commission in the white paper¹⁵, BEREC¹⁶, the technical community and economists¹⁷, have all agreed that the market of peering and transit functions properly.

Nonetheless, the white paper still entertains the possibility of introducing an arbitration mechanism in the IP interconnect market, almost presuming that the circumstances of this effective market will change. Respectfully, CCIA Europe notes that these considerations appear premature.

However, should one look at the few disputes which – in the European Commission's view – could potentially justify a regulatory intervention, the recently published BEREC report on IP interconnection sheds light on two fundamental issues. First of all, contrary to what telecom operators claim, “the IP-IC bargaining situation between market players seems balanced”.¹⁸ There is thus no bargaining power issue that would justify any regulatory intervention.

What is more, all available evidence actually points to the fact that it is telecom operators who have more bargaining power in the IP interconnection market. Indeed, as BEREC puts it, “most disputes [in the IP interconnection market] stem from vertically integrated IAS providers attempting to leverage their termination monopoly into the transit/peering market and to introduce (higher) fees for IP-IC directly from CAPs.”¹⁹ In other words, the only disputes on the IP interconnection market are due to the anti competitive behaviour of former monopolies telecommunication companies that try to “extract additional rents from CAPs”.²⁰

It seems thus clear how there is no legal nor economic evidence that justifies a regulatory intervention in the IP interconnection market, in the shape of an arbitration mechanism or in any other form.

In conclusion, in light of the absence of any evidence that would justify regulatory intervention in the IP interconnection market, the overwhelming opposition against network usage fees, as well as their numerous negative consequences, CCIA Europe respectfully

¹⁴ For example, please see:

- Wik Consult, ‘Competitive conditions on transit and peering markets’, 28 February 2023, available [here](#).
- Analysys Mason, ‘IP interconnection on the Internet: a European perspective for 2022’, 26 September 2022, available [here](#).
- Plum Consulting, ‘How the internet works (and is paid for)’, 3 October 2022, available [here](#).
- Research ICT Solutions, ‘Competition and investment in the Internet value chain in Europe’ October 2022, available [here](#).
- BEREC, ‘Draft BEREC Report on the IP Interconnection ecosystem’, 6 June 2024, available [here](#).

¹⁵ European Commission, ‘White Paper - How to master Europe's digital infrastructure needs?’, page 26, 21 February 2024, available [here](#).

¹⁶ Please see: BEREC, ‘Preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs’, Oct 2022, available [here](#); as well as: BEREC, ‘BEREC input to the EC's exploratory consultation on the future of the electronics communications sector and its infrastructure’, 19 May 2023, available [here](#).

¹⁷ Oxera, ‘Proposals for a levy on online content application providers to fund network operators’, 27 February 2023, available [here](#).

¹⁸ BEREC, ‘Draft BEREC Report on the IP Interconnection ecosystem’, page 33, 6 June 2024, available [here](#).

¹⁹ Ibidem, page 30.

²⁰ Ibidem, page 26.

requests the European Commission to refrain from regulating the IP interconnection market in any way, be it by introducing a dispute resolution mechanism or any other policy measure.

II. Europe is on track to meet its 2030 connectivity targets

CCIA Europe respectfully disagrees with the negative framing of the European telecoms sector. In fact, we are convinced that Europe is well equipped to meet its 2030 connectivity targets, and will be able to do so with the right policies and incentives.

4. The alleged investment need is within reach

In section 2.3.1 of the white paper, the European Commission highlights a significant investment need for connectivity exceeding EUR 200 billion, based on the WIK-Consult study released in July 2023²¹. The Commission uses these numbers to substantiate their concerns on Europe's capacity to reach its digital decade connectivity targets. However, we believe the above mentioned investment need is well within reach, and mostly within the industry's existing commercial investment envelope.

For example, ETNO members' annual capital expenditure in network infrastructure amounts to €50-60 billion²². Thus, assuming an annual investment of €50 billion, the projected investment need of €200 billion would be met within four years, well before the 2030 deadline. On top of telcos' own investments, substantial public funding is allocated to network infrastructure, supplemented by state aid.²³ The recently published OECD report 'Financing Broadband Networks of the Future' (hereinafter, the 'OECD report') extensively details the amount of public funding allocated to broadband deployment both at the European Union level and EU member state level.²⁴

Such a clear analysis has been lacking in this debate until now, and CCIA Europe notes that an increased level of transparency and understanding on how public funds are allocated and subsequently used would bring clarity to the discourse on meeting the alleged investment need. Consequently, CCIA Europe suggests increasing the transparency for public funds dedicated to network infrastructure deployment.

5. Demand-side measures and technological neutrality can boost the telecoms sector

CCIA Europe does not share the negative sentiment depicted by the white paper in relation to the European telecoms and digital sector. In this respect, we believe that some concepts presented in the white paper should be further contextualised, to grasp their full implications, both for Europe's businesses and consumers.

For example, a low average revenue per user (ARPU) of European telecom operators means, arguably, low prices for consumers. This is thus a direct reflection of the success of

²¹ Wik Consult, 'Investment and funding needs for the Digital Decade connectivity targets', 12 July 2024, available [here](#).

²² CCIA Europe, 'Telcos' Biggest Fair Share Myths Debunked by New EU Connectivity Investment Study', 13 September 2023, available [here](#).

²³ For example: 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).

²⁴ OECD, 'Financing Broadband Networks of the Future', Annex 1.D, available [here](#).

European regulations in protecting end users and enhancing their quality of life. The OECD report supports this view: the “declining ARPU in Europe may be a result of increased levels of competition, with operators and other players striving to offer enhanced consumer value, particularly in terms of data”²⁵ which can be seen as a positive development, whereas the high prices for consumers and businesses in the United States and Canada “reflect lower levels of competition in the market, most acute in rural and remote areas”.²⁶

Similarly, CCIA Europe respectfully stresses that the return on investment (ROI) of a company should not be used as the sole indicator of a company’s, or of a whole sector’s wellbeing. While a company’s perception of attractiveness for private investors holds weight, so does, for example, the EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortisation) of a company. In this respect, the OECD Report notes that “from 2008 to 2022, operators experienced an average growth rate of their revenues of 2.1% and maintained stable profit margins, with earnings before interest, taxes, depreciation, and amortisation (EBITDA) exceeding 30% and earnings before interest and taxes (EBIT) exceeding 14%.”²⁷

Moreover, an interesting data point not highlighted in the Commission’s white paper is the payout ratio of dividends to company shareholders, i.e. the total amount of dividends paid to stockholders as a percentage of a company’s net income. As highlighted in the OECD report “communication operators have generally high pay-out ratios” (based on figure 15, average payout ratio of European operators peaked at 161% in 2016 and 2017, and averaged around 80% in 2023). Payout ratios are indeed part of a private business strategic decisions, but “a high pay-out ratio generally means [...] that less money is available for reinvestment in the business or to fund growth initiatives.”²⁸ Should payout ratios of telecom operators to shareholders decrease, these companies could possibly have more funds to allocate in research and development, and thus develop innovative products which would drive consumers demand for their services.²⁹

In response to the alleged high costs to shoulder and low profitability levels of European telecommunication operators, we would like to respectfully make the case for the adoption of a technological neutral approach, and the implementation of demand side measures. Moreover, as a general note, CCIA Europe suggests waiting for the Gigabit Infrastructure Act to deliver its intended effects, i.e. precisely those of ensuring faster, cheaper, and simpler rollout of gigabit networks installation, to the benefit of telecommunication operators.

Indeed, a clear way to alleviate costs of telecommunication operators can be Open RAN, a technology which can deliver cost savings of up to 30% on infrastructure building and 40% on operations, compared to traditional mobile networks. Moreover, “for the networks to have value, Europeans must subscribe to them, and must use them. Once a critical mass of deployment has been achieved, as is clearly the case in the EU, policy measures to promote adoption and use are likely to be even more important to societal welfare than measures to drive further adoption”.³⁰

²⁵ OECD, ‘Financing Broadband Networks of the Future’, page 11, 20 June 2024, available [here](#).

²⁶ Ibidem, page 11.

²⁷ Ibidem, page 3.

²⁸ Ibidem, page 21.

²⁹ Similar arguments are presented in the ECIPE report ‘Sender-Pays: Rethinking incentives for infrastructure investments’, September 2022, available [here](#).

³⁰ Marcus, J. Scott, Rossie, Maria Alessandra, Strengthening EU digital competitiveness : stoking the engine, EUI, RSC, Research Report, 2024, Centre for a Digital Society - <https://hdl.handle.net/1814/76877>

In this respect, we note that the European Union has not focused on Open-RAN technologies nor demand side measures until now, and thus suggest that the EU institutions to consider Open RAN as part of the technologies which can help deliver on the 2030 targets, and focus more on stimulating demand side measures to grow consumers' demand for new technologies, in order for the market and telecommunications companies to directly benefit from this demand. For example, measures such as voucher schemes or tax deductibility for employee-provided broadband could significantly help take up from the consumer side, as well as increasing efforts on digital skilling of the population.

6. New technologies enable substantial environmental progress

Within the numerous challenges presented in section 2.3, the white paper also enlists issues related to the sustainability impact of the whole ICT sector. In this respect, CCIA Europe would like to highlight the numerous efforts and commitments that its members are continuously making in order to ensure a sustainable digital ecosystem.

Cloud service providers and CAPs are inherently motivated to deliver the highest-quality video content in the most cost-effective³¹ manner possible. As found by Ofcom³¹, “the largest CAPs already appear to be making investments and taking decisions that improve the efficiency of delivering traffic on ISPs’ networks, as they seek to improve the quality of experience for their customers”. Arguably, for cloud service providers and CAPs, minimising data volumes translates into better user experience, competitive advantages and enhanced financial efficiency, other than the obvious environmental considerations.

In order to ensure the most sustainable and efficient delivery of content, cloud service providers and CAPs collaborate closely with telecom operators and innovate to deliver highly efficient, low-latency video using CDNs, allocating huge amounts of investments and research and development into these efforts.³²

Some examples of technological innovations developed to these ends are adaptive bit rate technology and modern codecs. Adaptive bit rate technologies allow for the quality of a video stream to be adapted in real-time based on the viewer's internet connection speed, while modern codecs are developed to deliver high-quality video while using less bandwidth. Compression algorithms are also expected to deliver further reductions in the amount of data transmitted, and multicast technology and lightweight deeper content caches also increase user quality of experience while limiting bandwidth consumption.

These are only some of all the technologies that CCIA Europe members are continuously deploying and implementing to minimise their environmental footprint. It is thus evident how cloud service providers and CAPs are already committed to addressing environmental concerns while also bettering consumer experience and operational efficiency.

In addition, the widespread adoption of cloud technologies will have positive environmental impacts. For example, organisations that offload their IT infrastructure to the cloud can benefit from significant energy efficiencies, such as a reduction of their workload carbon

³¹ Ofcom, ‘Consultation: Net neutrality review’, page 93, 26 October 2023, available [here](#). In this respect, please also see Section 6 of the report.

³² See for example:

- Analysys Mason, ‘The impact of tech companies' network investment on the economics of broadband ISPs’, 7 October 2022, available [here](#); as well as:
- Netflix, ‘A cooperative approach to content delivery’, 2021, available [here](#).

footprint by nearly 80%.³³ This is coupled with the numerous efforts that cloud service providers are doing themselves to power their data centres with renewable energy sources, as well as, for example, innovate their cooling practices.³⁴

CCIA Europe thus respectfully notes that policies which would deter cloud adoption – such as the potential extension of the European Electronic Communications Code to cloud service providers – are detrimental and counter-productive also with respect to Europe's sustainability goals.

For the reasons above, we recommend that the EU institutions take into consideration the extensive efforts of cloud service providers and CAPs into ensuring and improving the sustainability of their operations, before any future regulatory consideration.

7. Satellite connectivity can help reach underserved and remote areas

In section 2.3.4 the white paper suggests extending the pool of contributors to the Universal Service Obligations (USOs) to subsidise fibre infrastructure deployment in remote and rural areas. However, such a measure will likely negatively impact European businesses and consumers.

This suggestion in fact disregards the potential reach and use of new technologies such as satellite connectivity. In particular, low earth orbit ('LEO') broadband and 5G fixed wireless access ('FWA') will be able to provide connection to remote areas and meet end users' needs in terms of download speeds, all this while being more cost efficient than the potential deployment of fibre networks.³⁵ In addition, satellite is already delivering high speed and low latency broadband, and is "expected to complement cellular to deliver SMS, voice, internet of things (IoT) and (limited capacity) data services by 2025"³⁶.

Extending the contributors pool of the USO to subsidise fibre infrastructure in areas where LEO broadband and 5G FWA will be available appears thus shortsighted and potentially detrimental for the impacted businesses, who will have to cut costs elsewhere, with negative impacts on their capacity to deploy innovative and energy saving technologies.

Moreover, the EU Commission's proposal does not seem justified by end user needs, as only 14% of EU consumers subscribe to 1Gbps services, and the average download speed in the EU is currently around 100 Mbps.³⁷ A report by Arthur D. Little forecasts that end users are unlikely to require gigabit connectivity by 2030.³⁸

Finally, we suggest also considering the recent U.S. Federal Communications Commission order in the matter of 'Safeguarding and Securing the Open Internet and Restoring Internet Freedom'.³⁹ The order indeed highlights how "forbearing from imposing new universal service contribution requirements on broadband internet access services at this time is in

³³ 451 Research, 'The Carbon Reduction Opportunity of Moving to Amazon Web Services', page 15, October 2019, available [here](#).

³⁴ Amazon sustainability reporting, available [here](#).

³⁵ Center for global development, 'Space Tech Is On-Track to Make Internet Access More Affordable for the Underserved, Everywhere', 30 August 2022, available [here](#).

³⁶ Communications Chambers, 'The future of connectivity' June 2024, page 2, available [here](#).

³⁷ European Commission, 'Broadband Connectivity in the Digital Economy and Society Index', available [here](#).

³⁸ Arthur D. Little, 'The evolution of data growth in Europe', May 2023, available [here](#).

³⁹ Federal Communications Commission, 'Safeguarding and Securing the Open Internet', 7 May 2024, available [here](#).

the public interest”, and that “forbearance will also serve the important public interest goals of broadband access and affordability [...] given estimates that extending the contribution requirements to broadband internet access services could considerably increase consumers’ broadband bills”.⁴⁰

In light of the above considerations, CCIA Europe respectfully suggests the European Commission to refrain from extending the contribution pool of the USOs, and instead to adopt a technology neutral approach and rely on alternative technologies, such as LEO satellite broadband and 5G FWA to reach underserved and remote areas.

8. Harmonise spectrum to reduce bureaucratic procedures

The white paper, in section 2.3.5 and the related scenario 6, makes the case for a need to manage spectrum resources in a more coordinated way among EU Member States, striving for a more “integrated governance at Union level for spectrum that would allow, where necessary, for greater harmonisation of spectrum authorisation processes”.⁴¹

In this respect, CCIA Europe welcomes a more harmonised approach to spectrum management, if done with the goal of simplifying bureaucratic procedures and promoting consistency within the regulatory system. For example, we believe that increased collaboration between existing structures, such as the BEREC, the Radio Spectrum Policy Group, and the Conference for Electronic Post and Telecom (CEPT) would be beneficial for harmonisation purposes.

Nonetheless, we suggest the European Commission to avoid imposing harmonisation requirements to the points of stifling innovation. Indeed, a full harmonisation may hinder technology rollout, competition, and innovation by enabling a lowest-common-denominator approach. Pan-European licensing could also prove too costly for challengers and innovators.

For the above reasons, we suggest the European Commission adopts an approach aimed at reducing bureaucracy and at simplifying regulatory procedures, rather than aimed at a full harmonisation, which could prove counterproductive.

9. Undersea cables ensure Europe’s connectivity resilience

CCIA Europe recognises the importance of undersea cables for Europe's overall connectivity and resilience of its digital infrastructure. Indeed, it is for this reason that its members have been investing billions into this infrastructure in the past years⁴², and have the intention to continue doing so, in order to keep on contributing to Europe’s digitalisation and better connectivity.

The benefits of ensuring a vast network of undersea cables are clear. Multiple undersea paths increase the resilience of the undersea cables, enhancing reliability and ensuring stable connectivity: different routes help ensure outages or any intentional harm have minimal to no impact on the services that depend on the cable.

⁴⁰ Ibidem.

⁴¹ European Commission, ‘White Paper - How to master Europe’s digital infrastructure needs?’, 21 February 2024, available [here](#).

⁴² Analysys Mason, ‘The impact of tech companies’ network investment on the economics of broadband ISPs’, 7 October 2022, available [here](#).

Subsea cables reduce the digital divide, ensure remote islands and territories are connected, and have a positive impact on the GDP of the countries where subsea cables are landing.⁴³ Furthermore, subsea cables are a great means of fostering partnerships and collaboration between different partners, as shown for example by one of the latest developed subsea cables, AMITIE, developed in partnership with Meta, Orange and Microsoft, inter alia⁴⁴.

Given all these considerations, CCIA Europe is glad to see renewed institutional interest on subsea cables, and respectfully shares the following recommendations⁴⁵, to ensure the development of policies which can foster Europe's digital resilience, GDP, and competitiveness:

- Provide regulatory certainty: implement simplified, clear and transparent licensing regimes and permits for laying down and maintenance of submarine cables. Part of this regulatory effort could be that of creating single points of contact for parties interested in making submarine cable investment and for cooperation between competent authorities of different countries.
- Support competition and innovation: policies and regulations that encourage open access and interconnection with this infrastructure on fair and neutral terms, can further drive down wholesale prices for internet services.
- Ensure an open investment policy that provides non-discriminatory and cost-oriented access to landing parties and allows, inter alia, submarine cable ownership and operation by foreign investors without mandatory local partnership requirements.

Conclusion

CCIA Europe is eager to contribute to Europe's further digitalisation and path towards the 2030 digital targets, and with this goal in mind offers the above comments and recommendations to ensure that Europe continues promoting policy making which is evidence based, fosters competition, and protects consumers as well as the open internet.

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

⁴³ RTI International, 'Economic Impact of Meta's Subsea Cable Investments in Europe', December 2021, available [here](#).

⁴⁴ Please see: 'Amitié Cable System Ready for Service' available [here](#).

⁴⁵ For additional recommendations, please see: Global digital inclusion partnerships, 'Good Practices for Subsea Cables Policy', January 2024, available [here](#).



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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