Executive summary – Amazon strives to be the world’s most customer-centric company. We support the acceleration of the digitalization of Europe, and contribute across multiple dimensions to the objectives of the Digital Decade: as a Content and Application Provider (“CAP”), as a Cloud and Content Delivery Network (“CDN”) service provider, and – with our Kuiper business – as a future Internet Service Provider (“ISP”). As such, we advance three core arguments against the creation of a mandatory mechanism of direct payments from CAPs to contribute to finance network deployment, contemplated by the EU Commission (the “Internet Levy”). 

(I) The introduction of such Internet Levy is not supported by accurate technical or economic justifications. Indeed, (i) a new regulatory instrument is not needed to cope with data traffic growth as the latter is continuously decelerating, does not generate proportional network costs and does not generate structural congestion. (ii) The proposed Internet Levy would risk creating an imbalance where the interconnect and peering environment is competitive and functions appropriately. (iii) Such instrument is not needed to co-finance electronic communication networks (ECN) as CAPs already invest proactively and massively in digital infrastructure, e.g. Between 2017 and 2022, AWS alone invested in Europe more than €21 billion in cloud and edge infrastructure (direct capital and operational). This figure does not include investments in research and development, and marketing and sales expenses. Amazon will invest more than 10 billion USD in Project Kuiper, which will expand connectivity to unserved and underserved communities. (iv) Beyond their direct investments in digital infrastructure, CAPs also contribute indirectly to the investments made by ISPs by fueling the revenue which underpins such investments. Indeed, the revenue generated by telecommunication service subscriptions is not only a function of supply – i.e. the availability of the service generated by ISPs’ investments – but also of the demand generated by the contents and applications offered by CAPs. 

(II) The introduction of an Internet Levy would harm the functioning of the European Internet infrastructure, consumers and the European economy. 

(i) As a customer-centric company, we are concerned about the negative effects of an Internet Levy on the cost of internet access for consumers and the overall cost of living, as well as on the quality and diversity of the digital services made available to EU customers. Such unintended consequences can be observed in South Korea, where a similar measure was implemented in 2020. We note that the European Consumer Organization (BEUC) has warned against negative impacts on consumers. (ii) An Internet Levy would destabilize the European framework of the Open Internet as it would not be compatible with the network architecture and would require a modification of article 3 of the Open Internet regulation, which transposes the concept of Net Neutrality into EU law. It would also make it necessary to rethink the regulation of the sector, including the exclusion of ISPs from the scope of digital gatekeepers under the Digital Markets Act. (iii) In addition, an Internet Levy transferring billions of euros annually from CAPs to ISPs would necessarily reduce the ability of CAPs to invest in content production and broadcasting rights, therefore affecting the EU creative industries. (iv) Beyond such industries, an Internet Levy would affect the entire economy as it would raise the cost of Cloud and Content Delivery Networks and therefore undermine the small and medium-sized European businesses and start-ups powered by cloud services providers across every sector of the economy. (v) Finally, the contemplated measure would slowdown the digitalization of Europe. Indeed, penalizing the most popular content providers would necessarily affect the demand for high-speed, broadband connectivity, at a time when it needs to be encouraged in order to achieve the goals set forth as part of the EU Digital Agenda. 

(III) It would not make sense to assess an Internet Levy against cloud or CDN providers based on their customers’ content. (i) Cloud and CDN providers do not originate traffic. Rather, CAPs leverage the services offered by cloud and CDN providers to generate and distribute their own content. (ii) Cloud and CDN providers should not be penalized for efficiently distributing their customers’ content. The largest cloud and CDN providers offer advanced capabilities for reducing the total volume of traffic transmitted on third-party networks. Penalizing such providers for their customers’ content would only operate to increase the amount of traffic on third-party networks if those customers migrate to other providers that offer fewer capabilities because larger cloud and CDN providers are forced to raise prices due to Internet levies. 

Moreover, requiring only a subset of cloud and CDN providers to pay Internet levies would unfairly advantage other cloud and CDN providers, including ISPs, many of which offer cloud or CDN services of their own. 

As a conclusion, CAPs and ISPs work in a complementary way as part of the wider internet environment, so penalizing the ones for the perceived benefit of the others is not a sustainable way to create growth or innovation. Amazon remains more than ever committed to further cooperation with European ISPs and we trust that the European Commission will carry out extensive evaluation and prospective studies before any materialization of a proposal that seems neither justified nor advisable from the point of view of European consumers, creative industries, businesses of all sizes and the overall economy.
Introduction - We welcome the European Commission’s exploratory consultation on the future of the electronic communications sector and its infrastructure.

Amazon strives to be the world’s most customer-centric company, a guiding principle that translates into continuous investment in customer-centric, accessible, affordable, innovative and efficient services, and that caused us to invest tens of billions of euros, create more than 220,000 permanent jobs in Europe, and empower hundreds of thousands of European businesses of all sizes, for the ultimate benefits of European customers.

In the area of economic and industrial regulation, Amazon’s overarching position is to favor consumer welfare first and foremost – from this derives healthy competition, sustainable growth and innovation which benefits industries across the European economy. Amazon supports the acceleration of the digitalization of Europe. The full potential growth of the European digital economy is estimated at over €2.8 trillion in gross value added (GVA) over the decade, equivalent to nearly 21% of the European Union’s current economy. As a Content and Application Provider (“CAP”), Cloud and Content Delivery Network (“CDN”) service operator, and as a future Internet Service Provider (“ISP”) with Project Kuiper, Amazon contributes to the policy objectives of Europe’s Digital Decade by investing in and accelerating:

- **Citizens and consumers’ access to an Open Internet**, so that users are able to access and use online content, apps and services of their choice
- **The Open Internet functioning as a space of fair competition and an engine of innovation**, so that providers of online content, apps and services benefit from broadband infrastructure under fair and high-quality conditions
- **The development of well-run, efficient and resilient digital infrastructure (including cloud, edge and network infrastructure)**, putting the European Union in a position of world-class leadership for tomorrow’s most advanced technologies in health, transport, energy, culture and education, agri-food and other sectors
- **Sustainable digital**, as Amazon is working towards the objective of 100% of our operations powered by renewable energy by 2025.

We note that the EU Commission is contemplating the potential creation of a “mandatory mechanism of direct payments from CAPs/LTGs to contribute to finance network deployment” (“Internet Levy”). As a preliminary remark, we do not adhere to the concept of Large Traffic Generator (“LTG”) as it implies that cloud and content providers force traffic upon the ISPs, when in reality the occurrence of traffic is generated by the end users requesting content, not by the CAPs that produce it. We are of the view that (I) the introduction of an Internet Levy is not supported by technical or economic justifications, (II) such a measure would harm the functioning of the European Internet infrastructure, EU consumers and the entire economy, and (III) it would not make sense to assess an Internet Levy against cloud or CDN providers based on their customers’ content. CAPs and ISPs are part of the wider internet ecosystem and we believe that penalizing the ones for the perceived benefit of the others is not a sustainable way to create growth or innovation.

I. **The introduction of an Internet Levy is not supported by technical or economic justifications**

The formalization of a proposed Internet Levy should be preceded by a documented characterization of the problem that such new instrument is supposed to address. To date, we are not aware of any documented issue nor evidence justifying the proposal.

1. A new regulatory instrument is not needed to cope with data traffic growth

Data traffic growth is a reality and it is inseparable from the digitalization of Europe. The EU Digital Agenda and the Digital Compass actually call for more data traffic as they put forward objectives on (i) connectivity [Gigabit for everyone, 5G everywhere] and (ii) cloud [75% of EU companies using Cloud/AI/Big Data”] and (iii) Edge data centers [10,000 climate-neutral highly secure edge nodes].

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1 “Unlocking Europe’s Digital Potential”, Public First, 2022
Data traffic growth is continuously slowing down. Data published by the Communication Chamber and Ericsson in June 2022\(^2\) indicate that the annual growth rate of data traffic decreased from more than 70% in 2018 to less than 30% in 2023, and will continue to decrease in the foreseeable future (see graph below).

The increased data volume does not result in a proportional increase in costs. Analysys Mason (global consultancy and research firm specializing in telecoms, media and technology)\(^3\) finds that the data carried on network has more than tripled since 2016 without increasing core and backhaul network costs. The same report suggests that these trends will continue, with core and backhaul network costs remaining stable from 2016 to 2026 despite the traffic being multiplied by more than five. This is because network equipment becomes ever more powerful at the same price. Accordingly, networks costs have not grown out of control.

Moreover, there is no evidence of data traffic growth generating structural congestion. To achieve the best possible user experience, service providers have a strong interest in optimizing content distribution, notably by bringing the content closer to the customer, and this is what they do, relying on CDN service providers such as Amazon CloudFront. The COVID crisis acted as stress test: It generated a sudden surge of data traffic needs but – despite limited, localized issues – ECNs proved generally resilient. Amazon is supportive of proportionate traffic management as long as there is sufficient transparency and monitoring to ensure this is not used to intentionally discriminate or self-preference, but we see no necessity to introduce an Internet Levy or other new instruments for that purpose given the absence of structural congestion and the fact that the 2015 Open Internet Regulation already provides for rules of traffic management in case of congestion.

2. The market segment of interconnection is competitive and functions appropriately

While some ISPs claim that there are market failures in the segment of interconnection, we are not aware of any publicly available data supporting this claim. According to the association of European telecom regulators (BEREC\(^4\)), there is no evidence that the operators’ network costs in the Internet value chain are not already fully covered and paid for. Actually, the interconnect and peering environment is functioning well. ISPs and CAPs have different options to interconnect with the rest of the internet as they can (i) peer at an internet exchange point (“public peering”), (ii) use a transit provider or CDN (“transit”), and/or (iii) engage in a “direct peering”. As noted by BEREC, public peering usually does not trigger any payment between the parties\(^5\). CDN pricing has decreased over time due to a competitive environment\(^6\), and network congestion is rare in transit networks, hence direct peering is often not needed.\(^7\) Prices are determined by supply and demand, low or no prices in the interconnection market, including for smaller players, being sign of a well-functioning market – not the opposite. BEREC also finds that the costs of building and upgrading access networks are adequately covered by payments from ISPs’ customers. In other words, the notion that CAPs are not contributing their fair share to internet infrastructure is not supported by factual evidence. WIK (2022) comes to the same conclusion\(^8\). In the absence of any market failure, there is no need for the EU legislator to step in, especially as it could create an imbalance.

\(^2\) An internet traffic tax would harm Europe’s digital transformation, Communication Chambers
\(^3\) IP interconnection on the Internet: a European perspective for 2022 – The impact of tech companies’ network investment on the economics of broadband ISPs, Analysys Mason, October 2022
\(^4\) “Preliminary assessment of the underlying assumptions for payments from large CAPs to ISPs”, BEREC, October 2022
\(^5\) BEREC, BoR (17) 184, S.9.
\(^6\) BEREC BoR (17) 184, S.7 and 26.
\(^7\) BEREC, BoR (22) 87 S. 63ff.
\(^8\) “Competitive conditions on transit and peering markets”, Wik Consulting, Feb 2022.
where there is none. Indeed, as pointed out by BEREC, it is the introduction of an Internet Levy, not its absence, which may generate market failure as ISPs could use this new instrument to further leverage on their capacity to charge for termination data flows, as was occasionally the case in the past.

3. Internet levies are not needed to cause CAPs to co-finance ECNs as CAPs already massively invest in digital infrastructure

As documented by Analysys Mason in their report mentioned above, CAPs spent 883 billion USD over the 2011-2021 period on global digital infrastructure including hosting, transport, and delivery networks – reaching an average annual investment of 120 billion USD per year over 2018-2021. CAPs focus their internet infrastructure investments on three main clusters – hosting (i.e. data centers), transport (i.e. submarine and terrestrial cables), and delivery (i.e. peering and caching). This infrastructure spans tens of thousands of miles around the globe and is critical to deliver online content and services close to end users to improve their online experience. Investments made by CAPs to bring traffic closer to end users, improve the quality of experience for end users and save ISPs between 5 and 6.4 billion USD each year.

CAPs therefore already participate in the deployment of the infrastructure underpinning the Internet value chain, and Amazon contributes massively to such investment efforts, as a Cloud and CDN operator and as a new entrant and innovative player in the segment of Internet service provision with Project Kuiper:

i. Between 2017 and 2022, AWS alone invested in Europe more than €21 billion in cloud and edge infrastructure (direct capital and operational). This figure does not include investments in research and development, and marketing and sales expenses. AWS operates a public cloud service that millions of customers are using to lower costs, become more agile, and innovate faster. In the EU, hundreds of thousands of organisations of all sizes and across all industries are using AWS – from start-ups to small and medium-sized businesses, to the largest enterprises, telecommunication companies, public sector organisations, educational institutions, and government agencies. AWS cloud and edge infrastructure

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9 e.g. BEREC, BoR 17 (184), S. 24 regarding Swisscom.
in the EU spans 18 Availability Zones within 6 AWS Regions, 4 Local Zones and 3 Wavelength Zones for ultralow latency applications. Among the over 200 services that AWS offers, our CDN service Amazon CloudFront enables customers to cache content close to end users, thereby reducing latency for consumers, reducing the amount of traffic that traverses telecom operators’ networks, reducing energy consumption, and reducing telecom operators’ transit costs. CloudFront enables efficient and scalable delivery of the content produced by its content provider customers – such as video, gaming, software, online media – to the end users that request it from their devices connected to the Internet. CloudFront employs routing algorithms that it has developed to optimize for performance, availability and cost for its customers. AWS does not control when content providers choose to deliver content, when end users choose to request content, or whether customers use additional technology solutions to reduce their traffic volumes (e.g., compression). AWS, however, does invest in CDN infrastructure that significantly shortens the distances over which customer data must travel and therefore significantly reduces the total amount of customer data sent over third-party networks. To deliver content to end users with lower latency, CloudFront operates 120+ points of presence (PoPs) in 25+ cities across 19 European Member States. CloudFront also operates a rapidly expanding fleet of embedded appliances (caches) that are housed deep within ISP networks in order to bring content even closer to consumers and obviate the need for ISPs to incur transit costs by retrieving requested content from other networks.

Moreover, AWS partners with ISPs to help them reach the low latency that 5G needs, while reducing their Capital Expenditures and Operational Expenditures down to the last mile, through embedding the cloud in their network operations. In Europe, this includes players such as BT, Deutsche Telekom, Orange, Swisscom, Telefónica, Telia, Telenor, and Vodafone. AWS partners with telecoms operators to help them reach the low latency that 5G needs (edge infrastructure is essential to provide low latency 5G services), while reducing their CapEx and OpEx down to the last mile, through embedding the cloud in their network operations. According to Omdia, shifting operations to the cloud promises to reduce ISPs’ OPEX/revenue ratios by more than 10%. Moreover, the typical brownfield operators could see OpEx as a percentage of revenue for network operations drop from 18.4% to 13.5%, and those associated with IT operations decrease from 6.2% to 3.5%. We work with telecom operators and telecom vendors to reduce energy consumption; recently, NTT DOCOMO and NEC demonstrated an average 70% energy efficiency gains by running 5G core network software on AWS Graviton2 (Graviton is an ARM-based processor developed by AWS). AWS also partners with telecommunications providers for 5G monetization through private and public Multiaccess Edge Computing, co-development and joint go-to-market initiatives, the newly launched Integrated Private Wireless on AWS program, and for cloud connectivity and on-ramping through the Direct Connect delivery partner program. Many telecommunications providers are part of the broader AWS Partner Network, delivering AWS-powered services, software, hardware and training to their customers. This includes, for example, T-Systems (Deutsche Telekom) offering External Key Management for customers using AWS Cloud.

ii. Amazon is also investing over 10 billion dollars in expanding connectivity through Project Kuiper10, a low Earth orbit satellite network that will provide fast, reliable and affordable broadband to underserved and underserved communities in Europe and worldwide. We are preparing to launch our first two prototype satellites this year and we expect to provide beta services to select commercial customers by the end of 2024. Project Kuiper will play an instrumental role in completing the geographical broadband coverage of the entire European continent, helping connect European consumers and businesses beyond the reach of existing fiber and 5G rollout plans. We have made major R&D breakthroughs that will drive affordability across Project Kuiper hardware and services, such as shrinking the size and improving the performance of our customer terminals: we expect to produce our standard terminals at a cost of less than 400 USD. The design terminal is only 11 inches square, 1 inch thick, and weigh less than 5 pounds without its mounting bracket, and delivers speeds up to 400 megabits per second, powered by fully custom Kuiper-designed chips. Our offering will therefore boost competition in both price and quality of broadband delivery service, to the benefit of European companies and consumers wherever their location11. It is also worth noting that Kuiper has become an important partner of the EU space industry through our satellite-launch contract with Arianespace. Arianespace designated its

10 “Everything you need to know about Project Kuiper, Amazon’s satellite broadband network” – AboutAmazon.eu, March 2023
11 “Here’s your first look at Project Kuiper’s low-cost customer terminals” – AboutAmazon.com, March 2023
4. By offering popular services to European consumers, Amazon and other CAPs fuel demand for connectivity – thereby generating revenue for European ISPs and funding their infrastructure investments

Beyond their direct investments in digital infrastructure, CAPs also contribute indirectly to the investments made by ISPs by fueling the revenue which underpins such investments. Indeed, the revenue generated by telecommunication service subscriptions is not only a function of supply – i.e. the availability of the broadband service resulting from ISPs’ investments – but also of the demand generated by the contents and applications offered by CAPs. ISPs and other stakeholders invest in the network to offer high-speed, broadband connectivity to customers, but it is not sufficient to drive revenue. Available data confirm this fact: according to the FTTH Council, under 55% of households already with availability of fiber sign up for high-speed subscriptions, and according to the GSMA, the adoption rate of 5G mobile connectivity will only reach 44% by 2025. This is because customers adjust their expenses and only subscribe to premium, broadband offerings if they value the content and applications accessible through such offerings.

Amazon aims to be the most customer-centric company in the world, a guiding principle that translates into continuous investment in customer-centric, accessible, affordable, innovative and efficient contents and applications that correspond to customers’ needs. Our investments fuel demand for high-speed, broadband connectivity – as well as, subsequently, ISP revenue growth – while also maintaining broadband consumption at sustainable levels:

i. Amazon Stores – Amazon has been operating in Europe for over two decades. Since 2010, we’ve committed more than €142 billion to our European activities, and we now operate Stores in 8 EU countries (Belgium, France, Germany, Italy, Netherlands, Poland, Spain, Sweden). Millions of European customers trust Amazon every day to provide products they need, and we support over 225,000 European small and medium businesses selling on our Marketplace, whom we helped achieve over €14.5 billion in export sales in 2021. E-commerce has helped drive the Single Market towards completion, leveraging digitalization, while also driving business and consumer demand for ISPs’ connectivity services.

ii. Prime Video – In 2021 and 2022, Amazon invested approximately 12bn USD in Amazon Originals, live sports, and licensed third-party content for Prime Video globally. This includes investment in Europe, creating original content for Prime Video, with over 130 new European shows and movies since 2020, including popular and critically acclaimed titles and series such as Der Greif, Overdose, Mañana es hoy, and The Bad Guy. We also license sports events, such as the UEFA Champions League, as well as European works from third-party producers for distribution in Europe and globally, such as Les Misérables and Sin límites. As we seek to bring content to customers in the highest quality, most affordable way possible, Prime Video is innovating in highly efficient, low-latency video delivery using both Amazon CloudFront and other third-party CDNs for delivering content. Prime Video develops mutually rewarding partnerships with telecom operators, generating shared value: for example, we concluded bilateral agreements with incumbent ISPs in multiple EU locales to make Prime Video available on their set top boxes. Accordingly, they now actively market and advertise Prime Video as a part of their triple play or other premium offerings, therefore gaining new customers and upgrading their average revenue per user. And we have shared billing arrangements with mobile operators that facilitate signups and usage of mobile networks for highly valued video content, driving mobile revenues for these operators.

We are thoughtful about bandwidth consumption and network management. Just like ISPs, we want to ensure that customers can access the content they want, when they want it - without buffering, dropped streams, etc. To accomplish this goal, we work closely with ISPs and other service providers on traffic management in a way that ensures the highest quality and reliable delivery of streaming content, regardless of the source, without interruption, buffering or other type of flow degradation. Prime Video has been actively working with ISPs on a range of operational challenges for both video-on-demand and live events, including creating capacity redundancy, spreading the load across multiple CDNs, for the delivery of both VOD and live event content, to avoid creating pressure points for ISPs. We also work with network operators to organize capacity and back-ups. Moreover, Prime Video uses adaptive bit rate technology to ensure viewers are receiving the best possible quality video and we are currently
exploring other technologies to support live events including multicast technology and lightweight deeper content caches that increase the quality of service while limiting bandwidth consumption. We also continue to invest in building state-of-the-art UHD encoding and video transmission capabilities from European stadiums to our production facilities to bring an ever-higher quality, more efficient streaming to EU customers.

iii. Devices – Affordable devices and Wi-Fi are central to enabling broad connectivity: in a 2022 report on how Europeans connect to the internet, the Dynamic Spectrum Alliance concluded that for advanced economies, 90% of internet traffic began or ended on Wi-Fi. Amazon is investing in higher quality, more interoperable technology throughout our Devices business. For example, we support multiple ways for smart home devices to communicate with each other including Wi-Fi, Bluetooth Low Energy, Zigbee and recently, Matter, a new unifying standard for smart home connectivity, developed by the Connectivity Standard Alliance, that helps ensure devices from one brand are compatible with other smart home systems, and voice AIs, like Alexa. We also support improved home Wi-Fi with our eero device to deliver hyper-fast, super-stable Wi-Fi to part of a customer’s home with easy set up and use.

iv. Twitch – Twitch has become a popular service in Europe, nurturing high-speed connectivity demand, notably among the younger generation. Like Prime Video, Twitch acts as a responsible partner in traffic management. To this end, Twitch primarily uses its own CDN for live video, relieving ISP networks of traffic, and uses a third party CDN for a low percentage of overflow traffic. Twitch also uses adaptive bitrate technology to ensure viewers are receiving the best possible quality video and is working on new encoding technology to reduce bitrates at equal video quality. Twitch’s content caching system for live video is 100% pull-based and is driven entirely by viewer demand. The system assigns viewers to edge locations where they are likely to get the best quality of service based on network connectivity.

v. Gaming – Amazon Games contributes to fostering broadband connectivity demand too, and, in this domain as well, we take proactive action to manage traffic needs generated by our services. For instance, Amazon Games generally enables optional “pre-downloads” a few days in advance of turning servers on or enabling in-game content. This allows customers to complete the download ahead of servers going live.

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II. The introduction of an Internet Levy would harm the functioning of the European Internet infrastructure, European businesses and consumers, and the entire economy

We identify a number of unintended effects of the proposed initiative:

1. As a customer-centric company, we are concerned about the potential consequences of the contemplated Internet Levy on the cost of internet connectivity, or on the cost of living more generally. Indeed, if content and application providers incurred additional costs as a consequence of the initiative, their services would become costlier, which could drive higher prices for consumers and impact EU customers’ cost of living, as well as affect the quality and diversity of the digital services made available to them. Content services are demand-led: they are requested and paid for by end users. Higher prices would lower quality, limit selection for customers, and harm innovation.

The example of South Korea demonstrates the damaging and self-defeating effects of the mechanism on consumers. As documented by the Internet Society and by the Computer and Communications Industry Association (CCIA), South Korea is the only country to date to have implemented such an Internet Levy on a Sender-Party-Country basis, in 2020. And it is now among the countries where consumers pay the highest rates for mobile data in the world, with consumer prices for mobile data are more than six times higher than the European average (the average cost of 1GB of mobile data in South Korea being more than €12 vs. €1.85 in average in Europe). Customer experience is poor (e.g. latency at 160 milliseconds vs. 50 milliseconds in Europe) and Korean customers have less choice as some foreign content providers have degraded the services or simply decided to exit this country.

13 “South Korea’s Interconnection Rules” – The Internet Society, May 2022
14 “Proposal to mandate payments by Content and Application Providers undermines the future of U.S.-Korea trade” – CCIA, September 2022
We expect similar effects if an Internet Levy were to be implemented in Europe, and we note that the European Consumer Organization (BEUC) has warned against such consequences in strong terms: “For consumers in particular, the risks or potential disadvantages of establishing measures such a SPNP system would range from a potential distortion of competition on the telecom market, negatively impacting the diversity of products, prices and performance, to the potential impacts on net neutrality, which could undermine the open and free access to Internet as consumers know it today.” The European Internet Exchange Association (Euro-IX) expressed similar concerns, warning that the proposals risked reducing the quality of service for internet users across Europe, and could “accidentally create new systemic weaknesses” in critical infrastructure.

2. As an innovator and a pro-competitive operator, we are concerned that the introduction of an Internet Levy would destabilize the European framework of the Open Internet, which has been efficient in fostering competitive, unfettered, fairly priced, high-quality Internet access for all European businesses and consumers until now:

i. Such a Levy would not be compatible with the network infrastructure: CAPs use private and public CDNs to deliver their content. Applying a levy on the CAPs would require identifying the source of the traffic at the exchange point - typically a private peering connection - between the ISPs and the CDN, in order to correctly and proportionally assign cost. In the case of public CDNs, which deliver traffic for multiple customers, such a mechanism would require that CAPs self-identify and self-report, or that the ISPs develop or procure the capability to inspect traffic exchanged with CDNs and differentiate by application. Imposing a levy on the CDNs themselves will, in turn, affect all of their customers to whom the additional costs will be passed on. Charges imposed on peering that are not grounded on negotiation and market value will cause CDNs to prefer alternative, cheaper paths (transit) over direct peering, which will lead to a decrease in performance and additional operational overhead for both the CDNs and the ISPs.

ii. An Internet Levy would also be incompatible with article 3 of the 2015 “Open Internet” Regulation, which essentially translates the concept of Net Neutrality into the EU legal framework. As noted by BEREC, this Regulation guarantees non-discriminatory transmission of internet traffic to and from users regardless of the origin or destination, in order to ensure the continued functioning of the internet as an engine of innovation. Therefore, introducing a measurement at any point of the network infrastructure which identifies certain traffic and charges its generator while other traffic is transmitted free of charge is not compatible with this Regulation. Interpreting this Regulation, the European Court of Justice ruled – in its Telenor Grand Chamber judgement and other subsequent decisions – against any possibility to differentiate the traffic as a result of any financial or commercial consideration. In a letter sent to the EU Commission, 29 internet experts and academics have warned that Internet levies “violate the net neutrality rules enshrined in the 2015 Open Internet Regulation and are explicitly prohibited by every strong net neutrality regime in the world. […] We ask that the Commission not move forward with a proposal to drastically undermine Net Neutrality in Europe and the world.” Other academics have expressed similar views.

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16 Internet providers warn against EU plans to make Big Tech cover telcos costs | Reuters

17 Article 3§3 of the Open Internet Regulation: “Providers of internet access services shall treat all traffic equally, when providing internet access services, without discrimination, restriction or interference, and irrespective of the sender and receiver, the content accessed or distributed, the applications or services used or provided, or the terminal equipment used”

18 BEREC, BoR (22) 87, S. 20.

19 ECJ, Grd. Ch., 15 sept. 2020, Telenor Magyarország, C-807/18 and C-39/19

20 ECJ 2 Sept. 2021, C-854/19 (Vodafone; C-5/20 (Telekom)


22 For example, Joan Barata (Intermediary Liability Fellow at the Program on Platform Regulation of Stanford Cyber Policy Center) wrote: “Net neutrality in danger - To compel providers of content, services, and applications to negotiate financial contributions with ISPs in exchange for using their infrastructure to reach end users would violate the current provisions of the Open Internet Regulation and, more broadly, be incompatible with the concept of NN itself.” The Re-Emergence of the Net Neutrality Debate in Europe: Implications for Fundamental Freedoms, https://verfassungsblog.de/net-neutrality-eu/
Beyond the European framework on the Open Internet, the introduction of an Internet Levy would make it necessary to rethink the regulation of the sector. In particular, it would be relevant to reconsider the inclusion of ISPs in the scope of digital gatekeepers under the Digital Markets Act (DMA). Indeed, article 1 of the DMA expressly excluded ISPs from its scope because they were already subject to an ad-hoc competitive framework guaranteed by the Open Internet Regulation. The introduction of an Internet Levy would substantially affect such framework and a new review would therefore become necessary to determine whether it still justifies an exclusion of ISPs from the scope of the DMA. In particular, should the EU require CAPs to have a direct commercial relationship with ISPs based on new Internet Levy rules, this would essentially trigger internet access services to satisfy even more of the criteria describing “core platform service” under Recital 2 of the DMA. On that basis, it would hardly seem justified to keep ISPs that satisfy the DMA’s gatekeeper criteria excluded from the DMA.

3. As a content and application provider, we anticipate that a Levy transferring tens of billions of Euros annually from CAPs to ISPs would necessarily reduce the ability of CAPs to invest in content production and broadcasting rights. According to the European Audiovisual Observatory, investments in the European original content have outpaced audiovisual sector revenue since 2015, and streaming has accounted for 65% of the production industry’s growth (2015-2019), with overall impact on the European economy estimated at 200,000 jobs. Initial estimates suggest that the leading video streamers, who are already subject to investment obligations or specific taxes in many EU locales, would in addition have to contribute annually in Internet Levy the equivalent of their entire investment in local works in Europe. This magnitude underlines the economic inconsistency of a contribution based on the volume of data transferred, which does not presuppose any financing capabilities. If such Internet Levy were created, the audiovisual, cinema, video-game, sports and broader creative industries would necessarily observe significant cuts in investment from video streaming and online video game providers. We note that the Association of Commercial Television and Video on Demand Services in Europe (ACT) asked the European Commission to reject the Internet Levy proposal, urging “the institutions to thoroughly consider the wider implications for the stability and sustainability of the European audiovisual industry (and consumer rights) as a whole”.

4. As a Cloud service provider, we observe that 55% of the estimated £2.8 trillion in gross value added unlocked by the Digital Decade depends on cloud computing. We are concerned that an Internet Levy, similar to other costs, would likely have been passed onto customers, which would imply an impact on European organisations using cloud and CDN for providing their content. Thus, imposing such additional cost on cloud providers would likely discourage cloud adoption in Europe, jeopardizing the EU’s Digital Decade objective of “75% of EU companies using Cloud/AI/Big Data” by 2030, and ultimately lowering quality, limiting selection for consumers, and harming innovation. We are also concerned that the impact on cloud adoption would jeopardize the transition towards a more energy efficient infrastructure. As a matter of fact, European businesses can reduce their energy use by almost 80% by moving their compute workloads out of on-premises data centers to AWS.

5. Finally, the creation of Internet levies would harm the digitalization of Europe. Penalizing the most popular content providers would necessarily result in a slowdown in demand: The services affected by the fees would become more expensive and thus less attractive. At the same time, emerging services would be hampered in their growth potential, as the end of the open Internet framework would lead to higher and uncertain data prices until the threshold for user charges is reached. The cost of participating in the digital economy and accessing digital services would increase, therefore reducing the demand for high-speed broadband connectivity.

III. Mandatory Internet levies should not be assessed against cloud or CDN providers based on their customers’ content

As explained above, Internet levies should not be regulatorily imposed on CAPs. Moreover, it would be especially inappropriate to assess such mandatory fees against cloud or CDN providers, or to count their data transmissions toward meeting any regulatory thresholds, for at least the following reasons.

1. Cloud and CDN providers are not traffic originators. Cloud and CDN providers do not originate traffic. Rather, CAPs leverage the tools and services offered by cloud and CDN providers to generate and distribute...

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23 “Assessing the contribution of subscription video-on-demand providers to European content production” – **NERA Economic Consulting**, September 2022

24 “Unlocking Europe’s Digital Potential”, **Public First**, 2022
their own content. Such tools and services include computing, storage, databases, CDN, domain name system (DNS), media transcoding, and mobile messaging. CAPs fully control how much content they create or distribute using third-party cloud and CDN services as well as which cloud and CDN services they use. As data processors, Cloud and CDN providers process and distribute CAPs’ content solely at the direction of such CAPs or their end users. As such, any traffic generated by AWS customers should be attributed to such customers and not to AWS.

2. **Cloud and CDN providers should not be penalized for efficiently distributing their customers’ content.** Cloud and CDN customers, including CAPs, use cloud and CDN providers to efficiently distribute their content. For example, as described above, AWS offers a broad range of services and features to optimize and reduce the distribution of customer traffic. Such services and features include Amazon CloudFront, which uses a global network of PoPs and embedded caches to cache content close to end users and thereby reduce the amount of traffic that traverses third-party networks; AWS Direct Connect, which enables customers to connect directly to AWS’s network and thereby move large amounts of data without traversing the public internet; AWS Global Accelerator, which enables customers to leverage Amazon’s network backbone to serve end user traffic, thereby bypassing third-party networks; and AWS Snow, which enables customers to move petabytes of data into and out of AWS using a variety of mass storage devices. These and other services dramatically reduce the amount of data transmitted over third-party networks. Internet levies on cloud and CDN providers would increase their costs and make it more expensive for CAPs and other cloud and CDN customers to use these services. Ultimately, this would discourage cloud adoption and one negative implication (among others) would be that CAPs would have fewer tools at their disposal to efficiently distribute their traffic and thereby minimize their data footprints. Thus, imposing Internet levies on cloud and CDN providers would only operate to increase the amount of traffic on third-party networks. Cloud and CDN providers should therefore not be penalized with Internet levies for efficiently distributing their customers’ content on their behalf.

3. **Requiring only a subset of cloud and CDN providers to pay Internet levies would unfairly advantage other cloud and CDN providers, including ISPs.** Imposing Internet levies on only a subset of cloud and CDN providers would force those targeted providers either to raise prices or to endure low or negative margins while other cloud and CDN providers would not be burdened by such fees. Such a discriminatory regime would unfairly advantage those cloud and CDN providers who are not required to pay Internet levies, including ISPs, many of which offer their own competitive cloud and CDN services.

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Amazon remains more than ever committed to further cooperation with European ISPs to fuel innovation and the digitalization of Europe, and work together towards the next generation of connectivity involving new types of content, services and applications. **CAPs and ISPs work in a complementary way in the wider internet environment, so penalizing the ones for the perceived benefit of the others is not a sustainable way to create growth or innovation.** It is now up to the policy choices made under the Digital Decade roadmap to unlock the full power of digital in the service of smart cities, health, education, culture and entertainment, transportation, energy and environment, commerce, agriculture and more.

We trust that the European Commission will carry out extensive evaluation and prospective studies before any materialization of a proposal that seems neither justified nor advisable from the point of view of European consumers, creative industries, businesses of all sizes and the overall economy. The prospective study should notably consider imminent and medium-term technological evolutions that will shape the future of the infrastructure, e.g. the convergence of Edge and Telecom and the complementarity of terrestrial and satellite connectivity in completing broadband geographical coverage.

Finally, we would like to encourage the Commission to also consider alternative options to the proposal currently discussed, such as additional harmonization steps and the construction of an EU Telecoms Single Market that will remove national regulatory barriers and enable ISPs to achieve cross-national synergies and to innovate, serve their customers and deploy their electronic communication networks at the scale of the European Union.