

The Future of Connectivity

Ensuring a connected world
that serves consumers



euroconsumers

Empower people,
improve the market.

Preamble

European consumers can rely on a fast and reliable online system bringing them music, videos, films, messages, and other online content whenever and wherever they want. Everything is just a click away.

This ecosystem is based on a virtuous circle of mutual interdependence between different actors - telco companies, online service providers, and end-users - which has proven to be able to create innovation, expand internet connectivity, and widen offers of content to the benefit of consumers. All these actors already contribute to the development of the system, including the digital infrastructure, each in a different way and according to their role in the ecosystem.

Nonetheless, the public consultation on the Future of Connectivity has now relaunched the question on how this online system should be funded. The debate has however been framed as a battle of “big tech vs big telcos”, not considering the perspective of other stakeholders, including consumers - for which the system is ultimately designed.

Since the very beginning, Euroconsumers has been committed to fostering an honest and forthcoming discussion on the issue by, for example, organizing a **webinar** on the subject matter with representatives of all parties involved and Consumer Korea. One of the outcomes of the discussion was that the lack of clarity on how the proposed “fair share” would work in practice makes it difficult to assess what the impact on consumers could be. However, as was also expressed by BEUC¹, intervening in a system that has proved its ability to deliver reliable and cost-effective internet services to consumers without any strong evidence, an inclusive public consultation and a thorough impact assessment, risks jeopardizing for no reason the functioning of a complex and virtuous ecosystem.

Here are some suggestions to start an honest and fruitful conversation on the topic with consumers at the center.



1. Putting the interests of European consumers right at the centre of the debate

In the digital environment, it is the consumers’ demand for online services that generate internet traffic. Without this, there would be no demand for internet access products.

¹ BEUC, [Connectivity infrastructure and the open internet. BEUC preliminary position on possible introduction of network infrastructure fees](#), 2022.

Despite this crucial role of end-users in the digital ecosystem, the current debate on the introduction of network fees to finance telecom infrastructures (“Fair Share”) has been framed as a battle “*big telco vs. big tech*” leaving out the point of view of consumers. The Commission’s public consultation makes no exception. This goes not only against the spirit of public consultations according to Better Regulation², but it also raises reasonable concerns about the risk for the European executive to draw biased or skewed conclusions.

On top of that, the consultation is drafted in a way that suggests that the main policy choices have already been identified. Question 19 of the Commission’s questionnaire, for instance, suggests that the Commission already assumes that telecommunication companies need a source of “extra investment” to develop new digital infrastructures. Asking industry and civil society to provide input to decisions already taken seems to be a pretty useless exercise. Public consultations should, instead, serve the opposite objective: gathering as much information as possible to identify the best way to design a balanced and effective regulatory framework. Moreover, some of the questions included in the public consultation rely on big telecommunication companies to provide key policy details. This kind of one-sided policy input raises legitimate concerns about the fairness of the new legislative framework.

Hence, it’s time to shift the debate toward a consumer-centred one. This will guarantee objective and evidence-based policy-making and ensure that the market will remain designed for its original purpose, which is serving consumers.



2. Debunking myths on Fair Share

The “Fair Share” is not a new debate. Already in 2012, big telecom companies asked the Commission to oblige big digital service providers to bear some of the cost of Europe’s telecoms network. Both in 2012 and 2022, the arguments pushed forward by big telecommunication companies relied on a set of inaccurate and wrong assumptions which can be easily fact-checked.

1. **There is no clear evidence of an investment gap for connectivity from now to 2030**

Large telecommunication companies claim that, in the last years, they have experienced an increase in data traffic. This increase in data traffic would directly translate into higher network costs for big telcos which would not be

² European Commission, [Better Regulation Guidelines](#) (2021).

compensated in the form of higher income. Due to these increased costs, big telecommunication companies would have less money to invest in the development of the EU digital infrastructure to meet the 2030 targets³. As a result, they ask big tech companies - creating heavy traffic loads - to do their “fair share” filling the “investment gap” needed to achieve the EU digital goals.

However, as pointed out by BEREC⁴, there is no correlation between the costs for infrastructure investment and traffic growth. Indeed, generally, the cost of an IP network is not very traffic-sensitive as “existing capacity can be utilized up to a certain point without additional costs, and only when higher peak capacity is required, investments in network expansion are necessary⁵”. In any case, even when IP network upgrades are necessary, their costs are usually very low compared to the total network costs and come with a substantial increase in capacity⁶.

In addition, not only big telco’s claim of the existence of an investment gap is technically unjustified, but it is also historically unproven as the margins of big European Telcos have substantially increased since 2015⁷, more than their peers in other countries including South Korea⁸.

2. There is no evidence of a market failure that justifies regulatory measures to intervene in the market

In the past decades, the increase in consumers’ demand for digital products has generated great benefits for all the players involved in the digital ecosystem, including both large content and application providers (big tech) and Internet Service Providers (big telcos). Driven by consumer demand, online service providers have diversified and expanded the offer of their digital products further fueling the consumers’ demand for services and broadband access and producing direct benefits for big telecommunication companies who could monetize this increased request for connectivity and growth bandwidth to end-users. This has ultimately circled back to consumers who have progressively enjoyed better quality services and

³ European Commission, [2030 Digital Compass: the European way for the Digital Decade \(2021\) and Decision establishing the Digital Decade Policy Programme \(2022\)](#).

⁴ BEREC, [BEREC preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs \(2022\)](#).

⁵ Ibid. See also, Stocker, Volker and Lehr, William, [Regulatory Policy for Broadband: A Response to the 'ETNO Report's' Proposal for Intervention in Europe's Internet Ecosystem \(2022\)](#).

⁶ This is also confirmed by a recent report from Analysis Mason which found that the network-related costs for telecom companies have risen only 3% while the data volumes in the time frame have risen 160%. Analysis Mason, [The impact of tech companies' network investment on the economics of broadband ISPs \(2022\)](#). See also: German Federal Government, [Infrastructure levy for companies - benefit or harm for the free internet, \(2022\)](#), which points out that in Germany there are sufficient financial resources available for grid expansion.

⁷ ETNO, [The State of Digital Communication \(2023\)](#).

⁸ Epicenter.works, [Net Neutrality: Myths from the Telecom Industry and Responses from Civil Society \(2022\)](#).

faster and higher quality connection coupled with lower prices⁹.

The internet ecosystem based on this virtuous circle of mutual interdependence between different actors has proven its ability to cope with changing conditions (e.g., increasing traffic volume and changes in demand patterns, technology, and business models), enabling a high level of innovation, growth in internet connectivity and a wide offer of content and internet applications to the benefit of consumers¹⁰.

Intervening in this ecosystem which has so far provided quality services at reasonable prices to consumers while maintaining competition and innovation seems not only counterproductive (see below the Korean case), but also unjustified.

3. **There is no evidence of asymmetry of earnings**

In this “virtuous ecosystem” everybody who participates in the internet infrastructure already contributes to it. The end-users pay for the internet traffic, covering the costs of deploying and upgrading the access network. Investments from online service providers in the content itself and in the platforms increase the demand of end-users for broadband access, ultimately leading to an increase in revenues for telecommunication companies¹¹. The market remains competitive also for telco companies who can benefit from a relatively attractive risk-return and a lower investment risk in comparison with the business model of developing content and applications¹².

In this context, the introduction of network fees risks only having a negative impact on consumers. Not only are service providers likely to pass on fees to end users but they will be less able to invest in the development of new innovative services to the detriment of consumers (*see paragraph below*). In other words, consumers will pay twice for the development of the network, getting lower-quality services in return¹³.

9 BEREC (2022).

10 Ibid

11 Ibid

12 BEREC (2022). BEREC also stated that “The attractiveness of access network investment is reflected in the annually increasing capital investors’ investments in fiber access networks.”

13 This is also confirmed by Oxera, who states that it is expected that only a limited part of the additional revenue stream to telecom operators will be passed onto the internet subscribers via slightly lower subscriber fees. This is offset by price increases on the side of online services such as video streaming, application and cloud services, as online providers will seek to pass on the payment to telecom operators. Oxera, [Proposals for a levy on online content application providers to fund network operators - An economic assessment prepared for the Dutch Ministry of Economic Affairs and Climate](#) (2023).

<p>Myth n. 1: Existence of an investment gap generated by higher network costs and low income</p>	<p>Reality: No clear evidence of an investment gap for connectivity from now to 2030</p>
<p>Big telcos claim that the recent increase in data traffic - mostly created by big tech companies - has directly translated into higher network costs. These costs are not compensated by higher income. As a result, they have less money to invest in the development of the EU digital infrastructure^a.</p>	<p>The claim is technically wrong and historically unproven. Indeed, not only there is no correlation between the costs for infrastructure investment and traffic growth, but the margins of big European Telcos have substantially increased since 2015.</p>
<p>Myth n. 2: A regulatory intervention is needed to address the market imbalance</p>	<p>Reality: There is no evidence of a market failure that justifies regulatory measures to intervene in the market</p>
<p>The current EU policy landscape constrains the margin for action by EU telcos, narrowing down their ability to engage in genuinely commercial and more flexible partnerships with service providers (especially media service providers). This harms the overall sustainability of the investment cycle necessary to increase the quality of digital products and services to EU consumers in the long term^b.</p>	<p>The internet ecosystem is based on a virtuous circle of mutual interdependence between different actors which has proven its ability to cope with changing conditions enabling a high level of innovation, growth in internet connectivity and a wide offer of content and internet applications to the benefit of consumers. As the Korean example shows, intervening in this ecosystem is not only counterproductive but also unjustified.</p>
<p>Myth n. 3: Existence of an investment gap generated by higher network costs and low income</p>	<p>Reality: There is no evidence of asymmetry of earnings</p>
<p>Big Tech - that have witnessed tremendous growth in their revenues and market capitalization in the past years - benefit from the communication network without contributing to the costs associated with investment in higher telecommunications network capacity and performance ("free-riding"^c).</p>	<p>In this internet ecosystem, everybody who participates in the internet infrastructure already contributes to it. The end-users pay for the internet traffic, covering the costs of deploying and upgrading the access network. Investments from online service providers in the content itself and in the platforms increase the demand of end-users for broadband access, ultimately leading to an increase in revenues for telecommunication companies.</p>

Table 1: Debunking myths on fair share

a Axon Partners Group, "Europe's internet ecosystem: socio-economic benefits of a fairer balance between tech giants and telecom operators" (2022)

b Idem

c Idem



3. Sending Party Network Pays principle: why is a threat to Net Neutrality

Net neutrality is a cornerstone of the internet ecosystem. It means that telecoms must treat all data traffic fairly and are not allowed to discriminate against particular services. This protects the right of European consumers and businesses to freely use and offer services¹⁴.

The lack of clarity on how the proposed “fair share” would work in practice makes it difficult to assess the extent to which the new rule may impact net neutrality¹⁵. Indeed, neither telecoms nor the Commission has provided any details on how the proposed direct contribution to telecoms would work. It is therefore difficult to predict in advance whether telecom companies will discriminate against a content provider who is not able or not willing to pay its fees by blocking, restricting, or interfering with the transmission of that content.

Past experience in the traditional telephony sector - where the sender-pays-principle¹⁶ was the rule - showed that big telecom companies have used their market power to discriminate against smaller operators by implementing abusive wholesale prices. This has prevented new actors from entering the market and limited competition¹⁷.

Giving preferential treatment in the network to companies that pay the telecom company would also infringe net neutrality, as clarified by the recent European Court of Justice’s ruling on “zero-rating”¹⁸. This might occur, for instance, if the European Commission decides to oblige only content providers above a certain threshold of traffic to pay network fees. Such a

14 European Commission, [Open Internet Regulation](#) (2015). Article 3(3) states that “providers of internet access services should treat all traffic equally, without discrimination, restriction, or interference, independently of its sender or receiver, content, application or service, or terminal equipment”, moreover, it “proscribes any traffic management measure which is not reasonable and does not contribute towards the fair and non-discriminatory treatment of that traffic”.

15 For instance, as stressed by MVNO Europe in its position paper, one of the possible outcomes would be that “not only the six largest but also numerous other companies, would be required to make substantial additional payments to the largest telecommunication companies for continuing to exchange and convey internet traffic”. This is also largely left up to telecom companies, as in the current public consultation on The Future of Connectivity, the European Commission is directly asking telecom companies to indicate the threshold above which a content provider should be considered to constitute a so-called large traffic generator (“LTG”). See MVNO, [Network investment contributions - MVNO Europe position paper](#) (2022).

16 As explained by the Internet Society in the [article](#) “Old Rules in New Regulations – Why “Sender Pays” Is a Direct Threat to the Internet”, in the telephony sector, “callers were charged for occupying a resource (i.e. a “circuit” or “line”) on the network during a certain period of time. If a user called someone on another network the telecom operator billed for the time they occupied on the circuit, and the cost charged to them by the second network for occupying their circuit (a.k.a. “termination fee”)”. The introduction of a network fee payment scheme in the Internet ecosystem would probably resemble a similar system where communicating parties are charged for the traffic they exchange (“Sending-party-network-pays”).

17 MVNO (2022). Moreover, already in 2012, BEREC warned that the introduction of a fair share “run a real risk shifting the balance of negotiating leverage between market participants and inducing an abuse of market power by telecoms carriers in relation to terminating traffic (much as occurred historically in traditional telephony)”. BEREC, [BEREC’s comments on the ETNO proposal for ITU/WCIT or similar initiatives along these lines](#) (2012).

18 Zero-rating schemes are commercial practices whereby telecom companies do not charge their customers for high-volume internet traffic. This has been invalidated by the European Court of Justice in the [Judgements C-854/19 Vodafone \(roaming\)](#), [C-5/20 Vodafone \(tethering\)](#) and [C-34/20 Telekom Deutschland \(throttling\)](#) (2021).

system would wrongly provide incentives for telecommunication companies to implement the “*type of paid fast lanes that net neutrality aims to prevent*”¹⁹.

This can happen because Internet Service Providers (ISPs) hold a monopoly over the “terminating access line” directly connecting to users, as users typically subscribe to only one ISPs at a time. This makes ISPs the gatekeepers for users, controlling the flow of information. Consequently, content and service providers have no alternative but to transmit their data through the network owned and operated by the user’s ISP in order to reach the intended audience. Under the “fair share” proposal, content and service providers could be required to engage in regulated negotiations with telecom operators, establishing new and hierarchical arrangements before being able to exchange traffic. This radical shift turns the concept of a global and open Internet on its head and could lead to a significantly more fragmented online landscape.

As the Korean experience shows (*see below*), this system risks not only infringing the principle of net neutrality but also hampering competition and innovation in the digital sector, leading to a degradation of the quality of internet connection and content for consumers.

Case study: A look at the South Korean experience

In 2016, South Korea introduced a sender-party-network-pays system between internet service providers (telcos). As a result, some started to shift the additional cost to content providers (tech companies). As service quality was deteriorating, in 2020 this policy was reinforced, by requiring content providers meeting certain thresholds to pay a fair share to service providers, to ensure service stability and quality.

A study for the Federal Network Agency of Germany reports that market observers witnessed “*a decline in diversity of online content and expected rising prices for end users for content, as well as lower network infrastructure investments.*”²⁰

- **Misplaced investment and stagnating infrastructure:** many content providers left the country by moving their data centres abroad to avoid network fees. Therefore telecoms had to invest in inter-connection capacity with foreign internet exchange points because traffic had now to be routed internationally. But, by investing in inter-connection capacity, investment in infrastructure connectivity in the

19 Epicenter.works (2022).

20 WIK-Consult, [Competitive conditions on transit and peering markets. Implications for European digital sovereignty](#), (2022, p. IX). See also Kyung, Sin Park and Michael, Nelson, [Korea’s Challenge to the Standard Internet Interconnection Model](#), in *The Korean Way With Data*, Carnegie, (2021) stressing that the consequences of the fair share in South Korea have been less competition and less investment.

country **stagnated**, resulting overall in higher prices for consumers²¹.

- **Lower quality of content and connection:** to avoid meeting the traffic threshold above which they would have to pay the network fee, content providers in the country could decide to **lower the quality of their own content**. Moreover, as content providers left the country, consumers experienced a **slower connection**, due to an increase in the **time delay** occurring when data travels from one point in a network to another, as proven by the OECD²². This was also exacerbated by stagnating investment in the country.
- **Loss of competition and innovation:** as the legislation applies to content providers above a certain threshold of traffic and users, smaller content providers **lose incentives to growth**, and new entrants have no incentives to enter the market. This is detrimental to **competition and innovation**²³.

21 Ibid.

22 OECD, [Broadband networks of the future](#) (2022).

23 Internet Society, [Internet Impact Brief South Korea's Interconnection Rules](#) (2022).

4. Ensuring evidence-based policy-making

Given the impact that the introduction of network fees might have on the functioning of a complex ecosystem and end-users, any change in the regulatory landscape in the form of a fair share requires careful consideration and strong evidence.

The European Commission has repeatedly stressed that the exploratory consultation on the future of connectivity is the first step in the evidence-based policymaking process, in line with Better Regulation principles. In this regard, Euroconsumers reiterate the call raised by BEUC²⁴ to conduct a thorough impact assessment, carefully analysing the impact of such a policy shift on consumers.

In the assessment of the different policy options, Euroconsumers encourages the Commission to consider the following proposals to enhance the connectivity in the European Union:

- I. Increase public investment in the development and expansion of broadband infrastructure, particularly in underserved and rural areas.
- II. Establish funding mechanisms, such as grants and subsidies, to incentivize private sector participation in deploying broadband networks.
- III. Encourage public-private partnerships to leverage expertise and resources for the efficient deployment of broadband infrastructure.
- IV. Optimize spectrum allocation and management policies to meet the growing demand for wireless connectivity.
- V. Foster collaboration between government and industry stakeholders to identify and allocate additional spectrum bands for wireless services.
- VI. Implement spectrum-sharing strategies to maximize spectrum utilization and accommodate diverse connectivity needs.

²⁴ BEUC, [Connectivity infrastructure and the open internet. BEUC preliminary position on possible introduction of network infrastructure fees](#), 2022.

ABOUT EUROCONSUMERS

Gathering five national consumer organisations and giving voice to a total of more than 1,5 million people in Italy, Belgium, Spain, Portugal and Brazil, Euroconsumers is the world's leading consumer cluster in innovative information, personalised services and defence of consumer rights. Our European member organisations are part of the umbrella network of BEUC, the European Consumer Organisation. Together we advocate for EU policies that benefit consumers in their daily lives.

