

"Network fees" proposed by telecommunications operators - will consumers pay twice for infrastructure maintenance?

1. Recommendations

Over the past months there has been an increased discussion regarding ETNO's (European Telecommunications Network Operators' Association - representing the biggest telecommunications companies) demands to charge content and application providers for the traffic that is generated by the use of their services. Telecoms believe that because of them they are being forced to bear the costs of infrastructure maintenance, and call content providers "stowaways" who do not contribute to the maintenance of European infrastructure. The truth, however, is quite different, and this is not a fight between telecoms and the big Internet giants, but a fight for the Internet as we know it. The concept of "fairshare payments," as telecoms call them, is opposed by virtually all circles, except the largest Internet providers. Their introduction will certainly also be felt by Polish digital companies, which employ thousands of people and contribute greatly to the economy.

In this paper, we will present where the idea of introducing "fair share payments" came from and how it is argued. We will also present what effects the implementation of this solution will have on consumers and entrepreneurs, and we will present individual national circumstances.

In view of the ongoing debate on the introduction of "fair share payments" we note the following:

- Not even the telecoms themselves agree on the cost of handling Internet traffic. The Fédération Française des Télécoms presented an estimate according to which handling network traffic generates €2 billion in costs in France, or €27 for each resident of the country. That's a third of the

amount of €80 per EU resident calculated by ETNO, and it's still significantly inflated.

- The research indicates that South Korea is so far the only country that has responded to the concerns of telecoms and introduced the legal billing rule of Spending Party Network Pays (SPNP). Under the rules, Internet content and application providers have been required to pay fees to telecoms. The report's conclusions are clear. All of these regulations have led to a reduction in the quality and variety of content on the Internet. It is also expected to increase costs for the end user of content and reduce investment in local infrastructure.
- Fair share payments can lead to a deterioration in the quality of online content offered by providers. Additional fees mean a reduction in budgets for creating quality services offered to consumers.
- The introduction of additional fees will lead to a competitive imbalance in the telecom market itself favoring the largest players. They will lead in practice to the strengthening of oligopolies in the market.
- Fair share payments are widely criticized by almost all circles except the largest telecoms. Experts point out that among the numerous disadvantages of this solution, the most noteworthy is the violation of the principle of Internet neutrality.
- Concept of "fair share payments" can negatively impact start-up community which sufficiently contributes to Danish economic development, employment and GDP growth. According to recent statistics, there were over 4,300 startups in Denmark in 2021.

In view of the above, we urge to reject the idea of introducing "fair share payments" within the European Union.

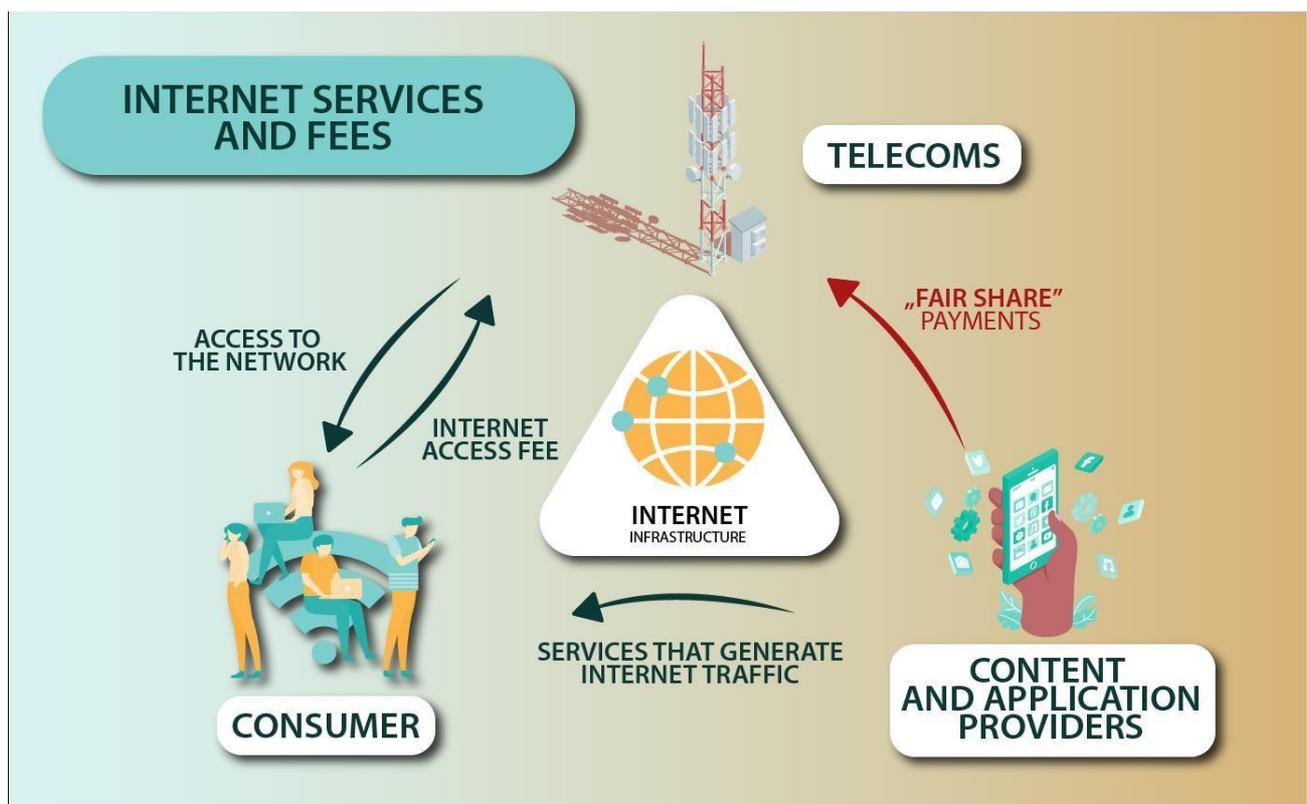
2. **Proposals to introduce so-called "fair share payments".**

For nearly a year there has been a discussion on the idea of introducing so-called "fair share payments". This idea was presented by Commissioner Vestager on May 2, 2022¹. Unfortunately, all indications are that the European Commission is seriously considering the introduction of fair share payments for Internet content and application providers. The issue is being highlighted as a dispute between two big industries, Internet access providers (telecoms) and big Internet corporations. The issue has come to the fore through ETNO's activities, which is extensively lobbying for the introduction of fees for "extraordinary growth in Internet traffic that generates challenges for sustainable investment in the European network." This position is supported

¹ <https://www.reuters.com/business/media-telecom/eus-vestager-assessing-if-tech-giants-should-sharetelecoms-network-costs-2022-05-02/> (accessed April 27, 2023).

among others by Deutsche Telekom, Orange, Telefonica and Telecom Italia, claiming that the six largest Internet content providers account for more than half of Internet traffic². The argument, in a nutshell, is that large US corporations generate heavy network loads by offering their content, and this leads to the need for large infrastructure expenditures. This traffic is generated by the popularization of streaming, teleconferencing, remote learning, social media, and cloud services. Telecoms assume that since annual network maintenance in 2020 cost €52.5 billion, and service and application providers account for 60-70% of Internet traffic, they should pay €36 billion (€80 per EU resident) to telecoms. Moreover, this amount should increase every year due to the growth of network traffic³.

However, the telecoms' argument is fraught with a number of significant problems. First of all, telecoms charge consumers themselves for internet use. Their demands on service and application providers are nothing more than a demand for a second fee for the same service. This relationship is illustrated by the graph below:



Telecoms make their infrastructure available to consumers. Consumers use

² <https://www.reuters.com/technology/eu-wants-details-big-tech-telcos-investment-plans-source-2023-01-10/> (accessed April 27, 2023).

³ <https://www.project-disco.org/european-union/020123-fast-internet-doesnt-cost-eu-telecom-operators-much-at-all/> (accessed April 27, 2023).

internet content offered by service providers and applications, and this generates traffic on the network. As the use of content available on the Internet generates traffic, telecoms have decided to demand an additional fee from service and application providers called "fair share payment."

What is also worth noting is that telecoms argue for their demands with the need to maintain the network due to increased traffic (load). Meanwhile, telecoms' investments consist of relay stations, fiber optics, modems, and data centers, among other things. A large cost is, for example, the construction of masts and fiber-optic networks. Nevertheless, 70-80% of the total telecom costs are spent precisely on infrastructure, which lasts and can be successfully used for at least 30 years. The remainder relates outdated equipment, which should be upgraded every 5-10 years. The cost of "network maintenance" due to high traffic is therefore not high, and this is explicitly admitted by some telecoms. The Fédération Française des Télécoms presented an estimate according to which handling network traffic generates 2 billion euros in costs in France, or 27 euros for each resident of the country. That's a third of the amount of €80 per EU resident calculated by ETNO, and it's still significantly inflated. In France, you can easily find consumer offers of 10 gigabit-per-second connections along with phone and TV at prices around 30-49 euros per month⁴. These package offers are also a great example of existing interrelations and co-dependencies between telecommunications operators and service providers. In Poland, Orange offers fiber optics with 1 Gbps download speeds for 17.5 euros per month⁵. It is also worth citing an example in which one German student accommodation organization wanted to provide students with Internet access at a speed of at least 1 Gbps at all times in 2020. The offer for such access was made by 8 German telecoms, of which 5 offered the amount of 11 euros per month per student⁶. These examples indicate market prices for Internet access, no Internet provider would bid below its costs. Hence, the calculations of both ETNO and the Fédération Française des Télécoms are clearly inflated. It is also difficult to argue that internet platforms are "free riders" because they have invested billions in the construction and development of internet infrastructure over the last decade.

3. Effects of "fair share" fees on citizens and businesses.

A fee similar to "fair share payments" has been introduced in South Korea,

⁴ <https://www.project-disco.org/european-union/020123-fast-internet-doesnt-cost-eu-telecom-operators-much-at-all/> (accessed April 27, 2023).

⁵ <https://oferty.orange.pl/swiatlowod2/> (accessed April 27, 2023).

⁶ <https://www.project-disco.org/european-union/020123-fast-internet-doesnt-cost-eu-telecom-operators-much-at-all/> (accessed April 27, 2023).

and this is basically the only case where we can find similarities with existing solutions. The Korean example has been studied by BEUC (The European Consumer Organization), among others. It cited a study commissioned by the German Federal Internet Agency. The research indicates that South Korea is so far the only country that has responded to the concerns of telecoms and introduced the legal billing rule of Sending Party Network Pays (SPNP). Under the rules, Internet content and application providers have been required to pay fees to telecoms. The report's conclusions are clear. All of these regulations have led to a reduction in the quality and variety of content on the Internet. It is also expected to increase costs for the end user of content and reduce investment in local infrastructure⁷.

A similar view is held by the European Internet Exchange Association, which, analyzing, among other things, the situation in South Korea, points out that "fair share payments" are detrimental to the proper functioning of the Internet communications and peering market and distort competition in this market. In addition, they will negatively affect the experience of citizens in basic business operations, data sharing, access to cloud services and the development of research projects⁸.

Paradoxically, therefore, "fair share" fees in Korea have had exactly the opposite effect of the one that telecoms claim they were intended to serve. It should be pointed out that the introduction of additional fees on Internet content providers could force them to introduce at least partial payment for their services, which were previously free. This could reduce access to online content and lead to digital exclusion of less affluent Internet users. This straightforwardly violates the principle of Internet neutrality, which, however, by definition says that it is the ability of all Internet users to access selected content and applications.

Another issue is the reduction in the quality of content available online. Clearly, many companies offering, for example, streaming services, access to online TV or other video content will be affected by such fees. Prices for access to content can be introduced here or raised only up to a certain level, above which consumers will not be able to accept additional fees. In practice, it will be impossible to pass on the entire cost to content consumers. This means a smaller budget for the creation of quality online content. Similar concerns are presented, among others, by the European Association of

⁷ WIK-Consult report, Study for the Federal Network Agency Germany, Competitive conditions on transit and peering markets Implications for European digital sovereignty Final report.

⁸ https://www.euro-ix.net/media/filer_public/c7/72/c772acf6-b286-4edb-a3c5042090e513df/spnp_impact_on_ixps_-signed.pdf (dostęp na dzień 27.04.2023 r.).

Commercial Television and VoD Services, which has issued an open letter expressing concern on the introduction of network fees and its' effects on the European creative industry⁹

Crucially, the dispute over "fair share payments" should not be viewed as a conflict between big telecom companies and big Internet corporations. These fees have the potential to very seriously undermine competition on the Internet and threaten the smallest entrepreneurs. Such concerns are presented by the French Association of Alternative Telecom Operators, among others, which notes that fees of this kind will be fatal to the survival of small and medium-sized digital companies¹⁰. Small companies offering content on the Internet will be put in a very difficult position, as on the one hand they will be charged for Internet traffic, and on the other hand it will be difficult for them to pass this cost on to consumers. The introduction of fees to offset the cost of "fair share" fees will make them lose their competitiveness with larger players in the market.

What's more, smaller telecom service companies are also openly criticizing the idea of fees. Such threats are pointed out by both MVNO Europe and the EU Competitive Telecommunications Association (ECTA). They point out that the fees will cause serious damage to competition in the telecom market, will directly affect smaller operators, and will negatively impact both individual consumers and telecom customer companies. The fees will only benefit the largest players in the market by strengthening their oligopolies¹¹ .

"Fair share payments" are also criticized by academics. In October 2022, they sent a letter to the European Commission signed by 29 market experts, PhDs and professors who know the market very well. They pointed out that the proposal to charge Internet service providers and applications is not new and has always been rejected as harmful. They point out that for the past decade the idea has been unequivocally criticized by experts, business and NGOs. The experts point out in their letter that in 2015¹², the EU granted internet users the right to freely access information and content, use and deliver applications and services of their choice. EU standards require broadband service providers to treat data in a non-discriminatory manner, regardless of what it contains, what application transmits the data, where it comes from and to whom it is directed. Even if fair share payments were directed only to the largest Internet

⁹ <https://www.acte.be/publication/tv-vod-statement-on-network-fees/> (accessed April 27, 2023).

¹⁰ <https://www.project-disco.org/european-union/020723-is-anyone-in-favour-of-taxing-internet-traffic/> (accessed April 27, 2023).

¹¹ <https://www.project-disco.org/european-union/020723-is-anyone-in-favour-of-taxing-internet-traffic/> (accessed April 27, 2023).

¹² Regulation (EU) 2015/2120 of the European Parliament and of the Council of November 25, 2015, Official Journal of the European Union L 310.

content providers, this would still directly violate open Internet access standards.

Experts also point out that broadband networks are an important part of the value chain just as Internet content providers are driving demand from Europeans for access to the Web. Broadband providers gain significant benefits from the fact that service providers generate demand for broadband access. In doing so, telecoms pay nothing for the efforts of Internet content and application providers in creating that demand. Without the demand generated by Internet content providers, telecoms would not have many customers for high-speed Internet access services. Customers who, after all, pay telecoms for that access. Moreover, governments, universities, government offices and other public entities are also Internet content providers. All of these entities are already paying for the development of Internet networks. The researchers also explicitly point out that history and economic theory indicate that similar fees will not increase investment in Internet infrastructure by telecoms¹³.

The European Video on Demand Coalition is also opposed to "fair share payments," pointing out that the introduction of this fee will harm the development of innovation in Europe and the digitization process. They also express concern that proposals of this kind are being put forward without adequate public consultation and analysis of the impact of such solutions¹⁴. Germany's VAUNET argues that fees threaten media pluralism and the quality of content¹⁵, while the Association of Commercial Television points out that Internet access fees for content providers mean less money for content creation. Which will ultimately lead to less or lower quality content¹⁶.

Finally, it should be noted that on June 8, 2022. 34 social organizations from 17 countries sent an open letter to Commissioners Vestager and Breton pointing out the problems cited above and opposing the introduction of "fair share payments." The authors of the letter emphasize that the Commissioner's statement about players generating a lot of Internet traffic who should be charged a fair fee to telecoms shows a fundamental misunderstanding of how the Internet works¹⁷.

¹³ <https://www.komaitis.org/personal-blog/29-internet-experts-and-academics-send-a-letter-to-the-commission-urging-to-abandon-the-sending-party-network-pays-proposal> (accessed April 27, 2023).

¹⁴ <https://www.europeanvodcoalition.com/positions/position-paper-on-net-neutrality/> (accessed April 27, 2023).

¹⁵ https://www.politico.eu/wp-content/uploads/2022/11/02/VAUNET-positionpaper_NetworkFees.pdf (accessed April 27, 2023).

¹⁶ <https://www.acte.be/publication/tv-vod-statement-on-network-fees/> (accessed April 27, 2023).

¹⁷ https://epicenter.works/sites/default/files/2022_06-nn-open_letter_cso_0.pdf (accessed April 27, 2023).

So it turns out that both businesses (including smaller telecoms), social organizations, industry organizations and academia speak with one voice and strongly oppose the idea of "fair share payments" stressing that it is harmful to the entire market. The only entities that will gain from it are the largest telecoms, which are actively lobbying the solution at the European Commission.

4. Danish market

Denmark has one of the most developed telecom markets in the world, with several major players dominating the industry. The largest shares are held by Telenor, HI3G Denmark, Stofa, Kemp & Lauritzen, Telia, and TDC. In 2021, the value of the telecom market in Denmark was estimated to be around €1.8 billion¹⁸. The country boasts high levels of internet penetration, with 99% of the population having access to the internet¹⁹. The average internet speed in Denmark is 203 Mbps, which is among the fastest in the world²⁰.

The efficiency of Denmark's telecom infrastructure has been demonstrated by a Dutch student housing organization that needed to retender the broadband service for its 41 dormitories throughout the city, housing 5,500 students in total²¹. Eight Dutch telecom operators responded to the call for tenders, with five of them offering gigabit broadband for just €11 per month²². The connecting lines could be shared efficiently, with four 100 Gbps lines to the outside world providing every student with access to the full 1 Gbps at all times²³. The costlier elements for the service provider were primarily the network switches, 24/7 support, and billing. However, these services could still be provided to students for a very reasonable price.

The "Ease of Doing Business Index 2020" is an annual report published by the World Bank that ranks countries based on the ease of doing business within their borders²⁴. Denmark's ranking as a leader in Europe and the 10th country

¹⁸ Statista. (n.d.). Revenue of the telecommunications industry in Denmark from 2014 to 2021, by sector. Retrieved from <https://www.statista.com/statistics/814719/revenue-of-the-telecommunications-industry-in-denmark-by-sector/#:~:text=The%20revenue%20of%20fixed%20line,15.8%20billion%20kroner%20in%202021.>

¹⁹ Kemp, S. (2022, February 15). Digital 2022: Denmark. Retrieved from <https://datareportal.com/reports/digital-2022-denmark#:~:text=There%20were%205.77%20million%20internet,at%20the%20start%20of%202022.>

²⁰ Speedtest.net. (2023, March). Denmark Median Country Speeds. Retrieved from <https://www.speedtest.net/global-index/denmark>

²¹ van der Berg, R. (2023, February 1). Fast Internet Doesn't Cost EU Telecom Operators Much at All. Retrieved from <https://www.project-disco.org/european-union/020123-fast-internet-doesnt-cost-eu-telecom-operators-much-at-all/>

²² van der Berg, R. (2023, February 1). Fast Internet Doesn't Cost EU Telecom Operators Much at All. Retrieved from <https://www.project-disco.org/european-union/020123-fast-internet-doesnt-cost-eu-telecom-operators-much-at-all/>

²³ van der Berg, R. (2023, February 1). Fast Internet Doesn't Cost EU Telecom Operators Much at All. Retrieved from <https://www.project-disco.org/european-union/020123-fast-internet-doesnt-cost-eu-telecom-operators-much-at-all/>

²⁴ World Bank Group. (2020). Doing Business 2020: Comparing Business Regulation in 190 Economies. Retrieved from <https://documents1.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf>

in the world indicates that the country provides an ideal environment for businesses to start and grow. This is important because a healthy startup ecosystem can fuel economic growth, job creation, and innovation.

According to recent statistics, there were over 4,300 startups in Denmark in 2021²⁵. These startups are contributing to the growth of the country's economy and are responsible for creating jobs, bringing new ideas to market, and driving innovation. The implementation of network fees could have a significant impact on the startup ecosystem in Denmark. Network fees could increase the costs of doing business, making it more difficult for startups to survive and thrive in the market. This could lead to a decrease in the number of new businesses starting up, which would have a negative impact on the country's economy. Furthermore, startups are often heavily reliant on cloud-based services for their day-to-day operations, and any increase in costs associated with these services could be detrimental to their bottom line. This could result in a situation where startups are forced to choose between paying for costly network fees or cutting back on essential services, both of which could impede their growth.

The startup ecosystem in Denmark is crucial to the country's economic growth, job creation, and innovation. Startups often rely heavily on cloud-based services for their day-to-day operations, as these services provide them with cost-efficient, flexible, and scalable solutions that allow them to compete with larger companies. However, the implementation of network fees could have a significant impact on the viability of startups in Denmark. The costs associated with network fees could make it more difficult for startups to compete with established companies, as they may not have the same financial resources to absorb these added expenses. Additionally, startups often operate on tight budgets and may not have the financial flexibility to pay for costly network fees. This could lead to a situation where startups are forced to cut back on essential services, such as cloud-based solutions, which could have a detrimental impact on their growth and ability to compete.

Despite the efficiency of Denmark's telecom market, the introduction of network fees could disrupt the current balance and lead to increased costs for businesses and consumers. This could have a negative impact on the growth of the country's overall economy. If telecom companies are allowed to charge content providers for access to their networks, they could potentially create a multi-speed internet where some content providers can pay to have their content delivered faster, while others may be relegated to a slower lane. This

²⁵ Müller, S. (2021, September 16). The Danish startup database. Retrieved from <https://dealroom.co/blog/the-danish-startup-database>

would create an unfair advantage for larger and wealthier content providers, as they would have the resources to pay for faster delivery, while smaller or emerging content providers would be at a disadvantage.

More importantly, however, this could infringe upon the principle of net neutrality, which states that all data on the internet should be treated equally, without discrimination or preferential treatment based on factors such as content, origin, or destination. This would not only create an unequal playing field but could also limit access to information and opportunities for smaller businesses and startups, who may not be able to afford to pay the fees. For example, a small startup that cannot afford to pay for faster delivery of their app may find it difficult to compete with larger companies who can. In this way, implementing a "fair share" charge could stifle innovation and limit the growth of smaller businesses in Denmark.

Therefore, any decision regarding the implementation of network fees should be carefully considered and evaluated to ensure that it does not harm the country's digital ecosystem.

Furthermore, network fees have the potential to create a multi-speed internet, which could lead to a violation of the principle of net neutrality. This could have a far-reaching impact on the availability of information and online services, which could ultimately stifle innovation and hinder the growth of startups. To sum up, the implementation of network fees in Denmark could threaten the country's status as a leader in Europe in terms of business conditions and could potentially harm the growth of the startup ecosystem.