NL Position paper accompanying the consultation response "The future of the electronic communications sector and its infrastructure"

Summary

- The Netherlands welcomes the effort of the Commission to collect opinions on the electronic communications sector and its infrastructure through this consultation.
- Before a meaningful policy debate can take place, it's important to first clearly establish that there's an actual market failure and carefully analyze the causes and potential solutions.
- From a factual perspective there's not an investment gap between the EU as such and other regions in the world. Rather there are performance gaps between member states that require a customized approach instead of a 'one-size-fits-all' approach.
- The claims that the financial situation of large European telecom operators is increasingly under pressure - and that therefore the digital decade goals cannot be met - are not supported by facts.
- The consultation is well suited for opinions, but to obtain reliable, meaningful and verifiable data on past and future costs and investments, these opinions need to be complemented by factual data from independent sources.
- The consultation has a strong focus on "challenges, investments and costs" faced by traditional telecommunication operators. This disbalance could lead to biased outcomes towards this specific stakeholder group.
- Protecting large telecom operators should not be a goal in itself, as the interests of European consumers and businesses should be leading.
- By creating ever larger, pan-European telecommunication champions, and shielding these off from innovation and competitive challenge from other players, the European digital transition process is likely to be impeded, leading to considerable harm to European end-users.
- The current system of EU harmonization of spectrum leads to a good balance between harmonization and flexibility.
- The current co-operation with non-EU countries and NGO's in standardization procedures is important to maintain.
- There is no justification for direct payments (also referred to as 'fair contribution' or 'network fee') from video streaming companies and other online service providers to telecom operators.
    - Such direct payments are unjustified as end-users already pay for their access line including network traffic costs.
    - This suggested intervention will also deeply affect the functioning of the internet as a complex, vital ecosystem. As such it can have a profound, negative impact on European consumers and businesses and Europe's competitive position vis à vis other regions.
- Although the Netherlands has considerable concerns regarding the explored policy directions in this consultation, it fully endorses the underlying ambitions.
- The Netherlands looks forward to contributing constructively and working with the Commission to build on the important achievements driven by the Commission, in particular the Digital Decade policy programme.

Introduction

We welcome the effort of the Commission to collect opinions on the electronic communications sector and its infrastructure through this consultation. We would like to stress that it's very important to also collect factual information from independent sources to facilitate an evidence-based approach. We underline the importance of a robust and evidence based trajectory, including a public consultation and broad impact assessment, before publishing any proposal.

The Commission has in the past years worked on very important initiatives, including the Digital Decade policy programme. The Netherlands highly appreciates the role of the Commission as a driving force behind the ambitious connectivity goals for Europe, guiding Europe's digital transformation. In the context of this consultation, the 'Gigabit for everyone' target is particularly relevant.

We would strongly support that any future European policy regarding electronic communications will be guided by the following principles:

- Apply an evidence based approach, with a clear problem definition and a careful analysis and neutral impact assessment to pick instruments that are fit and proportionate in relation to any defined problem.
- Keep competition as the corner stone of European telecommunications policy, and keep addressing significant market power of large telco's and other large relevant market players.
- Avoid a one size fits all approach to connectivity: Make available multiple instruments to allow for a tailored approach that can vary across member states. This reflects the fact that member states are in different stages of digital development, and face different bottlenecks with different underlying causes.
- Continue and if necessary expand public funding for network roll-out in unserved or underserved areas, based on open access models.
- Tackle administrative bottlenecks that unnecessarily complicate network roll-out.
- Where appropriate member states should consider to include minimum coverage and Quality of Service obligations in spectrum allocations.

While electronic communication providers play a very important part in the ecosystem, it's important to avoid that protecting the current or projected business models of large electronic communication providers becomes a goal in itself for policy makers.

Before exploring specific instruments we need a solid problem analysis

Before there can be a meaningful discussion on new policy instruments to apply to the electronic communication sector it's necessary to have a clear, objective and fact-based analysis on problems ('market failure') that need to be addressed. The exploratory consultation focuses however mainly on specific policy instruments and on alleged challenges for traditional telecom operators, without making clear whether there's any market failure to justify the new policy instruments. Various stakeholders have expressed their concern with this approach and its conformity with the better regulation guidelines. We should avoid having solutions in search of problems.

The better regulation guidelines also stress the importance of a transparent procedure. Against this backdrop we note that the consultation seems to be based on a multitude of implicit assumptions, which are not transparent to respondents. This is an important area of attention, as this impairs the ability of respondents to provide meaningful input on proposed policy instruments. The appropriateness of policy instruments can only be considered in the context of the problem they're supposed to address.

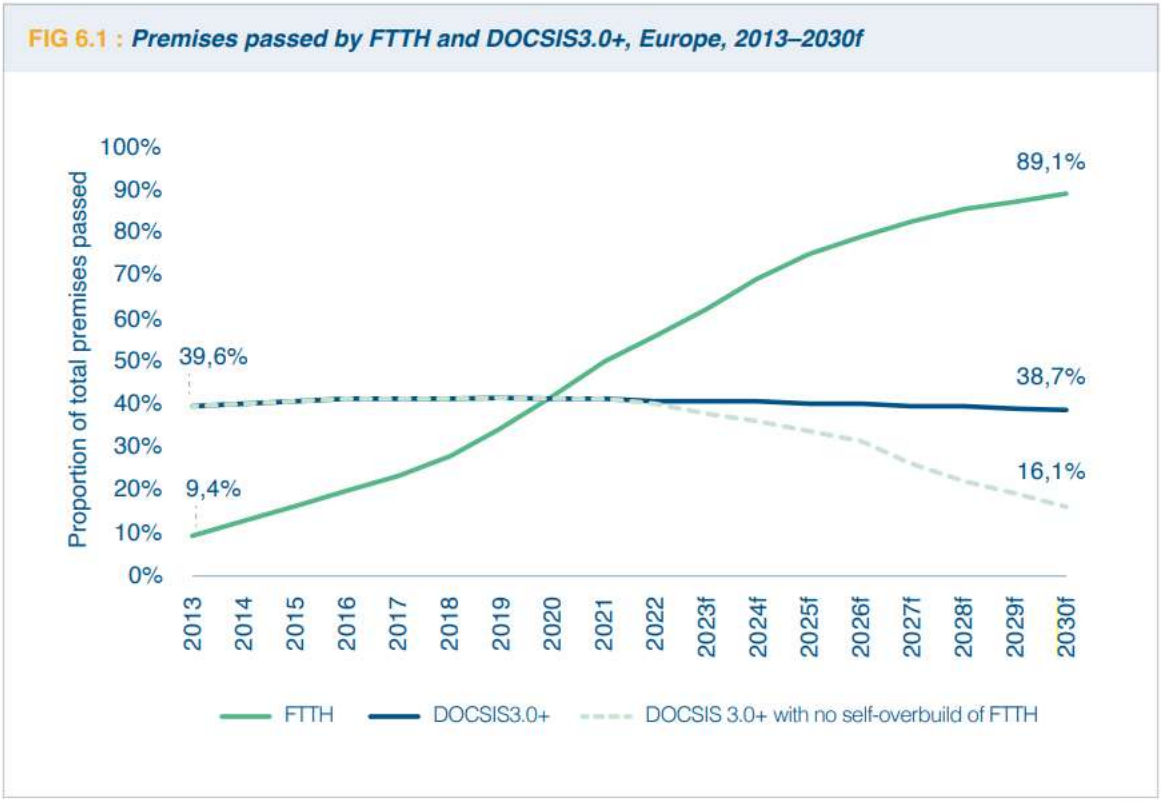
As a result of this, although the exploratory consultation contains many interesting perspectives, it cannot be used as a basis to inform any concrete policies in the area of electronic communication It's particularly important in this policy area to obtain facts and evidence from independent sources, in addition to opinions. In addition, the policy directions explored in the consultation - such as creating very large pan-European telecom champions, European co-ordination of spectrum policy and the introduction of a 'fair contribution' (also referred to as 'negotiation framework') - strongly echo previous European policy debates on spectrum, cross-border consolidation and net neutrality. The Netherlands has been one of the first countries to adopt net neutrality regulation to safeguard the open internet (2012), and has been a strong advocate for the European open internet regulation (2015).

There's a risk these old, familiar policy debates will be repeated all over again, which could be at the expense of a constructive debate on how we can ensure that all European member states will achieve the connectivity targets from the Digital Decade policy programme. This means we need to

first carefully take stock of any gaps in the various member states and consequently assess what tailored approach is best fit to address these gaps.

There are performance gaps between member states that require a customized approach

One of the implicit assumptions behind the consultation seems to be that there's an investment gap between the EU and other regions in the world. However, in our opinion there's not an investment gap between the EU and the rest of the world, as many member states take prominent positions in global rankings. Rather there are gaps within the EU between high performing and less high performing member states, and this needs serious attention. Any claim that Europe as a whole lags behind other leading regions (and that we need far-reaching, undifferentiated measures to fix this) is distracting from the real, more complicated story about gaps between member states which do need our attention. In order to achieve the ambitious connectivity targets from the digital decade programme we need to acknowledge that every member state needs a targeted approach. And although there are gaps within the EU that need to be closed, the EU is not standing still. The EU is for example already well underway to meet the target that every household should have access to Gigbit connections by 2030. According to ETNO, even without any additional interventions, almost 90 percent of households will have at least a fixed connection of 1 Gigabit at their disposal in 2030.[1] The remaining 10 percent is not the result of the alleged inability of European telecom operators to invest, but more likely reflects the fact that some households are commercially less interesting to connect.



Source: Analysys Mason, 2022

The one-size-fits all approaches explored in the consultation such as direct payments from video streaming companies to telecom operators cannot be regarded as appropriate to address a range of potential market failures (to be investigated) at member states level. Rather than focusing on specific instruments we need to ensure the availability of a set of different instruments ('a tool box'), so that for each less performing member state a tailored approach can be applied. First of all

[1] ETNO, THE STATE OF DIGITAL COMMUNICATIONS 2023, January 2023, page 58.

it's important to assess whether the existing instruments are sufficient. Underinvestment will typically be caused by a combination of different factors. In some member states it could be that the incumbent operators are not sufficiently challenged to replace their legacy infrastructure, whilst in other member states the spectrum requirements might lack coverage obligations, and in yet other member states there can be geographical or demographical bottlenecks (e.g. rural areas) that need to be addressed. It would be an unfortunate oversimplification that there would be some one-size-fits-all solutions to get less performing member states at par with the best performing member states. Such inappropriate solutions would be detrimental to digital development across member states, and affect higher and lower performing member states alike.

The claims that the financial situation of large European telecom operators is increasingly under pressure are not supported by facts.

If we interpret the explanations in the exploratory consultation correctly, an immediate cause of the consultation can be found in various claims regarding the allegedly weak financial situation of large telecom operators and how this affects network investments. A central claim seems to be that there's an investment gap in Europe compared to other regions in the world, notably the US. It has been suggested that this is the result of thei weak financial situation of large telecom operators compared to their peers in other regions. Allegedly the financial situation of large telecom operators would have deteriorated over the last years due to the fact they've not been able to raise their end-user prices, despite the considerable data growth as a result of the popularity of streaming services. As we will show these claims are not supported by facts and should be dismissed:

- In reality, contrary to all these persistent claims, the strong growth of Internet data in the past did not confront large telecom operators with higher network costs. This is because network equipment becomes ever more powerful at the same price. By omitting this crucial insight, a problem is suggested that does not exist: networks cost have not at all grown out of control as a result of the impressive, continuous data growth. See also the graph below from a report by AnalysysMason, which conclusion is in line with the information that telecom operators share with their investor communities.

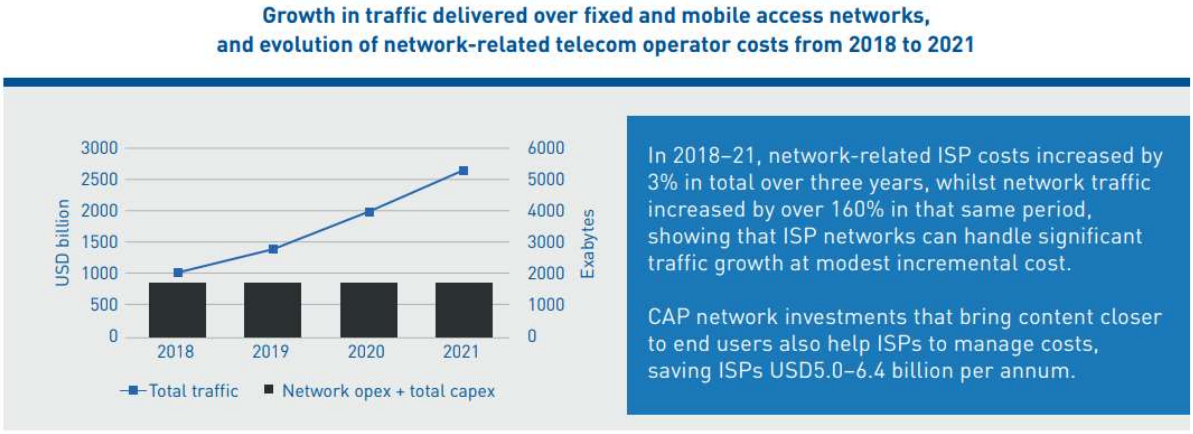


Figure 1: Network costs remain constant despite high data growth. Source: AnalysysMason "THE IMPACT OF TECH COMPANIES' NETWORK INVESTMENT", October 2022. https://www.analysysmason.com/contentassets/b891ca583e084468baa0b829ced38799/main-report---infra-investment-2022.pdf

- The persistent but inaccurate narrative also leaves aside the fact that the other costs, not related to traffic, have developed particularly beneficial to telecom operators. This is among others due to network modernization (next generation networks are more cost efficient and generally require less staff) and historically low costs of capital. Bottom line, telecom operators saw their margins improve considerably. Notably, this is also confirmed by recent research commissioned by the large telecom operators. It shows that the margins of large European telecom operators have increased very substantially since 2015. Even more notable, the margins in Europe turn out to be the highest compared to their peers in other

countries such as the US, Japan, South-Korea and China. Based on the figures they publicly report, the gloomy image pictured is very hard to maintain.[2]

- In addition, the suggestion that Europe is lagging behind other regions in terms of investment is incorrect as well. If we for example look at the US, end-users pay more than twice (!) as much for their fixed and mobile subscriptions than the average European end-user. However, if we look at Europe as a whole, according to ETNO's report it e.g. outperforms the US in terms of FttH coverage (55.6 % in Europe versus 43.9% in the US). If we would zoom in on individual member states, we would see that various member states are among the top performing countries worldwide. In terms of mobile speeds, EU member states also rank amongst the highest in the world, although we see a large variability among different member states.

Figure 2: margins of European telecom operators have improved significantly since 2015. These margins are higher than other regions with advanced networks (US, Japan, China, South Korea). Source: ETNO, THE STATE OF DIGITAL COMMUNICATIONS 2023, January 2023, page 32.

The consultation has a strong focus on "challenges, investments and costs" faced by traditional telecommunication operators which could lead to biased outcomes

We observe that many of the consultation questions ask for the "challenges, investments and costs" faced by traditional telecommunication operators. This leads to a disbalance in the consultation questions. We consider it not unlikely that this disbalance will lead to consultation outcomes that overstate the 'problems' faced by large telecom operators. This risk of biased outcomes could be amplified by methodological challenges in the consultation. We therefore urge the Commission to correct for such unintentional bias in the analysis of the inputs, in order to ensure the situation of the large telecom operators is not presented in an unrealistically dire way. If

[2] ETNO, THE STATE OF DIGITAL COMMUNICATIONS 2023, January 2023, page 32: "In fact, ETNO members had the highest average EBITDA margins of all groups included in this report in 2021 (35.3%); they were fractionally higher than those of US operators (33.1%), higher than those of Chinese operators (28.7%) and substantially higher than those of Japanese and South Korean operators (26.7% and 20.8%, respectively)."

this bias is left unchecked, it can lead to wrong policy choices that are based on perceptions rather than facts.

The consultation is well suited for opinions, but less suited to obtain reliable, meaningful and verifiable data on past and future costs and investments

The consultation is very well suited to collect opinions from various stakeholders, in particular traditional telecom operators. However, we consider the consultation less suited to collect meaningful, reliable and verifiable data on past and future costs and investments. Such data should in our opinion not be primarily obtained by auto-reporting stakeholders (such as either video streaming services and other online service providers or telecom operators), but mainly through sources from independent experts or by regulators. In addition, there are various methodological concerns regarding the questions on past and future costs and investments, as specified in our submission. As a result, the quantitative answers should be interpreted with great caution and need to be checked against data from impartial sources.

It's also important to acknowledge that there are limitations to making accurate predictions for both market players and policy makers. In the context of policy making processes, it could be more sensible to think in terms of scenario's, rather than to gamble on specific bold outcomes based on relatively 'bullish' expectations regarding e.g. "the metaverse". In addition, as policy makers we cannot ignore the fact that over the past 20 years we've seen very consistent patterns despite the disruptive development of the internet economy. These consistent patterns are likely to continue in the coming years, although the consultation seems to implicitly assume a strong rupture. For example, data growth has been consistently high whilst telecom operators have managed to keep costs of data in check. Annual investment of telecom operators is another parameter that has been remarkably constant over the years. These historical data are in many respects more reliable and verifiable than data on projected investment figures provided by respondents. It's important that we don't let ourselves be carried away too much by unfounded, unverifiable hype-based claims about unchecked data growth, exploding network costs or investments for 'needed transitions'. To avoid a 'pie in the sky' approach we therefore urge the Commission to have itself also informed by historic patterns and projections from independent sources, rather than rely too much on unverifiable future projections from respondents. These independent sources of data should also be the basis of any upcoming impact assessment.

The interests of European consumers and businesses should be leading; protecting large telecom operators should not be a goal in itself

One of the focuses of the consultation is how large telecom operators should respond to future challenges and be protected against disruption. However, in our opinion protecting the current and future business models of large telecom operators should not be a goal in itself. Instead, the interests of European consumers and all businesses (not just specific groups of companies) should be leading. And it would be good to particularly focus on how to further the digital decade connectivity targets for each member state. The questions, particularly in section 1 ("Technological and market developments: impacts on future networks and business models for electronic communications") seem to be written primarily from the specific perspective of large European operators. The ETNO members are very important, but the electronic communications market is very dynamic and involves many more players, both at the infrastructure and services layer. In addition, we need to take into account the wider internet ecosystem. Although it's very interesting and relevant to get the perspective from large telecom operators, it would be important to avoid a bias towards specific groups of stakeholders, and acknowledge that the future of electronic communications is not just shaped by these incumbents.

By focusing on the interests of large telecom operators we would also fail to recognize the importance of alternative telecom operators. Alternative operators have been instrumental in promoting a competitive environment. These smaller telecom operators have been punching above their weight in terms of infrastructure investment. According to figures from AnalysysMason these alternative operators responsible for one third of the European investments,[3] despite their limited market share compared to the incumbent operators.

[3] ETNO, THE STATE OF DIGITAL COMMUNICATIONS 2023, January 2023, page 30.

There seems to be an underlying assumption in the questions that it would be desirable to create a handful of very large pan-European telecommunication champions. This would call for an unprecedented number cross-border mergers. Although this idea of creating such pan-European champions is not new, this idea is considered to be controversial and cannot be a central assumption for new legislation on investments in the market. These companies can make their own decisions about the optimal economic scale of their operations and decide whether to engage in cross-border integration. In our opinion there's no justification for intervention. The synergies for such cross-border mergers to telecom operators are generally considered relatively limited, whilst there don't seem to be convincing benefits to wider society. On the contrary: by creating ever larger, pan-European telecommunication champions, and shielding them off from innovation and competitive challenge from other players, we will most likely impede the European digital transition process and could severely harm the interests of European consumers and businesses.

Competition is key for reaching the Gigabit targets and to guarantee high quality, affordable internet access services for end users. The instruments for National Regulatory Authorities in the European Electronic Communications Code (EECC) to guarantee competition are very important in this regard. These instruments should be reinforced and not weakened by the proposed Gigabit Recommendation, which should be subject of a public consultation.[4]

The current system of EU harmonization of spectrum leads to a good balance between harmonization and flexibility

The consultation also explores the possibility to adopt a more centralized approach (at the EU level) towards spectrum awarding. Also here, it would be important to start first with a problem analysis before exploring the kind of solutions. We are of the opinion that the current system of EU harmonization of spectrum followed by authorization by the member states already leads to a good balance between the need for a common European spectrum policy and the need to differentiate between member states. The current harmonization within the EU ensures that the frequency use between member states is aligned, so that the same equipment can be used throughout the EU and interference issues are minimized. Authorization by the member states, on the other hand, makes it possible to tailor the award policy to the specific situation of individual countries. Due to differences in e.g. population density or existing frequency use, not all EU countries will have the same need for the same spectrum at the same time. Further integration of the radio spectrum market will result in less flexibility in adapting award policy to the specific situation in a member state. A risk of a more integrated radio spectrum market in the EU is that this market will be dominated by those parties to which the spectrum licenses have been awarded. This will reduce the possibilities for competition in the market by smaller players, which is likely to result in higher prices, less innovation and fewer investments.

The current co-operation with non-EU countries and NGO's in standardization procedures is important to maintain

There seems to be an underlying assumption in the questions that the current participation of non-EU countries in technical preparatory work for EU spectrum decisions (such as e.g. in CEPT) could be an issue of concern for EU sovereignty, resilience or security. We don't share this assumption. Current geopolitical developments should not be a reason to change the way in which we cooperate in the area of spectrum use. On the contrary, we see it as a benefit that EU neighboring countries remain involved in this work, and that they are committed to the EU harmonization decisions. Involving technical experts and representatives of the 46 administrations of CEPT in the discussions around harmonization of spectrum and related international coordination matters remains very important to us. Furthermore, being part of a larger region such as the CEPT can strengthen the EU position in international negotiations during, for example, a World Radio Conference. We note that CEPT in the context of the International Telecommunications Union (ITU) is recognized as the Regional Telecommunication Organisation and in this role remains the most important interface for the European administrations and other European stakeholders to ITU. A continued focus to align EU and -among others- CEPT harmonization interests contributes to a better cross border coordination amongst EU Member States and countries outside the EU with less probability of unwanted interference.

[4] Gigabit connectivity recommendation | Shaping Europe's digital future (europa.eu)

More in general, the Netherlands does not recognize any major obstacles to establish new standards - or, preferably, evolve existing network protocol standards - considering those discussions take place in the appropriate organizations and involves all stakeholders. One of our key concerns on this topic is that the established mandates of the consortiums, partnerships, multi-stakeholder organizations and international multilateral SDOs need to be respected and where a topic under consideration for standardization involves multiple organizations, the matter is resolved in the spirit of full and open collaboration instead of competition around competencies.

The Dutch government is a keen supporter of the multistakeholder model and we like to see this reflected in matters concerning standardization in the digital domain. Such standards should be developed in an open, transparent process that involves all stakeholders, with the decisions based on consensus amongst all participants.

There is no justification for direct payments from video streaming companies and other online service providers to telecom operators

The consultation pays considerable attention to the desire of large European telecom operators to facilitate direct payments from video streaming companies and other online service providers to electronic communication providers. However, such direct payments are unjustified as end-users already pay for their access line including network traffic costs. Although large telecom operators have argued that without such direct payments they can no longer sustain the needed network investments, this is not supported by facts. As stated earlier in this paper, in reality the total network costs have remained constant despite the consistently high growth over the last decades, whilst the profit margins of European telecom operators have improved significantly over the last decade. Given the lack of a factual basis for these claims, it's unclear why the consultation focuses so strongly on this desire of large European telecom operators to facilitate direct payments. We would have welcomed it if the Commission would have investigated these unjustified claims first, as this understanding would have dissuaded the Commission to further explore this controversial policy direction in the consultation.

It's important to realize that charging toll on the Internet is an intervention that deeply affects the functioning of a complex, vital ecosystem. As such it can have a profound impact on European consumers and businesses. Charging toll is therefore not a policy instrument that should be applied lightheartedly. To contribute to a careful policy procedure, the Ministry of Economic Affairs has commissioned Oxera to investigate whether toll charging could indeed be an instrument fit to promote network investments, and assess the (economic) impact. In the accompanying report, Oxera concludes that from an economic perspective, charging toll on the Internet is not an instrument fit to promote network investments: "promoting investment by network operators is not an economically sound reason for instituting a levy—there are more effective ways of achieving such a goal." For a more elaborate explanation of the impact we refer to the Oxera report.[5]

- Oxera establishes that charging toll would in the first place constitute a welfare transfer from online service providers to benefitting telecom providers. It is expected that only a limited part of the additional revenue stream to telecom operators will be passed on to the Internet subscribers in the form of slightly lower subscription fees. This is offset by price increases on the side of online services, such as video streaming, applications and cloud services, as online providers will seek to pass on the payments to telecom operators. This would effectively imply that e.g. subscriptions to Spotify or Netflix become more expensive. In addition the toll charge could instigate these online services to be less able to invest in the development of e.g. content or new, innovative services.
- Apart from these welfare impacts, Oxera also concludes that the implementation of such an Internet toll charge would be highly complex and will be associated with substantial transaction and regulation costs. Oxera also points out the potential degradation of the quality of the Internet connections, as this was observed in South-Korea where a similar policy was introduced. Furthermore, Oxera pays attention to the negative impact of a toll charge on the digital transition, and states: "Transitions to new technologies (in the

[5] https://www.government.nl/ministries/ministry-of-economic-affairs-and-climate-policy/documents/reports/2023/02/27/proposals-for-a-levy-on-online-content-application-providers-to-fund-network-operators

broadest economic meaning of the word 'technology') are not instantaneous, and policy makers must be careful not to discourage activities with one hand which they are trying to encourage with the other."

The Oxera report does not stand on its own. Many independent sources, such as researchers, journalists and regulators have questioned both the justification of direct payments to telecom operators and have expressed strong concerns regarding the impact. We refer e.g. to the concise BEREC study, and to articles of Telecompaper, just two examples of many critical independent voices. We appeal to the Commission to take note of this stream of independent publications and reflect on the arguments brought forward.[6,7]

Next to the instrument of allowing telecom operators to charge online service providers directly for data traffic, we have heard a call for a 'negotiation framework' to compensate for the alleged disbalance in negotiations between telecom operators and online service providers. However, we consider both instruments as interchangeable, as the call for a 'negotiation framework' by proponents of direct payments will ultimately serve to impose payments from online service providers.

Apart from the above concerns, we also consider it important that this debate is informed by a good understanding of relative orders of magnitude. The combined EU revenues of the large European telecom operators are relatively high, totaling EUR 188 Billion in 2021. However the annual revenue of Netflix, despite being the largest source of internet traffic generated by end-users, is "only" EUR 9 billion. Streaming platforms of the public broadcasters are offering services for free and don't make significant revenues. It's not easy to see how all of these video streaming companies would be financially capable contribute the amounts suggested by large telecom operators (EURO 15 – 40 Billion per year[8]).

In the consultation, the term 'Large Traffic Generator' is introduced (LTG). We would have strongly preferred a more neutral and less controversial term, as video streaming providers don't generate traffic: data traffic is generated and paid for by end-users that demand these services. So the term LTG can only apply to end-users, not to online service providers. In addition, the questions regarding LTG's give the impression that the growth of data traffic ("extra traffic") requested by end-users causes problems for telecom operators. This assumption is however not rooted in facts: so far the consistently high data growth rate over the last decades has not led to higher network costs (as explained below).

The consultation questions in section 4 ("Fair contribution by all digital players") seem to make various kinds of implicit assumptions on the relation between data traffic and network costs. In reality, on FttH networks, traffic costs only account for a very small part of the network costs, and the costs of additional traffic are close to zero (costs are almost 'traffic-insensitive'). This is the reason why subscribers usually pay a flat fee, regardless of their data consumption. Additional data on fixed networks costs next to nothing. On mobile networks, a larger proportion of the network costs is 'traffic-sensitive' compared to fixed networks. As a result, additional mobile traffic leads to additional costs, but these costs are relatively modest and are usually already charged to subscribers in the form of larger data allowances. Therefore there's no factual basis for claims that telecom operators are challenged by data growth. In addition, it's commonly known that in the longer run total network costs haven't increased with growing data traffic. Although data growth

[6] BEREC, "Preliminary assessment of the underlying assumptions of payments from large CAPs to ISPs," BoR (22) 137, 7 October 2022. https://www.berec.europa.eu/system/files/2022-10/BEREC%20BoR%20%2822%29%20137%20BEREC_preliminary-assessment-payments-CAPs-to-ISPs_0.pdf

[7] Telecompaper, "Why an 'internet traffic tax' doesn't stand a chance," 3 August 2022. Why an 'internet traffic tax' doesn't stand a chance - Telecompaper and Telecompaper, "Fair share contribution (aka internet traffic tax) violates net neutrality, is not fair and tries to fix a system that's not broke," 16 January 2023. Fair share contribution (aka internet traffic tax) violates net neutrality, is not fair and tries to fix a system that's not broke - Telecompaper

[8] Axon Partners Group: "Europe's internet ecosystem: socio-economic benefits of a fairer balance between tech giants and telecom operators," May 2022. https://etno.eu/component/attachments/attachments.html?task=download&id=8193

has been consistently high over the last decade or more, total network costs have been fairly constant. Based on this fact, again there's no factual basis for any claims that data growth causes any challenges to the business cases of telecom operators. We therefore don't see any justification why 'LTG's' should contribute to these relatively modest costs, already borne by subscribers, in the first place. There is no reason why telecom operators should be paid twice for handling the same traffic.

In addition, the costs of data traffic are highly dependent of the type of data traffic. Apart from the distinction between mobile and fixed data, live streams are generally more demanding in terms of network capacity compared to video streams that can be buffered. Real time applications such as voice and video calls demand very low latency, and are therefore much more demanding in terms of network requirements than other services. And even services with a very low average bit rate can be relatively demanding in case they behave as bursts: traffic with sudden peaks are relatively expensive. Apart from all these distinctions, data traffic can be routed in many different ways, and as a result incur more or less network costs. Based on the way the questions are worded, this seems not to be sufficiently acknowledged in the consultation. Some traffic can be e.g. off-loaded at a low network level, and in many cases traffic can be kept onnet through the use of CDNs. The questions of the consultation seem to assume that every single bit is the same in terms of costs, but in reality there are many types of data traffic with widely varying network costs. There's no simple relationship between data volumes and network costs. However, generally speaking network costs are relatively insensitive to traffic growth at the short term, and even less so on the longer term as over time networks grow much more cost-efficient in handling data traffic.

From an economic perspective it would be contradictory to seek to promote on the one hand the deployment of high capacity networks, and to discourage on the other hand the actual use of these high capacity networks by charging usage fees. This is particularly problematic when these usage fees were to be significant (which is suggested by the large telecom operators) given the fact that the real costs for additional data traffic are insignificant (fixed networks) or modest and already paid for by the subscriber in the form of data allowances (mobile networks). This would lead to making data traffic artificially expensive, with a potentially strong impact on the European digital transformation and Europe's competitive position vis à vis other regions. Ultimately, it's the European citizens and businesses that would pay the price for discouraging the actual use of very high capacity networks.

Concluding remarks

The Netherlands highly appreciates the role of the Commission as a driving force behind the ambitious connectivity goals for Europe, guiding Europe's digital transformation. The Commission has in the past years worked on very important initiatives, including the Digital Decade policy programme. We look forward to contributing constructively and working with the Commission to build on these achievements, in particular the Digital Decade policy programme. Although we have considerable concerns regarding the explored policy directions in this consultation, we fully endorse the underlying ambitions. We're confident that a careful, evidence-based approach regarding connectivity policy will lead to widely supported choices that are beneficial to Europe.