Nasjonal
kommunikasjons-
myndighet

Assessment of the zero-rating offer Telia «Music Freedom»

English version (courtesy translation)

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Contents

1 Introduction and background

In June 2017, Telia introduced a zero-rating offer called "Music Freedom" linked to the Telia SMART Pluss, Super, Total, and Ung products.[1]

Zero-rating means that music streaming traffic from a selection of content and application providers is not deducted from the data allowance included in the subscription. So far, the content providers Spotify, Tidal and Beat are covered by the scheme.[2] On its website, Telia describes how the service is open to "*all providers of music streaming*" and states that the offer is "*age independent*", in the sense that it is offered to current subscribers of all ages.

Telia also states that the subscriber must have data left on the subscription in order to be able to use zero-rated music streaming. If the customer uses up the data allowance (other traffic than for music), the speed of the music streaming will be reduced to 64 Kbit/s.

The Norwegian Communications Authority (Nkom) has received information from Telia in written correspondence and also verbally at video meetings in September and October 2017. The assessments in this document are based on this information, as well as information that Telia has published on its website. Nkom has assessed Telia "Music Freedom" based on the net neutrality regulations that came into force in Norway in the spring of 2017. The assessments were made at an early stage after the introduction of the specific zero-rating offer. Further development of zero-rating offers in the market may necessitate a new assessment at a later date.

Telia "Music Freedom" is the third zero-rating offer in the Norwegian market, but since the offer launched by Telia/OneCall in January 2017 has been withdrawn from the market, Telia "Music Freedom" is the second zero-rating instance to be assessed by Nkom. The first zero-rating instance assessed by Nkom was Telenor's offer of Telenor "Music Freedom" linked to the "Yng" product[3].

By way of an introduction, Nkom will clarify and define the following key concepts that are referred to in our assessments.

In this document, the term "zero-rating" means a commercial practice whereby an Internet service provider applies a price of zero to the data traffic associated with a particular content or application or category of such. This entails that data used for the content or application in question does not affect the consumer's remaining data allowance.[4]

The term "Internet service provider" (ISP) must hereinafter be taken to mean a provider of an Internet Access Services (IAS). Internet access service must be taken to mean the publicly available electronic communication service that provides access to the Internet.[5]

The term "content provider" must hereinafter be taken to mean a provider of content and applications on the Internet. The term "content and application provider" (CAP) is also used in this document when it is necessary to emphasise both aspects of the offer from the provider. (In other contexts, the term "content provider" may also be used to refer to providers of content and applications via specialised services, but this is not relevant in this document.)

[1] With the exception of SMART Ung 2 GB purchased before 24 April 2017.

[2] In an email dated 5 December 2017, Telia has stated to Nkom that Apple Music is included as from 12 December 2017.

[3] Nkom's assessment of this offer can be found in the document "Assessment of the zero-rating offer Telenor Yng Music Freedom", https://www.nkom.no/aktuelt/nyheter/_attachment/29334?_ts=15cf3f67b0a

[4] BEREC's guidelines, item 40, cf. sub-chapter 1.1

[5] Regulation 2015/2120, Article 2, cf. sub-chapter 1.1

1.1 Legal basis

The legal basis for Nkom's assessments of Music Freedom is Section 2-16 of the Norwegian Electronic Communications Act concerning net neutrality, cf. Section 2-12 of the Electronic Communications Regulation, which states that Regulation no. 2015/2120 of the European Parliament and of the Council of 25 November 2015 shall apply as a Norwegian regulation. These provisions came into force on 20 March 2017. Regulation no. 2015/2120 of the European Parliament and of the Council will hereinafter be referred to as the “Regulation”.

The Regulation contains common European rules for the regulation of net neutrality. Article 1(1) of the Regulation states:

“This Regulation aims to establish common rules to safeguard equal and non-discriminatory treatment of traffic in the provision of internet access services and related end-users’ rights.”

Article 3(1) of the Regulation must ensure end-users Internet access services on equal terms, irrespective of their location, equipment and intended use of service. This applies to end-users in a general sense (consumers/private individuals) and to professional end-users (particularly relevant here: content and application providers). Article 3(1) states:

“End-users shall have the right to access and distribute information and content, use and provide applications and services, and use terminal equipment of their choice, irrespective of the end-user’s or provider’s location or the location, origin or destination of the information, content, application or service, via their Internet access service.”

Article 3(2) of the Regulation defines limits for which commercial agreements providers of Internet access can offer. The key aspect is that these agreements may not infringe the principles of open access to the Internet, as set out in Article 3(1). Article 3(2) states:

“Agreements between providers of Internet access services and end-users on commercial and technical conditions and the characteristics of Internet access services such as price, data volumes and speed, and any commercial practices conducted by providers of Internet access services, shall not limit the exercise of the rights of end-users laid down in paragraph 1.”

Recital 7 in the Regulation clarifies Article 3(2). Here, it is stated that end-users should, as a starting point, be free to enter into agreements with providers of Internet access services, including commercial offers from providers, as long as these do not limit end-users' rights pursuant to the Regulation. It is also stated that the competent authority should intervene against such commercial offers which, by reason of their scale, in practice reduce the end-users' rights. On assessing whether commercial offers infringe the Regulation, account must be taken of the market position of the relevant Internet service provider and also of the content and application provider(s) which the offer concerns.

Article 5(1) of the Regulation states that the national regulatory authority (in Norway, Nkom) shall closely monitor and ensure compliance with the provisions. Since the Regulation is part of the Norwegian regulatory regime on electronic communications (cf. Section 2-16 of the Electronic Communications Act, cf. Section 1-12 of the Electronic Communications Regulation), Nkom has the authority to conduct monitoring in connection with the Regulation (cf. Section 10-1, first paragraph, of the Electronic Communications Act). If this monitoring concludes that the rules have been breached, Nkom may issue orders to correct or cease these activities in the form of individual administrative decisions, cf. Section 10-6 f. of the Norwegian Electronic Communications Act.

BEREC (Body of European Regulators for Electronic Communications) has drawn up guidelines for the implementation of the net neutrality rules, which include an analytical method for assessing zero-rating practices. The national regulatory authorities in Europe must "*take utmost account of*" these guidelines on interpreting the Regulation[6].

1.2 Norwegian net neutrality policy

The bill Proposition no. 157 (2015–2016) states that: "*Safeguarding net neutrality is essential in order to ensure good, future-oriented electronic communications services for users throughout Norway and foster industrial development and innovation, and is a prerequisite for further economic, social, cultural and democratic development in modern society. The goal of the work on net neutrality is to ensure that the Internet remains a well-functioning, open and non-discriminatory platform for all types of communication and distribution of content."*[7]

Norway established guidelines for net neutrality in 2009, before the introduction of European net neutrality rules. The Norwegian guidelines have helped to ensure access to an open Internet for users in Norway[8]. For comparison, a major survey of net neutrality in the European market conducted in 2012 found multiple breaches of net neutrality in other European countries.

In 2011, Nkom clarified that the guidelines apply to both mobile and fixed Internet access,[9] and in 2014, Nkom clarified that the guidelines cover both technical and economic discrimination, and that zero-rating would therefore infringe the guidelines.[10] There has previously been no zero-rating of Internet traffic in the Norwegian market, in line with the established Norwegian net neutrality policy.

In connection with the replacement of the Norwegian net neutrality guidelines by the EU Regulation and the BEREC Net Neutrality Guidelines, the Norwegian authorities laid down clear policy guidelines in the bill Proposition 157 (2015–2016), stating that, insofar as it is possible within the framework of the EU Regulation, the Norwegian net neutrality policy established through many years' experience shall be maintained.[11]

2 Methodical approach

2.1 Method of assessing zero-rating

The Regulation does not describe zero-rating explicitly, but addresses zero-rating in connection with "commercial practices", cf. Article 3(2) of the Regulation. The regulatory application of this Article is described in sections 30-48 of BEREC's Guidelines, and zero-rating is described more specifically in sections 40–48. This also outlines an overall method for analysing zero-rating cases in order to assess their compliance with the Regulation.

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[6] Recital 19 of the Regulation.

[7] Proposition no. 157 (2015–2016), section 4.1

[8] Proposition no. 157 (2015–2016), section 4.2

[9] Nkom, 2011, "the Internet must be neutral!", http://www.nkom.no/teknisk/Internett/nettnøytralitet/Internett-må-være-nøytralt

[10] Nkom, 2014, "Net neutrality and charging models", http://www.nkom.no/aktuelt/nyheter/nettøytralitet-og-takseringsmodeller

[11] Proposition no. 157 (2015–2016), section 4.4

There are many forms of zero-rating, which may have various effects on the end-users' open Internet access. Nevertheless, the BEREC Guidelines state clearly that instances of zero-rating whereby specific applications are blocked once the data cap has been reached, while zero-rated applications can still be used, will infringe the traffic management rules in Article 3(3) of the Regulation.[12]

In cases where a zero-rating practice does not infringe the provisions for technical traffic management, the BEREC Guidelines set out which criteria should be assessed in cases that require a more detailed assessment.

The BEREC Guidelines state that a review should include an assessment of the zero-rating of individual applications as opposed to categories of applications, the compliance with the aim of the Regulation to safeguard Internet innovation, the scale of the commercial practice, and the market position of the providers.[13]

Furthermore, it is specified that the authorities should take into account the extent to which the zero-rating practice limits the end-users' choice. The authorities shall intervene if the end-users' choice is materially reduced, but may also intervene in other cases that entail limitation of the end-user's rights.[14]

On the basis of the aforementioned considerations, the following criteria are relevant for the assessment of commercial practices:

- The market positions of the Internet service providers
- The market positions of the content and application providers
- The impact on the end-users (including freedom of expression and media diversity)
- The impact on the content and application providers (including media diversity)
- The scale of the commercial practice
- Circumvention of the aims of the Regulation

A zero-rating service offered by an Internet service provider with strong market position will naturally have a greater range and reach. The offer is more likely to have material effects and can reach more end-users. The Internet service provider's market position will also affect the impact that the zero-rating offer will have on the various content and application providers. The Guidelines specify that the market positions should be analysed in line with the principles of competition law.

An assessment of the market position of relevant content and application providers will yield insight into the impact of the zero-rating. A content and application provider that has strong market position will be more able to limit the competition opportunities of other content and application providers. In cases where the zero-rating offer does not apply to individual applications, but rather to an entire category of applications, the same factors may be assessed for similar applications that are not included in the zero-rating scheme.

On assessing the zero-rating offer, the authorities shall, in accordance with the BEREC Guidelines, take into account the effect of the zero-rating on end-users, including consumers and businesses. This entails assessments related to the impact on freedom of expression or media diversity, and whether the offer increases the end-user's incentive to use certain content and applications. In this context, it must be assessed whether the Internet service provider's agreements limit the end-user's choice.

[12] BEREC Guidelines, section 41

[13] BEREC Guidelines, sections 42-44

[14] BEREC Guidelines, section 45

The assessment of the zero-rating offer should also include an assessment of the impact of the offer on other content and application providers. The Regulation refers to content and application providers as end-users, and it must be assessed whether the zero-rating affects the range, diversity and diversity of different content and applications. Importance shall be attached to whether a zero-rating offer makes it impossible or more difficult to enter the relevant market.

According to the Guidelines, account should be taken of the scale of the commercial practice or zero-rating. In any such assessment it is relevant to consider how many end-users are subject to the practice, and the existence of alternative subscriptions with the same provider, and whether there are other Internet service providers with equivalent offers. A practice is more likely to limit end-users' rights in situations where, for example, many end-users are affected and/or where there are few alternative offers to choose from.

As a final criterion, the commercial practice should be assessed against the purpose and objective of the Regulation. For example, discrimination of Internet traffic or a practice that might impede innovation on the Internet will be in conflict with the purpose of the Regulation.

The criteria in the assessment method described above may, together or individually, entail a limitation of the exercise of end-users' rights, meaning that a commercial practice must be regarded as an infringement of the net neutrality rules.

On assessing the impact on the end-users and the impact on content and application providers, the following factors will also be relevant:[15]

- Commercial practices that have an effect equivalent to traffic blocking will likely constitute a breach of Articles 3(1) and 3(2) of the Regulation concerning the end-users' right to an open Internet access.
- Commercial practices that apply a *higher* price to selected traffic are likely to limit end-users' exercising of their rights. Yet also the mere *possibility* of higher prices may discourage the development of new applications.
- Commercial practices with *lower* prices, including zero-rating, will give an incentive for end-users to use the zero-rated applications and not to use other applications. *The lower the data cap, the stronger this effect will be.*
- Price differentiation between *individual* applications is more likely to undermine the purpose of the Regulation to maintain the Internet's function as an engine of innovation than price differentiation between different *categories* of applications.

2.2 Method for market delimitation

The assessment outlined above requires that the market has been delimited or defined. Determination of a relevant market for a specific product follows a standard procedure in accordance with European and national regulations.

A relevant product market comprises products or services (the terms are used interchangeably without a difference in meaning) that are adequately substitutable for the end-user. In this context, purchasers in wholesale markets may also be considered end-users. The starting point for the definition of a relevant product market is an assessment of demand-side substitutability. However, substitutability may also exist on the supply side and may then be relevant in the delimitation of the relevant market.

[15] BEREC Guidelines, section 48

Substitutability exists on the demand side when in the users' perception two or more products in the market are mutually interchangeable or substitutable on the basis of their characteristics, price and area of use.

Substitutability on the supply side exists when, as a response to a marginal price change, providers of other (non-substitutable) products can change their production or distribution in the short term and provide substitutable products without incurring significant additional costs or risk.

An acknowledged method of analysing substitutability is known as the "hypothetical monopolist test"[16], in which the aim is to find the narrowest market in which a hypothetical monopolist can exercise market power. This test takes as its starting point a marginal (in practice 5-10%) and non-transitory increase in the price of the relevant product, based on the assumed price level in a hypothetical market with perfect competition and assuming that all other prices are unchanged. Then the hypothetical effect of the price increase in the relevant market is assessed, and the total effect of the price increase on the producer's revenue is calculated.

This method depends on a significant amount of data, which will often be difficult to obtain. Approximately similar methods may therefore also be used.

In general, market delimitation will be a starting point for discussing possible exploitation of market power. An operator who competes with many other operators will have trouble with exploiting market power. For example, it will normally not be profitable to set a high price since the customers can choose to buy from a cheaper competitor. Market delimitation is therefore a matter of determining which other operators, if any, can be regarded as a competitive constraint on this operator's behaviour. To shed light on this, product-related and geographical dimensions must also be considered, in addition to substitutability on both the demand and the supply side.

The operators' market shares form the basis for assessing whether an operator has significant market power. The guidelines that underpin Nkom's ex-ante regulation state, among other things, that if a provider has a stable high market share of more than 50%, it can be legally presumed that the provider has significant market power. At the same time, market shares in excess of 40% will normally mean that a provider has significant market power. A market share below 25 % will usually preclude significant market power.

In addition, any assessments should be supplemented with actual information on behaviour on the supply and demand sides, to the extent that such information is available. On the demand side, account should be taken of the end-users' access to information, costs of switching and other lock-in mechanisms, among other things. On the supply side, account should be taken of a provider's actual opportunity to change production, as well as any regulatory conditions that prevent rapid market entry by competitors in the market.

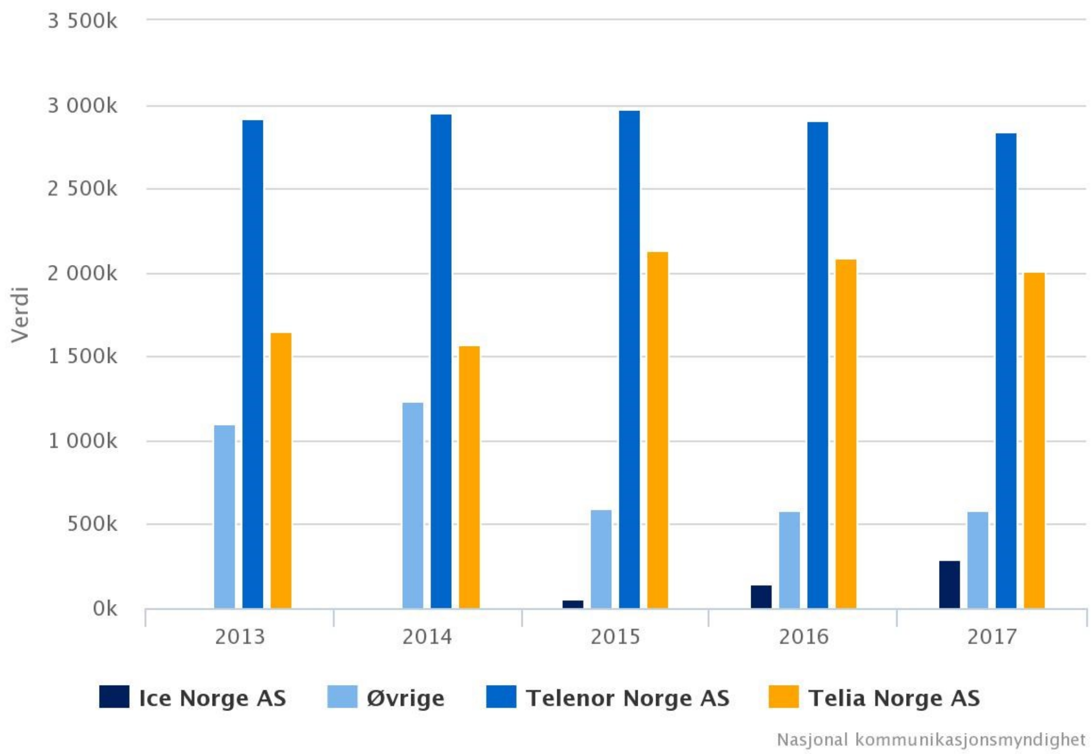
[16] Also known as "SSNIP" (Small but Significant Non-Transitory Increase in Price).

3 Description of markets and assessment of effects

3.1 The Internet access market

As mentioned above, the method for assessing a zero-rating offer involves analysing the market position of the Internet service providers, and in this context it is relevant to delimit the market for Internet access. The Internet can be accessed via a fixed network or a mobile network. Nkom has a good overview of the electronic communications industry and has delivered analyses and statistics concerning the fixed and mobile markets in the period after the market was liberalised. In addition, Nkom's market analyses and market decisions have resulted in access to Telenor's mobile network, and Telenor's fixed copper and fibre access networks are regulated in Norway.

There are many providers of fixed or mobile network access in Norway. There are three network owners in the mobile market, of which one is also a buyer of national roaming in order to achieve coverage outside its own coverage area. In addition, there are five MVNOs and around 15 independent service providers. There are around 120 broadband providers via the fixed network. At the end of the first half of 2017[17] there were around 2 million fixed broadband subscriptions in the private market, and around 5.72 million subscriptions (private and business) for mobile telephony. The charts[18] below show the development in numbers of customers for the different operators in the mobile telephony end-user markets, and in the fixed-broadband end-user market.



Mobile telephony providers, number of subscriptions.

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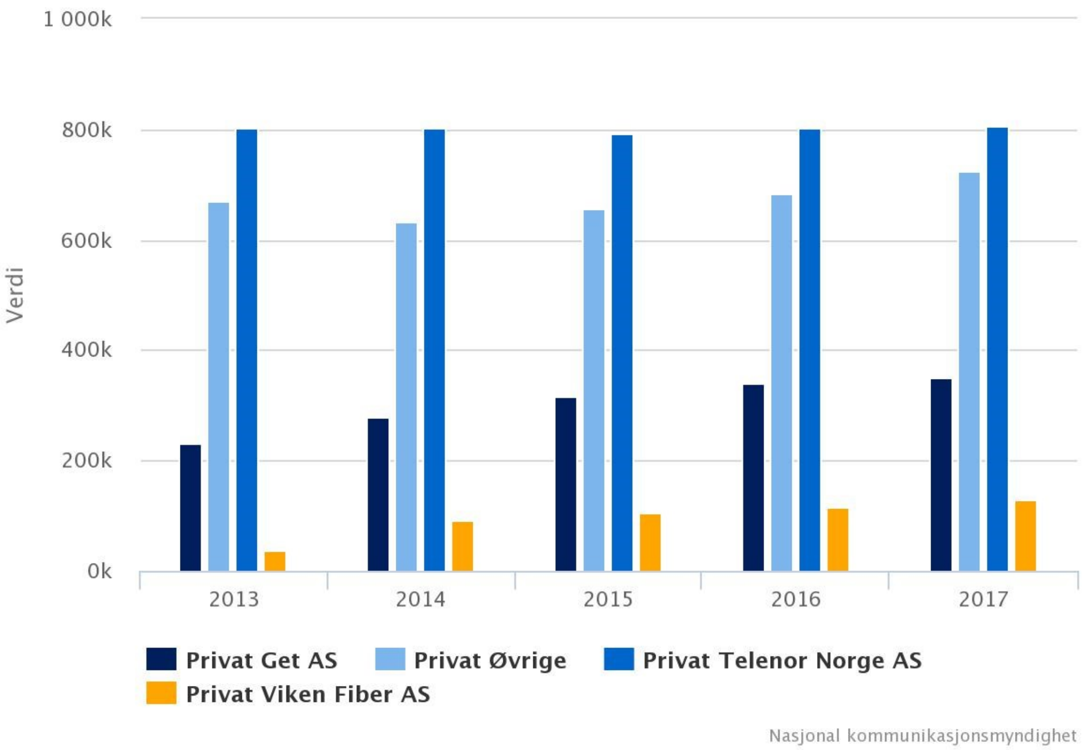
[17] https://www.nkom.no/marked/ekomtjenester/statistikk/det-norske-ekommarkedet-rapporter/_attachment/30658?_ts=15f7167389b
[18] Ekomstatistikken.no



Fixed-broadband providers, private market, number of subscriptions. All forms of access

In Norway, the market for access and call origination on public mobile communication networks is defined as a separate wholesale market that is subject to pre-regulation (Market 15). Telenor's high market share and good profitability, several customer groups' perception that Telenor has the best network in design terms, Telenor's control of underlying input factors such as transport capacity and location points, and Telenor's wide-ranging array of services and strong position in several end-user markets are among the factors indicating that Telenor has significant market power in its own right. In the decision of 1 July 2016[19] special obligations are therefore imposed on Telenor, including the access obligation concerning its mobile network. The market analysis attached to the aforementioned decision does show, however, that Telia has a significant position in the end-user market and also in the relevant wholesale market.

In a letter dated 24 August 2017, Telia stated that the company does not have fixed network activities, i.e. neither fibre, copper nor cable/coax-based broadband services. Telia hereby asserts that they do not have any market position in the market for fixed Internet access services.

It can be seen from the analysis annexed to the decision of 1 July 2016 that both supply-side substitution and demand-side substitution indicate that fixed telephony is not part of the same market as mobile telephony. In the same way, in the analysis Nkom has concluded that mobile broadband and fixed broadband are not substitutable services, seen from an end-user perspective.

A total of five end-user markets related to the relevant wholesale market have been identified. These are telephony-enabled mobile services (private and business), mobile broadband

[19] http://www.nkom.no/marked/markedsregulering-smp/anbefaling-2004/marked-15/vedtak-2016

(private and business), and machine-to-machine communication. “Music Freedom” is a related service that is connected to a mobile telephony product, and is therefore relevant to view in connection with the end-user markets for telephony-connected mobile services.

Nkom also regulates the wholesale market for full and shared access to the fixed access network (Market 4), and the wholesale market for access to delivery of broadband services, including bitstream access (Market 5). A hypothetical end-user market for Internet access could be related to all these three predefined fixed or mobile markets.

In the decision of 20 January 2014, Nkom concluded that Telenor has significant market power in the aforementioned wholesale markets 4 and 5. The analysis of these markets[20] also shows that mobile network-based broadband access is not sufficiently substitutable with fixed/location-bound broadband access, from the point of view of the end-users. The associated end-user market for the two aforementioned wholesale markets is defined as fixed broadband for both the private and business markets.

Nkom cannot see that there have been any significant technological or market-related changes since the analyses in 2014 and 2016 that would indicate a change in the conclusion with regard to substitutability between mobile and fixed broadband. It is true that the greater prevalence of 4G has led to increased speeds in mobile networks, but there are still differences in, among other things, subscription designs and use patterns which indicate that mobile and fixed broadband are two separate end-user markets.

The production of fixed broadband and mobile broadband currently uses very different input factors. A provider of fixed broadband that has its own fixed access network, but that does not have its own mobile network, cannot easily adapt production without making significant investments. The situation may be rather different for a buyer of access with a lower degree of investment in its own infrastructure, because change will not require an equivalent level of investment. However, these providers have more limited influence on the markets than providers with their own access networks. Nkom therefore believes that there is limited supply-side substitutability between fixed/location-bound broadband access and mobile-based broadband access.

Against this background, Nkom believes that the market for Internet access in this case can be delimited to access through a mobile network. The assessments of the zero-rating offer from Telia are thereby only relevant in connection with the end-user market for telephony-connected mobile services. Nor does zero-rating have any real significance in the end-user market for fixed broadband, where end-users pay for Internet access based on speed and not data volume.

On the basis of the aforementioned, Nkom upholds that the relevant market for assessment of the “Music Freedom” zero-rating offer is Internet access via the mobile infrastructure.

In its letter of 24 August, Telia states that for some time the company has lost market share to Telenor and other players. Telia believes they are in a challenger position that does not give the company market power. As of the first half of 2017, Telia had a share of around 35[21]% of telephony-connected mobile services. This makes the company the second-largest player in the mobile markets, and considerably larger than other providers, with the exception of Telenor.

[20] https://www.nkom.no/marked/markedsregulering-smp/marked/marked-4-og-5/_attachment/11551?_ts=143afd7ad39

[21] Telia's market share of 35% includes the market outlets Telia, Chess, OneCall and MyCall, but not Phonero. The zero-rating offers from Telia are so far only offered under the Telia market outlet.

Nkom finds that the market analyses and market shares concerning the aforementioned wholesale and end-user markets for mobile networks and services indicate that Telia has significant influence in the end-user market for mobile Internet access.

3.2 The content market

As part of the assessment of the content market for music streaming, it is appropriate to initially describe the technical and functional aspects of these streaming applications.

Streaming is the process of playing media (such as radio and TV, music and film) at the same time as the media content is transferred via the Internet from a server to a terminal. A distinction can be made between audio streaming (such as Spotify) and video streaming (such as Netflix).

Streaming differs from the *downloading* of media in that, in the latter case, the media content is downloaded at an earlier time than when it is actually played. The media file is then played back locally on the terminal, which does not need to be connected to the Internet during playback. Podcasts are an example of downloading of media content, but downloading is also used by typical streaming applications such as Spotify and Netflix, either to allow content to be played outside the coverage area or to save money by downloading via Wi-Fi in order to avoid using the data allowance associated with the mobile subscription.[22]

Audio streaming is typically used to listen to music and radio broadcasts. *Music streaming* is used by popular applications such as Spotify, Tidal (formerly WiMP) and Deezer, which offer subscriptions to all the world's music. *Radio streaming* is used to transmit radio channels via the Internet as a supplement to broadcast radio (terrestrial networks and satellite). Radio streaming uses individual transfer of content (unicasting) as opposed to broadcasting, enabling user-controlled playback of stored radio programmes (radio-on-demand) in addition to direct transmission of radio, called “linear radio” (similar to “video on demand” and “linear TV”).

3.2.1 Discussion of market delimitation of “music streaming”

Whether a zero-rating offer is in compliance with the net neutrality rules must also be assessed on the basis of a content market, and the content providers' market position must be identified. Any such assessment ideally entails the definition and delimitation of the content market and an analysis of the content providers in the market.

Telia has stated that they have not performed any econometric or quantitatively supported competition analysis with the aim of delimiting the relevant content market. Telia does state, however, that they have considered practice and a number of historical sources in conjunction with the delimitation of the relevant content market for music streaming applications[23].

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[22] Downloading playlists for offline listening is covered by the zero-rating in “Music Freedom”, cf. https://telia.no/music-freedom

[23] Telia has stated that there are few timely sources to rely on, but that they have based their assessments on the following:

- Commission Notice on the definition of relevant market for the purposes of Community competition law, 97/C 372/03
- Commission decision in case M.2050 Vivendi/Canal +/Seagram
- Commission decision in case M.1845 AOL/Time Warner
- Commission decision in case M.779 Bertelsmann/CLT
- Commission decision in case COMP/M.6458 - Universal Music Group/EMI Music
- Report from DG Competition/European Commission, “Market definition in the media sector” (2002)

On the basis of the aforementioned information, Nkom upholds that there is no concrete competition analysis that specifically defines a market in which the relevant zero-rating offer would naturally be included. However, as a starting point for further assessment, the existence of a relevant market is assumed, and furthermore that it is possible to delimit a market for *music streaming*. In this respect it is relevant to assess whether the content market also includes other content such as radio streaming and other audiovisual content.

Any such assessment requires a substitutability assessment, cf. the aforementioned section concerning market delimitation. In general, *demand-side substitutability* would be deemed to exist if a small, but significant and permanent, price increase would lead customers to choose another product. However, it is difficult to determine exactly what is covered and what can be excluded from a hypothetical market of this nature. In the light of the subject of assessment in this analysis, Nkom believes that it is not necessary either to be completely exact in the market delimitation.

Traditional music streaming often uses playlists whereby listeners themselves control the content in detail, while in the case of traditional radio streaming, i.e. listening to music programmes on the radio, it is usually the presenter who chooses the music. The three music streaming applications currently subject to the zero-rating offer are subscription-based, of which Spotify is the only one to offer a free version. Telia's customers must themselves arrange a subscription with a music streaming provider, so that in reality so far the scope is limited to the streaming of subscription-based applications.

Nkom nonetheless believes that it is relevant to assess whether the offer of popular playlists in streaming applications (cf. Spotify's "radio" and Tidal's "top 40"), and traditional radio channels such as NRK MP3, P5 Hits, P6 Rock, P8 Pop and Radio Topp 40, may be considered to be substitutable, seen from the user's perspective. It is also relevant to refer to how the Dutch T-Mobile's "Music Freedom" includes radio channels in its offering.[24] The aforementioned observations indicate that substitutability assessment between radio and music streaming on the demand side cannot be excluded.

Furthermore, it is relevant to take a closer look at applications for the streaming of audiovisual content with music, such as music videos. It is reasonable to assume that a significant and non-transitory price increase for music streaming applications would contribute to more people wishing to use offers that are free of charge, such as YouTube. This may indicate a certain degree of substitutability on the demand side.

In terms of *supply-side substitutability,* Nkom upholds that in the current case it is sufficient to assess whether providers of other content and applications would change or expand their production to produce music streaming if there was a small, but significant, price increase for music streaming.

A provider of music streaming is expected to have expertise within music and copyright, but this may also be the case for music channels on the radio. There are licence conditions for radio broadcasting that is distributed in the terrestrial network, while such licences are not required for a radio or music streaming via the Internet. Music streaming usually involves

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- Revised Report from DG Competition/European Commission, "Market definition in the media sector" (2005)
- "European and International Media Law" (2017), Jan Oster
- DIRECTIVE 2010/13/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive) with related sources

[24] https://www.t-mobile.nl/datavrije-muziek

establishing a subscription, but this is not relevant for radio streaming. This shows that there are arguments both for and against radio and music streaming belonging to the same content market, and Nkom therefore does not rule out that these may belong to the same market.

The assessment of supply-side substitutability between music streaming and streaming of audiovisual music content, such as music videos, furthermore indicates that expertise within music and copyright will be common characteristics for the providers of such applications. They are also expected to have reasonably similar customer groups, and marketing and other activity by businesses is not expected to be very different. Applications like YouTube among other things offer music in video form, either music videos or "lyric videos", and also organise them into playlists. YouTube is free of charge for its users, but displays commercials between the videos. There is reason to believe that a large proportion of the target audience also uses applications like YouTube to listen to music. This is particularly relevant since many artists publish on YouTube, while there are usually restrictions in the agreements related to the music applications concerned. It is therefore found that supply-side substitutability may exist between music streaming applications and offers of audiovisual music content.

Content markets and advertising markets can have a reciprocal influence. Advertising markets have the potential to be affected by the fact that some traffic flows are zero-rated. However, Nkom finds that in this case it is not proportional to analyse any consequences in such markets. In principle, however, it might be relevant to consider the influence of an advertising market on assessing the impact on content providers.

3.2.2 Telia's comments on the market delimitation

In terms of the delimitation of the content market, Telia has described how they will use SSNIPs tests to delimit the market. Telia further specifies that:

> *"All services that from the customers' viewpoint are considered to be substitutable with music streaming services will therefore be regarded as part of the relevant market. There are few sources to rely on in any delimitation of the market. On the basis of demand substitution, the market will include all of the music streaming services in demand among customers that give access to legal streaming on mobile phones. This may include subscription services as well as services that can be used without taking out a subscription. Furthermore, both commercial and non-commercial streaming services might be included in the market, since free services will potentially be able to compete with payment services. In the absence of legal sources to support the assessment, and a wish for equal treatment, Telia will consider all of the aforementioned types of services as part of the market for streaming services."*

Telia furthermore states that:

> "*Telia has delimited the category of content services based on a competition law assessment of which services exert competitive pressure on each other. Since the entire relevant market for music streaming services may be covered by the scheme, there is no basis to state that the offer affects services in 'related markets'."*

Telia claims that there is no basis to state that radio streaming is part of the same market as music streaming, nor is there any basis to assert that the advertising market would be included in the same relevant market. Telia furthermore believes that music streaming is not substitutable with streaming of audiovisual content, on the grounds of how Telia perceives customer behaviour and customer preferences.

As stated in the aforementioned sub-chapter, it is, however, shown that there can be a certain degree of substitution between music streaming, and radio streaming and audiovisual content.

Furthermore, at the time of the launch Telia set a number of conditions for which content providers could be subject to the zero-rating scheme. Among other things, the following requirement was made:

> "*The service solely includes streaming from publicly available music streaming providers directly to customers' devices, such as mobile phones and tablets linked to the customer's mobile subscription. [...]*
>
> *Telia welcomes all publicly available music streaming providers to contact us at Telia. Music streaming providers must consider Norwegian law and copyright. In order to ensure the quality towards our mutual customers over time, we must enter into an SLA."*

In Telia's letter of 24 August 2017, the company furthermore states:

> *"The following criteria must be fulfilled for Telia to be able to zero-rate the content service:*
>
> - *The provider must offer an on-demand streaming service.*
> - *The service must be legal and offer content for which the copyright has been determined.*
> - *The provider must sign a standardised SLA (Service Level Agreement) to ensure the quality of the service and contribute to Telia receiving the technical information necessary for zero-rating."*

Telia has later, and in the aftermath of discussions with Nkom, changed the requirements, and Telia's conditions associated with "Music Freedom" are now as follows[25]:

> *"With Music Freedom all Telia customers with SMART Ung, Pluss, Super and Total can stream unlimited from the mobile apps Spotify, Tidal and Beat, without using the data allowance. All music via the mobile apps of the providers included will be zero-rated, so that this is not deducted as use of data under the subscription.*
>
> *Telia welcomes all music streaming providers to contact us at Telia. Music streaming providers must consider Norwegian law and copyright, i.e. that rights to download, storage and playback for distribution to the Norwegian market have been determined. To ensure quality in relation to mutual customers over time, an SLA must be established, in which the following is agreed:*
>
> - *Addresses for the music streaming service*
> - *Assurance that stated addresses are only for music (not video, images, text, etc.)*
> - *Access to two test subscriptions per service*
> - *How to handle changes to addresses, content and interfaces (including agreed notification times)*
>
> *If you represent a music streaming service, you can contact Telia's product department at: product-management@telia.no"*

Telia's updated terms and conditions no longer entail that the content provider must be publicly available, but maintain the requirement that the provider has ensured that downloading, storage and playback rights have been determined for distribution to the Norwegian market. In addition, Telia requires that the parties enter into an SLA.

[25] https://telia.no/om-telia/samarbeidspartnere, 16.10.2017

Refer to Chapters 3.3 and 3.4 for further discussion of which effects these terms and conditions may have.

3.2.3 Nkom's assessment of the market delimitation

On the basis of the aforementioned, Nkom is of the opinion that it has been shown that a market exists for music streaming via the Internet that may also include audiovisual music content and radio streaming. This must be regarded as the relevant content market that is to be assessed against the rules concerning net neutrality.

With regard to the market position of the content providers, there is insufficient information available concerning market shares or similar data that could provide a basis for drawing a conclusion. However, the critical aspect here is to assess whether the "Music Freedom" offer ensures equal treatment of the content providers, and whether any discriminatory treatment affects competition in the content market.

The music streaming market is currently dominated by a few major content providers. Telia "Music Freedom" comprises the use of Spotify, Tidal and Beat. Stockholm-based Spotify is the largest of these streaming providers with over 50 million paying customers worldwide[26]. Tidal is the continuation of the former Norwegian company "WiMP". Tidal fronts its own business as an artist-owned partnership, with the artist "Jay-Z" as the principal owner[27]. Beat[28] is a Norwegian streaming provider that offers bundling with services from Altibox, RiksTV and Get.

Many of the Norwegian end-users purchase their music streaming applications from one of the three content providers included. It is clear, however, that more providers exists that today in reality are not covered by "Music Freedom". An example is Apple Music, which worldwide has over 20 million paying customers. Other examples include Google Play music, which is relatively new within music streaming, but is powered by Google. In addition, Nkom finds it particularly relevant to mention "Soundcloud". Soundcloud allows artists, both established and newcomers, to share their music directly with a worldwide audience[29]. Other content providers offering similar content and that are available in Norway include "Napster"[30] and "Deezer"[31].

Based on the aforementioned assessments, Nkom upholds that a content market exists which includes the music streaming category. Telia has confirmed that the company does not intentionally discriminate between content providers in this content category. Provided that this functions as intended and that the category is defined correctly, "Music Freedom" will have a limited impact on the competition between the content providers. Even though Telia has not rejected any streaming providers, it is still clear that more streaming providers exist that as of today in reality are not covered by Telia's "Music Freedom". Nkom believes that this gives grounds for concern as to whether the scheme actually gives equal treatment to the content providers.

[26] https://www.bloomberg.com/news/articles/2017-03-02/spotify-hits-50-million-paid-subscribers-lifting-music-industry

[27] https://support.tidal.com/hc/en-us/sections/201053161-About-TIDAL

[28] http://www.beat.no/

[29] https://soundcloud.com/pages/contact

[30] http://us.napster.com/availability

[31] https://developers.deezer.com/guidelines/countries

3.3 Impact on the end-users

Net neutrality should protect the end-users' freedom to choose which applications they want to use on the Internet. In connection with zero-rating, the end-users are offered an additional data allowance that they cannot use freely; the additional data allowance is reserved for content predetermined by the Internet service provider. Zero-rating of selected content and applications is thus capable of controlling the end-users' freedom of choice. An alternative to the aforementioned would be to offer an equivalent data allowance that the end-user could use freely at his/her discretion.

When certain applications are offered at a lower price, or free of charge, the end-users will have an incentive to use these applications instead of other applications. If, on the other hand, an entire category of applications is offered at a lower price, the incentives to switch to this category from another category will certainly not be equally strong. This assumes, however, that the category is clearly defined and that associated traffic can be identified correctly, which will not always be the case in practice.

The lower the data cap compared with the additional data volume for use by the zero-rated content, the greater the end-user's incentive to use the zero-rated content. Consumers typically want to use "free" data and tend to be more economical in their use of paid data. Telia has stated to Nkom that the average data consumption of zero-rated traffic was (Exempt from public disclosure): [------] per subscriber in August, which is equivalent to (Exempt from public disclosure): [----] of the data allowance for a 5-MB subscription (which is the smallest data allowance among Telia's subscriptions that include zero-rating). Telia furthermore states that the top 5% of Telia's active Music Freedom users spent, on average, (Exempt from public disclosure): [------] on zero-rated content per month. (Exempt from public disclosure): [--]

Nkom considers it positive that the end-users are offered additional data included in the subscription. It is common for providers to increase the data allowance of their subscriptions from time to time, whereas with zero-rating, the provider determines what the end-users can use the extra "data allowance" for. In general, low data allowances increase the attractiveness of zero-rating offers.

Studies show that Norwegian end-users use little data for mobile Internet access and pay relatively more for their data allowances compared to, for example, Nordic and Baltic countries.[32] This makes zero-rating extra problematic in the Norwegian market, since the included allowance that can be used freely is relatively small compared with the data allowances in a number of other countries.

In response to the question from Nkom concerning how Telia assesses "Music Freedom" with regard to the effect on end-users' rights due to the zero-rating of selected music streaming applications, Telia responds: "*Furthermore, this form of zero-rating promotes freedom of choice for the customer. By not charging for streaming music, Telia frees up mobile data for customers to use for other content services*."

Nkom believes that the most relevant comparison for subscriptions with "Music Freedom" would be comparison with another subscription with an equivalent data allowance (i.e. which also includes a data amount equivalent to the zero-rated data volume), and where the end-users themselves are free to choose for which Internet content the total data allowance is used. Viewed in this perspective, the end-users' freedom of choice will be limited by the "Music Freedom" subscription.

[32] https://www.nkom.no/aktuelt/nyheter/norske-husstander-har-h%C3%B8yest-andel-bredb%C3%A5ndsabonnement

Telia contends that: *"The customers have no incentive to use individual music streaming services at the expense of others. Since all services within the relevant market can be included in "Music Freedom", the customers ' freedom of choice will not be distorted or curtailed. Customers are thus still free to choose content on their own basis. The feedback from Telia's subscribers also indicates that they are happy*."

Nkom believes that the end-users are not completely free to choose content on their own basis. First of all, individual providers of music streaming might remain outside the scheme, even though they might possibly have been included (see the discussion of this in sub-chapter 3.4 "Effect on content providers"). Secondly, zero-rating of a category of applications will also give end-users incentives to use a given category rather than other categories.

With regard to whether end-users are satisfied with zero-rating, it is not certain that they would have answered the same if they had been asked what they would prefer in terms of zero-rated music streaming and an increase in the data allowance equivalent to the zero-rated music streaming. An increased data allowance that can be used for all types of applications, irrespective of category, would give end-users greater freedom of choice.

Nkom has received enquiries from several end-users who point out that zero-rating of selected applications is negative because it gives an advantage to some content providers rather than others, and that the offer may deter newcomers on the market.

On this basis, Nkom upholds that most end-users prefer a larger data allowance rather than zero-rated music streaming, if they are given such a choice.

With regard to assessment related to technical discrimination, Telia emphasises that "*Telia's 'Music Freedom' is furthermore not suitable to limit the individual subscriber's rights under Article 3(1) of the Regulation, cf. Article 3(2). The service is designed in such a way that it neither directly nor indirectly affects the customers' freedom of choice by blocking traffic streams, giving an advantage to individual content providers, facilitating specific types of technology, and so on", and that "In this regard, Telia emphasises that an infringement of Article 3(1), cf. Article 3(2) of the Regulation, as in competition law requires a significant effect on the market to be shown. Purely theoretical or negligible negative effects are not sufficient*."

Nkom believes that end-users' rights under Article 3(1) are not limited to technical discrimination of traffic, but that economic discrimination must also be taken into account in the assessment of the rights. Furthermore, as described in the methodology chapter at the beginning of this report, the BEREC Guidelines describe how the national regulatory authority must consider whether the end-user's freedom of choice is limited. The national regulatory authority must intervene if choice is materially reduced, but the Guidelines specify that the national regulatory authority may also intervene in other cases that qualify as a limitation of the end-users' rights[33].

It is also known that in practice it is difficult to achieve reliable identification of traffic from applications. The zero-rating offer profiled, "Binge on" from T-Mobile in the USA, is probably one of the best-known examples of zero-rating. An investigation of this service's identification of applications that would be zero-rated revealed that the identification did not function as anticipated.[34] If the identification of traffic to be zero-rated is not performed correctly,

[33] BEREC Guidelines, section 45

[34] Northeastern University, 2016, Marketing and CommunicationsNortheastern researchers find T-Mobile's Binge On doesn't live up to the hype, http://www.northeastern.edu/news/2016/06/northeastern-researchers-find-t-mobiles-binge-on-doesnt-live-up-to-the-hype/
- David Choffnes et al., Northeastern University, 2016, BingeOn Under the Microscope: Understanding T-Mobile's Zero-Rating Implementation, david.choffnes.com/pubs/bingeon_sigcomm16.pdf

customers risk unforeseen expenses, nor will customers receive the service which they were led to expect.

The method used by Telia to identify traffic from applications is probably different from that used by T-Mobile's "Binge on". It is therefore not possible to draw any direct conclusions about Telia's service offering based on a comparison between these two. There is nonetheless reason to emphasise the difficulty in performing correct identification of applications, and the consequences for the end-users if this does not function correctly.

With regard to the method that Telia uses to identify traffic that is zero-rated, Nkom believes that further investigations might potentially be necessary. On the basis of a sustained need for coordination between European regulators, equal treatment of comparable zero-rating offers, and that the Regulation must be evaluated going forward, it is necessary to wait to draw any conclusions concerning this aspect of the case.

Nor does Nkom rule out the possibility of further objections being raised regarding the criterion of "impact on end-users", for example if identification of the applications to be zero-rated should prove not to function correctly, or if the method should prove not to be in accordance with the Regulation.

An assessment of the impact on the end-users also includes assessing any impact on freedom of expression.[35] If the content that is zero-rated does not include user-generated content, this might constitute preferential treatment of commercial content. In the case of Telia "Music Freedom", so far this service offer solely concerns commercial music providers, but Telia informs Nkom that non-profit music streaming can also be included on request.

Based on the information provided by Telia and the aforementioned assessments, Nkom has concluded that there are indications that existing "Music Freedom" offers may have a negative impact on end-users' freedom of choice, particularly due to relatively small data allowances compared to the price that gives Norwegian end-users significant incentives to use zero-rated content, rather than other content.

3.4 Impact on the content providers

The Internet is intended to be an open platform for providers of content and applications. The zero-rating of certain applications and selected content means that Internet service providers pick "winners and losers" among the content providers, rather than the end-users choosing content on a free basis. It is well known that end-users have strong preferences for zero-rated content as opposed to content that the users have to pay to download via their Internet access.[36] Content that Internet service providers have pre-selected for zero-rating automatically becomes more attractive than other content offered on the Internet. The providers of the zero-rated content thus gain a competitive advantage over other content providers.

Content providers on the Internet are expected to have the aim that the content is distributed both broadly and frequently. It cannot be excluded that content providers are willing to pay a distributor that can help ensure extensive distribution. As Nkom understands the "Music

[35] BEREC Guidelines, section 46, bullet item 3

[36] BEREC report 2015 - How do consumers value net neutrality in an evolving Internet marketplace? http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/5024-berec-report-on-how-consumers-value-net-neutrality-in-an-evolving-internet-marketplace-a-report-into-ecosystem-dynamics-and-demand-side-forces - CTIA - The Wireless Association. 2014. CTIA Mobile Wireless Service Survey. http://www.ctia.org/docs/default-source/default-document-library/2014-ctia-mobilewireless-service-survey-final.pdf

Freedom" zero-rating offer, it does not, however, entail financial transactions or other compensation between content providers and Telia.

In the response to the question from Nkom concerning how Telia assessed that "Music Freedom" will influence the competition situation among the content providers, Telia responds: *"The service is also designed so that it does not affect the competition between the content providers, neither between the commercial services nor between commercial services and free services. All competing content providers are treated equally, so that none of them achieves a competitive advantage. Nor does Telia pick 'winners and losers' through zero-rating, at the expense of the service offer."*

Nkom believes that the impact of the zero-rating scheme on the content providers must be compared with a situation without zero-rating, which means comparison with how content providers can operate when they connect to the Internet via a "normal" Internet access. Nkom believes that even though all of the content providers within the category in principle are welcome to request to be included in the zero-rating scheme, there will be a certain element of establishment barrier, cf. the discussion below.

A small content provider wishing to become established on the Internet acquires an Internet access from an ISP and, via this Internet access, can reach end-users at all ISPs on equal terms with any other content provider. A content provider wishing to reach customers with zero-rating subscriptions on an equal basis with zero-rated content providers will have to undergo a certain "procedure" to be included by each ISP. (This might also have an impact on innovation on the Internet, see sub-chapter 3.6 "Circumventing the aim of the Regulation" for a conclusion in this respect.)

It is known from other zero-rating offers that content providers within a content category that want to have their content included in a zero-rated platform must follow a certain procedure to be included. As an example, the previously mentioned T-Mobile provides the zero-rated "Binge on" offer in the US market. This platform is open to all music streaming providers, but experience shows that it takes a long time for providers to be added to the platform. This is especially true of small providers of streaming applications[37].

In Telia's case, this "procedure" comprises reporting interest via email. Provided that Telia finds the content to satisfy the criteria for inclusion, it is furthermore stated that the provider must provide technical information on how the traffic can be identified, and enter into an SLA with Telia. Nkom notes, however, that Telia makes the assurance that Telia itself carries the costs associated with the technical implementation, which is an important contribution to limiting the barriers to establishment for the content provider.

At a meeting with Nkom, Telia has also stated that there have been a few examples of small content providers with special service concepts (Exempt from public disclosure:) [-------------------------------------] that have been refused inclusion in the zero-rating scheme.

In the longer term, any such practice among the ISPs will have a negative effect on the innovation rate on the Internet. The requirement to establish an SLA may also serve as an establishment barrier for players wishing to become established in the market and to be admitted to the zero-rating scheme. For example, a newly established Norwegian provider of music streaming that wishes to become established in the European market might encounter a situation where the application needs inclusion in a relatively large number of ISPs in the relevant countries.

[37] Center for Internet and Society at Stanford Law School, 2016, Binge On violates key net neutrality principles, https://cyberlaw.stanford.edu/blog/2016/01/t-mobiles-binge-violates-key-net-neutrality-principles
- Barbara van Schewick, Stanford Law School, 2016. T-Mobile's Binge On Violates Key Net Neutrality Principles, https://cyberlaw.stanford.edu/downloads/vanSchewick-2016-Binge-On-Report.pdf

Telia itself writes even in its response to Nkom that: *"Telia's 'Music Freedom' already includes several of the most popular music streaming services in Norway."* In reality, the major, popular content providers are included the scheme, but not the smaller competitors. The first three music streaming providers were also in principle "selected" by Telia before the launch of the offer. Nkom observes that Telia's offer has been opened for competing music streaming providers. At a meeting with Nkom, Telia has also stated that Telia has contacted other music streaming providers, but so far no content providers in addition to the original number have been included. Nkom is observing this development with interest.

Nkom also notes that Telia states that *"Any other legal provider of music streaming services can be included in 'Music Freedom'" by contacting Telia*." Nkom naturally agrees that any content sent via the Internet must be legal, but the ISPs are not usually in a position to require an explicit declaration from customers about this, nor to control that the customers fulfil this condition, except in specific cases where, for example, the courts have reached a decision about this.

With regard to the difference between zero-rating of single applications and categories of application, the BEREC Guidelines state that zero-rating of entire categories is less likely to undermine competition in the application market than zero-rating of individual applications. The zero-rating scheme, as it is established by Telia, would in particular have a certain negative effect on other related categories, cf. that Telia's offer in the music streaming category excludes radio streaming and audiovisual content.

An assessment of the impact on the content providers also includes assessing any impact on freedom of expression and media diversity.[38] Reference is made to the report from the media diversity committee[39] which, among other things, confirms the following[40]:

> "*The state's task must be to facilitate, and provide access to, and opportunities for, use that support real freedom of expression and freedom of information. This also includes a duty to arrange the necessary infrastructure for citizens to be able to use the media, including ensuring the population online access that is subject to net neutrality principles."*

and furthermore[41]:

> "*The committee believes that the authorities must apply a narrow interpretation of the exemptions, both in the implementation of the EU Regulation on net neutrality in Norwegian law and subsequent supervisory activities."*

This demonstrates an enhanced need to require that any zero-rating offers do not restrict competition in the content market.

The fact that Telia's "Music Freedom" in reality only includes selected providers of music streaming will have an inhibiting effect on musicians who are not affiliated to these providers and who are either affiliated with other music streaming providers, or operate independently of music streaming providers. Moreover, favouring music streaming can have an inhibiting effect on other media that compete for the Internet users ' attention.

Based on the above assessment, Nkom believes that Telia's "Music Freedom" has the potential to influence which content is offered in the market, and could thus have a competition-impeding effect for content providers that are not included in the scheme,

[38] BEREC Guidelines, section 46, bullet item 4

[39] https://www.regjeringen.no/no/dep/kud/org/styrer-rad-og-utvalg/gjeldende-styrer-rad-og-utvalg/utvalg-mediemangfoldsutvalget/id2440827/

[40] Chapter 3.1 of NOU 2017:17 "The Norwegian media diversity – a strengthened media policy for citizens".

[41] Box 8.17 of NOU 2017:17 "The Norwegian media diversity – a strengthened media policy for citizens".

especially because it seems that the registration procedure for the content providers might entail a certain degree of establishment obstacle for small and/or new streaming providers.

3.5 The scale of the commercial practice

According to the net neutrality guidelines, account shall be taken of the scale of the commercial practice, or zero-rating, in the market. In this analysis, the national regulatory authority will, among other things, evaluate alternatives, both alternative subscriptions with the same provider and other Internet service providers with equivalent offerings. In cases where the scale of the practice is limited compared with alternative offerings, the problems must be quite serious before the authority intervenes.

Internet access providers have traditionally launched their offers based on a combination of volume and speed. On mobile networks, payment for speed has largely been phased out, and the price is therefore usually based on data volume alone. Offers of extra data without an increase in price have traditionally been included in start-up offers, package deals or winback offers. None of these offers has set conditions concerning which content the extra data volume is to be used for. As initially stated, Telia's "Music Freedom" is the third[42] Norwegian instance of zero-rating of specific data streams.

On assessing the scale of the commercial practice, Nkom will consider the scale of the offer within the Telia brand, among the brands of Telia Norge AS, and ultimately in an overall perspective in conjunction with other zero-rating offers in the Norwegian market.

It is evident from Chapter 3.1 that Telia Norge AS, with all of its brands[43], has the second largest market share and considerable influence in the current market. Offers from Telia will thus have a significant reach. Their scale is, however, limited to the subscriptions that offer zero-rating. According to Telia, zero-rating is included in the SMART Pluss, Super, Total and Ung subscriptions. Figures from Telia on 20.09. 2017 show that the Telia "Music Freedom" is available to (Exempt from public disclosure:) [-----------------] customers. Of these (Exempt from public disclosure:) [-----------------] use zero-rated content actively, which accounts for (Exempt from public disclosure:) [-------------] of potential users.

In the letter of 24.08.2017. Telia refers to how the active users of zero-rating account for (Exempt from public disclosure:) [-------------] of the total customer base of Telia Norge AS in the private market. Figures stated at the meeting on 20.09.2017 show that this ratio has increased to (Exempt from public disclosure:) [-------------] The total customer base of Telia Norge AS includes, in addition to Telia, the brands Chess, OneCall and MyCall. For the Telia brand, seen in isolation, active users account for (Exempt from public disclosure:)-------------] of the customer base, while the offer is available to (Exempt from public disclosure:) [-------------] of the customer base.[44] These figures show that even though the scale of the commercial practice is greater within the Telia brand , the ratio of subscriptions with access to the zero-rated offer is relatively low within the Telia Norge AS company.

In March 2017, Telenor launched a series of subscriptions for customers aged 18 to 28 years. The "Music Freedom" zero-rating offer is included in these subscriptions, which go under the name of "Yng". Telenor's zero-rating offer has great similarities with Telia "Music Freedom", and it is therefore also natural to assess the combined scale of the two commercial practices. Telenor "Music Freedom" has a narrower reach than Telia's product, since only customers

[42] Telia/OneCall has previously offered "Fri nettradio" (free internet radio) to selected customer groups. In addition, Telenor launched the "Music Freedom" offer in March 2017.
[43] Telia is the second largest, also without including Phonero's share.
[44] (Exempt from public disclosure): [--]

aged between 18 and 28 can use the offer. To a certain degree, Telia SMART Ung is comparable, since it also has the maximum age limit of 28 years, but in contrast to Telenor Yng it has no minimum age limit. So in this age group there will be an overlap between Telenor and Telia's "Music Freedom" offers. According to figures from Telenor as at 21.04.17, in Norway this age group comprises around 770,000 people. At the end of October 2017. Yng had (Exempt from public disclosure:) [---------------] customers.[45] In the same age group, Telia has (Exempt from public disclosure:) [---------------] customers[46] with access to "Music Freedom". On the basis of this age group (Exempt from public disclosure:) [-------------], of this age group have subscriptions that offer zero-rating.

Telia refers to how end-users can choose between several different subscriptions without zero-rating, including other Telia Norge AS brands, and with other players such as Telenor, Talkmore, Ice, Hello, Chili Mobile, etc.

Considering the number of subscriptions with access to zero-rating[47] against the total number of mobile subscriptions[48] in Norway, for all age groups, this gives a share of approximately 5.9%[49]. If we solely include active users, this is around 4.7%[50]. Even though so far these percentages are modest in size, Nkom notes that the increasing use of zero-rating offers in the Norwegian market is considerable in the wake of the transition from regulation based on Norwegian guidelines to regulation based on European rules.

Based on how end-users have the opportunity to choose alternative products that are not zero-rated, both from Telia and from other providers, Nkom believes that the scale of zero-rating is so far at a relatively limited level in the Norwegian market for mobile Internet access. If the scale of equivalent or similar zero-rating offers increases, Nkom might reach a different conclusion in the future, however.

3.6 Circumvention of the aim of the Regulation

The purpose of the Regulation is described in the first recital: *"This Regulation aims to establish common rules to safeguard equal and non-discriminatory treatment of traffic in the provision of internet access services and related end-users' rights. It aims to protect end-users and simultaneously to guarantee the continued functioning of the internet ecosystem as an engine of innovation.."*

To a certain extent, traffic management and end-user rights are analysed above, and a key conclusion is that the additional data allowance offered under zero-rating favours the zero-rated content. In this perspective, zero-rating constitutes positive discrimination of the zero-rated traffic and corresponding negative discrimination of other traffic.

In terms of maintaining the Internet's function as an engine of innovation, this is linked to the incentives of the content and application providers to develop new ways of using the Internet, as has been the case for many years through the rapid growth of the use of the Internet as a communication platform for an ever wider range of content and applications.

[45] Figures given by Telenor in letter of 23.11.2017

[46] Figures given by Telia at meeting on 20.09.17

[47] For Telenor at the end of October 2017, and for Telia at 20.09.17

[48] According to the electronic communication statistics for the first half of 2017, there are 5,721,255 mobile telephone subscriptions in the Norwegian market. The figure includes both post-paid and prepaid cards: https://ekomstatistikken.nkom.no/#/statistics/details?servicearea=Mobiltjenester&label=Mobiltelefoni%20-%20abonnement

[49] (Exempt from public disclosure): [---]

[50] (Exempt from public disclosure): [---]

Content and application providers have good opportunities to develop new products because these can be established on computers that communicate via Internet access services without requiring further facilitation from the Internet service provider. Using zero-rating changes this situation, in that the Internet service provider has to include relevant content and application providers into the zero-rating scheme, in order for them to benefit from the scheme.

The complexity of the inclusion process varies between the different Internet service providers' zero-rating schemes. In some cases, the content and application providers' product will disqualify them from inclusion, or payment will be required for inclusion, while in other cases, it may be sufficient to adapt the product. In yet other cases, it will be sufficient to contact the Internet service provider and ask to be included.

The content and application provider will have to repeat this inclusion process for each individual Internet service provider that uses zero-rating, and this will thus entail transaction costs that do not exist when Internet service providers do not use zero-rating. Transaction costs could pose a significant barrier to small content and application providers, especially for start-up companies and non-profit organisations.

Assessment of the "circumvention of the aim of the Regulation" criterion in isolated terms for Telia "Music Freedom" is based on an assumption that zero-rating will function as specified by Telia. First of all, in terms of non-discriminatory traffic management and end-user rights, Nkom's assessment is that Telia "Music Freedom" could not be deemed to circumvent this part of the purpose of the Regulation beyond what is stated in the above assessment of the criteria.

Nkom believes that end-users' rights under Article 3(1) are not limited to technical discrimination of traffic, but that economic discrimination must also be taken into account in the assessment of the rights. As discussed in sub-chapter 3.3 "Effect on end-users", end-users ' freedom of choice is affected because "Music Freedom" entails considerable incentives for end-users to prefer zero-rated content rather than other content.

Secondly, in terms of maintaining the Internet's innovative power, Nkom upholds that Telia undertakes that content providers which meet the criteria for inclusion will be zero-rated in line with other content in the same category. Telia states that all content providers within the relevant market have the opportunity to be included in Telia "Music Freedom". Telia has information[51] on its website which refers to how content providers that meet the criteria for inclusion can go forward to take part in the zero-rating scheme. Telia furthermore states that there are no financial or administrative barriers to inclusion in the scheme, since Telia bears the costs of inclusion.

Concerning Telia's zero-rating scheme for music streaming, Telia thus asserts that all providers within the relevant content market can be included. As discussed in sub-chapter 3.4 "Effect on content providers", the providers must, however, undergo a certain procedure in order to be included. Practice furthermore shows that it takes a long time to increase the number of music streaming providers included in "Music Freedom" in addition to the original content providers.

On a general basis, Nkom is also focused on ensuring that commercial practices in the electronic communications market do not have a negative impact on innovation. In this context, Nkom believes that it is important that zero-rating offers take account of start-up companies and non-profit enterprises, especially if zero-rating should eventually achieve greater scale.

[51] https://telia.no/om-telia/samarbeidspartnere

4 Overall assessment of Telia “Music Freedom”

Based on information received from Telia, Nkom's understanding is that Telia “Music Freedom” does not use technical traffic management infringing the Regulation’s Article 3(3). Nkom has therefore assessed the “Music Freedom” zero-rating scheme on the basis of the Regulation’s Article3(2), cf. the methodological approach in Chapter 2.

Market positions of the Internet service providers

Nkom upholds that the relevant market for assessment of Telia “Music Freedom” is Internet access via mobile infrastructure. Market analyses which are the basis for Nkom’s decisions in the market for mobile network access, [52]as well as subsequent measurements, show that Telia has significant market power. Nkom thereby assumes that “Music Freedom” is offered by a player with significant influence on the relevant end-user market.

Market positions of the content providers

In Nkom’s opinion, Telia assumes that it is possible to delimit a content market for music streaming. Telia furthermore asserts that all content providers in the relevant category will be treated equally, and Nkom thereby perceives that Telia equates the terms market and content category. Telia confirms that there is no specific competition analysis to document a market delimitation. Nkom believes that there are blurred boundaries which entail that both radio streaming and streaming of music videos cannot necessarily be excluded from belonging to the same market as music streaming, cf. the discussion in Chapter 3.2.

Even though there is no comprehensive, well-documented market delimitation, Nkom believes that it is probable that a music streaming market exists that may also include audiovisual music content and radio streaming. This can be regarded as the relevant content market that is to be assessed against the provisions concerning zero-rating.

With regard to the market position of the content providers, there is insufficient information available concerning market shares or similar data that could provide a basis for drawing a conclusion. However, the critical aspect here is to assess whether “Music Freedom” provides for equal treatment of the content providers, and whether any discriminatory treatment affects competition in the content market.

Many of the Norwegian end-users purchase their music streaming applications from one of the three content providers included. It is clear, however, that more providers exist that today in reality are not covered by “Music Freedom”.

Impact on the end-users

Nkom considers it positive that the end-users are offered additional data included in the subscription. It is common for providers to increase the data allowance of their subscriptions from time to time, whereas with zero-rating, the provider determines what the end-users can use the extra “data allowance” for. Norwegian end-users are currently offered much lower data allowances compared to price than is customary in a number of other comparable countries. This makes zero-rating extra problematic since the allowance that is included, which can be used freely, is relatively small compared with the situation in a number of other countries.[53]

In general, end-users will have reduced freedom of choice since the extra data allowance is exclusively reserved for a specific type of content and cannot be used freely. Users prefer “free” data and tend to economise on their use of the paid data in the limited allowance

[52] The market for mobile network access, cf. current market decision of 1 July 2016.

[53] Digital Fuel Monitor, "Data caps and prices: country comparison", http://dfmonitor.eu/prices/country/

included in the subscription. This effect is even stronger among end-users whose subscription includes a small data allowance.

Telia has stated that data consumption for music streaming is equivalent to (Exempt from public disclosure): [-------] of the data allowance for a 5-MB subscription (which is the smallest data allowance among Telia's subscriptions that include zero-rating) and that the top 5% of Telia's active Music Freedom users on average spent (Exempt from public disclosure): [-------] on zero-rated content per month, (Exempt from public disclosure):[-------------------------------.] The zero-rating offer thus has a significant impact on the end-users' selection of content.

Impact on the content providers

Telia's zero-rated "Music Freedom" offer is only available for the streaming providers Spotify, Tidal and Beat. Telia has stated, however, that more content providers than the three aforementioned can be included in the zero-rating scheme. Telia's updated conditions for content providers that may be included in "Music Freedom" apparently do not exclude any music streaming providers.

Nkom has shown that the content market is more extensive than the three providers that today in reality are covered by the zero-rating scheme, but also that the music streaming market is larger than the category defined by Telia. Nkom believes that transaction costs in connection with an application for inclusion and establishment of an SLA agreement for the content provider can impede competition, and this would in particular constitute an establishment obstacle for small and/or new streaming providers.

The impact on content providers and end-users must also be viewed in the light of how the zero-rating scheme affects freedom of expression and media diversity. Nkom refers to the investigation by the media diversity committee[54] and believes that the committee's report demonstrates an increasing need to require that any zero-rating scheme does not limit competition in the content market.

The fact that Telia's "Music Freedom" in reality only includes selected providers of music streaming will have an inhibiting effect on musicians who are not affiliated to these providers, and who either are affiliated with other music streaming providers or operate independently of music streaming providers. Moreover, favouring music streaming could have an inhibiting effect on other media categories that compete for the Internet users ' attention.

The scale of the commercial practice

The scale of zero-rating and the availability of alternatives, including alternative providers, but also other subscription alternatives with the same provider, are included in the assessment of Telia "Music Freedom". Nkom notes that the scale of zero-rating is currently at a relatively limited level in the Norwegian market for mobile Internet access. In such situations, it is generally less necessary to issue orders.

Recent developments, whereby Telenor has also introduced zero-rating for some of their mobile subscribers, indicates that this may change in the future, however. In view of the fact that three different zero-rating schemes have been introduced in the Norwegian market during the first half of 2017, in the same period as the phasing out of the previous Norwegian net neutrality guidelines, Nkom deems it likely that the scale of zero-rating may continue to increase in the future.

Circumvention of the aims of the Regulation

As regards the assessment of whether the "Music Freedom" scheme constitutes circumvention

[54] https://www.regjeringen.no/no/dep/kud/org/styrer-rad-og-utvalg/gjeldende-styrer-rad-og-utvalg/utvalg-mediemangfoldsutvalget/id2440827/

of the aims of the Regulation, it is first of all relevant to assess whether there is discrimination of traffic on the Internet. The current zero-rating scheme from Telia entails economic discrimination of selected applications. In principle, however, the offer is delimited to an entire category of applications, as discussed above. Practice shows, however, that it takes a long time to increase the number of streaming providers included in the scheme.

In line with the aim of the Regulation, Nkom is focused on maintaining the pace of innovation in the Norwegian market. In connection with zero-rating, content providers become dependent on inclusion in a deal offered by the individual ISP, in order to compete on an equal footing. This might constitute a transaction cost that could be an obstacle, especially for start-up companies and non-profit enterprises. Nkom believes that any such transaction costs might adversely affect innovation and will monitor Telia's work on including players into the scheme.

Main conclusion in the case

Nkom is focused on ensuring net neutrality for Norwegian Internet users in order to contribute to maintaining the Internet as a public resource of great significance, socially, culturally, democratically and financially. Furthermore, Nkom believes that zero-rating reduces end-users' freedom of choice and increases the establishment obstacles for content providers.

Nkom has critical comments relating to several of the individual criteria in the assessment of Telia "Music Freedom". This applies in particular to the following:

1. "Music Freedom" is offered by an Internet service provider with considerable influence in the market for Internet access via mobile networks.
2. The number of content providers that in reality are included in the zero-rating scheme is relatively limited, and this solely includes large, well-established providers.
3. Zero-rating limits end-users' freedom of choice, particularly due to relatively small data allowances in proportion to the price, compared with other countries.
4. The scale of zero-rating is increasing.

However, zero-rating has limited scale in the market for mobile Internet access, and end-users have alternative Internet access service offers via mobile networks that do not entail zero-rating. Based on an overall assessment, Nkom therefore believes that there is no basis to issue an order at this time.

The scale of zero-rating has increased significantly after the European net neutrality rules took over from the Norwegian guidelines for net neutrality. This enhances the need for Nkom to follow up on various cases of zero-rating going forward, in order to be able to initiate corrective measures if necessary.

Concluding comments

Nkom's general approach to zero-rating is that it has an adverse effect on both the end-users' freedom of choice and on competition between different applications, and also various categories of applications. If the zero-rating schemes in the market do not function satisfactorily, and in particular if the scale increases significantly, it is likely that Nkom will have to reassess the analysis of zero-rating in the market.

Internet service providers' zero-rating offers and end-users' acquisition of such subscriptions are likely to develop dynamically in the Norwegian market in the coming years. Nkom refers to the parliament's decision to seek to maintain the Norwegian net neutrality policy within the framework of the European net neutrality regulation[55]. This will define the premises for Nkom's assessment of zero-rating in the Norwegian market over time.

[55] Proposition no. 157 (2015–2016), section 4.4