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Norwegian Communications Authority (Nkom)  
Postboks 93  
4791 Lillesand  
Norway

For the attention of:  
John-Eivind Velure  
Acting Director

Dear Mr. Velure,

**Subject: Market for access and call origination on public mobile telephone networks in Norway**

**Comments pursuant to Article 7(3) of Directive 2002/21/EC (Framework Directive)<sup>1</sup>**

## **I. PROCEDURE**

On 26 March 2020, the EFTA Surveillance Authority (“the Authority”) received a notification of a draft national measure in the field of electronic communications pursuant to Article 7 of the Framework Directive from the Norwegian national regulatory authority, *Nasjonal Kommunikasjonsmyndighet* (“Nkom”). It concerns the wholesale market for access and call origination on public mobile telephone networks in Norway.<sup>2</sup>

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<sup>1</sup> Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services, OJ L 108, 24.4.2002, p. 33 (as amended by Regulation (EC) No 717/2007, OJ L 171, 29.6.2007, p. 32 and Regulation (EC) No 544/2009, OJ L 167, 29.6.2009, p. 12) as referred to at point 5 cl of Annex XI to the EEA Agreement and as adapted to the Agreement by Protocol 1 (“the Framework Directive”).

<sup>2</sup> Corresponding to market 15 of the EFTA Surveillance Authority Recommendation of 14 July 2004 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with the Framework Directive, adopted by Decision No 194/04/COL, OJ L 113, 27.4.2006, p. 18 (“the Authority’s 2004 Recommendation”). This recommendation was later replaced by the EFTA Surveillance Authority Recommendation of 5 November 2008 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with the Framework Directive, adopted by Decision No 688/08/COL, OJ C 156, 9.7.2009, p. 18 (“the Authority’s 2008 Recommendation”). That recommendation was replaced by the EFTA Surveillance Authority Recommendation of 11 May 2016 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with the Framework Directive, adopted by Decision No 093/16/COL, OJ L 84, 30.3.2017, p. 7 (“the Authority’s 2016 Recommendation”).

The notification became effective on the same day.

National consultation was carried out, pursuant to Article 6 of the Framework Directive, during the period from 31 May to 28 June 2019. Nkom conducted a separate consultation concerning the margin squeeze model and the operational principles for the model during the period from 13 August to 11 September 2019. The draft decision was then published on Nkom's website on 13 December 2019 and Nkom invited stakeholders to submit written feedback on the proposed design of the price regulation and price structure before 20 January 2020.

On 3 April 2020, the Authority sent a request for information to Nkom,<sup>3</sup> to which a reply was received on 8 April 2020.<sup>4</sup>

The period for consultation with the Authority and the national regulatory authorities ("NRAs") in the EEA States pursuant to Article 7 of the Framework Directive expires on 27 April 2020.

Pursuant to Article 7(3) of the Framework Directive, the Authority and the EEA NRAs may make comments on notified draft measures to the NRA concerned.

## II. DESCRIPTION OF THE DRAFT MEASURE

### II.1. Background

Nkom previously notified the wholesale market for access and call origination on public mobile telephone networks in 2016.<sup>5</sup> At that time, the defined market included access on all public GSM, UMTS and LTE networks, and origination of voice, text messaging and data services for the following access types: (i) national roaming ("NR"), (ii) mobile virtual network operator ("MVNO"), and (iii) service provider ("SP") access. Access to offer machine-to-machine ("M2M") services was also included. Co-location was further included as a separate form of access.

Nkom designated Telenor ASA ("Telenor") as having significant market power ("SMP") on the relevant market and imposed the following obligations: access (NR, MVNO, SP access and co-location); non-discrimination; transparency; accounting separation (for NR and MVNO access); and price and accounting controls, including margin squeeze tests to be conducted every six months.

The Authority commented on: (i) the proportionality of Nkom's proposed requirement for a positive gross margin on all of Telenor's active retail mobile products;<sup>6</sup> (ii) the need to ensure a clear and appropriate level of product aggregation in Nkom's NR, MVNO and SP margin squeeze tests and to test at that level of aggregation for each access form; (iii) the need to justify variable access pricing obligations based on the nature of the competition problem(s) identified; and (iv) the need to monitor wholesale market developments very closely and to re-visit the market analysis without any undue delay.

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<sup>3</sup> Document No 1125583.

<sup>4</sup> Document No 1126454.

<sup>5</sup> See the Authority's comments letter of 13 June 2016, Case No 79169, Document No 805344.

<sup>6</sup> Nkom addressed the Authority's comment in its final decision (Nkom's 2016 Decision is available [here](#)) by limiting the positive gross margin test to SPs only, in line with Nkom's proposal in the current notification.

## II.2. Market definition

In the present notification, Nkom has defined the relevant markets at retail level as the market for bundled mobile services for residential customers and the market for bundled mobile services for business customers respectively. The markets include access to mobile networks, call origination, origination of text messaging, mobile data services and international roaming. Both access by pre-paid subscriptions/cards and post-paid subscriptions are included. The retail markets are technology-neutral, i.e. they include bundled mobile services supplied on public GSM, UMTS and LTE networks, as well as via 5G when it becomes available. The markets for dedicated mobile broadband subscriptions for residential customers and business customers respectively are also defined as closely related adjacent markets.<sup>7</sup>

Nkom has defined the relevant wholesale market, which is derived from the retail markets, as wholesale access on all public mobile networks (via the same technological platforms as at retail level), and origination of voice, text messaging and data services for the following external access types: NR, MVNO and SP access.

Wholesale access to offer both bundled mobile services and dedicated mobile broadband services are included. In addition, access delivered internally by MNOs (“self-supply”) is also included. Co-location is included in the relevant wholesale market as a separate form of access.

Nkom considers the relevant geographic market to correspond to mainland Norway.

## II.3. Evaluation of whether the wholesale market for access and call origination on public mobile telephone networks is still susceptible to ex ante regulation in Norway (the three-criteria test)

Pursuant to Article 2 of the Authority’s 2016 Recommendation,<sup>8</sup> the following three criteria must be cumulatively met in order for a market, which is not listed in that Recommendation, to be considered susceptible to ex ante regulation:

- The presence of high and non-transitory structural, regulatory or legal barriers to entry;
- A market structure which does not tend towards effective competition within the relevant time horizon; and
- The insufficiency of competition law alone to adequately address the market failure(s) identified.

With regard to the first criterion, Nkom takes into account the following factors: structural barriers to entry (control over infrastructure which is difficult to duplicate<sup>9</sup> and sunk

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<sup>7</sup> Moreover, with regard to M2M communication via mobile networks, Nkom considers that it is important to facilitate competition in access to mobile networks for M2M/Internet of Things services, but that any regulation would require a separate analysis of the market, as well as an assessment of potential competition problems. Nkom will, for the time being, only follow the development in this market.

<sup>8</sup> See footnote 2 above.

<sup>9</sup> ICE originally started with a network for mobile broadband based on CDMA technology in the 450 MHz spectrum band. The network was gradually replaced with 4G technology, which allows ICE to use other frequency bands. Following Telia’s acquisition of Tele2 in 2014, ICE was permitted to take over the infrastructure of Mobile Norway. However, Nkom considers that this was an exceptional situation and that ICE’s ability to increase its nationwide roll-out in the same fashion will not be possible in future. ICE currently relies on Telia for its NR agreement in those areas where it does not have a network. It also utilises co-location on Telia’s network in addition to availing of co-location on Telenor’s network.

costs<sup>10</sup>); economies of scale and scope; access to financial resources; as well as regulatory barriers to expansion (access to frequency bands<sup>11</sup>).

Telenor and Telia are vertically and horizontally integrated and both offer services in the wholesale and retail markets. Both are established with an extensive product portfolio and make continuous investments in their mobile networks that enable them to achieve economies of scale that a new operator<sup>12</sup> cannot achieve in the same manner. In light of the above assessment, Nkom concludes that the first criterion is fulfilled.

As to the second criterion, Nkom's assessment includes: market share developments; market concentration; price developments and usage patterns; importance of a third network; and potential competition.

Notwithstanding ICE's growth since 2015, Nkom concludes that the company's competitive presence in retail mobile markets is dependent on access to a nationwide network and this is expected to continue within the time horizon of the market analysis. ICE's NR agreement with Telia will expire within the forthcoming regulatory period and the company will therefore be dependent on (re)negotiating a new access agreement to be able to offer nationwide services in the retail markets.

As discussed in more detail in section II.4 below, the NRA concludes that, notwithstanding the HHI index<sup>13</sup> having fallen slightly in both retail and wholesale markets since the previous analysis, there are still high levels of concentration in Norwegian mobile markets. In comparison with other Nordic countries, Nkom is of the opinion that the concentration level in Norway far exceeds the levels measured in Denmark, Sweden and Iceland,<sup>14</sup> where market regulation has been lifted. Moreover, Nkom believes that the prevailing market conditions do not provide sufficiently clear evidence that a third network will be able to discipline the established operators on the supply side within the time horizon of this market analysis.

ICE's costs for NR were NOK 394 million in 2017, NOK 434 million in 2018 and NOK 440 million in 2019. Nkom considers that increased coverage of ICE's own network does not appear to have contributed to lowering roaming costs for ICE. On the contrary, customer growth has also resulted in increased roaming costs. ICE's network covers

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<sup>10</sup> In previous market decisions, Nkom concluded that it would cost approximately NOK 2 billion for an MVNO to build its own radio network covering 75% of the population. Following market developments, Nkom considers in the present notification that the cost of building a mobile network in Norway might in fact be above its previous estimates. In this regard, ICE considers that expanding the 4G network to increase its current population coverage from 83% to 95%, together with the costs for national roaming and working capital while the network is being developed, will amount to NOK 3 billion.

<sup>11</sup> A combination of coverage bands and capacity bands is necessary to be able to provide a nationwide service that satisfies user requirements. The 800 MHz and 900 MHz spectrum coverage bands (allocated in 2013) will not be available until 2033. The 450 MHz band was allocated to ICE in May 2019. With regard to capacity frequencies, a quarter of the 2100 MHz band was allocated in June 2019 at the same time as the 700 MHz band was allocated. Nkom considers that the scarcity of frequency resources is to some extent expected to be reduced in the coming years and therefore have fewer negative effects on market entry than before.

<sup>12</sup> In autumn 2018, ICE failed in its attempt to attract more investors through a stock exchange listing which had the goal of raising NOK 3 billion. However, the company was able to raise NOK 1.5 billion in a private placement at the end of January 2019. The company also managed to raise an additional NOK 700 million in March 2019.

<sup>13</sup> The Herfindahl-Hirschman Index (HHI) is a commonly accepted measure of market concentration. The HHI declined only marginally from 0.46 in 2015 to 0.44 in H1 2019 based on revenue in the retail market for bundled mobile services and from 0.52 in 2015 to 0.46 in H1 2019 based on data traffic.

<sup>14</sup> The HHIs were approx. 0.33-0.35 at the time the last market analyses were undertaken in these countries.

around 90% of the population, while around 80% of the company's data traffic is on its own network. In order to reduce unit costs for traffic over the coming years, it will be important for ICE to expand its coverage and move as much traffic as possible to its own network.

Finally, Nkom concludes that there is not enough evidence to indicate that market dynamics will tend towards sustainable competition without ex ante regulation within the time horizon of this market analysis. In light of the above, Nkom concludes that the second criterion is therefore fulfilled.

In terms of the third criterion, Nkom is of the view that it is important to ensure reasonable and predictable terms for access to achieve infrastructure-based competition in the longer term in the market. Nkom believes that denial of access or other behaviour with the equivalent effect as denial of access might lead to irreversible damage. If a provider in an unregulated market is denied access to infrastructure, Nkom is of the view that it will potentially take a long time for an infringement to be found under competition law. With ex ante regulation, clear obligations can be imposed in advance to effectively prevent denial of access. Therefore, Nkom considers that national competition law is not in itself sufficient to ensure sustainable competition in the market and that the third criterion is also met.

In light of its finding that all three criteria are met, Nkom concludes that the market is still susceptible to regulation on an ex ante basis.

#### **II.4. Finding of significant market power**

Nkom intends to designate Telenor with SMP in the wholesale market for access and call origination on public mobile telephone networks in Norway. In its analysis, Nkom takes the following factors into account: market shares, profitability, access to sales channels, access to information, switching costs and lock-in effects,<sup>15</sup> vertical integration, economies of scope, Telenor's behaviour during the previous regulatory period<sup>16</sup> (price regulation, non-discrimination obligation and standard offers), countervailing buyer power, entry barriers and potential competition.

The market shares of Telenor and Telia both at retail and wholesale level have been stable over the preceding regulatory period. At retail level, the market shares of Telenor and Telia at the end of the first half of 2019 were, respectively, 48% and 37% of total residential and business subscriptions. ICE is the third largest provider with a market share of 9.3%.<sup>17</sup> During the last regulatory period, the aggregate market share of other providers fell from 10% to 5.6%.<sup>18</sup>

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<sup>15</sup> Nkom explains that even if a decrease in the use of lock-in periods has been observed at wholesale level (but not at retail level), there are still factors relating to coverage and customer perception of coverage, as well as technical factors, that can prevent or limit the incentives of operators to switch host network.

<sup>16</sup> Nkom has observed that Telenor's access prices have been higher than those foreseen in Nkom's 2016 Decision. Additionally, Nkom has observed that Telenor has offered services to its own end-users without services with equivalent functionality being made available to access buyers. Furthermore, there are several terms in Telenor's standard offers for MVNO and SP access that Nkom considers to be in breach of the current regulation. Nkom is of the opinion that the follow-up of price regulation, the non-discrimination obligation and standard offers indicate that Telenor has the power to behave independently from customers, which supports the finding of an SMP operator.

<sup>17</sup> The two largest providers in the market had a combined market share of 85% of total mobile subscriptions at the end of the first half of 2019. Their total market share has only decreased by about 3 percentage points since the last market review, when their combined market share was 88.8%. At the same time, ICE has had

At wholesale level, the mobile data traffic market shares for Telenor, Telia and ICE were, respectively, 54.5%, 40.5% and 5% at the end of the first half of 2019.

Nkom explains further that Telenor has had significantly greater profitability than Telia over the last years, even if Telia's figures improved since the acquisitions of Tele2, Phonero and Get TDC.<sup>19</sup> The assessment of profitability over time supports the presumption that Telenor has SMP. Moreover, Telenor's customers seem to generate more revenue per subscription than Telia's customers, which is also reflected in Telenor's profitability.<sup>20</sup>

On this basis, Nkom concludes that Telenor still has SMP in the wholesale market for access and call origination on mobile networks in Norway.

Nkom's view that the conditions of competition do not support a finding of joint SMP for Telenor and Telia are based *inter alia* on considerations related to transparency and the scope for a credible retaliation mechanism.

First, Nkom considers that denial of access at wholesale level would be unlikely. Nkom believes that the history of access agreements on regulated and commercial terms implies that, absent regulation, both Telenor and Telia would likely continue to provide wholesale access. Furthermore, in Nkom's view, it is uncertain that the wholesale market is sufficiently transparent for Telenor and Telia to coordinate on denial of access to reasonable terms.

Second, Nkom is of the view that it is uncertain whether a sufficiently credible retaliation mechanism exists to render any coordination mechanism stable over time. In particular, while retaliation may be possible and effective at retail level, Nkom considers it would not appear to be particularly effective at wholesale level, due to the time required to switch wholesale access providers. Therefore, Nkom concludes that there is insufficient evidence to confirm that Telenor and Telia would have incentives to permanently engage in tacit collusion to deny access to reasonable terms.

## II.5. Regulatory remedies

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relatively strong growth during the same period, from having around 1% of total mobile subscriptions at the end of 2015 to 9.3% at the end of the first half of 2019.

<sup>18</sup> The largest of those other providers being Lycamobile, Fjordkraft and Chilimobil, with 1.3% 1.4% and 1.1% respectively.

<sup>19</sup> Telia has had a positive development in its EBITDA (Earnings before interest, tax, depreciation and amortization) margin since the acquisitions of Tele2, Phonero and Get TDC. In 2019, Telia achieved the same EBITDA margin as Telenor for the total business. EBITDA margins for mobile operations for 2019 were not available from both companies in March 2020. In Nkom's view, margins of the two companies will tend to converge over the next years, however, Telenor still reports far higher revenue per customer than Telia.

<sup>20</sup> As regards development in ARPU (average revenue per user) for Telenor and Telia's Norwegian retail mobile operations, Nkom states that Telenor has had regular growth in ARPU since 2013. Telia has experienced greater variation but has managed to consistently increase its ARPU since 2015. In the past three years, Telenor's ARPU has been around 25%-29% higher than Telia's. ICE reported ARPU of NOK 234 in the fourth quarter of 2019.

In light of the competition problems it has identified in the present notification, Nkom intends to impose obligations concerning: (i) access in the form of NR, MVNO and SP access, as well as co-location; (ii) non-discrimination with regards to the terms and conditions of all forms of access; (iii) publishing of reference offers for all forms of access; (iv) price control obligations for all forms of access; and (v) accounting separation for monitoring compliance with the non-discrimination obligation for MVNO and NR access.

For NR, MVNO and SP access, several important changes are proposed compared to Nkom's 2016 Decision, in particular, as regards the price control and co-location obligations.

In relation to the price control obligation, the most important changes can be summarised as follows:

- A requirement that price structures for all forms of access shall not include fixed-fee components at subscription level, ensuring that price structures are traffic-dependent only;
- For SPs, the prices will be based on a positive gross margin requirement for each product included in the test (assuming a 3% market share for the reference SP operator at the level of aggregation of the test<sup>21</sup>);
- For MVNOs, the access prices will be based on a full margin squeeze test (assuming a 3% market share for the reference MVNO operator at the level of aggregation of the test<sup>22</sup>);
- For NR access:
  - an obligation to apply traffic-dependent linear prices based on the margin squeeze test for MVNOs,<sup>23</sup>
  - the removal of geographically-differentiated prices,
  - a commitment to removing price regulation after the next regulatory period,<sup>24</sup>
- A requirement that SP access prices should not be more attractive than MVNO prices and, similarly, that the latter should not be more attractive than NR prices; and
- An obligation to offer bulk prices (on reasonable request) that result in lower prices for access than the standard traffic-dependent prices.

In relation to the co-location obligation, Nkom proposes to specify this obligation in more detail, in particular as regards addressing: delays associated with different steps in the processing of requests for co-location; information on the mobile base stations that needs

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<sup>21</sup> The levels of aggregation in the test are: (i) the residential markets for bundled mobile services and mobile broadband services, and (ii) the business markets for bundled mobile services and mobile broadband services.

<sup>22</sup> The levels of aggregation applied in the test are the same as for SPs.

<sup>23</sup> This means that the access price may not vary according to the traffic volume per subscription. The maximum linear price for NR will be the linear price that for each of the services gives the same or lower access costs as the actual prices in the reference offer for MVNO access.

<sup>24</sup> Nkom notes, however, that if any delays are caused by circumstances beyond the control of the third network, Nkom will consider whether the price regulation for NR should be extended, provided there is still a need for regulating this market. However, both the documentation requirements and the threshold for reaching such a conclusion will be high.

to be shared with the party requesting co-location; the assessment of the need for capacity expansion, placement reservations, construction contributions and costs of relocation; grounds for a refusal of a request to co-locate; and information that should be reported biannually by Telenor.

### III. COMMENTS

The Authority has examined the notified draft measure and has the following comments:

#### **Need to monitor market dynamics closely over the forthcoming regulatory period**

In its present notification, Nkom concludes that the exercise of joint SMP is unlikely over the forthcoming period, mainly due to the reasons explained in section II.4 above.

In particular, Nkom seems to assume that coordination would require significant transparency to ensure that access terms offered by Telenor and Telia would similarly result in a denial/prevention of access at reasonable terms.

The Authority is not convinced, however, that a detailed coordination mechanism between Telenor and Telia would be needed, as it would be sufficient for both access providers to set terms (e.g. prices) that eliminated the necessary economic space to compete at retail level.

Furthermore, in relation to the scope for retaliation in respect of conduct deviating from any common policy, the Authority considers that, in order to reinforce the sustainability of any common policy, it is not necessary that retaliation occurs in the same market as the denial of access. In this regard, Nkom acknowledges that retaliation at retail level would be possible and effective. Consistent with the European Commission's SMP Guidelines, the existence of a retaliation mechanism at retail level can be sufficient to conclude that effective retaliation would be possible, irrespective of whether retaliation at wholesale level is possible or not.<sup>25</sup>

In the Authority's view, the most important factor potentially limiting the scope for joint SMP in the wholesale market for access and call origination on mobile networks in Norway over the coming regulatory period is the possibility of ICE becoming a more credible competitive constraint during that time. According to Nkom's analysis, ICE is expected to reach a 95% population coverage over the forthcoming regulatory period and has already been able to raise a significant share of the capital necessary to deploy a nationwide mobile network in the next years.

Both Telenor and Telia's behaviour in relation to ICE over the coming regulatory period will thus be of significant relevance for the purposes of Nkom's next market review. In this sense, Telia's behaviour in the wholesale market during the forthcoming period will be important to understanding whether it reveals tacit coordination with Telenor, or can rather be considered a source of competition at wholesale level, both as regards its offering of NR and co-location.

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<sup>25</sup> Communication from the European Commission on Guidelines on market analysis and the assessment of significant market power under the EU regulatory framework for electronic communications networks and services, OJ C 159/1, 7.5.2018, paragraph 77, available [here](#).



Additionally, Nkom's proposal to remove price regulation for NR at the time of the next market analysis means that the co-location remedy will assume special relevance in the next years. For this reason, Nkom's focus should be on both the appropriate enforcement of the NR and co-location obligations on Telenor, as well as on monitoring that Telia's behaviour in dealing with ICE, as the latter builds a nationwide network, is not indicative of tacit coordination with Telenor.

In this regard, the Authority acknowledges that Nkom has developed the co-location remedy at a more granular level in the present notification. However, the Authority invites Nkom to monitor Telenor's behaviour closely in order to quickly identify any potential infringement of its regulatory obligations (e.g. undue delays, unreasonable refusal to supply co-located access, etc.).

In light of the importance of ensuring that there is no incentive for Telenor to artificially delay the development of a third mobile network in Norway, Nkom should ensure that any infringement of its regulatory obligations is identified early and dealt with rapidly and decisively.

Similarly, Nkom has indicated that it expects Telia to continue to provide co-location to ICE on a commercial basis. At the time of the next market review, it will be important for Nkom to assess whether the terms and conditions offered by Telia have materialised in a competitive wholesale access offering or, conversely, can be considered more akin to an outcome consistent with tacit coordination.

If Nkom finds in the forthcoming regulatory period that the fringe competitor role of ICE at retail level has not materialised due to ineffective competition at wholesale level (e.g. if both Telia and Telenor's wholesale offerings present similar pricing above competitive levels and/or other anti-competitive behaviour), Nkom should reassess at the time of its next market analysis whether this is indicative of sustainable tacit coordination between Telenor and Telia.

### **Linear pricing with no geographic differentiation is appropriate for national roaming**

The Authority supports the changes proposed by Nkom for NR, namely, the introduction of traffic-dependent linear prices and the removal of geographically-differentiated prices. Overall, the Authority considers that they strike the right balance between, on the one hand, ensuring that ICE is not artificially penalised for moving traffic onto its network and, on the other hand, ensuring an appropriate return on Telenor's network investments.

Starting with the linear pricing obligation for NR, Telenor's current wholesale prices are linked to the consumption of each individual retail subscriber. In the Authority's view, such a pricing structure has the perverse effect of limiting the benefit derived by the NR operator from shifting traffic onto its own network. This is because as the NR operator increases the coverage of its network, it will inevitably reduce the off-net consumption of its individual subscribers, reducing the wholesale volumes per subscriber purchased from the access provider.

This inherent feature of NR, which is absent in the case of MVNO or SP access, means that the average wholesale price paid by the NR operator will increase significantly over time, as it shifts traffic onto its own network. In order to limit this effect on access prices

for NR, the Authority supports Nkom's view that a linear pricing obligation is justified in the case of NR.

Additionally, Telenor's current wholesale pricing structure would result in ICE having to pay higher average wholesale prices than other wholesale access seekers. This would arise notwithstanding the fact that, given ICE's higher retail market share than other access seekers, it is expected to remain one of the largest customers in the wholesale market until it achieves a fully independent nationwide network.

While the main driver of retail mobile prices is consumption per subscriber, the Authority considers that such a retail pricing structure derives from the number of subscribers being the main driver of retail costs (e.g. customer services, handset costs, marketing, network of retail shops, etc.). In contrast, at wholesale level, the main driver of network costs is total wholesale volumes, rather than the number of subscribers of Telenor's wholesale customer. In this sense, an obligation to offer linear prices derived from the MVNO's margin squeeze test would be more broadly aligned with the fact that costs at network level are driven by total wholesale volumes, rather than the number of subscribers of Telenor's wholesale customers.

In summary, Nkom's linear pricing proposal will eliminate the perverse effects of Telenor's current pricing structure on the NR operator's incentives to roll out a third nationwide network, as described above. Additionally, it will ensure that the average unit prices paid by the NR operator are no greater than those paid by MVNOs, hence respecting the principles of the 'ladder of investment'.

The Authority also supports Nkom's removal of geographically-differentiated prices for NR. In the Authority's view, it is unclear that the provision of NR access involves greater underlying costs than the provision of MVNO access. The NR operator owns spectrum resources and a more developed backhaul and core network than operators requesting MVNO access.

Additionally, as noted above, the NR operator is expected to continue to be one of the largest wholesale mobile customers in Norway. Therefore, it seems contrary to economic logic that it would have to pay higher average prices than smaller access seekers.

Even if the average unit costs of NR were greater than those for other forms of access, the Authority agrees with Nkom that price regulation based on a margin squeeze test in Norway will still ensure cost recovery by Telenor (including an appropriate return on its network investments).

The evidence provided to the Authority suggests that the average wholesale prices for NR, MVNOs and SPs expected following Nkom's proposals are likely to remain above Telenor's underlying network costs (including an appropriate return on investments), as shown by publicly available relevant benchmarks.

In particular, the European Commission's mobile cost model estimates an average network cost for data in Norway in 2020 of between EUR 0.87-1.46/GB, depending on the modelling scenarios chosen.<sup>26</sup> Furthermore, the average wholesale prices charged for international roaming in Norway in Q1-Q3 2019 were between EUR 1.12-1.32/GB.<sup>27</sup>

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<sup>26</sup> According to the European Commission's 2017 mobile cost model, available [here](#).

<sup>27</sup> According to BEREC's 24<sup>th</sup> International Roaming Benchmark Report, available [here](#).

These benchmarks are below the wholesale prices for NR, MVNOs and SPs expected from Nkom's proposals.<sup>28</sup>

Geographically-differentiated prices for NR would furthermore have the perverse incentives of increasing prices as the NR operator shifts traffic onto its own network. This would inevitably reduce incentives for a NR operator to roll out a nationwide network in the first place.

In summary, the Authority considers that Nkom's changes to the regulation of wholesale NR prices will support the objective of achieving a third nationwide mobile network in Norway, while at the same time ensuring sufficient cost recovery of its network investments (including an appropriate return) for Telenor.

### **Allowing for the possibility of switching to an ex ante margin squeeze test**

Nkom acknowledges that a more invasive form of margin squeeze regulation might be a requirement for the margin squeeze test to be conducted ex ante, before Telenor can introduce a new retail tariff in the market. Nkom considers that a move from an ex post to an ex ante remedy could be considered an option in the future, consistent with its ability to adapt its remedies on the basis of the existing market analysis if the obligations imposed do not address the competition problems identified.

In relation to this possibility, the Authority notes that in the past Telenor has failed most of the margin squeeze tests conducted by Nkom (e.g. all tests conducted in 2017 and 2018, according to Nkom's market analysis). That said, Nkom indicates that in the last round of margin squeeze testing in November 2019, it found positive results for both MVNOs and SPs, which could point to a change of behaviour by Telenor.

The Authority considers that Telenor's failure to meet the margin squeeze test seriously risks undermining the effectiveness of the regulation imposed by Nkom. This is because mobile markets can be characterised by relatively frequent retail price changes. In this context, a regulatory framework that detects a margin squeeze only ex post with a six-month time lag may be ineffective. For this reason, the Authority invites Nkom to include in its final measure the possibility of moving to an ex ante margin squeeze test in the event of Telenor failing the test on two consecutive occasions.

### **Implementation of the margin squeeze test in a forward-looking context**

In its present notification, Nkom concludes that bundled mobile services and dedicated mobile broadband services are in separate retail markets (with both markets segmented further by residential and business customers respectively). However, when conducting its margin squeeze test for MVNOs, Nkom tests the margins of bundled mobile services and dedicated mobile broadband services together.

The Authority considers that the margin squeeze test should be conducted consistently with Nkom's definition of the relevant retail markets. The purpose of defining the relevant market is to identify and define the boundaries of competition between firms.

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<sup>28</sup> It should be noted that these benchmarks relate to international roaming services, which involve additional network elements and services than domestic NR and MVNO access. This means that one would expect international roaming services to involve higher costs than domestic NR and MVNO access. For this reason, the benchmarks provided above are likely to overestimate rather than underestimate the costs associated with domestic NR and MVNO access.

Additionally, the objective of the margin squeeze test is to avoid exclusion of competitors from that relevant market. Consequently, the level of aggregation should correspond to the relevant markets defined by Nkom in accordance with competition law principles.

However, the Authority recognises that Nkom has concluded, in accordance with the forward-looking nature of the market analysis exercise, that there is an increasing degree of substitution from dedicated mobile broadband to bundled mobile subscriptions. This could suggest that the boundaries of the retail markets for dedicated mobile broadband and bundled mobile subscriptions could become more blurred over the forthcoming regulatory period. Furthermore, the Authority also understands Nkom's argument that distinguishing retail costs associated with each of these separate retail products would be complex in practice and that the additional work involved may not be justified, given their boundaries are becoming increasingly blurred.

The Authority therefore accepts Nkom's approach in light of the specific context of the present notification. If, however, the markets do not converge as anticipated over the coming regulatory period, the Authority invites Nkom to revisit the design of its margin squeeze test in accordance with the boundaries of the relevant retail markets as defined in the present notification.

#### **IV. FINAL REMARKS**

On a procedural note, the Authority recalls that any future amendments to, or more detailed implementation of, the draft remedies consulted on in the current notification will require re-notification in accordance with Article 7(3) of the Framework Directive.

Pursuant to Article 7(5) of the Framework Directive, Nkom shall take the utmost account of comments of other regulatory authorities and the Authority. It may adopt the resulting draft measure and, when it does so, shall communicate it to the Authority.

The Authority's position on the current notification is without prejudice to any position the Authority may take in respect of other notified draft measures.

Pursuant to Point 15 of the Procedural Recommendation,<sup>29</sup> the Authority will publish this document on its eCOM Online Notification Registry. The Authority does not consider the information contained herein to be confidential. You are invited to inform the Authority within three working days<sup>30</sup> following receipt of this letter if you consider, in accordance with EEA and national rules on confidentiality, that this letter contains confidential information which you wish to have deleted prior to publication. You should give reasons for any such request.

Yours sincerely,

Gunnar Thor Petursson  
Director

Emily O'Reilly  
Deputy Director for Competition

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<sup>29</sup> EFTA Surveillance Authority Recommendation of 2 December 2009 on notifications, time limits and consultations provided for in Article 7 of the Framework Directive, OJ C 302, 13.10.2011, p. 12, and available on the Authority's website at [here](#) ("the Procedural Recommendation").

<sup>30</sup> The request should be submitted through the eCOM Registry, marked for the attention of the eCOM Task Force.

Internal Market Affairs Directorate

Competition and State Aid Directorate

*This document has been electronically authenticated by Emily O'Reilly, Gunnar Thor Petursson.*