ESA | EFTA Surveillance Authority

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Norwegian Communications Authority
Postboks 93
4791 Lillesand
Norway

For the attention of:
Mr John-Eivind Velure
Acting Director General

Dear Mr Velure,

Subject: NOR – Market 15/2004 – Access and call origination on public mobile telephone networks (market review)

Comments pursuant to Article 7(3) of Directive 2002/21/EC (Framework Directive)[1]

I. PROCEDURE

On 1 March 2024, the EFTA Surveillance Authority ("**ESA**") 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 market analysis and remedies for the market for access and call origination on public mobile telephone networks (Market 15/2004)[2] in Norway.

The notification became effective on the same day.

[1] 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"). On 24 September 2021, the EEA Joint Committee adopted Decision ("JCD") No 275/2021 incorporating Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (Recast), as corrected by OJ L 334, 27.12.2019, p. 164 and OJ L 419, 11.12.2020, p. 36 ("the Code"), into the EEA Agreement. The Code will repeal, *inter alia*, the Framework Directive. However, until JCD No 275/2021 enters into force, the Framework Directive remains applicable.

[2] 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 Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services, as incorporated into the Agreement on the Economic European Area (No 194/04/COL) ("the 2004 Recommendation").

Nkom carried out two national consultations pursuant to Article 6 of the Framework Directive. A first consultation on Nkom's initial draft market analysis ran from 22 March to 14 May 2023. A second consultation on an updated version of Nkom's draft decision (including the proposed remedies) ran from 28 September to 10 November 2023.

ESA had regular prenotification exchanges with Nkom, including sending some clarifying questions. During the notification period, on 12 March 2024, ESA sent a request for information to Nkom (Doc. No. 1442972) and received a reply on 15 March 2024 (Doc. Nos. 1444013, 1444015, 1444017 and 1444019). On that same day, ESA sent an additional request for information (Doc. No.1443860) and received a reply from Nkom on 20 March 2024 (Doc. No. 1445066). On that day, Nkom also answered an additional clarification question sent by ESA by email on 19 March 2024.

The period for consultation with ESA and the national regulatory authorities ("NRAs") in the EEA States pursuant to Article 7 of the Framework Directive expires on 2 April 2024.

Pursuant to Article 7(3) of the Framework Directive, ESA 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 notified the previous (fourth) market review for market 15/2004 in 2020[3].

At that time, Nkom derived the definition of the relevant (wholesale) market from the underlying retail markets, i.e. (i) the market for bundled mobile services for residential customers, and (i) the market for bundled mobile services for business customers. Nkom also found the markets for dedicated mobile broadband ("**MBB**") subscriptions for, respectively, residential customers and business customers, to be closely related adjacent markets.

On that basis, Nkom defined the wholesale market as comprising access on all mobile network technologies (GSM, UMTS and LTE networks, as well as via 5G when available), and origination of voice, text messaging and data services. The market covered wholesale access for the provision of both bundled mobile services and dedicated mobile broadband services.

Nkom distinguished between the following external access types in the wholesale market: national roaming ("**NR**"), mobile virtual network operator ("**MVNO**") and service provider ("**SP**") access. In addition, access delivered internally between the mobile network operators' ("**MNOs**") wholesale and retail divisions ("**self-supply**") was considered as part of the relevant market.

Co-location was included in the relevant wholesale market as a separate form of access. Nkom considered the relevant geographic market to be mainland Norway (excluding Svalbard).

Further, Nkom found that the relevant market was still susceptible to *ex-ante* regulation as it met the three-criteria test set out in point 2 of the 2016 Recommendation[4] for markets not

[3] Notified to and assessed by ESA under Case No 85020.

[4] 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

listed in that Recommendation. Nkom considered that: (i) high and non-transitory structural or regulatory entry barriers existed in the relevant market; (ii) the market structure was not tending towards effective competition within the relevant period; and (iii) competition law alone was not sufficient to address the market failure(s) identified.

Nkom designated Telenor ASA ("**Telenor**") as having significant market power ("**SMP**") on the relevant market, and imposed on Telenor the following obligations:

1. Access (NR, MVNO and SP access, as well as co-location);
2. Transparency through the requirement to publish a reference offer;
3. Non-discrimination, neither between different external operations nor between own operations and external operations;
4. Accounting separation (for NR and MVNO access); and
5. Price and accounting control for all forms of access, in particular margin squeeze tests for NR, MVNO and SP access and cost-oriented prices for co-location.

ESA made the following comments:

a. It emphasised the need to monitor market dynamics closely over the forthcoming regulatory period, notably the development of the third MNO Ice as a more credible competitive constraint and the behaviour of Telenor and Telia vis-à-vis Ice.
b. It supported traffic-dependent linear pricing with no geographic differentiation for national roaming.
c. It invited Nkom to allow for switching to an *ex-ante* margin squeeze test in the event of Telenor failing the *ex-post* test on two consecutive occasions.
d. It called on Nkom to further reflect on, and where appropriate revisit, the design of a single margin squeeze test despite defining two separate retail markets (for bundles and for dedicated mobile broadband services, respectively).

II.2. Overview of the mobile telecom industry in Norway

Three MNOs are currently active in Norway: Telenor, Telia and Ice. The latter is the most recent entrant in the market, and it was recently acquired by the telecom and energy company Lyse. Telenor's and Telia's networks have virtually 100% national coverage, while Ice's own network has recently reached 96% coverage. For this reason, Ice is the only operator utilizing a NR agreement (with Telia) to reach full coverage.

There are two MVNOs, Com4 and Lycamobile, and one mobile virtual network enabler ("**MVNE**"), Telavox. Com4 has a wholesale agreement with Telia and is a dedicated machine-to-machine ("**M2M**") operator. Lycamobile and Telavox have wholesale agreements with Telenor. As MVNE, Telavox is active at the wholesale level in a dual role, as an access seeker purchasing wholesale access from Telenor, and as a provider of wholesale services to SPs active at the downstream retail level.

The market also features several SPs, despite their number has decreased over time. SPs in Norway are typically active either in the residential or in the business segments. Notably, Fjordkraft, Chilimobil, and Xplora mobile are the largest SPs in the residential segment. Nortel and Unifon (that recently merged) are the largest SPs in the business segment.

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with the Act referred to at point 5cl of Annex XI to the EEA Agreement (Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services); adopted by Decision No 093/16/COL, OJ L 84, 30.3.2017, p. 7 ("2016 Recommendation").

Table 1 gives an overview of MNOs, MVNOs and the number of SPs in Norway, since 2006.

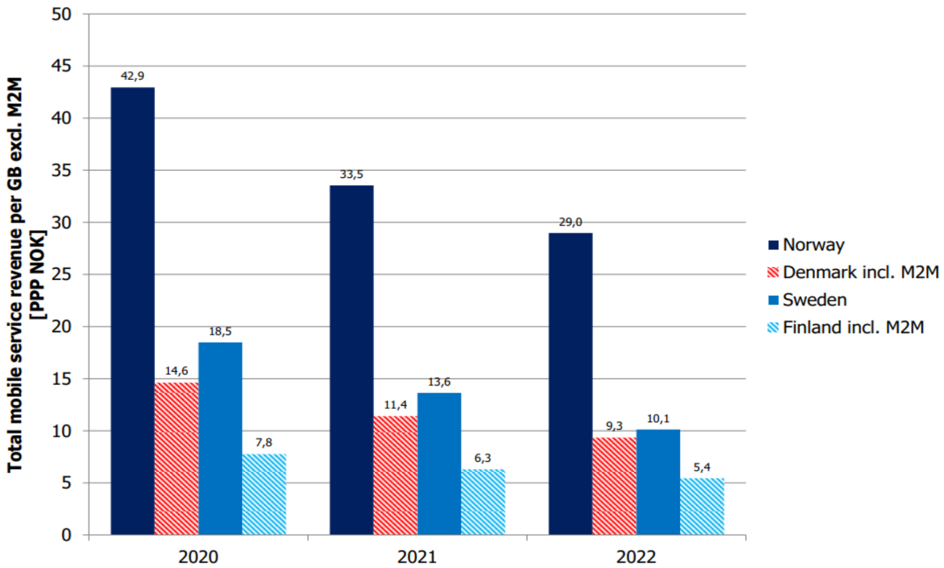
Table 1: Overview of telecom operators in Norway at specific points in time.

	2006	2010	2015	2020	Dec 2023
Network owners	Telenor Telia	Telenor Telia Mobile Norway	Telenor Telia Ice	Telenor Telia Ice	Telenor Telia Lyse/Ice
Providers with national roaming agreements	Teletopia	Network Norway	Ice	Ice	Ice
Providers with MVNO agreements	Tele2 TDC Ventelo	Tele2 TDC Ventelo	Com4 Lycamobile Phonero TDC	Com4 Lycamobile eRate	Com4 Lycamobile Telavox
Independent service providers	Less than 20	Less than 20	15	13	9

Source: Nkom draft Annex 1, Table 2.

In comparison to other Nordic countries (Sweden, Denmark and Finland), Norway features significantly higher prices for mobile traffic at retail level. Figure 1 compares average revenues per GB of mobile data across Nordic countries in the period 2020-2022. Despite a substantial decrease in revenues per GB over the period, Norway's average revenue per GB in 2022 was about three times higher than Denmark's and Sweden's, and about six times higher than Finland's.

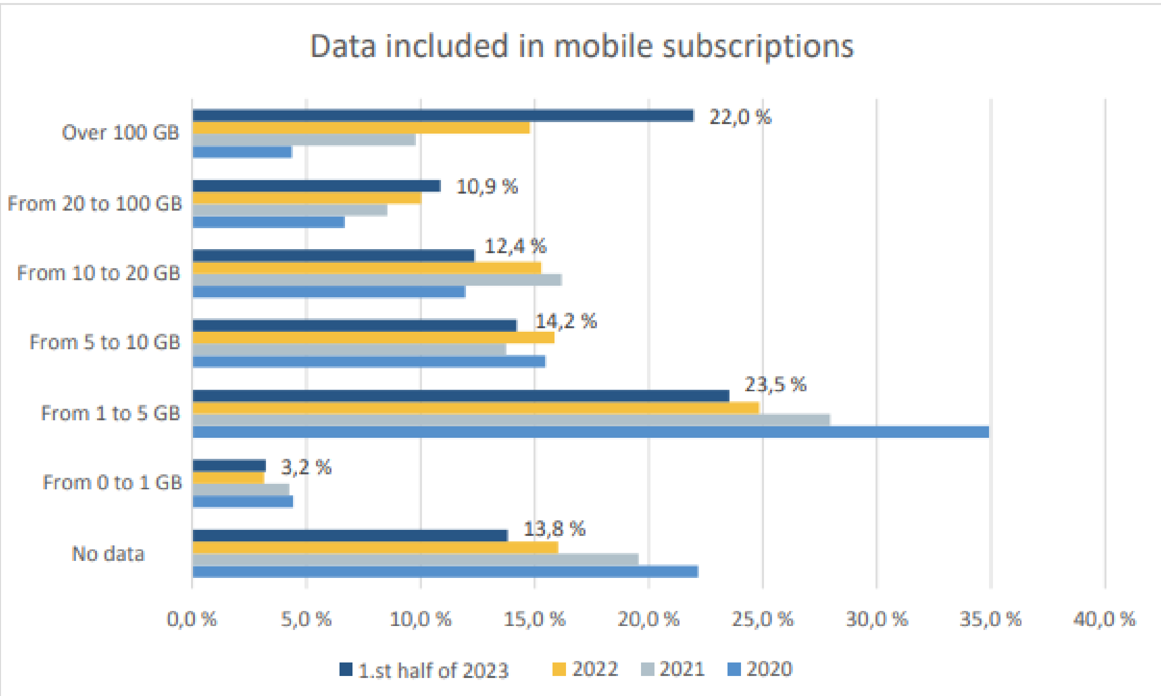
Figure 1: Average revenue per GB of mobile data across the Nordic countries, 2020-2022.



Source: Nkom draft Annex 1, Figure 10, based on "Assessment of Norwegian Mobile Revenues in a Nordic context 2023", Tefficient.

Usage in Norway is also evolving rapidly. As shown in Figure 2, the period 2020-2023H1 witnessed a surge in mobile subscriptions with data allowance above 100GB. This came primarily at the expense of mobile subscriptions with more limited data allowances of 1GB to 5GB or no data allowance at all.

Figure 2: Percentage of mobile subscriptions by amount of data allowance included in the subscription, 2020-2023H1, Norway.



Source: Nkom draft Annex 1, Figure 11.

II.3. Market definition

Background

Market definition is the exercise of delineating the boundaries of where competition takes place in a meaningful way. Typically, this exercise refers to products (i.e. product market definition), defining the set of products that compete with each other, and geographies (i.e. geographic market definition), defining the areas or geography where the conditions of competition are sufficiently homogeneous.

The concept of substitutability is key for market definition. The extent by which two products or geographies can be substituted with each other is a meaningful proxy of the extent of competitive pressure that the two products or geographies exert on each other. One can distinguish between demand-side substitutability, measuring to what extent customers or final consumers consider two products or geographies interchangeable, and supply-side substitutability, measuring to what extent firms can redirect their production to other products or geographies in a timely manner (thereby 'substituting' their production capabilities).

The framework or thought experiment generally followed for defining relevant markets is the Hypothetical Monopolist Test ("**HMT**"), also known as the **SSNIP** test (Small but Significant Non-transitory Increase in Prices). In essence, the test asks whether a hypothetical monopolist of a given set of products or over a certain area, would find it profitable to permanently increase its prices by a small but sizeable amount (typically, 5-10%).

If the answer is yes, then that set of products or area is the relevant market. If the answer is no, then it must be that other products or areas outside of those considered are exerting a competitive pressure, such that the relevant market is wider. This means that either customers switch away from the hypothetical monopolist products (i.e. demand-side substitutability) or other companies in neighbouring markets observe profit opportunities and timely switch their production to compete more fiercely with the hypothetical monopolist (i.e. supply-side substitutability). Both cases would make the desired price increase by the hypothetical monopolist unprofitable.

Application to the present case

Nkom follows a two-step approach to define the relevant market for access and call origination on public mobile telephone networks. First, it defines the market at the downstream (retail) level, i.e. the provision of services to end users. Second, it defines the derived wholesale market, which is the market subject to regulation, where MNOs provide network services to access seekers active at the retail level. Access seekers are either other MNOs or operators without a full network infrastructure. The latter can be distinguished between MVNOs, with a core network but without a radio access network ("**RAN**"), and SPs, without any network infrastructure.

<u>At the retail level</u>, Nkom first observes that products offered in the relevant market are bundled products, consisting of varying amounts of voice calls, SMS and data, which are sold at a given price. Access to the mobile network enables the use of all these services. Therefore, these bundles, commonly termed **subscriptions**, are considered as the core products in the retail market.

Nkom then examines in turn whether certain subscriptions' segmentations could be considered separate relevant markets, and whether adjacent products exert a sufficient competitive pressure to belong to the same relevant market. Notably:

- *Prepaid vs Postpaid subscriptions*: Nkom finds that there is sufficient demand-side substitutability between prepaid and postpaid subscriptions to consider them belonging to the same market. Moreover, fewer and fewer providers offer prepaid subscriptions, and the segment currently accounts for only 8% of the total number of subscriptions.

- *Business vs Residential segments*: Nkom finds that business and residential segments, i.e. subscriptions tailored for business customers or for residential customers, belong to two different markets. Nkom argues that there is limited demand-side substitutability because business customers are typically more demanding, and there is limited supply-side substitutability because business customers are more complex to serve. Most of MVNOs and SPs in Norway target only one of the two segments.

  Importantly, Nkom finds that the business market is a differentiated market, and the degree of competition differs based on the size of the customers, with only the larger players (i.e. the MNOs) able to compete for the larger customers.

- *Mobile broadband (MBB)*: Nkom examines MBB subscriptions, i.e. subscriptions including only data and that typically require to be installed in a router, in two ways. First, Nkom investigates whether MBB are substitutes for the bundled core products. Second, Nkom investigates whether MBB should be defined as a stand-alone market and whether it should be subject to wholesale regulation, as it was in the previous market review decision of 2020 (see fn. 3).

  On the first question, Nkom finds that there is not enough demand-side substitutability between bundled mobile subscriptions and MBB subscriptions, such that MBB should not be included in the relevant market. MBB only caters for one type of product within the bundle, i.e. data, and it often requires a different device, a router, to work. Also, MBB subscriptions are declining rapidly, suggesting that customers are not migrating to this type of service.

  On the second question, Nkom finds that both bundled mobile subscriptions and, to some extent, fixed broadband have a disciplining effect (meaning they exert a competitive constraint) on MBB subscriptions. Nkom concludes that there is no need to carry out a full market analysis for MBB subscriptions because of two reasons. First, because MBB subscriptions represent a small fraction of all mobile subscriptions. Second, because a preliminary assessment of market development shows market shares distributed fairly equally among the three MNOs.

- *Different technologies*: Nkom assessed whether a distinction should be established between different mobile connection technologies, such as between 2G, 3G, 4G and 5G. Nkom concludes that this should not be the case, as the regulation is meant to be technology neutral[5].

[5] Nkom also assessed whether the retail market (i) included M2M and internet of things ("**IoT**"), concluding that it does not as these services are not purchased by end users; (ii) included OTT services, concluding that it does not, notably because such services would still require a mobile connection in most cases and as a rule these services can only be used for calls and messages between users of the same service; (iii) also included broadband via fixed wireless access ("**FWA**"), concluding that it does not as FWA is not mobile and is indeed included in the fixed broadband market; (iv) included also fixed landline services, concluding that it does not as the service is not mobile and does not include all the bundled services; (v) included international roaming services, concluding that they are complementary services already included in the bundle, and are therefore part of the relevant retail market (but are not included in the relevant wholesale market as those services are regulated at EU/EEA level and not at national level).

To summarise, Nkom splits the retail market into the business retail market and the residential retail market. The markets include bundled mobile subscriptions, include both prepaid and postpaid subscriptions, and are technology neutral. After having defined the product downstream, Nkom moves to the derived wholesale market upstream.

At the wholesale level, Nkom identifies three relevant types of access services to mobile networks irrespective of the underlying technology: (i) NR access, (ii) MVNO access, and (iii) SP access.

On the demand-side, these three types of accesses represent a ladder of investments in mobile network infrastructure, from limited investments in case of SPs, to more substantial investments in case of NR. The degree of substitutability is therefore one-directional. Nkom finds that there is supply-side substitutability between the three types of access services, which it considers enough to group the three services in the same relevant market. Further, self-supply is included due to supply-side substitutability, i.e. MNOs could easily switch resources from self-supply to supplying third parties in the wholesale market, if the market conditions changed in such a way that this decision made business sense.

Nkom identifies **co-location** as a different form of access within the wholesale market. Nkom considers that access to co-location is key for achieving sustainable infrastructure competition, as well as contributing to decreasing the environmental footprint of mobile networks. Co-location is also important for the development of the third mobile network with national coverage.

Finally, for the geographic market definition, Nkom concludes that the relevant market is national in scope due to the national coverage of the MNOs. Specifically, Nkom considers mainland Norway, with the Svalbard being exempted based on the national regulation.

In conclusion, Nkom defines a nationwide technology-neutral market for wholesale access and origination on mobile telephone networks including NR, MVNO and SP access, as well as co-location, used for the provision of bundled mobile services to residential and business customers (hereafter "**the relevant wholesale market**").

II.4. Assessment of the three-criteria test

Background
Market 15/2004 is not listed among the markets susceptible to *ex-ante* regulation according to the 2016 Recommendation[6]. To impose *ex-ante* regulation on markets not covered by the Recommendation, NRAs need to carry out the three-criteria test mentioned in section II.1 above. That is, the NRA needs to assess whether the market under review meets three cumulative criteria:

1. High and non-transitory structural or regulatory entry barriers exist in the relevant market.

2. The market structure is not tending towards effective competition within the relevant period.

3. General competition law alone is not sufficient to remedy the identified market failure(s).

Application to the present case

[6] See fn. 4.

Nkom assesses the three-criteria test on Market 15/2004 in Norway and concludes that all three criteria are met.

On the first criterion, i.e. the presence of entry barriers in the market, Nkom considers that there are high and non-transitory entry barriers in the relevant wholesale market, both structural and regulatory in nature. Therefore, Nkom concludes that the first criterion is met.

The structural barriers identified by Nkom are (i) building an infrastructure that is not easily replicable, (ii) economies of scale and scope, and (iii) access to financial resources. The regulatory barrier is the access to and award of spectrum frequency.

Nkom observes that building a mobile network, including both core network and RAN, is an extremely challenging and financially intensive endeavour. It represents the main structural barrier to a greenfield entry in the market. Not only the initial roll-out is very capital intensive, but also the upkeep of the network and the recurrent necessary technological upgrades are very costly.

Establishing base stations may prove difficult in certain areas where other operators have already acquired the best positions. There is a first-mover advantage in rolling out a network with national coverage, as the operator can design more freely its network's footprint. In Norway, Telenor had the first-mover advantage in rolling out the network. Nkom stresses the importance of co-location to alleviate this advantage and allow also the third operator, Ice, to deploy its own network and compete on an equal footing.

The other two structural barriers to entry identified by Nkom, i.e. economies of scale and scope and access to financial resources, are related to the first one and are to some degree its corollaries. Nkom observes that the mobile telecoms industry is characterised by high fixed costs and low variable costs for MNOs, especially due to the investments required for the network. Consequently, there are economies of scale and scope required to be competitive.

As the industry is very capital intensive, access to significant financial resources is required. Nkom observes that a greenfield entry nowadays would likely entail a significantly higher risk compared to other forms of investment. Investors would either focus on other industries or demand a higher return from the entry. Access to financial resources is therefore more limited.

Lastly, Nkom considers access to spectrum frequencies to constitute a high regulatory barrier. Spectrum is necessary to operate a mobile network, but it is a finite resource. Licences for spectrum frequencies are granted by the state, typically following auctions. The licences have relatively long durations, which means that they are generally not available, and may become available only after several years. Licence fees can also be very expensive, further reinforcing the structural barriers explained above.

On the second criterion, i.e. the market tending towards competition within the relevant period, Nkom finds that there are indications that the competitive conditions in the market are improving. These indicators are however still insufficient to enable considering that the market is characterised by effective competition, within the relevant period of analysis. Nkom reaches this conclusion based on the following elements.

First, Nkom observes that the retail market is still very concentrated. The retail market shares of Telenor based on revenues (see Table 2 below) are above 50% and have been at a similar level for many years. While Ice has increased its market position, this trend has been slow and their market shares are projected to stay at similar levels over the next few years.

Telenor's retail market shares based on number of *subscriptions* are somewhat lower , but it still holds a market share above 40%[7]. However, Telenor's retail market shares, and especially those based on subscriptions, have been declining over time.

Table 2: Retail market shares based on revenues at specific points in time. Residential and business combined.

	First half of 2005	2009	2015	2019	First half of 2023
Telenor	56%	55%	59%	57%	53%
Telia	27%	27%	33%	33%	32%
Tele2	5%	16%	-	-	-
Ice	-	-	1%	6%	9%
Other	12%	5%	7%	4%	6%

Source: Draft Decision, Table 6.

The same conclusions are reached by examining the *wholesale* market shares based on subscriptions, including self-supply (see Table 3 below). Until 2022, Telenor held a market share above 50%, which decreased to 47.7% in the first half of 2023.

Importantly, Ice is currently not present at the wholesale level, and it features in the table below solely with its wholesale market share of self-supply (i.e. its retail market share). Wholesale market shares based solely on externa sales (i.e. wholesale sales to access seekers) show that Telenor holds a 57% market share in the first half of 2023[8].

Table 3: Wholesale market shares based on subscriptions over time, 2019-2023H1. Residential and business combined.

Subscriptions	2019	2020	2021	2022	First half of 2023
Telenor	51.30%	51.60%	51.10%	50.40%	47.70%
Telia	38.80%	37.50%	37.20%	37.10%	38.70%
Ice	9.90%	11.00%	11.70%	12.60%	13.60%

Source: Draft Decision, Table 8.

Second, Nkom observes that, based on publicly available information, both Telenor and Telia display healthy EBITDA margins of around 45% in 2022 and increasing over time. Hence, both operators show solid profitability. Positive and high margins may indicate a degree of market power.

Third, Nkom observes that several of Telia's current wholesale agreements are positively affected by the regulation with Telenor.

[7] See Table 5, Annex 1 to Nkom's draft decision.
[8] See Table 10, Annex 1 of Nkom's draft decision.

Fourth, Nkom stresses the importance for the Norwegian market of the development of the third mobile network, Ice's. Ice's mobile network currently has a population coverage of 96% and relies on a NR agreement with Telia to reach full national coverage. This agreement is key for Ice's commercial operations while it continues the roll-out of its network, and its conditions have also been affected by the regulation imposed on Telenor.

[redacted]

Fifth, Nkom remarks that there are no indications of potential competition from other market players other than Ice.

<u>On the third criterion</u>, i.e. whether competition law alone is sufficient to remedy the competition problems identified, Nkom considers that it is not met.

In essence, Nkom argues that the main competition problem identified by the market analysis is the potential denial of access at the wholesale level via, for example, a margin squeeze. Nkom's is of the view that *ex-ante* regulation is better suited to remedy this type of competition problems than the *ex-post* application of competition law, primarily due to the importance of timely intervention. Nkom stresses that a late *ex-post* intervention of competition law may not be able to avoid irreversible damage to the market, which is instead prevented through an *ex-ante* intervention.

Besides, *ex-ante* regulation is able to address issues in adjacent markets which are pivotal to the development of healthy competition in the market, such as co-location. Nkom considers that clear predefined requirements for co-location are more appropriate than an *ex-post* intervention.

II.5. Finding of significant market power

Background
The concept of significant market power is equivalent to the concept of dominance commonly used in competition law. They are used to indicate a provider that has such a high degree of market power to be able to operate in the market to an appreciable extent independently of competitors, customers and consumers.

Typically, market shares above 40% provide a first indication of significant market power, and market shares above 60%-70% provide a presumption of significant market power. However, the assessment is a balancing exercise and countervailing factors need to be taken into account. Notably, countervailing buyer power and the ability of customers to switch providers.

The assessment needs also to be forward-looking, meaning that it should be expected that the finding of significant market power would not change in the foreseeable future.

Application to the present case
Nkom finds that Telenor holds significant market power in the relevant wholesale market. Nkom bases its conclusion on the following elements.

First, Nkom assesses the market shares in the retail markets, residential and business, and in the wholesale market. Nkom's assessment is in line with and follows similar steps as the assessment of the second criterion in the three-criteria test described above. Nkom finds that Telenor holds high retail market shares, especially those based on revenues, which are even higher for the business market (Table 4). Telenor also holds high wholesale market shares, as already described in section II.4 (see Table 3 above).

Table 4: Retail market shares based on subscriptions and revenues, for the residential and business markets, 2023H1.

		Telenor	Telia	Ice	Other
Residential	**Subscriptions**	38.90%	33.50%	17.50%	10.10%
	Revenue	50.30%	32.70%	11.80%	5.20%
Business	**Subscriptions**	52.30%	36.30%	3.50%	7.90%
	Revenue	58.40%	30.30%	3.90%	7.40%

Source: Draft Decision, Table 7.

Second, Nkom assesses the profitability of Telenor, and as in the assessment of the second criterion of the three-criteria test, it finds that Telenor enjoys healthy margins and a solid profitability. As explained above, high margins suggest the presence of market power.

Third, Nkom examines the operators' access to sales channels, and Telenor has the widest network of sales channels, both at retail level and for businesses.

Fourth, Nkom assesses the presence of barriers to switching in the retail residential market, in the retail business market and in the wholesale market. Overall, Nkom finds that due to the presence of barriers to switching Telenor will be able to maintain its strong position going forward.

In the retail residential market, Nkom does not find sizeable barriers to switching for end-customers, with lock-in periods for new contracts of at most 12 months. However, it notes that switching provider is not that common in Norway. Only 30% of customers switched provider in the past two years, and there are indications that among Telenor's customers this percentage would be even lower. Nkom associates this behaviour to Telenor's better network coverage, and to the customers' perception of Telenor as having the best network overall.

In the retail business market, Nkom finds that the perception of Telenor as the best network is even stronger. Most business customers consider it unlikely that they would switch away from Telenor in the next two years. Nkom also finds that there are longer lock-in periods for new contracts and a lower propensity to switch by business customers, due to the more varied bundle of services purchased.

In the wholesale market, Nkom finds that coverage is the most important factor for wholesale customers, and Telenor is again perceived as having the best network coverage. Nkom also notes that due to different technical profiles of network operators, switching could become more expensive for wholesale customers.

Fifth, Nkom notes that the fact that Telenor owns the nationwide transmission capacity network in fibre optics provides an additional advantage to Telenor's offering relative to the competitors. Nkom finds that Telia and Ice will continue to depend on the access to Telenor's fibre network at many locations. Moreover, the ownership of the transmission capacity network provides Telenor with the opportunity to expand and densify its network, which the other operators would not have in the absence of ex-ante of regulation.

Sixth, Nkom investigated the presence of countervailing buyer power from wholesale customers and found no indication that Telenor's behaviour could be disciplined by such buyer power.

II.6. Regulatory remedies

Based on the market analysis described above, Nkom first sets out the competition problems arising from Telenor's significant market power, and then describes the regulatory remedies it envisages imposing on Telenor to address the competition problems.

Competition problems
The main competition problem identified by Nkom is one of vertical leveraging. Telenor is active both upstream at the wholesale level and downstream at the retail level. The significant market power enjoyed by Telenor gives it the ability and incentive to set unfavourable conditions to third-party customers at the wholesale level to the advantage of Telenor's own retail operations.

Nkom describes three strategies that, as a vertically integrated operator, Telenor could pursue to leverage its significant market power position anticompetitively: (i) refusal to supply, (ii) leveraging by means of pricing, (iii) leveraging by means of non-price factors.

<u>Refusal to supply</u>. Telenor could simply refuse to provide wholesale access to third parties, lowering the competitive pressure on its retail operations and thereby increasing its retail profits. Nkom also notes that a similar strategy could be applied for access to co-location.

<u>Leveraging by means of pricing</u>. Telenor could engage in a margin squeeze against its wholesale customers, charging them high wholesale prices while charging lower retail prices to its own retail customers. The aim of this strategy would be to drive wholesale customers out of the retail market, to the benefit of Telenor's retail operations. Telenor could adopt a similar anticompetitive strategy also for co-location, as it is in a monopolist position in areas where either landowners or municipalities do not allow to build further towers.

<u>Leveraging by means of non-price variables</u>. Nkom lists a number of practices involving non-price elements Telenor could pursue to foreclose or commercially damage its wholesale customers, again to the benefit of its retail operations. These include withholding relevant information from wholesale customers, delaying tactics, undue and overly complex requirements and quality discrimination.

Obligations imposed on Telenor
At the outset, Nkom stresses that the main goal of the proposed regulation is to promote infrastructure competition. Nkom sees the development of the third network in Norway as a key objective for the development of the market in Norway. However, the obligations should be proportionate to the objective and to the potential harm deriving from the competition problem to be addressed.

Nkom imposes the following obligations on Telenor, which are examined in turn below:

1. Access,
2. Transparency,
3. Non-discrimination,
4. Accounting separation, and
5. Price and accounting controls,
    a. for MVNO and SP access
    b. for co-location.

Access obligations. Nkom identifies four types of access obligations necessary for the proper functioning of Market 15/2004: (i) NR access, (ii) MVNO access, (iii) SP access, and (iv) co-location access.

Across the different types of access obligations, Nkom acknowledges that they entail trade-offs for the access seekers which need to be properly taken into account in the design of the obligations. The obligations should not be such as to discourage own investments by access seekers. For example, national roaming should not discourage the roll-out and development of own RAN, or SP access should not discourage the development of an own infrastructure.

National roaming is particularly important for the third MNO, Ice. Even though Ice's national roaming agreement is with Telia, the obligation on Telenor is instrumental to providing an alternative to Ice, thereby improving its bargaining position. [redacted] However, Nkom also points out that, in the context of balancing investment incentives, it should be considered that this type of access regulation is not expected to continue beyond the time horizon of the present analysis.

Nkom also emphasises the importance of co-location access as an enabler of infrastructure competition by reducing entry barriers and competitive disadvantages. Based on this access obligation, Telenor must accept 'reasonable requests' for access, which Nkom defines in some details. Nkom will oversee the implementation.

Transparency obligations. Nkom considers that the only type of transparency obligations needed in this case is the publication of the reference offer for each type of access obligations listed above. The reference offers should be published on Telenor's website but should not include price information to avoid the risk of tacit collusion. Price information is only disclosed to the individual access seeker following an access request. The reference offer for co-location should include price information, as the risk for tacit collusion is significantly lower. Telenor should inform access seekers of any major change in the reference offers.

Non-discrimination obligations. Nkom imposes on Telenor non-discrimination obligations between its internal and external offerings. This means that Telenor cannot provide its retail arm better terms at the wholesale level than what it provides to third-party access seekers.

However, and in contrast to the previous and currently applicable regulation of 2020, Nkom proposes to no longer impose external to external non-discrimination obligations. This means that Telenor can differentiate its offers between access seekers and negotiate individual agreements deviating from the reference offer, provided that the differences compared to the reference offers are clearly stated and the access seeker agrees to the conditions. The access seeker thus retains the option to choose the reference offer but cannot object to a departure from the conditions of the reference offer or claim discriminatory treatment once it has concluded an individual agreement with Telenor.

Nkom considers that there is demand for flexibility in Telenor's offerings that was previously impeded by the strict application of non-discrimination obligations and of the reference offer requirement. Telenor should be able to tailor its offers at the access seekers' request to better match the access seekers' needs.

Accounting separation. Telenor should keep separate accounts for its wholesale operations and for its retail operations. In addition, Telenor should create ad-hoc accounts of its retail operations in the hypothetical scenarios *as if* it was purchasing (i) NR access and (ii) MVNO access from its own wholesale division.

Accounting separation is an ancillary obligation to the non-discrimination obligations and to the price and accounting control obligations described below. In essence, it is used to test the non-discrimination obligation between internal and external offerings, and to provide the relevant inputs to conduct the margin squeeze test for price control.

Nkom considers that there is no need to keep separate accounts assuming SP access by Telenor's retail unit as hypothetical scenario. This is because Telenor's and SPs' retail product ranges, volumes and tariffs differ to such an extent that the comparison via account separation would not be accurate.

Price and accounting controls for MVNO and SP access. Nkom identifies the need to impose price controls for MVNO and SP access. For national roaming, Nkom considers there is no need to impose price controls, because Ice, the only buyer of national roaming in the country, has already a developed mobile network.

Given the competition problems identified above, Nkom considers it appropriate to use as price control tool only an *ex-post* margin squeeze test, to prevent Telenor from adopting margin squeeze strategies.

Specifically, Nkom uses the 'adjusted EEO' (equally efficient operator) efficiency standard for the margin squeeze test. This means that Nkom uses Telenor's data (and other data sources) to approximate the costs of an access seeker, but adjusts some elements (such as the size of the operator and the unit costs) to reflect a smaller scaled operator more accurately. Nkom used this efficiency standard also in its previous decisions in 2020 and 2016.

Nkom defines Telenor's representative products to be included in the margin squeeze analysis as those products that cumulatively account for 70% of its subscriptions base. Products that account for at least 10% of Telenor's subscriptions on a standalone basis are also included among the representative products[9].

Nkom differentiates the margin squeeze test between MVNO access and SP access in two ways.

First, it uses different margins:

- SP access is tested based on **gross margins**, defined as the revenues from end-user operations, including termination revenues for the end users, less access costs and termination costs;

- MVNO access is tested based on **full margins**, which adds to the gross margins the costs of the retail business. These costs are estimated based on an extrapolation of Chilimobil's fixed costs of operation, and on Telenor's data for the variable incremental costs.

The primary reason to differentiate the margins, and therefore the margin squeeze tests, between the forms of access is the different level of investment (SPs and MVNOs are at different levels on the "ladder of investments" and have different requirements in terms of

[9] Nkom also considers other criteria when deciding the representative products, like whether the product is sold, whether it is offered at a campaign price and whether access buyers have equivalent products that compete directly with Telenor's product.

access by the different types of access seekers). In addition, SPs tend to target more limited parts of the residential or business market, while MVNOs normally are targeted towards the overall residential or business market.

Second, it carries out the margin squeeze test at different levels of aggregation of Telenor's retail products.

- The SP access margin squeeze test is carried out on a **product-by-product basis**. This means that test is performed for each of Telenor's representative products.

- The MVNO access margin squeeze test, instead, is carried out at the **"market" level**. This means that the test will be performed on the aggregation (i.e. the weighted average) of Telenor's representative products in the residential and business markets, respectively.

Nkom further notes that in the past Telenor offered access at more favourable conditions to SPs compared to MVNOs. Nkom is concerned that this behaviour might negatively affect the investment incentives. Therefore, Nkom requires Telenor not to set access prices to MVNOs at less attractive terms than to SPs.

For both MVNO and SP accesses, the efficient operator is assumed to have a market share of 3%, and the margin squeeze test is performed on a sample of Telenor's tariffs cumulatively covering at least 70% of its subscriptions. The test is carried out for the residential and business markets, separately.

For SP access, an additional adjustment is required for the margin squeeze test in the business market. A sizeable share of Telenor's offers in the business market [redacted] is composed of bilaterally negotiated tariffs, which were aggregated as one product in previous reporting under "Bedrift Total". During this regulatory period, Telenor needs to segment its offerings in "Bedrift Total" into 7 'sub-products' based on the size of the underlying customers (defined by the categorisation of businesses in Norway by Statistics Norway and information from Telenor). The margin squeeze test based on gross margins will be performed on each subproduct separately, as well as on each of the remaining business tariff plans in Telenor's representative products.

Nkom will carry out the margin squeeze test on a regular basis, at least twice a year, with the possibility to request ad-hoc verifications from Telenor. In case Telenor fails the margin squeeze test, Telenor should not increase its retail prices in order to pass the test, but it should rather decrease its wholesale prices. Furthermore, access seekers that have been overcharged should be refunded.

As a corollary of the non-discrimination obligations, Nkom mandates that Telenor's price structure at wholesale level included in the reference offer be fully variable and based on the access seekers' consumption of Telenor's network. This effectively prevents Telenor from charging a fixed fee to gain access to its network, apart from the initial fee to establish the connection. This provision does not prevent Telenor and access seekers from bilaterally negotiating different price structures to adapt Telenor's offers to the customer's needs.

Price and accounting controls for co-location. Nkom identifies the need to impose on Telenor price control also for co-location. This is considered pivotal for the development of infrastructure competition on Market 15/2004 in Norway, as Telenor is a monopolist of key tower positions in certain areas.

However, the notified draft measure provides for the possibility to phase in a condition of reciprocity for co-location. This is because, as substantiated by Telenor's comments in the national consultation, there is a significant asymmetry in co-location prices, with Telia and Ice charging much higher prices than the regulated prices of Telenor.

Nkom sees the risk of price hikes upon future withdrawal of *ex-ante* regulation, and therefore finds it appropriate to introduce a principle of reciprocity in co-location pricing, such that Telenor would be allowed to charge up to the level charged by its competitors for co-location in certain circumstances.

In Nkom's view, this should lead to a decrease in co-location prices in Norway, as it would give incentives to Telia and Ice to charge a lower price. This is because both Telia and Ice have an imbalance in co-location in favour of Telenor, meaning that the number of sites in Telenor's network where they have a co-location agreement is significantly higher than the number of sites in their own network where Telenor has a co-location agreement.

The specifics of this mechanism and its implementation, however, require further work. Nkom instructed Telenor to prepare a proposal for a detailed system according to the principles set out above. Nkom will therefore continue to work on the details of reciprocal pricing and assess the appropriateness of this measure. Should Nkom pursue the proposal to introduce reciprocal pricing or any other changes to the remedies, it will run an ad-hoc national consultation and submit a notification to ESA.

II.7. Conclusions

Overall, Nkom considers that the obligations on Telenor described above are proportional, as they are necessary to address the competition problems identified, and there are no less intrusive and burdensome measures achieving the same objective.

Nkom considers that the remedies are in line with the high-level objectives of the regulatory framework, that is to promote competition at wholesale and retail levels, and to avoid duplication of infrastructure where possible.

Nkom remarks that the proposed remedies can be changed in a timely manner, should it be necessary given the development of the market.

III. COMMENTS

ESA has examined the notified draft measure and has the following comments:

Need to closely monitor the development of the market with a view to lifting regulation as soon as the appropriate conditions are met

ESA notes that there have been visible improvements in the market's competitive conditions over the past years. Telenor's market shares are still sizeable but have decreased steadily over time. The development of Ice as the third network operator has progressed well since the last market analysis of 2020. The acquisition by Lyse also provided Ice with a more solid financial backing, and possible synergies with Lyse's other businesses (e.g. broadband, energy). Ice is continuing the roll-out of its own network and aims at reaching full coverage over the next few years.

ESA notes that Market 15/2004 has not featured among the markets listed in ESA's Recommendation on Relevant Markets since 2008[10]. Therefore, this is the fourth market review that has required the application of the three-criteria test by Nkom to justify *ex-ante* regulation based on national circumstances. ESA further notes that Norway is among the very few European countries still regulating Market 15/2004.

Against this background, ESA encourages Nkom to closely monitor the development of the market with a view to lifting regulations as soon as the competitive conditions allow it. ESA acknowledges that Nkom has already been cautious in the current draft decision and recognised the need to balance regulatory obligations with investment incentives. ESA also finds it appropriate for Nkom to set a short market review cycle of three years to keep track of fast-paced market developments.

In this respect, ESA invites Nkom to keep ESA informed of how the market situation evolves over this regulatory period, and discuss with ESA any need to amend the regulation where appropriate.

Need to monitor the development of dedicated mobile broadband subscriptions and consider whether it is appropriate to include them in the relevant retail market

In the 2020 market analysis (see section II.1 above), Nkom concluded that dedicated mobile broadband ("**MBB**") subscriptions belonged to a different relevant retail market compared to bundled subscriptions. In the current draft decision, Nkom does not impose regulation of wholesale access for the purpose of providing MBB, while maintaining that it does not belong to the same relevant retail market as the bundled subscriptions. Due to the small size of this segment, Nkom does not consider it appropriate to conduct a full market analysis of MBB.

ESA appreciates Nkom's position, and the fact that MBB subscriptions represent only a small share of total subscriptions. However, the draft decision places MBB subscriptions in a sort of limbo, where it is not clear in which market they belong, and to what extent regulation is not appropriate.

ESA encourages Nkom to monitor the evolution of MBB subscriptions and consider whether it may be more appropriate to include them in the relevant market with the bundled products.

Already in the 2020 market review, Nkom found that end users were increasingly replacing MBB subscriptions with bundled mobile subscriptions, as noted by ESA in its comments letter[11]. ESA notes that since then there has been a significant change in the usage by Norwegian end users, with the surge of bundled subscriptions with large data allowance. As Nkom recognises, bundled mobile subscriptions do exert competitive pressure on MBB subscriptions, and the decreasing trend in MBB subscriptions is likely due to subscribers switching to bundled subscriptions.

This suggests that there is at least a one-way substitutability from MBB subscriptions towards bundled subscriptions. Substitution in the other way, from bundled subscriptions towards mobile broadband, is less clear, and Nkom considers that it is not sufficient to consider MBB as belonging to the same market as mobile subscriptions.

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[10] The market was removed from the list of markets susceptible to *ex-ante* regulation already with EFTA Surveillance Authority Recommendation of 5 November 2008 (Decision No 688/08/COL) on relevant product and service markets within the electronic communications sector susceptible to ex-ante regulation in accordance with the Framework Directive, OJ C 156, 9.7.2009, p.18 ("the 2008 Recommendation").

[11] See ESA Comments letter in Case No 85020.

ESA points to the fact that the data allowances have nowadays become the most important service within bundled subscriptions. As Nkom acknowledges, subscription prices are primarily driven by data allowances. Therefore, there could be use-cases where there is a degree of substitutability from bundled subscriptions towards MBB subscriptions, or at least they are worth exploring.

In any event, even in the absence of two-way substitutability, it could still be more convenient to consider MBB together with bundled subscriptions in order to facilitate the assessment of the competitive dynamics in the market. This conclusion could be based on the finding of one-way substitutability from MBB to bundled mobile subscriptions, on the small and decreasing size of MBB subscriptions, and for reasons of supply side substitutability.

Need to ensure robustness in the quantifications and in the quantitative assessments

Annex 5, section A.2, to Nkom's draft decision details the quantification by Analysis Mason of the "retail fixed costs" to be used in the MVNO margin squeeze test. ESA notes that Analysis Mason conducts three analyses, each reaching a sizeably different result in the quantification of the fixed costs.

In each of those cases, the basic analysis is the same, and it is applied using three different sets of data. The data consist of the retail fixed retail costs of (i) a selection of alternative providers, that is, those which submitted data following a request for information from Nkom, (ii) Chilimobil's publicly available accounts over time, (iii) Unifon's publicly available accounts over time.

The analysis is a simple linear regression of the cross-sectional data (in the case of (i)) or the time series (in (ii) and (iii)). The fixed costs are regressed over the number of subscribers of the mobile operators. ESA understands that no other independent variable is used in the regression. The analysis extrapolates the fixed costs strictly necessary to operate in the market as the value of the intercept of the regression. That is, the value of the fixed costs associated to zero subscriber numbers, estimated as the intersection between the linear fit and the vertical axis.

Ultimately, Analysis Mason considers that the analysis based on Chilimobil's data is the most appropriate, which leads to an estimated fixed costs of NOK 36.8 million. Analysis Mason notes that the same level of fixed costs would be estimated by applying a possible alternative analysis. The latter consists of increasing the fixed costs used in the previous market review of 2020 by the inflation rate of the period. Analysis Mason uses the latter approach to compute the retail fixed costs for the business market.

According to Nkom, the retail fixed costs estimate used in the MVNO margin squeeze test wants to reflect the fixed retail costs of an efficient operator with 3% market share on the relevant retail market. ESA appreciates that the adjusted EEO is a theoretical concept, and there is no *real* operator active in the relevant retail market that has all the required characteristics to be taken as representative. This theoretical operator needs to be estimated, and there is an inherent degree of approximation in the exercise.

Nevertheless, ESA notes that the three datasets used by Analysis Mason lead to a widely different range of results, from [redacted] to NOK 50 million. The estimation, therefore, appears to be significantly affected by the identity of the operator(s) included in the analysis.

Moreover, the analysis of Chilimobil's data appears to be very sensitive to the selection of the period considered.

In the first place, Analysis Mason uses the period 2018-2022, disregarding the fixed costs for the period 2015-2017 (and even earlier, as available in public sources)[12], which have a much smaller magnitude compared to 2018-2022. ESA notes that Analysis Mason refers to a change in the business model of Chilimobil from 2017 to 2018, from a primarily prepaid to a primarily postpaid provider. It is unclear, however, why such change would have such a significant impact for the estimation of the retail fixed costs. ESA invites Nkom to provide additional reasoning for the selection of the period considered.

In the second place, Analysis Mason notes that dropping one data point (i.e. the fixed costs of 2022, therefore running the analysis for the period 2018-2021) leads to a reduction in the estimated fixed costs by about 26%. Moreover, the regression for the period 2018-2022 has a very low R^2 of about 14%. This indicates that the linear fit is poor.

ESA appreciates that there are limited data available, which naturally limits the robustness of any analysis. However, other approaches could have been further pursued. For example, ESA considers that the first approach of gathering data from multiple alternative providers could have been expanded and enriched with data from multiple years, addressing any concerns regarding reliability during the process.

More generally, ESA advises Nkom to exercise caution in the quantitative analyses it relies on, to ensure that the remedies imposed are based on sound and robust quantifications.

Need to ensure that the phase-in of the reciprocal pricing principle for co-location does not introduce wrong incentives and generate undesired consequences

ESA notes Nkom's intention to introduce the principle of reciprocal pricing for co-location access. ESA agrees with Nkom that, provided that infrastructure competition is not hindered, the reduction of duplication in infrastructures is a desirable outcome that should be pursued. Furthermore, as Nkom noted in its draft decision, the introduction of regulation leads to trade-offs between the benefits of increased infrastructure competition and the distortion of investment incentives. In the case of co-location, infrastructure competition should not develop solely at the expense of one operator.

ESA agrees with Nkom on the primary importance of infrastructure competition in the market, and that, to address trade-offs mentioned above, it is appropriate to introduce some mechanism mimicking the market outcomes in the absence of regulatory intervention. The principle of reciprocity, and specifically reciprocal pricing in this case, goes in this direction.

However, ESA reminds Nkom that such mechanism will likely distort the co-location pricing incentives of both Telia and Ice, and may have undesired consequences.

For example, one should consider how this mechanism may affect the prices faced by non-telecom operators which enter into co-location agreements with the telecom operators. Telecom regulation – and protection – does not apply to those customers. ESA notes that, for example, in presence of capacity constraints in the tower or in the site, the prices for telecom operators and non-telecom operators will be interrelated. This means that the reciprocal pricing mechanism may affect also non-telecom operators' prices.

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[12] See Chilimobil AS on www.proff.no.

It will be important, therefore, to carefully assess the design proposed by Telenor, and to potentially have a wider consultation to gather the views of all stakeholders that may be affected.

ESA notes that the final proposal will be notifiable to ESA (following national consultation). ESA remains open to and would welcome informal discussions and exchanges of views with Nkom during the process leading to that notification.

IV. FINAL REMARKS

On a procedural note, ESA 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 ESA. It may adopt the resulting draft measure and, when it does so, shall communicate it to ESA.

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

Pursuant to Point 15 of the Procedural Recommendation[13], ESA will publish this document on its eCOM Online Notification Registry. ESA considers that some of the information contained herein is likely confidential and should be redacted. You are invited to inform ESA within three working days[14] 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,

Filip Ragolle
Deputy Director for Competition and Regulation
Competition and State Aid Directorate

This document has been electronically authenticated by Filip Ragolle.

[13] EFTA Surveillance Authority Recommendation of 2 December 2009 on notifications, time limits and consultations provided for in Article 7 of the Act referred to at point 5cl of Annex XI to the Agreement on the European Economic Area (Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services), as adapted by Protocol 1 thereto, OJ C 302, 13.10.2011, p. 12, and available here ("the Procedural Recommendation").

[14] The request should be submitted through the eCOM Registry, marked for the attention of the eCOM Task Force.