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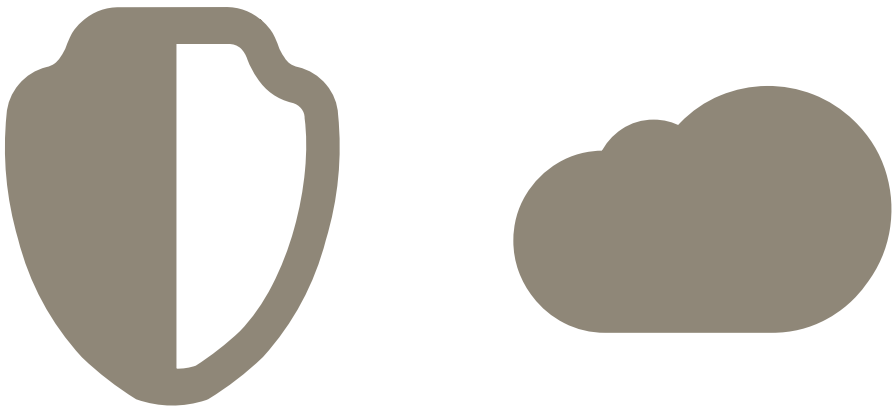
Analysis prepared for the Norwegian Communications Authority (Nkom)

Nordic survey of cybersecurity and cloud services included or sold with mobile and fixed broadband



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Contents

1 Executive summary

This report, commissioned by the Norwegian Communications Authority (Nkom), is the first of its kind to compare cybersecurity and cloud storage services offered by mobile and fixed broadband providers in the four Nordic countries Norway, Denmark, Sweden, and Finland. It focuses on the consumer market.

In recent years, it has become increasingly common for telecom providers to include or sell cybersecurity and cloud services alongside mobile and fixed broadband subscriptions. This report compares the scope and features of such services across the Nordic countries. It also examines how these services are sold – whether they are included in all subscriptions, in selected subscriptions, or sold as add-ons.

The report also compares pricing: Are some providers more plentiful in bundling cybersecurity and cloud services with their mobile and fixed broadband subscriptions? What is the estimated market value of such services when included? Could this help explain price differences within Norway and between Norway and its Nordic neighbours?

The analysis covers consumer offerings from 40 telecom providers across the four countries, based on information available online. Additionally, offerings from a few non-telecom providers – such as F-Secure, Google, Apple, and some insurance companies – have also been reviewed. In total, 127 offerings have been identified and categorised.

Among premium or upmarket telecom brands, there is a general trend toward including at least a basic level of cybersecurity and cloud storage services in higher-end subscriptions. This is less common among price-focused, flanker, or independent telecom brands – though there are exceptions.

For mobile services, Norwegian providers are more likely to include cybersecurity and cloud services than their peers in Sweden, Denmark, and especially Finland.

In fixed broadband, Swedish and Danish providers are more likely to include such services than providers in Norway and, again, particularly Finland.

When these services are sold as add-ons, their prices are generally consistent across the four markets. One reason could be that the same partners – such as F-Secure and the insurance company HELP – are often used across countries. Another factor may be that some of these partners sell directly to consumers at relatively uniform prices throughout the Nordics.

Analyses conducted for Norway's Ministry of Digitalisation and Public Governance (DFD) show that the average revenue per mobile subscription, as well as the price of mobile subscriptions, is higher in Norway compared to the other Nordic countries. The same holds true for Norwegian fixed broadband subscriptions.

As noted, Norwegian mobile providers are more likely to include cybersecurity and cloud services than some of their Nordic peers. To evaluate whether this could explain the higher subscription prices, the estimated market value of these included services was subtracted from the total subscription price. ***The results show that this inclusion only partially accounts for Norway's higher mobile subscription prices.***

For fixed broadband, a direct price comparison is more complex, as pricing is address-based rather than national. Instead, the analysis relies on the average revenue per fixed broadband subscription (ARPU).

Due to limited data granularity, it is not possible to subtract provider-specific values of included cybersecurity and cloud services in Denmark, Sweden, and Finland. However, in Norway, Nkom has calculated individual agreement-specific ARPU figures. With Telia as the only provider that includes cybersecurity and cloud services (with a market value larger than 0) in fixed broadband subscriptions, the analysis concludes that this fully explains why Telia's ARPU is higher than that of some competitors. ***However, because such services are rarely included in Norwegian fixed broadband overall, they do not account for Norway's high national ARPU – particularly in comparison to Sweden.***

It is important to note that the inclusion of cybersecurity and cloud storage services in mobile and fixed broadband subscriptions is a decision made by the telecom providers, not consumers. When inclusion is mandatory, consumers may not perceive the value to match the market value, especially if the services exceed their actual needs. The analysis also finds that comparable services are available on the open market – without the need for a specific mobile or fixed broadband subscription – often at competitive prices. Consumers seeking cybersecurity and cloud services can purchase them separately and potentially save money by choosing price-focused, flanker, or independent telecom providers for their connectivity needs.

2 Background

This report, commissioned by the Norwegian Communications Authority (Nkom), is the first of its kind to compare cybersecurity and cloud storage services offered by mobile and fixed broadband providers in the four Nordic countries Norway, Denmark, Sweden, and Finland. It focuses on the consumer market.

3 Peer group

The peer group consists of the four Nordic countries **Norway, Denmark, Sweden, and Finland**. The mobile providers covered are:

Norway:

- Telenor
- Telia
- Ice
- Talkmore (Telenor flanker brand)
- OneCall (Telia flanker brand)
- Fjordkraft (MVNO, 39% owned by Telia)
- Chilimobil (MVNO, 45% owned by Telia)
- Happybytes (MVNO)

Denmark:

- YouSee[1]
- Telenor
- Norlys[2]
- 3
- Telmore (Nuuday flanker brand)
- CBB (Telenor flanker brand)
- Call me (Norlys flanker brand)
- Oister (3 flanker brand)
- Flexii (3 flanker brand)

Sweden:

- Telia
- Tele2
- Telenor
- 3
- Halebop (Telia flanker brand)
- Fello (Telia flanker brand)
- Comviq (Tele2 flanker brand)
- Vimla (Telenor flanker brand)
- Hallon (3 flanker brand)
- Chilimobil (MVNO)

Finland:

- Elisa
- DNA
- Telia

[1] The main consumer brand from Nuuday.
[2] In May 2025, Telia was rebranded as Norlys following Norlys' acquisition in April 2024.

- Moi (DNA flanker brand)
- Telia Dot (Telia flanker brand)

The fixed broadband[3] providers covered are:

Norway – the five largest[4]:

- Altibox
- Telenor
- Telia
- GlobalConnect
- NextGenTel

Denmark – the five largest:

- YouSee
- Norlys
- Fibia
- Hiper (Nuuday flanker brand)
- Telenor

Sweden – the five largest:

- Telia
- Tele2
- Telenor
- Bredband2
- Bahnhof

Finland – the three largest representing 84% of fixed broadband subscriptions:

- DNA
- Elisa
- Telia

Not all providers offer cybersecurity and cloud storage services.

All price and scope data has been gathered between 19 and 31 March 2025.

[3] Fixed wireless services (FWA) are not covered.
[4] According to regulatory data for June 2024.

4 Methodology and data issues

4.1 Fixed broadband subscription prices are address dependent

Unlike mobile subscriptions, where pricing is national, fixed broadband subscriptions are offered and priced differently depending on a consumer's home address. Almost all fixed broadband providers are stating prices only after a specific address has been inputted. This is done to make sure a provider can deliver services to the exact address but also because the pricing may depend on who (the provider or a regional infrastructure partner) is delivering the underlying broadband infrastructure.

This makes price comparisons between different fixed broadband providers more difficult than between different mobile providers. In the section comparing current connectivity pricing, mobile pricing is hence covered, see section 9, but for fixed broadband, the average revenue per fixed broadband subscription (ARPU) has instead been used, see section 10.

The ARPU approach required for fixed broadband is not ideal as it is not known to what extent cybersecurity and cloud storage services are included in all the fixed broadband subscriptions comprising the total market ARPU. There is, for instance, a possibility that cybersecurity and cloud storage services are not included in collective price agreements (often used in multi-dwelling units) in a similar way as in individual, single-dwelling unit, agreements.

To help on this, and as input to this report, Nkom calculated the Norwegian fixed broadband ARPU for individual agreements only. This is interesting as it shows a difference to the total market ARPU – the individual agreement ARPU is higher. This is discussed further in section 10.

Although the access to that individual agreement ARPU is excellent to have for Norway, it can't be compared with Denmark, Sweden, and Finland since that level of granularity isn't available for the peer group markets.

4.2 Currency fluctuations

If the four countries had the same currency, this would not be an issue. Since the Danish krone (DKK) is pegged to the Euro (+-2.25%), two currencies, EUR, as used in Finland, and DKK are however closely linked. This means that the comparisons we make between Danish and Finnish price and ARPU levels aren't affected much by currency fluctuations.

The Norwegian krone (NOK) has however been volatile and has weakened vs. the Euro since the beginning of 2023, see Figure 1.

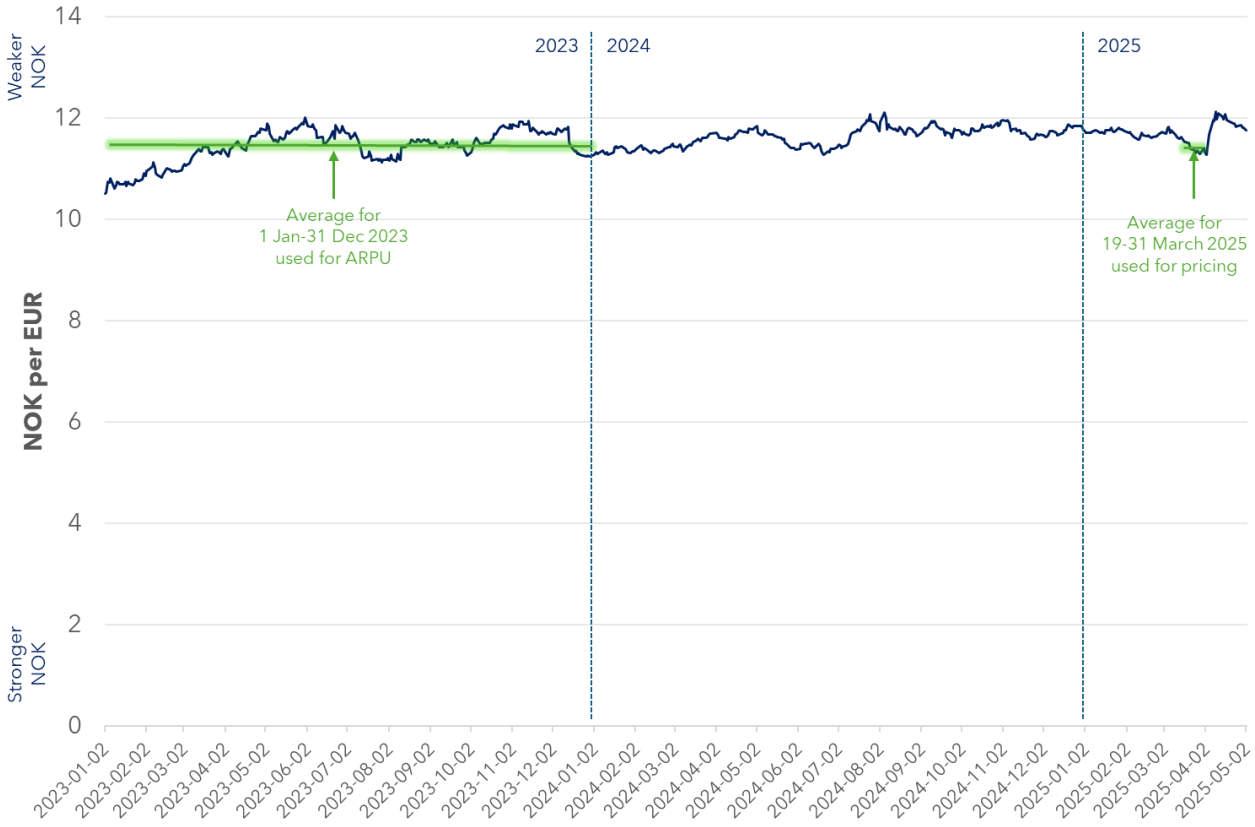


Figure 1. Development of the daily exchange rate between NOK and EUR from January 2023 to date [source: ECB]

In the ARPU comparisons, we will use the average for the full year of 2023 – to match the latest available common ARPU reporting of the four Nordic countries[5]. In the price comparisons, we will use the average during which the prices were surveyed, i.e. 19-31 March 2025.

Local currency per NOK	Norway [NOK]	Denmark [DKK]	Sweden [SEK]	Finland [EUR]
Full year 2023 Used for ARPU	1	0,6522	1,0044	0,0875
19-30 March 2025 Used for prices	1	0,6550	0,9565	0,0878

Figure 2. Exchange rates used between NOK and DKK, SEK, and EUR [source: ECB].

4.3 Purchasing power fluctuations

It is generally a good practice to adjust for purchasing power, striving for purchasing power parity (PPP), when comparing ARPU and prices across markets. In the current economic uncertainty and with the associated swings in exchange rates, the use of PPP is however a blunt instrument as the PPPs are adjusted too infrequently. It risks to harm more than help comparability.

[5] At the time of writing, Norway reported also the first and second half of 2024, but as this is not yet the case for revenues in Denmark, Sweden, and Finland, we have used the full year of 2023.

In this analysis, we turned to OECD/Eurostat for their PPPs where the latest available data is for 2024[6]. The input and output parameters for the PPP adjustment are shown in Figure 3 below for 2023 and 2024 respectively.

	Norway	Denmark	Sweden	Finland
Purchasing power parity (PPP) for GDP, Total, National currency per USD, 2023	9,202390	6,396029	8,765773	0,792876
Average exchange rate, National currency per NOK, 2023	1 NOK per NOK	0,652228 DKK per NOK	1,004433 SEK per NOK	0,087552 EUR per NOK
Average exchange rate, National currency per PPP NOK, 2023	1 NOK per PPP NOK	0,695040 DKK per PPP NOK	0,952554 SEK per PPP NOK	0,086160 EUR per PPP NOK
Purchasing power parity (PPP) for GDP, Total, National currency per USD, 2024	8,966731	6,404098	8,819193	0,788866
Average exchange rate, National currency per NOK, 2024	1 NOK per NOK	0,641596 DKK per NOK	0,983417 SEK per NOK	0,085977 EUR per NOK
Average exchange rate, National currency per PPP NOK, 2024	1 NOK per PPP NOK	0,714207 DKK per PPP NOK	0,983546 SEK per PPP NOK	0,087977 EUR per PPP NOK

Figure 3. Comparison of purchasing parity (in international USD), the average exchange rates, and the PPP adjusted exchange rates, 2023 and 2024, Norway, Denmark, Sweden, and Finland [source: OECD[7]].

For the ARPU comparisons in the fixed broadband analysis in section 10, we will logically apply 2023's PPP values to 2023 ARPUs[8]. Here we have a match between the ARPU period and the PPP period and we have confidence in that the PPP numbers of 2023 have stabilised by now.

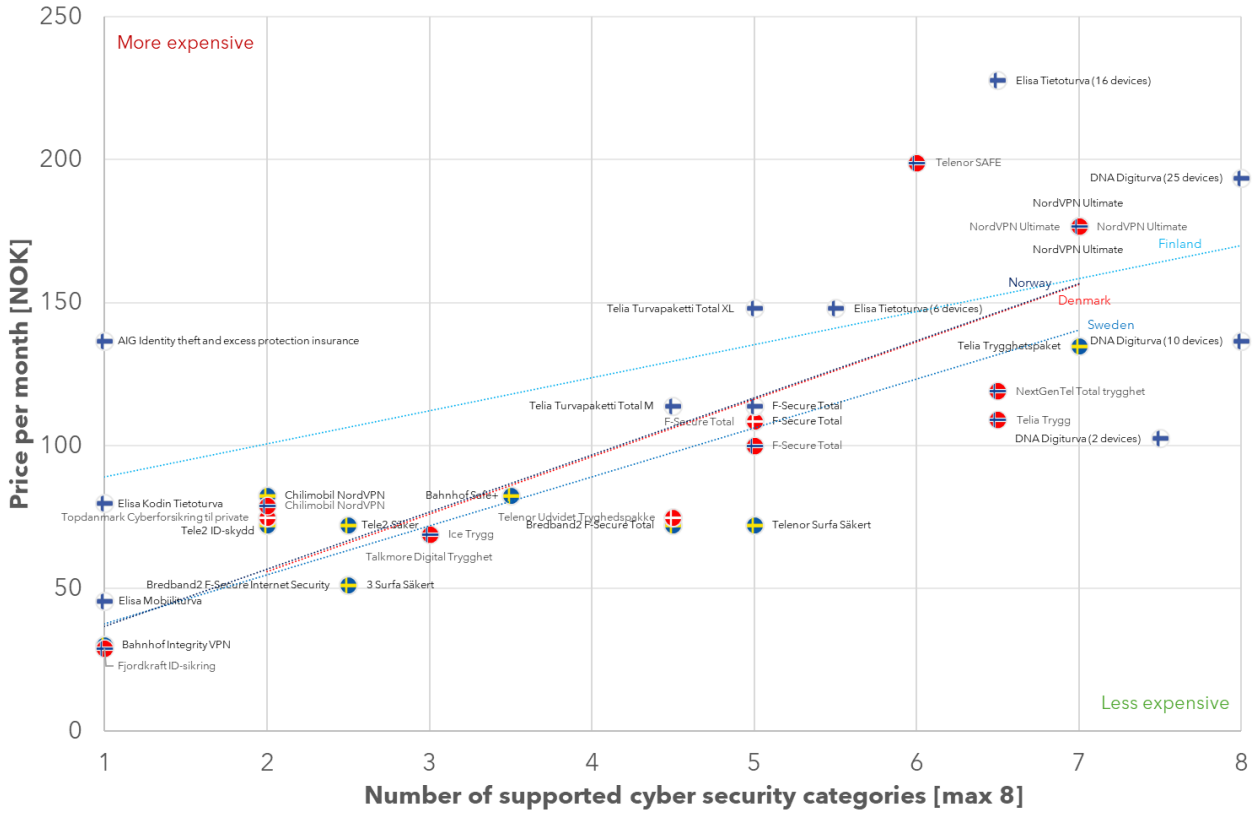
It is a different situation with current pricing: Since no PPP values for 2025 yet exist, we would be forced to apply the latest available 2024 PPP values to the prices gathered 19-30 March 2025. In the current financial turmoil, with swings in exchange rates, there's a risk that the 2024 PPP values in future would prove not to be applicable to prices of 2025. There's also a risk that the 2024 PPP values will be adjusted as they are still not frozen.

On top of this, purchasing power adjustment using figures of 2024 does not result in any major difference when applied to 2025 prices. Let's exemplify how the application of PPP affects the first pricing graph in this report, Figure 19. First in NOK without PPP:

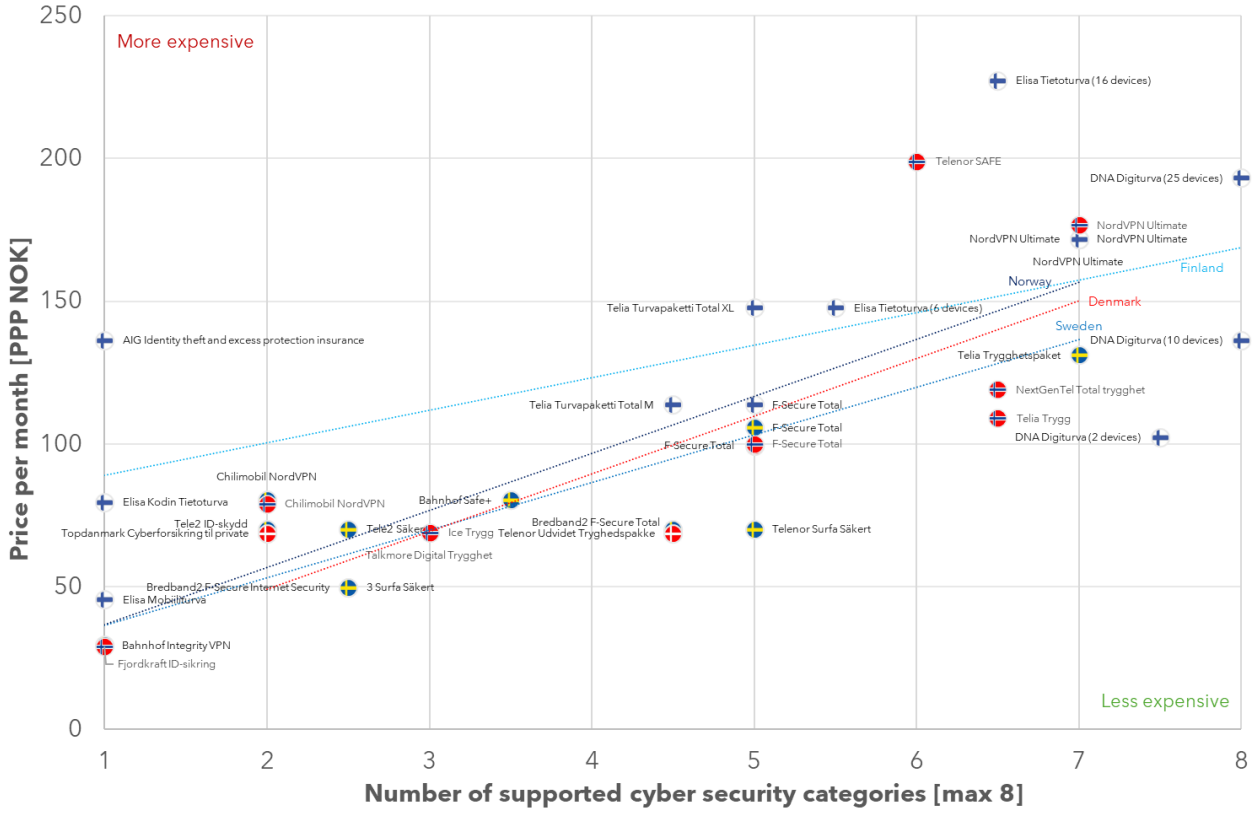
[6] Purchasing power parities for GDP (as opposed to household/actual individual final consumption) is used as that is the only PPP available for 2024 at the time of writing.

[7] Derived from https://data-explorer.oecd.org/vis?lc=en&fs[0]=Topic%2C1%7CEconomy%23ECO%23%7CNational%20accounts%23ECO_NAD%23&fs[1]=Topic%2C2%7CEconomy%23ECO%23%7CNational%20accounts%23ECO_NAD%23%7CGDP%20and%20non-financial%20accounts%23ECO_NAD_GNF%23&pg=0&fc=Topic&snb=53&df[ds]=dsDisseminateFinalDMZ&df[id]=DSD_NAMAIN10%40DF_TABLE4&df[ag]=OECD.SDD.NAD&df[vs]=&pd=2021%2C&dq=A.DNK%2BFIN%2BNOR%2BSWE...EXC_A%2BPPP_B1GQ.....&to[TIME_PERIOD]=false&vw=tb 7 May 2025.

[8] No PPP adjustment is necessary for Norway's first half of 2024 and full year 2024 values.



And then in purchasing power adjusted NOK:



The difference between the two graphs is marginal; Denmark's trend line has fallen somewhat after PPP adjustment due to Denmark's higher purchasing power, but it does not really change the picture. All this together makes that we haven't used PPP NOK in the *price* comparisons of this report and instead kept these in pure NOK.

5 Cybersecurity products offered

As there are plenty of potential cybersecurity threats to internet users, the portfolio of cybersecurity products and features is wide and a comparison between them is not straightforward. After having captured the details of the 127 cybersecurity propositions from the 40+ providers covered by this report, a clear need to categorise the cybersecurity products and features emerged to allow an easier comparison.

5.1 Preventive cybersecurity

Let's start with the functionality that is supposed to **prevent** the internet user from e.g. surfing into malicious websites, clicking on scam links, getting exposed to fraud while shopping or doing banking, getting exposed to ransomware, downloading malicious code or viruses, getting his/her identity stolen, getting passwords cracked, getting exposed to credit card fraud or his/her privacy compromised. By nature, these products are often software products.

In this report, we have used five categories for the preventive cybersecurity features:

- Basic browsing and scam protection
- Extended browsing and scam protection
- Device protection
- Identity protection
- Privacy protection

In Figure 4, the mapping between commonly offered preventive cybersecurity features and these five categories is shown.

Preventive: Cybersecurity features	Basic browsing and scam protection	Extended browsing and scam protection	Device protection	Identity protection	Privacy protection
Webpage blocking (network or router-based)	✓				
Blocking of scam SMSs	✓				
Blocking/notice of scam calls	✓				
E-shopping protection		✓			
Ransomware protection		✓			
E-banking protection		✓			
Antivirus			✓		
Tracking stolen devices, erasing data			✓		
Identity monitoring, breach alerts				✓	
Password protection				✓	
Credit card protection				✓	
Credit application protection				✓	
VPN					✓

Figure 4. Categorisation of different cybersecurity features into five different categories.

The extent to which a certain product supports each category will be categorised either as **comprehensive** ● or **partial** ◐ coverage.

For "Basic browsing and scam protection", which to some extent is a hygiene factor for any provider[9], *any* feature supported will result in a classification of the coverage as **comprehensive** ●. Partial coverage does not apply to this category.

For "Extended browsing and scam protection", support of *all three* listed features will result in a classification of the coverage as **comprehensive** ●. If not all three, the classification will be **partial** ◐.

For "Device protection", it is the number of supported device units (e.g. PCs, smartphones, tablets) that decides the classification. To be classified as **comprehensive** ●, there needs to be support for *10 units or more*). If lower than these thresholds, the classification will be **partial** ◐.

For "Identity protection", support of *the first three* listed features (credit application protection is not required) will result in a classification of the coverage as **comprehensive** ●. If not all three, the classification will be **partial** ◐.

For "Privacy protection", VPN functionality will result in a classification of the coverage as **comprehensive** ●. Partial coverage does not apply to this category.

The coverage classification is based on the information provided by the providers online. There could potentially be more coverage in some products than what providers decided to detail online. Introductory discounts, like e.g. first two months free, have not been considered in price comparisons.

5.2 Corrective damage mitigation

With the support of the functionality described in the previous section, the risk of actual damage is of course much lower than if not having any preventive cybersecurity in place. But even when having taken such precautionary measures, internet users might end up with some sort of damage that could need some sort of **corrective** mitigation such as legal assistance, psychological assistance or cost or damage compensation. By nature, these products are often insurance products but could also be helpdesks.

In this report, we have used three categories for the **corrective** damage mitigation features:

- Non-delivery and shopping fraud
- Online abuse
- Identity theft

In Figure 5, the mapping between commonly offered corrective damage mitigation features and these three categories is shown.

[9] All providers apply basic domain name server (DNS) blocking of malicious websites following national legislation and guidelines. Some providers are marketing this under a special product name, but it is never charged.

Corrective: Damage mitigation features	Non-delivery and shopping fraud	Online abuse	Identity theft
Technical assistance		✓	✓
Legal assistance	✓	✓	✓
Psychological assistance	✓	✓	✓
Compensation for lost money	✓		
Compensation for accidental purchases by own children	✓		
Compensation for lost salary		✓	✓
Other compensation than for salary		✓	✓

Figure 5. Categorisation of different damage mitigation features into three different categories.

The extent to which a certain provider supports each category will be categorised either as **comprehensive** ● or **partial** ◐ coverage.

For "Non-delivery and shopping fraud", if the support of lost money is equal or higher than 10000 NOK/7000 DKK/10000 SEK/1000 EUR[10], it will result in a classification of the coverage as **comprehensive** ●. If a lower amount, the classification will be **partial** ◐.

For "Online abuse" and for "Identity theft", the following thresholds are applied to classify the coverage as **comprehensive** ●:

- At least 15 hours in legal assistance per year
- At least 30000 NOK/30000 SEK/20000 DKK/3000 EUR in psychological assistance
- At least 15000 NOK/15000 SEK/10000 DKK/1500 EUR in lost salary compensation
- At least 100000 NOK/100000 SEK/70000 DKK/10000 EUR in other compensation

If a lower amount, the classification will be **partial** ◐.

Some insurance products may require the user to pay a deductible. Differences in deductibles is not part of the categorisation threshold.

The coverage classification is based on the information provided by the telecom providers online. There could potentially be more coverage in some products than what telecom providers decided to state online. Full insurance terms have in some cases been difficult to obtain from the providers, but we have in almost all cases been able to get these from their insurance partner. Introductory discounts, like e.g. first two months free, have not been considered in price comparisons.

5.3 Further classifications

5.3.1 One user – or one household – coverage?

🤦 Cybersecurity products sold in conjunction with mobile subscriptions are often (but not always) just covering the user of the mobile subscription in question. Such **one-person products** are marked with this image.

[10] These numbers – throughout the report – are up-to numbers.

In contrast, cybersecurity products sold in conjunction with fixed broadband subscriptions are often (but not always) covering the household in question with all its members, e.g. family members. Such **multi-person products** are marked with this image.

5.3.2 Inclusive or sold as add-ons?

Some cybersecurity and cloud products are included in mobile or fixed broadband subscriptions whereas others are sold as add-ons. In addition, telecom providers sometimes encourage connectivity customers to take a more expensive subscription by including cybersecurity and cloud products on more premium subscription tiers but not on cheaper tiers. Some providers, especially the independent, are also selling their products without a connectivity subscription. All-in-all, this Nordic survey found six different models for how providers are including/selling cybersecurity and cloud products:

Inclusive (free) for anybody – even without a connectivity subscription. In our studied markets, this is true for some cloud services where the entry level storage (2-15 GB) isn't charged. This is the "freemium" model: More storage is available but comes with a cost.

Inclusive (free) for a connectivity customer. In our studied markets, this is true for most "Basic browsing and scam protection" services and for some cloud services.

Inclusive (free) for a connectivity customer on a premium subscription. If not having a premium subscription, the service is *not* available, not even for a fee.

Inclusive (free) for a connectivity customer on a premium subscription. If not having a premium subscription, the service is available as an add-on for a fee.

Sold as an add-on to any connectivity subscription.

Sold as an add-on to anybody – even without a connectivity subscription.

5.4 Cybersecurity products, Norway

With these categories explained, let's now start comparing the cybersecurity offerings per market, starting with Norway. To make it fit, we would need three comparison visualisations for Norway:

- Mobile: Main brands
- Mobile: Flanker brands, MVNOs, 3rd parties
- Fixed broadband: All

We start with the main brands in Norwegian mobile.

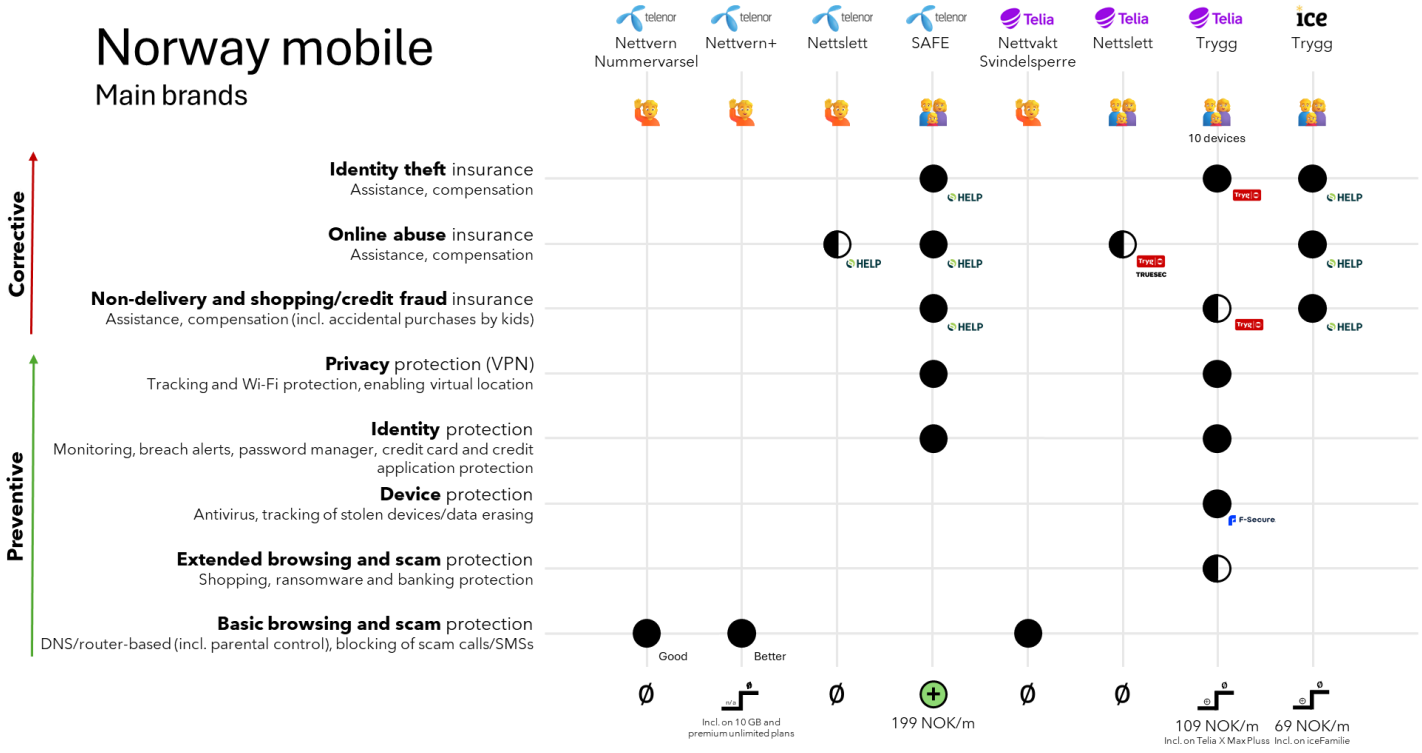


Figure 6. The cybersecurity products offered to Norwegian mobile customers on main brands.

Telenor includes two "Basic browsing and scam protection" products on all mobile subscriptions for free: *Nettvern* which blocks malicious websites if surfing on Telenor's mobile network and *Nummervarsel* which blocks fraudulent incoming calls and warns for other potential fraudulent or spam calls. Telenor has also tiered its *Nettvern* offering: There is a more powerful version called *Nettvern+* which is included for free on more premium subscriptions (but not available with other subscriptions). *Nettvern+* requires activation to work. It is included for subscribers on the 10 GB subscription (for 459 NOK per month) and on the more premium unlimited subscriptions starting at 649 NOK[11]. Other subscribers can't get *Nettvern+*, not even for a fee.

For all mobile subscriptions, Telenor also includes an insurance product which offers help in case the mobile subscriber has been victim of online abuse: *Nettslett*. It is provided by an insurance company called **HELP**. The limits are 5 hours of legal assistance per year, 5000 NOK of psychological assistance and 5000 NOK of compensation for lost salary. According to our classification threshold, Nettslett qualifies as partial coverage ◐. It is still an ample inclusion given that it covers all mobile subscriptions. As we will soon see, some competitors offer an equivalent.

For those that want a wider protection, Telenor offers *SAFE* for 199 NOK per month. It is sold to anybody, not just to Telenor's connectivity customers. *SAFE* offers a wider, comprehensive, coverage in online abuse[12] but also comprehensive coverage when it comes to identity theft and "Non-delivery and shopping/credit fraud". All these three are delivered by **HELP**. But *SAFE* offers more than this: There's

[11] It is however not included on the unlimited subscription for 549 NOK although that is more expensive than the 10 GB subscription.
[12] 30 hours of legal assistance per year, 30000 NOK of psychological assistance, 15000 NOK of compensation for lost salary and 300000 NOK in other compensation.

also a VPN and a comprehensive identity protection included in the product[13]. The latter does not only warn the user if identity information is leaked online, but it also warns if somebody makes a credit application in the name of the subscriber. *SAFE* does however not include any device protection or any "Extended browsing and scam" protection[14].

Telia has a similar, but not identical, line-up as Telenor. Included in all mobile subscriptions are *Nettvakt* which blocks malicious websites and *Svindelsperre* which helps to protect against so called Wangiri calls.

Telia too has a *Nettslett* product, but it is delivered by another insurance partner, **Tryg**. Unlike Telenor, Telia's Nettslett covers the whole family, not just the holder of the mobile subscription. The coverage is similar to Telenor with the same 5000 NOK of psychological assistance and 5000 NOK of compensation for lost salary. But the legal assistance is not time limited – instead it is limited to 200000 NOK per legal case. In addition, Telia's *Netslett* partners with **Truesec** to offer time-unlimited *technical* assistance in removing unwanted material online.

For customers that want a wider protection, Telia offers *Trygg* which costs 109 NOK per month for all customers – except for those on a premium (699 NOK per month) unlimited subscription, "Telia X Max Pluss". Telia Trygg offers a quite comprehensive protection with comprehensive identity theft insurance, a partial non-delivery and shopping/credit fraud insurance, VPN, comprehensive identity protection, device protection via **F-Secure** for up to 10 devices and some partial "Extended browsing and scam protection". Telia *Trygg* does not offer online abuse insurance or basic browsing and scam protection – but those elements are already included in all mobile subscriptions, so that's not needed.

Finally, **Ice** that doesn't have any cybersecurity services included for all mobile subscriptions[15]. Families or groups with at least two mobile subscriptions could though form an "IceFamilie" and will, if so, get *Trygg* included. *Trygg* is also sold to other Ice subscribers for 69 NOK per month. It contains similar, but not fully identical[16], **HELP**-delivered insurance elements to Telenor *SAFE*: Comprehensive identity theft insurance, online abuse insurance, and non-delivery and shopping/credit fraud insurance.

Now to the cybersecurity offering of the mobile flanker brands, MVNOs and 3rd party provider in Norway.

[13] Telenor does not specify which partner (if any) that deliver these.
[14] At least not in its description online.
[15] We suspect that Ice has basic browsing and scam protection according to national legislation and guidelines, though, but chosen not to "productise" this.
[16] 200000 NOK instead of 300000 NOK in other compensation.

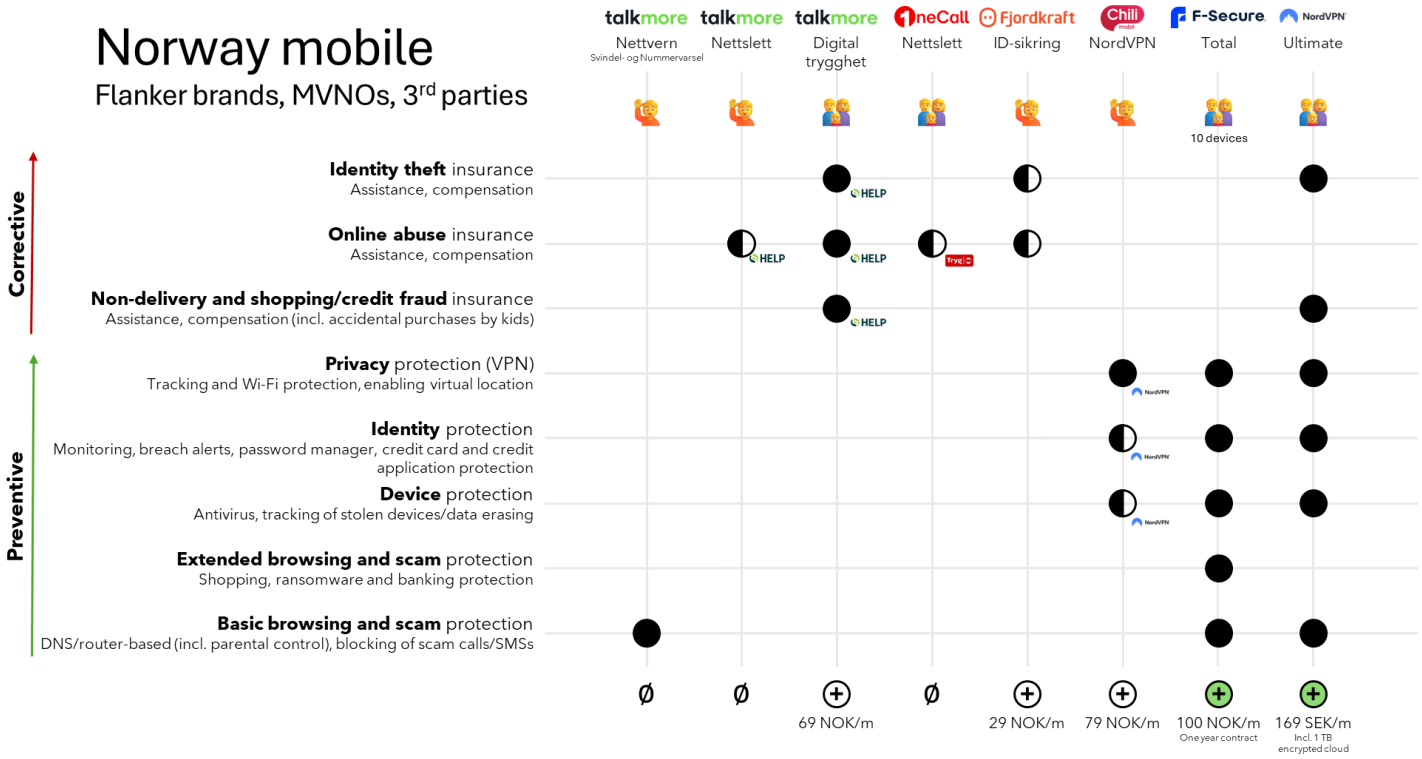


Figure 7. The cybersecurity products offered to Norwegian mobile customers on flanker and MVNO brands and by 3rd parties.

Talkmore is Telenor's flanker brand, and its basic cybersecurity offering resembles that of Telenor with an inclusive-for-all *Nettvern* and *Svindel- of Nummervarsel* protection alongside an inclusive-for-all *Nettslett* in partnership with **HELP**. *Nettslett* has identical conditions to Telenor.

OneCall is Telia's flanker brand and its *Netslett* is too a carbon copy of its mother, Telia. It is included on all subscriptions. OneCall has though, unlike Telia, chosen not to "productise" any basic browsing and scam protection.

Fjordkraft is an MVNO (today 39% owned by Telia) and sells *ID-sikring* to its mobile subscribers. It is modestly priced at 29 NOK per month but is also a substantially different proposition to what competition offers. *ID-sikring* offers 24/7 phone support which can assist with technical know-how of how to remove unwanted material online. The customer could also get support in how to protect against identity theft, advise in how to dispute incorrect invoices and in how to file police reports.

Chilimobil is an MVNO (today 45% owned by Telia) and it sells *NordVPN* to its mobile subscribers for 79 NOK per month. In addition to being a VPN, NordVPN offers partial identity protection and partial device protection. It goes without saying that this service is delivered by **NordVPN**.

Finally, to the two 3rd party providers covered for Norway[17]. They have both already been mentioned as partners to Telia and Chilimobil respectively: **F-Secure** and **NordVPN**. Regardless of who provides the mobile subscription, anybody can buy F-Secure's products directly from F-Secure. The price is based on the feature scope and on the number of devices. We have chosen to display F-Secure's *Total* here for 10 devices as that seems to be a common household proposition by telecom providers in the Nordics.

[17] There is no insurance provider selling cybersecurity directly to Norwegian consumers.

Customers need to sign either a one-year or a two-year contract with F-Secure. In Norway the price per month is 100 NOK if signing a one-year contract (90 NOK with a two-year contract). F-Secure *Total* brings comprehensive coverage within all preventive security field, but no corrective insurance coverage. It sets what can be regarded as the Norwegian market price for a comprehensive household preventive security package – 100 NOK per month. More about estimated market values in section 8.

NordVPN's *Ultimate* is also possible to buy for anybody regardless of connectivity provider. It's priced higher, 169 SEK[18] per month (177 NOK) but 1 TB of encrypted cloud storage (with a market value of about 100 NOK) is included in the price. It is not clear from the description how the insurance elements in *Ultimate* are delivered (if NordVPN e.g. uses a partner here) and it is neither clear if there's a limit in the number of devices covered.

Now to the last Norwegian comparison: For fixed broadband.

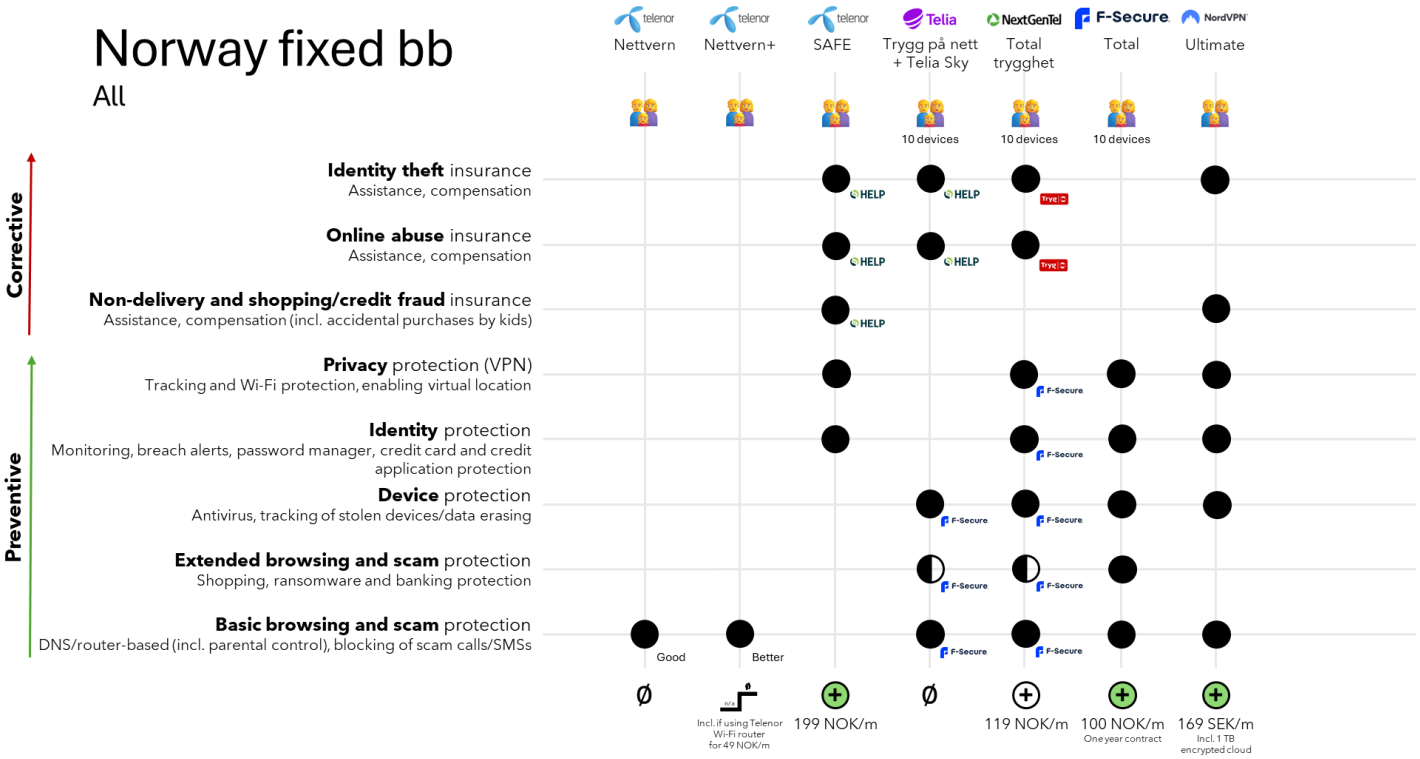


Figure 8. The cybersecurity products offered to Norwegian fixed broadband customers.

Telenor includes – like in mobile – *Nettvern* which blocks malicious websites if surfing on Telenor's fixed network. Also here, Telenor has also tiered its *Nettvern* offering: There is a more powerful version called *Nettvern+* which is included for free for fixed broadband customers using Telenor's Wi-Fi router. Although the reason to this requirement likely is technical, it comes with a cost as the only way to have the Telenor router is to rent it from Telenor for 49 NOK per month. *Nettvern+* requires activation to work. Subscribers without Telenor's router can't get *Nettvern+*.

In fixed, Telenor does *not* include *Nettslett* like it does in mobile.

[18] NordVPN charges in SEK across the Nordics.

For those that want some more protection than the basic browsing protection, Telenor offers *SAFE* to anybody for 199 NOK per month. This is the same *SAFE* as in mobile.

Telia's cybersecurity offering is different compared to mobile. Its *Trygg på nett* isn't the same product as the add-on *Trygg* the mobile side. *Trygg på nett* is included on any fixed broadband subscription which is useful given its relatively wide coverage. The information provided by Telia online is not perfect, but *Trygg på nett* is at least offering comprehensive identity theft insurance, comprehensive online abuse insurance – these two delivered by **HELP** (not Tryg as in mobile), device protection via **F-Secure** for up to 10 devices, some partial "Extended browsing and scam protection" and the "Basic browsing and scam protection". It's wide coverage for an inclusive cybersecurity product.

NextGenTel sells an add-on product called *Total trygghet* for 119 NOK per month to its broadband customers. It has wide coverage with comprehensive identity theft insurance and comprehensive online abuse insurance delivered by **Tryg**. It also has close-to-full preventive cybersecurity coverage via **F-Secure**: VPN, identity protection, device protection, partial extended browsing and scam protection and basic browsing and scam protection – on up to 10 devices. It is good value for money if comparing it to the cost of buying just the F-Secure elements separately (100 NOK per month) or if comparing to Telenor's *SAFE* (199 NOK per month).

F-Secure's *Total* and **NordVPN**'s *Ultimate* are as described under mobile.

5.5 Cybersecurity products, Denmark

Whereas it was important to describe the Norwegian cybersecurity offering in detail, we will use less words on the other markets and more rely on our visualisations. We start with Denmark where we only need two graphs, one for mobile and one for fixed broadband. Mobile first:

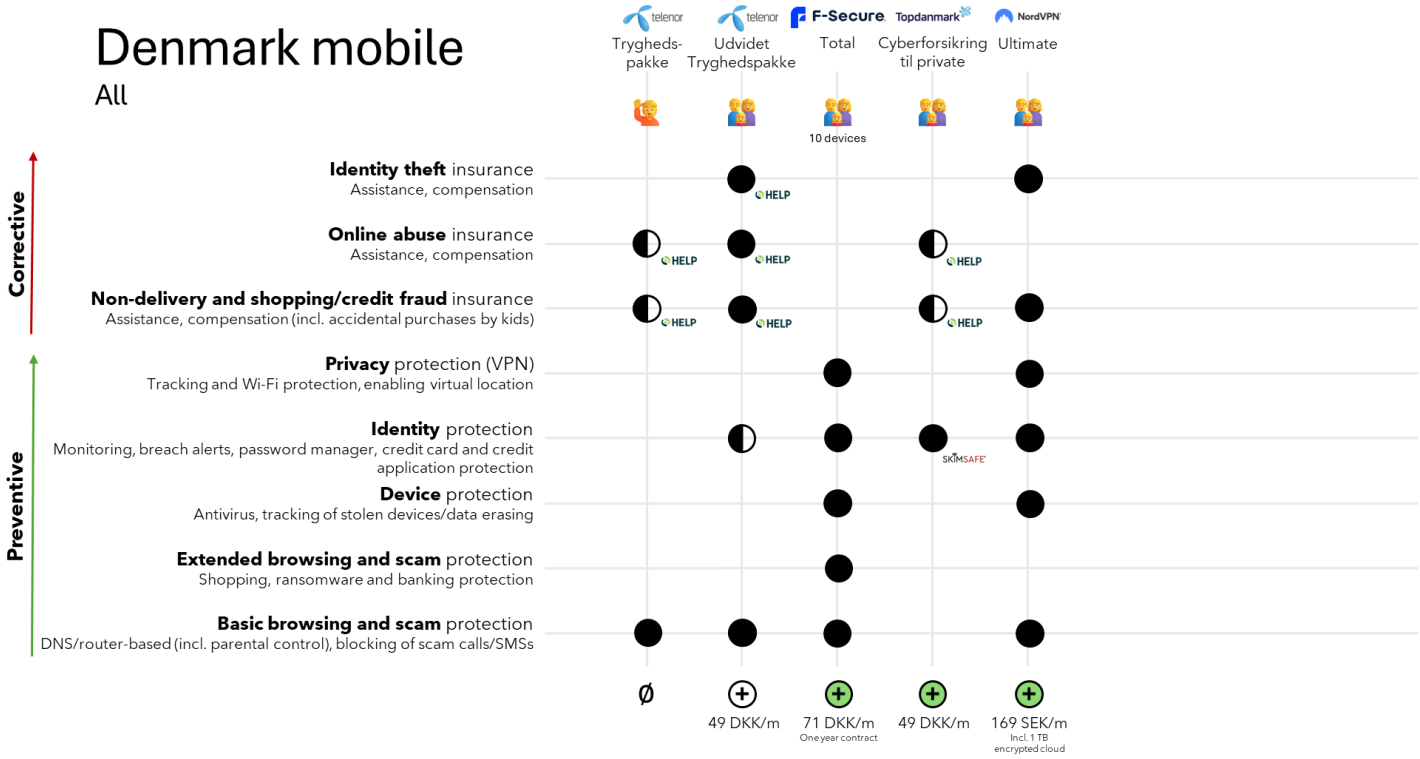


Figure 9. The cybersecurity products offered to Danish mobile customers.

Of the Danish mobile providers, there's only one that offers cybersecurity: **Telenor**. It includes *Tryghedspakke* on all mobile subscriptions. It contains basic browsing and scam protection but also insurance elements provided by **HELP**: Partial online abuse insurance and partial non-delivery and shopping/credit fraud insurance.

For customers that want more protection, Telenor sells *Udvidet Tryghetspakke* for 49 DKK (75 NOK) per month which gives comprehensive corrective insurance coverage in all three areas – again via **HELP** – as well as partial identity protection and basic browsing and scam protection (the latter already in the included *Tryghedspakke*). It covers the whole household, not just the mobile subscriber.

Mobile customers of other providers than Telenor can only source cybersecurity services from 3rd parties. **F-Secure**'s *Total* is the same as in Norway, just with a local price in DKK. **NordVPN**'s *Ultimate* is the same as in Norway – also here charged in SEK.

The new 3rd party is the Danish insurance company **Topdanmark**. They sell a separate *Cyberforsikring til private* to anybody for 49 DKK (75 NOK) per month. It has partial online abuse insurance and partial non-delivery and shopping/credit fraud insurance elements – delivered by **HELP**. In addition, Topdanmark uses **SkimSafe** to deliver identity protection. Customers can register all their sensitive information such as email addresses, credit cards, mobile numbers, identification numbers etc. in SkimSafe's tracking system and be notified if any of these are subject to hacking attacks.

Now to Danish fixed broadband where there are a few more cybersecurity offers.

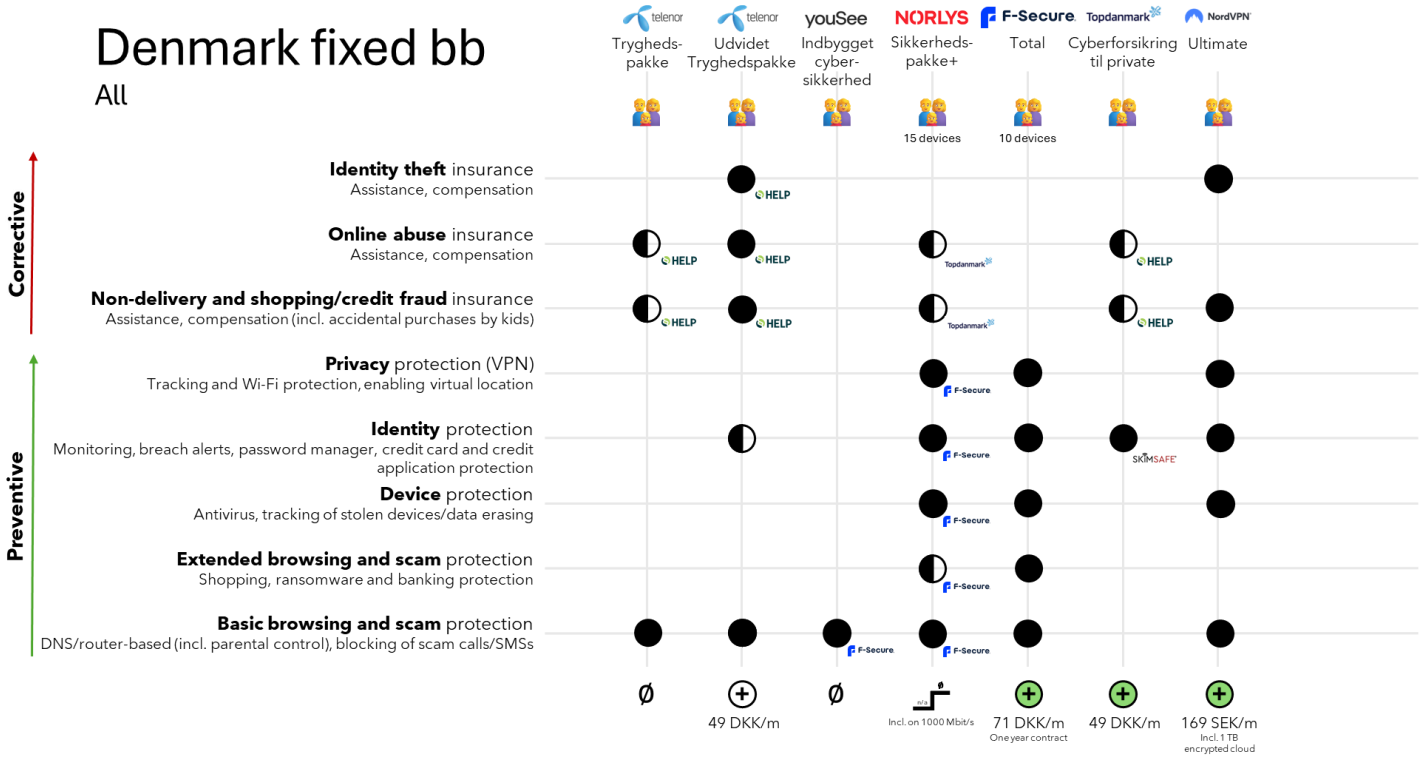


Figure 10. The cybersecurity products offered to Danish fixed broadband customers.

Telenor's *Tryghedspakke* and *Udvidet Tryghedspakke* are as in mobile with the only difference that *Tryghedspakke* covers the household, not just the mobile subscriber.

YouSee includes basic browsing and scam protection – delivered by F-Secure – on all its fixed broadband subscriptions. YouSee calls it *Indbygget cybersikkerhed*.

Norlys includes a comprehensive cybersecurity solution for all fixed broadband customers buying 1000 Mbit/s. It is not offered to customers subscribing to slower broadband speeds, not even for a fee. In this context it's good to know that Denmark – unlike the other Nordic markets – has a limited price premium on 1000 Mbit/s broadband and that a significant part of the Danish market subscribes to these speeds. In June 2024 (latest available data), 33% of the Danish fixed broadband market subscribed to 1000 Mbit/s or more.

The offers from **F-Secure**, **Topdanmark**, and **NordVPN** are as under mobile.

5.6 Cybersecurity products, Sweden

For Sweden we will need four graph to cover the cybersecurity offering:

- Mobile: Main brands
- Mobile: Flanker brands, MVNOs, 3rd parties
- Fixed broadband: Main brands
- Fixed broadband: ISPs, 3rd parties

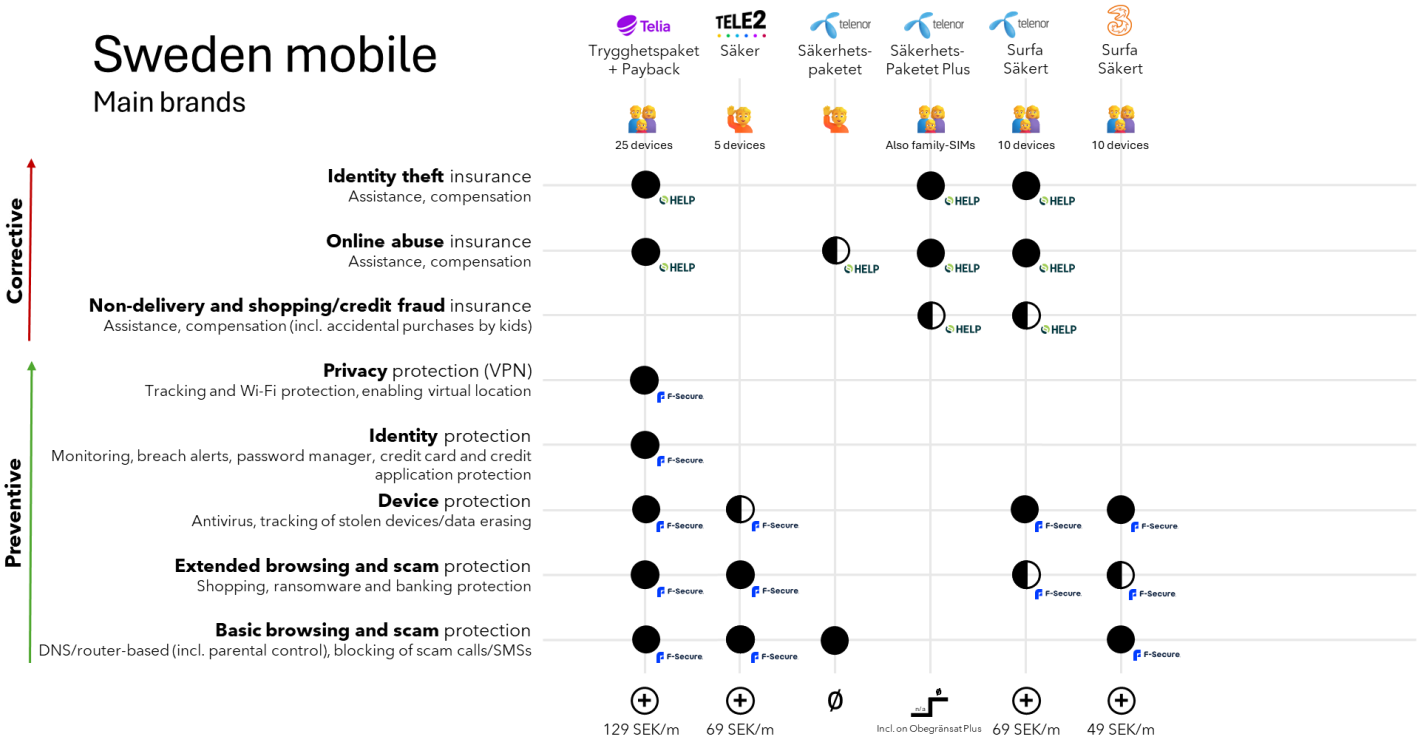


Figure 11. The cybersecurity products offered to Swedish mobile customers on main brands.

Telia does not include any cybersecurity for its mobile subscribers. For 129 SEK (135 NOK) per month subscribers can buy a comprehensive package called *Trygghetspaketet* which gives comprehensive identity theft and online abuse insurance for the whole household via **HELP** and comprehensive preventive cybersecurity via **F-Secure** for up to a high 25 devices.

Neither **Tele2** includes any cybersecurity for its mobile subscribers. For 69 SEK (72 NOK) per month subscribers can buy a limited **F-Secure** package called *Säker*, mainly focused on device protection, supporting up to 5 devices.

Just like in Denmark, **Telenor** is the only mobile provider that includes some insurance elements in all mobile subscriptions. *Säkerhetspaketet* provides Telenor's mobile subscribers with partial online abuse insurance via **HELP** on top of basic browsing and scam protection. But Telenor has tiered its offering on cybersecurity: If subscribing to the most premium mobile subscription, "Obegränsat Plus" for 719 SEK per month, the customer gets *Säkerhetspaketet Plus* which gives additional security: Comprehensive identity theft insurance, comprehensive online abuse insurance and partial non-delivery and shopping/credit fraud insurance – all via **HELP**. Mobile subscriptions part of the same family subscription are covered too.

But other Telenor customers that want the same insurance coverage as in *Säkerhetspaketet Plus* can buy *Surfa Säkert* for 69 SEK (72 NOK) per month. On top of the insurance coverage, it includes comprehensive device protection and partial extended browsing and scam protection for up to 10 devices delivered by **F-Secure**.

3 does not include any cybersecurity for its mobile subscribers. For 49 SEK (51 NOK) per month subscribers can buy a limited **F-Secure** package called *Surfa Säkert*, mainly focussed on device protection, supporting up to 10 devices. It's a better deal than Tele2's *Säker* as it supports 10 devices, not just 5.

Now to the flankers, MVNOs and 3rd parties in Swedish mobile:

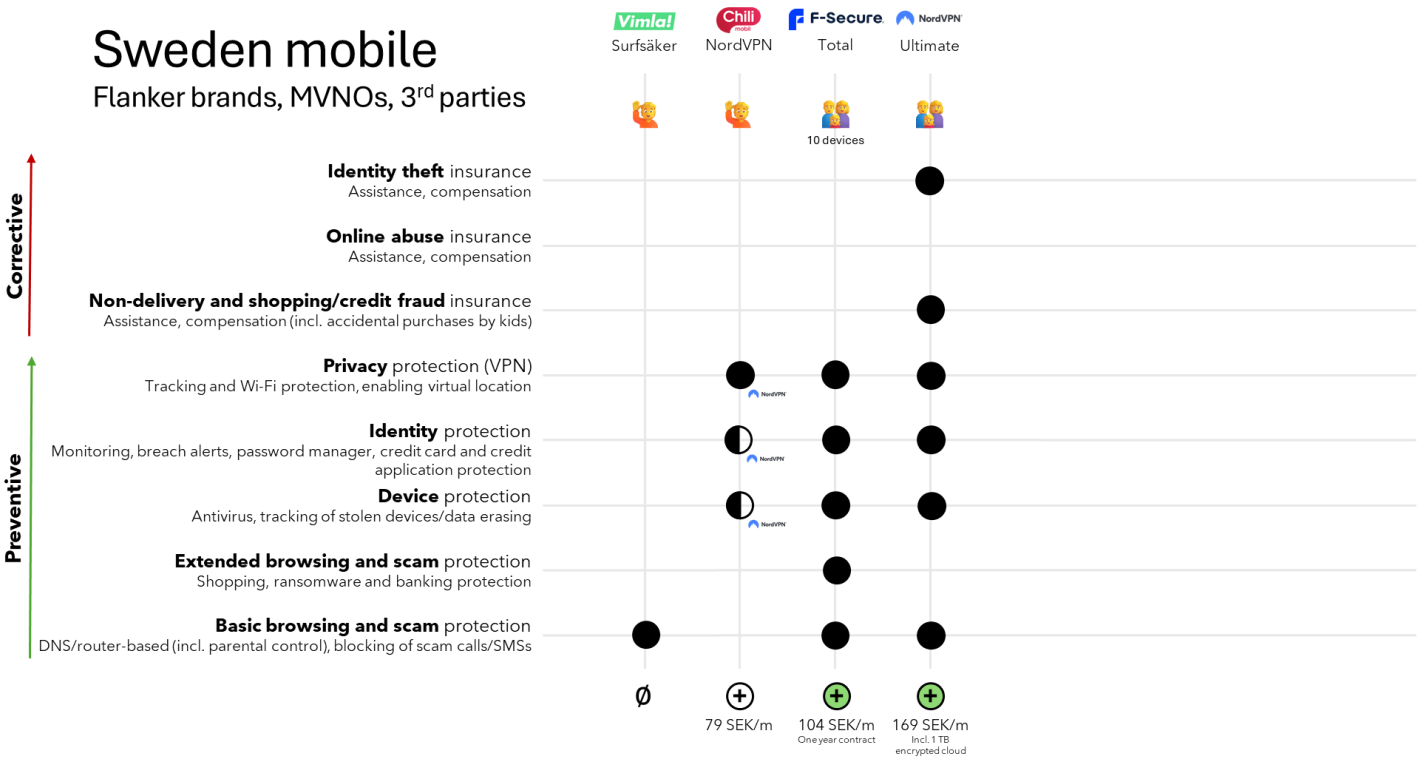


Figure 12. The cybersecurity products offered to Swedish mobile customers on flanker and MVNO brands and by 3rd parties.

Vimla, the flanker brand of Telenor, includes basic browsing and scam protection, dubbed *Surfsäker*, in its mobile subscriptions. As previously discussed, all providers are likely having basic browsing and scam protection following national legislation and guidelines, but not all have "productised" it like Vimla.

Chilimobil is an MVNO (in Sweden without ties to Telia) and it sells *NordVPN* to its mobile subscribers for 79 SEK (83 NOK) per month. In addition to being a VPN, NordVPN offers partial identity protection and partial device protection. It goes without saying that this service is delivered by **NordVPN**. The Swedish offer is identical to that of Chilimobil Norway.

Finally, to the two 3rd party providers covered for Sweden[19]. They have both already been mentioned as partners to Telia/Tele2/Telenor/3 and Chilimobil respectively: **F-Secure** and **NordVPN**. Regardless of

[19] There is no insurance provider selling cybersecurity directly to Swedish consumers.

who provides the mobile subscription, anybody can buy F-Secure's products directly from F-Secure. The price is based on the scope and on the number of devices. We have chosen to display F-Secure's *Total* here for 10 devices as that seems to be a common household proposition by telecom providers in the Nordics. Customers need to sign either a one-year or a two-year contract with F-Secure. In Sweden the price per month is 104 SEK if signing a one-year contract (94 SEK with a two-year contract).

NordVPN's *Ultimate* is also possible to buy for anybody regardless of connectivity provider. It's priced higher, 169 SEK per month (162 NOK) but 1 TB of encrypted cloud storage (with a market value of about 100 SEK) is included in the price. It is not clear from the description how the insurance elements in *Ultimate* are delivered (if NordVPN e.g. uses a partner here) and it is neither clear if there's a limit in the number of devices covered.

Now to the first of two fixed broadband charts:

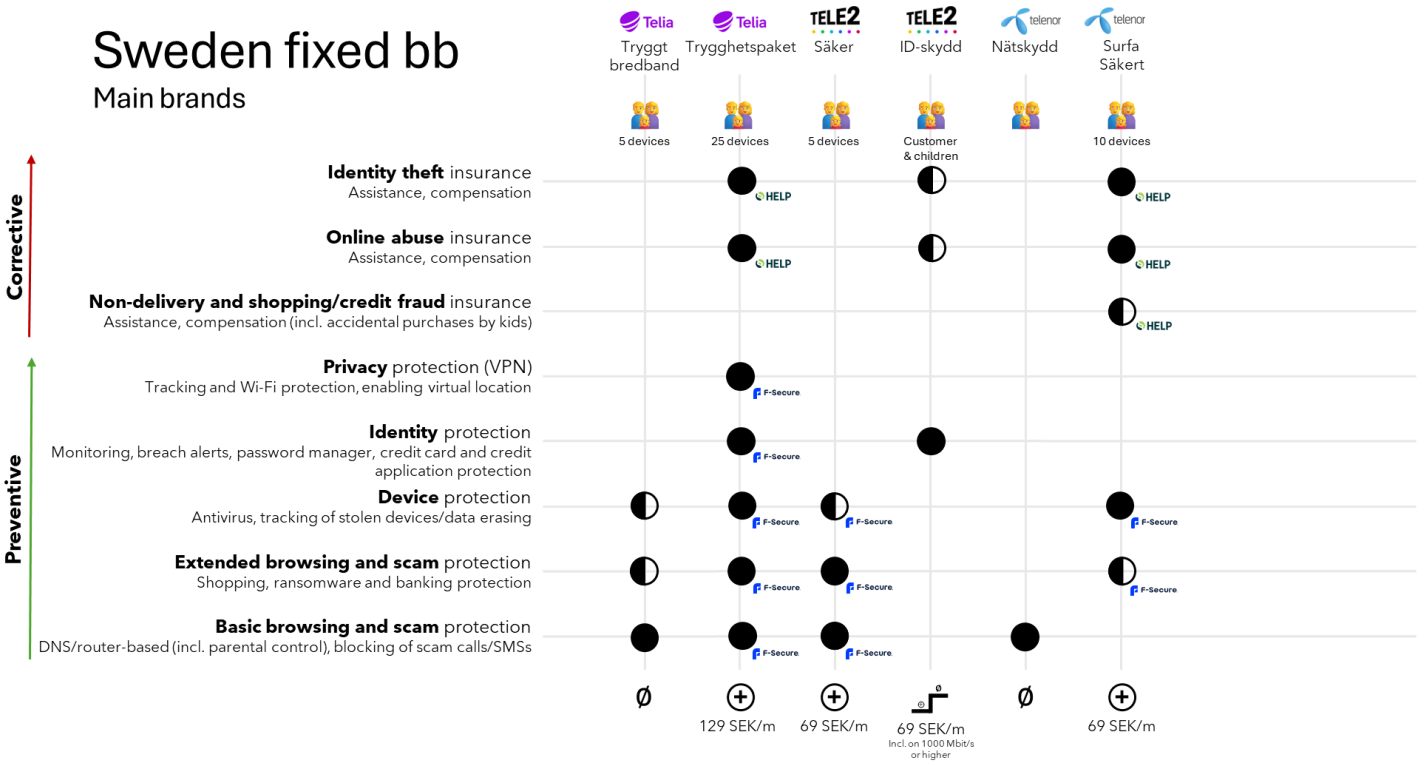


Figure 13. The cybersecurity products offered to Swedish fixed broadband customers on main brands.

Telia includes *Tryggt Bredband* for all its fixed broadband subscribers. It offers partial device protection – just 5 devices although covering a household – partial extended browsing and scam protection and basic browsing and scam protection. Telia does not state who is the supplier, but it might well be F-Secure.

For fixed broadband customers that want more protection, Telia offers *Trygghetspaketet* for 129 SEK (135 NOK) per month. It's the same close-to-complete package as in mobile.

Just like in mobile, **Tele2** doesn't include any cybersecurity for fixed broadband customers. It sells the same *Säker* as in mobile for 69 SEK (72 NOK) per month but as it here addresses a household, 5 units will be too limited for most households.

But Tele2 has made a bit of tiering on cybersecurity in fixed: If subscribing to fixed broadband with 1000 Mbit/s or higher, customers get *ID-skydd*. This does not necessarily cover the whole household, but the subscriber and his/her children. It provides partial identity theft and online abuse support – but it's *not* an insurance but a 24/7 helpdesk that can help with e.g. removing unwanted material, removing fake profiles and handling hacked accounts. In addition, *ID-skydd* gives comprehensive identity protection with a possibility to monitor e.g. identity numbers, email addresses and credit cards. Customers that are not subscribing to 1000 Mbit/s broadband can purchase *ID-skydd* for 69 SEK (72 NOK) per month.

Telenor has made a product of its basic browsing and scam protection and calls it *Nätskydd*. It is there on all fixed broadband subscriptions.

In addition, Telenor sells the same *Surfa Säkert* as in mobile for 69 SEK (72 NOK) per month.

Now to the last of the Swedish graphs:

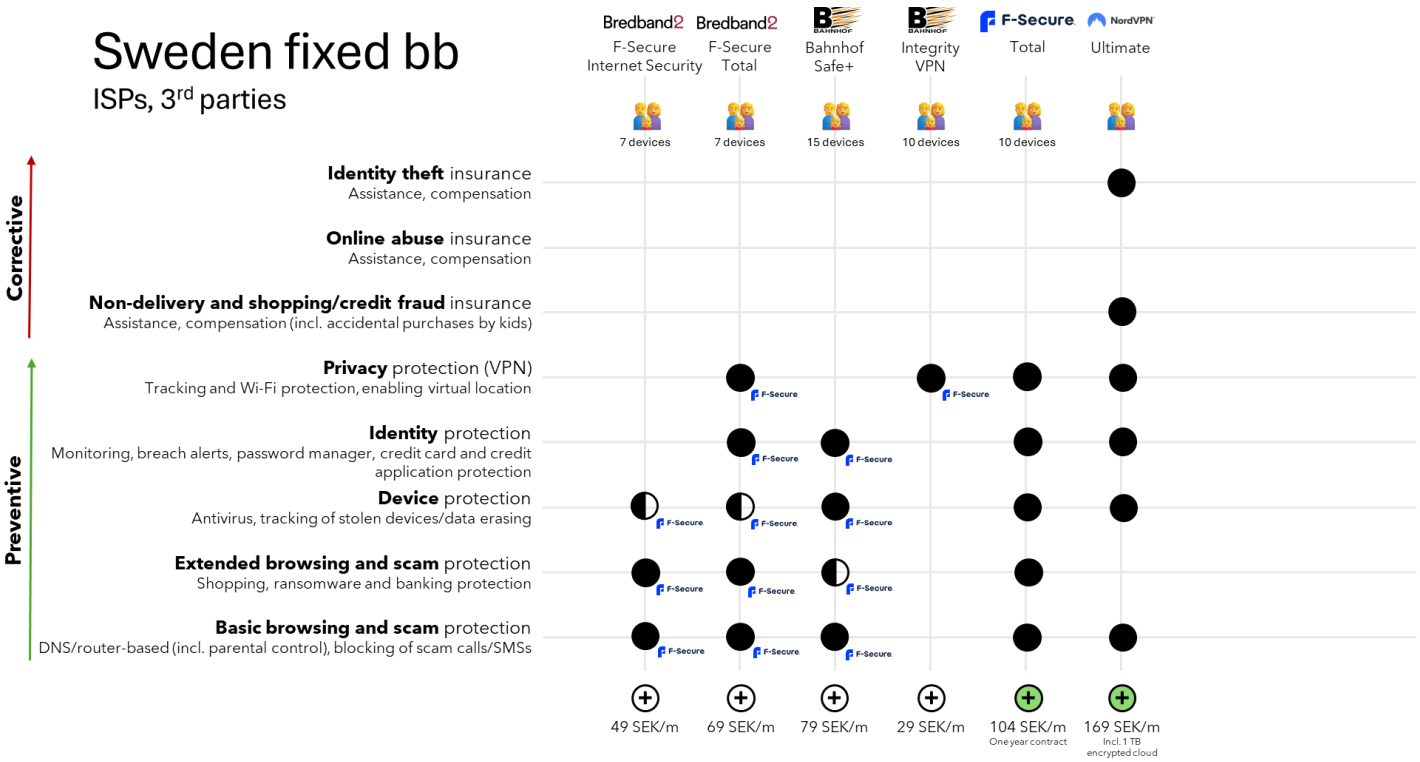


Figure 14. The cybersecurity products offered to Swedish fixed broadband customers on ISPs and by 3rd parties.

Bredband2 is the fourth largest fixed broadband provider in Sweden. It doesn't include any cybersecurity for fixed broadband customers. It sells two **F-Secure** packages, *Internet Security* and *Total*, both with up to 7 devices, for 49 SEK (51 NOK) and 69 SEK (72 NOK) per month respectively.

Bahnhof, Sweden's 5th largest fixed broadband provider, also sells F-Secure products, but with a slightly different cut: With *Safe+*, Bahnhof's subscriber gets a bit wider coverage for 79 SEK (83 NOK) per month

for up to 15 devices. VPN is then not included, but *Integrity VPN* for 10 devices can be added for 29 SEK (30 NOK) per month. *Integrity VPN* can also be bought stand-alone.

Finally, the offers from **F-Secure** and **NordVPN** that are as described under mobile.

5.7 Cybersecurity products, Finland

For Finland we will also need four graphs to cover the cybersecurity offering:

- Mobile: Main brands
- Mobile: 3rd parties
- Fixed broadband: Main brands
- Fixed broadband: 3rd parties

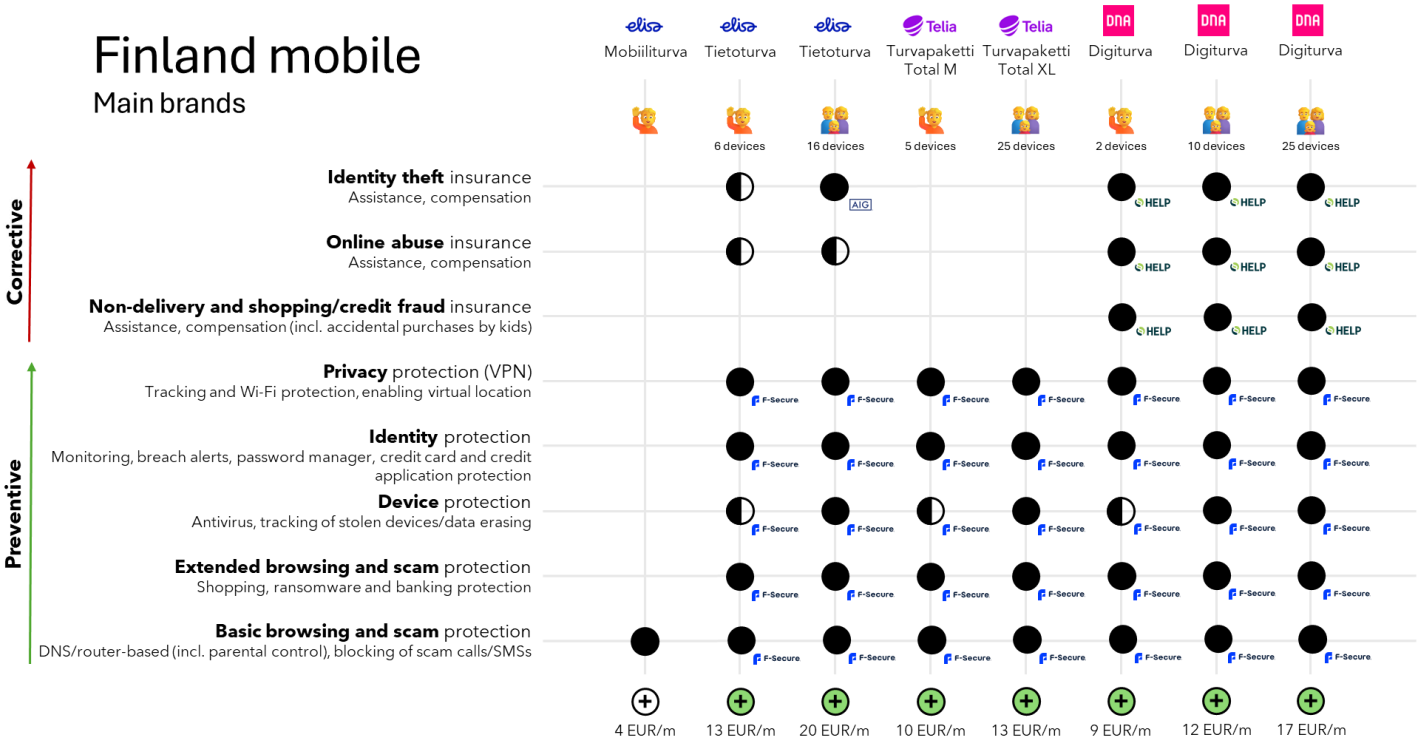


Figure 15. The cybersecurity products offered to Finnish mobile customers on main brands.

The first thing we should note is that in Finland, cybersecurity is never free. This is different compared to Norway, Denmark, and Sweden where at least some providers include some basic cybersecurity for all subscribers. It is also more common to sell cybersecurity services independent of connectivity subscriptions in Finland, i.e. there's a possibility to buy it from a telecom provider you are not a customer to.

Elisa charges mobile subscribers – that subscribe to it – 4 EUR (46 NOK) per month for basic browsing and scam protection. The other mobile providers do not have that on the menu, and it might well be, as

previously discussed, that they do this without charging for it, following national legislation and guidelines.

Elisa's cybersecurity prices are generally higher than competition for the same or similar scope: *Tietoturva* includes a fully-fledged **F-Secure** package but also weekday phone support between 10.00 and 18.00 on cybersecurity issues. This is not an insurance, and the phone support is not 24/7 as in the similar cases mentioned in Norway and Sweden. For up to 6 devices, likely sufficient for one person, Elisa charges 13 EUR (148 NOK) per month. Note that Elisa sells this to anybody, not just Elisa customers.

For 20 EUR (228 NOK) per month, anybody can get a larger *Tietoturva* package supporting up to 16 devices. The F-Secure elements are the same, but for identity theft, Elisa has now added a comprehensive identity theft insurance element, delivered by **AIG**.

Telia offers *Turvapaketti Total M* supporting up to 5 devices, hence suitable for one user, for 10 EUR (114 NOK) per month. It offers comprehensive **F-Secure** protection. A household with up to 25 devices gets the same for 13 EUR (148 NOK) per month. Just like with Elisa, these packages can be bought by anybody, i.e. the customer does not need to have connectivity from Telia.

DNA sells its *Digiturva* 2-device package for 9 EUR (103 NOK) per month to anybody. It contains the full **F-Secure** suite but since March 2025, it also contains comprehensive insurance: Identity theft, Online abuse, Non-delivery and shopping/credit fraud – delivered by **HELP**. A household with up to 10 devices can buy *Digiturva* for 12 EUR (137 NOK) per month whereas a household with up to 25 devices can get it for 17 EUR (194 NOK) per month. Since the coverage is wider in DNA's products – and price often lower – DNA has a value-for-money edge over Telia and Elisa.

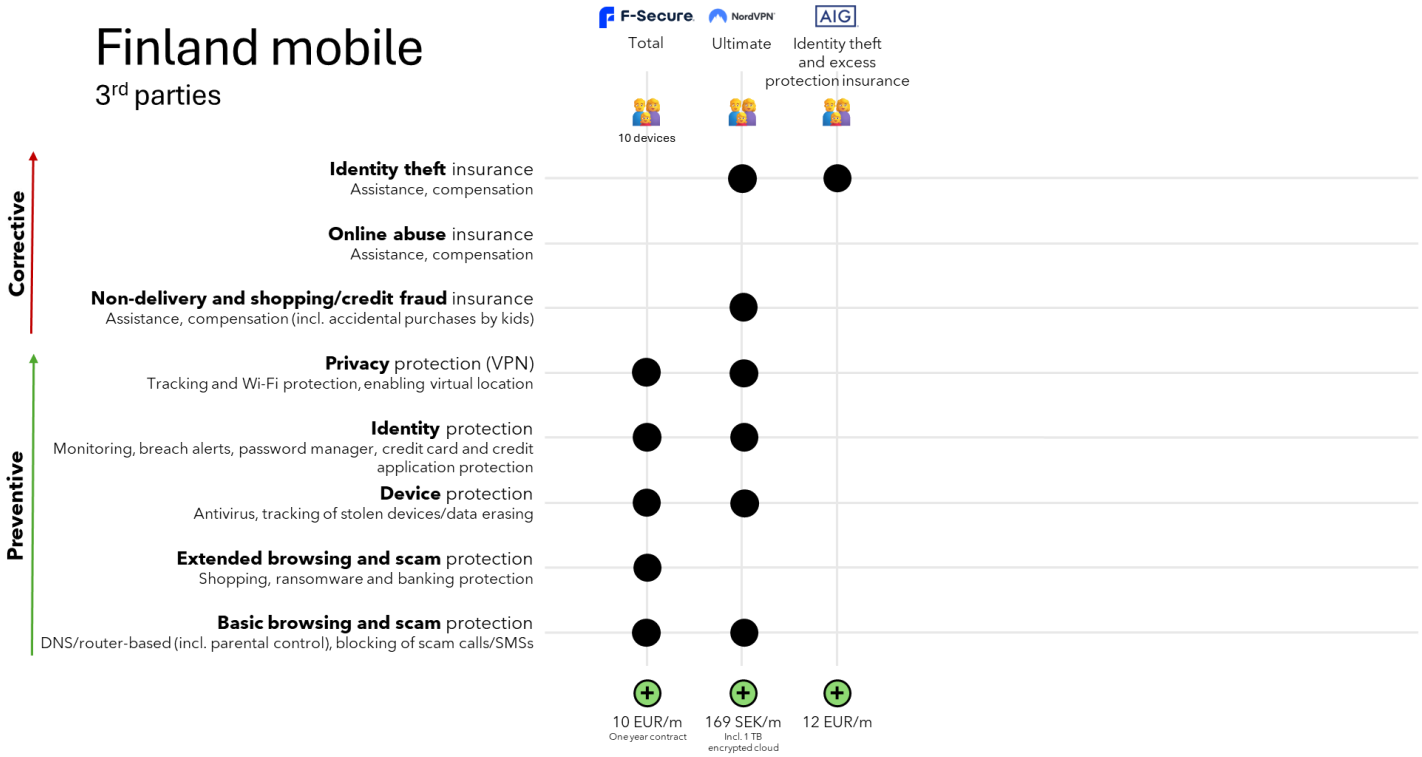


Figure 16. The cybersecurity products offered to Finnish mobile customers by 3rd parties.

The 3rd party providers covered for Finland are shown above. In addition to the well-known **F-Secure** and **NordVPN**, the insurance company **AIG**, that provides the identity theft insurance element in Elisa's largest *Tietoturva* package, sells the same directly to households for 12 EUR (137 NOK) per month. It has comprehensive coverage but seems quite expensive to buy stand-alone given that Elisa takes 7 EUR more for its *Tietoturva* when the AIG element is included – but then the customer also gets F-Secure support for an additional ten devices.

If now going to fixed broadband for the main brands, we get a graph that is largely identical to mobile – except for **Elisa**'s first column, *Kodin Tietoturva*. Elisa charged its mobile subscribers 4 EUR per month for basic browsing and scam protection – fixed broadband customers who want it, must pay more: 7 EUR (80 NOK) per month.

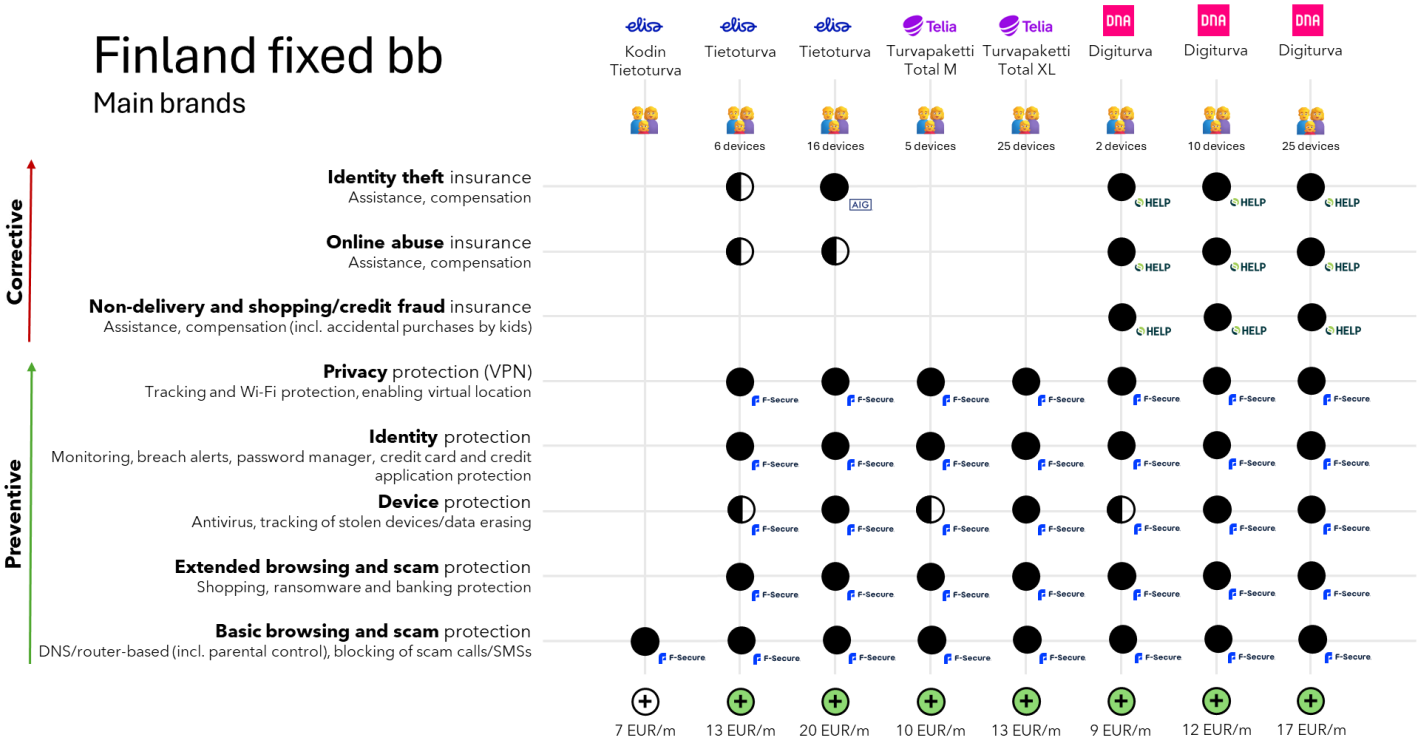


Figure 17. The cybersecurity products offered to Finnish fixed broadband customers on main brands.

The graph below, showing the 3rd party propositions for fixed broadband is fully identical to mobile.

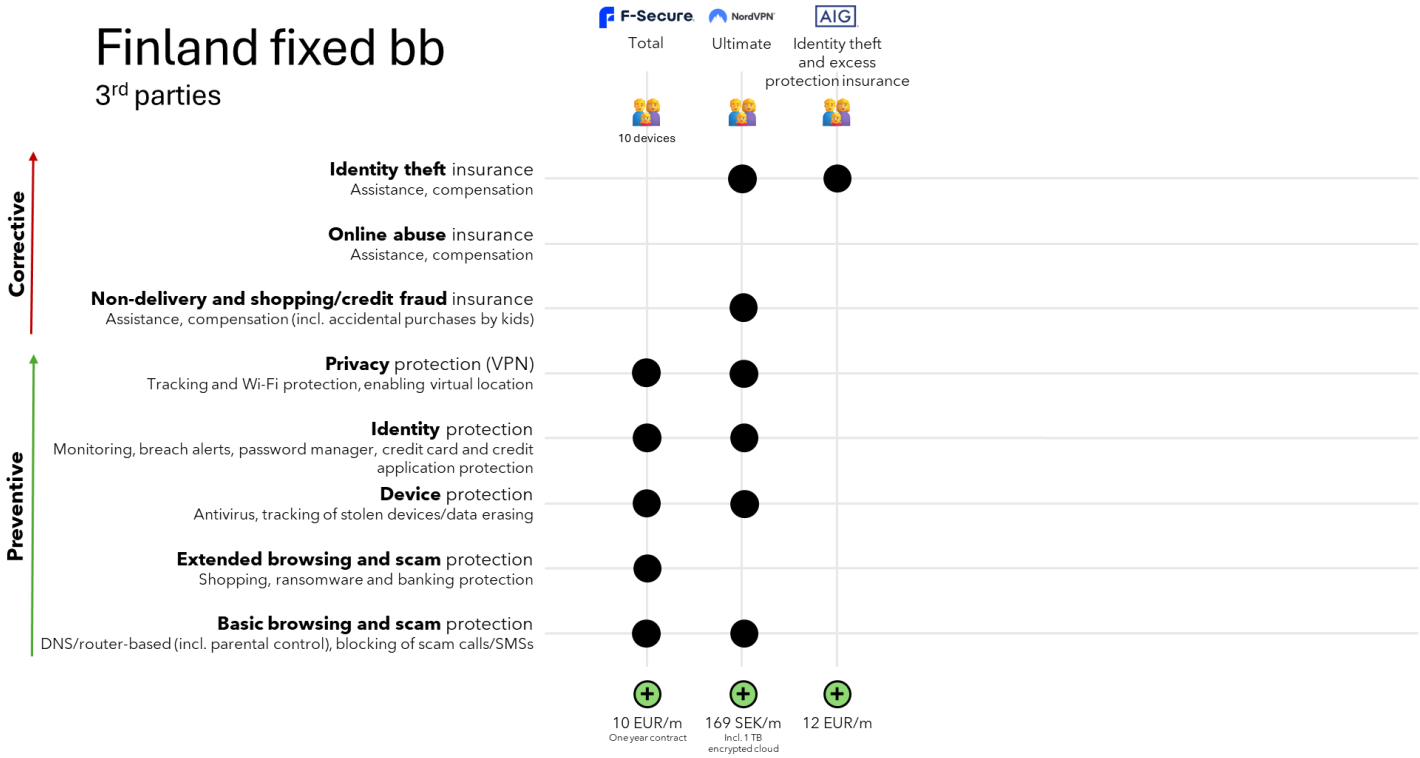


Figure 18. The cybersecurity products offered to Finnish fixed broadband customers by 3rd parties.

5.8 Comparison of cybersecurity products – scope vs. price

A scope vs. price comparison across the Nordic markets is not going to be easy. As shown, providers play with many different levers:

- Scope
- Features
- One person vs. one household support
- Number of devices covered
- Inclusive cloud storage
- Access to phone support
- Time limits on e.g. legal assistance
- Limits on the cost of law cases
- Limits on cost compensation
- Deductibles

Since there's no way to know how these levers influence the price of a cybersecurity package, we will never be able to do a perfect apple-to-apple comparison. But if we use our defined eight cybersecurity categories as shown in our visualisations, we can count the completeness of a cybersecurity package by

assigning a weight of **1** to **comprehensive** ● coverage and a weight of **0.5** to **partial** ◐ coverage. A package with full scope would then get the weight of 8[20].

We can then plot that against the price per month to see if there's correlation between scope and price, see Figure 19.

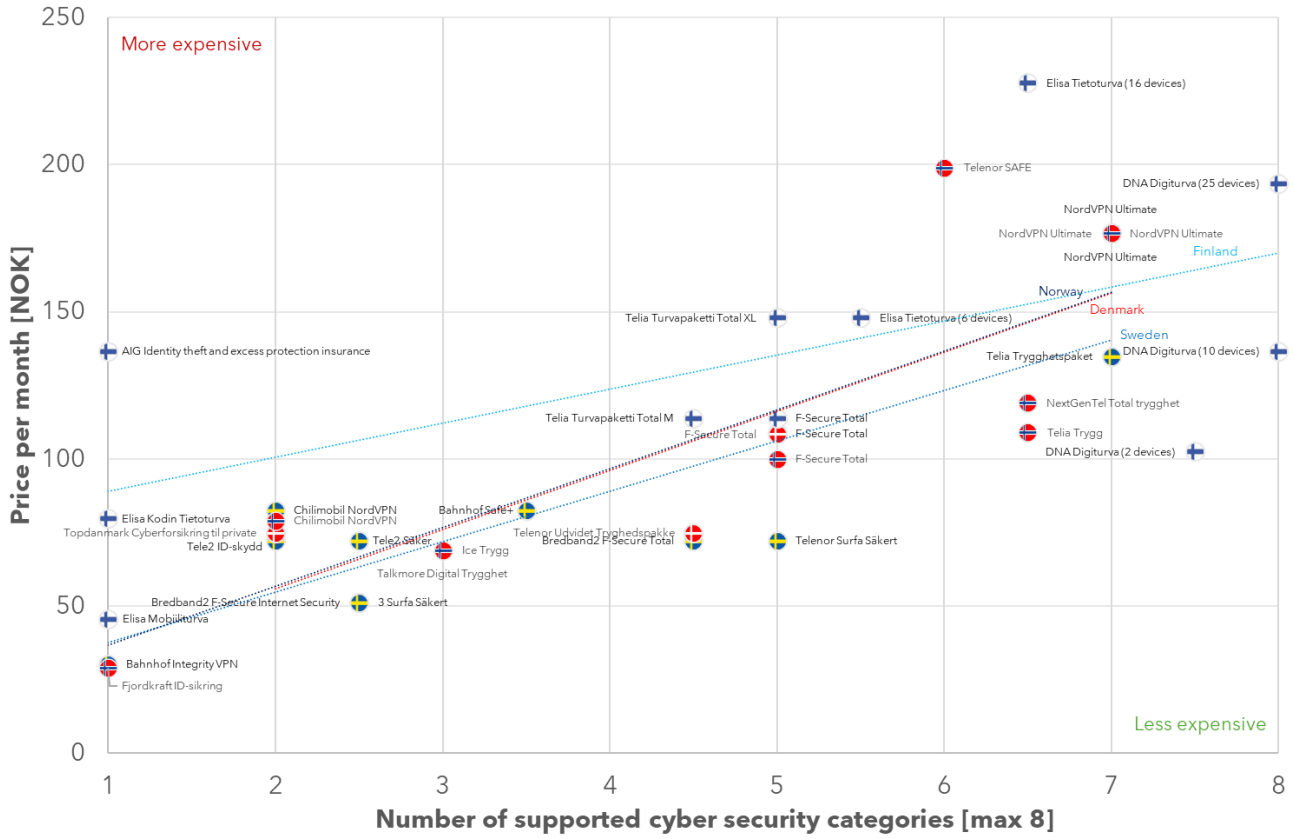


Figure 19. Price vs. number of supported cybersecurity categories for all Nordic propositions with a price.

It logically shows that the wider the scope, the higher the price. There are four trend lines in the chart, one for each country. Finland is a bit of an exception with high prices in the lowest range with just one supported cybersecurity category. This is explained by the high price of the *AIG identity theft and excess protection insurance* but also by the high price of the basic browsing and scam protection *Elisa Kodin Tietoturva*. Finland is also the only country with full coverage options (8 of 8 categories) through *DNA Digiturva* with 10 or 25 devices.

In Norway, Denmark, and Sweden, prices are very similar for the same number of supported cybersecurity categories. In Norway, NextGenTel's *Total Trygghet* and Telia's *Trygg* stand out positively in price whereas Telenor's *SAFE* is expensive given its scope.

[20] In this context, we have also given a weight of 1 to NordVPN Ultimate's inclusion on 1 TB of encrypted cloud storage although that is not defined as a cybersecurity category. The reason is that the product comes with it, and it can't be deselected. No other cybersecurity package includes cloud storage. NordVPN could hence have reached 9 if it had comprehensive coverage in all categories.

One reason to why pricing is so coherent in the Nordics could be that F-Secure sells its products directly to consumers in all markets and applies prices that are close to market-neutral. Since the same F-Secure products take part in so many cybersecurity packages sold by telecom providers, the prices of these will resemble F-Secure's public pricing. For the insurance categories, there is yet no such stand-alone offer in Norway and Sweden, only in Denmark and, to some extent, Finland.

Conclusion

There is no apparent price difference for cybersecurity propositions across Nordic markets when they are sold as add-ons.

Within Norway, only Telenor's SAFE is priced with a premium compared to its scope.

6 Cloud storage products offered

In contrast to cybersecurity, the cloud storage product is more straightforward and price, without exceptions, based on the number of gigabyte (GB) of storage. We have found 38 cloud storage propositions by the 40+ providers covered by this report – and there are few telecom providers offering cloud storage to mobile and fixed broadband subscribers.

6.1 Cloud storage products – Norway

Figure 20 below shows all cloud storage products offered in the Norwegian market – across mobile and fixed broadband.

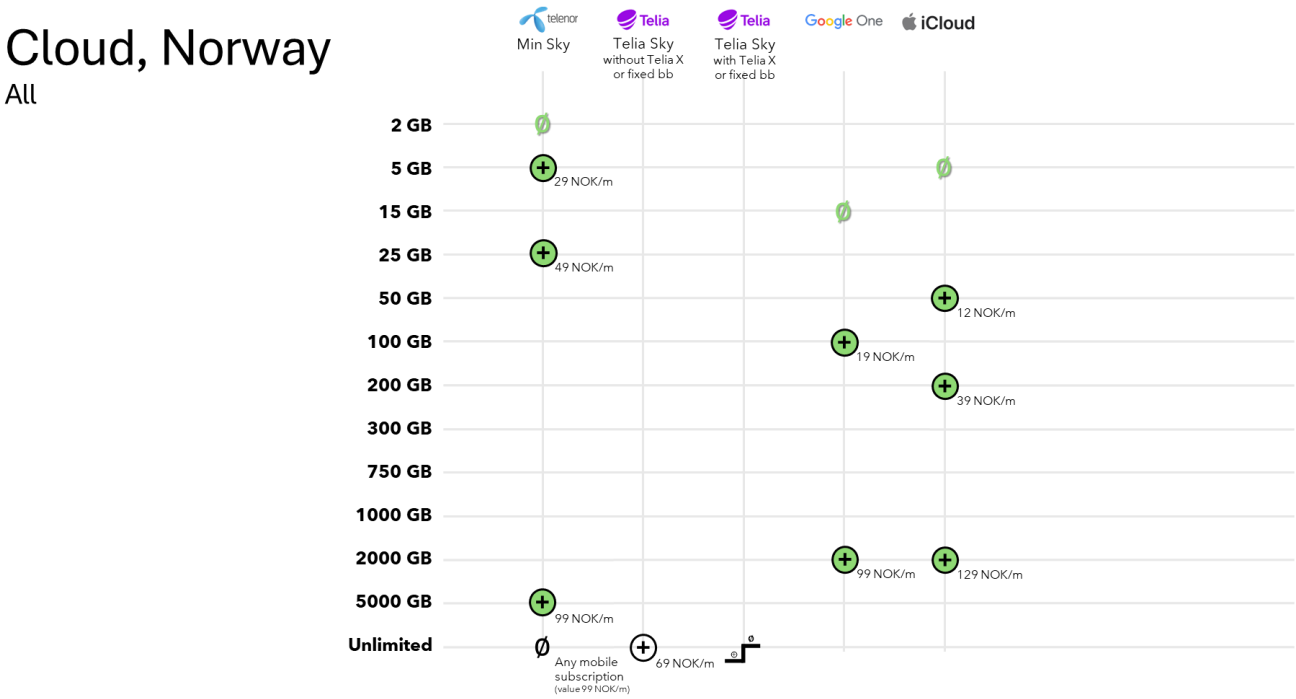


Figure 20. The cloud storage products offered to Norwegian mobile and fixed broadband customers.

As shown with the ∅ symbol, **Telenor** gives anybody – also those without a Telenor mobile or fixed broadband subscription 2 GB of *Min Sky* storage for free, following a "freemium" model. More storage can be purchased: 5 GB costs 29 NOK, 25 GB costs 49 NOK, and 5000 GB costs 99 NOK per month.

Furthest down in the graph, shown with the ∅ symbol, you can see that Telenor includes unlimited *Min Sky* with any mobile subscription. In its webpages, Telenor says that this has a value of 99 NOK per month. In contrast to Telia (read on), Telenor does *not* include cloud storage on fixed broadband subscriptions.

Telia has instead tiered its mobile offering on cloud storage: Mobile subscribers on Telia X (Telia's unlimited subscriptions) get unlimited *Telia Sky* storage for free. Mobile subscribers on Telia's bucket plans can subscribe to unlimited *Telia Sky* for 69 NOK per month. Telia's fixed broadband subscribers always get unlimited *Telia Sky* for free.

None of the other telecom providers in Norway offers cloud storage.

But the most straightforward choice for many mobile users is likely to use the cloud storage providers that are linked to the operating system of their smartphones: Google One for Android and iCloud for Apple iOS.

Google One cloud users get 15 GB for free. If more is needed, 100 GB is available for 19 NOK per month and 2000 GB for 99 NOK per month.

Apple iCloud users get 5 GB for free. 50 GB costs 12 NOK, 200 GB 39 NOK and 2000 GB 129 NOK per month.

iCloud is hence a bit more expensive than Google One. Telenor's *Min Sky* is not cost competitive to Google One or iCloud below 25 GB but the 69/99 NOK price points of Telia/Telenor in the 5000 GB to unlimited range are more affordable than both Google One and iCloud.

6.2 Cloud storage products – Denmark

Figure 21 shows all cloud storage products offered in the Danish market – and, as you can see, no telecom providers offer any.

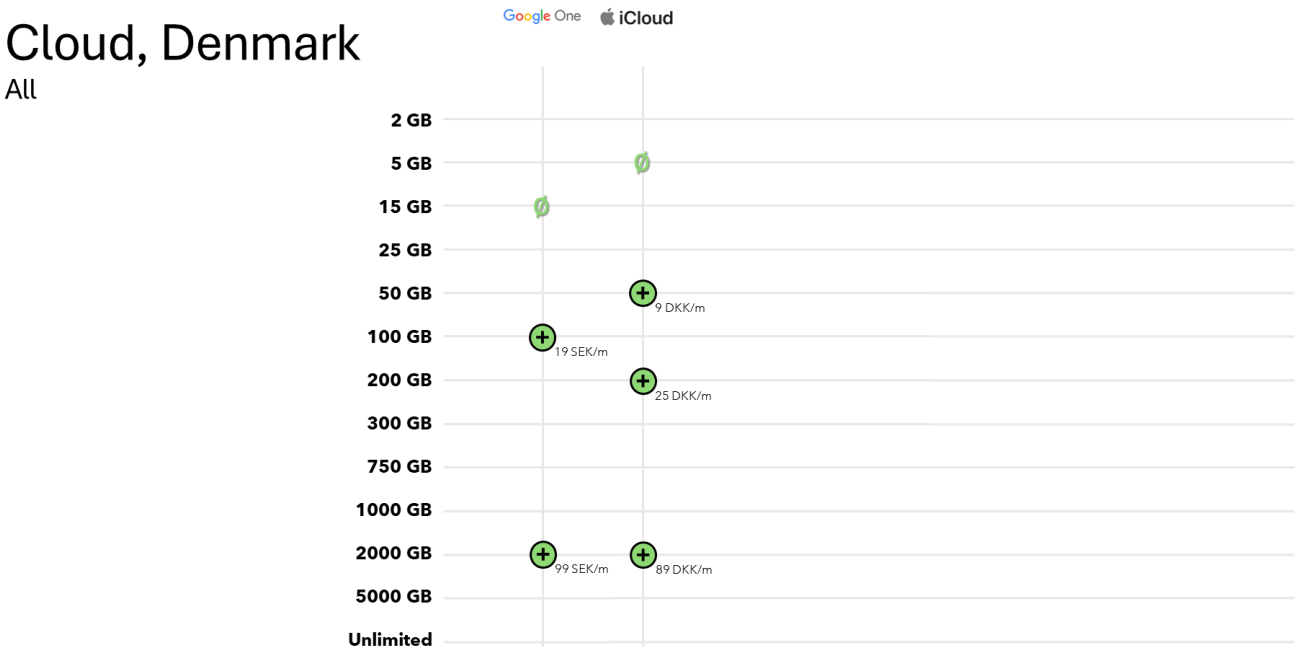


Figure 21. The cloud storage products offered to Danish mobile and fixed broadband customers.

The proposition from Google One and Apple iCloud is the same across the Nordic markets with what is essentially neutral pricing.

Google One cloud users get 15 GB for free. If more is needed, 100 GB is available for 19 SEK[21] (20 NOK) per month and 2000 GB for 99 SEK (104 NOK) per month.

Apple iCloud users get 5 GB for free. 50 GB costs 9 DKK (14 NOK), 200 GB 25 DKK (38 NOK) and 2000 GB 89 DKK (136 NOK) per month.

6.3 Cloud storage products – Sweden

Compared to Denmark, the Swedish cloud market is a bit more developed.

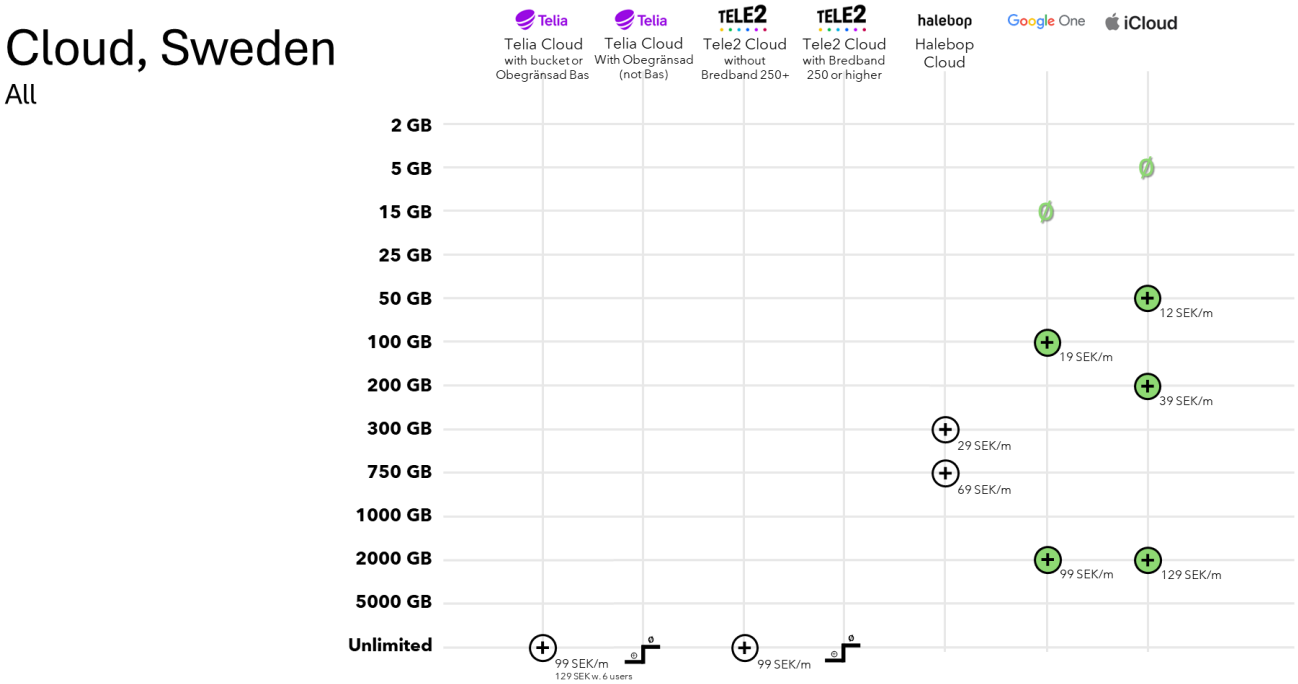


Figure 22. The cloud storage products offered to Swedish mobile and fixed broadband customers.

Telia tiers on cloud within mobile: Subscribers having one of Telia's unlimited subscriptions (but *not* "Obegränsad Bas") get unlimited *Telia Cloud* storage for free. Mobile subscribers on bucket plans or on "Obegränsad Bas" can purchase unlimited *Telia Cloud* for 99 SEK (104 NOK) per month. There is also a family version of *Telia Cloud* accepting up to 6 different users for 129 SEK (135 SEK) per month. Telia does not offer cloud to fixed broadband subscribers.

Vice versa then with **Tele2** that offers cloud to some of its fixed broadband subscribers, but not its mobile subscribers. Tele2 tiers on cloud within fixed broadband: Subscribers having 250 Mbit/s or higher speed gets unlimited *Tele2 Cloud* storage for free. Fixed broadband subscribers at lower speeds can subscribe to unlimited *Tele2 Cloud* for 99 SEK (104 NOK) per month.

Halebop, one of Telia's flanker brands, sells *Halebop Cloud* storage to its subscribers: 300 GB costs 29 SEK (30 NOK) per month whereas 750 GB costs 69 SEK (72 NOK) per month.

[21] Google One charges Danish and Finnish customers in SEK.

Google One cloud users get 15 GB for free. If more is needed, 100 GB is available for 19 SEK (20 NOK) per month and 2000 GB for 99 SEK (104 NOK) per month.

Apple iCloud users get 5 GB for free. 50 GB costs 12 SEK (13 NOK), 200 GB 39 SEK (41 NOK) and 2000 GB 129 SEK (135 NOK) per month.

With is unlimited storage, Telia and Tele2's cloud is cost competitive to 2000 GB from Google One or iCloud.

6.4 Cloud storage products – Finland

In Finland, only one telecom provider, Elisa, offers cloud.

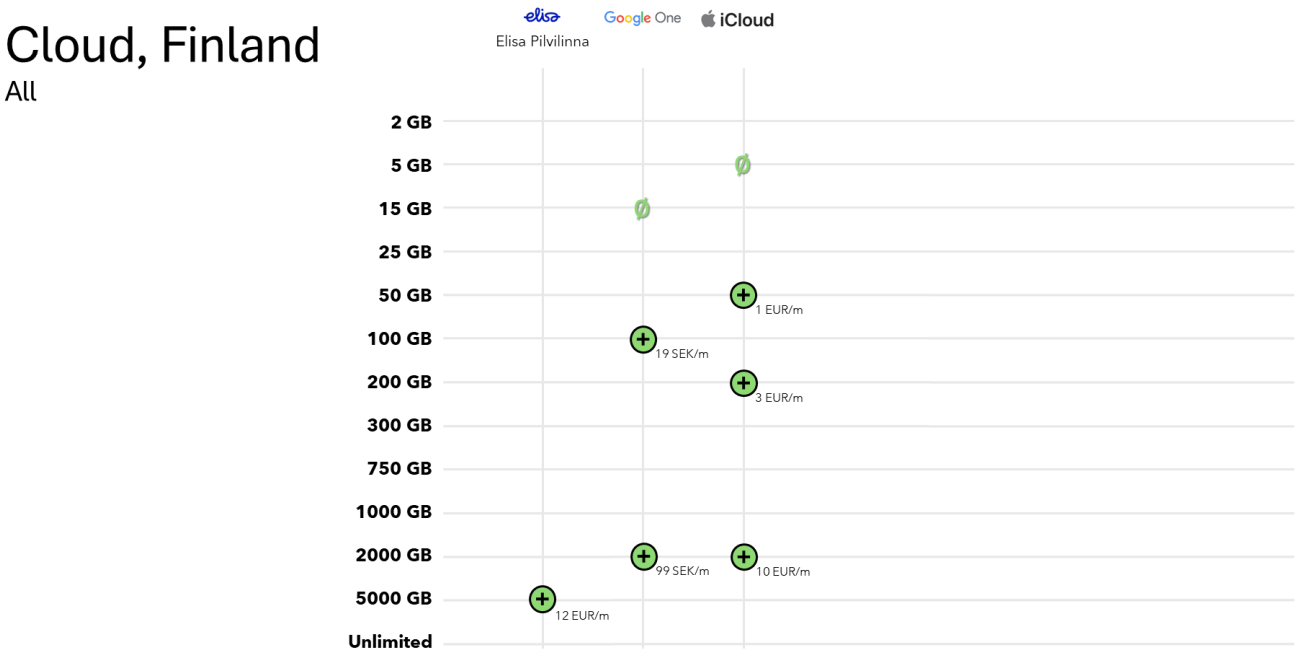


Figure 23. The cloud storage products offered to Finnish mobile and fixed broadband customers.

Elisa has one single offer on its *Elisa Pilvilinna* service: 5000 GB of storage can be subscribed to by anybody – also without Elisa connectivity subscription – for 12 EUR (137 NOK) per month.

Google One cloud users get 15 GB for free. If more is needed, 100 GB is available for 19 SEK[22] (20 NOK) per month and 2000 GB for 99 SEK (104 NOK) per month.

Apple iCloud users get 5 GB for free. 50 GB costs 1 EUR (11 NOK), 200 GB 3 EUR (34 NOK) and 2000 GB 10 EUR (114 NOK) per month.

Elisa's cloud offer is in line with the pricing of 2000 GB from Google One or iCloud but likely not selling in volumes.

[22] Google One charges Danish and Finnish customers in SEK.

6.5 Comparison of cloud storage – scope vs. price

Now that we have been through all the cloud storage propositions in the Nordic markets, we can plot the supported cloud storage (in GB) against the price per month to see if there's correlation, see Figure 24.

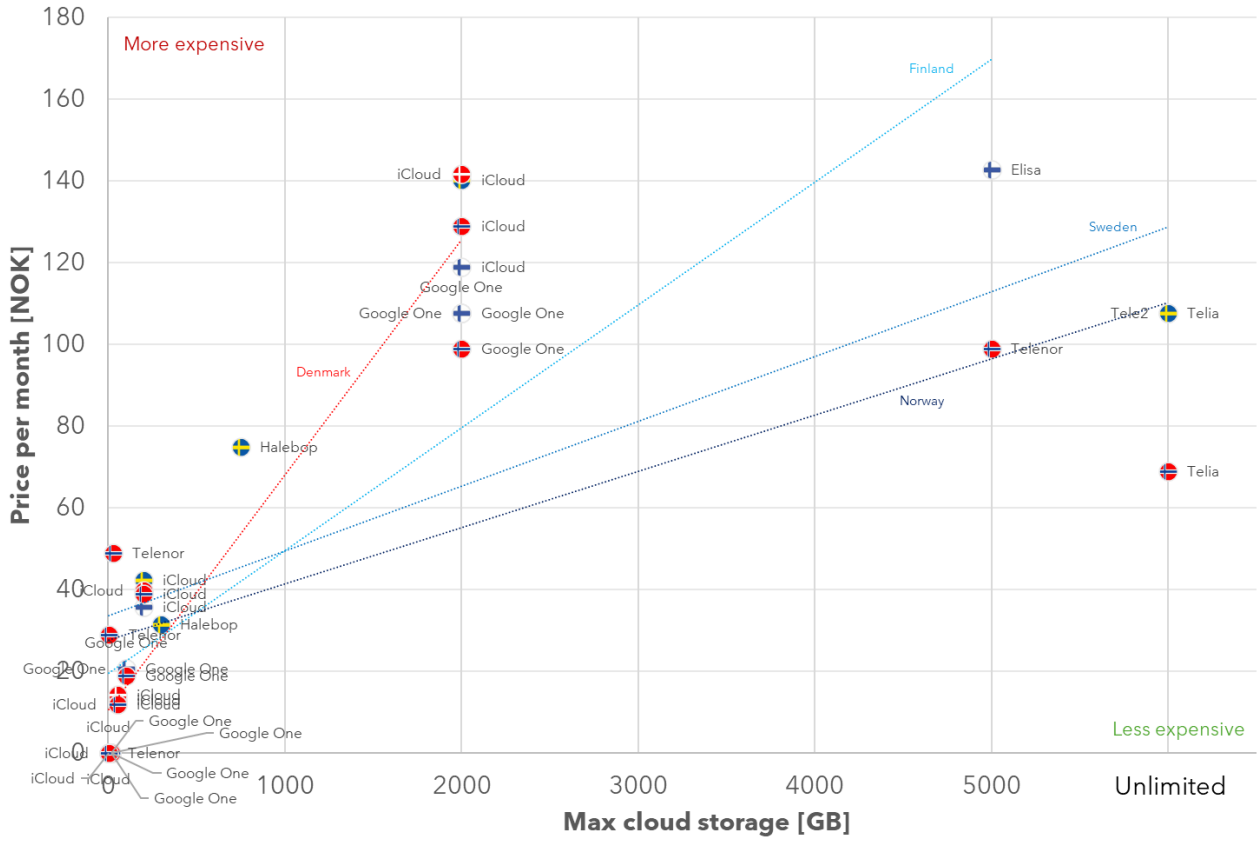


Figure 24. Price vs. cloud storage for all Nordic propositions.

It logically shows that the more storage, the higher the price. There are four trend lines in the chart, one for each country. Denmark is a bit of an exception since its trend line is entirely based on Google One and iCloud as no telecom providers offer cloud in Denmark.

Finland's trend line is affected by the relatively high price – compared to other telecom providers – on its only 5000 GB cloud offer from Elisa.

Norway is well positioned from a cost point of view: Telenor's 5000 GB offer and, particularly, Telia's unlimited offer is cost competitive. In the lower range, though, Telenor's 5 GB and 25 GB offers are not cost competitive: In this range it's better to subscribe to Google One or iCloud.

Conclusion

There is no substantial price difference for cloud storage across Nordic markets when it is sold as an add-on.

Within Norway, Telia's unlimited cloud is very cost competitive, but also Telenor's 5000 GB offer is competitive compared to Google One and iCloud. In the low range, Telenor's cloud offers are more expensive than Google One and iCloud.

7 Differences in how cybersecurity and cloud services are sold

We have now established that there's no substantial price difference for cybersecurity and cloud propositions between the Nordics markets when such services are sold as add-ons. But are there differences between the countries when it comes to *how* cybersecurity and cloud services are sold? We have for instance already pointed out that in Finland, cybersecurity is never offered for free.

Figure 25 shows – for all 127 identified cybersecurity and cloud propositions – how these distribute across six different sales models. The icons from section 5.3.2 have been added to the graph to show where these reside.

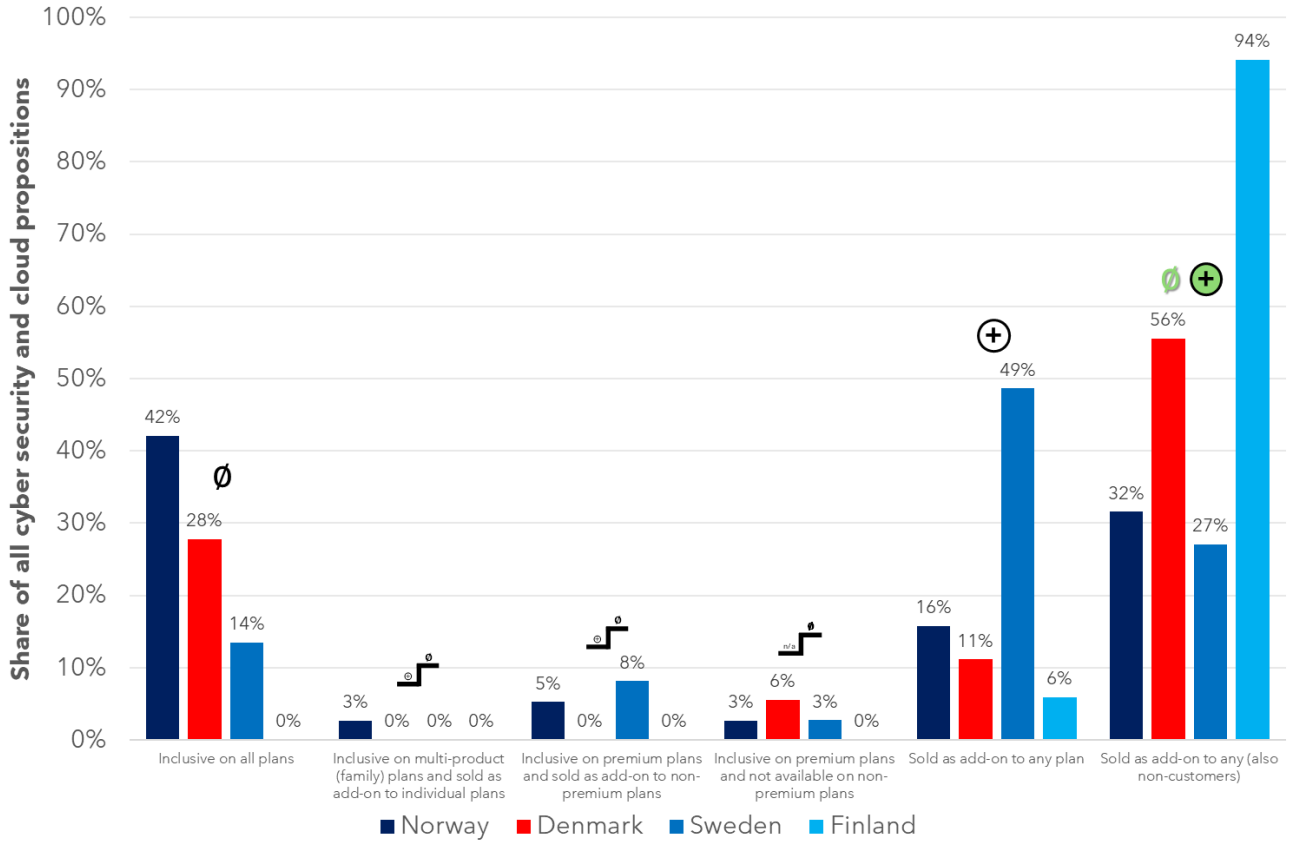


Figure 25. How cybersecurity and cloud services are sold – distribution across the Nordic markets.

The first category, "Inclusive on all plans" shows that it is more frequent (42% of propositions has this model) to include cybersecurity or cloud services in **Norway** than in the other markets. This suggests that Norwegian providers are more plentiful in that respect. Note though that this comparison does not consider how *much* services are included – instead just whether there is *something* included. We will try to address this is the next section.

The three next categories are variants of tiering, i.e. when a provider encourages a connectivity subscriber to take a more premium plan by including cybersecurity or cloud services to connectivity subscribers that pay a premium – but not to subscribers that don't. This practice is relatively infrequent, but Norway and

Sweden use it in 11% of the propositions (summing up the three tiering categories), Denmark uses it in 6% of propositions - while Finland never uses tiering.

In the fifth category, "Sold as add-on to any plan", **Sweden** stands out. 49% of the Swedish propositions are sold as add-ons to any plan. Swedish providers are hence more focused on monetising cybersecurity and cloud services among its own connectivity subscribers than providers in other countries.

In the last category, "Sold as add-on to any (also non-customers)", **Finland** stands out. 94% of the Finnish propositions are sold as a stand-alone add-on, i.e. the Finnish providers are to a very high extent selling their cybersecurity and cloud services to *anybody* – regardless of who their connectivity provider is.

Conclusion

The models for how to sell cybersecurity and cloud services differ between the Nordic markets.

In Norway it is more frequent (42%) to include services on all subscriptions. In Sweden it is more frequent (49%) to sell them as add-ons to any connectivity customer. In Finland (94%) and Denmark (56%) it is more frequent to sell them as add-ons to anybody.

8 Value included on mobile and fixed broadband subscriptions

As just shown, Norwegian telecom providers are more likely to include cybersecurity and cloud services than providers in the other Nordic markets.

Let's now try to estimate the value of these included services.

We will try to establish what the market value is for an equivalent service as the included service. With value we mean what a consumer would pay (including VAT) to source an equivalent service on the open market. It is *not* the same as the cost for a provider to deliver that service or source it from a partner like F-Secure or HELP.

We will face issues trying to do this. We have already shown that there is a lack of stand-alone cybersecurity offers in the insurance (damage mitigation) categories. That makes it harder to assess what the market value is.

Matching the scopes and features will be another issue. The open-market propositions are often having more features than the propositions included by the telecom providers. We will here pick the open-market proposition that *at minimum* matches the scope and features of the included service. This will, from time to time, exaggerate the market value of the included service.

Another issue which we haven't addressed much so far, is that the connectivity subscriber might not value the included cybersecurity or cloud service to its full market value. How many of Telenor's mobile subscribers or Telia's fixed broadband subscribers and mobile subscribers on the 'X' plans in Norway are e.g. valuing the inclusion of an unlimited cloud service to its full market value? If they had to pay for it directly, they would maybe have settled with a limited cloud storage – or no cloud storage at all?

To conclude, our approach to establish the market value of included cybersecurity and cloud services risks to exaggerate the actual value as perceived by connectivity subscribers. When we in the next section investigate if the included cybersecurity and cloud could explain the observed differences in *connectivity prices* between markets, we risk assigning too much importance to these included services. It is, after all, the telecom providers, not the connectivity subscribers, that have decided that they should be included.

8.1 Included market value – Norway

The table below shows the estimations of included market value of the cybersecurity and cloud service categories that have been included in at least one connectivity subscription in Norway.

	Included in a connectivity subscription?	Market value per month	Based on
Preventive cybersecurity			
• Basic browsing and scam protection	✓	0 NOK	Although not productised by all, believed to be offered by all
• Extended browsing and scam protection	✓	100 NOK	F-Secure Total (10 devices)
• Device protection	✓		
• Identity protection	✓		
• Privacy protection	✓		
Corrective damage mitigation			
• Non-delivery and shopping/credit fraud insurance	✓	69 NOK	Although not offered stand-alone on the open market, 69 NOK is what both Ice and Talkmore charge for HELP
• Online abuse insurance	✓		
• Identity theft insurance	✓		
Cloud			
• Unlimited cloud storage	✓	99 NOK	5000 GB from Telenor or 2000 GB from Google One

Figure 26. Estimation of market value of included cybersecurity and cloud services - Norway.

To understand what the Norwegian market price for the insurance coverage elements would be, we have checked the offerings of the largest insurers in Norway, but none of them have (unlike Denmark and Finland) such offers. Since most of the Norwegian telecom providers work with HELP, we have been in contact with HELP directly asking if they provide the insurance coverage offered by Telenor, Ice, and Talkmore as a stand-alone insurance, but that is not the case. Since both Ice and Talkmore charges 69 NOK per month for the comprehensive HELP coverage, we regard that as the Norwegian market price (although it can't be purchased stand-alone).

In the graph below we have plotted the total market value for the included cybersecurity and cloud services per connectivity subscription in Norway. Both mobile and fixed broadband subscriptions are covered.

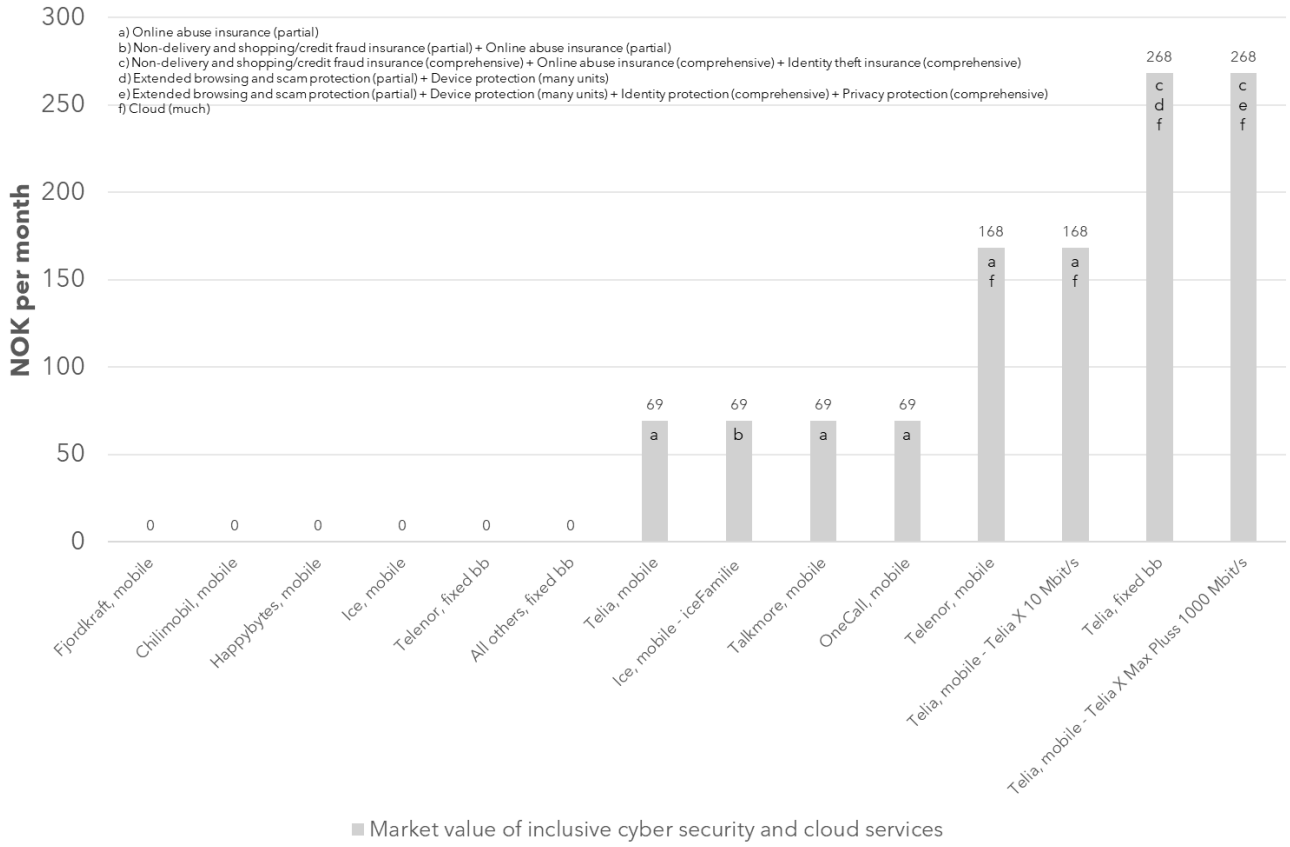


Figure 27. Market value for included cybersecurity and cloud services – per connectivity subscription, Norway.

The highest market value of included cybersecurity and cloud services in Norway is with **Telia**: All fixed broadband subscribers have services with a market value of 268 NOK included. The same value is included on Telia's premium "X Max Pluss" mobile plan. Mobile customers with "Telia X 10 Mbit/s" get services with a market value of 169 NOK included. The generic Telia mobile subscriber gets services with a market value of 69 NOK.

Telenor includes services with a market value of 168 NOK on all mobile subscriptions. Telenor's fixed broadband subscriptions do not get any included services with an assigned market value. That is true also for all other surveyed broadband providers in Norway except Telia.

All mobile subscribers of **Talkmore** and **OneCall** get services with a market value of 69 NOK. That is also true for customers on iceFamilie, i.e. with at least two mobile subscriptions from **Ice**.

With all other Norwegian providers, connectivity subscribers do not get any included services with an assigned market value.

> ***Conclusion***
>
> *In fixed broadband, Telia is the most plentiful when including cybersecurity and cloud services to a market value of 268 NOK.*
>
> *In Norwegian mobile, Telenor is the most plentiful in ordinary subscriptions, including a market value of 168 NOK. Telia includes the same on its 10 Mbit/s "X" plan – while it includes a higher 268 NOK on "Telia X Max Pluss".*

8.2 Included market value – Denmark

The table below shows the estimations of included market value of the cybersecurity and cloud service categories that have been included in at least one connectivity subscription in Denmark.

	Included in a connectivity subscription?	Market value per month	Based on
Preventive cybersecurity			
• Basic browsing and scam protection	✓	0 DKK (0 NOK)	Although not productised by all, believed to be offered by all
• Extended browsing and scam protection	✓	71 DKK (108 NOK)	F-Secure Total (10 devices)
• Device protection	✓		
• Identity protection	✓		
• Privacy protection	✓		
Corrective damage mitigation			
• Non-delivery and shopping/credit fraud insurance	✓	49 DKK (75 NOK)	Topdanmark's Cyberforsikring for private
• Online abuse insurance	✓		
• Identity theft insurance	-		
Cloud			
• Unlimited cloud storage	-		

Figure 28. Estimation of market value of included cybersecurity and cloud services - Denmark.

In the graph below we have plotted the total market value in NOK for the included cybersecurity and cloud services per connectivity subscription in Denmark. Both mobile and fixed broadband subscriptions are covered.

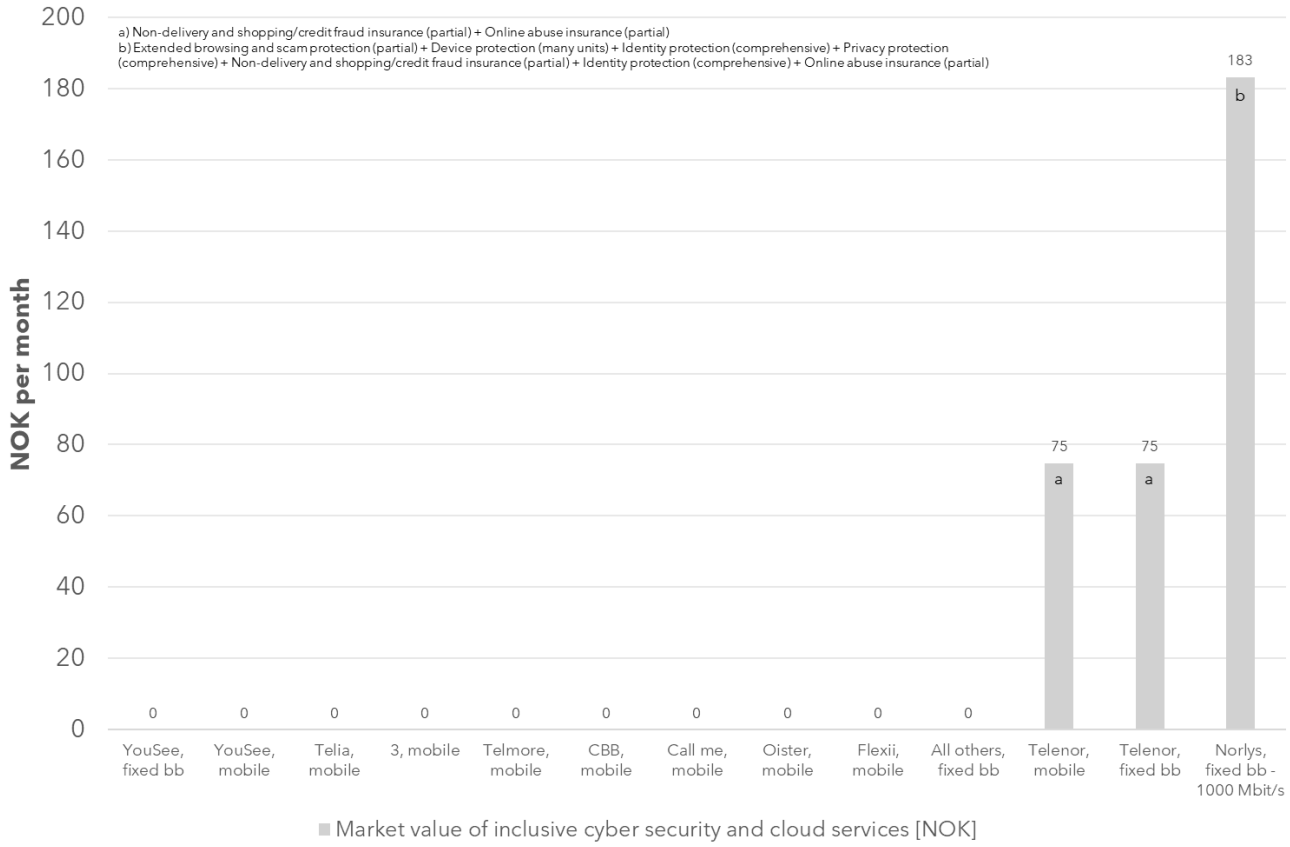


Figure 29. Market value for included cybersecurity and cloud services – per connectivity subscription, Denmark.

The highest market value of included cybersecurity and cloud services in Denmark is with **Norlys** if being on a 1000 Mbit/s fixed broadband subscription: Services with a market value of 183 NOK are then included.

Telenor includes a market value of 75 NOK on all fixed broadband as well as on all mobile subscriptions.

With all other Danish providers, connectivity subscribers do not get any included services with an assigned market value.

8.3 Included market value – Sweden

The table below shows the estimations of included market value of the cybersecurity and cloud service categories that have been included in at least one connectivity subscription in Sweden.

	Included in a connectivity subscription?	Market value per month	Based on
Preventive cybersecurity			
• Basic browsing and scam protection	✓	0 SEK (0 NOK)	Although not productised by all, believed to be offered by all
• Extended browsing and scam protection	✓	104 SEK (109 NOK)	F-Secure Total (10 devices)
• Device protection	✓		
• Identity protection	✓		
• Privacy protection	-		
Corrective damage mitigation			
• Non-delivery and shopping/credit fraud insurance	✓	69 SEK (72 NOK)	Although not offered stand-alone on the open market, 69 SEK is what Telenor charges for HELP including some F-Secure
• Online abuse insurance	✓		
• Identity theft insurance	✓		
Cloud			
• Unlimited cloud storage	✓	99 SEK (104 NOK)	Unlimited cloud from Telia or Tele2 (to connectivity customers) or 2000 GB from Google One

Figure 30. Estimation of market value of included cybersecurity and cloud services - Sweden.

To understand what the Swedish market price for the insurance coverage elements would be, we have checked the offerings of the largest insurers in Sweden, but none of them have (unlike Denmark and Finland) such offers. Since most of the Swedish telecom providers work with HELP, we have been in contact with HELP directly asking if they provide the comprehensive insurance coverage offered by Telia and Telenor as a stand-alone insurance, but that is not the case. Since Telenor charges 69 SEK per month for the comprehensive HELP coverage, we regard that as the Swedish market price (although it can't be purchased stand-alone and contains certain F-Secure elements).

In the graph below we have plotted the total market value in NOK for the included cybersecurity and cloud services per connectivity subscription in Sweden. Both mobile and fixed broadband subscriptions are covered.

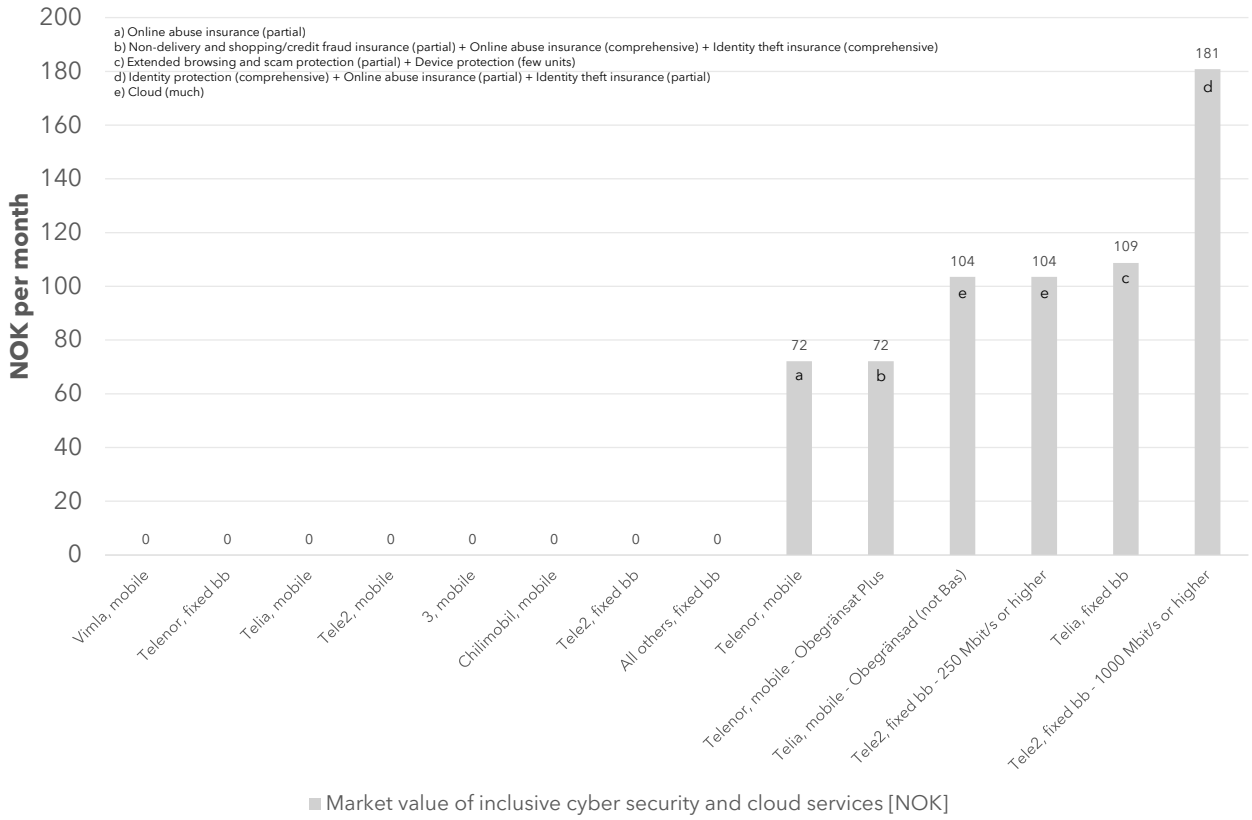


Figure 31. Market value for included cybersecurity and cloud services – per connectivity subscription, Sweden.

The highest market value of included cybersecurity and cloud services in Sweden is with **Tele2** if being on a 1000 Mbit/s or faster fixed broadband subscription: Services with a market value of 181 NOK are then included.

Telia includes a market value of 109 NOK on all fixed broadband subscriptions.

A similar market value, 104 NOK, is included on Tele2's fixed broadband subscriptions above 250 Mbit/s (but below 1000) as well as on Telia's more premium unlimited mobile subscriptions (not "Bas").

Telenor includes a market value of 72 NOK on all mobile subscriptions.

With all other Swedish providers, connectivity subscribers do not get any included services with an assigned market value.

8.4 Included market value – Finland

Since none of the Finnish mobile or fixed broadband subscriptions include any cybersecurity or cloud services, this section is empty.

9 Are inclusive cybersecurity and cloud services offsetting differences in mobile prices?

To assess if inclusive cybersecurity and cloud services could explain differences in the current mobile subscription prices, the market value of included cybersecurity and cloud services has been withdrawn from the connectivity subscription price.

9.1 Norway

In Figure 32 below, two bars are shown:

- **Dark grey**: The current price for a mobile subscription with at least 10 GB of data[23].
- **Orange**: The "net" price for a mobile subscription if the market value of included cybersecurity & cloud services has been subtracted.

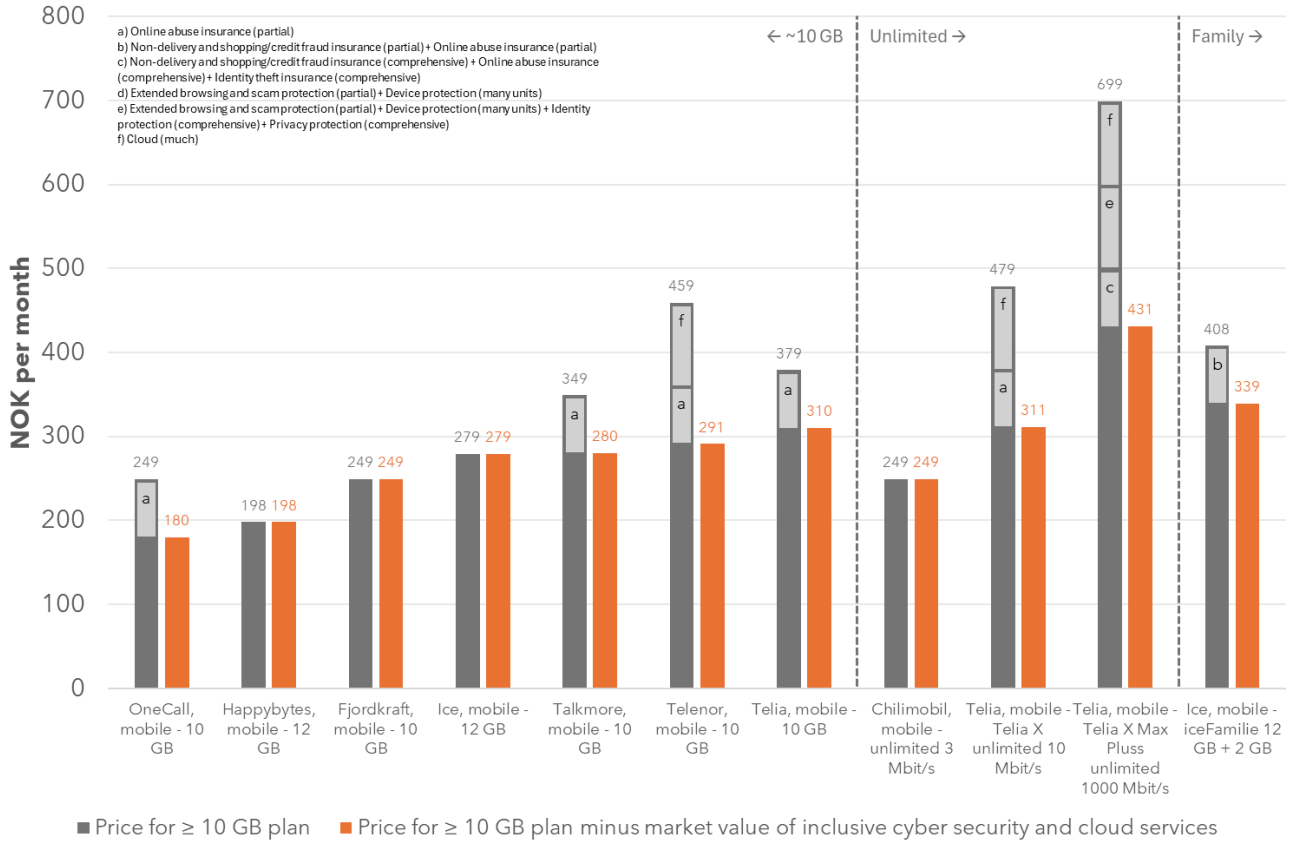


Figure 32. Prices for mobile subscriptions with at least 10 GB of data (dark grey). The market value for included cybersecurity and cloud services (light grey) and the resulting "net" price per mobile subscription if the market value is subtracted (orange), Norway.

The graph is sorted based on the orange bars – from lowest to highest in three groups: Subscriptions with 10 GB (or more if not available), subs with unlimited data volume (but speed limitation) and a minimum

[23] And unlimited voice and messaging. 10 GB is matching well with the median mobile data usage for a Norwegian smartphone user.

family subscription. The light grey boxes represent the market value of included cybersecurity & cloud services.

We'd like to remind that our approach to establish the market value of included cybersecurity and cloud services risks to exaggerate the actual value as perceived by connectivity subscribers. We risk assigning too much importance to these included services. It is, after all, the telecom providers, not the connectivity subscribers, that have decided that they should be included.

Looking at the dark grey bars, **Happybytes** offers the cheapest mobile subscription in Norway, 198 NOK per month. The subscriber even gets more data, 12 GB per month, than our 10 GB threshold.

But when subtracting the market value of included cybersecurity and cloud services – looking at the orange bars – **OneCall** overtakes Happybytes. When subtracting 69 NOK in market value for OneCall's inclusive online abuse insurance, the "net" price becomes 180 NOK.

Fjordkraft, **Chilimobil** (in unlimited), and **Ice** (12 GB single plan) are not including any cybersecurity and cloud services but are still cheaper than Talkmore, Telenor, and Telia even if we subtract the market value of their included cybersecurity and cloud services. The inclusion of these services is hence *not* the explanation to why main brands like Telenor and Telia are more expensive than the flanker brands or the independent providers. Even if subtracting the full market value – which likely is an exaggeration – Telia and Telenor are more expensive.

Hence, one could possibly allude to that the inclusion of cybersecurity and cloud services on main brands is more about signalling "more value for money" to defend current connectivity prices and to differentiate against flanker brands and independent providers not offering it.

Telenor's mobile subscriptions and **Telia**'s unlimited 'X' subscriptions are coming down significantly in "net" price if we subtract the market value of their included cybersecurity and cloud services. For the consumer, it would still be less expensive to buy a mobile subscription from a flanker brand or an independent provider and source the cybersecurity services from e.g. F-Secure and cloud from e.g. Google One directly. The corrective damage mitigation insurance elements are currently not sold stand-alone in the Norwegian market, but as shown by the availability of such services in Denmark (and to some extent, Finland), this might soon change.

Conclusion

In Norwegian mobile, the market value of included cybersecurity and cloud services (although likely exaggerated) does not fully offset the price difference between the main brands Telenor and Telia vs. the flanker brands and independent providers.

We will not show country graphs like Figure 32 for the other markets as the focus of the report is on Norway. The information will instead be presented in a combined Nordic chart in the next section.

9.2 Nordics

Let's now make the same calculation for the Nordics as a whole – to assess if the more frequent inclusion of cybersecurity and cloud services can explain mobile price differences between Norway and the other three Nordic countries.

In the graph below, we have highlighted all the Norwegian mobile subscriptions. If sorting the graph on the dark grey bars, i.e. *without* taking the market value of included cybersecurity and cloud services into account, Norway tend to be positioned in the more expensive end of the graph although the included data volume often is much more limited than in Denmark, Sweden and, particularly, Finland where all subscriptions are unlimited.

This view, that Norwegian mobile subscriptions get less value for money, echoes the findings of the latest report issued by the Ministry of Digitalisation and Public Governance which, based on a more comprehensive price comparison[24], concludes that there's a 30-50 NOK price differential between Norway on one hand and Sweden/Finland on the other (Denmark has much lower prices than these three).

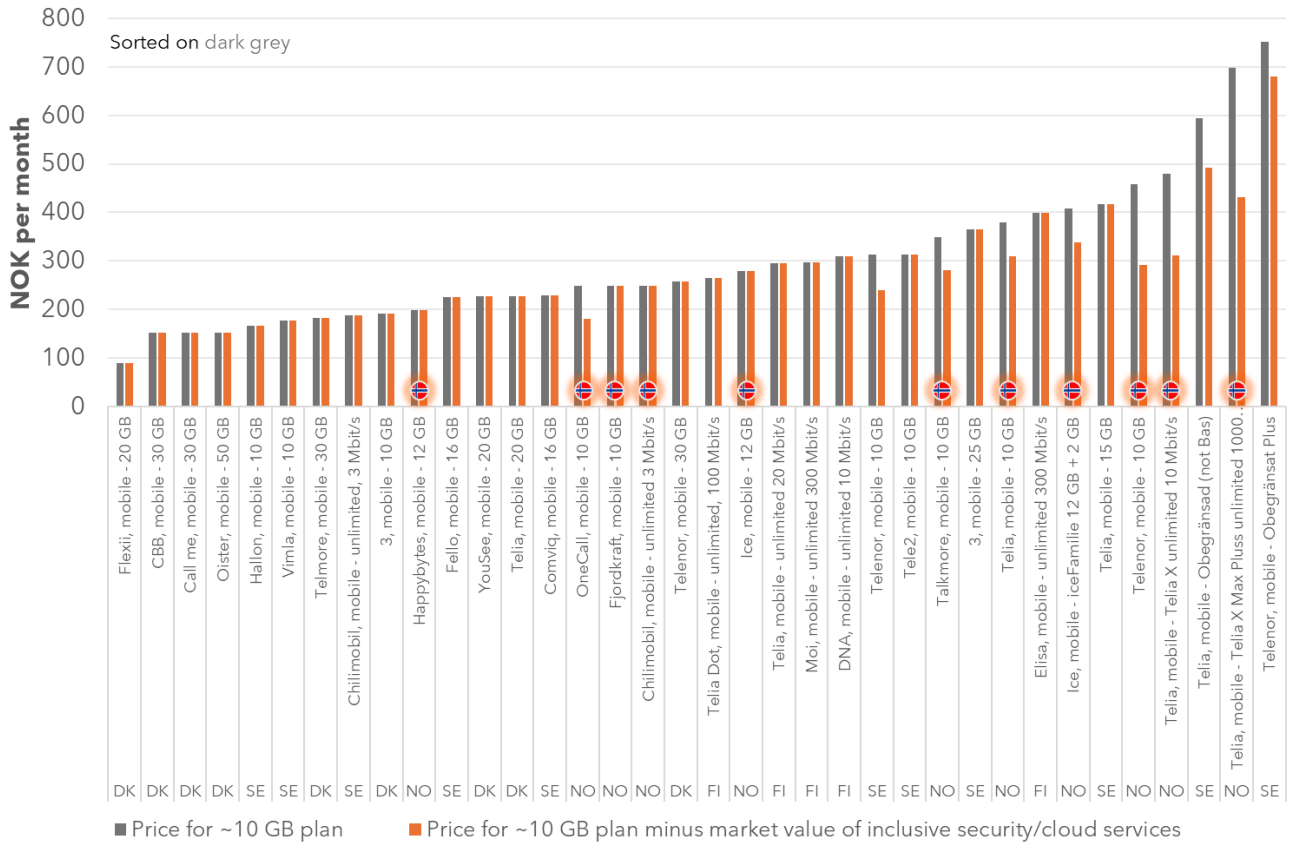


Figure 33. Prices for mobile subscriptions with at least 10 GB of data (dark grey) and the "net" price per mobile subscription if the market value of included cybersecurity and cloud services is subtracted (orange), Nordics – sorted after dark grey bars.

[24] Covering all mobile subscriptions with unlimited voice and messaging, regardless of data bucket.

The median Norwegian subscription is that of Talkmore. It sits in position #26 of 36 in the chart, i.e. clearly higher than the Nordic median.

Let's now sort Figure 33 based on the orange bars instead, i.e. subtracting the market value of included cybersecurity and cloud services.

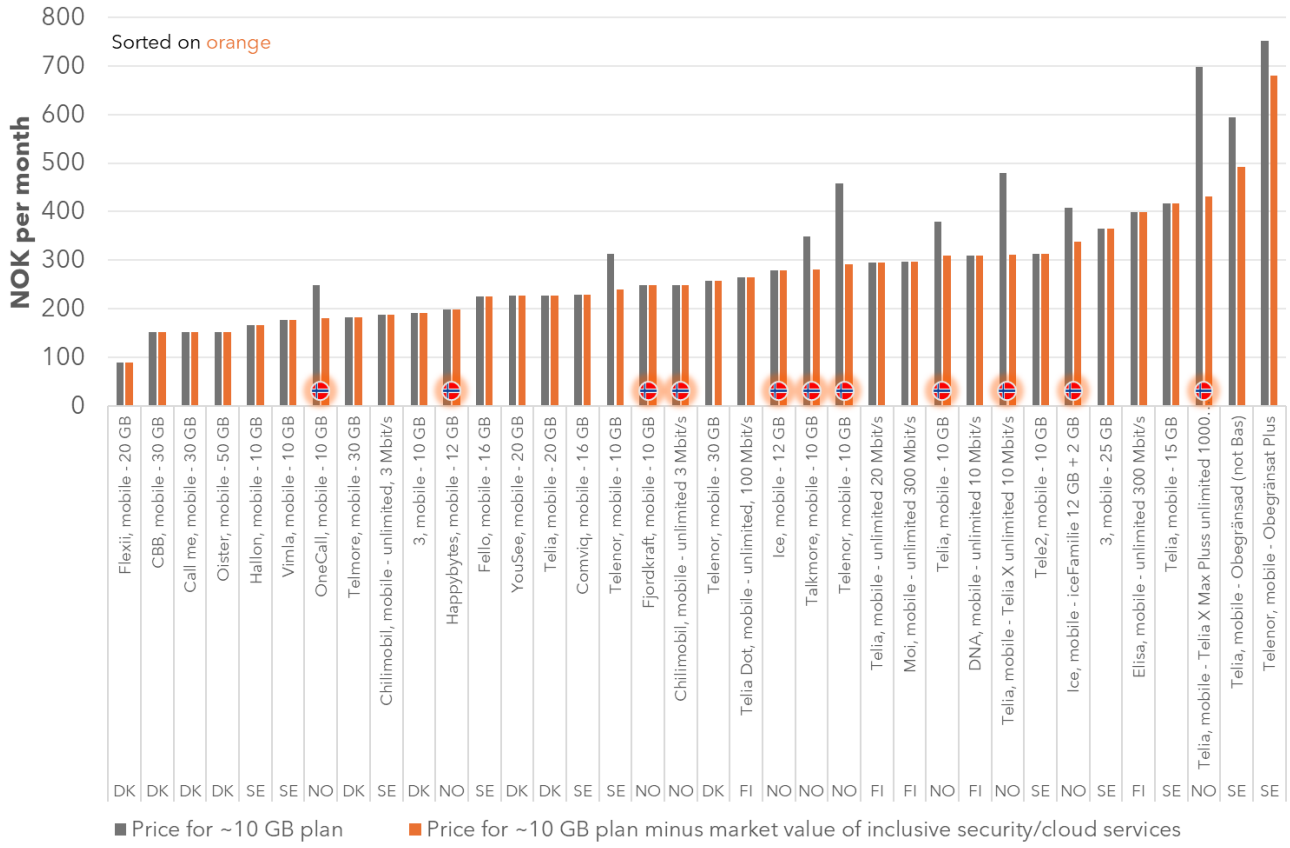


Figure 34. Prices for mobile subscriptions with at least 10 GB of data (dark grey) and the "net" price per mobile subscription if the market value of included cybersecurity and cloud services is subtracted (orange), Nordics – sorted after orange bars.

By doing this, the positions of the Norwegian subscriptions moved to the left, i.e. in a direction of affordability. The median Norwegian subscription is still that of Talkmore, but it has moved from position #26 to #22. It is an improvement, but as there are 36 entries in the graphs, subtracting the market value of the included cybersecurity and cloud services helps, but it does not fully explain the price differential to the other Nordic markets. To be able to say that, the median Norwegian subscription should have been on position #19 or lower.

This comparison shows that the value of included cybersecurity and cloud service only partially can explain Norway's higher mobile subscription prices.

Conclusion

The market value of included cybersecurity and cloud services (although likely exaggerated) does not fully offset the mobile subscription price difference between Norway and the other three Nordic markets.

10 Are inclusive cybersecurity and cloud services offsetting differences in fixed broadband ARPU?

10.1 ARPU comparability across the Nordics

In section 4.1 we explained the problem in comparing fixed broadband prices when these typically are address-based and not national. In the latest report issued by the Ministry of Digitalisation and Public Governance, an new attempt to capture fixed broadband prices was made, documenting 6500 prices for 385 specific addresses in the Nordics, randomised based on the population distribution. Since collective price agreements aren't public, the prices collected were, as pointed out in the report, mainly for single-dwelling units. The same applies for Denmark, Sweden, and Finland. The report showed a price differential of 270-750 NOK per month between Norway and fixed broadband subscriptions of the other Nordic countries for same-speed subscriptions. This approach was later criticised by Fiberforening for not taking non-public collective price agreements into account.

The report did however also compare the fixed broadband ARPU for the whole market – including also collective price agreements in multi-dwelling units and the business market. It showed a smaller difference between Norway and the other Nordic countries, but Norway's fixed broadband ARPU was still higher than the other three countries. Could this smaller difference be because Norway has a higher share of fixed broadband subscriptions in collective price agreements?

That statistic is not available for Denmark and Finland. But we can compare Norway with Sweden, see the graph below.

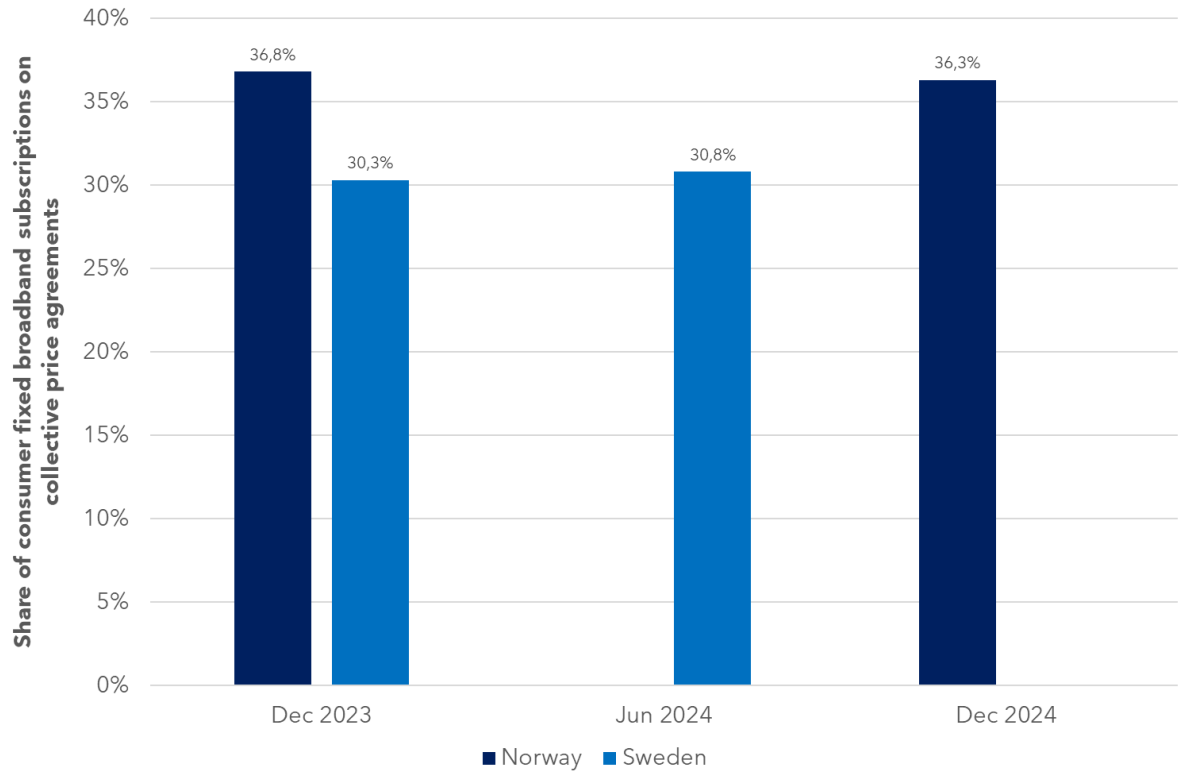


Figure 35. Share of consumer fixed broadband subscriptions on collective price agreements – Norway and Sweden [source Nkom, PTS].

Norway has an about 6pp higher share of fixed broadband subscriptions in collective price agreements compared to Sweden. The difference is not substantial but should, if we assume that collective price agreements are containing lower prices than individual agreements, contribute to decrease the overall fixed broadband ARPU in Norway more than what it does in Sweden.

Let's investigate ARPU further, see Figure 36. After the publishing of the Ministry of Digitalisation and Public Governance report, regulatory revenue data for 2023 was published for Denmark and Finland which increased the Danish and Finnish ARPU slightly compared to the report. Nkom has also issued statistics for both the first half of 2024 and for the whole year of 2024[25] and, while doing so, slightly adjusted its numbers for 2023.

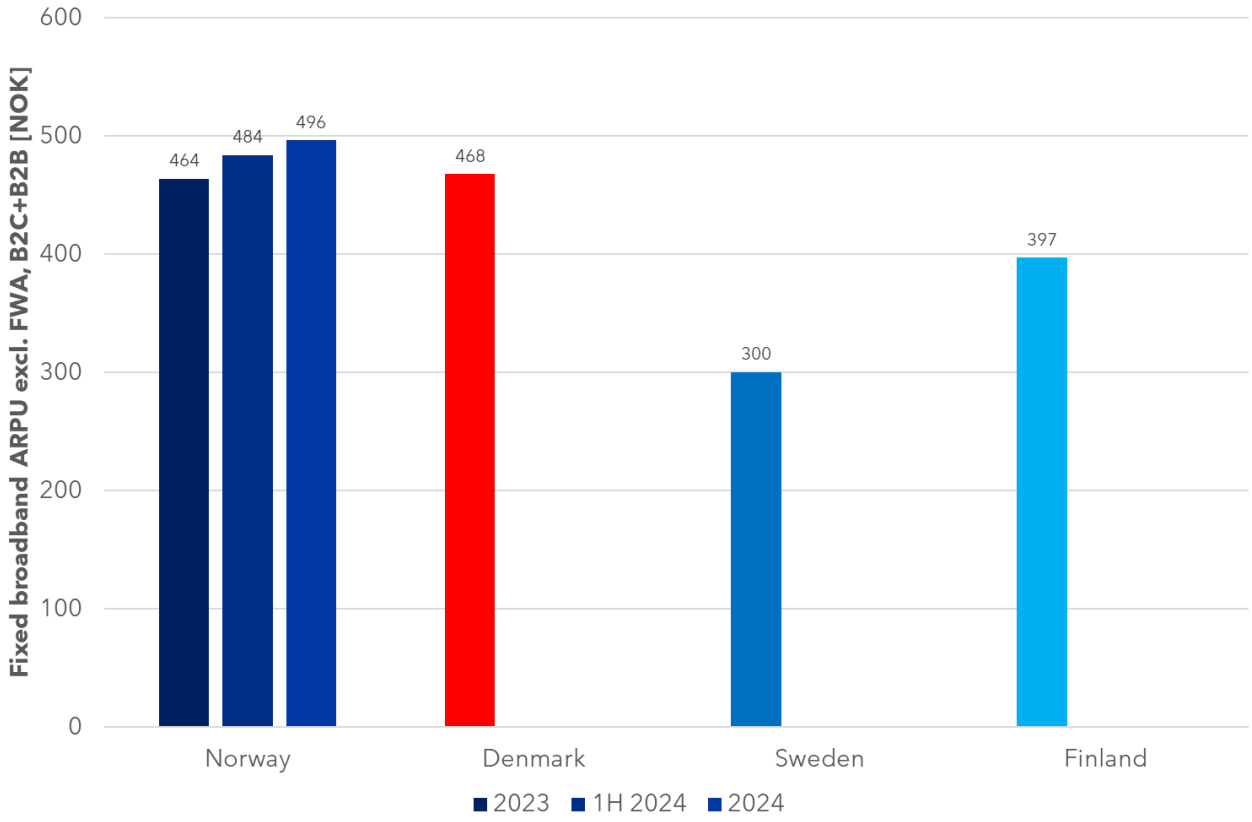


Figure 36. Total market fixed broadband ARPU[26] (excl. FWA) in NOK – Norway, Denmark, Sweden, and Finland. For Finland, capacity-reserved FWA revenue and subscriptions as well as revenues from fixed voice are included as can't be eliminated [source data Nkom, Digitaliseringsstyrelsen, PTS, Traficom].

The graph shows that in 2023, Denmark had the highest fixed broadband ARPU, 468 NOK, with Norway at 464 NOK. Finland (which includes revenue from fixed voice) had 397 NOK and Sweden 300 NOK. The Norwegian fixed broadband ARPU increased in 2024, but that will likely be the trend also in the other countries as providers have increased prices and customers gradually move to more modern fixed broadband technologies and upgrade speeds.

[25] Denmark, Sweden, and Finland only publish revenue information for fixed broadband on an annual basis and has not yet done so for 2024.

[26] ARPU calculated as total retail revenue from fixed broadband (minus FWA revenue if part of fixed broadband) divided by the average number of fixed broadband subscriptions (minus FWA subscriptions if part of broadband). Average calculated as (subscriptions end of period+subscriptions end of previous period) divided by 2.

We promised to do purchasing power parity adjustment for the fixed broadband ARPU, and in Figure 37 below this has been done. It does not change the values of Norway, just the other three countries.

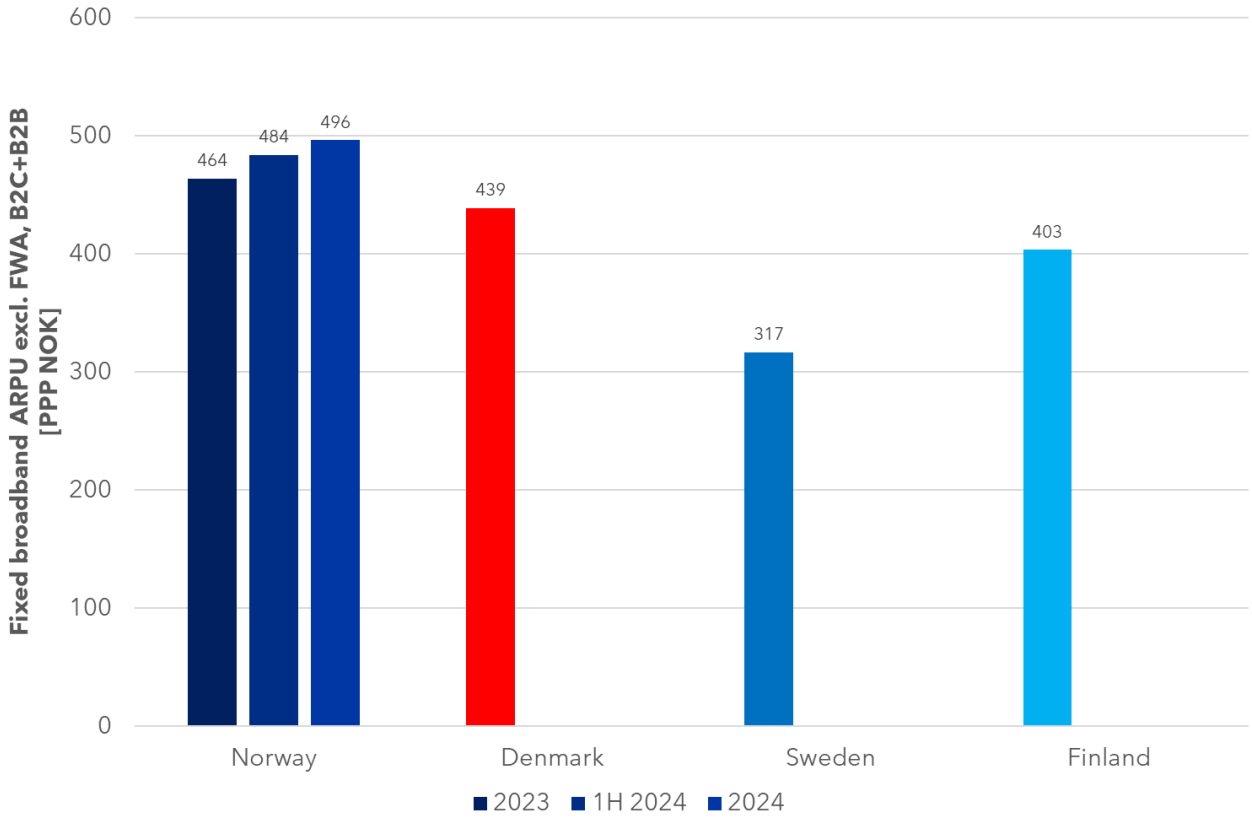


Figure 37. Total market fixed broadband ARPU[27] (excl. FWA) in PPP NOK – Norway, Denmark, Sweden, and Finland. For Finland, capacity-reserved FWA revenue and subscriptions as well as revenues from fixed voice are included as can't be eliminated [source data Nkom, Digitaliseringsstyrelsen, PTS, Traficom].

Due to Denmark's higher purchasing power, Denmark does no longer have the highest fixed broadband ARPU after purchasing power adjustment: Norway's 464 PPP NOK is higher than Denmark's 439 PPP NOK. Due to their lower purchasing power vs. Norway, the Swedish and Finnish ARPUs increased in PPP NOK to 317 PPP NOK and 403 PPP NOK respectively.

How are then included cybersecurity and cloud services affecting the ARPU? We have asked all four regulators Nkom, Digitaliseringsstyrelsen, PTS, and Traficom to what extent cybersecurity and cloud services are included in the regulator-reported revenues.

The answers from Denmark and Sweden are that:

- Revenue from services that are *included* in connectivity subscriptions is classified as connectivity retail revenue (and hence affecting ARPU).
- Revenue from *add-on* services isn't classified as connectivity retail revenue but other retail revenue (and hence *not* affecting ARPU).

[27] ARPU calculated as total retail revenue from fixed broadband (minus FWA revenue, if part of fixed broadband) divided by the average number of fixed broadband subscriptions (minus FWA subscriptions, if part of broadband). Average calculated as (subscriptions end of period+subscriptions end of previous period) divided by 2.

In Norway, revenue from services that are *included* in connectivity subscriptions is classified as connectivity retail revenue (and hence affecting ARPU), i.e. the first bullet is the same as Denmark and Sweden. There's likely a difference when it comes to the second bullet – revenue from *add-on* services, though: Nkom believes and expects that it is included either in the reported connectivity revenue or in "other revenues". If it takes part in either, it will affect the calculated ARPU. When compared to Denmark and Sweden, Norwegian ARPUs might hence be somewhat magnified.

For Finland, it is also not entirely clear. Some providers might have classified cybersecurity and cloud services revenue as "other operations" (outside of ARPU) whereas others possibly included it into connectivity retail revenue (inside ARPU). But remember that, at present, none of the Finnish providers include any cybersecurity or cloud services in their connectivity subscriptions, which hopefully means that the potential uncertainty isn't that significant.

10.2 Norway

In its published bi-annual data sets, Nkom doesn't separate between fixed broadband on individual agreements (~SDUs) and on collective agreements (~MDUs), but to support this report, Nkom has calculated the fixed broadband ARPU on individual agreements – for Norway as a whole and for the largest providers, see Figure 38.

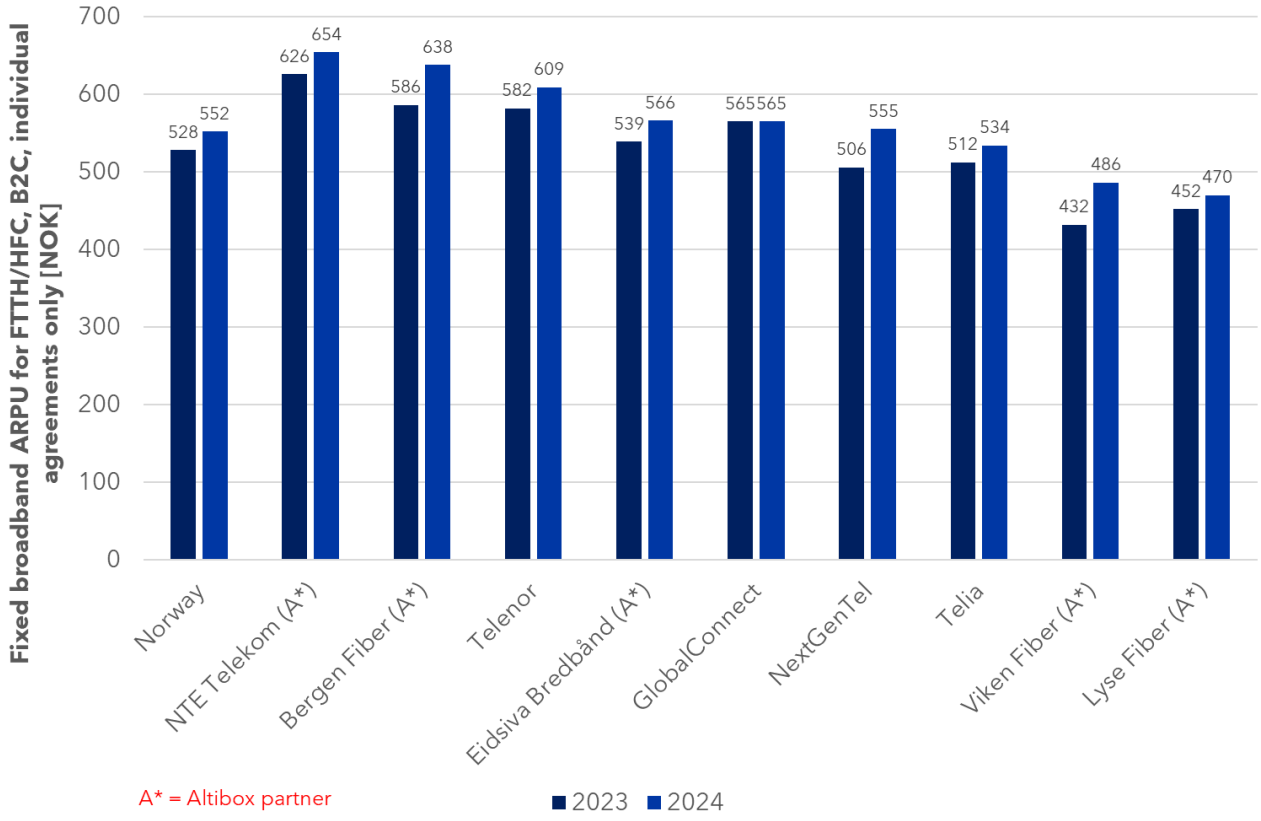


Figure 38. Fixed broadband ARPU[28] for FTTH and HFC, individual consumer agreements – Norway [source: Nkom].

The ARPU calculation done by Nkom looks at FTTH and HFC together, which means that some few remaining DSL and other fixed-classified subscriptions such as FWA are excluded.

The fixed broadband consumer ARPU – across *both* individual and collective agreements – is **408 NOK** for 2024. As shown in Figure 38, the fixed broadband consumer ARPU in *just* individual consumer agreements is **552 NOK** for 2024. There is hence a difference of 144 NOK between the two. If all other conditions, such as speed, inclusive services and contract binding are the same, it seems less favourable to be on an individual agreement – which seems like common sense.

We said that 36.3% of the Norwegian fixed broadband consumer base was on collective price agreements. It varies significantly between the providers, though. For December 2024, Nkom states that Telia's share is almost 69% and that GlobalConnect has more than half of its subscriptions on collective price agreements. Telenor has a lower share, 41.4%, whereas the Altibox partners collectively have

[28] ARPU still calculated using the average number of subscriptions.

24.3%. The benefit of the ARPU in Figure 38 is that the effect of these differences has been removed completely.

The difference in the individual agreement ARPU is significant. **NTE Telekom** had the highest ARPU, 654 NOK in 2024, followed by Bergen Fiber with 638 NOK and Telenor with 609 NOK. **Lyse Fiber** had the lowest ARPU in 2024, 470 NOK. We have in Figure 38 highlighted the Altibox partners with A*. It is interesting that the ARPU differs so much between the Altibox partners given that their propositions are similar (although not identical). As the fixed broadband price depends on the speed subscribed to, a difference in the speed distribution could explain some of it but it could also be so that certain Altibox partners, facing more competition, work more with discounts than others.

Let's now subtract the market value of included cybersecurity and cloud services – like how we did it for mobile.

In Figure 39 below, two bars are being shown:

- **Dark grey**: The 2024 individual consumer contract ARPU for a fixed broadband subscription.
- **Orange**: The "net" ARPU for a fixed broadband subscription if the market value of included cybersecurity & cloud services has been subtracted.

The graph is sorted based on the orange bars – from lowest to highest. The **light grey** boxes represent the market value of included cybersecurity & cloud services.

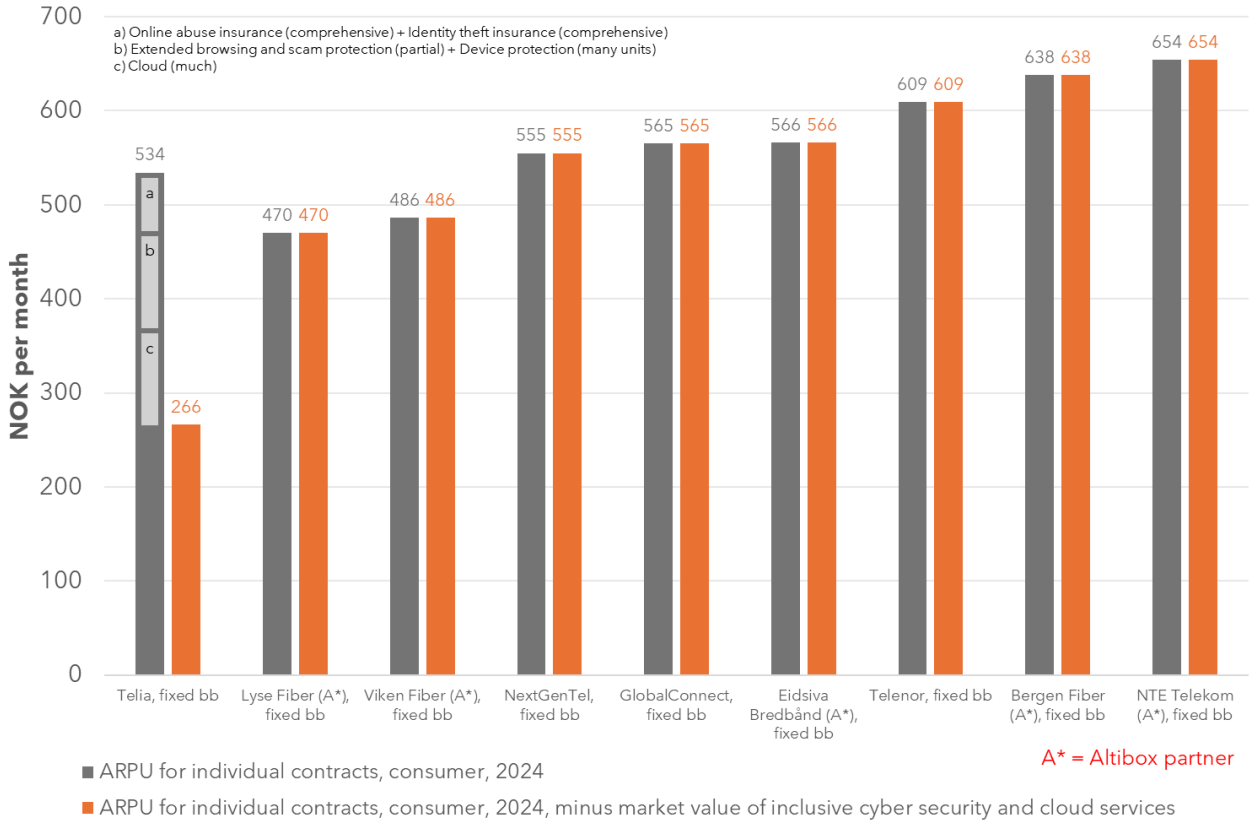


Figure 39. Comparison of fixed broadband ARPU for individual consumer agreements (dark grey). The market value for included cybersecurity and cloud services shown (light grey) and the resulting "net" ARPU per fixed broadband subscription if the market value is subtracted (orange), Norway.

Of the studied fixed broadband providers there's only one, **Telia**, that includes cybersecurity or cloud services in fixed broadband subscriptions. Telia includes both cybersecurity and cloud to an estimated market value of 268 NOK. If subtracting that, Telia gets the lowest "net" ARPU on the Norwegian fixed broadband market for consumers on individual contracts. It is so much lower that there is no way to match it if selecting any other of the shown fixed broadband providers and buy the cybersecurity and cloud services separately on the open market[29].

Conclusion

In Norwegian fixed broadband, the market value of included cybersecurity and cloud services (although likely exaggerated) more than fully offsets the ARPU difference between Telia and the two providers with lower ARPU, Viken Fiber and Lyse Fiber.

10.3 Nordics

Since we can't derive similar, individual agreements-only, ARPU values for the providers in Denmark, Sweden, and Finland, we can't compare Norway's fixed broadband providers with their Nordic peers when having subtracted the market value of included cybersecurity and cloud services.

We can though generally conclude that:

- It's less frequent to include cybersecurity and cloud services (with an estimated market value larger than 0) in Norway's fixed broadband market than in the Norwegian mobile market. It is just **Telia** that does it in fixed.
- This is a contrast to Denmark where **Telenor** includes some cybersecurity services and where **Norlys** for customers on 1000 Mbit/s subscriptions includes a wide range of cybersecurity services. The Danish total fixed broadband ARPU is very similar to Norway – 468 vs. 464 NOK in 2023. If adjusting for purchasing power, Denmark's ARPU is lower, 439 PPP NOK.
- This is also in contrast to Sweden where both **Telia** and **Tele2**[30] include cybersecurity and, in Tele2's case, cloud services. The Swedish total fixed broadband ARPU is still much lower than Norway's – 300 NOK vs. 464 NOK in 2023. If adjusting for purchasing power, Sweden's ARPU is 317 PPP NOK, still well below that of Norway.

[29] 60% of Telia's total consumer fixed broadband base including collective price agreements was HFC in December 2024 – compared to 18% for Norway. This could suggest that HFC is lower priced than fibre but rather be an indication of Telia's high presence in the MDU market. Although this high HFC share likely isn't present in the individual agreement (~SDU) market, Nkom's public data doesn't provide that detail.

[30] Cybersecurity on 1000 Mbit/s or higher speeds, cloud on 250 Mbit/s or higher speeds.

- In Finland, no cybersecurity and cloud services are included. That's true for both fixed broadband and mobile. Finland's ARPU is 397 NOK or 403 PPP NOK – below Norway's 464 NOK.

Conclusion

The lack of comparable ARPU detail for Denmark, Sweden, and Finland makes it hard to quantify the impact of included cybersecurity and cloud services on fixed broadband. But it does not explain the large ARPU differential between Norway and Sweden – as it is more frequent to include these services in fixed broadband subscriptions in Sweden than in Norway.

Also in Denmark, it is more frequent to include these services in fixed broadband subscriptions than in Norway. Without purchasing power adjustment, ARPUs are very similar. In PPP NOK, also Denmark's ARPU is lower than Norway's.

11 Summary and conclusion

In recent years, it has become increasingly common for telecom service providers to include or sell cybersecurity and cloud services together with mobile and fixed broadband subscriptions. This report compares the scope and features of these services across the Nordic consumer market. It examines how the services are sold and compares their pricing. It also evaluates the extent to which they influence mobile subscription pricing and fixed broadband ARPU.

The key conclusions are:

2. There is **no apparent price difference** for cybersecurity propositions across Nordic markets when they are sold as add-ons.
    - In Norway, only Telenor's *SAFE* is priced with a premium compared to its scope.
3. There is **no substantial price difference** for cloud storage across Nordic markets when it is sold as an add-on.
    - In Norway, Telia's unlimited cloud is very cost competitive, but also Telenor's 5000 GB offer is competitive compared to Google One and iCloud. In the low range, Telenor's cloud offers are more expensive than Google One and iCloud.
4. The **models** for how to sell cybersecurity and cloud services **differ** between the Nordic markets.
    - In Norway it is more frequent (42%) to include services on all subscriptions.
5. In **Norwegian mobile**, Telenor is the most plentiful in ordinary subscriptions, including a market value of 168 NOK. Telia includes the same value on its 10 Mbit/s "X" plan – while it includes a higher 268 NOK on "Telia X Max Pluss".
    - The market value of included cybersecurity and cloud services[31] does not fully offset the price difference between the main brands Telenor and Telia vs. the flanker brands and independent providers.
    - The market value of included cybersecurity and cloud services[31] does not fully offset the mobile subscription price difference between Norway and the other three Nordic markets.
6. In **Norwegian fixed broadband**, Telia is the most plentiful when including cybersecurity and cloud services to a market value of 268 NOK.
    - The market value of included cybersecurity and cloud services[31] more than fully offsets the ARPU difference between Telia and the two providers with lower ARPU, Viken Fiber and Lyse Fiber.
    - The lack of comparable ARPU detail for Denmark, Sweden, and Finland makes it hard to quantify the impact of included cybersecurity and cloud services on fixed broadband. But it does not explain the large ARPU differential between Norway and Sweden – as it is more frequent to include these services in fixed broadband subscriptions in Sweden than in Norway. Also in Denmark, it is more frequent to include these services in fixed broadband subscriptions than in Norway. Without purchasing power adjustment, ARPUs are very similar.

[31] Although likely exaggerated.

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