

The Norwegian Electronic Communication Service Market

First half 2016

Selected figures with comments

31 October 2016



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1 Introduction

Twice a year, the Norwegian Communications Authority (Nkom) obtains data from all providers of electronic communication services in Norway. This information is processed and presented as statistics that show key aspects of the development in the markets for electronic communication services. One report concerns the full year, and the results are presented in May each year. The other report covers the first half-year and is presented in October each year.

The statistics include fixed telephony (including broadband telephony), mobile telephony and other mobile services, and broadband and transmission of TV signals. The statistics for the full year also include data communication services, mainly IP-VPN services, and transmission capacity (leased lines). The statistics mainly cover subscriptions and sales revenue, and traffic where this is relevant. The market shares of the largest providers are also described.

The statistics are published in reports that can be downloaded from Nkom's website. Nkom will from now on publish the statistics online (in Norwegian) under "eCom statistics".

The "eCom statistics" are available [here](#)¹.

2 Total revenue

From the first half of 2015 to the first half of 2016, there was an increase in the total sales revenue of around NOK 183 million. For comparison, there was an increase of just over NOK 327 million from the first half of 2014 to the first half of 2015. Total sales revenue in the first half of 2016 amounted to around NOK 15.92 billion.

Figure 1 shows the development in end-user sales for fixed telephony, mobile services and fixed broadband². Mobile services include mobile telephony subscriptions, separate subscriptions for mobile broadband, income from international roaming³, and mobile-to-mobile communication (M2M).

End-user sales revenue is the amounts invoiced to customers. This revenue does not, however, include earnings from distribution of TV signals, since a large proportion of this revenue is payment for content and therefore does not count as electronic communication services. Sales revenue from distribution of TV signals is described in further detail in chapter

¹ www.ekomstatistikken.nkom.no.

² Up until the first half of 2014, the figures for fixed broadband include sales revenue from dial-up Internet.

³ International roaming is described in further detail in chapter 4.5.

6.3. As a general rule, earnings from the sale or lease of mobile phones and other terminals or physical equipment are not included as revenue from end-user sales. End-user sales are stated excluding VAT.

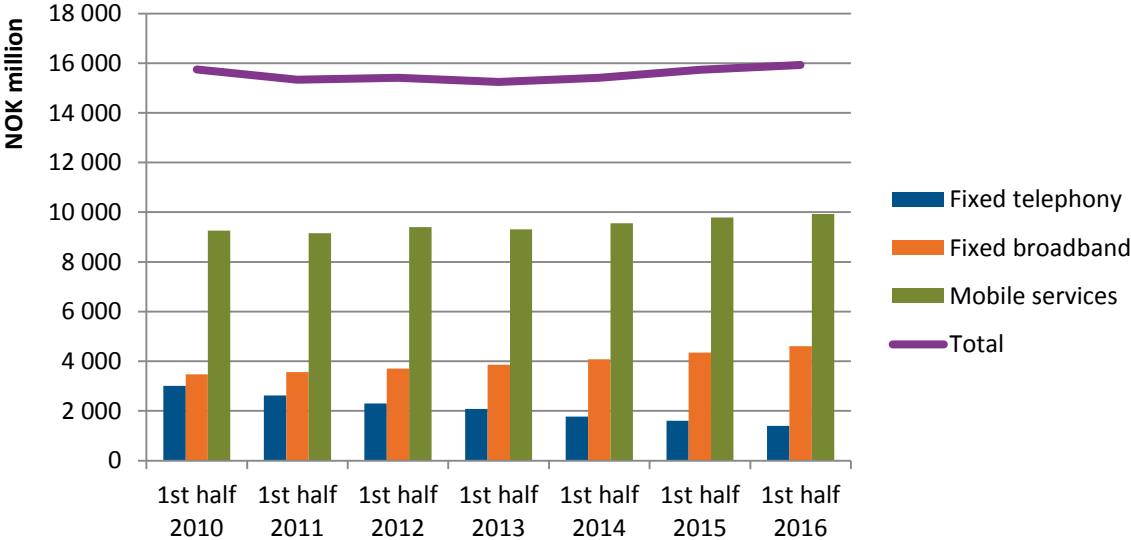


Figure 1 Total sales revenue from fixed telephony, mobile services and fixed broadband.

Sales of mobile services exceeded NOK 9.9 billion in the first half of 2016, accounting for more than 62 per cent of the total revenue in the first half of 2016. Sales of mobile services were almost NOK 144 million higher in the first half of 2016 than in the first half of 2015. Sales of fixed telephony were below NOK 1.4 billion in the first half of 2016. This is a decrease of more than NOK 211 million compared with the first half of 2015. Sales revenue from fixed telephony accounted for less than 9 per cent of the total revenue from end-user sales. Revenue from fixed broadband sales rose by more than NOK 250 million from the first half of 2015 to the first half of 2016, to more than NOK 4.6 billion. Fixed broadband sales accounted for almost 29 per cent of total sales revenue in the first half of 2016.

3 Fixed telephony

3.1 Subscriptions

Fixed telephony includes both telephony based on PSTN or ISDN, and broadband telephony. Figures 2 and 3 show the development in the number of fixed telephony subscriptions for residential and business customers, respectively. The total number of subscriptions has been declining for several years. There were close to 864,000 subscriptions in total at the end of 2016. This is a decrease by almost 157,000 subscriptions compared to the same period of 2015.

In the residential market, there were close to 664,000 subscriptions at the end of the first half of 2016. This is almost 129,000 fewer subscriptions than for the same period of 2015. Of this amount, the decline in the number of broadband telephony subscriptions represents more than 67,000. In the business market, there were around 200,300 subscriptions at the end of the first half of 2016. The decrease in the number of subscriptions in the business market is based on PSTN and ISDN, while there is a small increase in the number of broadband telephony subscriptions, compared to the end of the first half of 2015.

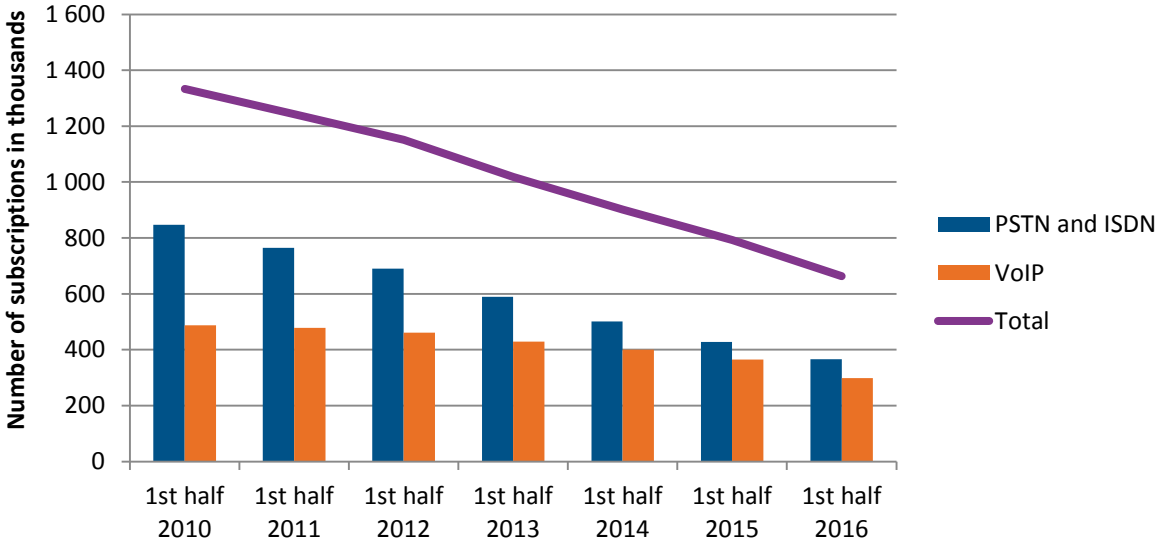


Figure 2 Number of fixed telephony subscriptions in the residential market.

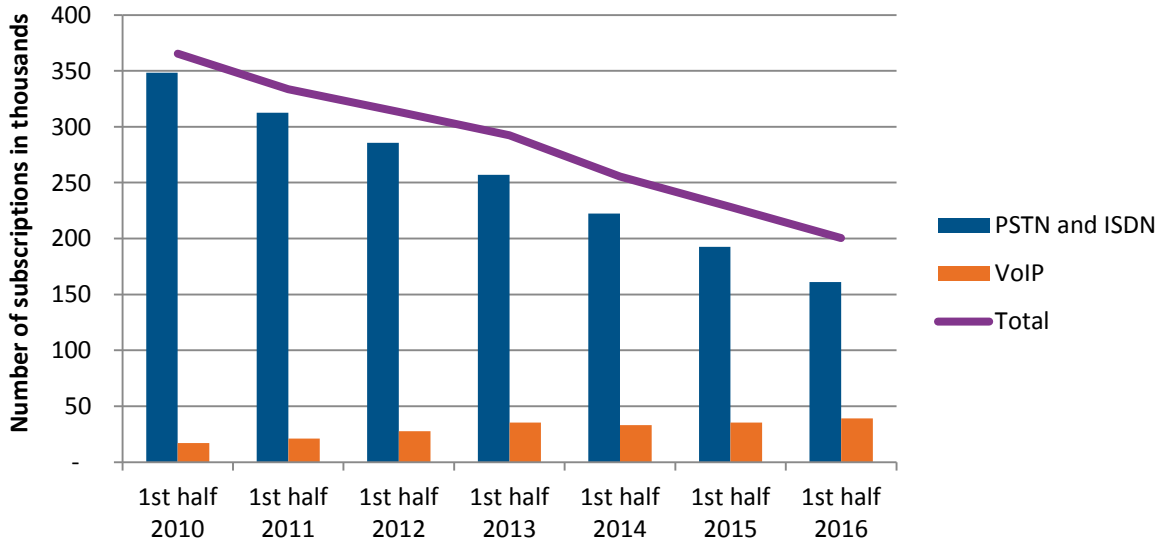


Figure 3 Number of fixed telephony subscriptions in the business market.

3.2 Traffic

Figure 4 shows the development in traffic minutes from fixed telephones for residential and business customers combined. The total number of call minutes from fixed telephones was almost 1.16 billion in the first half of 2016. This is a decrease of more than 234 million minutes compared with the same period of 2015. This is close to 17 per cent. Figure 5 shows the number of traffic minutes from fixed telephony to fixed networks, mobile networks and abroad, respectively.

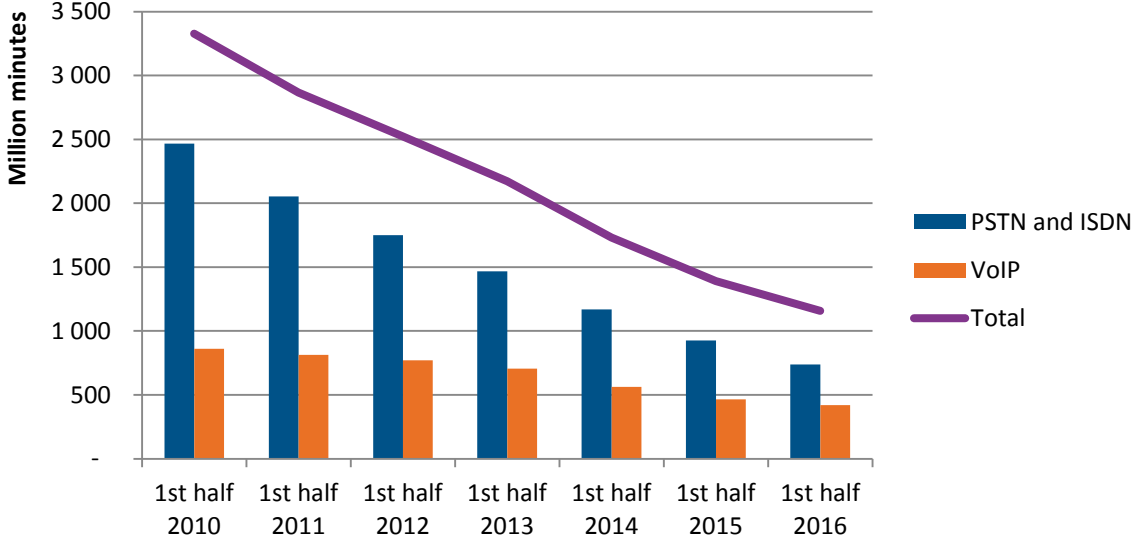


Figure 4 Number of traffic minutes for fixed telephony. Residential and business subscriptions.

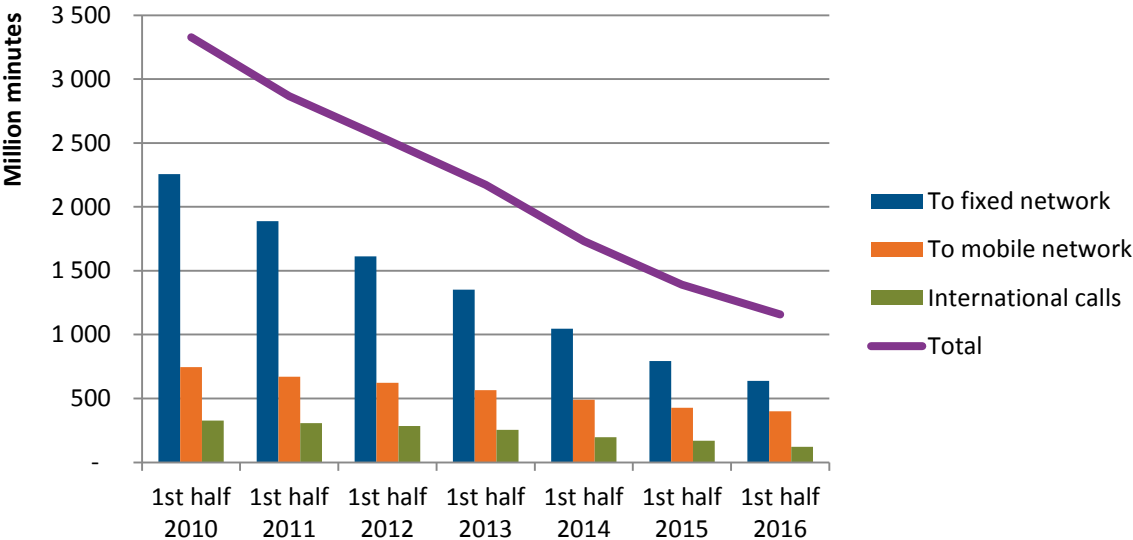


Figure 5 Number of traffic minutes for fixed telephony by traffic direction. Residential and business subscriptions.

The number of traffic minutes from broadband telephony accounts for 36 per cent of the total number of minutes. For comparison, the number of broadband telephony subscriptions

accounts for 39 per cent of the total number of fixed telephony subscriptions. 55 per cent of the fixed telephony traffic is to other fixed telephones. This ratio has been declining since a larger share of traffic is moving from fixed to mobile telephones.

3.3 Revenue

Figure 6 shows that the revenue from fixed telephony is declining steadily. Total sales in the first half of 2016 amounted to almost NOK 1.4 billion. This is a decrease by more than NOK 211 million from the first half of 2015. Most of the decrease in revenue is related to subscriptions based on PSTN and ISDN. Revenue from broadband telephony subscriptions amounts to only 27 per cent of the total fixed telephony revenue. For comparison, the number of broadband telephony subscriptions accounts for 39 per cent of the total number of fixed telephony subscriptions.

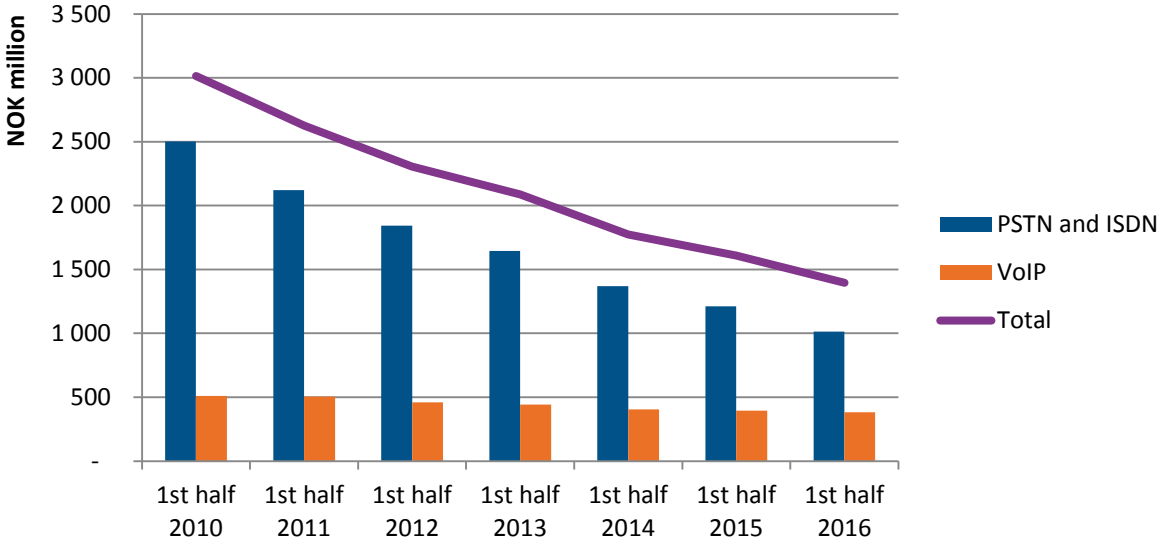


Figure 6 Fixed telephony sales. Residential and business subscriptions combined.

3.4 Market shares

Telenor is the largest provider of fixed telephony. Figures 7 and 8 show that Telenor accounts for 67.7 per cent of the total fixed telephony revenue in the first half of 2016, and 31.9 per cent of the revenue in terms of broadband telephony alone. Telenor's market share for fixed telephony overall is lower in the first half of 2016 compared to the same period of 2015. In terms of broadband telephony alone, Telenor has an increasing market share.

Phonero is the second-largest provider of fixed telephony in overall terms, with a market share of 8.4 per cent in the first half of 2016. This is a higher market share than in the first half of

2015. Phonect is the third-largest provider of fixed telephony, with 5.5 per cent of revenue⁴, while NextGenTel is the fourth-largest provider, but the second-largest provider of broadband telephony.

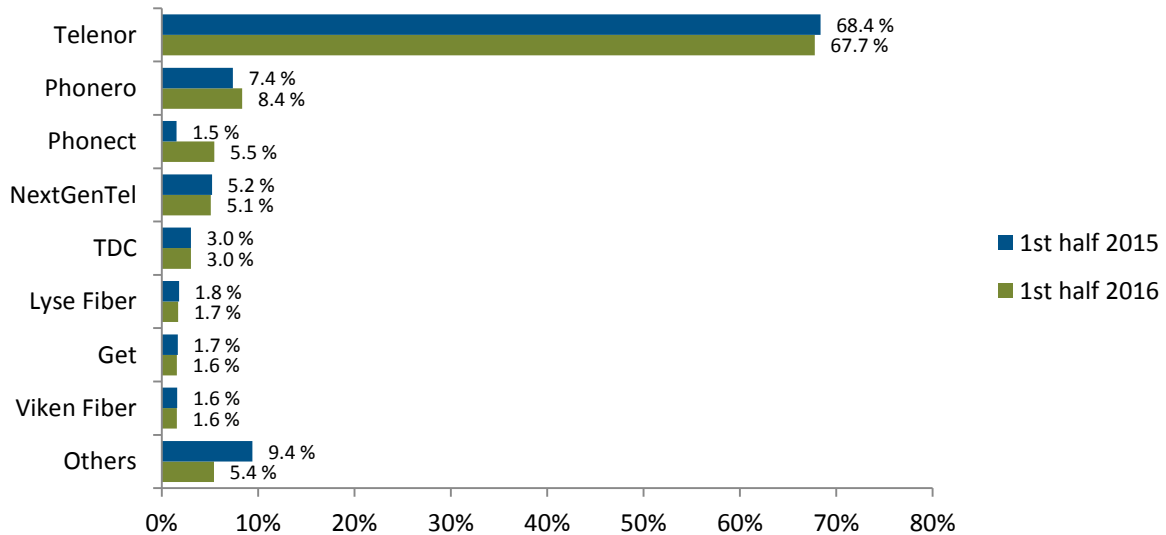


Figure 7 Share of fixed telephony revenue. Residential and business subscriptions combined.

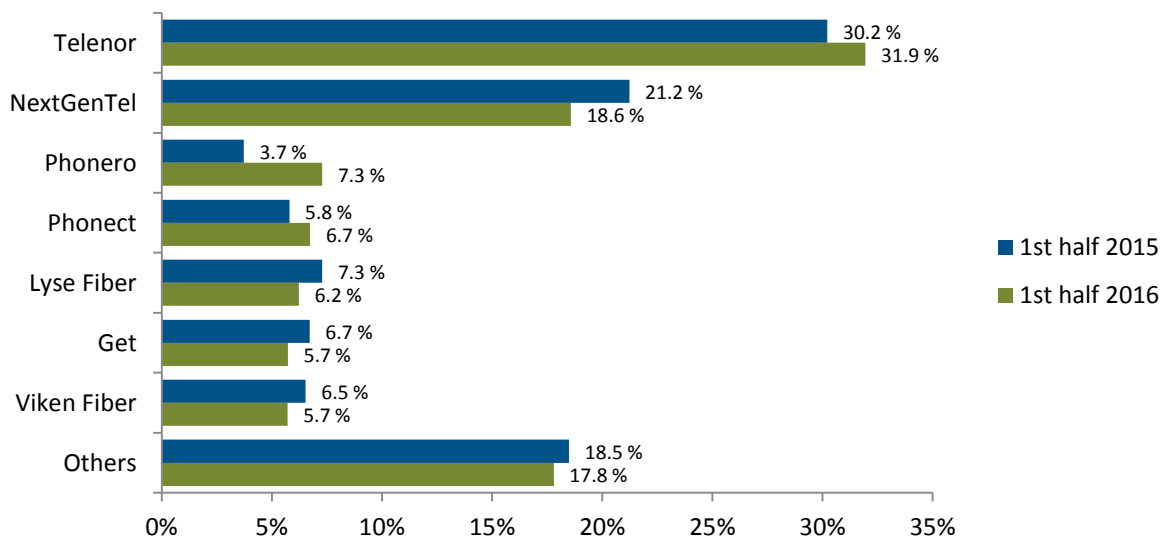


Figure 8 Share of broadband telephony revenue. Residential and business subscriptions combined.

⁴ Phonect took over Telia telephony customers in 2015, and Telia had, in turn, taken over telephony customers in Tele2.

4 Mobile telephony and mobile broadband

4.1 Subscriptions

At the end of the first half of 2016 there were a total of just below 6.2 million subscriptions for mobile telephony and mobile broadband. This is a decrease of around 69,000 subscriptions compared to the same period of 2015. The number of mobile telephony subscriptions exceeds 5.7 million, while the number of separate mobile broadband subscriptions is almost 473,000 at the end of the first half of 2016.

Figure 9 shows that the number of post-paid mobile telephony subscriptions is increasing, while the number of pre-paid cards is decreasing. The number of separate mobile broadband subscriptions is also declining. The number of post-paid mobile telephony subscriptions is increasing, by almost 90,000 compared with the same period of 2015, while in the same period the number of pre-paid cards declined by more than 120,000. In overall terms, this is a decrease by almost 31,000 mobile telephony subscriptions. The number of pre-paid cards accounts for 19 per cent of the total number of mobile telephony subscriptions at the end of the first half of 2016. This share has been declining over several years.

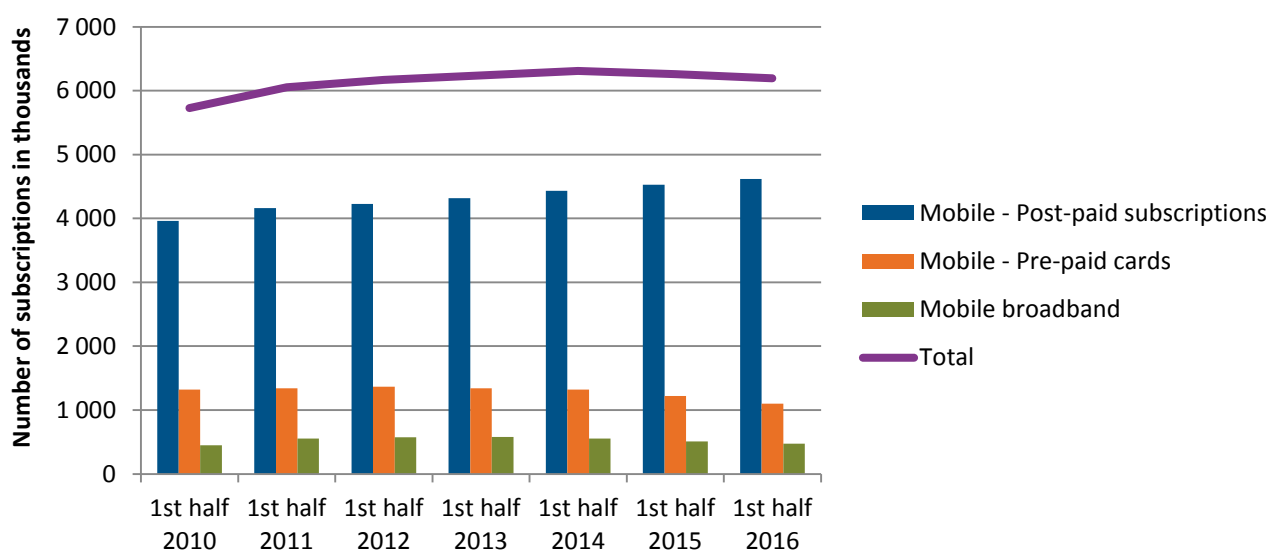


Figure 9 Mobile telephony and mobile broadband subscriptions.

4.2 Revenue

Total mobile telephony and mobile broadband revenue accounted for almost NOK 9.14 billion⁵ in the first half of 2016. This is an increase of more than NOK 281 million compared with the same period of 2015. Figure 10 shows that the total revenue has been increasing since 2013.

⁵ Additional to this is revenue from Norwegian mobile subscribers' international roaming. This is described in chapter 4.5. Another addition is revenue from mobile-to-mobile communication. The total revenue from mobile services exceeds NOK 9.9 billion in the first half of 2016, cf. chapter 2.

The revenue from mobile telephony subscriptions was around NOK 8.48 billion, while the revenue from separate mobile broadband subscriptions was around NOK 655 million.

Figure 11 shows that there is also a significant change in the structure of revenue over time. Mobile telephony providers have to a great extent restructured their subscriptions to a form whereby the subscriber pays a fixed monthly price which includes specified volumes of voice traffic, SMS messages and data traffic (known as fixed-price subscriptions). The result of this is a relatively large increase in earnings from subscriptions at the expense of traditional traffic revenue. Subscription revenue accounted for 69 per cent of the overall mobile telephony revenue in the first half of 2016. In the first half of 2015, this ratio was 62 per cent. Traffic revenue in terms of minutes, messages and date has decreased equivalently. Revenue from data traffic accounts for 7 per cent of total revenue in the first half of 2016.

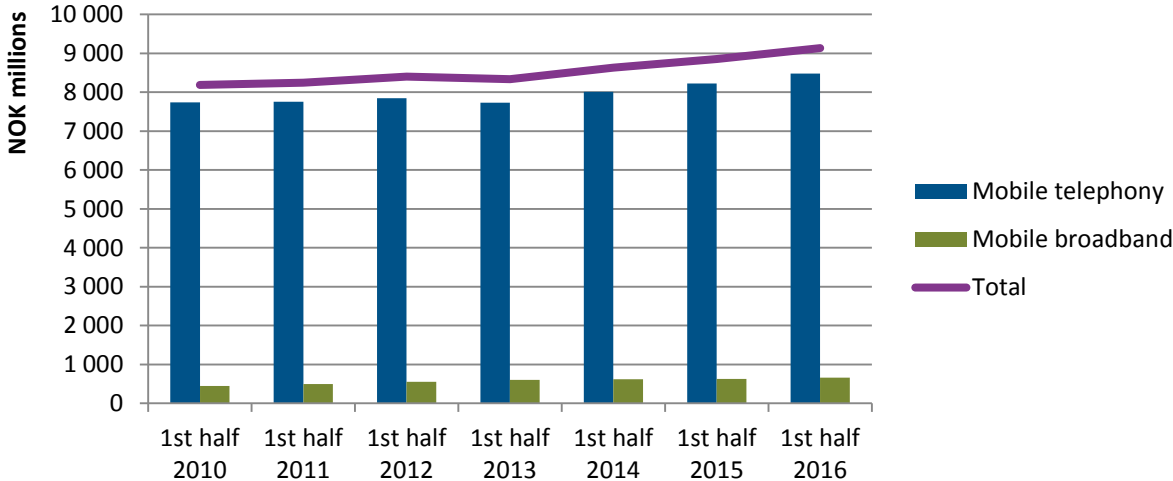


Figure 10 Mobile telephony and mobile broadband revenue.

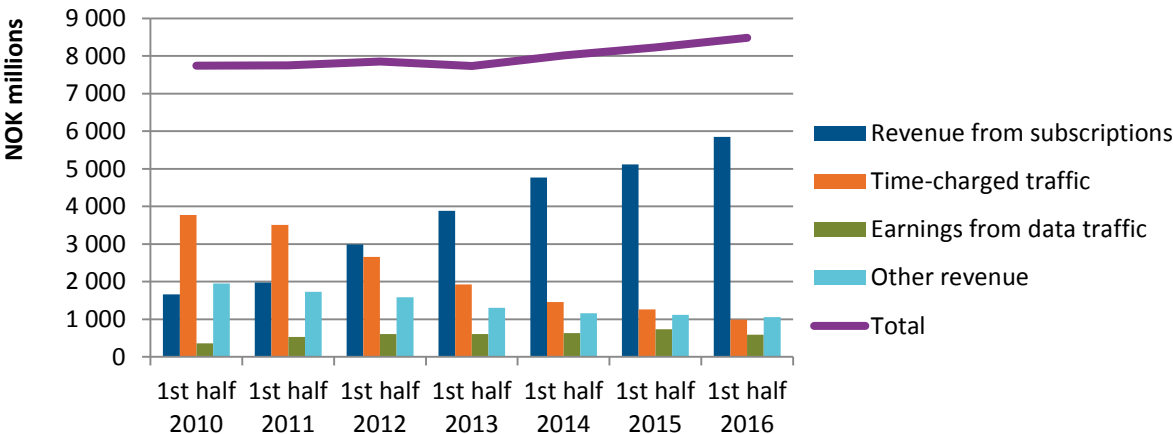


Figure 11 Mobile telephony revenue by income categories⁶.

⁶ "Other revenue" comprises revenue from sent messages and income that cannot be assigned to specific categories.

4.3 Traffic

Figures 12, 13 and 14 show the development in traffic volumes distributed on traffic minutes, messages and data. The total number of traffic minutes from mobile phones was close to 7.15 billion in the first half of 2016. This is an increase of almost 68 million minutes from the same period of 2015. Figure 12 shows the development in traffic minutes by traffic direction. Most of the increase in the number of minutes is traffic to other mobile phones. This traffic accounts for 82 per cent of the total number of minutes from mobile phones in the first half of 2016. The number of traffic minutes to fixed telephones is increasing a little, while the number of traffic minutes to abroad is declining.

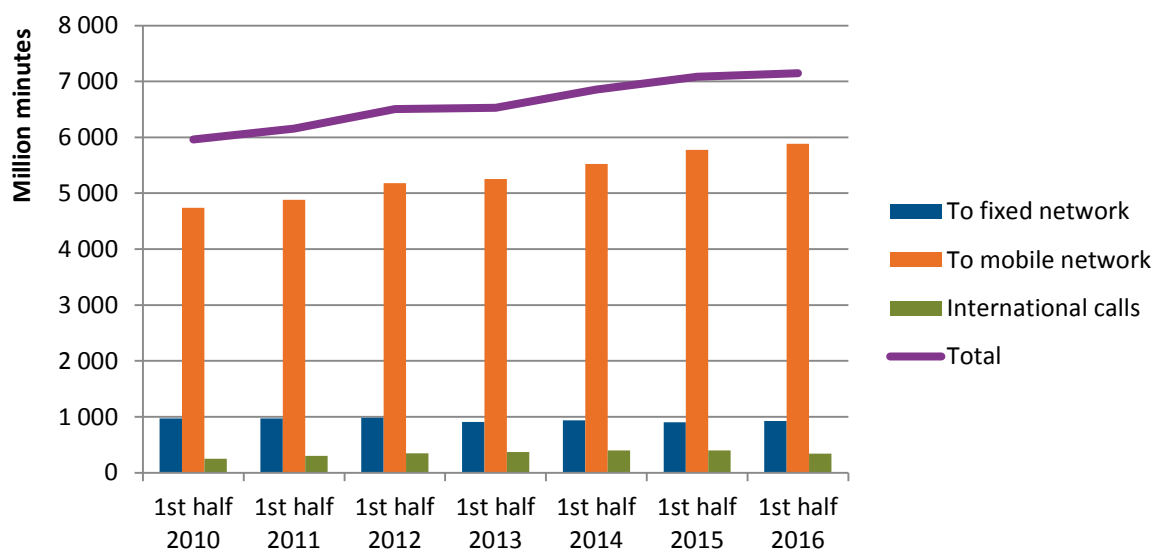


Figure 12 Traffic minutes from mobile phones by traffic direction.

Figure 13 shows the development in the number of messages sent, broken down as SMS, MMS and content messages⁷. There is an increase in all types of messages from the first half of 2015 to the first half of 2016. In total, more than 3.8 billion messages were sent in the first half of 2016. This is an increase by almost 181 million compared with the first half of 2015. More than 84 per cent of the total number of messages are SMS messages. Content messages increased the most, however, from the first half of 2015 to the first half of 2016.

⁷ These are mainly messages conveyed to mobile customers on the basis of a CPA agreement between content provider and mobile operator. CPA = Content Provider Access

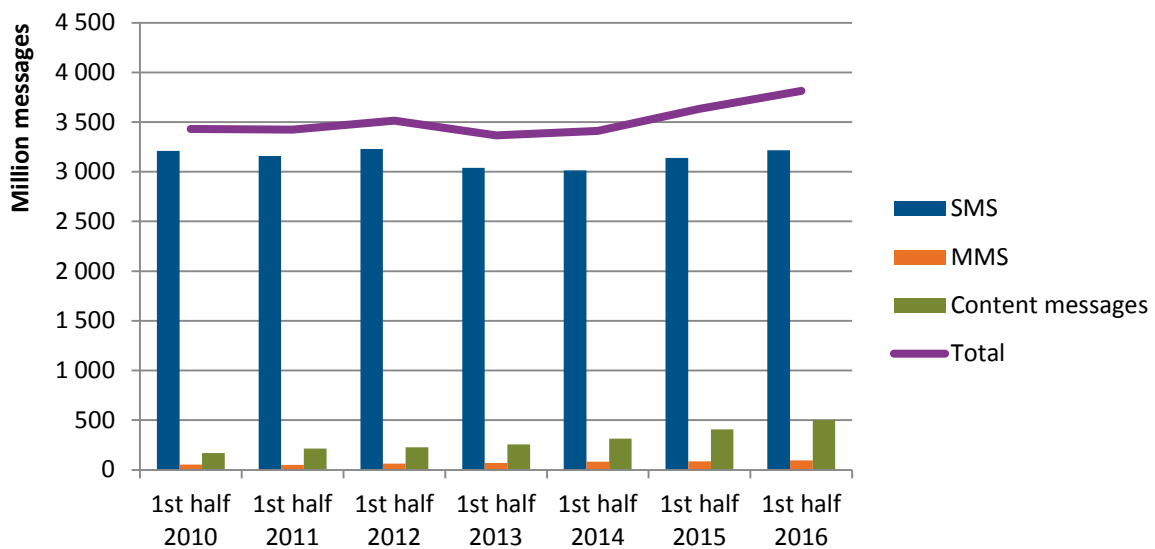


Figure 13 Number of messages sent from mobile phones.

Figure 14 shows the development in total data traffic for mobile telephony subscriptions and from separate mobile broadband subscriptions. Total data traffic in the first half of 2016 was almost 68 petabytes⁸ (PB). This is an increase of around 23 PB from the same period in 2015, when the data volume was just below 45 PB. More than 62 per cent of the data traffic in the first half of 2016 is generated from mobile telephony subscriptions.

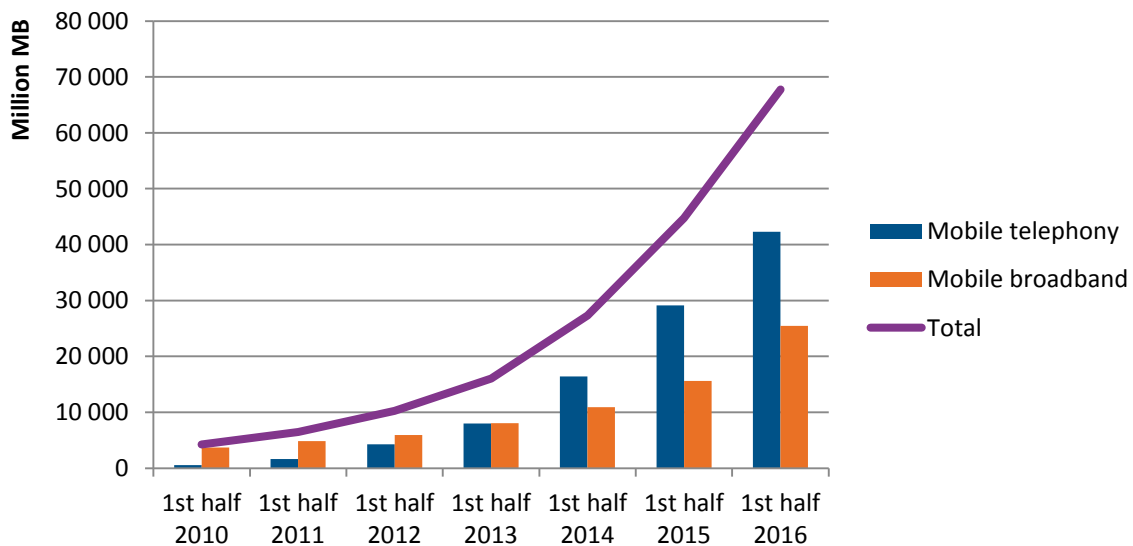


Figure 14 Data traffic for mobile telephony subscriptions and mobile broadband subscriptions.

⁸ 1 PB = 1,000 terabytes (TB) = 1 million gigabytes (GB) = 1 billion megabytes (MB).

4.4 Market shares

Figure 15 shows the market shares for mobile telephony and mobile broadband providers, based on sales revenue. Telenor's market share decreased from 57.4 per cent in the first half of 2015 to 56.4 per cent in the first half of 2016. Telia, on the other hand, increased its market share from 32.3 per cent in the first half of 2015 to 33.0 per cent in the first half of 2016. Together, Telenor and Telia had a market share of 89.4 per cent in the first half of 2016. Phonero is the third-largest provider, with a revenue share of 4.3 per cent in the first half of 2016. ICE accounted for 2.9 per cent of revenue in the first half of 2016.

The picture is different, however, for the providers' share of the total data volume. Telia subscribers generated the most data traffic in the first half of 2016. They account for 48.5 per cent of the total data traffic. Equivalent shares for Telenor and ICE are 40.7 and 6.7 per cent, respectively.

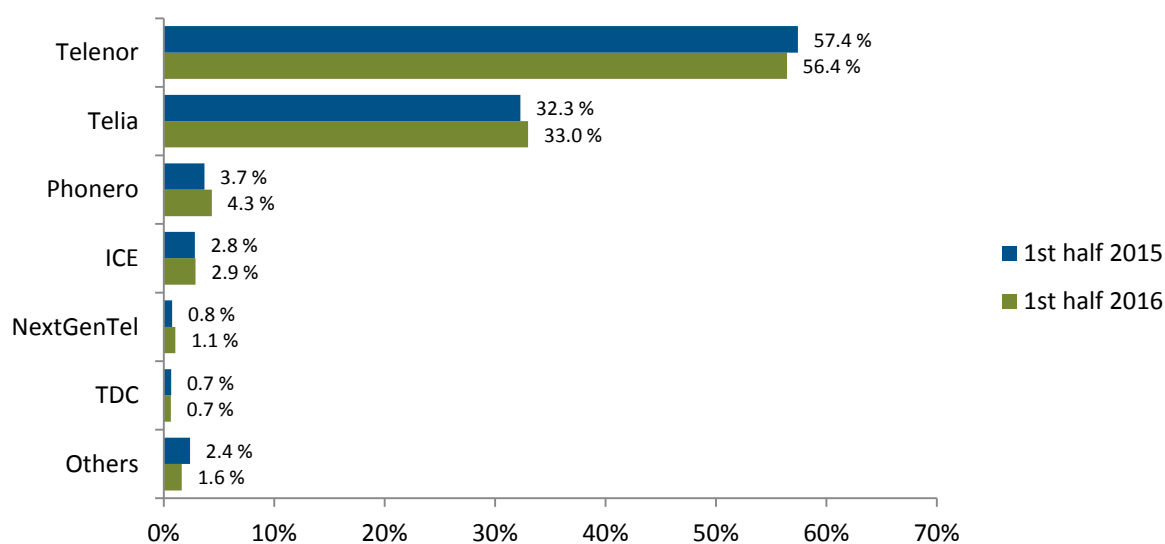


Figure 15 Market shares for mobile telephony and mobile broadband, based on revenue.

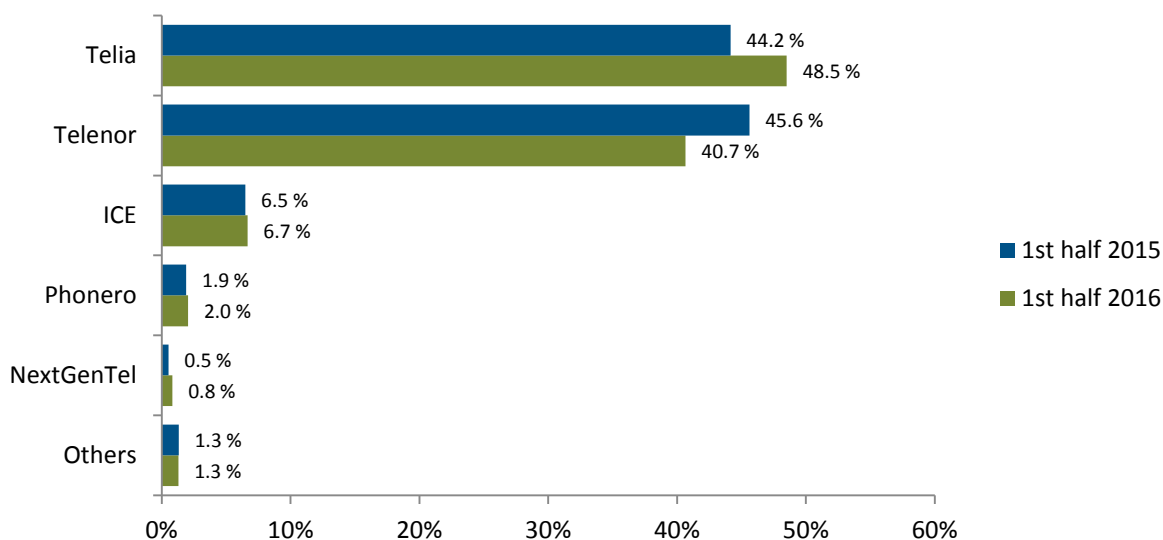


Figure 16 Market shares for mobile telephony and mobile broadband, based on data traffic.

4.5 International roaming – Norwegian subscribers abroad

Norwegian subscribers use their mobile phones abroad to make and receive calls, to send and receive messages, and to access the Internet (data services). Norwegian subscribers abroad connect their telephones to a mobile network that has coverage in the relevant geographical area, thereby roaming in the foreign network. Mobile operators have mutual agreements to intermediate traffic to and from mobile phones.

International roaming is regulated within the European Economic Area (EEA). The first regulation was adopted by the EU in 2007 and came into force in the EEA/EFTA countries in 2008. Since then, this regulation has been expanded several times, and it now includes price caps at both end-user and wholesale level for voice traffic, SMS and data traffic. In November 2015, the European Parliament and the Council adopted new amendments to the regulations entailing that as from 15 June 2017 voice calls, SMS and data traffic when travelling within the EU will not cost more than at home⁹. A transitional period was introduced for EU member states as from 30 April 2016 to phase in the new regulations. In Norway, the regulations apply as from 1 June 2016.

Figures 17 and 18 show the development in traffic volumes for Norwegian mobile subscribers roaming in mobile networks abroad. The figures for voice minutes are the sum of originated and received calls. The same applies to SMS messages. Voice traffic is increasing slightly year by year, while the number of messages has declined moderately in recent periods. Data traffic, on the other hand, increases significantly each year. Figure 18 shows that data traffic

⁹ This is referred to as "Roam Like At Home".

increased from around 292 terabytes¹⁰ (TB) in the first half of 2015 to almost 741 TB in the first half of 2016. This is an increase of almost 449 TB. By comparison, the increase from the first half of 2014 to the first half of 2015 was almost 131 TB.

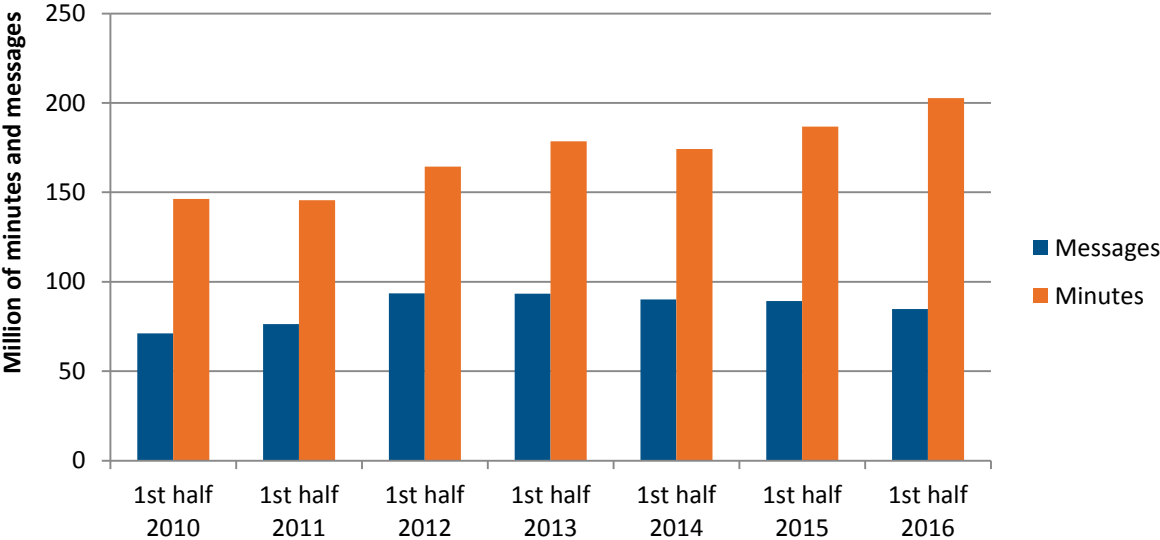


Figure 17 Development in the number of sent messages and traffic minutes for international roaming.

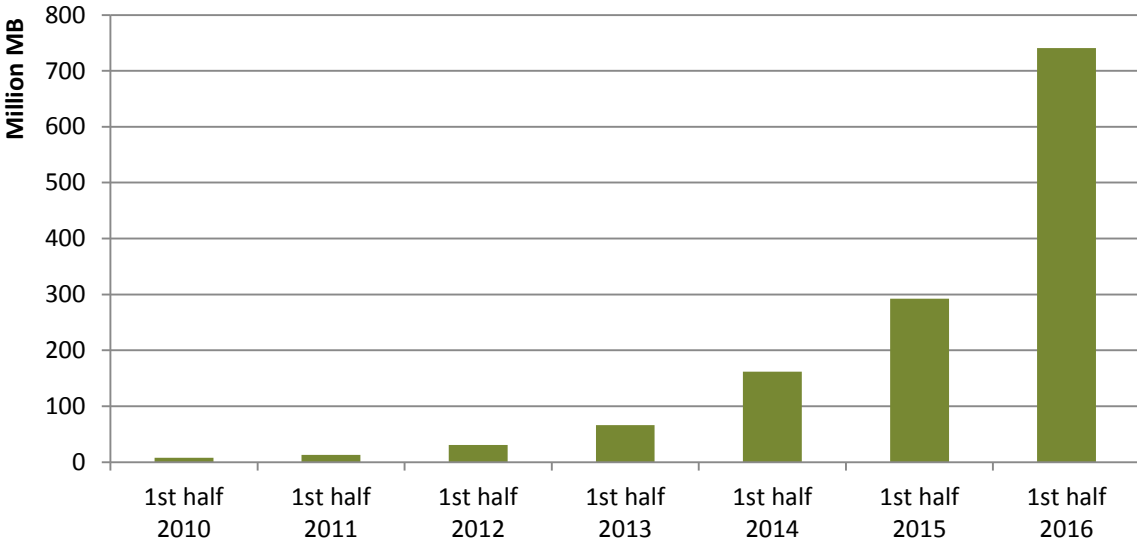


Figure 18 Development in data traffic as international roaming.

Figure 19 shows the development in earnings for Norwegian providers when Norwegian subscribers roam mobile networks in other countries. From the first half of 2015 to the first half

¹⁰ 1 TB = 1,000 GB = 1 million MB

of 2016, revenue declined by almost NOK 139 million. Revenue from Norwegian subscribers abroad amounted to almost NOK 642 million in the first half of 2016. Costs, on the other and, declined by only NOK 13 million from the first half of 2015 to the first half of 2016.

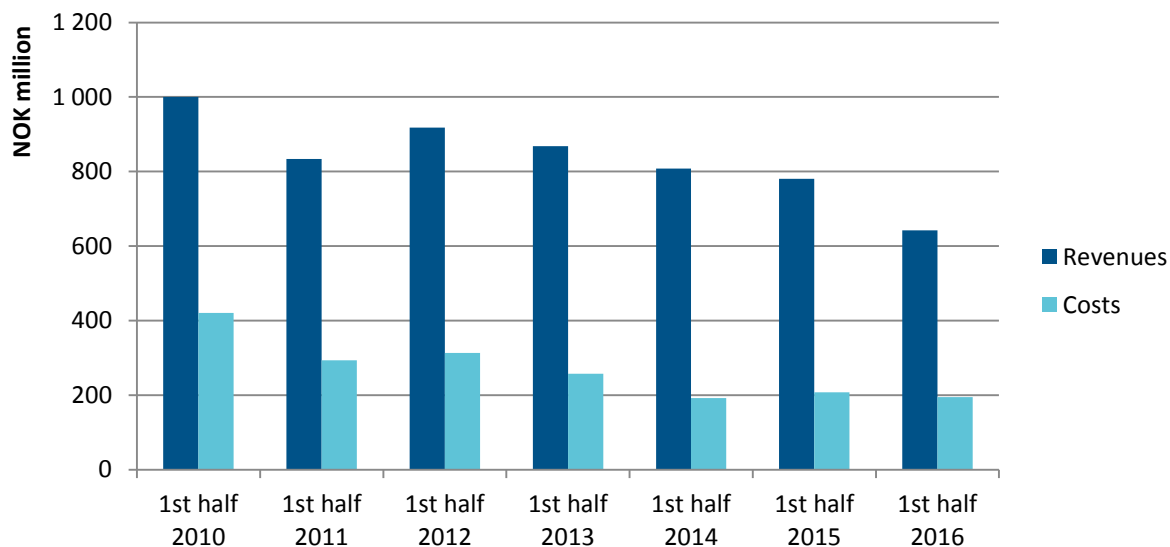


Figure 19 Revenue and costs for international roaming.

5 Fixed broadband

5.1 Introduction

Nkom collects information about subscriptions and sales revenues for fixed broadband every six months. This includes both residential and business customers. For the full year, Nkom also collects data concerning data communication services, primarily IP-VPN services¹¹, in the business market. While fixed broadband primarily concerns standardised solutions used by small and medium-sized enterprises, as well as households, data communication services are usually more complex solutions intended for larger businesses or groups of businesses.

5.2 Subscriptions

Figure 20 shows the number of subscriptions for fixed broadband in the residential market for the categories xDSL, broadband via cable-TV networks, and broadband via fibre. The categories included in "others" are primarily radio access and satellite. At the end of the first half of 2016, there were almost 1.94 million private subscriptions. This is around 68,500 more subscriptions than for the same period of 2015.

¹¹ IP VPN = Internet Protocol Virtual Private Network

Fibre-based broadband increased by almost 104,000 from the end of the first half of 2015 to the same period of 2016. This is the largest increase registered for fibre over a 12-month period. Fibre now constitutes the largest category, with more than 691,000 private subscribers. This constitutes 36 per cent of the total number of residential subscriptions for fixed broadband.

The number of broadband subscriptions via cable-TV networks is increasing less than previously and accounted for close to 634,100 at the end of the first half of 2016. This is 33 per cent of all subscriptions for fixed broadband in the residential market. The number of residential subscriptions via xDSL decreased by more than 47,200 from the end of the first half of 2015 to the same period of 2016.

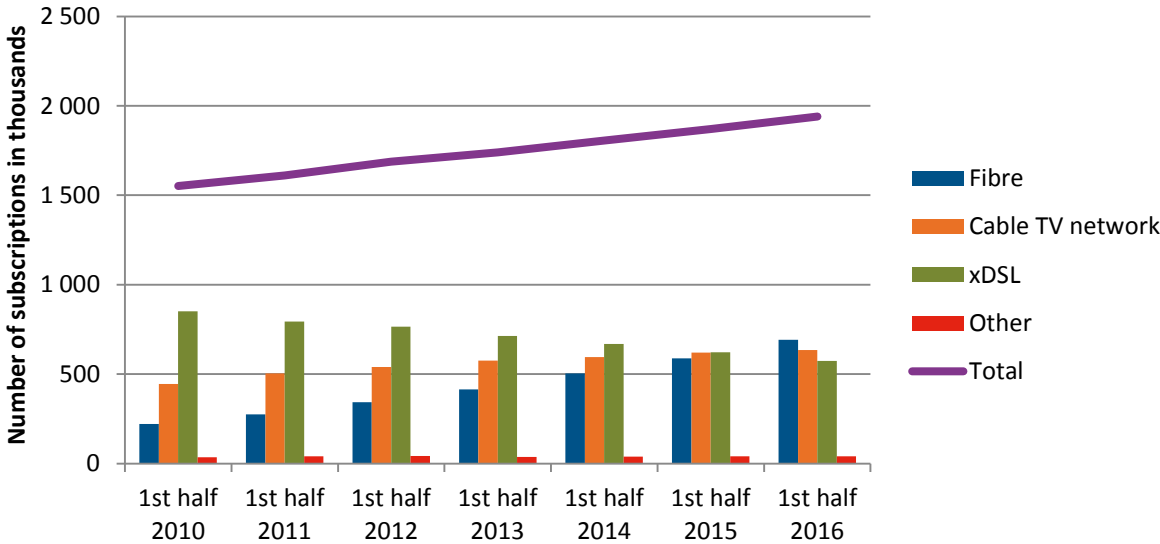


Figure 20 Number of subscriptions for fixed broadband. Residential market.

Figure 21 shows the number of subscriptions for fixed broadband in the business market for the fibre and xDSL categories. The categories included in "others" are primarily radio access, satellite and broadband via the cable-TV network. At the end of the first half of 2016, there were almost 131,000 subscriptions in the business market, an increase of around 2,100 subscriptions from the end of the first half of 2015.

This is still a relatively high number of subscriptions based on xDSL in the business market. The number exceeded 79,400 at the end of the first half of 2016, which accounts for 61 per cent of the total number of subscriptions in the business market. The number of subscriptions based on fibre increased from around 34,800 at the end of the first half of 2015 to close to 43,400 at the end of the first half of 2016. Fibre accounts for 33 per cent of the total number of subscriptions in the business market.

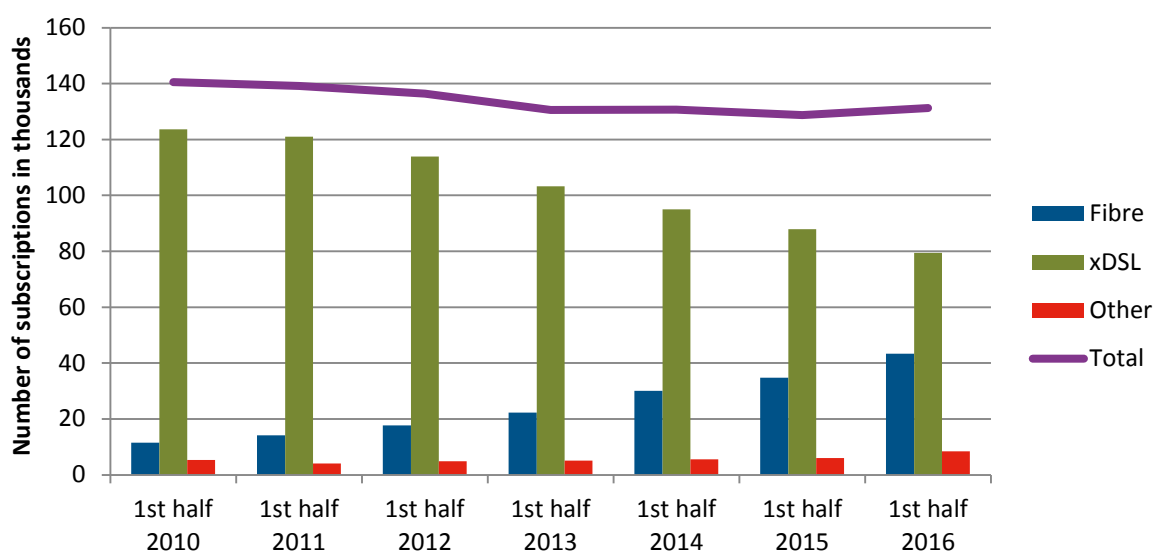


Figure 21 Number of subscriptions for fixed broadband. Business market.

In total terms, there were around 2.07 million fixed broadband subscriptions at the end of the first half of 2016, considering the combined residential and business market. Fibre-based broadband accounts for 35 per cent of this, or close to 735,000 subscriptions. This represents an increase of almost 112,400 subscriptions from the end of the first half of 2015. In the same period, subscriptions via xDSL decreased by almost 55,800.

5.3 Revenue

Figure 22 shows the development in sales revenue from private broadband subscriptions, while Figure 23 shows the overall broadband revenue. The total sales revenue from fixed broadband subscriptions was around NOK 4.6 billion in the first half of 2016. This is over NOK 250 million more than in the same period of 2015. Fibre-based broadband accounts for 42 per cent of the total sales revenue, while the ratio for xDSL subscriptions is reduced to 32 per cent.

The sales revenue from residential subscriptions amounts to more than NOK 3.67 million, or almost 80 per cent of the total revenue. Revenue from fibre subscriptions increased by more than NOK 231 million from the first half of 2015 to the first half of 2016, amounting to around NOK 1.36 million. This is 37 per cent of the total broadband revenue in the residential market. Revenue from xDSL subscriptions decreased by more than NOK 71 million from the first half of 2015 to the first half of 2016.

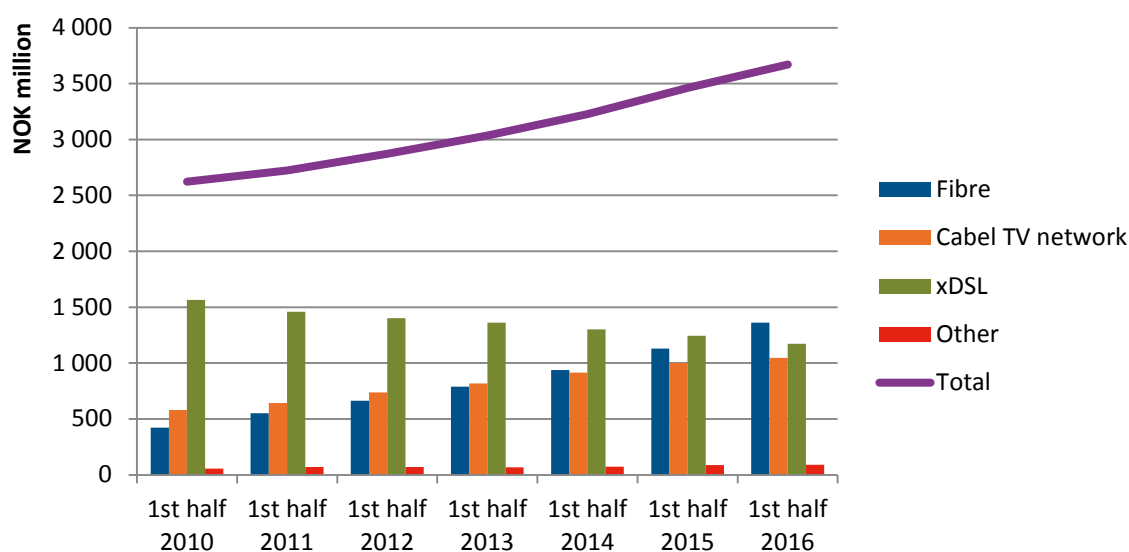


Figure 22 Fixed broadband sales. Residential market.

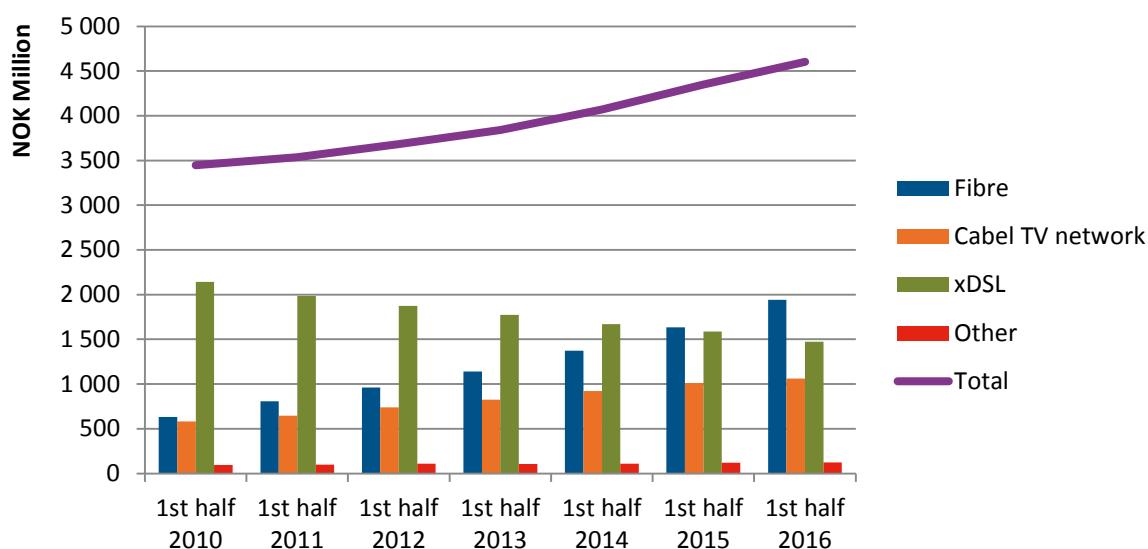


Figure 23 Fixed broadband sales. Residential and business markets.

5.4 Market shares

Telenor is the largest provider of fixed broadband subscriptions. Figure 24 shows that Telenor has a market share of 41.3 per cent of the residential market, when all types of access are combined. If we also include the business market, Telenor's market share is 41.5 per cent, cf. Figure 25. For fibre-based broadband, Telenor is also the largest provider, at 18.2 per cent, cf. Figure 26. Telenor's market share is reduced somewhat from the end of the first half of 2015, to the end of the first half of 2016, when all types of access are combined. For fibre subscriptions, however, Telenor's market share shows a certain increase.

Get is the second-largest provider of fixed broadband subscriptions, when all types of access are combined. Get's market share in the residential market increased from 16.9 per cent at the end of the first half of 2015 to 17.5 per cent at the end of the first half of 2016. NextGenTel is the third-largest provider of fixed broadband. NextGenTel's market share is declining both in the residential market in isolated terms, and including the business market.

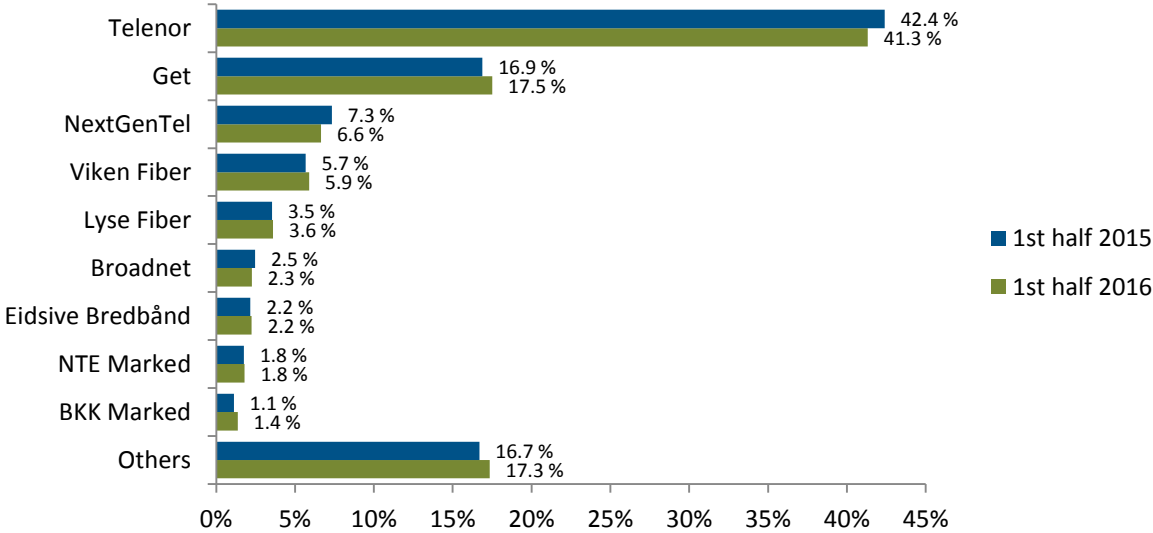


Figure 24 Market shares for fixed broadband measured by number of subscriptions. All forms of access. Residential market.

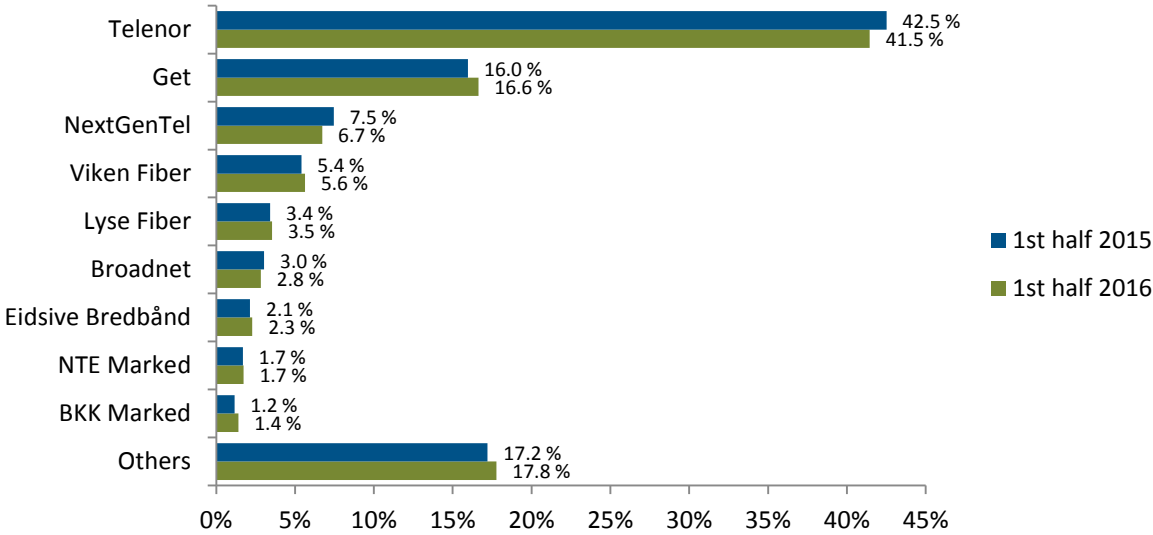


Figure 25 Market shares for fixed broadband measured by number of subscriptions. All forms of access. Residential and business markets combined.

Viken Fiber is the second-largest provider of fibre broadband with a market share of 15.9 per cent, cf. Figure 26. At the end of the first half of 2015, Telenor and Viken had equal market shares for fibre. At the end of the first half of 2016, Telenor had increased its market share to 18,2 per cent, while Viken Fiber's market share had decreased to 15.9 per cent.

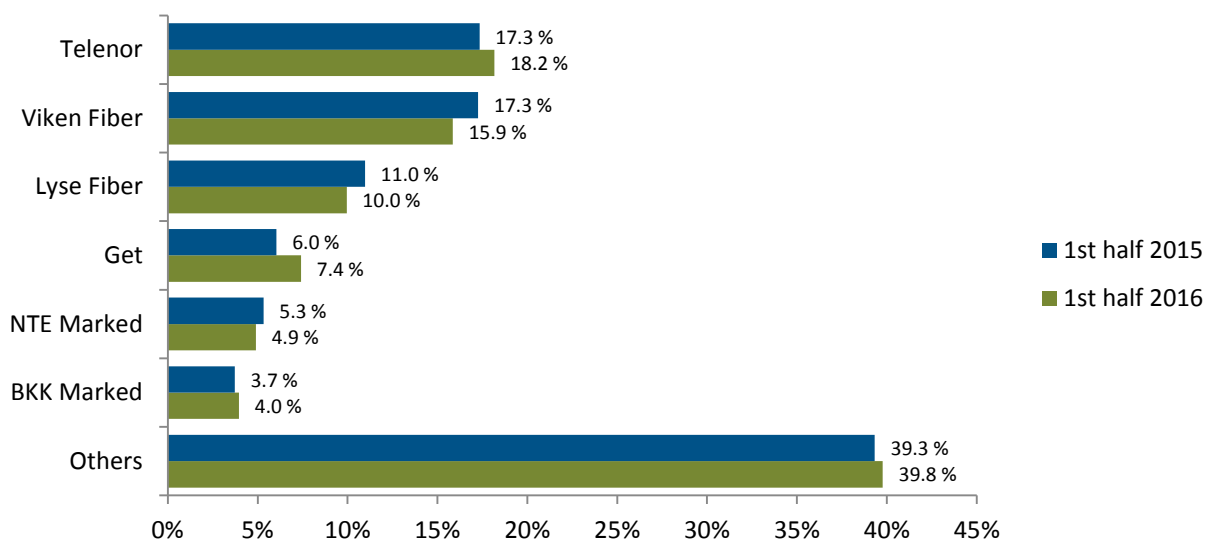


Figure 26 Market shares for fixed broadband measured by number of subscriptions. Fibre. Residential and business markets combined.

6 Transmission of TV signals

6.1 Introduction

As from 2007 Nkom has collected statistics on subscriptions and sales revenue from the distribution of TV signals in the form of TV channels or programme packages for end-users (TV viewers). The statistics are broken down into the various forms of access.

Towards the end of 2009 the analogue terrestrial network was fully digitised. The last analogue signals were switched off on 1 December 2009. The company Norges televisjon (NTV) has a licence to develop and operate the digital terrestrial network, while its sister company RiksTV offers TV channels or programme packages in the network, for a fee. The channels from NRK, as well as other individual channels, can be received free of charge from RiksTV (the "free channels"). The reception of TV channels other than the "free channels" requires a subscription agreement with RiksTV.

The statistics in this report measure the number of subscriptions and related sales revenues for end-customers that have entered into an agreement with RiksTV to receive more channels than the "free channels". Consequently the statistics do not include end-users who only receive the "free channels".

Many companies own and operate cable-TV networks. Many networks have few users, and several networks are owned by the users, primarily in housing associations. Large providers

such as Telenor (Canal Digital) and Get supply TV signals in their own networks to their end-users, and also to subscribers in user-owned networks. In many cases this also entails the sale of Internet access and broadband telephony to end-users. For cable-TV networks, Nkom mainly collects figures for end-users of TV signals from providers that also offer Internet access via cable-TV networks. This means that some cable-TV networks, primarily user-owned networks, may fall outside the statistics. Nonetheless Nkom believes that this currently constitutes a limited share.

Telenor (Canal Digital Norge) and Viasat transmit TV signals via satellite to end-users in Norway. Nkom collects data from these two providers.

New fibre optic networks are being rolled out to end-users every year. The access network is used for Internet access, receiving TV signals, broadband telephony and any additional services beyond these. Digital distribution of broadcasting via broadband access (IP-TV) must not be confused with web-TV (Internet-TV), where sound and images are transmitted to dedicated users via the Internet. Nkom collects statistics for fibre-based IP-TV.

Nkom also collects data for the transmission of TV signals via DSL. Distribution of this kind is of limited scope compared with other forms of access.

6.2 Subscriptions

Figure 27 shows the change in the number of subscriptions for reception of TV signals broken down by access technology. The total number of subscriptions for reception of TV signals was almost 2,223,000 at the end of the first half of 2016. This is a decrease of almost 3,000 subscriptions compared to the same period of 2015. This is the first time that a decline in the number of subscriptions has been registered. Fibre is the only type of access that has increased. From the end of the first half of 2015 until the end of the first half of 2016 the number of subscriptions increased by more than 58,000. Fibre-based TV subscriptions account for 23 per cent of the total number of subscriptions.

Cable-TV has the highest number of subscriptions. At the end of the first half-year, there were almost 879,000 cable-TV subscriptions. This is a reduction of almost 29,000 from the same period in 2015. At the end of the first half of 2016, the number of cable-TV subscriptions represented 40 per cent of the total number of TV subscriptions. Satellite-based TV subscriptions account for the second-largest category, with more than 546,000 subscriptions at the end of the first half of 2016.

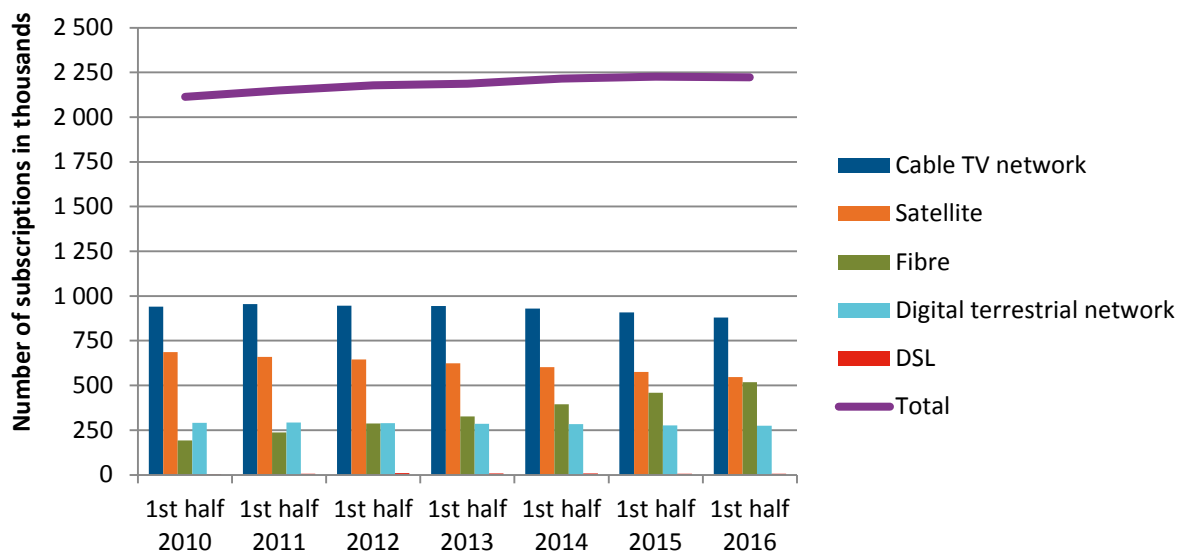


Figure 27 Number of subscriptions for reception of TV signals at the end of the period.

6.3 Revenue

6.3.1 Revenue concept

The sales revenue that providers report to Nkom primarily consists of earnings from the distribution of TV signals in the form of specific channels or programme packages. Sales revenue also includes ancillary services such as film rental or other playback of media content. Sales revenue includes both set-up costs and ongoing subscription payments. Sales revenue does not include earnings from the sale or lease of physical equipment related to televisions, such as digital boxes or recording and playback devices.

Many forms of access used for TV also include subscription for other services, particularly access to the Internet. The way in which the providers invoice the access may vary. However, Nkom assumes that most of the costs are covered by the subscriptions for the basic access service. For cable-TV access, this will be the television subscriptions, while for fibre access this will generally be the subscriptions for the Internet service

6.3.2 Development in sales revenue

Figure 28 shows the development in sales revenue from transmission of TV signals. In the first half of 2016, the total revenue exceeded NOK 4.35 billion. This is an increase of over NOK 169 million compared with the first half of 2015. The access form showing the greatest increase in revenue is fibre, with revenue exceeding NOK 1.03 billion in the first half of 2016. This is an increase of almost NOK 153 million compared with the same period of 2015. Revenue from cable-TV decreased by almost NOK 49 million compared with the first half of 2015. This is the first time that cable-TV revenue has declined.

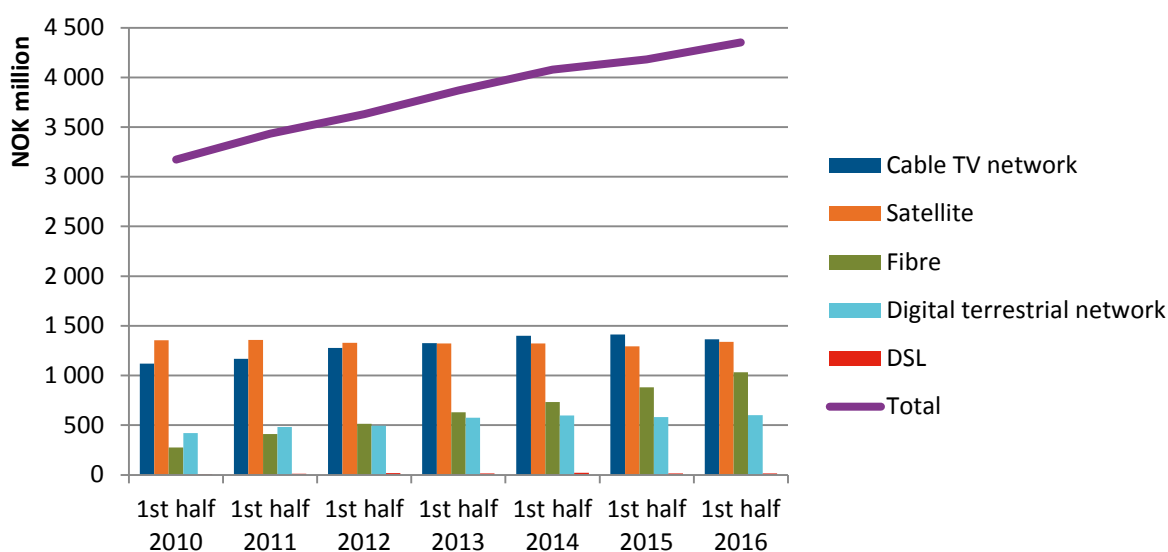


Figure 28 Sales revenues from distribution of TV signals broken down by form of access.

6.4 Market shares

Figure 29 shows the development in the market shares for transmission of TV signals for all access technologies, measured by number of subscriptions. Telenor, which includes Canal Digital, is the largest provider, with a market share of 43.7 per cent at the end of the first half of 2016. This is a decrease from 44.4 per cent from the same period of 2015. Get, which is the second-largest provider, increased its market share from 19.3 per cent at the end of the first half of 2015, to 19.4 per cent for the same period of 2016. RiksTV, which provides TV via the digital terrestrial network, had a market share of 12.3 per cent at the end of the first half of 2016. Viken Fiber increased its market share from 4.1 to 4.3 per cent during the first half of 2015.

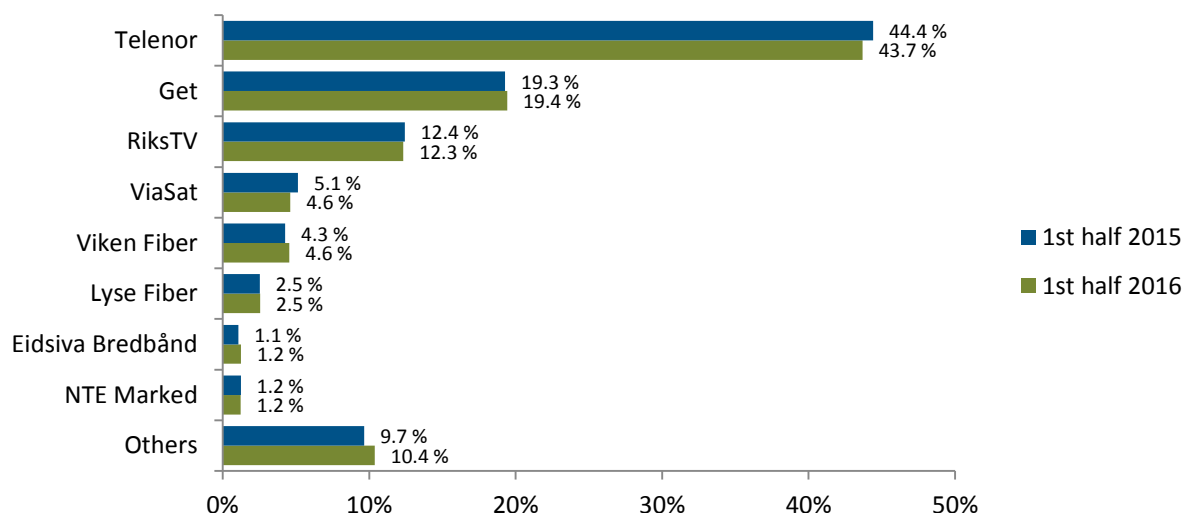


Figure 29 Market shares for distribution of TV signals, measured by number of subscriptions. All forms of access.

Figure 30 shows the development in the market shares for cable-TV, measured by number of subscriptions. Together, Telenor and Get have 92.6 per cent of the market. This combined share has been relatively stable in recent years. Telenor's market share decreased from 49.6 per cent at year-end 2015 to 49.2 per cent at the end of the first half of 2016. Get increased its market share from 43.4 per cent to 44.1 per cent in the same period. There are only minor changes in the market shares of the smaller providers.

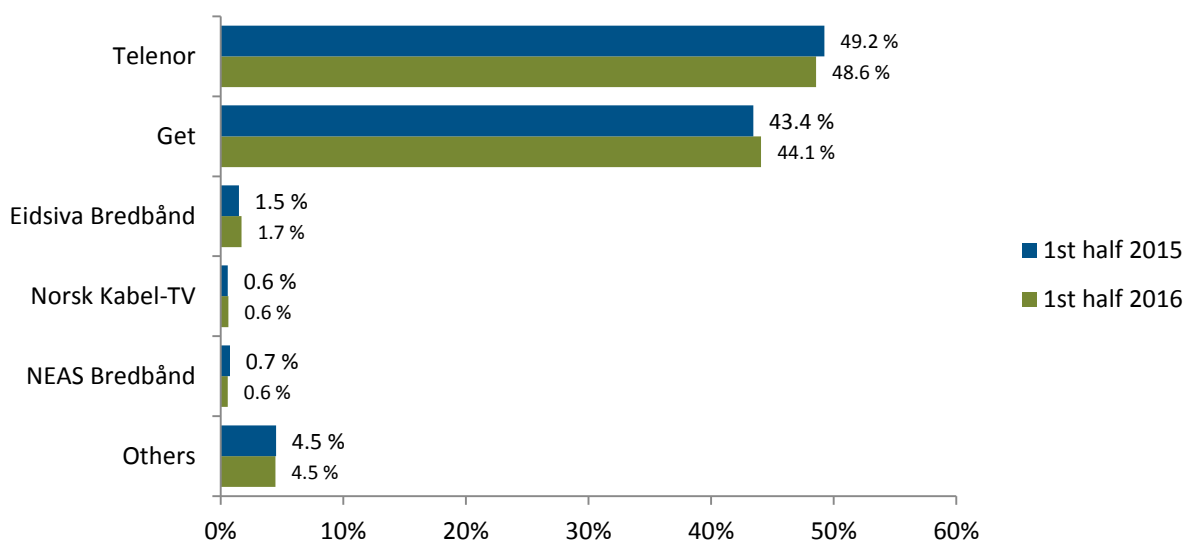


Figure 30 Market shares for transmission of TV signals, measured by number of subscriptions. Cable-TV

Figure 31 shows the market shares for transmission of TV signals via fibre, measured by number of subscriptions. Viken Fiber is the largest provider, with 19.5 per cent of subscriptions at the end of the first half of 2016. This is a reduction from 20.5 per cent at the end of the first half of 2015. Telenor is the second-largest, with 19.3 per cent at the end of the first half of 2016. This is an increase from 17.4 per cent for the same period of 2015.

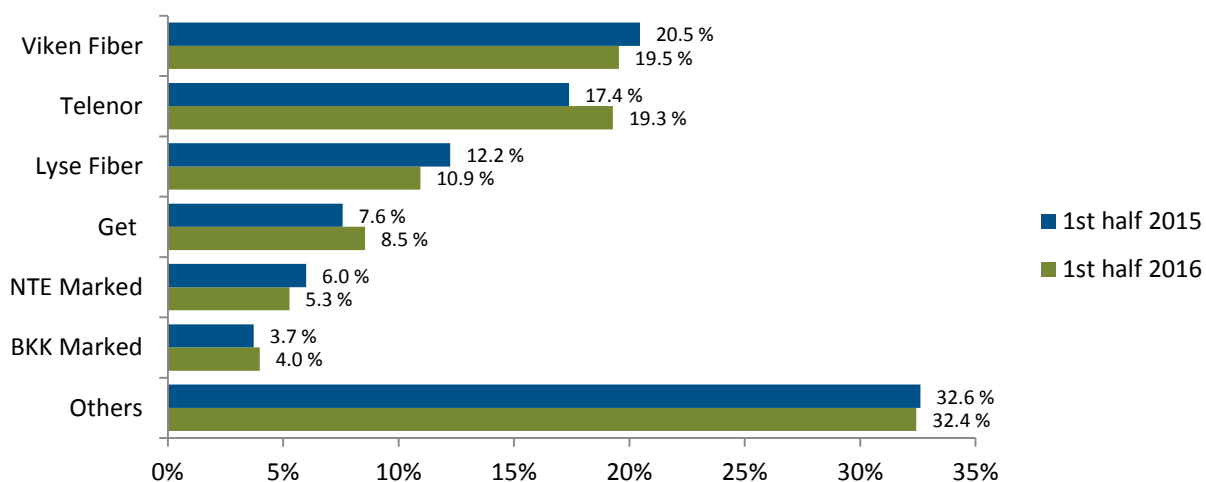


Figure 31 Market shares for transmission of TV signals, measured by number of subscriptions. Fibre.