



File ref.: 20-14653

## **Instructions for the questionnaire**

### **The Swedish Telecommunications Market 2020**

**Read through the cover sheet before filling in the information.**

**Questions regarding commercial operations and turnover for the operations subject to notification (question 1-5) should be answered by all companies.**

**The other parts should be completed if you have such operations.  
Footnotes are found at the end of each section.**

**The answers are to be submitted via the web questionnaire.**

**The answers should be submitted no later than 19 February 2021.**

## Questionnaire

### Basis for SMP assessments, The Swedish Telecommunications Market 2020, official statistics on telecommunications operations 2020, and basis for National Accounts

#### Objectives

The purpose of this survey is to collect data for PTS's report 'The Swedish Telecommunications Market', which aims to raise the level of knowledge about the electronic communications market in Sweden, and to produce official statistics for the sector. Additional purposes are to gather information that will form the basis for market analyses that PTS is obliged to conduct and for any decisions concerning significant market power (SMP) and other analyses.

Since the year 2000, the collection of statistics in the area of electronic communications is a joint initiative between three government agencies: The Swedish Post and Telecom Authority (PTS), Transport Analysis (Trafikanalys) and Statistics Sweden (SCB). An important reason for this collaboration is to facilitate the respondents' provision of information by reducing the number of questionnaires and using a set of common definitions. The interagency collaboration also creates one source of basic data, which is helpful to users of the data.

#### Use and publication of information submitted

PTS will use the information in the report 'Swedish Telecommunications Market 2020' (published in the second quarter 2021 and made available on PTS's website, [www.pts.se](http://www.pts.se) and on PTS's statistics portal, [statistik.pts.se](http://statistik.pts.se)). PTS will also use the information for market analyses and decisions implemented on an ongoing basis in accordance with Chapter 8, Sections 5 and 6 of The Electronic Communications Act 2003:389 (LEK).

The information that PTS will use for the report 'Swedish Telecommunications Market 2020' and statistics on PTS's statistics portal, [statistik.pts.se](http://statistik.pts.se) includes nearly all responses regarding retail in the questionnaire, with the exception of question concerning "Number of contract subscriptions for mobile telephony and mobile data distributed by data allowance".

PTS intends to publish information for individual operators as part of the 'Swedish Telecommunications Market 2020' and on PTS's statistics portal, [statistik.pts.se](http://statistik.pts.se). This applies to as good as all information related to retail markets. The answers to these questions, as well as other information, may also be published in conjunction with PTS's market assessments and decisions concerning significant market power (SMP). Also, the information from the survey will be reported to the EU, mainly on a sectoral level.

Trafikanalys will use the information for the official statistics on telecommunications operations in Sweden. The report 'Televerksamhet 2020' (Telecommunications Operations 2020) will be published in September 2020 (preliminarily) and made available on Trafikanalys's website, [www.trafa.se](http://www.trafa.se). No market shares for individual operators are stated in the annual report on telecommunications operations issued by Trafikanalys.

#### Information obligation

For all questions in the questionnaire, there is an obligation to provide information to PTS in accordance with Chapter 8, Section 1 of LEK, as well as the Radio Equipment Act (2016:392) and the Act (2016:534) on measures for deployment of broadband networks.

Companies and organisations engaged in operations subject to an obligation to notify in accordance with Chapter 2, Section 1 of LEK are obliged to pay certain fees to PTS. By chargeable turnover (In Swedish avgiftsgrundande omsättning) is meant turnover during the preceding financial year concerning the operations subject to the obligation to notify.

In accordance with Chapter 1, Section 3 and Chapter 8, Section 17-18 of LEK, as well as Chapter 5, Section 1 of the Act (2016:534) on measures for deployment of broadband networks, and Section 15 of the Radio Equipment Act (2016:392), PTS's ongoing activities are funded through charges imposed on those who hold licences subject to PTS's supervision. Under Section 11 of The Swedish Post and Telecom Authority Funding of Operations Ordinance 2003:767 and Section 37 of the Electronic Communications Ordinance 2003:396, PTS can prescribe regulations on charges. The question concerning the chargeable turnover forms the basis for the charge, and the data is compiled in accordance with Chapter 7, Section 3 LEK.

#### Who must answer the questionnaire?

The survey is sent to companies and organisations, which are engaged in operations subject to an obligation to notify in accordance with Chapter 2, Section 1 of LEK and companies and organisations which are engaged in operations in markets which PTS consider relevant for this survey.

#### Secrecy protection

PTS is empowered, according to Chapter 30, Section 23 of the Public Access to Information and Secrecy Act (Swedish Code of Statutes 2009:400), Section 9 of the Public Access to Information and Secrecy Ordinance (Swedish Code of Statutes 2009:641) and Item 99 of the Appendix, to decide that information received that is assessed by PTS to be commercially sensitive shall not be disclosed to a party who requests such information.

If the party submitting information considers that certain information is covered by secrecy protection and should not be published or disclosed, the reasons for this should be stated to PTS in conjunction with the submission of the information. However, it is PTS that in each individual case determines whether or not the information is such that it is subject to secrecy. PTS's decision not to disclose information can be appealed in the Administrative Court of Appeal (Swedish: Kammarrätten).

#### Annual charges for 2021

In December 2020 the Board of PTS approved the charges for 2021. These charges are published in the 'The Swedish Post and Telecom Authority Regulations on Charges', available on the PTS website.

#### GDPR

PTS processes the following personal data about you: contact information for your workplace, name, e-mail address, mobile telephone number. The purpose of personal data processing is to collect the information that PTS needs in order to fulfill the government mandate to follow the development in the area of electronic communications (the statistics are presented in the report Swedish Telecommunications Market).

Read more: <http://www.statistik.pts.se/en/the-swedish-telecommunications-market/gdpr/>

#### Definition and advice on the completion of the questionnaire

Where information is requested separately for the categories 'Private' and 'Business', you should base your answer on who pays for the service, not the user of the service. The criterion for the paying party to be designated as a 'Business' (including organisations) is that it has a company/organisation identity (ID/registration number) number. All others should be designated as private customers.

If a service is offered, but an answer cannot be submitted, an explanation must be provided as to why an answer cannot be given. Revenues for both 'Private' and 'Business' should be reported excluding value added tax (VAT). Sales via distributors should not be included in those cases where retail data is requested.

#### PTS MUST HAVE RECEIVED YOUR QUESTIONNAIRE NO LATER THAN 19 FEBRUARY 2021

#### Contact

If you have further questions, please contact: Karin Fransén (PTS), +46 8 678 55 00, or [e-komstat@pts.se](mailto:e-komstat@pts.se)

# Questionnaire for

**Basis for SMP assessments, The Swedish Telecommunications Market 2020,  
 official statistics on telecommunications operations 2020,  
 and basis for National Accounts**

**Question a**

*If you wish to change the pre-printed information concerning company/organisation name or registration number, you can select this below and enter new information on the next page.*

Company/organisation name:

Company/organisation registration number:

**Question b. Contact information for this questionnaire, Swedish Telecommunications Market**

Contact person:

Telephone:

E-mail:

**Fråga c. Information about the company/organisation**

Contact person for PTS:

Address

Address (continue)

Postal code

City

Country:

Telephone Switchboard:

E-mail where PTS can send decisions, new permissions etc.

Website:

**Question d. Which companies are included in the information that you report regarding the full-year? Please enter names and registration numbers.**

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**Question e. Which operations have you acquired since 31 december 2019? Indicate whether these are included in this reporting or not.**

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**Question f. Which operations have you sold since 31 December 2019?**

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**COMMERCIAL OPERATIONS**

**Within which area did you have operations in Sweden during 2020?** **Yes/No**

<i>Fixed call services (also IP telephony):</i>	<input type="checkbox"/>
<i>Interconnection in fixed networks:</i>	<input type="checkbox"/>
<i>Mobile call and data services and mobile broadband:</i>	<input type="checkbox"/>
<i>Interconnection in mobile networks:</i>	<input type="checkbox"/>
<i>Internet subscriptions:</i>	<input type="checkbox"/>
<i>Television services:</i>	<input type="checkbox"/>
<i>Bundled subscriptions:</i>	<input type="checkbox"/>
<i>Black fibre and wavelength connections to operators and end users:</i>	<input type="checkbox"/>
<i>Data communications services to operators:</i>	<input type="checkbox"/>
<i>Data communications services to end users:</i>	<input type="checkbox"/>
<i>Connections to premises and virtual access connections:</i>	<input type="checkbox"/>

**COMMERCIAL OPERATIONS**

***DELETED Question: Total operating income related to telecommunications[] in Sweden [SEK 000s] during 2020. Whole sale and hardware income is also included :***

***Question 1: Investments in own operation[1]related to telecommunications in Sweden [SEK 000s] during 2020:***

	Total
<i>Total investmests related to telecommunications (both tangible and intangible fixed assets) license fees excluded</i>	
<i>Total investments in intangible fixed assets related to telecommunications:</i>	
<b>Total investments in tangible fixed assets related to telecommunications:</b>	
<i>of which within fixed telephony operations:</i>	
<i>of which within mobile networks (investments in GSM, UMTS, LTE and 5G networks) :</i>	
<i>of which fixed broadband network (including passive and active equipment[6]):</i>	
<i>of which other computers and computer-controlled equipment:</i>	
<i>of which other related to telecommunications:</i>	

***Question 2: Number of employees within Sweden in 2020:***

	Men	Women	Total
Average number of employees during 2020:			
of which within telecommunications operations:			
Number of full-time employees on 31 Dec 2020 (35hours per week or more):			
Number of part-time employees on 31 Dec 2020:			

***DELETED Question: Total operating expenses related to telecommunications in Sweden [SEK 000s] during 2020:***

**Foot notes**

1 Include total investment in property (land or buildings) and equipment (networks equipment, hardware, software, office equipment, and motor vehicles).

2 For active equipment, routers and switches are included

**OPERATION SUBJECT TO NOTIFICATION OBLIGATION**

Questions: please contact [anmalningsplikt@pts.se](mailto:anmalningsplikt@pts.se)

**CHARGEABLE TURNOVER**

Companies and other organisations engaged in operations subject to an obligation to notify are obliged to pay certain fees to PTS. By chargeable turnover (In Swedish "avgiftsgrundande omsättning") is meant turnover during the preceding financial year concerning the operations subject to the obligation to notify according to chapter 2, Section 1 of the Electronic Communications Act (2003: 389).

SEK 0 (zero) shall be reported if no operation requiring notification is carried out.

PTS is entitled to estimate the notifier's chargeable turnover if it is inadequately or not reported and for the first year of operation (after notification). PTS Estimate the Chargeable Turnover on the notifier's previous annual report. (PTS fee regulations, PTSFS).

PTS fees are based on the reported or estimated chargeable turnover and will be announced in a separate decision, before the fee is invoiced.

For further information regarding notification and fees:

<https://pts.se/en/english-b/telephony/vc/>

Guidelines for fee-qualifying revenue: <https://pts.se/contentassets/d3e7d8272c1242288defc8ae1e01f141/guidelines-for-fee-qualifying-revenue.pdf>

**Question 3: Chargeable turnover in financial year 2020. By chargeable turnover (sw. avgiftsgrundande omsättning) is meant turnover during the preceding financial year concerning the activities subject to notification.  
NB Specify in thousand SEK**

	Specify concerned company/companies in terms of chargeable turnover	Chargeable turnover in thousand SEK
	<b>Total</b>	

Comments:

**Question 4: Chargeable turnover for the financial year 2020 equal to 30 million SEK or more the information must be certified. This is done through an authorized signatory (e.g. MD, CFO, Accounts Manager or similar) confirming the chargeable relevant turnover.**

	I confirm the chargeable turnover in question 6 is accurate. If the chargeable turnover is incorrect, please insert correct chargeable turnover in question 3.		
Name:			
Position:			

**Question 5: Invoice adress**

	Address	
	Address (continue)	
	Postal code	
	City/District	
	Country:	
	Invoicing reference	
	Invoicing reference 2	

**OPERATION SUBJECT TO NOTIFICATION OBLIGATION**

**Verify chargeable turnover question 3**

The chargeable turnover, according to question 3, should be greater than the sum of revenues reported in the questions in The Swedish Telecommunications Market, see below.  
In this context, chargeable turnover refers to the turnover for the operations subject to notification according to the Swedish Electronic Communication Act, Chapter 2 Section 1.

Verify that your information regarding chargeable turnover is stated correctly.  
Provide an explanatory comment below if the chargeable turnover is below the sum of the questions above.

	<b>Total</b>
Chargeable turnover according to question 3 (thousand SEK):	<input type="text"/>
Sum of revenues in The Swedish Telecommunications Market excluding revenues from TV-subscriptions (thousand SEK):	<input type="text"/>
Sum of revenues in The Swedish Telecommunications Market excluding revenues from TV-subscriptions includes the following questions: 7, 11, 18, 23, 27, 32, 38 (excluding group internal revenues), 39, 40, (excluding group internal revenues), 41 (excluding group internal revenues) and question 44.	

**Comments:**

## FIXED CALL SERVICES

If you have reported a number of subscriptions on one type of subscription on question 6, you also need to report the number of calls on question 8 and the number of traffic minutes on question 9 for the same type of subscription.

**Question 6: Number of active subscriptions for fixed telephony (PSTN, ISDN, IP-based and internetbased telephony [1]. Only subscriptions which have generated traffic the last three months. SIP-trunks not included. 31 Dec 2020 :**

	Private	Business	Total
Subscriptions with both telephony and traffic[2]:			
of which via WLR[3]:			
of which via PSTN access[4]:			
of which via ISDN access[5]:			
of which via xDSL access:			
of which via cable television access:			
of which via LAN network access[6]:			
of which via other ip-based access [9]:			
Active pre-selection subscription (not customers via WLR[7] ([3]):			
<b>Total number of subscriptions:</b>			
of which with LLU[8]:			
Of which subscriptions where call charges are included in a fixed monthly fee[10]:			

**Comments:**

**Question 7: Revenues (SEK 000s) for fixed telephony (PSTN and ISDN, IP-based and internet-based telephony) SIP-trunks not included. As of 2020:**

	Private	Business	Total
Subscription charges[11]:			
of which from PSTN-subscriptions:			
of which from ISDN-subscriptions:			
of which from IP based subscriptions:			
of which from other subscriptions:			
Other fixed charges (installation charges, transfer charges etc.):			
Calls from national fixed networks to national fixednetworks[12]:			
Calls from fixed networks to mobile networks:			
Calls from national fixed networks to international fixed and mobile networks:			
Other telephony services[13][14]:			
<b>Total revenues for fixed telephony from end users:</b>			
of which revenues from IP-based telephony:			



## FIXED CALL SERVICES

**Question 8: Number of outgoing traffic minutes (in thousands) from end users for fixed telephony (PSTN, ISDN, IP-based and Internet-based telephony). SIP-trunks not included. As of 2020:**

	Private	Business	Total
Calls from national fixed networks to national fixed networks[12]:			
Calls from fixed networks to mobile networks:			
Calls from national fixed networks to international fixed and mobile networks:			
Other telephony services:[13]:			
<b>Total number of outgoing traffic minutes for fixed telephony:</b>			
of which traffic minutes from IP-based telephony:			

**Question 9: Number of outgoing calls (in thousands) from end users for fixed telephony (PSTN, ISDN, IP-based and Internet-based telephony). SIP-trunks not included. As of 2020:**

	Private	Business	Total
Calls from national fixed networks to national fixed networks[12]:			
Calls from fixed networks to mobile networks:			
Calls from national fixed networks to international fixed and mobile networks:			
Other telephony services[13]:			
<b>Total number of outgoing calls for fixed telephony:</b>			
of which calls from IP-based telephony:			

### FOOT NOTES

- 1 Relates here to the form of IP-based telephony where the telephone call made by a subscriber to IP-based telephony should be able to reach and be reached by telephones connected to the PSTN and ISDN networks. PBXs that are connected via IP protocol should also be included. Exclude Internet telephony with which it is not possible to call ordinary telephone numbers and that is not connected to the traditional telephone network
- 2 Relates to subscriptions that includes both telephony access and traffic (that is pre-selected subscriptions excluded)
- 3 Wholesale line rental. Relates to resale under agreements concluded with Telia Company, both prior to and after 18 May 2005.
- 4 A PSTN subscription is equivalent to a main line to an own end user, where subscriptions for analogue telephony are supplied. The operator with subscription customers usually owns the main line, leases the main line from a network operator (for example by full or shared access) or purchases wholesale line rental for telephony subscriptions. An indirectly connected customer (i.e. a customer connected via WLR, a pre-selection customer or a prefix customer) should not be included here.
- 5 An ISDN subscription is equivalent to a main line to an own end user, comprising either basic rate or primary rate ISDN. The operator with subscription customers usually owns the main line, leases the main line from a network operator or purchases wholesale line rental for telephony subscriptions. An indirectly connected customer (i.e. a customer connected via WLR, a pre-selection customer or a prefix customer) should not be included here.
- 6 A 'LAN network' means a fixed connection (local area network, property network) usually based on Ethernet technology. The LAN is linked to a public fibre network; for example, an area network.
- 7 Relates to active pre-selection customers where the customer is indirectly connected. 'Active' means that the customer has made at least one call during the last quarter in the period. Please note that if a customer has different pre-selections for national and international calls, this only corresponds to one customer. Corresponds to the English term 'Carrier PreSelect' (CPS). Relates to pre-selection for both PSTN and ISDN
- 8 Local Loop Unbundling, dvs. tillträde för andra operatörer till konventionella abonnentledningar via det reglerade tillträdet i form av LLUB (fullt eller delat tillträde).
- 9 Refers to IP-based telephony subscriptions where the form of access is unknown.
- 10 Refers to a subscription for fixed telephony where the customer is not charged by the minute for calls made to fixed and mobile networks in Sweden. Thus it does not matter, from a cost point of view, whether the customer makes a call to a geographical telephone number or to a mobile number.
- 11 Excluding subscription charges from xDSL, fixed charges for value-added services and supplementary services.
- 12 Does not include calls to dial-up Internet access, calls to mobile networks, free-phone, calls with shared cost, pay telecom services and mass call services or directory enquiry services.
- 13 Relates to calls from/using pre-paid telephone cards from payphones (both national and international calls); calls with shared cost (077-); directory enquiry services (118 XYZ); pay telecom service and mass call service (0900-, 0939-, 0944- and 099-). Also relates additional services, free-phone services and value added services. Examples of additional services are wake-up calls, voice mail-box, invoice specifications, call minder, incoming phone number presentation, blocking of certain incoming numbers, forwarding to another phone number, direct call to a pre-set number when receiver is lifted, repetition of the last used number, speed numbers.

## FIXED CALL SERVICES

- 14** Only such calls to dial-up Internet access that are invoiced to the operator's own end users are reported, i.e. the calls that are registered as calls to dial-up Internet access on the customer's invoice. Only relates to dial-up Internet access; i.e. via PSTN and ISDN.

## INTERCONNECTION IN FIXED NETWORKS

*Interconnection in fixed networks, concerns here only with wholesale and refers to exchange of traffic between operators. The section "Fixed call services" deals with end customer /user.*

### Question 10: Termination [1] of incoming traffic to own fixed networks:

	Yes/No
Do you provide termination of incoming traffic to own fixed networks?	

### Question 11: Interconnection revenues [3](SEK 000s) in fixed networks (incl. group internal revenues) during 2020:

	Total	of which group internal
Termination of incoming traffic from national operators' networks[1]:		
<i>of which revenues from voice traffic excluding fixed costs[3]:</i>		
Termination of international incoming traffic:		
<i>of which traffic originated outside of EU/EES[4]:</i>		
Interconnection revenues from originated traffic[5]:		
<b>Total interconnection revenues for fixed telephony:</b>		
<i>of which revenues from packet-switched interconnection[4]:</i>		

### Question 12: Number of interconnection minutes (in thousands) in fixed networks (incl. group internal traffic) during 2020:

	Total	of which group internal
Number of terminated traffic minutes from national operators' networks[1]:		
Number of terminated traffic minutes from international incoming traffic:		
<i>of which traffic minutes originated outside of EU/EES[6]:</i>		
Number of traffic minutes from originated traffic[5]:		
<b>Total number of interconnection minutes:</b>		
<i>of which no. of min. via packet-switched interconnection[4]:</i>		

### Question 13: Number of terminated traffic minutes from own customers (incl. terminated traffic within own network) during 2020:

	Total
Number of terminated traffic minutes from own customers:	

~~DELETED Question: Originated traffic minutes (in thousands) in own fixed network[5] going via direct connection[6]. State traffic minutes for the three largest stakeholders, and the rest under Other. During 2020:~~

~~DELETED Question: Originated traffic minutes (in thousands) in own fixed network going via a transit operator[7] onward to a terminating operator[8] during 2020:~~

### FOOT NOTES

- 1** Call termination covers the transfer of calls from the point of interconnect, regardless level in the public communication networks, where the call is transferred handed over by another operator and to the point where the end user is expected to receive the call. Call origination is defined in the corresponding point as the mirror image of call termination.
- 2** Relates to gross revenues including fixed charges and group internal revenues, i.e. before any set-off.
- 3** The statistics is used for interconnection fixed networks regulation and EU questionnaire BEREC Benchmark Termination Rates Data Collection
- 4** The question is used for the follow up on price regulation on the markets fixed call and mobile call termination
- 5** Call origination is defined in the corresponding mirror image as call termination.
- 6** The information is collected to follow up article 5a in European parliaments and council regulation (EU) 2015/2120 of 25 November 2015

## MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND

If you have reported a number of subscriptions for a type of subscription on question 14, you also need to answer question 18 on revenues, question 20 on calls, and question 21 on traffic minutes for the same type of subscriptions. In question 14-22 M2M-subscriptions should not be included.

**Question 14: Number of subscriptions[1] for mobile telephony and mobile data (excludes customers of service providers that are not owned by an operator; i.e. indirect customers[2]), distributed by form of subscription and rate, 31 Dec 2020:**

	Private	Business	Total
Number of mobile telephony subscriptions [1] for voice only [3]:			
<i>of which active pre-paid cards (3-month rule)[4]:</i>			
<i>of which contract subscriptions:</i>			
Number of mobile telephony subscriptions [1] for voice and mobile data[5]:			
<i>of which active pre-paid cards (3-month rule)[4]:</i>			
<i>of which contract subscriptions:</i>			
Number of mobile subscriptions[1] for mobile data only [7]:			
<i>of which active pre-paid cards (3-month rule)[4]:</i>			
<i>of which contract subscriptions:</i>			
<i>of which Fixed Wireless Access (FWA)[36]:</i>			
<b>Total number of subscriptions [1] for mobile telephony and data at the end of the period:</b>			
<b>Number of subscriptions that have used services in GSM networks (3-month rule):</b>			
<b>Number of subscriptions that have used services in UMTS networks (3-month rule)[8]:</b>			
<b>Number of mobile subscriptions which have used services in LTE networks[9]:</b>			

**MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND**

**Question 15: Number of subscriptions for mobile telephony and mobile data (excludes customers of service providers that are not owned by an operator; i.e. indirect customers[2] distributed by data allowance and month [31], [33], :**

	Private	Business	Total
<b>Number of contract subscriptions[1] for both mobile telephony and mobile data (from question 14)[4]:</b>			
<i>of which less than 1 GB data</i>			
<i>of which 1- 10 GB data</i>			
<i>of which 11-20 GB data</i>			
<i>of which 21-50 GB data</i>			
<i>of which 51-200 GB data</i>			
<i>of which 201 GB data or more, although limited amount of data</i>			
<i>of which unlimited data</i>			
<b>Sum of contract subscriptions for both mobile telephony and mobile data</b>			
<b>Number of contract subscriptions[1] for mobile data only (from question 19)[7]:</b>			
<i>of which less than 1 GB data</i>			
<i>of which 1- 10 GB data</i>			
<i>of which 11-20 GB data</i>			
<i>of which 21-50 GB data</i>			
<i>of which 51-200 GB data</i>			
<i>of which 201 GB data or more, although limited amount of data</i>			
<i>of which unlimited data</i>			
<b>Sum of contract subscriptions for mobile data only</b>			
<b>Comments:</b>			

## MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND

eSIM is a technology that facilitates for the end users to switch providers of electronic communications networks and services, which is particularly important for providers and end users of M2M services. The operators' introduction of the technology is ongoing and PTS intends to follow this development.

**Question 16: Number of active mobile subscriptions and add-on services (such as watches) where the used SIM card is an eSIM and number of eSIM for wearables. By eSIM is meant a programmable SIM card where the functionality is built into the terminal.[34], as of 31 Dec 2020:**

	Private	Business	Total
Number of mobile subscriptions and add-on services (such as watches) where the used SIM card is an eSIM card:			
<b>Comments:</b>			

**Question 17: Number of active SIM-cards in a geographic telephone number 31 Dec 2020:**

	Private	Business	Total
Number of mobile subscriptions with a geographic telephone number linked to the SIM card [10]:			

**Question 18: Total revenues (SEK 000s) from end users for mobile call and data services[13] [31]. This question is related to the subscriptions in question 14. During 2020:**

Charges	Private	Business	Total
<b>Fixed charges</b>			
Subscription charges[14]:			
<b>Variable charges</b>			
<b>Total revenues for mobile call and data services from end users:</b>			
of which revenues from contract subscriptions:			
of which revenues from pre-paid cards[4]:			
of which are revenues from subscriptions for mobile data services only, no voice (both fixed and variable charges) [32]:			

**Question 19: Number of outgoing voice traffic minutes (in thousands) from end users for mobile telephony (excluding data traffic and international roaming) during 2020 [20]:**

	Private	Business	Total
Outgoing voice traffic from mobile telephones to national mobile networks:			
of which within own network[21]:			
Outgoing voice traffic from mobile telephones to national fixed networks:			
Outgoing voice traffic from mobile telephones to international fixed and mobile networks:			
Outgoing voice traffic from mobile telephones to other call services:			
<b>Total number of voice traffic minutes for mobile telephony:</b>			
of which voice traffic minutes from GSM networks:			
of which voice traffic minutes from UMTS networks:			
of which voice traffic minutes from LTE networks (VoLTE):			
of which voice traffic minutes in unknown networks:			

**MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND**

**Question 20: Number of outgoing mobile calls[22] (in thousands) from end users (excluding international roaming) during 2020:**

	Private	Business	Total
Outgoing calls from mobile telephones to national mobile networks: <i>of which within own network[21]:</i>			
Outgoing calls from mobile telephones to national fixed networks:			
Outgoing voice traffic from mobile telephones to international fixed and mobile networks:			
Outgoing calls from mobile telephones to other call services:			
<b>Total number of calls for mobile telephony:</b>			

**Question 21: Outgoing and incoming traffic from end users[5][24] for mobile data services. Report Mobile data (Gbyte) in binary format [23]. As of 2020:**

Outgoing (upstream) mobile data traffic (Gbyte):			
Incoming (downstream) mobile data traffic (Gbyte):			
Mobile data traffic (Gbyte) unknown if upstream or downstream:			
<b>Total quantity of mobile data traffic (Gbyte):</b>			
<i>of which traffic in 4G network:</i>			
<i>of which traffic in 5G network:</i>			
<i>of which from subscriptions on mobile broadband - only data[7]:</i>			
<i>of which from subscriptions for both voice and mobile data:</i>			

**Question 22: Number of text messages (in thousands) and MMS (in thousands) sent during 2020[25]:**

	Private	Business	Total
Number of text messages sent from mobile telephones [26]: <i>of which within own network[21]:</i>			
Number of SMS sent from computer system or application[35]:			
Number of MMS sent from mobile telephones:			



**MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND**

**M2M = machine-to-machine**

**Question 23: Revenues, traffic and number of M2M SIM cards [11] (excludes customers of service providers that are not owned by an operator; i.e. indirect customers, for example with MVNOs etc.) during 2020:**

<b>Total</b>	
Number of SIM cards for M2M [11],[12] :	
of which used in Sweden:	
of which M2M using eSIM [34]:	
Revenues from SIM cards for M2M [19] (SEK 000s):	
of which used in Sweden:	
Number of SMS from M2M SIM cards (thousands)	
Total quantity of mobile data traffic from SIM cards for M2M (Gbyte):	
Comments:	

**Leased networks for MVNO/Reseller business. Question 24-25 for operators that are leasing network capacity for MVNO or Reseller business.**

**Question 24: Leasing of network capacity for mobile call and data services to service providers [27](Reseller and MVNO) during 2020:**

<b>Total</b>	
Number of end users:	
Number of outgoing traffic minutes from mobile telephones (in thousands):	
Outgoing and incoming traffic for mobile data services (Gbyte):	
Revenues from leased networks for MVNO/Reseller business [28] for mobile call and data services (SEK 000s):	
Revenues from termination [29] of incoming [30] call traffic (SEK 000s):	
Number of traffic minutes from termination [29] of incoming [30] traffic:	

**Question 25: Which service providers[27] (Reseller and MVNO) leased network capacity for mobile call, and data services to end users during 2020?**

<b>One company per row</b>	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

**FOOT NOTES**

- 1** "Subscription" refers to both contract subscriptions and pre-paid cards; pre-paid cards are reported under 'Private' and according to the 3-month rule (see 'pre-paid card' for definition). M2M, or Machine to Machine, should not be included, but should be reported separately in question.
- 2** Customers of service providers that are at least 50 per cent owned by the network operator itself are considered to be directly connected customers.
- 3** Also include those with subscriptions for a voice service that also have subscriptions for data but have not used the data access at least once during the last quarter of the period for which subscription charges have not been paid during the last quarter of the period.
- 4** Pre-paid cards must have been topped up or have generated (outgoing or incoming) traffic (minutes or data) or revenues during the last quarter of the period; all pre-paid cards are reported under 'Private'.
- 5** Only include subscriptions for a voice service that also allows the transmission of packet data and where the data access has been used at least once during the last quarter of the period or where a separate charge for mobile packet data has been paid during the last quarter of the period.
- 6** Refers to bundling products where the subscriber has purchased at least 1 GByte of data traffic. In practice, this means smartphones used for both calls and mobile broadband.
- 7** Include subscriptions which are used for mobile data and has been used at least once the last three months or the subscription fee has been paid during the last three months in the period. The subscription must not have generated any voice minutes.
- 8** Active GSM, UMTS and LTE subscriptions must have generated traffic (minutes or data) in the GSM, UMTS or LTE networks during the last quarter of the period.
- 9** LTE (Long Term Evolution). Also called 4G, fourth generation mobile networks.
- 10** Refers to mobile subscriptions with a fixed network number connected to SIM card as an add-on service.
- 11** M2M = machine-to-machine. SIM cards for M2M relates to services for communication between machines or other equipment (cars, trains, electric meters, consumer electronics etc.) and which are not a part of a private or company subscription. Subscriptions on mobile broadband (like tablets) should not be included here.
- 12** Customers of service providers that are at least 50 per cent owned by the network operator itself are considered to be directly connected customers.
- 13** Including active pre-paid cards, SMS, MMS, mobile data traffic and mobile value-added services. Excluding interconnection, international roaming abroad, machine-to-machine (reported separately) and group internal revenues. Supplementary charges or other instalment payments for discounted mobile telephones should also be excluded. Revenues from pre-paid cards are reported under 'Private'.
- 14** Fixed charges includes extra data that can be purchased as add-on services for a mobile subscription (with or without voice calls), when the included amount of data is finished. Exclude additional fees or other instalment payments for discounted mobile telephones (so called 'handset revenues'). Revenues from pre-paid cards are reported under 'Private'.
- 15** Only Voice traffic. Revenues from SMS, MMS, machine-to-machine (reported separately), mobile data traffic and mobile broadband should not be included.
- 16** Excluding revenues from value-added in premium SMS.
- 17** Including revenues from mobile broadband.
- 18** Excluding active pre-paid cards, SMS, MMS, mobile value-added services, interconnection, international roaming abroad, machine-to-machine (reported separately) and group internal revenues. Supplementary
- 19** Revenues from both subscriptions and traffic.
- 20** State outgoing voice traffic minutes, regardless of whether they are debited or not. Voice traffic minutes from pre-paid cards are reported under 'Private'.
- 21** For service providers/third party operators where network capacity is purchased from a mobile network operator, 'voice traffic'/sms relates to voice traffic that terminates in the same network to which the service provider is connected.
- 22** Calls from pre-paid cards are reported under 'Private'.
- 23** 1GByte=1 073 741 824 =(230 = 10243) bytes
- 24** Traffic from and to pre-paid cards is reported as 'Private'.
- 25** SMS and MMS sent from pre-paid cards are reported under 'Private'.
- 26** This refers to text messages sent from mobile terminals. Also includes text messages sent without being debited per item (those included in subscriptions of the type '3 000 free text messages'). Person-to-person.

## MOBILE CALL AND DATA SERVICES AND MOBILE BROADBAND

- 27** Exclude those service providers that are owned 50 per cent or more by the network operator itself. Include other service providers and MVNOs.
- 28** Including all one-off charges plus fixed and variable charges.
- 29** Refers only to the revenues and traffic minutes for termination of calls payable to the service provider.
- 30** Refers to both national and international incoming traffic.
- 31** Includes revenues from extra data that can be purchased as an add-on service (so called 'data topups') for a mobile subscription with voice calls, when the amount of data is finished.
- 32** Includes revenues from extra data that can be purchased as an add-on service (so called 'data topups') for a mobile subscription without voice calls, when the amount of data is finished.
- 33** If a number of subscriptions share the amount of data (sometimes referred to as 'family subscriptions') report the total amount of data for the main subscription, and 'less than 1 GB data' for the other subscriptions. Also report subscriptions with variable amount of data as 'less than 1 GB data'. Do not include data topups. Family subscriptions with unlimited amount of data: Report all subscriptions in the family subscription under 'unlimited'
- 34** eSIM is an abbreviation of embedded sim and works basically like the physical SIM card you insert into the mobile telephone. The difference is that the information about a subscription is no longer linked to a physical SIM card, but can be sent wireless directly to, for example, the mobile phone, the watch or the tablet. eSIM can be programmed remotely.
- 35** This refers to text messages sent from computer systems eg. such as reminder of time booking, mass mailing as advertising or confirmation of ticket purchase. Machine-to-person.
- 36** FWA is a fixed, wireless signal for one specific building. This question might later be moved to fixed broadband section. Definition of FWA: Fixed wireless access is defined (Ericsson) as a connection that provides broadband access through a mobile network enabled customer premises equipment (CPE). This includes various form factors of CPEs, such as indoor (desktop and window) and outdoor (rooftop and wall mounted). It does not include portable battery-based Wi-Fi routers or dongles.

## INTERCONNECTION IN MOBILE NETWORKS

*Interconnection in mobile networks, concerns here only with wholesale and refers to exchange of traffic between operators. The section "Mobile call services" deals with end customer /user.*

### Question 26: Termination [1] of incoming traffic to own mobile network during 2020:

	Yes/No
Do you currently provide termination of incoming traffic to your own mobile network?	

### Question 27: Interconnection revenues [2](SEK 000s) in mobile networks incl. group internal revenues during 2020:

	Total
Termination of incoming [1] traffic from the networks of national operators: <i>of which revenues from voice traffic excluding fixed costs[3]:</i> <i>of which group internal revenues:</i>	
Termination of international incoming traffic: <i>of which revenues from traffic originated outside of EU/EES[4]:</i>	
From mobile data traffic:	
Termination of incoming M2M traffic:	
<b>Total interconnection revenues for mobile telephony:</b>	

### Question 28: Interconnection minutes in mobile networks (in thousands) incl. group internal traffic during 2020:

	Total
Number of terminated call minutes [3] from national operators' networks: <i>of which group internal traffic:</i>	
Termination of international incoming traffic: <i>of which traffic minutes to EU/EES[6]:</i>	
<b>Total interconnection for mobile telephony:</b>	

***DELETED Question: Originated traffic minutes (in thousands) in own mobile network [4] going via direct connection[5] during 2020:***

***DELETED Question: Originated traffic minutes (in thousands) in own mobile network going via a transit operator[6] on to a terminating operator[4] during 2020:***

## INTERCONNECTION IN MOBILE NETWORKS

### FOOT NOTES

- 1 Call termination covers the transfer of calls from the point of interconnect, regardless level in the public communication networks, where the call is transferred handed over by another operator and to the point where the end user is expected to receive the call. Call origination is defined in the corresponding point as the
- 2 Relates to gross revenues including fixed charges and group internal revenues, i.e. before any set-off.
- 3 The statistics is used for interconnection fixed networks regulation and EU questionnaire BEREC Benchmark Termination Rates Data Collection
- 4 The question is used for the follow up on price regulation on the markets fixed call and mobile call termination
- 5 Call origination is defined in the corresponding mirror image as call termination.
- 6 The information is collected to follow up article 5a in European parliaments and council regulation (EU) 2015/2120 of 25 November 2015

**INTERNET SUBSCRIPTIONS**

**Question 29: Number of active subscriptions [1] for Internet service (access) distributed by form of access downstream, 31 Dec 2020:**

xDSL via LLUB and other wholesale products is a breakdown of xDSL and is not par of the sum xDSL. The sum of xDSL via LLUB and other wholesale products are to be the same as the sum of xDSL.

	Private	Business	Total
<b>PSTN (Modem up to 56 kbps):</b>			
<b>Satellite:</b>			
<i>of which above 144 Kbps and below 2 Mbps:</i>			
<i>of which 2 Mbps and above (and below 10 Mbps):</i>			
<i>of which 10 Mbps and above (and below 30 Mbps):</i>			
<i>of which 30 Mbps and above (and below 100 Mbps):</i>			
<i>of which 100 Mbps and above:</i>			
<b>xDSL:</b>			
<i>of which above 144 Kbps and below 2 Mbps:</i>			
<i>of which 2 Mbps and above (and below 10 Mbps):</i>			
<i>of which 10 Mbps and above (and below 30 Mbps):</i>			
<i>of which 30 Mbps and above (and below 100 Mbps):</i>			
<i>of which VDSL 30 Mbps and above (and below 60 Mbps):</i>			
<i>of which VDSL 60 Mbps and above (and below 100 Mbps):</i>			
<i>of which 100 Mbps and above:</i>			
<b>xDSL via LLUB and other wholesale products (same subscriptions as xDSL above):</b>			
<i>of which xDSL end users connected via LLU (full access/line)[2]:</i>			
<i>of which xDSL end users connected via LLU (shared access/line) [2]:</i>			
<i>of which xDSL end users connected via other wholesale products [3]:</i>			
<b>Cable television:</b>			
<i>of which above 144 Kbps and below 2 Mbps:</i>			
<i>of which 2 Mbps and above (and below 10 Mbps):</i>			
<i>of which 10 Mbps and above (and below 30 Mbps):</i>			
<i>of which 30 Mbps and above (and below 100 Mbps):</i>			
<i>of which 100 Mbps and above (and below 250 Mbps):</i>			
<i>of which 250 Mbps and above (and below 500 Mbps):</i>			
<i>of which 500 Mbps and above (and below 1000 Mbps):</i>			
<i>of which 1000 Mbps and above:</i>			
<b>Fixed radio access[4]:</b>			
<i>of which above 144 Kbps and below 2 Mbps:</i>			
<i>of which 2 Mbps and above (and below 10 Mbps):</i>			
<i>of which 10 Mbps and above (and below 30 Mbps):</i>			
<i>of which 30 Mbps and above (and below 100 Mbps):</i>			
<i>of which 100 Mbps and above:</i>			
<b>Fibre and Fibre-LAN[5]:</b>			
<i>of which above 144 Kbps and below 2 Mbps:</i>			
<i>of which 2 Mbps and above (and below 10 Mbps):</i>			
<i>of which 10 Mbps and above (and below 30 Mbps):</i>			
<i>of which 30 Mbps and above (and below 100 Mbps):</i>			
<i>of which 100 Mbps and above (and below 250 Mbps):</i>			
<i>of which 250 Mbps and above (and below 500 Mbps):</i>			
<i>of which 500 Mbps and above (and below 100 Mbps):</i>			
<i>of which 1000 Mbps and above:</i>			
<b>Other fixed Internet access (state what under 'Comments'):</b>			
<i>of which above 144 Kbps and below 2 Mbps:</i>			
<i>of which 2 Mbps and above (and below 10 Mbps):</i>			
<i>of which 10 Mbps and above (and below 30 Mbps):</i>			
<i>of which 30 Mbps and above (and below 100 Mbps):</i>			
<i>of which 100 Mbps and above:</i>			
<b>Total number of active subscriptions downstream:</b>			

**INTERNET SUBSCRIPTIONS**

Comment to the answer:

## INTERNET SUBSCRIPTIONS

**Question 30: Number of active subscriptions [1] for Internet service (access) distributed by form of access upstreams. 31 Dec 2020:**

	Private	Business	Total
<b>Cable television upstreams</b>			
of which over 144 kbit/s and under 2 Mbit/s:			
of which 2 Mbit/s and over and under 10 Mbit/s:			
of which 10 Mbit/s and over and under 30 Mbit/s:			
of which 30 Mbit/s and over and under 100 Mbit/s:			
of which 100 Mbit/s and over and under 250 Mbit/s:			
of which 250 Mbit/s and over and under 500 Mbit/s:			
of which 500 Mbps and above (and below 1000 Mbps):			
of which 1000 Mbps and above:			
<b>Fiber and fiber-LAN [5] upstreams:</b>			
of which over 144 kbit/s and under 2 Mbit/s:			
of which 2 Mbit/s and over and under 10 Mbit/s:			
of which 10 Mbit/s and over and under 30 Mbit/s:			
of which 30 Mbit/s and over and under 100 Mbit/s:			
of which 100 Mbit/s and over and under 250 Mbit/s:			
of which 250 Mbit/s and over and under 500 Mbit/s:			
of which 500 Mbit/s and over and under 1000 Mbit/s:			
of which 1000 Mbit/s and over:			
<b>xDSL, PSTN, satellite, fixed radio and other fixed internet access (upstreams):</b>			
of which over 144 kbit/s and under 2 Mbit/s:			
of which 2 Mbit/s and over and under 10 Mbit/s:			
of which 10 Mbit/s and over and under 30 Mbit/s:			
of which 30 Mbit/s and over and under 100 Mbit/s:			
of which 100 Mbit/s and over			
<b>Total active subscriptions upstream:</b>			

**Comment to the answer:**

**Question 31: Number of active subscriptions [1] for Internet service (access) divided by a specific incoming (downstream) speed and a specific outgoing (upstream) speed. As of 30 June 2020:**

Question 31 refers to the same fibre and fibre LAN subscriptions as in question 29 and 30 but question 31 is divided by a **specific** incoming (downstream) speed and a **specific** outgoing (upstream) speed. The purpose of question 31 is primarily to understand the structure and conditions of the current broadband market better and which broadband subscriptions are bought. This is of importance for the analysis of market 3a and 3b. Question 31 might replace question 29 and 30 in future questionnaires. If you have questions regarding question 31, please contact [Jesus.CumplidoBarreiro@pts.se](mailto:Jesus.CumplidoBarreiro@pts.se)

	Private	Business	Total
<b>Total number of fibre and fibre LAN fibre and fibre-LAN subscriptions according to question 29:</b>			
<b>Downstreams /Upstreams speed (Mbit/s):</b>			
10/10 Mbit/s			
50/10 Mbit/s			
50/50 Mbit/s			
100/10 Mbit/s			
100/50 Mbit/s			
100/100 Mbit/s			
150/10 Mbit/s			
150/100 Mbit/s			
150/150 Mbit/s			



INTERNET SUBSCRIPTIONS			
250/10 Mbit/s			
250/100 Mbit/s			
250/250 Mbit/s			
300/100 Mbit/s			
300/150 Mbit/s			
300/300 Mbit/s			
500/100 Mbit/s			
500/250 Mbit/s			
500/500 Mbit/s			
600/100 Mbit/s			
600/600 Mbit/s			
1000/100 Mbit/s			
1000/1000 Mbit/s			
1200/100 Mbit/s			
10000/10000 Mbit/s			
Other speeds			
<b>Total number of fibre and fibre LAN fibre and fibre-LAN subscriptions</b>			
<b>Comments:</b>			

<b>Question 32: Revenues (SEK 000s) from end users for active subscriptions[6] for Internet service (access), regardless of form of access. Including startup charges, and fixed and variable charges. Excluding mobile broadband and group internal revenues. During 2020:</b>			
	<b>Private</b>	<b>Business</b>	<b>Total</b>
xDSL :			
Cable television :			
Fibre and fiber-LAN [5] [10]:			
Other forms of access (Excl. mobile broadband):			
<b>Total revenues for Internet subscriptions:</b>			

## INTERNET SUBSCRIPTIONS

*Question 33: Number of active internet subscriptions and bundled subscriptions [7] which are group connections. Group connections refer to internet subscriptions that have been signed between the operator and, for example, landlords or housing cooperatives, rather than directly with the end users. State the number of active subscriptions, not the number of landlords etc. As of December 31, 2020.*

	Subscriptions
xDSL - subscriptions which are group connections	
Cable television - subscriptions which are group connections:	
Fibre and Fibre-LAN - subscriptions which are group connections	
<b>Total number of internet subscriptions which are group connections:</b>	
<b>Comment to the answer:</b>	

### FOOT NOTES

- 1 Active subscription' refers to a subscription that has used the access at least once during the last quarter in the period (only applies to customers who do not pay subscription charges). If the customer pays a subscription charge, the customer is deemed to be active if payment is made during the second quarter of 2011. If a tenant-owners' association or the equivalent is an end user, the number of underlying active Internet accesses shall be stated under 'Private' instead of the number of subscriptions. PLEASE NOTE: Here, this only relates to end users of ISPs. Operators that only provide broadband access without an Internet service should not include these customers.
- 2 Local Loop Unbundling; i.e. access for other operators to conventional subscriber lines via the regulated access in the
- 3 For example, pure resale products or products that are more raw, such as 'bitstream products'.
- 4 Mobile subscriptions used for mobile data or M2M should not be reported here.
- 5 Internet access is reached via a property network, i.e. a LAN (Local Area Network), usually based on Ethernet technology. The property network is linked to a public fibre network, for example, an area network. The property network, which may comprise optical fibre cable or copper-based cable, links the individual dwellings/operations with
- 6 Includes e-mail only if this is a part of the fixed charge. Does not refer to revenues from data communications services.
- 7 This refers to both bundled subscriptions that are marketed as an offering with pricelist for the bundled services, and services not marketed together as a special offering, i.e. where an end user buys two or three services separately, perhaps at two different occasions. PLEASE NOTE: This does not referer to subscriptions bundled with OTT-services
- 8 That is, local physical access for other operators to dark fibre in fibre access networks, where the leasing operator is reponisble for/owns the transmission equipment.
- 9 For example, transmission products from communication operators or pure resale products.
- 10 If you are buying or renting the network access from another operator, include also revenues to you from end customers regarding network fee that the consumer must pay in order to use an internet subscription.

## TELEVISION SERVICES

Questions 34 and 35 are intended for stakeholders having contracts with households or landlords for subscriptions concerning a basic package of television channels. This question is about traditional pay TV subscriptions. This does not include subscription video on demand, such as Netflix.

**Question 34: Number of active [1] subscription contracts on basic packages [2] concluded with households/end users or landlords 31 Dec 2020:**

For reporting cable network subscriptions, see footnote 2 and 7. Contact PTS if you have any questions.

	Total
<b>Analogue television in cable network [2][3]:</b>	
<i>of which through contracts with landlord [2] [5]:</i>	
<i>of which contracts directly with households without subscription contracts with landlords [2]:</i>	
<b>Digital basic packages in the cable network [2][4]:</b>	
<i>of which through contracts with landlord [2] [5]:</i>	
<i>of which contracts directly with households without subscription contracts with landlords [2]:</i>	
<b>Digital television in cable network</b> where you have <b>analogue</b> contracts directly (i.e a direct invoice -relation) with households which, in turn, have contracts of basic packages via landlords:	
<b>Digital television in cable network</b> where you have <b>digital</b> contracts directly (i.e a direct invoice -relation) with households which, in turn, have contracts of basic packages via landlords:	
<b>IPTV in fibre or fibre LAN [6]:</b>	
<i>of which through contracts with landlord [5]:</i>	
<i>of which contracts directly with households without subscription contracts with landlords:</i>	
<b>Digital television in IP-TV network</b> where you have <b>digital</b> contracts directly (i.e a direct invoice -relation) with households which, in turn, have contracts of basic packages via landlords.	
<b>Iptv via xDSL:</b>	
<b>IPTV via other infrastructure (please specify under 'Comments'):</b>	
<b>Television via terrestrial network:</b>	
<b>Television via satellite:</b>	
<b>Total number of subscriptions:</b>	
<b>Total number of subscriptions excluding those cable TV subscriptions that also have contracts with landlords [9]:</b>	
<b>Comment to the answer:</b>	

## TELEVISION SERVICES

**Question 35: Revenues (SEK 000s) for the provision of television services to households [8] in the form of subscriptions for a basic package [9], package options and channel options [10] and other revenues from television services during 2020:**

	Basic package [9]	Package options and channel options[10]
Analogue television in cable network [3]:		
<i>of which through contracts with landlords[5]:</i>		
<i>of which revenues from households:</i>		
Digital television in cable network[4]:		
<i>of which through contracts with landlords[5]:</i>		
<i>of which revenues from households:</i>		
IPTV in fibre or fibre LAN [6]:		
<i>of which through contracts with landlords [5]:</i>		
<i>of which revenues from households:</i>		
Iptv via xDSL		
IPTV via other infrastructure (please specify under 'Comments'):		
Television via terrestrial network:		
Television via satellite:		
<b>Total revenues:</b>		
<b>Comment to the answer:</b>		

Question 36 is intended for programming agencies that sell television channels to (for example) network or landlords and cable television operators (SMATV). Sappa and Canal Digital run this type of operation.

**Question 36: Number of households reached through agencies for programme companies. 'Agencies' refers to programming agencies that sell television channels to, for example, network and property owners and cable television operators SMATV). Sappa and Canal Digital run this type of operation. As of 31 december 2020:**

	Total number of households:
Agency operations	
<i>of which in cable television network:</i>	
<i>of which in fibre and fibre LAN:</i>	
<b>Comment to the answer:</b>	

# TELEVISION SERVICES

## FOOT NOTES

- 1** The TV subscription can be a contract with households or landlords or also t.ex. bostadsrättsföreingar. The subscription is active if a fee has been paid during the last 3 months in the period.
- 2** If the household has one analogue subscription indirect via the landlord and one digital direct between operator and household, the analogue subscription indirect via the landlord is reported as "analogue cable TV subscription via the landlord" and the digital cable TV subscription direct between operator and household is reported as "Digital cable TV subscription where the operator has contract directly (i.e a direct invoice -relation) with the household, which, in turn, has an analogue cable tv subscription via a land lord". In the case a household has dual cable TV subscriptions on basic package, one analogue and one digital, both indirect via a landlord, only the digital cable TV subscription is reported, to avoid double counting. This business model was used by Tele2 until 2013 and by Telenor from first half year 2014 (after the acquisition of Tele2s cable TV business). Subscriptions via minor cable TV nets and landlords are included in "SMATV" to avoid double counting.
- 3** The subscription is to be viewed as analogue if the signal distributed to the individual household is analogue.
  
- 4** The subscription is to be viewed as digital if the signal distributed to the individual household is digital.
- 5** Property owner' refers to a contract with a property owner that owns an apartment building or similar associations (eg. housing cooperatives). This means that the property owner is not the same as the household living there.
- 6** A 'LAN network' means a fixed connection (local area network, property network), usually based on Ethernet technology. The LAN is linked to a public fibre network, for example, an area network. Fibrer and fibre-LAN means FTTH (fibre to the home) and FTTB (fibre to the basement)
- 7** The sum "Total number of subscriptions excluding those cable TV subscriptions that also have contracts with property owners" consists of "Total number of subscriptions" minus "Digital subscriptions (in cable TV networks and/or IPTV via fibre) where there is a direct contract (i.e. a billing relationship) with a household which, in turn, also has an analogue subscription via the property owner". This sum is an estimate of the number of households.
- 8** Revenues from provision of TV services, either via a contract directly with the household/end customer or via a landlord or similar.
  
- 9** Basic packages include all revenues which are attributable to a subscription on a basic package: current subscription expenditure, starting fees, rental or sale of digital TV-boxes and program cards.
- 10** Add-on subscription: A subscription on add-on services such as a package of special digital channels. Include all revenues which are attributable to the add-on subscription: current subscription expenditure, starting fees, rental or sale of digital TV-boxes and program cards (do not include revenues from basic packages). Do not include revenues from transaktionsbased VOD (video on demand) and på-ber-view.

## BUNDLED OFFERS

Do not include OTT services like Spotify.

**Question 37: Number of end users with two or more services where the price the end user pay is permanently lower than the price they would pay for the equivalent services if they bought separately. Please note new definition, see foot note 2. 31 Dec 2020:**

Type of bundled subscription	Private	Business	Total
<b>Double-play:</b>			
Fixed telephony and fixed broadband:			
Fixed telephony and television:			
Fixed telephony and mobile telephony/mobile broadband:			
Mobile telephony/mobile broadband and fixed broadband:			
Mobile telephony and mobile broadband[1]:			
Mobile telephony/mobile broadband and television:			
Television and fixed broadband:			
Other combinations; state what under comments:			
<b>Total number of double play end users:</b>			
<b>Triple play, three services:</b>			
Fixed telephony and fixed broadband and television:			
Fixed telephony and fixed broadband and mobile telephony/mobile broadband:			
Fixed telephony and mobile telephony/mobile broadband and television:			
Mobile telephony/mobile broadband and fixed broadband and television:			
Other combinations; state what under comments:			
<b>Total number of triple-play subscriptions:</b>			
<b>Quadruple play, four services</b>			
Fixed telephony and fixed broadband and television and mobile telephony/mobile broadband:			
Other combinations; state what under comments:			
<b>Total number of quadruple play subscriptions:</b>			
<b>Total number of double, triple and quadruple play subscriptions:</b>			
<b>Comment to the answer:</b>			

### FOOT NOTES

- 1 This does not include twin cards.
- 2 The term "equivalent services" refers to the actual services delivered to the end user. In other words, it takes into consideration also those cases where the end user gets extra benefits, either in form of a upgraded service or extra services without an extra cost (thus, paying a lower price).  
Take in consideration both the subscriptions including several services are sold as a whole package under a single price, as well as when products sold separately if it entitles a better price when comparing with the price of the equivalent services independently.  
The term "permanent" means that provisional offers are not included, just those that has no time limit or that apply until the end of the contractual period.  
Examples - include products such as: Telia Life and Telia joint mobil and broadband. Telenor Kombo, Tele2 broadband and fixed line.  
Examples - do not include products such as: Family subscriptions for mobile lines, twin SIM cards, mobile phone device included with the mobile line subscription.

## DATA COMMUNICATIONS SERVICES WHOLESAL

If you have questions regarding question 38, please contact Lars-Erik Axelsson or Andreas Wigren, phone +46 8 678 55 00

### WHOLESALE HIGH-QUALITY ACCESS

The questions in this section are needed for the SMP analysis regarding high-quality access, market 4. If you do not sell these services, ie only have dark fibre, please enter "0" on all questions in this section. Wholesale high-quality access are digital leased lines typically demanded by business customers with specific requirements regarding quality, availability and/or servicelevels. High-quality access is often used by business customers to connect their multiple sites and for more high-quality internet, telephony and virtual private network connections which are often delivered to this customer segment. Wholesale high-quality access includes digital leased lines with both dedicated and none-dedicated capacity, with or without quality of service (QoS). A wholesale high-quality access is a connection provided between a fixed network accesspoint at the business customers site and a delivery point where the wholesale customer/operator can take over the transmission and pass it further in its own network. **Please note! Sales of high-quality access for mobile backhaul should not be included in the below reported figures. Neither should wholesale services used for private consumers' internet connections (communications operator services) be included.**

*Question 38: Revenues (in thousand SEK) from sales of high quality access [6] to wholesale customers[7] in Sweden under 2020. Do not include services provided by communications operators:*

	Total	Internal sales[9]	External sales[10]
Revenues from sales of TDM-based (SDH/PDH) high-quality accesses:			
Revenues from sales of Ethernet-based [8] high-quality accesses			
Revenues from sales of other types of digital high-quality accesses:			
<b>Total revenues from high-quality accesses:</b>			

#### FOOT NOTES

- 6** Wholesale high-quality access includes digital leased lines with both dedicated and none-dedicated capacity, with or without quality of service (QoS). A wholesale high-quality access is a connection provided between a fixed network accesspoint at the business customers site and a delivery point where the wholesale customer/operator can take over the transmission and pass it further in its own network. High-quality access are digital leased lines typically with specific requirements regarding quality, availability and/or servicelevels. High-quality access is often used by business customers to connect their multiple sites and for more high-quality internet, telephony and virtual private network connections very often delivered to this customer segment.
- 7** Revenue from sales of high-quality access to wholesale customers produced either with own passive infrastructure or with leased passive infrastructure. Revenue from sales of high-quality access to retail customers should not be included. Neither should revenue from sales of high-quality access to the own retail business be included.
- 8** Refers to providing high-quality access with none-dedicated capacity, with or without quality of service (QoS)
- 9** Refers to revenues from selling high-quality access to the own business. If group internal sales are not separately reported, the value of revenue should be estimated.
- 10** Revenue from sales of high-quality access to external operators.

## DATA COMMUNICATIONS SERVICES TO END-USER

If you have questions regarding question 39, please contact Lars-Erik Axelsson, phone +46 8 678 55 00

**Question 39: Revenues (SEK 000s) from network services to business customers , with or without service level agreement. Do not include wholesale services used for private consumers' internet connections (communications operator services)[1]. In Sweden during 2020:**

	Total
Digital SDH-based [2] leased lines to end users[1]:	
Digital Ethernet-based [3] leased lines to end users[1]:	
Analogue line capacity for end users:	
IP VPN[4]:	
<b>Total revenues:</b>	
<b>Comment to the answer:</b>	

### FOOT NOTES

- 1 Refers to the retail market, i.e. sales made to end users. Wholesale sales, i.e. sales made to operators(refers to both operators within a group and external operators) for onward sale - even after further refinement - must not be included. However, services sold to an own operation for own use (i.e. where one's own operation is the end user) must be included in the retail market.
- 2 Refers to TDM, PDH and SDH-based leased lines as a separate service.
- 3 Refers to point-to-point, Ethernet-based, non-overbooked leased lines, based on SHDSL or fibre access as a separate service.
- 4 IP-VPN relates to the following standards: IPsec VPN, IP MPLS VPN and IP SSL VPN.



## DARK FIBRE AND WAVE LENGTH CONNECTIONS FOR WHOLESALE CUSTOMERS AND END USERS

If you have questions regarding question 40-41, please contact Lars-Erik Axelsson or Andreas Wigren, phone +46 8 678 55 00

**Question 40: Revenues (SEK 000s) for wavelength [4] connections for wholesale customers and end users in Sweden during 2020**

	Total
<b>Total revenues for wavelength connections:</b>	
<i>of which group internal revenues[2]:</i>	

**Question 41: Revenues (SEK thousands) from leasing of dark fibre connections[5] for wholesale customers and end users within Sweden during 2020:**

	Total
<b>Total revenues for dark fibre connections</b>	
<i>of which group internal revenues[2]:</i>	

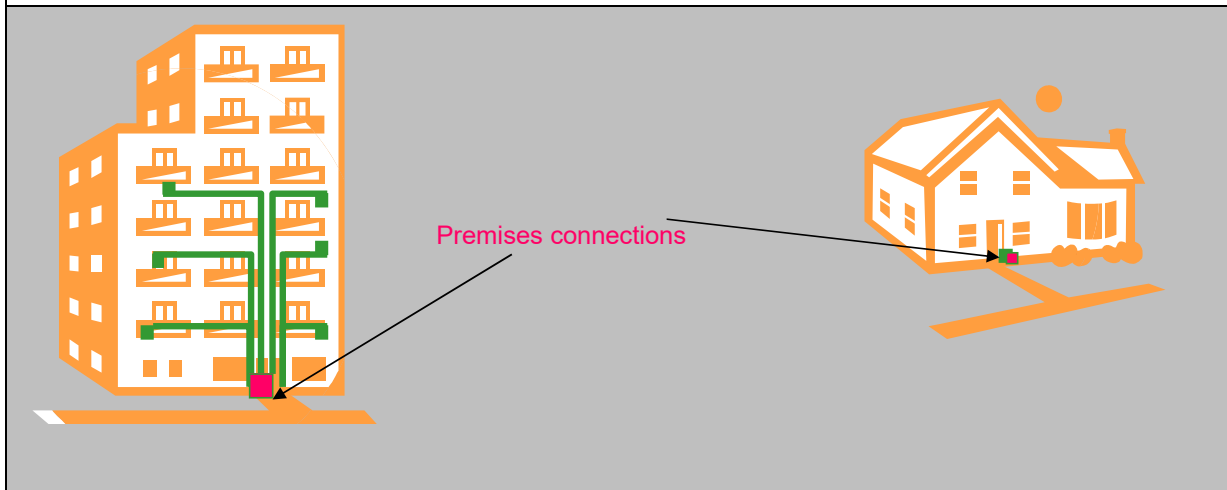
### FOOT NOTES

- 2** Only refers to group internal revenues within Sweden.
- 4** Wavelength' refers to the fact that the optical light in a fibre is divided into wavelengths so that each wavelength functions as a channel.
- 5** Dark fibre' refers to an optical fibre connection, point-to-point, where the fibre is not lit up, i.e. physical fibre cables without electronic equipment.

## PREMISES CONNECTIONS AND VIRTUAL ACCESS CONNECTIONS

If you have any questions , please contact: Hans Christian Sundelin Svendsen,  
(HansChristian.SundelinSvendsen@pts.se), or phone +46 8-678 55 00.

In question 42 infrastructure for fixed connections are asked for, excluding mobile connections. However, question 43 includes mobile networks.



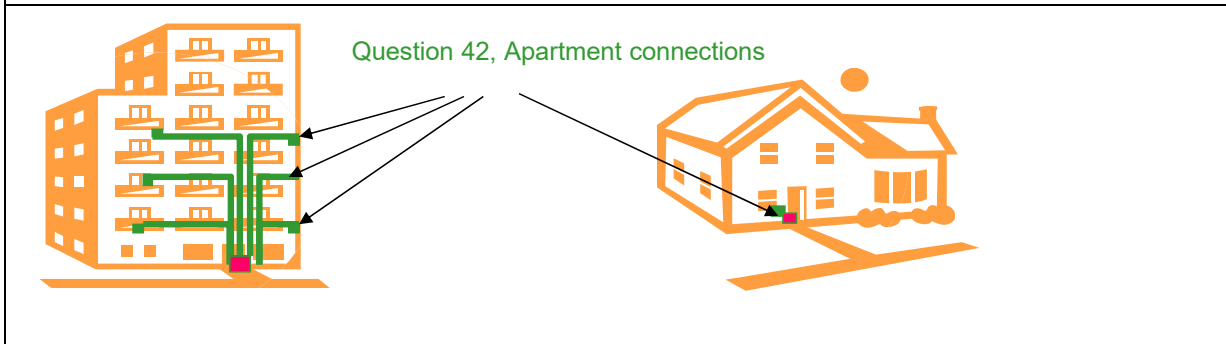
In order to be able to measure the extent of infrastructure available for broadband, PTS needs to assess which operators own network infrastructure extending up to properties (private as well as business properties) in addition to the extent of such ownership. Note that fibre-based premises connections should not be reported in this question. This is a question is included in PTS Mobile coverage and Broadband survey.

***DELETED Question: Estimate the number of premises connections in your own network infrastructure [1] leased to operators [2] or used for own purposes, 31 Dec 2020:***

**PREMISES CONNECTIONS AND VIRTUAL ACCESS CONNECTIONS**

**Apartment connections (this also applies to single-family residential building)**

**Below question is to be answered if you own network infrastructure.**



In order to be able to measure the extent of infrastructure available for broadband, PTS needs to assess which operators own network infrastructure extending up to properties (private as well as business properties) in addition to the extent of such ownership. Note that fibre-based apartment/premise connections should not be reported in this question. This is a question is included in PTS Mobile coverage and Broadband survey.

**Question 42: State the number of apartments that you reach via your connections, and how many of those that you lease to operators[3] and end users[4] respectively, 31 Dec 2020:**

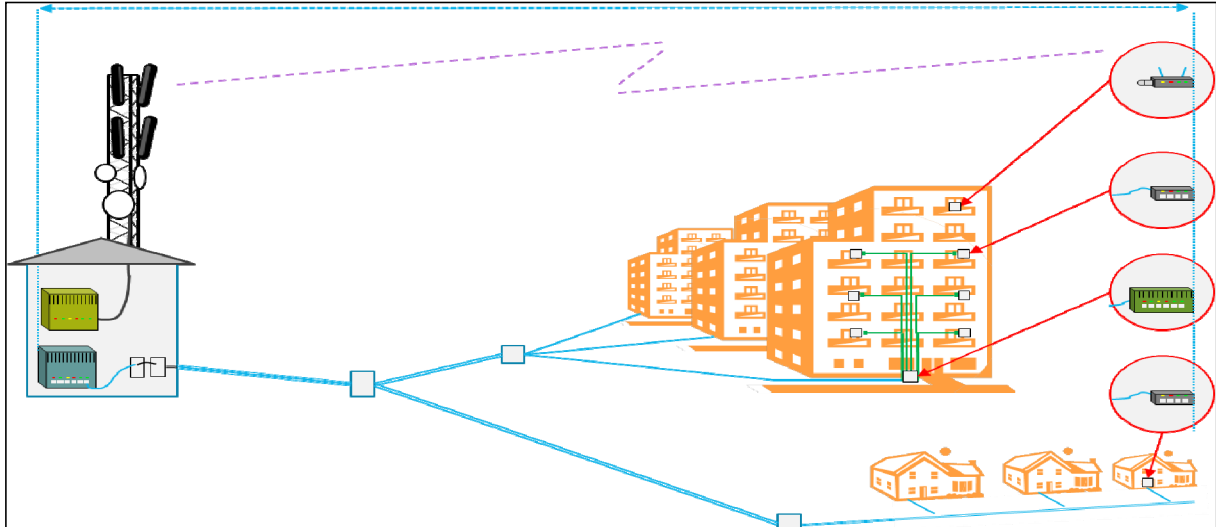
	<b>Total</b>
Metallic (refers only to twisted copper pairs and mainly to be answered by Telia Company): <i>of which for leasing to operators (used or unused):</i> <i>of which for own end users (used):</i> <i>of wich passive (ie. either leased to operator or own end user):</i>	
Fibre-based (question included in the Mobile coverage and Broadband survey):	
Coaxial cable - cable television: <i>of which for leasing to operators (used or unused):</i> <i>of which for own end users (used):</i> <i>of wich passive (ie. either leased to operator or own end user):</i>	
Fixed radio-based (not mobile telecommunications networks): <i>of which for leasing to operators (used or unused):</i> <i>of which for own end users (used):</i> <i>of wich passive (ie. either leased to operator or own end user):</i>	
Other net infrastructure, please specify under "comments": <i>of which for leasing to operators (used or unused):</i> <i>of which for own end users (used):</i> <i>of wich passive (ie. either leased to operator or own end user):</i>	
<b>Total number of apartment connections:</b>	
<b>Comment to the answer:</b>	

**PREMISES CONNECTIONS AND VIRTUAL ACCESS CONNECTIONS**

Virtual accesses refer to connections created with active equipment over a passive network, e.g. a DSLAM and an ADSL modem at the end customer premises. PTS requires information on the total number of virtual accesses broken down by different types of passive networks. PTS also needs to know if the virtual accesses are used for the operator's own retail services or to which degree of refinement they are sold to wholesale customers.

Please note: Only an operator who produces virtual accesses, i.e. possesses active network equipment, should answer this question. Operators who buy virtual accesses, or resell services where virtual accesses form a part, should not answer this question.

**Virtual access connection**



**Question 43: Indicate the number of virtual accesses that you produce in your own or in other's passive network infrastructure with the aim to deliver broadband services to end customers. AS of 31 Dec 2020:**

	Total
<b>Virtual access lines connecting end users over copper pair (xDSL)</b>	
<i>of which activated for your own end customers:</i>	
<i>of which activated and sold to wholesale customers:</i>	
<i>of which service resold to end customers [7]:</i>	
<b>Virtual access lines connecting end users over optical fiber or fiber-LAN, with fiber extending to the home (FttH) or connecting to Cat4/6 inhouse wiring (FttB).</b>	
<i>of which activated for your own end customers:</i>	
<i>of which activated and sold to wholesale customers:</i>	
<i>of which service resold to end customers [7]:</i>	
<b>Virtual accesses via coaxial cable (cable TV network):</b>	
<i>of which activated for your own end customers:</i>	
<i>of which activated and sold to wholesale customers:</i>	
<i>of which service resold to end customers [7]:</i>	
<b>Virtual accesses via other infrastructure.</b>	
Please indicate type of passive network and transmission medium in comments:	
<i>of which activated for your own end customers:</i>	
<i>of which activated and sold to wholesale customers:</i>	
<i>of which service resold to end customers [7]:</i>	
<b>Total number of active virtual accesses:</b>	
<b>Comment to the answer:</b>	

**PREMISES CONNECTIONS AND VIRTUAL ACCESS CONNECTIONS**

Question 44 is directed to operators that own broadband networks.

**Question 44: Total revenues for broadband access to end users (thousand SEK) during 2020. Here revenues from end users regarding installation of fibre to for example house or company. Installation of fibre connections largely consists of contract work, e.g. excavation on the end user's plot. Revenues from such contract work shall be included in the reported amount.**

	<b>Total</b>
<b>Revenues from broadband access to end users</b>	
<i>of which one-time revenues from end users. For example fees for connecting a fibre line to the end user's home.</i>	
<i>of which recurring fees. For example a network fee that the consumer must pay in order to use an internet subscription provided by another operator. If you sell internet subscriptions where such a charge is included in the subscription fee, the revenues should not be reported here but reported in question 32.</i>	

**Comment to the answer:**

**FOOT NOTES**

- 1 Own infrastructure' refers to infrastructure that you own and also connections owned by an undertaking but sold by another within the same group.
- 2 Refers to property connections sold or leased to another operator, i.e. as a wholesale product.
- 3 Relates to access lines sold or leased to another operator, i.e. as a wholesale product.
- 4 Relates to access lines over which you sell a service to the end user (private or business customers) and where the access line is included as part of this service (e.g. broadband).
- 5 Layer 2 products refer to digital accesses delivered to wholesale customers who mediate traffic based on layer 2 protocol (OSI model), e.g. Ethernet with MAC addressing.
- 6 Layer 3 products refer to digital accesses delivered to wholesale customers who mediate traffic based on layer 3 protocol (OSI model), e.g. IP with IP addressing.
- 7 Resale products refer to digital accesses that can be sold to end customers and where the buying operator only needs to be active in delivering the service, e.g. by generating user accounts and authenticating customers at log-in.

Ducts			
If you have questions regarding ducts, please contact Krister Carlsson, tel 08-678 55 00			
The Act (2016:534) on measures for deployment of broadband networks, in Swedish: lag (2016:534) om åtgärder för utbyggnad av bredbandsnät, came into force in July 2016. PTS is now evaluating the use of the law by asking questions in what extent the law is applied when managing physical infrastructure as ducts etc. by parties acting in this market segment.			
<b>Question 45: Has your organisation received any requests in any of the areas listed below? This means that the Act on measures for deployment of broadband networks has been applied. As of year 2020.</b>			
Access to existing physical infrastructure, i.e. ducts or other physical infrastructure?	Yes	No	Do not know
Coordination of civil works?	Yes	No	Do not know
Request for information regarding, for example, access to physical infrastructure and/or coordination of civil works?	Yes	No	Do not know
<b>Comments:</b>			
<b>Question 46: Where do you publish information for coordination of construction and civil works, in case you are a public organisation or when projects are entirely or partly financed by public funding? As of 31 December 2020. Multiple answers possible.</b>			
Ledningskollen ( <a href="http://www.ledningskollen.se">www.ledningskollen.se</a> )			
Own website			
Other electronic service (if so, please specify in comments)			
Do not know			
<b>Comments:</b>			
<b>Question 47: Have you made any requests for access, coordination or information according to the Act on measures for deployment of broadband networks? As of year 2020.</b>			
Access to existing physical infrastructure, such as ducts or other physical infrastructure?	Yes	No	Do not know
Coordination of civil works?	Yes	No	Do not know
Request for information regarding, for example, access to physical infrastructure and/or coordination of civil works?	Yes	No	Do not know
<b>Comments:</b>			
<b>Question 48: Have you, when using the Act on measures for deployment of broadband networks, experienced any problems related to your request according to the question above?</b>			
Yes (if yes, please specify in comments)			
No			
Do not know			
<b>Comments:</b>			