

Documentation of statistics for Internet, radio and TV



1 Introduction

The purpose of the statistics is to shed light on the population's connection to and advertising revenue on the Internet. You can, for example, see how many active internet subscriptions there are in Denmark or follow the turnover on the internet by type of advertisement. The statistics are based on information from the Danish Energy Agency and The Danish Media Association and can be used to gain an overall insight into the distribution and turnover on the Internet.

2 Statistical presentation

The statistics show semi-annual statements of resp. the number of broadband subscriptions, by type of broadband, and active Internet subscriptions for resp. private and business. In addition, the statistics contain quarterly statements for revenue on the Internet, by type of advertising.

2.1 Data description

The active statistics bank tables show the development in the number of broadband and Internet subscriptions as well as the turnover on the Internet by type of advertising. The historical statistics bank tables contain data on the consumption and turnover of, as well as access to, other electronic media, eg radio and television.

The active Statbank tables are based on information from the Agency for Data Supply and Infrastructure's Tele statistics, which is published twice a year, and the market statistics from The Danish Media Research Online Index (DOI), which is published four times a year. The historical Statbank tables are also based on the Advertising Consumption Survey The Danish Media Association, Danish Energy Agency, several studies from TNS Gallup as well as figures from the trade organization Consumer Electronics and Copydan.

2.2 Classification system

Broadband subscriptions are grouped by **type of broadband**. Active internet subscriptions are divided by **private and business**. Business subscriptions are further divided by whether they are used by businesses or individuals. Turnover from internet is grouped by **type of advertising**. No standard classifications are used for this statistic.

2.3 Sector coverage

Not relevant for these statistics.



2.4 Statistical concepts and definitions

Broadband: Sold broadband subscriptions that have marketed a downstream speed of at least 144 kbit / s.

Fixed wireless: Broadband based on e.g. WiMAX, WLL or WiFi, delivered wirelessly to a box or satellite dish mounted on the end-user's household / building. Fixed wireless broadband should not be confused with a router installed inside the house / building. The connection assumes free sight between the broadband company's antenna and the antenna of the end user. is dependent on the distance between them.

Fiber network: A connection where the signals are passed through optical fibers by means of light signals. Fiber network connections, unlike other broadband connections, often have as fast upstream speeds as downstream speeds. Fiber can provide very high speeds when downloading and uploading data.

Web banners: Graphic, audio-visual, text-based and / or interactive advertising products displayed in connection with Internet media products (for example, on a web page, in an email or on mobile platforms) - either as a fixed placement on the media product (sponsorship banners), on special parts of the media product (sections) or on all parts of the media product.

Cable television networks: A connection where the cable TV network is used for broadband while broadcasting TV programs. Broadband speed depends on the number of concurrent users. Connections over the cable TV network often have much faster downstream speeds than upstream speeds.

LAN (Local Area Network): : Consists of an internal wired or wireless local area network, for example, a housing association or a college, where the individual households / rooms share a common Internet connection. The connection to the property most often consists of an optical fiber (fiber-lan), but can also consist of other types of connections.

Market place: Inclusion of product and company information in searchable online directories (typically web pages, online or mobile applications), which is included as a third party between buyer and seller. The classic type of marketplace is classifieds services. The price of the recorded products may be negotiated or the deal can be closed directly in the marketplace (Auctions). Marketplace recordings are displayed as listing product or company information obtained through directory search or browsing through directory sites. Marketplaces also include price comparison services.

Partnerships: Advertiser paid content or services that are integrated in the form, content or function with the medium, such as a search service or a classifieds service. Therefore, it is not enough for a banner to be permanently placed on a page, for example, one year at a time to be included in Partnerships.

xDSL (Kobbernet):: A connection where the traditional telephone connection is used for broadband. The speed depends of the distance to the control center / microcontroller. xDSL connections often have much faster downstream speeds than upstream speeds.

2.5 Statistical unit

Broadband subscriptions, active internet subscriptions and advertising turnover.



2.6 Statistical population

Private and commercial internet subscriptions in Denmark as well as the Danish market for advertising revenue on the internet.

2.7 Reference area

Denmark.

2.8 Time coverage

Figures for the number of broadband subscriptions by broadband type (DIS122) are available from the second half of 2000 onwards. Figures for the number of active Internet subscriptions by customer group (DIS129) are available from the second half of 2002 onwards. Figures for turnover on the Internet by type of advertising (VIR331), are available from the first quarter of 2000 onwards.

In addition, there are a number historical tables in the StatBank, dating back to the 1990s.

2.9 Base period

For <u>turnover from internet by type of advertising</u> thee indices are published with the following base years:

- Banner ads and partnerships (2000Q1=100)
- Market place (2006Q1=100)
- Job (2003Q1=100)

2.10 Unit of measure

Number and market share, DKK and indices.

2.11 Reference period

The reference time for turnover on the Internet is quarters (VIR331), while the reference time for both broadband subscriptions (DIS122) and active Internet subscribers (DIS129) is half a year.

The reference period for the historical Statbank tables is year, half year and the following periods: First period covers weeks 1-12 / 13 (January-March), second period covers weeks 13 / 14-25 / 26 (April-June), and third period covers weeks 26 / 27-47 / 48 (July-November).

2.12 Frequency of dissemination

Semi-annually and quarterly.



2.13 Legal acts and other agreements

Statistics Denmark does not collect primary data for the compilation of these statistics. These statistics are not covered by EU regulation. However DIS122 and DIS129 are based on the Danish Agency for Data Supply and Infrastructure's telecommunications statistics, which are collected according to EU requirements from DG Connect / EU Commission.

2.14 Cost and burden

Statistics Denmark passes forward pre-produced statistical estimates for internet, radio and television. Therefore, there is no direct reporting in relation to the compilation of these statistics.

2.15 Comment

For more information, go to the subject page on Internet, Radio and TV.

3 Statistical processing

For these statistics, Statistics Denmark solely perform quality assurance and dissemination of information that has been collected, processed and disseminated by other statistical producers and data providers. Please consult the original sources for a detailed review of the statistical processing.

3.1 Source data

The Agency for Data Supply and Infrastructure's semi-annual telecommunications statistics contain information on the developments in the Danish telecommunications market. The statistics are based on reports from telecommunications providers in Denmark with the number of subscriptions, landline traffic, mobile telephony and broadband as well as IPTV and bundled services.

The market statistics from The Danish Media Association's Online Index show the trend in online advertising. It is based on reports from members, media agencies' turnover as it is reported to the industry organization Creativity & Communication, as well as market estimates from industry players and expert reviews.

The historical Statbank tables are also based on The Danish Media Association's Advertising Consumption Survey, several studies from TNS Gallup as well as figures from the trade organization Consumer Electronics and Copydan.

3.2 Frequency of data collection

Semi-annually and quarterly.

3.3 Data collection

Dissemination of statistics from the Agency for Data Supply and Infrastructure and The Danish Media Association.



3.4 Data validation

All active Statbank tables consist of ready-made statistics that Statistics Denmark disseminates. The data validation therefore consists of comparing new and updated figures from the original sources with previous time series and sum checks. If the data validation raises questions, contact the original sources.

3.5 Data compilation

Since data is collected and processed in the institutions that collect data, Statistics Denmark does not do any actual data processing. In some cases, percentages are calculated.

3.6 Adjustment

Not relevant for these statistics.

4 Relevance

The statistics are relevant for professionals and other interested parties. It provides a clear overview of the number of broadband subscriptions, active Internet subscriptions and advertising revenue on the Internet and can be used to get an overall insight into the distribution and revenue on the Internet.

4.1 User Needs

Primary users are the Ministry of Culture, The Agency for Culture and Palaces, researchers, the press and interest organizations.

4.2 User Satisfaction

There is a demand for more comprehensive media statistics from the users. In collaboration with a follow-up group consisting of representatives from the industry, the Agency for Culture and Palaces and the Ministry of Culture, Statistics Denmark has been investigating the possibilities for this.

4.3 Data completeness rate

Not relevant for these statistics.

5 Accuracy and reliability

Statistics on broadband subscriptions and active internet subscriptions are based on the Danish Energy Agency's telecommunications statistics, which are based on reports from most of the providers of electronic communications networks and services in Denmark. Internet revenue by ad type is based on market statistics from The Danish Media Association's Online Index. The market statistics are used and recognized by the industry.



5.1 Overall accuracy

Since electronic communications networks and services can be offered in Denmark by anyone without prior permission, registration or the like, the assumption is that not all providers in the Danish telecommunications market are included in the telecommunications statistics. In addition, neither foreign providers nor providers offering exclusively hotspots are included in the statistics.

The three most recent six month periods in the statistics on broadband and active Internet subscriptions are preliminary and are therefore continuously updated. Figures that are 32 months or older at the reference date are considered final. The market statistics from The Danish Media Research's Online Index are always published by Statistics Denmark irrespective of missing reports. Delayed reporting are incorporated in the next coming statistics. The latest quarters in revenue on the internet by ad type are therefore preliminary.

No uncertainty calculations are available.

For further considerations regarding precision and reliability are referred directly to the original sources. For information regarding the precision and reliability of the historical Statbank tables are referred to respectively Danish Media Association, TNS Gallup, the industry organization Consumer Electronics and Copydan.

5.2 Sampling error

Not relevant for these statistics.

5.3 Non-sampling error

In view of the competition in the telecommunications market, market shares in the Danish Energy Agency's telecommunications statistics are not published for providers with a market share of less than five percent, unless the company is part of a group collaboration with another telecommunications company and the companies' total market share is or exceeds five percent. This applies from the second half of 2011. Previously, the discretionary limit was three percent.

5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.



5.6 Quality assessment

Estimates on broadband subscriptions and active internet subscriptions are based on the Agency for Data Supply and Infrastructure's telecommunications statistics, which are based on reports from most of the providers of electronic communications networks and services in Denmark. The figures are therefore considered to show a fairly accurate picture of the development in the number of broadband subscriptions and active internet subscriptions.

Internet revenue by ad type is based on market statistics from The Danish Media Research's Online Index, which is used and recognized by the industry.

For further considerations regarding the overall quality, please consult the sources directly.

5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the <u>Revision Policy for Statistics</u> <u>Denmark</u>. The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

5.8 Data revision practice

The three most recent six month periods in the statistics on broadband subscriptions and active internet subscriptions are preliminary and therefore continuously updated. The total number of broadband subscriptions is typically revised by \pm 1 per cent. Figures that are 32 months or older at the reference date are final. The market statistics from The Danish Media Association's Online Index are always published irrespective of missing reportings. Delayed reportings are incorporated in the next coming statistics. The latest quarters in revenue on the internet by ad type are therefore preliminary.

6 Timeliness and punctuality

Estimates on broadband subscriptions and active internet subscriptions are published approx. eight months after the end of the reference period. Internet revenue by ad type is published an average eight to nine months after the end of the reference quarter. The publication date of the statistics may be delayed compared to scheduled release times, because the publishing times of the original sources may vary.

6.1 Timeliness and time lag - final results

Both preliminary and final figures are published. The last three months of DIS122 and DIS129 are preliminary. Figures that are 32 months or older at the reference date are final. The past year in VIR316 is tentative. Figures that are 28 months or older in relation to the reference year are considered final.

6.2 Punctuality

The publication date of the statistics may be delayed compared to scheduled release times. That's because the publishing times of the original sources may vary.



7 Comparability

From the first half of 2008, active internet subscriptions only include broadband connections, i.e. internet connections with downstream capacity of 144 Kbit/s or more. From the second half of 2008 and onwards, business subscriptions are divided into subscriptions used by business and private. No comparison of these statistics has been made with similar international estimates. For further considerations regarding comparability please consult the original sources.

7.1 Comparability - geographical

<u>The Nordic-Baltic Telecom Market database</u> contains annual statements of developments in the telecommunications markets in the Nordic and Baltic countries. It is i.a. possible to compare the number of broadband subscriptions across countries.

7.2 Comparability over time

Statistics Denmark currently disseminates three <u>Statbank tables</u> with statistics on internet, radio and TV. These statistics are comparable since the turn of the millennium. DIS122 and DIS129 have been slightly revised when the tables were updated on February 14, 2020. The table is now consistent with the Danish Energy Agency's telecommunications statistics. In addition, there are a number of archived tables in the Statbank which goes back to the 1990's.

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7.3 Coherence - cross domain

These statistics supplement other <u>cultural statistics</u>.

7.4 Coherence - internal

Not relevant for these statistics.

8 Accessibility and clarity

The statistics are published in the <u>StatBank</u>.

8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.



8.2 Release calendar access

The Release Calender can be accessed on our English website: <u>Release Calender</u>.

8.4 News release

Not relevant for these statistics.

8.5 Publications

Publications only in Danish.

8.6 On-line database

The statistics are published in the StatBank in the following tables:

- <u>DIS122</u>: Broadband subscriptions by type of broadband
- <u>DIS129</u>: Active internet subscriptions by number and share and private and business
- <u>VIR331</u>: Turnover from internet by type of advertising

8.7 Micro-data access

For this topic, Statistics Denmark disseminates aggregated statistics that have been collected and processed by others, and do therefore not possess the underlying micro-data.

8.8 Other

Figures are available on the web pages of the sources for these statistics.

8.9 Confidentiality - policy

Data Confidentiality Policy for Statistics Denmark.

8.10 Confidentiality - data treatment

Statistics Denmark disseminates aggregated data in accordance with Statistics Denmark's Data Confidentiality Policy.

8.11 Documentation on methodology

Documentation on methodology only in Danish.

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

The administrative placement of these statistics is in the division of Science, Technology and Culture. The contact person is Christian Max Gustaf Törnfelt, tel.: + 45 2163 6020, and e-mail: CHT@dst.dk.