

# Businesses in the information and communication services sector

Statistics Explained

*Data extracted in July 2024.  
Planned article update: July 2025.*

## Highlights

**" The information and communication services sector numbered around 1.3 million enterprises and employed more than 6.7 million people in the EU in 2021. "**

**" The information and communication services sector accounted for 6.7% of the business economy's value added in the EU in 2021. "**

This article presents an overview of statistics for the [European Union's \(EU\)](#) information and communication services sector, as covered by [NACE Rev. 2](#) Section J. It belongs to a [set of statistical articles](#) on 'Business economy by sector'

## Structural profile

The [EU](#) 's information and communication services sector (Section J) numbered around 1.3 million [enterprises](#) in 2021, an increase of 11.1% compared with 2020. It [employed](#) more than 6.7 million persons and generated € 629 billion of [value added](#), an increase of 10.0% compared with the previous year. This sector's contribution to the [business economy](#) (Sections B to N and P to R, as well as Divisions S95 and S96) was 6.7% of value added, 4.3% the persons employed and 4.1% of the enterprise population.

## Key indicators, Information and communication (NACE Section J), EU, 2021

|   | Value     |
|---|-----------|
| <b>Main indicators</b>                                  |           |
| Number of enterprises (number)                          | 1 281 164 |
| Number of persons employed (number)                     | 6 748 028 |
| Net turnover (€ million)                                | 1 501 712 |
| Purchases of goods and services (€ million)             | 897 544   |
| Employee benefits expense (€ million)                   | 351 282   |
| Value added (€ million)                                 | 629 412   |
| Gross operating surplus (€ million)                     | 278 138   |
| <b>Share in business economy total (%)</b>              |           |
| Number of enterprises                                   | 4.1       |
| Number of persons employed                              | 4.3       |
| Value added   | 6.7       |
| <b>Derived indicators</b>                               |           |
| Apparent labour productivity (thousand € per head)      | 93.3      |
| Average employee benefits expense (thousand € per head) | 60.0      |
| Wage-adjusted labour productivity (%)                   | 155.4     |
| Gross operative rate (%)                                | 18.5      |

Source: Eurostat (online data code: sbs\_ovw\_act)



**Table 1: Key indicators, information and communication (NACE Section J), EU, 2021 - Source: Eurostat (sbs\_ovw\_act)**

The [apparent labour productivity](#) of the EU's information and communication services sector in 2021 was € 93 300 per person employed, which was more than 55.0% higher than the business economy average of € 60 200 per person employed. Alongside this relatively high apparent labour productivity — fifth highest among the NACE sections that form the business economy — [average employee benefits expense](#) within the information and communication services sector were € 60 000 per employee (average personnel costs), which was also well above the average for the business economy (€ 39 000 per employee) and the third highest among the NACE sections.

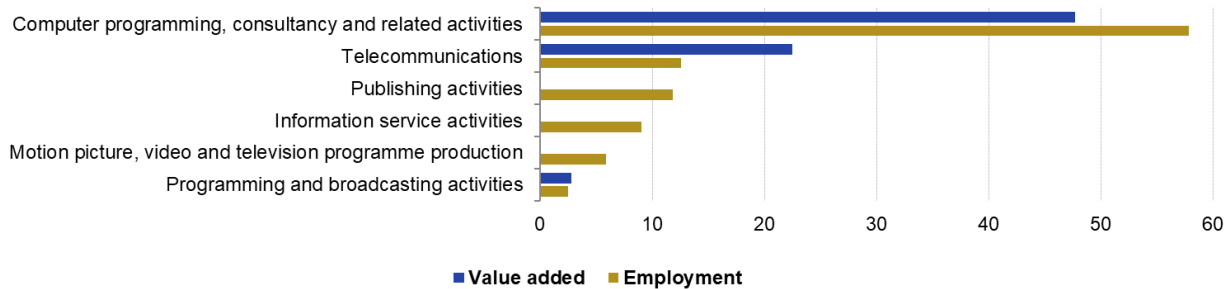
The [wage-adjusted labour productivity ratio](#) shows that value added per person employed was equivalent to 155.4% of average employee benefits expense per employee across the EU in 2021. This ratio was very close to the business economy average (154.4%). The EU's information and communication services sector recorded a [gross operating rate](#) of 18.5% in 2021, higher than the 13.2% average for the whole of the business economy.

## Sectoral analysis

One of the 6 subsectors (at the division level) dominated the information and communication services sector in the EU, namely computer programming, consultancy and related activities (Division 62). This subsector generated more than half (57.8%) of the employment in 2021, employing 3.9 million persons and 47.7% of the sectorial value added. The second largest subsector was telecommunications (Division 61), which accounted for 12.5% (0.8 million persons employed) of the in-formation and communication services employment and contributed 22.5% to sectoral value added (€ 141.6 million).

## Sectoral analysis of Information and communication (NACE Section J), EU, 2021

(% share of sectoral total)



Ranked on employment

Source: Eurostat (online data code: sbs\_oww\_act)

eurostat

**Figure 1: Sectoral analysis of information and communication (NACE Section J), EU, 2021 (% share of sectoral total) - Source: Eurostat (sbs\_oww\_act)**

Other subsectors within the information and communication services sector are: - publishing activities (Division 58), - motion picture, video and television programme production, sound recording and music publishing activities (Division 59), - programming and broadcasting activities (Division 60), - information service activities (Division 63).

Sectoral analysis of key indicators, Information and communication (NACE Section J), EU, 2021

|  | Number of enterprises | Number of persons employed | Turnover           | Value added      | Employee benefits expense |
|--|-----------------------|----------------------------|--------------------|------------------|---------------------------|
|  | (thousands)           |                            |                    | (&euro; million) |                           |
| <b>Information and communication</b>   | <b>1 281.2</b>        | <b>6 748.0</b>             | <b>1 501 712.4</b> | <b>629 412.1</b> | <b>351 281.8</b>          |
| Publishing activities  | 99.0                  | 795.9                      | :                  | :                | 40 000.0                  |
| Motion picture, video and television programme production, sound recording and music publishing activities | 168.1                 | 395.0                      | 60 000.0           | :                | :                         |
| Programming and broadcasting activities  | 8.8                   | 170.0                      | 63 600.0           | 17 483.6         | 10 598.0                  |
| Telecommunications   | 38.1                  | 845.4                      | 332 010.2          | 141 632.8        | 51 188.5                  |
| Computer programming, consultancy and related activities   | 820.8                 | 3 900.0                    | 680 000.0          | 300 000.0        | 210 000.0                 |
| Information service activities   | 146.3                 | 610.0                      | :                  | :                | :                         |

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Source: Eurostat (online data code: sbs\_oww\_act)

eurostat

**Table 2: Sectoral analysis of key indicators, information and communication (NACE Section J), EU, 2021 - Source: Eurostat (sbs\_oww\_act)**

The high apparent labour productivity figure for the whole of the EU's information and communication services sector in 2021 was pulled upwards by the values for the telecommunications subsector (€ 167 500 per person employed) and the programming and broadcasting activities subsector (€ 102 800 per person employed). Among the other subsectors within the information and communication services sector for which data is available, apparent labour productivity was below the sectoral average of € 93 300 per person employed, but still above the business economy average of € 60 200 per person employed.

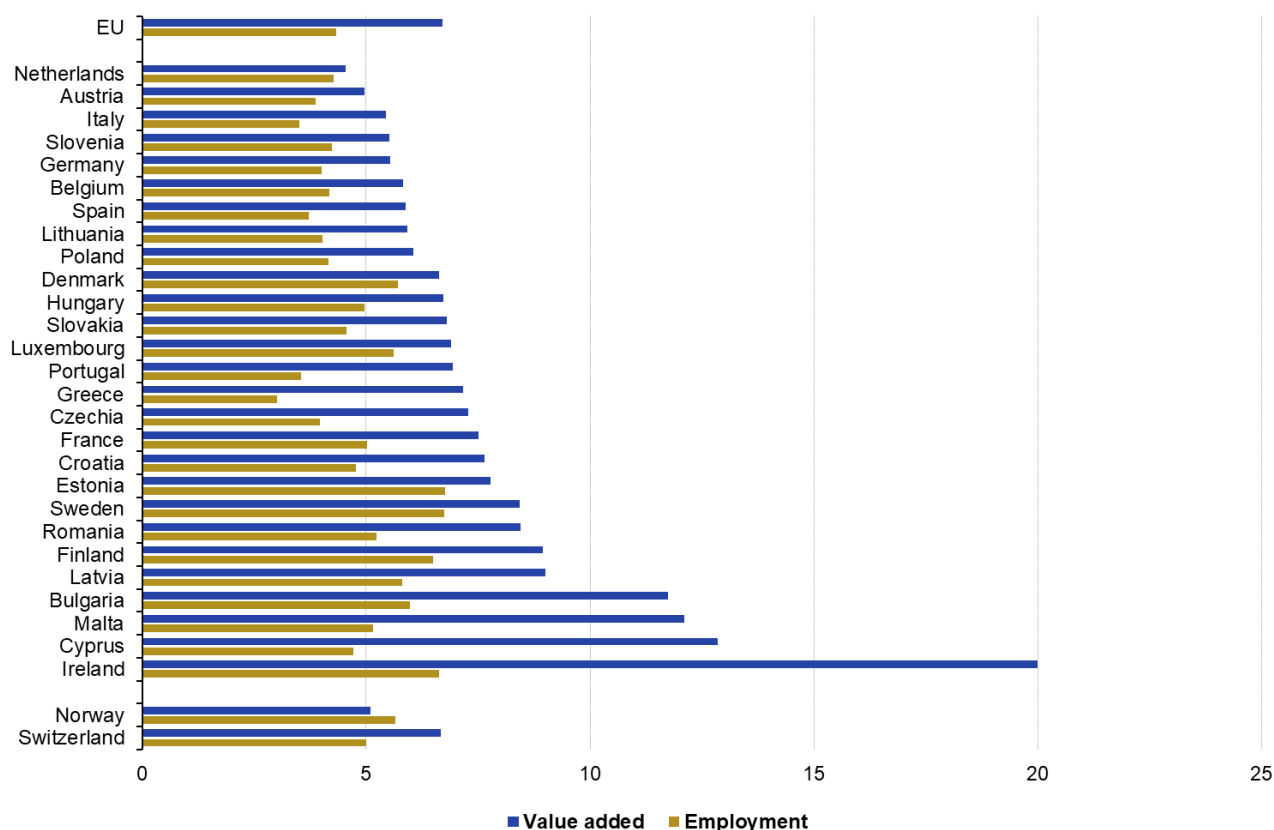
Due to the very high apparent labour productivity, the telecommunications subsector recorded the highest levels of wage-adjusted labour productivity (267.8%), which was among the highest wage-adjusted labour productivity ratios at the NACE division level within the business economy in 2021.

## Country overview

In the information and communication services sector, two-thirds of the member states had higher shares of business economy value added than the EU average of 6.7%. The highest shares were recorded in Ireland (20.0%), Cyprus (12.9%), Malta (12.1%) and Bulgaria (11.7%), while the lowest was recorded in the Netherlands (4.5%) and Austria (5.0%) - see Figure 2. The relative weight of the information and communication services sector was at the same level as the EU average in Switzerland and lower than the EU average in Norway, as it contributed 6.7% and 5.1% respectively to the value added that was generated within the non-financial business economies of these 2 countries in 2021.

### Relative importance of Information and communication (NACE Section J), EU, 2021

(% share of value added and employment in the business economy total)



Ranked on value added

Source: Eurostat (online data code: sbs\_oww\_act)

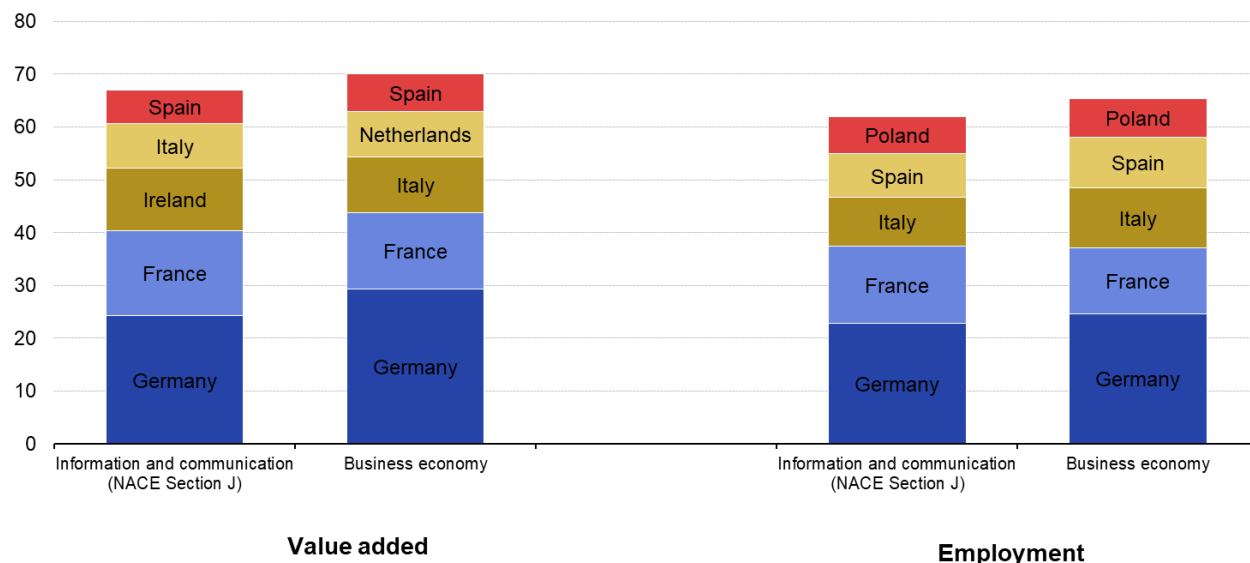
eurostat

**Figure 2: Relative importance of information and communication (NACE Section J), 2021 (% share of value added and employment in the business economy total) - Source: Eurostat (sbs\_na\_sca\_r2)**

Germany made the largest contribution among the EU Member States to sectoral value added and employment within the information and communication services sector in 2021, accounting for a 24.2% share of EU value added and a 22.8% share of the information and communication services employment. Over 1.5 million persons were employed within the information and communication services sector in Germany in 2021. Two countries with the highest recorded levels of value added within the information and communication services sector in 2021 were Germany and France (€ 152.4 billion and € 102.0 billion respectively). Collectively, the 5 largest Member States accounted for 67.0% of the EU's value added in the information and communication services sector.

## Concentration of value added and employment, information and communication (NACE Section J), EU, 2021

(cumulative share of the five principal Member States as a % of the EU total)



Source: Eurostat (online data code: sbs\_oww\_act)

eurostat

**Figure 3: Concentration of value added and employment, information and communication (NACE Section J), 2021 (cumulative share of the 5 principal Member States as a % of the EU total) - Source: Eurostat (sbs\_na\_sca\_r2)**

Germany made the highest contribution to EU value added in 4 out of 6 subsectors. In the largest subsector, namely computer programming and consultancy, Germany generated the largest share of EU value added (13.9% in 2021); while Malta was the most specialised with 9.2% of business economy value added in 2021. In relative terms, the most specialised EU Member State within the information and communication services sector was Ireland (with 20.0% of business economy value added in 2021). For the 6 subsectors that form information and communication services — the data that are available show a geographical spread of the specialisation depending on the subsector.

Ten countries, Ireland, Luxembourg, Cyprus, Belgium, Malta, Sweden, Finland, the Netherlands, Denmark and France stood out as having an apparent labour productivity higher than € 100 000 per person employed for the information and communication services sector in 2021. Ireland reported the highest wage-adjusted labour productivity ratio, at 653.4%, followed by Cyprus at 318.2% and Malta at 300.8%. None of the Member States recorded a wage-adjusted labour productivity ratio that was below parity (100%).

The highest gross operating rate for the information and communication services sector in 2021 was recorded for Malta (30.2%); while rates above 20.0% were recorded in total in 10 EU Member States.

## Key indicators, Information and communication (NACE Section J), EU, 2021

|             | Number of enterprises | Number of persons employed (thousands) | Net turnover | Value added | Employee benefits expense | Gross investment in tangible non- |
|-------------|-----------------------|--|--------------|-------------|---------------------------|-----------------------------------|
|             |                       |  |              | (€ million) |                           |                                   |
| <b>EU</b>   | 1 281.2               | 6 748.0                                | 1 501 712.4  | 629 412.1   | 351 281.8                 | 80 000.0                          |
| Belgium     | 44.2                  | 157.6                                  | 40 041.5     | 18 927.0    | 9 241.9                   | 3 477.1                           |
| Bulgaria    | 15.7                  | 127.1                                  | 8 811.5      | 4 792.8     | 3 057.5                   | 445.4                             |
| Czechia     | 58.8                  | 163.1                                  | 23 026.1     | 10 245.0    | 5 391.8                   | 867.2                             |
| Denmark     | 19.4                  | 122.4                                  | 28 271.3     | 12 671.9    | 9 067.0                   | 1 847.5                           |
| Germany     | 129.1                 | 1 541.0                                | 339 500.4    | 152 355.8   | 94 182.3                  | 17 168.9                          |
| Estonia     | 10.5                  | 34.8                                   | 4 104.3      | 1 490.8     | 1 180.9                   | 214.4                             |
| Ireland     | 18.5                  | 134.3                                  | 256 616.6    | 74 140.9    | 10 899.3                  | :                                 |
| Greece      | 20.5                  | 97.5                                   | 10 799.9     | 5 342.5     | 2 367.8                   | 109.1                             |
| Spain       | 74.9                  | 558.9                                  | 90 492.9     | 39 544.2    | 26 958.8                  | 5 043.4                           |
| France      | 168.9                 | 986.7                                  | 227 149.0    | 102 029.5   | 70 956.4                  | 20 884.9                          |
| Croatia     | 13.1                  | 57.8                                   | 5 016.3      | 2 567.6     | 1 281.8                   | 319.3                             |
| Italy       | 112.7                 | 617.9                                  | 109 947.9    | 53 675.3    | 28 179.0                  | 5 531.9                           |
| Cyprus      | 2.9                   | 16.5                                   | 7 492.4      | 1 993.4     | 617.1                     | 120.3                             |
| Latvia      | 7.5                   | 40.1                                   | 2 832.1      | 1 580.8     | 1 022.5                   | 191.9                             |
| Lithuania   | 11.9                  | 47.4                                   | 4 253.1      | 1 889.5     | 1 243.4                   | 217.1                             |
| Luxembourg  | 3.0                   | 21.4                                   | 9 872.2      | 3 480.9     | 1 762.6                   | 982.1                             |
| Hungary     | 58.2                  | 161.9                                  | 14 807.1     | 6 102.1     | 3 146.2                   | 776.9                             |
| Malta       | 2.4                   | 11.6                                   | 3 198.6      | 1 369.5     | 403.8                     | 44.4                              |
| Netherlands | 113.5                 | 354.6                                  | 88 358.4     | 36 978.5    | 21 590.4                  | 6 270.6                           |
| Austria     | 29.4                  | 139.0                                  | 27 992.8     | 12 593.6    | 8 101.8                   | 1 281.1                           |
| Poland      | 164.6                 | 474.4                                  | 46 636.4     | 19 676.1    | 10 309.1                  | 2 488.5                           |
| Portugal    | 24.6                  | 146.1                                  | 17 145.4     | 8 335.2     | 5 162.7                   | 1 494.7                           |
| Romania     | 51.1                  | 245.1                                  | 17 032.5     | 9 281.1     | 5 767.0                   | 1 282.5                           |
| Slovenia    | 11.1                  | 31.9                                   | 4 163.2      | 1 870.5     | 971.6                     | 258.6                             |
| Slovakia    | 29.3                  | 80.7                                   | 8 357.7      | 3 718.6     | 2 077.3                   | 546.1                             |
| Finland     | 20.3                  | 108.3                                  | 25 481.8     | 11 403.7    | 7 078.4                   | 1 412.3                           |
| Sweden      | 65.1                  | 270.0                                  | 80 311.3     | 31 355.4    | 19 263.5                  | 3 404.3                           |
| Norway      | 20.2                  | 102.9                                  | 30 230.8     | 13 513.1    | 8 929.5                   | 2 136.9                           |
| Switzerland | 7.2                   | 163.7                                  | 63 362.3     | 30 499.9    | :                         | 4 821.7                           |

(:) not available

Source: Eurostat (online data code: sbs\_ovw\_act)



**Table 4a: Key indicators, information and communication (NACE Section J), 2021 - Source: Eurostat (sbs\_ovw\_act)**

Key indicators, Information and communication (NACE Section J), EU, 2021

|             | Apparent<br>labour productivity<br>(thousand € per head) | Average employee<br>benefits expense | Wage-adjusted<br>labour productivity<br>(%) | Gross<br>operative rate |
|-------------|--|--------------------------------------|---|-------------------------|
| <b>EU</b>   | 93.3   | 60.0                                 | 155.4                                       | 18.5                    |
| Belgium     | 120.1  | 80.5                                 | 149.3                                       | 24.2                    |
| Bulgaria    | 37.7   | 26.4                                 | 142.6                                       | 19.7                    |
| Czechia     | 62.8   | 42.2                                 | 148.9                                       | 21.1                    |
| Denmark     | 103.6  | 79.0                                 | 131.0                                       | 12.8                    |
| Germany     | 98.9   | 66.3                                 | 149.1                                       | 17.1                    |
| Estonia     | 42.8   | 39.4                                 | 108.7                                       | 7.6                     |
| Ireland     | 552.1  | 84.5                                 | 653.4                                       | 24.6                    |
| Greece      | 54.8   | 29.7                                 | 184.5                                       | 27.5                    |
| Spain       | 70.8   | 53.4                                 | 132.5                                       | 13.9                    |
| France      | 103.4  | 77.4                                 | 133.7                                       | 13.7                    |
| Croatia     | 44.4   | 25.5                                 | 173.9                                       | 25.6                    |
| Italy       | 86.9   | 53.8                                 | 161.4                                       | 23.2                    |
| Cyprus      | 121.0  | 38.0                                 | 318.2                                       | 18.4                    |
| Latvia      | 39.4   | 26.9                                 | 146.5                                       | 19.7                    |
| Lithuania   | 39.8   | 31.6                                 | 126.1                                       | 15.2                    |
| Luxembourg  | 162.7  | 84.0                                 | 193.7                                       | 17.4                    |
| Hungary     | 37.7   | 28.0                                 | 134.9                                       | 20.0                    |
| Malta       | 118.3  | 39.3                                 | 300.8                                       | 30.2                    |
| Netherlands | 104.3  | 71.9                                 | 145.0                                       | 17.4                    |
| Austria     | 90.6   | 74.7                                 | 121.3                                       | 16.1                    |
| Poland      | 41.5   | 32.1                                 | 129.3                                       | 20.1                    |
| Portugal    | 57.1   | 38.9                                 | 146.6                                       | 18.5                    |
| Romania     | 37.9   | 27.1                                 | 139.7                                       | 20.6                    |
| Slovenia    | 58.6   | 40.3                                 | 145.4                                       | 21.6                    |
| Slovakia    | 46.1   | 36.5                                 | 126.3                                       | 19.8                    |
| Finland     | 105.3  | 69.9                                 | 150.7                                       | 17.0                    |
| Sweden      | 116.1  | 83.9                                 | 138.5                                       | 15.1                    |
| Norway      | 131.3  | 89.9                                 | 146.0                                       | 15.2                    |
| Switzerland | 186.3  | :                                    | :   | 16.4                    |

(: ) not available

Source: Eurostat (online data code: sbs\_ovw\_act)



**Table 4b: Key indicators, information and communication (NACE Section J), 2021 - Source: Eurostat (sbs\_ovw\_act)**

## Data sources

### Coverage

Information and communication services concern the production and distribution of information and cultural products, the provision of the means to transmit or distribute these products as well as data or communications, information technology activities, and the processing of data and other information service activities.

The sector is composed of 6 separate NACE divisions and includes:

- publishing activities (Division 58);
- motion picture and sound recording activities (Division 59);
- programming and broadcasting activities (Division 60);
- wired, wireless and satellite telecommunications activities (Division 61);
- computer programming and consultancy activities (Division 62);



- information service activities such as data processing, hosting, web portals, news agencies, information search (Division 63).

Note that this article does not cover printing or the mass reproduction of recorded media, both of which are considered as part of the [manufacturing](#) sector (Section C). The activities of call centres are included within the [administrative and support services sector](#) (Section M).

Publishing includes the acquisition of copyrights to content (information products) and making this content available to the general public by engaging in or arranging for the reproduction and distribution of this content in various forms; all types of media are included. Different types of content are considered, with the publishing activity as presented in this article including content such as books, newspapers, magazines and software, while the production of audio and visual content is included within motion picture and sound recording activities.

Programming and broadcasting activities cover the production and distribution of TV programming and involves different stages: production of individual items (such as films or television series); the creation of a complete television channel programme (including live news programming) and broadcasting; distribution of complete television programmes by third parties without any alteration of the content, for example through broadcasting, satellite or cable systems.

### Data sources

The analysis presented in this article is based on the main dataset for [structural business statistics \(SBS\)](#) , size class data and regional data, all of which are published annually.

The main series provides information for each EU Member State as well as a number of non-member countries at a detailed level according to the activity classification NACE. Data are available for a wide range of variables.

In structural business statistics, size classes are generally defined by the number of persons employed. A limited set of the standard structural business statistics variables (for example, the number of enterprises, turnover, persons employed and value added) are analysed by size class, mostly down to the three-digit (group) level of NACE. The main size classes used are:

- small and medium-sized enterprises (SMEs): with 1 to 249 persons employed, further divided into:
  - micro enterprises: with less than 10 persons employed;
  - small enterprises: with 10 to 49 persons employed;
  - medium-sized enterprises: with 50 to 249 persons employed;
- large enterprises: with 250 or more persons employed.

Structural business statistics also include regional data. Regional SBS data are available at NUTS levels 1 and 2 for the EU Member States, Iceland and Norway, mostly down to the two-digit (division) level of NACE. The main variable analyzed in this article is the number of persons employed. The type of statistical unit used for regional SBS data is normally the [local unit](#) , which is an enterprise or part of an enterprise situated in a geographically identified place. Local units are classified into sectors (by NACE) normally according to their own main activity, but in some EU Member States the activity code is assigned on the basis of the principal activity of the enterprise to which the local unit belongs. The main SBS data series are presented at national level only, and for this national data the statistical unit is the enterprise. It is possible for the principal activity of a local unit to differ from that of the enterprise to which it belongs. Hence, national SBS data from the main series are not necessarily directly comparable with national aggregates compiled from regional SBS.

## Context

Technological and regulatory advancements have made it possible for broadcasting to be opened up to a wider range of content and services to users than those traditionally distributed by government-licensed organisations that used to be solely responsible for the broadcasting of a small number of radio and television channels according to a fixed schedule. Using a range of modern technologies, broadcasting can nowadays be undertaken with far



lower entry barriers, providing a wider range of distribution media, content and services to users.

[Information and communication technologies \(ICT\)](#) affect people's everyday lives in many ways and EU policies in this area range from regulating entire sectors to trying to protect an individual's privacy. The increased availability of broadband services and of wireless devices is transforming economic and societal behaviour. Widespread access to the internet via rapid broadband connections is seen as essential for the development of advanced services on the internet.

In May 2010, the [European Commission](#) adopted a Communication concerning a [Digital Agenda for Europe](#), a strategy for a flourishing digital economy by 2021, replacing the [i2010 initiative](#); this is 1 of 7 flagship initiatives under the Europe 2021 strategy for smart, sustainable and inclusive growth. It outlines policies and actions aimed at maximizing the benefit of the digital era to all sections of society and the economy. The agenda focuses on 7 priority areas for action: creating a digital single market, greater interoperability, boosting internet trust and security, providing much faster internet access, encouraging investment in research and development, enhancing [digital literacy](#) skills and inclusion, and applying ICT to address challenges facing society like climate change and the ageing population.

The Digital Agenda for Europe defines roaming as a key performance target for attaining the Digital Single Market, with the stated aim of making the difference between roaming and national tariffs approach zero by 2016. After having conducted a thorough review, the European Commission found that the roaming market is not yet competitive enough and despite the fact that the cost of using mobile phones or other devices when abroad in the EU has continuously fallen, most operators still propose retail prices that remain around the maximum legal caps. For this reason the [Roaming Regulation](#) has been extended until 30 June 2022, and a series of new measures aimed at increasing competition and encouraging operators to offer attractive consumer deals have also been introduced; these [revised rules](#) started as of 1 July 2012.

## Explore further

### Other articles

- [Other analyses of the business economy by NACE Rev. 2 sections](#)
- [Structural business statistics – overview article](#)

### Thematic section

- [Structural business statistics webpage](#)

### Publications

- [Recent Eurostat publications on SBS](#)
- [Key figures on Europe – 2023 edition](#) – see subchapter on Business
- [Eurostat's Regional Yearbook](#) – see chapter 8. Business
- [News Release SBS – 2021 final data](#)

### Methodology

- [Structural business statistics](#) – SBS metadata file

### Selected datasets

- [Structural business statistics \(sbs\)](#)

## External links

- [European Commission – Communications Networks, Content and Technology](#) , see:
- [Digital agenda for Europe](#)
- [European Commission – Competition](#) , see:
- [Information and communication technologies](#)
  - [Media](#)
  - [Telecommunications](#)
- [European Commission – Internal market, Industry, Entrepreneurship and SMEs](#) , see:
- [Industrial policy](#)
  - [Digital economy](#)
  - [Single market for services](#)

## Legislation

- [Details on SBS Legislation](#)
- [European Business Statistics Regulation](#)