# Information and communication technologies in enterprises

## 1 Contact

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## 2 Metadata update

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| **2.1 Date of last update** | 17.06.2020 |

## 3 Statistical presentation

### 3.1 Data description

Data on the usage of Information and Communication Technologies (ICT) in enterprises are from annual statistical survey ICT ENT 2-01 - Survey in ICT usage in enterprises based on Eurostat's annual model questionnaires on ICT usage and e-commerce in enterprises.
Large part of the data collected is used to measure the progress towards the objectives set in the Digital Single Market Strategy. Statistical data support the development of the Digital Scoreboard established in the context of the Monitoring the Digital Economy and Society.

### 3.2 Classification system

Branch classification of economic activities – NACE rev.2.

### 3.3 Sector coverage

ICT statistics cover the following economical sectors of NACE Rev. 2: sections C, D, E, F, G, H, I, J, L and N, divisions 69-74 and 95.1 and all enterprises in this sectors with number of employees 10 and more.

### 3.4 Statistical concepts and definitions

The model questionnaire on ICT usage and e-commerce in enterprises provides a large variety of variables covering among others the following areas:

- general information about ICT systems
- access to and use of the Internet
- E-commerce and e-business

- other topics: the mobile use of the Internet, cloud computing, social media, software as a service, robotics, 3D printing, ICT security, etc.

### 3.5 Statistical unit

The statistical unit corresponded to the enterprise.

### 3.6 Statistical population

ICT statistics are compiled for enterprises with 10 or more employees in selected sectors NACE Rev.2

### 3.7 Reference area

The results of ICT statistics are available for the Slovak Republic total according to the NACE, size category of the enterprise.

### 3.8 Time coverage

Results are available since 2006.

### 3.9 Base period

Not applicable.

## 4 Unit of measure

Number of enterprises, percent, thous. EUR.

## 5 Reference period

The reference period is the first quarter of the year, for some questions in the questionnaire, the reference period is the previous calendar year.

## 6 Institutional mandate

### 6.1 Legal acts and other agreements

Information on the use of ICT in enterprises SO SR collects in the statistical survey ICT ENT 2-01 included in the Program of State Statistical Surveys, issued for a three-year period in the Collection of Laws of the SR. The reporting obligation to submit statistical statements to entities is based on Act no. 540/2001 Coll. on State Statistics as amended (Section 18 (3)) and cannot be rejected (Section 18 (8)). The Statistical Office of the Slovak Republic is responsible for the protection of confidential data obtained and guarantees their use exclusively for statistical purposes.

### 6.2 Data sharing

Statistical information from ICT survey is a source for fulfilling the obligations of the Slovak Republic resulting from the requirements of the European Statistical System, the requirements of international institutions and to meet the needs of the national information system. In 2004 was adopted Regulation (EC) No 808/2004 of the European Parliament and of the Council on Community statistics on the

information society. An implementing regulation for the year in question is issued each year specifying the Eurostat data provision requirements.

# 7 Confidentiality

## 7.1 Confidentiality - policy

Protection of statistical confidentiality (protection of confidential statistical data) is a system of interrelated measures in the legislative, methodological, organizational, technical, security and personnel fields, preventing the leakage of confidential statistical data or the premature publication of statistical information. Authorities performing state statistics are obliged to ensure the protection of confidential statistical data from misuse in the manner set out in § 25a and § 29 and 30 of Act No. 540/2001 Coll. on State Statistics, as amended. The principles of the application of confidential statistical data protection are available on the website of the SO SR at:
https://slovak.statistics.sk/wps/portal/ext/services/infoservis/confidential

## 7.2 Confidentiality - data treatment

Confidential statistical data are not disclosed. In the publications and databases of the Statistical Office of the Slovak Republic, the symbol "D" is placed in the respective places instead of the data.

# 8 Release policy

## 8.1 Release calendar

Data from the survey on the use of ICT in enterprises are published on the SO SR portal and in the DATACUBE database at:
https://slovak.statistics.sk/wps/portal/ext/products/publikacie/catalogue

## 8.2 Release calendar access

The editorial program contains basic information about publications, release dates and language versions. All publications are available at the Statistical Office of the Slovak Republic.
The editorial program is available on the website of the SO SR at:
https://slovak.statistics.sk/wps/portal/ext/products/publikacie/catalogue

## 8.3 User access

The statistical information dissemination policy is formulated in accordance with the State Statistics Act, the Statistical Office Development Strategy, the Eurostat Information Dissemination Strategy and the European Statistics Code of Practice.
The principles of publishing and providing statistical information are available on the website of the Statistical Office of the SR at:
https://slovak.statistics.sk/wps/portal/ext/services/infoservis/principles

# 9 Frequency of dissemination

Annual.

## 10 Accessibility and clarity

### 10.1 News release

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### 10.2 Publications

A publication on the use of ICT in enterprises is available on the website of the SO SR at:
https://slovak.statistics.sk/wps/portal/ext/themes/multi/information/publications

### 10.3 On-line database

DATACUBE

### 10.4 Micro-data access

Micro data is not published. Research entities may only have access to anonymised micro data for scientific purposes:

- universities and other higher education education organizations
- organizations or institutions of scientific research.

The conditions for granting access to confidential statistical data for scientific purposes can be found on the SO SR website at:
https://slovak.statistics.sk/wps/portal/ext/services/infoservis/access

### 10.5 Other

Statistical Yearbook of the Slovak Republic

### 10.6 Documentation on methodology

Methodological information on ICT statistics is provided in the ICT ENT 2-01 survey form, in publications and in tables of the public database of the SO SR.

### 10.7 Quality documentation

Internal documentation of the Statistical Office of the SR on ensuring the quality of statistical outputs:

- internal Methodological directive for application of mathematical-statistical methods for statistical surveys MET-3/201,
- internal methodological directive - Quality indicators of statistical outputs and statistical processes MET-2/2012.

On a yearly basis, quality reports are prepared in the ESS Metadata Handler for individual indicators in accordance with the ESS Handbook for Quality Reports (EQHQR) based on Eurostat requirements.

# 11 Quality management

## 11.1 Quality assurance

The SO SR has a quality management system in place. The Quality Manual includes a description of the quality management system and the fulfillment of ISO 9001 requirements. The application of the Manual ensures that all activities that affect the quality of the products being produced are planned, managed, reviewed, evaluated and meet the requirements accepted in the order.
The Quality Guide is available at:
https://slovak.statistics.sk/wps/wcm/connect/9ca43aa4-bfaf-4101-9dae-5263aa834df7/Prirucka_kvality.pdf?MOD=AJPERES&CVID=mu8R9IM&CVID=mu8R9IM
The basis of the whole quality management system is the Code of Practice for European Statistics:
https://slovak.statistics.sk/wps/portal/ext/aboutus/key.documents/code.of.practise

## 11.2 Quality assessment

The quality of ICT usage statistics in businesses is very good, harmonized with the methodology of the EU Member States. The process of data collection and output generation is ensured within the integrated statistical information system, which incorporates data collection controllers and output generation algorithms that ensure the quality of output information. In order to evaluate the quality, the system has statistics on return, completed questionnaires, number of erroneous questionnaires, number of claims, etc.

# 12 Relevance

## 12.1 User needs

Statistics on the use of ICT in enterprises are highly demanded to monitor the level of computerization the economy. The main users are Eurostat, OECD, central state administration bodies of the Slovak Republic.

## 12.2 User satisfaction

Since 2009, the Statistical Office of the SR has been conducting customer satisfaction surveys with its products and services at two-year intervals. The aim of the surveys is to get information about the interest and opinions of users on providing and quality of statistical products and services. The information obtained is a valuable source for the further activities of the SO SR.
The result of the satisfaction survey in 2017 is available on the website of the SO SR at:
https://slovak.statistics.sk/wps/portal/ext/aboutus/marketing/survey.of.satisfaction
The information society sector in this survey is linked to R&D and innovation areas, therefore it does not accurately reflect the satisfaction with ICT statistics.

## 12.3 Completeness

The survey is organized in accordance with Eurostat recommendations as in previous years (100% compliance compared to the relevant legislation).

## 13 Accuracy and reliability

### 13.1 Overall accuracy

The SO SR performs thorough verification of data in order to prevent the occurrence of errors.

### 13.2 Sampling error

The indicator for measuring the sampling error in the survey on the use of ICT in enterprises is the coefficient of variation, which is calculated for the specified variables.

### 13.3 Non-sampling error

To avoid non-selectable errors, i. errors in the process of collection and processing The SO SR has integrated logical and data controls in the integrated statistical information system (IŠIS) at the level of micro-data as well as at the level of aggregated data that are performed during data collection and processing.
The electronic questionnaire itself provides many arithmetic and logical controls between variables that we distinguish between serious and informative. In the event of serious errors in the form, this is not accepted and, in consultation with the reporting agent, is corrected to be correct and entered into processing. With these tools we try to minimize errors already in the collection itself and then during data processing.

## 14 Timeliness and punctuality

### 14.1 Timeliness

Publication of data in the public database of the SO SR is governed by an internal schedule. Data on the use of ICT in enterprises are published by the end of December of the relevant year.

### 14.2 Punctuality

Publication dates are respected.

## 15 Coherence and comparability

### 15.1 Comparability - geographical

Statistics on the use of ICT in enterprises are compiled from the whole territory of the Slovak Republic.

### 15.2 Comparability - over time

The basic indicators are comparable over the whole time series.

### 15.3 Coherence - cross domain

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### 15.4 Coherence - internal

There are no deviations, the statistical outputs are internally consistent.

## 16 Cost and burden

Estimation is based on the time required to complete the questionnaire provided by respondents. Average hours worked by one respondent in completing the questionnaire 114 min.

## 17 Data revision

### 17.1 Data revision - policy

The revision policy governs the basic rules and general procedures by which the pre-drafted data is later revised as well as applied in revisions for other reasons.
The revision policy and calendar is available on the SO SR website at:
https://slovak.statistics.sk/wps/portal/ext/products/revisions

### 17.2 Data revision - practice

The data are considered definitive for the first disclosure and are not usually revised. In the event of any revision (even in previous years), a note is given in the databases and in the relevant SO SR publications that the data have been revised. Changes in methodology are reported after their introduction in the form of methodological notes or notes to published data.

## 18 Statistical processing

### 18.1 Source data

The source of the data is the statistical survey on ICT usage in enterprises (ICT ENT 2-01), which is part of the Program of State Statistical Surveys.

### 18.2 Frequency of data collection

Annual.

### 18.3 Data collection

Electronic data collection enabling reporting units to fill in online statistical forms online in the SO SR's integrated statistical information system.
Since 1 January 2016, reporting units (legal entities, natural persons - entrepreneurs) have been obliged to submit statistical reports electronically in accordance with the amendment to Act no. 540/2001 Coll. on state statistics as amended by Act no. , Which contains new rules for the submission of statistical reports.

### 18.4 Data validation

Data validation is embedded in the integrated statistical information system of the SO SR.
The following checks are distinguished when collecting data:
1 - formal checks carried out automatically in the data collection process

2 - informal controls to check the complexity and relationships between variables.
From the point of view of the severity of errors:
I - Infomatic Errors - Provide additional information that is needed for the process of checking and correcting data. They provide information on possible overruns of specified limits, partial non-response, etc.

### 18.5 Data compilation

The survey is a combination of an exhaustive and selective survey. The data for the sample are calculated and together with the exhaustive data form the final aggregated figures.

### 18.6 Adjustment

Data is not modified.

## 19 Comment