Statistical survey on the use of information and communication technologies in households and by individuals

IS_IKT.3_A_EN_2024_1

Reference Metadata in ESMS 2.0 structure

1	Contact
1.1	**Contact organisation**
State Statistical Office	
1.2	**Contact organisation unit**
Department for research and development, innovation and ICT.	
1.3	**Contact name**
Aida Jakupi	
1.4	**Contact person function**
Adviser	
1.5	**Contact mail address**
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1.6	**Contact email address**
aida.jakupi@stat.gov.mk	
1.7	**Contact phone number**
+389(02)3295-651	
1.8	**Contact fax number**
2	**Metadata update**
2.1	**Metadata last certified**
13/06/2025	
2.2	**Metadata last posted**
13/06/2025	
2.3	**Metadata last update**

13/06/2025	
3	**Statistical presentation**
3.1	**Data description**

The data for use of computers, mobile devices, Internet, frequency and purpose of their usage, information literacy of the population of the Republic of Macedonia.

3.2	**Classification system**

National Classification of Activities - NKD Rev.2 National Classification of Occupations - NKZ System of education in the country in terms of ISCED 2011 - International Standard Classification of Education MSKOB (2013) Nomenclature of Territorial Units for Statistics - NTES

3.3	**Sector coverage**
3.4	**Statistical concepts and definitions**

The definitions refer to the general areas: General information about ICT systems; Access to and use of the Internet; E-commerce and e-business and new themes (modules) are added according to the regulations. Detailed definitions can be found on link given in concept 11.1

3.5	**Statistical unit**

Households having at least one member aged 15-74, and individuals, members of the household, who at the time of data collection are aged 15 to 74 years.

3.6	**Statistical population**

Households having at least one member aged 15-74, and individuals, members of the household, who at the time of data collection are aged 15 to 74 years.

3.7	**Reference area**

Republic of North Macedonia

3.8	**Time coverage**

Since 2007.

3.9	**Base period**
4	**Unit of measure**

Percentages.

5	**Reference period**

01.01.2024-31.03.2024. 2023 - for questions about e-commerce and usage of e-government services.

6	**Institutional mandate**
6.1	**Legal acts and other agreements**

National:
Law on State Statistics
("Official Gazette of the Republic of Macedonia" No. 54/1997, 21/2007,51/2011, 104/2013, 42/2014, 192/2015, 27/16, 83/18, 220/18 and 31/20),
Programme of Statistical Surveys 2023-2027 ("Official Gazette of the Republic of Macedonia" No. 29/23);

International:
Regulation (EC) No 808/2004
Regulation 2019/2152
Regulation 2019/1700

6.2	Data sharing

Time series for annual data: from 2007 transmitted to Eurostat via eDAMIS.

7	Confidentiality

7.1	Confidentiality - policy

Individual data are protected by the Law on State Statistics . Data collected with statistical surveys from the reporting units or indirectly from administrative or other sources are confidential data and are used only for statistical purposes. Results from the statistical processing may also generate information considered as confidential, for example: anonymised individual data, tables with low level of aggregation, as well as unreleased data. The Policy on Statistical Confidentiality contains the basic principles used in the SSO.

7.2	Confidentiality - data treatment

Pursuant to Article 38 of the Law on State Statistics (https://www.stat.gov.mk/ZakonZaStatistika_en.aspx) and the Policy on Statistical Confidentiality (https://www.stat.gov.mk/pdf/PolicyOnStatisticalConfidentiality.pdf), individual data are not published.

8	Release policy

8.1	Release calendar

The date of data publication is determined in the Advance Release Calendar, which is updated quarterly.

8.2	Release calendar access

Publishing calendar

8.3	User access

In accordance with the dissemination policy , all users have equal access to statistical data atthe same time. Data are released on the web site at the same time for all users, which areinformed with the Release Calendar, and no user has privileged access.

9	Frequency of dissemination

Yearly.	
10	**Accessibility and clarity**
10.1	**News release**

"Yearly news release "" Usage of information and communication technologies in households and by individuals, 2024"".

All New Releases

10.2	**Publications**

Statistical yearbook, 2024
North Macedonia in figures, 2024
Monthly Statistical Bulletin, 2024

10.3	**On-line database**

MakStat database is available on the web site.

PxWeb-Select table

10.4	**Micro-data access**

According to the Law on State Statistics (Article 41) and the Policy on Access to Anonymised Microdata for scientific purposes , data collected for the purpose of official statistics may beused for scientific purposes if there is no risk of direct or indirect identification, i.e. disclosure ofdata individuality. Access to microdata is possible only in the safe ro Regulated with the policyfor access to microdata.

10.5	**Other**

At the request of users, data are also prepared in a form according to their needs.

10.6	**Documentation on methodology**

The methodological notes are available on the web site of the State Statistical Office.

Methodological explanation

10.7	**Quality documentation**

Quality report is making by fulfilling Eurostat's form - Report template, that is not available in public, it is only sent to Eurostat via eDAMIS.

11	**Quality management**
11.1	**Quality assurance**

The commitment of the SSO to ensuring quality of products and services is described in theLaw on State Statistics, the Strategy of the State Statistical Office (http://www.stat.gov.mk/ZaNas_en.aspx?id=6) and the Quality Policy of the State StatisticalOffice (http://www.stat.gov.mk/pdf/Politika_za_kvalitet_en.pdf), as well as in the continuousefforts for harmonisation with the European Statistics Code of Practice. The main aspects andprocedures for quality management in the phases and sub-phases of the Statistical BusinessProcess Model, as well as the good practices for ensuring quality are documented in

theinternal document called "Guide for ensuring quality of statistical processes". Input and outputmetadata, as well as relevant quality indicators for certain sub-processes are described in thedocument "Guide for survey managers".

11.2	Quality assessment

The State Statistical Office carries out statistical activities in accordance with the Statistical Business Process Model, which is based on the international model - Generic Statistical Business Process Model (GSBPM). The application of this model and international standards in statistical production ensures a high level of accuracy and comparability of data.

12	Relevance

12.1	User needs

Data are used by various users: citizens, government institutions, Eurostat and other international organisations. Data serve for monitoring the information society development.

12.2	User satisfaction

Starting from 2009, the State Statistical Office conducts a User Satisfaction Survey every three years.

12.3	Completeness

Concerning the indicators required by the Regulation 808/2004, the SSO provides all mandatory data (100%).

13	Accuracy and reliability

13.1	Overall accuracy

The survey methodology and the data collection method ensure good coverage and accuracy of the data.

13.2	Sampling error

Sampling errors could be standard errors and coefficients of variation. The coefficient of variation are calculated for determing the accuracy of data sent to EUROSTAT as well as standard errors for certain topics in standard quality report. Standard errors for some variables are as follows: Households with internet access: 1.05; Households with regular use of internet:1.12; Households with regular use of internet, employed or selfemployed:1.4; Coefficient of variation for some variables are as follows: Households with internet access:1.6; Households with regular use of internet:2.624; Households with regular use of internet, employed or selfemployed:1.61.

13.3	Non-sampling error

Coverage errors are calculated as undercoverage or overcoverage errors. Overcoverage:0.7%. Measurement errors: before the field operations a training was organised for survey participants (interviewers and supervisors) while the households were informed by letters prior to the survey.During the survey operations, daily reports were collected in order to control the coverage and timely eliminate the errors. The collected data were controled by supervisors in regional offices, as well as in central statistical office. Processing errors: the data entry was in Blaise with automatic logical controls and some controls were made after the data entry phase.

In case of some data inconsistencies the imputation was used by method of expert estimation (manual imputation). Non response rate: 16.3%.

14	Timeliness and punctuality

14.1	Timeliness

T+210.

14.2	Punctuality

The data are published on the day announced in the Advance Release Calendar.

15	Coherence and comparability

15.1	Comparability - geographical

The data are produced at national level. Comparability is provided at international level.

15.2	Comparability - over time

omparability over time is provided since 2007 with no gap in the time series (for variables which are constant and not changed in definitions). The number of reference periods in the time series is 9.

15.3	Coherence - cross domain

Cross domain coherence is not ensured.

15.4	Coherence - internal

Internal coherence of data is ensured.

16	Cost and burden

17	Data revision

17.1	Data revision - policy

Data revision is made in accordance with the Statistical Data Revision Policy of the SSO: (https://www.stat.gov.mk/ZaNas_en.aspx?id=25).

17.2	Data revision - practice

Survey data are published as final data.

18	Statistical processing

18.1	Source data

The source data is a survey based on a sample of households.. The sample frame is the statistical population registar. The sample size is 2000 households. In every household, one member of the household aged 15-74 is interviewed via a questionnaire (ICT.3).

18.2	Frequency of data collection

Annually.

18.3	Data collection

Data are collected by method of personal interview PAPI, (face-to-face) by interviewers, who fulfill data into the questionnaire ICT.3. The interviewers visits the households from the sample and collect data based on information provided by the holuseholds. The data collection was in strict time predicted for this survey.

18.4	Data validation

Data validation is made in accordance with defined control criteria. Validation of data quality is performed through the whole process, from the phase of collection to the phase of preparing aggregated data. Data are checked before and after publishing. Validation of data is also done by Eurostat according to established validation rules.

18.5	Data compilation

Editing: the data editing is done in central statistical office. Weights: weighting of responses obtained from statistical units is made with the Horwitz-Thompson (HT) estimator of reverse probabilities, by strata, adjusted to non response and calibrated with the latest population estimations in six age groups and by sex. SAS statistical procedures are used.

18.6	Adjustment

There is no data adjustment.

19	Comment

A.1	Annexes