

ICT USAGE BY INDIVIDUALS AND HOUSEHOLDS - 2020

NATIONAL REFERENCE METADATA IN SINGLE INTEGRATED METADATA STRUCTURE (SIMS)

CONCEPT 1 - CONTACT

Sub-Concept 1.1: Contact organisation

National Statistics Office (NSO)

Sub-Concept 1.2: Contact organisation unit

Labour Market Statistics Unit

Sub-Concept 1.3: Contact name

Ms. Joslyn Magro Cuschieri

Sub-Concept 1.4: Contact person function

Head of Unit

Sub-Concept 1.5: Contact mail address

National Statistics Office (NSO),
Valletta VLT 2000,
Malta.

Sub-Concept 1.6: Contact e-mail address

joslyn.magro@gov.mt

Sub-Concept 1.7: Contact phone number

+356 2599 7662

CONCEPT 2 – METADATA UPDATE

Sub-Concept 2.1: Metadata last certified

1st March 2021.

Sub-Concept 2.2: Metadata last posted

3rd March 2021.

Sub-Concept 2.3: Metadata last update

3rd March 2021.

CONCEPT 3 – STATISTICAL PRESENTATION

Sub-Concept 3.1: Data description

The data on the usage of Information and Communication Technologies (ICT) in households consists of survey data which are collected by the National Statistical Institutes and are based on Eurostat's annual model questionnaires on ICT usage and e-commerce in households.

Large part of the data collected are 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 2016-2021](#) document.

The aim of the European survey on ICT usage and e-commerce in enterprises is to collect and disseminate harmonised and comparable information at a European level.

Sub-Concept 3.2: Classification system

Not applicable.

Sub-Concept 3.3: Sector coverage

The survey includes individuals aged between 16 and 74.

Sub-Concept 3.4: Statistical concepts and definitions

The model questionnaire on ICT usage in households provides a large variety of variables covering amongst others the following areas:

- General information about ICT usage in households
- Access to and use of the Internet
- E-commerce
- Other topics foreseen in the benchmarking frameworks: e-skills, use of e-government, cloud computing and internet of things.

The annual model questionnaires and the methodological manual comprise definitions and explanations.

Sub-Concept 3.5: Statistical unit

Individuals from the age of 16 till 74 and private households.

Sub-Concept 3.6: Statistical population

As required by Annex I of the Commission Regulation, only private households with at least one individual aged between 16 and 74 form part of the statistical population.

Sub-Concept 3.7: Reference area

Maltese Islands (NUTS 2 level).

Sub-Concept 3.8: Time coverage

2020.

Sub-Concept 3.9: Base period

Not applicable.

CONCEPT 4 – UNIT OF MEASURE

Units of measure include:

- Percentage of households;
- Percentage of population.

CONCEPT 5 – REFERENCE PERIOD

The reference period for this survey refers to 3 months prior to the interview.

CONCEPT 6 – INSTITUTIONAL MANDATE

Sub-Concept 6.1: Legal acts and other agreements

[The Malta Statistics Authority Act, 2000.](#) The Act empowers the NSO to collect, compile, extract and release official statistics related to demographic, social, environment, economic and general activities, and conditions of Malta;

This data collection is being carried out under the [European Council Regulation \(EC\) No 808/2004.](#)

Sub-Concept 6.2: Data sharing

Data are only disseminated to Eurostat. When shared to third parties, data goes through several anonymisation processes. Other arrangements are made to share anonymized microdata to third parties accredited as researchers.

CONCEPT 7 – CONFIDENTIALITY

Sub-Concept 7.1: Confidentiality – Policy

At National level:

The NSO requests information for the compilation of official statistics according to the articles of the MSA Act – Cap. 422 and the Data Protection Act – Cap. 586 of the Laws of Malta implementing the General Data Protection Regulations (GDPR).

Article 40 of the MSA Act stipulates the restrictions on the use of information while Article 41 stipulates the prohibition of disclosure of information. Furthermore, Section IX of the Act (Offences and Penalties) lays down the measures to be taken in case of unlawful exercise of any officer of statistics regarding confidentiality of data.

Since its inception, the NSO has always assured that all data collected remains confidential and that it is used for statistical purposes only according to the articles and derogations stipulated in the laws quoted above. The Office is obliged to protect the identify of data providers and refrain from divulging any data to third parties that might lead to the identification of persons or entities.

During 2009, the NSO has set up a Statistical Disclosure Committee to ensure that statistical confidentiality is observed, especially when requests for microdata are received.

Upon employment, all NSO employees are informed of the rules and duties pertaining to confidential information and its treatment. In line with stipulations of the MSA Act, before commencing work, every employee is required to take an oath of secrecy whose text is included in the same Act.

An internal policy on anonymisation and pseudo-anonymisation is in place to ascertain that adequate methods are used for the protection of data which the office collects and shares with the public in its capacity as the National Statistics Office. The policy is meant to safeguard confidentiality of both personal and business data entrusted to the NSO. The document provides guidance for all NSO employees who process data on a daily basis as to how anonymisation and pseudo-anonymisation methods should be applied. The policy applies to all confidential, restricted and internal information, regardless of form (paper or electronic documents, applications and databases) that is received, processed, stored and disseminated by the NSO.

At European level:

[Regulation \(EC\) No 223/2009](#) on European statistics (recital 24 and Article 20(4) of 11 March 2009 (OJ L 87, p. 164), stipulates the need to establish common principles and guidelines ensuring the confidentiality of data used for the production of European statistics and the access to those confidential data with due account for technical developments and the requirements of users in a democratic society.

Sub-Concept 7.2: Confidentiality – Data Treatment

Data are released in aggregate form, and apart from issues related to confidentiality, cells based on few readings are not published due to quality considerations.

Microdata in anonymised form may be provided under strict conditions to a selected number of institutions or persons accredited as research entities or researchers respectively. Further information on access to anonymised microdata is available on the NSO website through:

<http://nso.gov.mt/en/Services/Microdata/Pages/Access-to-Microdata.aspx>.

CONCEPT 8 – RELEASE POLICY

Sub-Concept 8.1: Release Calendar

An advance release calendar is maintained by the NSO and published on the NSO website. The calendar projects three months of news releases (including the current and two subsequent months).

Sub-Concept 8.2: Release Calendar access

https://nso.gov.mt/en/News_Releases/Release_Calendar/Pages/News-Release-Calendar.aspx

Sub-Concept 8.3: User access

An internal policy on dissemination is in place to govern the dissemination of official statistics in an impartial, independent and timely manner, making them available simultaneously to all users.

The NSO's primary channel for the dissemination of official statistics is the NSO website. Tailored requests for statistical information may also be submitted through the NSO website.

Moreover, dedicated news releases are available in electronic format on the NSO website.

CONCEPT 9 – FREQUENCY OF DISSEMINATION

Yearly.

CONCEPT 10 – ACCESSIBILITY AND CLARITY

Sub-Concept 10.1: News release

News releases relating to the ICT Usage by Households survey may be accessed through:
https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_C2/Labour_Market_Statistics/Pages/Ict-Usage-by-households.aspx

Sub-Concept 10.2: Publications

No publications on ICT have been published at a national level.

Sub-Concept 10.3: Online Database

No information on ICT is included in the StatDB.

Sub-Concept 10.4: Micro-data access

Microdata in anonymised form may be provided under strict conditions to a selected number of institutions or persons accredited as research entities or researchers respectively. Further information on access to anonymised microdata is available on the NSO website through:
<http://nso.gov.mt/en/Services/Microdata/Pages/Access-to-Microdata.aspx>.

Sub-Concept 10.5: Other

Not applicable.

Sub-Concept 10.6: Documentation on methodology

The ICT usage by Households data are carried out as per [EC Regulation 808/2004](#) and [Implementing Regulation EC 2019/1901](#).

Work processes and procedures for the compilation of the ICT usage by Households statistics are documented in a standardised reporting template and aligned to the GSBPM model. The model covers all phases of the statistical production process, from the initial stages of identifying what statistics are needed and the scope of the particular survey, to the final stages of dissemination and

evaluation. The GSBPM report is only available internally and may be accessed by all NSO employees.

Sub-Concept 10.6.1: Metadata completeness rate

Information about all required metadata concepts (and sub-concepts thereof) are provided.

Sub-Concept 10.7: Quality Documentation

Dedicated SIMS reports are available to the public on the [NSO's metadata website including concepts related to metadata and quality](#).

The NSO has developed an internal Quality Management Framework (QMF) which is built on common requirements of the ESS Code of Practice (ESS CoP). A document was prepared to include a set of general quality guidelines spanning over all statistical domains. Assuring methodological soundness is an integral part of the QMF, nonetheless, the document spans also on other areas related to institutional aspects.

CONCEPT 11 – QUALITY MANAGEMENT

Sub-Concept 11.1: Quality Assurance

The Methodological Manual provides guidelines and standards for the implementation of the surveys in the Member States. It is updated every year according to the changed contents of the model questionnaires.

Further internal checks are carried out in order to certify the consistency of the data collected.

The NSO ensures the accuracy of data released to the public and prepares clear methodological notes which explain the processes involved in the collection and production of official statistics.

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Every five to seven years, the NSO participates in a Peer Review exercise through which the compliance of its operations with principles of the ESS CoP is assessed by an expert team. Peer Reviews are indeed part of the European Statistical System (ESS) strategy to implement the ESS CoP. Each NSI is expected to provide information as requested by a standard self-assessment questionnaire. Following this an expert team visits the office to meet NSI representatives and main stakeholders. Peer Reviews result in a compliance report and the listing of a set of Improvement Actions which need to be followed up by the NSI. The next round of Peer Reviews is planned to be carried out in 2022.

Sub-Concept 11.2: Quality Assessment

The [methodological manual supplied by Eurostat](#), as well as the model questionnaire, are constantly consulted and used, in order to ensure full conformity to Eurostat definitions.

All methods are documented in a quality report which is updated annually and sent to Eurostat.

Random audits are conducted by telephone to confirm that surveys were carried out correctly, and that interviewers follow the instructions given to them by the NSO during briefing sessions.

CONCEPT 12 - RELEVANCE

Sub-Concept 12.1: User needs

The main users of ICT-HH statistics are the following:

1. International organisations (such as UNESCO, OECD, EU,ITU);
2. Public Entities (such as Ministries and Authorities);
3. Private entities (Research Organisations, Unions, Businesses;)
4. The General Public.

ICT usage in Households statistics are mainly used for policy making, market research, dissertations and business making. For example, businesses aiming to launch an online marketing strategy would require information about the most popular products bought online.

Sub-Concept 12.2: User satisfaction

The last User Satisfaction Survey was held in 2014 with the aim to collect information about key users' satisfaction with statistical output.

The NSO keeps record of the number of News Releases and publications disseminated on its website; the users to whom statistical products are provided; as well as the number of requests that are processed every year.

News Releases and tailor-made statistical outputs were assessed on account of their quality, timeliness, and on their ability to meet users' needs.

Sub-Concept 12.3: Data Completeness

The data completeness rate stands at 100%.

CONCEPT 13 – ACCURACY AND RELIABILITY

Sub-Concept 13.1: Overall accuracy

Refer to concept 5.2 for more information regarding sampling errors associated with this survey.

Stratified random sampling is purposely used to ensure that the sample is uniformly distributed among different strata and to ensure that the population is accurately represented.

The sample data are subsequently weighted based on individual demographics (sex, age, and district). Since the survey has two statistical units (households and Individuals), separate weights are computed.

Refer to concept 5.4 for more information regarding non-sampling errors associated with this survey.

Sub-Concept 13.2: Sampling errors

The net sample size of this survey amounts to approximately 1,172 respondents, resulting in a margin of error of less than 5% on the main indicators (at 95% confidence interval) based on all respondents.

For reporting purposes, estimates with a percentage relative margin of error greater than 40% are normally omitted from the respective tables as these represent highly volatile and unreliable survey estimates. Other estimates with a relatively high but acceptable margin of error are flagged accordingly.

Sub-Concept 13.3: Non-sampling error

Every effort is made to reduce non-sampling errors such as the ones mentioned below, nevertheless a small element of these is inevitable:

- Interviewer bias;
- Recall bias;
- Data entry errors;
- Response error (differences in definitions, interpretation issues, etc.)

A certain degree of non-sampling errors is also associated with proxy interviews. In the ICT-HH survey the frequency of such errors amounts to less than 1% of cases.

Sub-Concept 13.3.1: Coverage error

The NSO makes regular updates to its household and individuals register which in turn is used as the sampling frame for this survey. The sample for the ICT HH 2020 survey was extracted from the population register with updates as at end 2019.

Sub-Concept 13.3.1.1: Over Coverage

The time lag between updates in the register and the point in time on which the sample is extracted results more in a degree of under-coverage rather than over-coverage.

Sub-Concept 13.3.1.2: Common Units Proportion

Not applicable.

Sub-Concept 13.3.2: Measurement error

Biases associated with measurement errors are deemed as minimal.

Sub-Concept 13.3.3: Non-response error

Not applicable.

Sub-Concept 13.3.3.1: Unit non-response

The unit non-response rate stood at 21.9%.

Sub-Concept 13.3.3.2: Item non-response

As the majority of surveys are carried out via telephone interviewing, the rate of item non-response is kept to a minimum. Although an exact figure is not available, this amounts to approximately 1% for each variable.

Sub-Concept 13.3.4: Processing error

The questionnaire used for ICT usage in household statistics requires little coding which is carried out by the unit's qualified statisticians. This practice significantly reduces the risk of coding errors,

Data entry errors may arise even though the application used for data entry contains verification checks to minimise the incidence of these errors.

Sub-Concept 13.3.5: Model assumption error

Not applicable.

CONCEPT 14 – TIMELINESS AND PUNCTUALITY

Sub-Concept 14.1: Timeliness

The questionnaire asks about events taking place up to 3 months prior to the date of the interview.

Sub-Concept 14.2: Punctuality

News releases are published on the NSO website at 11.00am. Although news releases have, in the past, been frequently published after 11.10am, these were always disseminated on the pre-established date.

CONCEPT 15 – COHERENCE AND COMPARABILITY

Sub-Concept 15.1: Comparability – Geographical

The model questionnaire used locally is the same one used by all the EU Member States. Minor differences may result from discrepancies in the survey-vehicle, in the treatment of non-response, and in the interviewing period.

Sub-Concept 15.2: Comparability – Over Time

The main benchmarking indicators for the digital agenda have been collected since 2005 and are consistently comparable over time.

Sub-Concept 15.3: Coherence – Cross Domain

Not applicable.

Sub-Concept 15.3.1: Coherence – Sub-Annual and Annual statistics

Not applicable.

Sub-Concept 15.3.2: Coherence – National Accounts

Not applicable.

Sub-Concept 15.4: Coherence – Internal

Not applicable.

CONCEPT 16 – COST AND BURDEN

To ensure high quality data, collection takes place via telephone interviewing. High human and financial resources are invested in order to ensure that data of the highest quality standards is collected for this survey. This survey is partially financed via a Eurostat Grant which generally covers about 70% of the total costs incurred.

In general, ICT questionnaires cannot exceed a total of 65 questions. This threshold is set to limit the burden on respondents as much as possible.

CONCEPT 17 – DATA REVISION

Sub-Concept 17.1: Data revision – Policy

At the NSO, there is currently no internal policy governing revisions that occur for all statistics produced. Nonetheless, a revisions policy is being drafted to safeguard a coordinated revisions system across statistical domains.

This policy will take account of the need and causes for revisions; time and frequency of revisions; data and other statistical products affected by such revisions; and length of periods revised.

Sub-Concept 17.2: Data revision – Practice and Data Revision

Any revisions to the data would be described in detail in the methodological sheet accompanying news releases.

CONCEPT 18 – STATISTICAL PROCESSING

Sub-Concept 18.1: Source data

Data are collected through the means of a survey. [Regulation EC No. 808/2004](#) provides a framework for the annual implementation of ICT surveys. Furthermore, annual implementing regulations define the survey content year on year. The calculation of sample sizes is based on precision requirements needed to receive estimates of sufficient quality and within reasonable budgetary constraints.

Sub-Concept 18.2: Frequency of data collection

Annual.

Sub-Concept 18.3: Data Collection

The adopted interviewing process is as follows:

1. In the first instance, selected individuals are notified by post and invited to cooperate in the study. Respondents are informed that participation is enforced by the Malta Statistics Authority 2000 Act. Respondents are assured that the data provided remains confidential.
2. Interviewers are briefed to carry out only telephone interviewing, in view of the local pandemic.
3. Interviewers contact respondents by phone to arrange a time for the interview at the respondents' convenience.
4. Office staff intervene in particularly difficult cases, especially when faced with extremely non-cooperative respondents.

Sub-Concept 18.4: Data Validation

Data are checked for consistency through a cross-checking exercise against different variables within the survey. In some cases, for example, it is noted that a person provided a personal email address but claimed that s/he does not use the computer/internet. This type of case would raise a flag to be investigated. Such an instance may arise due to two mistakes: either because of an inputting error or the data not being correctly recorded. To clarify the ambiguity, raw data are accessed and if this is not enough, respondents are contacted once again. Every year, some cross-checking tests may become obsolete and are thus replaced by new ones which emerge due to year to year changes in the questionnaire itself.

The office also makes use of a validation programme supplied by Eurostat as well as a data inputting programme with in-built validations to limit the occurrence of errors.

Sub-Concept 18.5: Data Compilation

Not applicable.

Sub-Concept 18.5.1: Imputation

All item non-response is imputed. The imputation rate does not exceed 1% per variable.

Sub-Concept 18.6: Adjustment

Not applicable.

Sub-Concept 18.6.1: Seasonal Adjustment

Not applicable.

CONCEPT 19 - COMMENTS

No further comments.