



**THE STATE STATISTICAL COMMITTEE
OF THE REPUBLIC OF AZERBAIJAN**

**SINGLE INTEGRATED METADATA STRUCTURE V 2.0 (SIMS V2.0)
AND ITS UNDERLYING REPORTING STRUCTURES THE ESS
QUALITY AND REFERENCE METADATA REPORTING STANDARDS
ESMS 2.0 AND ESQRS 2.0**

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Introduction

Taking into account these requirements facing the statistical system, statistical organizations worldwide have proposed the idea of creating interactively used metadata. Metadata is defined as data about data; meaning that metadata provides a clearer explanation to the user of all processes, from the collection of raw data for the produced statistical product to the dissemination of the final statistical output. In recent years, the implementation of metadata has become a necessity, whereby metadata should be viewed as an integral part of the statistical product, and its types, standards, structure, etc., must be defined. For this purpose, it would be appropriate for each national statistical organization to utilize modern technology-driven international metadata standards, while considering the country's national characteristics. Various standards are utilized in global practice in this field. Examples of these standards include Dublin Core (ISO 15836), DDI, SDMX (ISO/TS 17369), and others.

The State Statistical Committee of the Republic of Azerbaijan (hereinafter referred to as the Committee), as the body responsible for the production of official statistics, attaches great importance to making its produced indicators more understandable for users. This, in turn, has made the establishment of a metadata system a necessity. For this purpose, the Committee began developing a metadata system in 2010, which encompasses metadata for both statistical report forms and statistical indicators. Two international standards were utilized in the design of the system: the DCMI (Dublin Core Metadata Initiative) and SDMX (Statistical Data and Metadata eXchange) standards. Out of 1,709 metadata entries for statistical indicators, 341 were structured in SDMX format, while 1,368 were written in DCMI structure. Concurrently, 247 metadata entries for statistical reports were developed based on the DCMI standard, and quality reports for indicators were also prepared in accordance with the ESQRS (ESS Standard for Quality Reports Structure) standard.

In terms of the scope of information resources utilized in the internet environment, the "Dublin Core" (DCMI) (<http://dublincore.org/>) metadata standard is considered the most widely used universal metadata system in the world. This standard has been implemented since 2000 and is primarily presented in two versions. The first of these is the simple (short) version consisting of 15 elements, while the other is the qualified (extended) version consisting of 18 elements. Currently, the Committee utilizes the simple version of this standard. The "Requirements for the creation and management of internet information resources of state bodies," approved by Decision No. 189 of the Cabinet of Ministers of the Republic of Azerbaijan dated September 4, 2012, has further accelerated this process. This standard facilitates low-cost access to global information network resources for both producers and users of statistical data. The "Dublin Core" metadata standard is also utilized in creating metadata catalogs and registering existing data sources..

Furthermore, the "Statistical Data and Metadata eXchange" (SDMX) standard is gaining prominence in international practice for the exchange of both statistical data and metadata. The initiative to create the SDMX standard was launched in 2001 by several international organizations (UN, Eurostat, IMF, OECD, World Bank, etc.). In February 2008, the United Nations Statistical Commission recognized the SDMX standard. This standard utilizes the highly efficient XML (eXtensible Markup Language) format for describing and exchanging metadata. Metadata disseminated based on the SDMX standard can be integrated by any country into its own metadata system, and international organizations also gain a unified access point to country data. This technical standard merges data and metadata from various producers within the national statistical service and ensures their seamless integration into the systems of international organizations. The core principle of the SDMX initiative is its transparency and the opportunity for representatives from all countries to participate in this process. The SDMX standard is registered by the International Organization for Standardization under the number ISO/TS 17369. To facilitate the implementation of the standard, the European Statistical System

has developed uniform structures for metadata and recommended them to the national statistical institutes of all countries.

Initially, the Euro-SDMX Metadata Structure (ESMS) (<http://ec.europa.eu/eurostat/documents/10186/6203776/ESMS-Structure-rev122014.xlsx/967ba715-b5cb-4f6e-9a7d-b205cc867d65>) was developed in accordance with Recommendation No. 2009/498 of the European Statistical System dated June 23, 2009. In 2010, the European Statistical System recommended the ESS Standard for Quality Reports Structure (ESQRS) (<http://ec.europa.eu/eurostat/documents/10186/6203776/ESQRS-Structure-rev-122014.xlsx/8a1b2d61-ebff-45ae-ad16-f191ffb00ec2>).

Beginning in 2014, the State Statistical Committee developed quality reports on statistical products and processes based on this structure. It should be noted that currently, all quality reports are prepared on the basis of the 'Standard and Recommendations for Quality Assessment Reports', which is the national version of the Eurostat-recommended 'ESS Standard for Quality Reports (2009)'. In total, during the period of 2013–2016, quality reports for 76 statistical products and processes were prepared (52 of which are in XLS format) and posted on the official website of the Committee. Since this standard was developed in alignment with the ESMS structure, there are many consistencies across various areas.

In order to implement the European Statistical System's metadata structure within the Committee, the 'Methodological Recommendations on Data Entry into the Euro-SDMX Metadata Structure' were developed pursuant to the board decision of the State Statistical Committee No. 1/2 dated January 16, 2013. These recommendations were subsequently improved in accordance with board decision No. 26/3 dated December 30, 2015. Following the continuation of this enhancement process, a new structure for quality reports and metadata based on the Single Integrated Metadata Structure (SIMS V2.0), ESQRS V2.0, and ESMS V2.0 was developed under board decision No. 4/1 dated March 30, 2016.

The Single Integrated Metadata Structure (SIMS) is a dynamic and unified list of concepts used for preparing quality reports and metadata within the European Statistical System. This structure was developed in 2012–2013 through the collaboration of relevant working groups operating in this field within the European Statistical System. Its newly revised second version (SIMS V2.0), along with its underlying ESMS 2.0 and ESQRS 2.0, was approved by the European Statistical System Committee in November 2015.

SIMS is designed to facilitate and harmonize the preparation of metadata and quality reports. As a framework enabling each concept or sub-concept to be disseminated once and reused for various purposes (i.e., preparing both user-oriented and producer-oriented metadata and quality reports), it aims to reduce the reporting burden on statistical authorities, store reports in a single database, and allow for expansion, meaning the addition of concepts or sub-concepts if required.

The second version of the Euro-SDMX Metadata Structure (ESMS 2.0) consists of 19 concepts and 56 sub-concepts, while the second version of the ESS Standard for Quality Reports Structure (ESQRS 2.0) comprises 12 concepts and 72 sub-concepts. The Single Integrated Metadata Structure (SIMS 2.0) combines 19 concepts and 80 sub-concepts.

Single Integrated Metadata Structure (SIMS 2.0)

Item	Concept Name	Concept Code	Descriptions
S.1	Contact	CONTACT	Individual or organisational contact points for the data or metadata, including information on how to reach the contact points.
S.1.1	Contact organisation	CONTACT_ORGANISATION	The full name of the organisation
S.1.2	Contact organisation unit	ORGANISATION_UNIT	The full name of the organisational unit responsible (the name can include a unit number).
S.1.3	Contact name	CONTACT_NAME	The names of the contact points for the data or metadata.
S.1.4	Contact person function	CONTACT_FUNCT	The area of technical responsibility of the contact, such as "methodology", "database management" or "dissemination".
S.1.5	Contact mail address	CONTACT_MAIL	The postal address of the contact points for the data or metadata.
S.1.6	Contact email address	CONTACT_EMAIL	E-mail address of the contact points for the data or metadata.
S.1.7	Contact phone number	CONTACT_PHONE	The telephone number of the contact points for the data or metadata.
S.1.8	Contact fax number	CONTACT_FAX	Fax number of the contact points for the data or metadata.
S.2	Metadata update	META_UPDATE	The date on which the metadata element was inserted or modified in the database.
S.2.1	Metadata last certified	META_CERTIFIED	Date of the latest certification provided by the domain manager to confirm that the metadata posted are still up-to-date, even if the content has not been amended.

S.2.2	Metadata last posted	META_POSTED	Date of the latest dissemination of the metadata.
S.2.3	Metadata last update	META_LAST_UPDATE	Date of last update of the content of the metadata.
S.3	Statistical presentation	STAT_PRES	
S.3.1	Data description	DATA_DESCR	A concise description of the main features of the dataset that are relevant to the data and indicators being disseminated. This brief description should be immediately and easily understood by users..
S.3.2	Classification system	CLASS_SYSTEM	Arrangement or division of objects into groups based on characteristics which the objects have in common. A listing of all classifications (with detailed names) used for the data set.
S.3.3	Sector coverage	COVERAGE_SECTOR	Main economic or other sectors covered by the statistics. An indication of the main economic or other sectors covered by the data set.
S.3.4	Statistical concepts and definitions	STAT_CONC_DEF	The definitions and types of indicators should be listed, and any information on divergences from international standards should also be provided if available.
S.3.5	Statistical unit	STAT_UNIT	Entity for which information is sought and for which statistics are ultimately compiled. The main statistical units of the observation should be listed. These observation units (e.g., enterprise, local unit, private household, etc.) may differ from the reporting units used as the basis for the statistical observation.
S.3.6	Statistical population	STAT_POP	Define the target population of statistical units for which information is sought. The difference between the target population and the ideal

			population desired by users is a relevance issue and is discussed in S.12; and the difference between target population and the survey population is a coverage issue and is discussed in S13.3If there is more than one type of statistical population, define each type.
S.3.7	Reference area	REF_AREA	The country or geographic area to which the measured statistical phenomenon relates.
S.3.8	Time coverage	COVERAGE_TIME	The length of time for which data are available. State the time period(s) covered by the data (e.g. selected annual data from 1985 to 2006).
S.3.9	Base period	BASE_PER	The period of time used as the base of an index number, or to which a constant series refers. Note that this concept applies only to certain types of outputs, such as indexes. State the base period, for example, year 2000. Indicate base period update time frame and date of next update.
S.4	Unit of measure	UNIT_MEASURE	The unit in which the data values are measured. The data usually involves several units of measure depending upon the variables. Examples are: Euro, national currency, number of persons, and rate per 100,000 inhabitants. The magnitude (e.g., thousand, million) of numerical units should be included.
S.5	Reference period	REF_PERIOD	The period of time or point in time to which the measured observation is intended to refer. The value of a variable refers to a specific time period (for example, a month, a fiscal year, a calendar year, or several calendar years), The variables in a dataset may refer to more than one reference period. All reference periods

			should be stated. Difference, if any, between the target reference period(s) and the actual reference period(s) is an accuracy issue and should be discussed in S.13.3. If the survey population does not include all the units in the target population for the specified reference period, this is a coverage issue and should be discussed in S.13.3.
S.6	Institutional mandate	INST_MANDATE	Law, set of rules or other formal set of instructions assigning responsibility as well as the authority to an organisation for the collection, processing, and dissemination of statistics.
S.6.1	Legal acts and other agreements	INST_MAN_LA_OA	Legal acts or other formal or informal agreements that assign responsibility as well as the authority to an agency for the collection, processing, and dissemination of statistics.
S.6.2	Data sharing	INST_MAN_SHAR	Arrangements or procedures for data sharing and coordination between data producing agencies. Describe the arrangements, procedures or agreements related to data sharing and exchange between data producing agencies within the national statistical system. Agreements on data sharing and exchange between international organizations producing data should be described (e.g. Eurostat, OECD, UN, etc.).
S.7	Confidentiality	CONF	A property of data indicating the extent to which their unauthorised disclosure could be prejudicial or harmful to the interest of the source or other relevant parties. The legislation (or other formal regulation) applied to statistical confidentiality for the dataset in question must be described, as well as the processing of current

			confidential data (including aggregated data for dissemination).
S.7.1	Confidentiality - policy	CONF_POLICY	Legislative measures or other formal procedures which prevent unauthorised disclosure of data that identify a person or economic entity either directly or indirectly.
S.7.2	Confidentiality - data treatment	CONF_DATA_TR	Rules applied for treating the datasets to ensure statistical confidentiality and prevent unauthorised disclosure. Rules applied to the processing of the dataset to ensure statistical confidentiality must be described (e.g., controlled rounding, cell suppression, aggregation of disseminated information, aggregation rules for confidential aggregated data, basic confidentiality associated with individual data values, etc.
S.8	Release policy	REL_POLICY	Rules for disseminating statistical data to all interested parties. The dissemination policy for official statistical data covers the following areas: presentation (formats for presenting statistical data); high-quality dissemination of statistical data; user relations; and regional policy. The effectiveness of the statistical data dissemination policy depends on both the timeliness of the produced statistical data and the extent to which these data reflect reality and their accuracy.
S.8.1	Release calendar	REL_CAL_POLICY	The schedule of statistical release dates. State whether there is a release calendar for the statistical outputs from the process being reported, and if so, whether this calendar is publicly accessible.
S.8.2	Release calendar access	REL_CAL_ACCESS	Access to the release calendar information. Providing a link or

			reference to the release calendar.
S.8.3	User access	REL_POL_US_AC	Description of the data dissemination policy to users. This includes information on the scope of dissemination (e.g., to the public, to selected users), how users are informed about the data dissemination, and whether the policy provides for the simultaneous release of statistical data to all users.
S.9	Frequency of dissemination	FREQ_DISS	The time interval at which the statistics are disseminated over a given time period. State the frequency with which the data are disseminated, e.g. monthly, quarterly, yearly.
S.10	Accessibility and clarity	ACCESSIBILITY_CLARITY	Description of the mass media used as a dissemination vehicle for statistical data and metadata. Description of the various dissemination channels used to deliver the dataset to users (including the various available dissemination formats and access to them).
S.10.1	News release	NEWS_REL	Regular and ad-hoc press releases associated with the data. Description of regular and ad-hoc press releases associated with the dataset in question.
S.10.2	Publications	PUBLICATIONS	Regular and ad-hoc publications making the data available to the public. Brief description of publications reflecting the dataset in question.
S.10.3	On-line database	ONLINE_DB	Information about on-line databases in which the disseminated data can be accessed. Provide the domain name and link to the on-line database (if any). Provide number of accesses to on-line databases.
S.10.3.1	AC1. Data tables -	DATATABLE_CONSULT	Number of consultations of data

	<i>consultations</i>		tables within a statistical domain for a given time period displayed in a graph.
S.10.4	Micro-data access	MICRO_DAT_ACC	Information on whether micro-data are also disseminated. Description of how access to the dataset as micro-data is provided, if available (e.g., for researchers). A brief description of the anonymisation rules for micro-data should also be provided.
S.10.5	Other	DISS_OTHER	References to the most important other data dissemination done. Description of the most important other means of information dissemination (e.g., in other publications, policy documents)
S.10.5.1	<i>AC 2. Metadata - consultations</i>	METADATA_CONSULT	Number of metadata consultations within a statistical domain for a given time period.
S.10.6	Documentation on methodology	DOC_METHOD	Descriptive text and references to methodological documents available. List national reference metadata files, methodological papers, summary documents and handbooks relevant to the statistical process.
S.10.6.1	<i>AC 3. Metadata completeness - rate</i>	METADATA_COMPLETE	The ratio of the number of metadata elements provided to the total number of metadata elements applicable.
S.10.7	Quality documentation	QUALITY_DOC	Documentation on procedures applied for quality management and quality assessment. List relevant quality related documents, for example, other quality reports, studies.
S.11	Quality management	QUALITY_MGMNT	Systems and frameworks in place within an organisation to manage the quality of statistical products and processes. Brief description of the quality management system used in the structural unit

			(EFQM, ISO, etc.).
S.11.1	Quality assurance	QUALITY_ASSURE	All systematic activities implemented that can be demonstrated to provide confidence that the processes will fulfil the requirements for the statistical output. Describe the procedures (such as use of a general quality management system based on EFQM or ISO 9000 series) to promote general quality management principles in the organisation. Describe the quality assurance framework used to implement statistical quality principles. Describe the quality assurance procedures specifically applied to the statistical process for which the report is being prepared, for example training courses, benchmarking, assessments, and use of best practices. Include descriptions of all forms of quality assessment procedures (self-assessment, peer review, compliance monitoring, audit) and when they most recently took place. Describe any ongoing or planned improvements in quality assurance procedures.
S.11.2	Quality assessment	QUALITY_ASSMNT	Overall assessment of data quality, based on standard quality criteria. Ensuring the overall quality of statistical products by concluding on the key quality strengths and possible quality deficiencies. Any trade-offs between quality aspects, as well as planned quality improvements, may be mentioned. Main reference: “National Quality Assurance Framework for the Official Statistics System of the Republic of Azerbaijan” (2013).
S.12	Relevance	RELEVANCE	The degree to which statistical information meet current and

			potential needs of the users. This depends on whether all required statistics are produced and the extent to which the concepts used (definitions, classifications, etc.) reflect user needs.
S.12.1	User needs	USER_NEEDS	Description of users and their respective needs with respect to the statistical data. Indication of the user classification and their degree of importance, the purposes for which they require statistical products, as well as the users and purposes receiving special attention. Mention of unmet needs and the reasons for them.
S.12.2	User satisfaction	USER_SAT	Measures to determine user satisfaction. Description of the methodology for collecting user opinions and feedback. Indication of the main results regarding user satisfaction (the user satisfaction index, if available) and the date of the most recent user satisfaction survey.
S.12.3	Completeness and R1. Data completeness - rate for U	COMPLETENESS	The degree of availability of the required statistical products. Provision of information on completeness in comparison with the relevant regulations.
S.12.3.1	<i>R1. Data completeness - rate for P</i>	COMPLETENESS_RATE	The ratio of the number of data cells provided to the number of data cells required by a regulation /guideline.
S.13	Accuracy and reliability	ACCURACY	Accuracy of data is the closeness of computations or estimates to the exact or true values that the statistics were intended to measure. Reliability of the data, defined as the closeness of the initial estimated value to the subsequent estimated value.
S.13.1	Overall accuracy	ACCURACY_OVERALL	Assessment of accuracy, linked to a certain data set or domain,

			which is summarising the various components. An overview of the main sources of errors must be provided, along with a quantitative and qualitative assessment of the potential bias (magnitude and significance) for each key indicator.
S.13.2	Sampling error and A1. Sampling error - indicators for U	SAMPLING_ERR	That part of the difference between a population value and an estimate thereof, derived from a random sample, which is due to the fact that only a subset of the population is enumerated. For A1: Measures of the random variation of an estimator due to sampling, at a level of detail appropriate for user reports.
S.13.2.1	A1. Sampling error - indicators for P	SAMPLING_ERR_IND	Assessment of deviations to determine the accuracy of indicators for the selected sample.
S.13.3	Non-sampling error and A4. Unit non-response - rate for U and A5. Item non-response - rate for U	NONSAMPLING_ERR	Error in survey estimates which cannot be attributed to sampling fluctuations. Summarise the most important aspects of coverage, measurement, non-response, processing and model assumption errors. Discuss the corresponding bias risks and actions undertaken to reduce them.
S.13.3.1	Coverage error	COVERAGRE_ERR	Divergence between the frame population and the target population. Provide information on the frame and its sources. Provide an assessment, whenever possible quantitative, of overcoverage and undercoverage, including an evaluation of the bias risks associated with the latter. Describe actions taken for reduction of undercoverage and associated bias risks.

S.13.3.1.1	A2. Over-coverage - rate	OVERCOVERAGE_RATE	The proportion of units accessible via the frame that do not belong to the target population.
S.13.3.1.2	A3. Common units - proportion	COMMON_UNIT_SHARE	The proportion of units covered by both the survey and the administrative sources in relation to the total number of units in the survey.
S.13.3.2	Measurement error	MEASUREMENT_ERR	Errors during data computation, interpretation and redaction.
S.13.3.3	Non response error	NONRESPONSE_ERR	The ratio of non-responsive but redacted data to the total volume of data.
S.13.3.3.1	A4. Unit non-response - rate for P	UNIT_NONRESPONSE_RATE	The ratio of the number of units with no information or not usable information to the total number of in-scope (eligible) units, at a level of detail appropriate for a producer report.
S.13.3.3.2	A5. Item non-response - rate for P	ITEM_NONRESPONSE_RATE	The ratio of the in-scope (eligible) units which have not responded to a particular item and the in-scope units that are required to respond to that particular item, at a level of detail appropriate for a producer report.
S.13.3.4	Processing error	PROCESSING_ERR	The error in final data collection process results arising from the faulty implementation of correctly planned implementation methods.
S.13.3.5	Model assumption error	MODEL_ASSUMP_ERR	Error due to domain specific models needed to define the target of estimation.
S.14	Timeliness and punctuality	TIMELINESS_PUNCT	Timeliness refers to the speed of dissemination of statistical products, representing the time lag between the occurrence of an event and its availability. The main objective is to release data with the established frequency and on schedule.
S.14.1	Timeliness and TP2. Time lag - final results	TIMELINESS	The length of time between the availability of statistical products and the phenomena they

	for U		describe. For annual or shorter-periodicity publications, providing the average production time for each released dataset.
S.14.1.1	<i>TP1. Time lag - first results for P</i>	TIMELAG_FIRST	The number of days from the last day of the reference period to the day of publication of first results, at producer report level of detail.
S.14.1.2	<i>TP2. Time lag - final results for P</i>	TIMELAG_FINAL	The number of days from the last day of the reference period to the day of publication of complete and final results.
S.14.2	Punctuality and TP3. Punctuality - delivery and publication for U	PUNCTUALITY	Time lag between the actual delivery of the data and the target date when it should have been delivered. For annual or shorter-periodicity publications, providing: -the percentage of releases disseminated on time based on the scheduled publication dates; -an explanation of the reasons for any publication delays.
S.14.2.1	<i>TP3. Punctuality - delivery and publication for P</i>	PUNCTUALITY_RELEASE	Number of days between the planned and actual release dates.
S.15	Coherence and comparability		Adequacy of statistics to be reliably combined in different ways and for various uses and the extent to which differences between statistics can be attributed to differences between the true values of the statistical characteristics.
S.15.1	Comparability - geographical	COMPAR_GEO	The extent to which statistics are comparable between geographical areas. Describe any problems of comparability between regions of the country. The reasons for the problems should be described and as well an assessment (preferably quantitative) of the possible effect on the output values. Give information on discrepancies from the ESS/ international concepts.

S.15.1.1	CC1. Asymmetry for mirror flows statistics - coefficient	ASYMMETRY_COEFF	The difference or the absolute difference of inbound and outbound flows between a pair of countries divided by the average of these two values.
S.15.2	Comparability - over time and CC2. Length of comparable time series for U	COMPAR_TIM	The extent to which statistics are comparable or reconcilable over time. Provision of information regarding the length of comparable time series, reporting periods experiencing series breaks, the underlying causes of these breaks, and the methods used for their treatment.
S.15.2.1	CC2. Length of comparable time series for P	COMPAR_LENGTH	The number of reference periods in time series from last break.
S.15.3	Coherence- cross domain	COHER_X_DOM	The extent to which statistics are reconcilable with those obtained through other data sources or statistical domains. Explanation of the differences between the statistical products concerned and other related statistical products, along with an assessment of the significance of the impact of these differences.
S.15.3.1	Coherence - sub annual and annual statistics	COHER_FREQSTAT	The extent to which statistics of different frequencies are reconcilable.
S.15.3.2	Coherence- National Accounts	COHER_NATAccounts	The extent to which statistics are reconcilable with National Accounts.
S.15.4	Coherence - internal	COHER_INTERNAL	The extent to which statistics are consistent within a given data set. Explanation of data incoherence within the statistical dataset concerned, and the justification for the dissemination of such results.
S.16	Cost and burden	COST_BURDEN	Cost is linked to the collection and production of the statistical product, whereas burden is associated with respondents. A

			brief overview of statistical production costs and response burden (overall time investment). Furthermore, targets and actions regarding burden reduction should be provided.
S.17	Data revision	DATA_REV	Any change in a value of a statistic released to the public.
S.17.1	Data revision - policy	REV_POLICY	Policy aimed at ensuring the transparency of disseminated data, whereby preliminary data are compiled that are later revised. Description of the general data revision policy adopted by the organization and applied to the released data.
S.17.2	Data revision - practice and A6. Data revision - average size for U	REV_PRACTICE	Information on the data revision practice. Describing major planned revisions and their expected average magnitude. If necessary, minor revisions should also be described.
S.17.2.1	A6. Data revision - average size for P	DATA_REV_AVGSIZE	The average over a time period of the revisions of a key item, for producer report. 'Revision' is defined as the difference between the subsequent and initial estimates of the key indicators.
S.18	Statistical processing	STAT_PROCESS	
S.18.1	Source data	SOURCE_TYPE	Characteristics and components of the raw statistical data used for compiling statistical aggregates. Specifying whether the dataset relies on surveys or administrative data sources. In the case of sample surveys, sampling characteristics should be stated (e.g., gross and net sample sizes, sample design, reporting area, etc.). If administrative registers are utilized, a description of the registers must be provided (source, reference year, primary purpose, potential limitations,

			etc.).
S.18.2	Frequency of data collection	FREQ_COLL	Frequency with which the source data are collected. Indicate the frequency of data collection (e.g. monthly, quarterly, annually, or continuous).
S.18.3	Data collection	COLL_METHOD	Systematic process of gathering data for official statistics. The data collection mode from respondents (e.g., mail survey, Computer-Assisted Personal Interviewing (CAPI), web-based survey, etc.) should be described. This section must include questionnaire design and testing, interviewer training, and methods used for monitoring non-response.
S.18.4	Data validation	DATA_VALIDATION	Process of monitoring the results of data compilation and ensuring the quality of statistical results. Procedures for validation and control of source data, along with the monitoring and application of these control outcomes, should be described.
S.18.5	Data compilation	DATA_COMP	Operations performed on data to derive new information according to a given set of rules. The data compilation process should be described (e.g., data editing, imputation, weighting, non-response validation and adjustment, and the models

			applied, etc.).
S.18.5.1	A7. Imputation - rate	IMPUTATION_RATE	The ratio of the number of replaced values to the total number of values for a given variable.
S.18.6	Adjustment	ADJUSTMENT	The set of procedures employed to modify statistical data to enable it to conform to national or international standards or to address data quality differences when compiling specific data sets. Statistical procedures used for data adjustment (seasonal adjustment methods, time series decomposition, or other similar methods). Main reference: Methodological manual on 'Conducting Seasonal Adjustments and Using Demetra Software' and the methodological concept of the current process for the Business Statistics Management System, approved by Decision No. 30/14 of the State Statistical Committee of the Republic of Azerbaijan dated July 25, 2011.
S.18.6.1	Seasonal adjustment	SEASONAL_ADJ	The statistical technique used to remove the effects of seasonal calendar influences operating on a series.
19	Comment	COMMENT_DSET	Supplementary descriptive text which can be attached to data or metadata.

Euro-SDMX Metadata Structure (ESMS 2.0)

Item	Concept Name	Concept Code	Descriptions
1	Contact	CONTACT	Individual or organisational contact points for the data or metadata, including information on how to reach the contact points.
1.1	Contact organisation	CONTACT_ORGANISATION	The full name of the organisation
1.2	Contact organisation unit	ORGANISATION_UNIT	The full name of the organisational unit responsible (the name can include a unit number).
1.3	Contact name	CONTACT_NAME	The names of the contact points for the data or metadata.
1.4	Contact person function	CONTACT_FUNCT	The area of technical responsibility of the contact, such as "methodology", "database management" or "dissemination".
1.5	Contact mail address	CONTACT_MAIL	The postal address of the contact points for the data or metadata.
1.6	Contact email address	CONTACT_EMAIL	E-mail address of the contact points for the data or metadata.
1.7	Contact phone number	CONTACT_PHONE	The telephone number of the contact points for the data or metadata.
1.8	Contact fax number	CONTACT_FAX	Fax number of the contact points for the data or metadata.
2	Metadata update	META_UPDATE	The date on which the metadata element was inserted or modified in the database.
2.1	Metadata last certified	META_CERTIFIED	Date of the latest certification provided by the domain manager to confirm that the metadata posted are still up-to-date, even if the content has not been amended.
2.2	Metadata last posted	META_POSTED	Date of the latest dissemination of the metadata.
2.3	Metadata last	META_LAST_UPDATE	Date of last update of the content of the

Item	Concept Name	Concept Code	Descriptions
	update		metadata.
3	Statistical presentation	STAT_PRES	
3.1	Data description	DATA_DESCR	A concise description of the main features of the dataset that are relevant to the data and indicators being disseminated. This brief description should be immediately and easily understood by users.
3.2	Classification system	CLASS_SYSTEM	Arrangement or division of objects into groups based on characteristics which the objects have in common. A listing of all classifications (with detailed names) used for the data set.
3.3	Sector coverage	COVERAGE_SECTOR	Main economic or other sectors covered by the statistics. An indication of the main economic or other sectors covered by the data set.
3.4	Statistical concepts and definitions	STAT_CONC_DEF	The definitions and types of indicators should be listed, and any information on divergences from international standards should also be provided if available.
3.5	Statistical unit	STAT_UNIT	Entity for which information is sought and for which statistics are ultimately compiled. The main statistical units of the observation should be listed. These observation units (e.g., enterprise, local unit, private household, etc.) may differ from the reporting units used as the basis for the statistical observation.
3.6	Statistical population	STAT_POP	Define the target population of statistical units for which information is sought. The difference between the target population and the ideal population desired by users is a relevance issue and is discussed in S.12; and the difference between target population and the survey population is a coverage issue and is discussed in S13.3 If there is more than one type of statistical population, define each type.

Item	Concept Name	Concept Code	Descriptions
3.7	Reference area	REF_AREA	The country or geographic area to which the measured statistical phenomenon relates.
3.8	Time coverage	COVERAGE_TIME	The length of time for which data are available. State the time period(s) covered by the data (e.g. selected annual data from 1985 to 2006).
3.9	Base period	BASE_PER	The period of time used as the base of an index number, or to which a constant series refers. Note that this concept applies only to certain types of outputs, such as indexes. State the base period, for example, year 2000. Indicate base period update time frame and date of next update.
4	Unit of measure	UNIT_MEASURE	The unit in which the data values are measured. The data usually involves several units of measure depending upon the variables. Examples are: Euro, national currency, number of persons, and rate per 100,000 inhabitants. The magnitude (e.g., thousand, million) of numerical units should be included.
5	Reference period	REF_PERIOD	The period of time or point in time to which the measured observation is intended to refer. The value of a variable refers to a specific time period (for example, a month, a fiscal year, a calendar year, or several calendar years), The variables in a dataset may refer to more than one reference period. All reference periods should be stated. Difference, if any, between the target reference period(s) and the actual reference period(s) is an accuracy issue and should be discussed in S.13.3. If the survey population does not include all the units in the target population for the specified reference period, this is a coverage issue and should be discussed in

Item	Concept Name	Concept Code	Descriptions
			S.13.3.
6	Institutional mandate	INST_MANDATE	Law, set of rules or other formal set of instructions assigning responsibility as well as the authority to an organisation for the collection, processing, and dissemination of statistics.
6.1	Legal acts and other agreements	INST_MAN_LA_OA	Legal acts or other formal or informal agreements that assign responsibility as well as the authority to an agency for the collection, processing, and dissemination of statistics.
6.2	Data sharing	INST_MAN_SHAR	Arrangements or procedures for data sharing and coordination between data producing agencies. Describe the arrangements, procedures or agreements related to data sharing and exchange between data producing agencies within the national statistical system. Agreements on data sharing and exchange between international organizations producing data should be described (e.g. Eurostat, OECD, UN, etc.).
7	Confidentiality	CONF	A property of data indicating the extent to which their unauthorised disclosure could be prejudicial or harmful to the interest of the source or other relevant parties. The legislation (or other formal regulation) applied to statistical confidentiality for the dataset in question must be described, as well as the processing of current confidential data (including aggregated data for dissemination).
7.1	Confidentiality - policy	CONF_POLICY	Legislative measures or other formal procedures which prevent unauthorised disclosure of data that identify a person or economic entity either directly or indirectly.

Item	Concept Name	Concept Code	Descriptions
7.2	Confidentiality - data treatment	CONF_DATA_TR	Rules applied for treating the datasets to ensure statistical confidentiality and prevent unauthorised disclosure. Rules applied to the processing of the dataset to ensure statistical confidentiality must be described (e.g., controlled rounding, cell suppression, aggregation of disseminated information, aggregation rules for confidential aggregated data, basic confidentiality associated with individual data values, etc.
8	Release policy	REL_POLICY	Rules for disseminating statistical data to all interested parties. The dissemination policy for official statistical data covers the following areas: presentation (formats for presenting statistical data); high-quality dissemination of statistical data; user relations; and regional policy. The effectiveness of the statistical data dissemination policy depends on both the timeliness of the produced statistical data and the extent to which these data reflect reality and their accuracy.
8.1	Release calendar	REL_CAL_POLICY	The schedule of statistical release dates. State whether there is a release calendar for the statistical outputs from the process being reported, and if so, whether this calendar is publicly accessible.
8.2	Release calendar access	REL_CAL_ACCESS	Access to the release calendar information. Providing a link or reference to the release calendar.
8.3	User access	REL_POL_US_AC	Description of the data dissemination policy to users. This includes information on the scope of dissemination (e.g., to the public, to selected users), how users are informed about the data dissemination, and whether the policy provides for the simultaneous release of statistical data to all users.

Item	Concept Name	Concept Code	Descriptions
9	Frequency of dissemination	FREQ_DISS	The time interval at which the statistics are disseminated over a given time period. State the frequency with which the data are disseminated, e.g. monthly, quarterly, yearly.
10	Accessibility and clarity	ACCESSIBILITY_CLARITY	Description of the mass media used as a dissemination vehicle for statistical data and metadata. Description of the various dissemination channels used to deliver the dataset to users (including the various available dissemination formats and access to them).
10.1	News release	NEWS_REL	Regular and ad-hoc press releases associated with the data. Description of regular and ad-hoc press releases associated with the dataset in question.
10.2	Publications	PUBLICATIONS	Regular and ad-hoc publications making the data available to the public. Brief description of publications reflecting the dataset in question.
10.3	On-line database	ONLINE_DB	Information about on-line databases in which the disseminated data can be accessed. Provide the domain name and link to the on-line database (if any). Provide number of accesses to on-line databases.
10.4	Micro-data access	MICRO_DAT_ACC	Information on whether micro-data are also disseminated. Description of how access to the dataset as micro-data is provided, if available (e.g., for researchers). A brief description of the anonymisation rules for micro-data should also be provided.
10.5	Other	DISS_OTHER	References to the most important other data dissemination done. Description of the most important other means of information dissemination (e.g., in other publications, policy documents)
10.6	Documentation on methodology	DOC_METHOD	Descriptive text and references to methodological documents available. List national reference metadata files, methodological papers, summary documents and handbooks relevant to

Item	Concept Name	Concept Code	Descriptions
			the statistical process.
10.7	Quality documentation	QUALITY_DOC	Documentation on procedures applied for quality management and quality assessment. List relevant quality related documents, for example, other quality reports, studies.
11	Quality management	QUALITY_MGMNT	Systems and frameworks in place within an organisation to manage the quality of statistical products and processes. Brief description of the quality management system used in the structural unit (EFQM, ISO, etc.).
11.1	Quality assurance	QUALITY_ASSURE	All systematic activities implemented that can be demonstrated to provide confidence that the processes will fulfil the requirements for the statistical output. Describe the procedures (such as use of a general quality management system based on EFQM or ISO 9000 series) to promote general quality management principles in the organisation. Describe the quality assurance framework used to implement statistical quality principles. Describe the quality assurance procedures specifically applied to the statistical process for which the report is being prepared, for example training courses, benchmarking, assessments, and use of best practices. Include descriptions of all forms of quality assessment procedures (self-assessment, peer review, compliance monitoring, audit) and when they most recently took place. Describe any ongoing or planned improvements in quality assurance procedures.
11.2	Quality assessment	QUALITY_ASSMNT	Overall assessment of data quality, based on standard quality criteria. Ensuring the overall quality of statistical products by concluding on the key quality strengths and possible quality deficiencies. Any trade-offs between quality aspects, as well as planned quality improvements, may be

Item	Concept Name	Concept Code	Descriptions
			mentioned. Main reference: “National Quality Assurance Framework for the Official Statistics System of the Republic of Azerbaijan” (2013).
12	Relevance	RELEVANCE	The degree to which statistical information meet current and potential needs of the users. This depends on whether all required statistics are produced and the extent to which the concepts used (definitions, classifications, etc.) reflect user needs.
12.1	User needs	USER_NEEDS	Description of users and their respective needs with respect to the statistical data. Indication of the user classification and their degree of importance, the purposes for which they require statistical products, as well as the users and purposes receiving special attention. Mention of unmet needs and the reasons for them.
12.2	User satisfaction	USER_SAT	Measures to determine user satisfaction. Description of the methodology for collecting user opinions and feedback. Indication of the main results regarding user satisfaction (the user satisfaction index, if available) and the date of the most recent user satisfaction survey.
12.3	Completeness	COMPLETENESS	The degree of availability of the required statistical products. Provision of information on completeness in comparison with the relevant regulations.
13	Accuracy and reliability	ACCURACY	Accuracy of data is the closeness of computations or estimates to the exact or true values that the statistics were intended to measure. Reliability of the data, defined as the closeness of the initial estimated value to the subsequent estimated value.
13.1	Overall accuracy	ACCURACY_OVERALL	Assessment of accuracy, linked to a certain data set or domain, which is summarising the various components.

Item	Concept Name	Concept Code	Descriptions
			An overview of the main sources of errors must be provided, along with a quantitative and qualitative assessment of the potential bias (magnitude and significance) for each key indicator.
13.2	Sampling error	SAMPLING_ERR	That part of the difference between a population value and an estimate thereof, derived from a random sample, which is due to the fact that only a subset of the population is enumerated. For A1: Measures of the random variation of an estimator due to sampling, at a level of detail appropriate for user reports.
13.3	Non-sampling error	NONSAMPLING_ERR	Error in survey estimates which cannot be attributed to sampling fluctuations. Summarise the most important aspects of coverage, measurement, non-response, processing and model assumption errors. Discuss the corresponding bias risks and actions undertaken to reduce them.
14	Timeliness and punctuality	TIMELINESS_PUNCT	Timeliness refers to the speed of dissemination of statistical products, representing the time lag between the occurrence of an event and its availability. The main objective is to release data with the established frequency and on schedule.
14.1	Timeliness	TIMELINESS	The length of time between the availability of statistical products and the phenomena they describe. For annual or shorter-periodicity publications, providing the average production time for each released dataset.
14.2	Punctuality	PUNCTUALITY	Time lag between the actual delivery of the data and the target date when it should have been delivered. For annual or shorter-periodicity publications, providing: - the percentage of releases disseminated on time based on the scheduled publication dates;

Item	Concept Name	Concept Code	Descriptions
			- an explanation of the reasons for any publication delays.
15	Coherence and comparability		Adequacy of statistics to be reliably combined in different ways and for various uses and the extent to which differences between statistics can be attributed to differences between the true values of the statistical characteristics.
15.1	Comparability - geographical	COMPAR_GEO	The extent to which statistics are comparable between geographical areas. Describe any problems of comparability between regions of the country. The reasons for the problems should be described and as well an assessment (preferably quantitative) of the possible effect on the output values. Give information on discrepancies from the ESS/ international concepts.
15.2	Comparability - over time	COMPAR_TIM	The extent to which statistics are comparable or reconcilable over time. Provision of information regarding the length of comparable time series, reporting periods experiencing series breaks, the underlying causes of these breaks, and the methods used for their treatment.
15.3	Coherence - cross domain	COHER_X_DOM	The extent to which statistics are reconcilable with those obtained through other data sources or statistical domains. Explanation of the differences between the statistical products concerned and other related statistical products, along with an assessment of the significance of the impact of these differences.
15.4	Coherence - internal	COHER_INTERNAL	The extent to which statistics are consistent within a given data set. Explanation of data incoherence within the statistical dataset concerned, and the justification for the dissemination of such results.
16	Cost and burden	COST_BURDEN	Cost is linked to the collection and

Item	Concept Name	Concept Code	Descriptions
			production of the statistical product, whereas burden is associated with respondents. A brief overview of statistical production costs and response burden (overall time investment). Furthermore, targets and actions regarding burden reduction should be provided.
17	Data revision	DATA_REV	Any change in a value of a statistic released to the public.
17.1	Data revision - policy	REV_POLICY	Policy aimed at ensuring the transparency of disseminated data, whereby preliminary data are compiled that are later revised. Description of the general data revision policy adopted by the organization and applied to the released data.
17.2	Data revision - practice	REV_PRACTICE	Information on the data revision practice. Describing major planned revisions and their expected average magnitude. If necessary, minor revisions should also be described.
18	Statistical processing	STAT_PROCESS	
18.1	Source data	SOURCE_TYPE	Characteristics and components of the raw statistical data used for compiling statistical aggregates. Specifying whether the dataset relies on surveys or administrative data sources. In the case of sample surveys, sampling characteristics should be stated (e.g., gross and net sample sizes, sample design, reporting area, etc.). If administrative registers are utilized, a description of the registers must be provided (source, reference year, primary purpose, potential limitations, etc.).
18.2	Frequency of data collection	FREQ_COLL	Frequency with which the source data are collected. Indicate the frequency of data collection (e.g. monthly, quarterly, annually, or continuous).

Item	Concept Name	Concept Code	Descriptions
18.3	Data collection	COLL_METHOD	Systematic process of gathering data for official statistics. The data collection mode from respondents (e.g., mail survey, Computer-Assisted Personal Interviewing (CAPI), web-based survey, etc.) should be described. This section must include questionnaire design and testing, interviewer training, and methods used for monitoring non-response.
18.4	Data validation	DATA_VALIDATION	Process of monitoring the results of data compilation and ensuring the quality of statistical results. Procedures for validation and control of source data, along with the monitoring and application of these control outcomes, should be described.
18.5	Data compilation	DATA_COMP	Operations performed on data to derive new information according to a given set of rules. The data compilation process should be described (e.g., data editing, imputation, weighting, non-response validation and adjustment, and the models applied, etc.).
18.6	Adjustment	ADJUSTMENT	The set of procedures employed to modify statistical data to enable it to conform to national or international standards or to address data quality differences when compiling specific data sets. Statistical procedures used for data adjustment (seasonal adjustment methods, time series decomposition, or other similar methods). Main reference: Methodological manual on 'Conducting Seasonal Adjustments and Using Demetra Software' and the methodological concept of the current process for the Business Statistics Management System, approved by Decision No. 30/14 of the State Statistical Committee of the Republic of Azerbaijan dated July 25, 2011.

Item	Concept Name	Concept Code	Descriptions
19	Comment	COMMENT_DSET	Supplementary descriptive text which can be attached to data or metadata.

ESS Standard for Quality Reports Structure version 2.0 (ESQRS 2.0)

Item	Concept Name	Concept Code	Descriptions
1	Contact	CONTACT	Individual or organisational contact points for the data or metadata, including information on how to reach the contact points.
1.1	Contact organisation	CONTACT_ORGANISATION	The full name of the organisation
1.2	Contact organisation unit	ORGANISATION_UNIT	The full name of the organisational unit responsible (the name can include a unit number).
1.3	Contact name	CONTACT_NAME	The names of the contact points for the data or metadata.
1.4	Contact person function	CONTACT_FUNCT	The area of technical responsibility of the contact, such as "methodology", "database management" or "dissemination".
1.5	Contact mail address	CONTACT_MAIL	The postal address of the contact points for the data or metadata.
1.6	Contact email address	CONTACT_EMAIL	E-mail address of the contact points for the data or metadata.
1.7	Contact phone number	CONTACT_PHONE	The telephone number of the contact points for the data or metadata.
1.8	Contact fax number	CONTACT_FAX	Fax number of the contact points for the data or metadata.
2	Statistical presentation	STAT_PRES	
2.1	Data description	DATA_DESCR	A concise description of the main features of the dataset that are relevant to the data and indicators being disseminated. This brief description should be immediately and easily understood by users.
2.2	Classification system	CLASS_SYSTEM	Arrangement or division of objects into groups based on characteristics which the objects have in common. A listing of all classifications (with detailed

Item	Concept Name	Concept Code	Descriptions
			names) used for the data set.
2.3	Sector coverage	COVERAGE_SECTOR	Main economic or other sectors covered by the statistics. An indication of the main economic or other sectors covered by the data set.
2.4	Statistical concepts and definitions	STAT_CONC_DEF	The definitions and types of indicators should be listed, and any information on divergences from international standards should also be provided if available.
2.5	Statistical unit	STAT_UNIT	Entity for which information is sought and for which statistics are ultimately compiled. The main statistical units of the observation should be listed. These observation units (e.g., enterprise, local unit, private household, etc.) may differ from the reporting units used as the basis for the statistical observation.
2.6	Statistical population	STAT_POP	Define the target population of statistical units for which information is sought. The difference between the target population and the ideal population desired by users is a relevance issue and is discussed in S.12; and the difference between target population and the survey population is a coverage issue and is discussed in S13.3If there is more than one type of statistical population, define each type.
2.7	Reference area	REF_AREA	The country or geographic area to which the measured statistical phenomenon relates.
2.8	Time coverage	COVERAGE_TIME	The length of time for which data are available. State the time period(s) covered by the data (e.g. selected annual data from 1985 to 2006).
2.9	Base period	BASE_PER	The period of time used as the base of an index number, or to which a constant series refers. Note that this concept applies only to certain types

Item	Concept Name	Concept Code	Descriptions
			of outputs, such as indexes. State the base period, for example, year 2000. Indicate base period update time frame and date of next update.
3	Statistical Processing	STAT_PROCESS	
3.1	Source data	SOURCE_TYPE	Characteristics and components of the raw statistical data used for compiling statistical aggregates. Specifying whether the dataset relies on surveys or administrative data sources. In the case of sample surveys, sampling characteristics should be stated (e.g., gross and net sample sizes, sample design, reporting area, etc.). If administrative registers are utilized, a description of the registers must be provided (source, reference year, primary purpose, potential limitations, etc.).
3.2	Frequency of data collection	FREQ_COLL	Frequency with which the source data are collected. Indicate the frequency of data collection (e.g. monthly, quarterly, annually, or continuous).
3.3	Data collection	COLL_METHOD	Systematic process of gathering data for official statistics. The data collection mode from respondents (e.g., mail survey, Computer-Assisted Personal Interviewing (CAPI), web-based survey, etc.) should be described. This section must include questionnaire design and testing, interviewer training, and methods used for monitoring non-response.
3.4	Data validation	DATA_VALIDATION	Process of monitoring the results of data compilation and ensuring the quality of statistical results. Procedures for validation and control of source data, along with the monitoring and application of these control outcomes, should be described.

Item	Concept Name	Concept Code	Descriptions
3.5	Data compilation	DATA_COMP	Operations performed on data to derive new information according to a given set of rules. The data compilation process should be described (e.g., data editing, imputation, weighting, non-response validation and adjustment, and the models applied, etc.).
3.6	Adjustment	ADJUSTMENT	The set of procedures employed to modify statistical data to enable it to conform to national or international standards or to address data quality differences when compiling specific data sets. Statistical procedures used for data adjustment (seasonal adjustment methods, time series decomposition, or other similar methods). Main reference: Methodological manual on 'Conducting Seasonal Adjustments and Using Demetra Software' and the methodological concept of the current process for the Business Statistics Management System, approved by Decision No. 30/14 of the State Statistical Committee of the Republic of Azerbaijan dated July 25, 2011.
4	Quality management	QUALITY_MGMNT	Systems and frameworks in place within an organisation to manage the quality of statistical products and processes. Brief description of the quality management system used in the structural unit (EFQM, ISO, etc.).
4.1	Quality assurance	QUALITY_ASSURE	All systematic activities implemented that can be demonstrated to provide confidence that the processes will fulfil the requirements for the statistical output. Describe the procedures (such as use of a general quality management system based on EFQM or ISO 9000 series) to promote general quality management principles in the organisation. Describe the quality assurance framework used to implement

Item	Concept Name	Concept Code	Descriptions
			statistical quality principles. Describe the quality assurance procedures specifically applied to the statistical process for which the report is being prepared, for example training courses, benchmarking, assessments, and use of best practices. Include descriptions of all forms of quality assessment procedures (self-assessment, peer review, compliance monitoring, audit) and when they most recently took place. Describe any ongoing or planned improvements in quality assurance procedures.
4.2	Quality assessment	QUALITY_ASSMNT	Overall assessment of data quality, based on standard quality criteria. Ensuring the overall quality of statistical products by concluding on the key quality strengths and possible quality deficiencies. Any trade-offs between quality aspects, as well as planned quality improvements, may be mentioned. Main reference: "National Quality Assurance Framework for the Official Statistics System of the Republic of Azerbaijan" (2013).
5	Relevance	RELEVANCE	The degree to which statistical information meet current and potential needs of the users. This depends on whether all required statistics are produced and the extent to which the concepts used (definitions, classifications, etc.) reflect user needs.
5.1	User needs	USER_NEEDS	Description of users and their respective needs with respect to the statistical data. Indication of the user classification and their degree of importance, the purposes for which they require statistical products, as well as the users and purposes receiving special attention. Mention of unmet needs and the reasons for them.

Item	Concept Name	Concept Code	Descriptions
5.2	User satisfaction	USER_SAT	Measures to determine user satisfaction. Description of the methodology for collecting user opinions and feedback. Indication of the main results regarding user satisfaction (the user satisfaction index, if available) and the date of the most recent user satisfaction survey.
5.3	Completeness	COMPLETENESS	The degree of availability of the required statistical products. Provision of information on completeness in comparison with the relevant regulations.
5.3.1	Data completeness - rate	COMPLETENESS_RATE	The ratio of the number of data cells provided to the number of data cells required by a regulation /guideline.
6	Accuracy and reliability	ACCURACY_RELIABILITY	Accuracy of data is the closeness of computations or estimates to the exact or true values that the statistics were intended to measure. Reliability of the data, defined as the closeness of the initial estimated value to the subsequent estimated value."
6.1	Accuracy - overall	ACCURACY_OVERALL	Assessment of accuracy, linked to a certain data set or domain, which is summarising the various components. An overview of the main sources of errors must be provided, along with a quantitative and qualitative assessment of the potential bias (magnitude and significance) for each key indicator.
6.2	Sampling error	SAMPLING_ERR	That part of the difference between a population value and an estimate thereof, derived from a random sample, which is due to the fact that only a subset of the population is enumerated. For A1: Measures of the random variation of an estimator due to sampling, at a level of detail appropriate for user reports.
6.2.1	Sampling errors - indicators	SAMPLING_ERR_IND	Assessment of deviations to determine the accuracy of indicators

Item	Concept Name	Concept Code	Descriptions
			for the selected sample.
6.3	Non-sampling error	NONSAMPLING_ERR	Error in survey estimates which cannot be attributed to sampling fluctuations. Summarise the most important aspects of coverage, measurement, non-response, processing and model assumption errors. Discuss the corresponding bias risks and actions undertaken to reduce them.
6.3.1	Coverage error	COVERAGRE_ERR	Divergence between the frame population and the target population. Provide information on the frame and its sources. Provide an assessment, whenever possible quantitative, of overcoverage and undercoverage, including an evaluation of the bias risks associated with the latter. Describe actions taken for reduction of undercoverage and associated bias risks.
6.3.1.1	Over-coverage - rate	OVERCOVERAGE_RATE	The proportion of units accessible via the frame that do not belong to the target population.
6.3.1.2	Common units - proportion	COMMON_UNIT_SHARE	The proportion of units covered by both the survey and the administrative sources in relation to the total number of units in the survey.
6.3.2	Measurement error	MEASUREMENT_ERR	Errors during data computation, interpretation and redaction.
6.3.3	Non response error	NONRESPONSE_ERR	The ratio of non-responsive but redacted data to the total volume of data.
6.3.3.1	Unit non-response - rate	UNIT_NONRESPONSE_RATE	The ratio of the number of units with no information or not usable information to the total number of in-scope (eligible) units, at a level of detail appropriate for a producer report.

Item	Concept Name	Concept Code	Descriptions
6.3.3.2	Item non-response - rate	ITEM_NONRESPONSE_RATE	The ratio of the in-scope (eligible) units which have not responded to a particular item and the in-scope units that are required to respond to that particular item, at a level of detail appropriate for a producer report.
6.3.4	Processing error	PROCESSING_ERR	The error in final data collection process results arising from the faulty implementation of correctly planned implementation methods.
6.3.4.1	Imputation - rate	IMPUTATION_RATE	The ratio of the number of replaced values to the total number of values for a given variable.
6.3.5	Model assumption error	MODEL_ASSUMP_ERR	Error due to domain specific models needed to define the target of estimation.
6.4	Seasonal adjustment	SEASONAL_ADJ	The statistical technique used to remove the effects of seasonal calendar influences operating on a series.
6.5	Data revision - policy	REV_POLICY	Policy aimed at ensuring the transparency of disseminated data, whereby preliminary data are compiled that are later revised. Description of the general data revision policy adopted by the organization and applied to the released data.
6.6	Data revision - practice	REV_PRACTICE	Information on the data revision practice. Describing major planned revisions and their expected average magnitude. If necessary, minor revisions should also be described.
6.6.1	Data revision - average size	DATA_REV_AVGSIZE	The average over a time period of the revisions of a key item, for producer report. 'Revision' is defined as the difference between the subsequent and initial estimates of the key indicators.
7	Timeliness and punctuality	TIMELINESS_PUNCT	Timeliness refers to the speed of dissemination of statistical products, representing the time lag between the

Item	Concept Name	Concept Code	Descriptions
			occurrence of an event and its availability. The main objective is to release data with the established frequency and on schedule.
7.1	Timeliness	TIMELINESS	The length of time between the availability of statistical products and the phenomena they describe. For annual or shorter-periodicity publications, providing the average production time for each released dataset.
7.1.1	Time lag - first results	TIMELAG_FIRST	The number of days from the last day of the reference period to the day of publication of first results, at producer report level of detail.
7.1.2	Time lag - final results	TIMELAG_FINAL	The number of days from the last day of the reference period to the day of publication of complete and final results.
7.2	Punctuality	PUNCTUALITY	Time lag between the actual delivery of the data and the target date when it should have been delivered. For annual or shorter-periodicity publications, providing: -the percentage of releases disseminated on time based on the scheduled publication dates; -an explanation of the reasons for any publication delays.
7.2.1	Punctuality - delivery and publication	PUNCTUALITY_RELEASE	Number of days between the planned and actual release dates.
8	Coherence and comparability	COHER_COMPAR	Adequacy of statistics to be reliably combined in different ways and for various uses and the extent to which differences between statistics can be attributed to differences between the true values of the statistical characteristics.
8.1	Comparability - geographical	COMPAR_GEO	The extent to which statistics are comparable between geographical areas. Describe any problems of comparability between regions of the country. The reasons for the problems

Item	Concept Name	Concept Code	Descriptions
			should be described and as well an assessment (preferably quantitative) of the possible effect on the output values. Give information on discrepancies from the ESS/ international concepts.
8.1.1	Asymmetry for mirror flows statistics - coefficient	ASYMMETRY_COEFF	The difference or the absolute difference of inbound and outbound flows between a pair of countries divided by the average of these two values.
8.2	Comparability - over time	COMPAR_TIME	The extent to which statistics are comparable or reconcilable over time. Provision of information regarding the length of comparable time series, reporting periods experiencing series breaks, the underlying causes of these breaks, and the methods used for their treatment.
8.2.1	Length of comparable time series	COMPAR_LENGTH	The number of reference periods in time series from last break.
8.3	Coherence- cross domain	COHER_X_DOM	The extent to which statistics are reconcilable with those obtained through other data sources or statistical domains. Explanation of the differences between the statistical products concerned and other related statistical products, along with an assessment of the significance of the impact of these differences.
8.4	Coherence - sub annual and annual statistics	COHER_FREQSTAT	The extent to which statistics of different frequencies are reconcilable.
8.5	Coherence- National Accounts	COHER_NATAccounts	The extent to which statistics are reconcilable with National Accounts.
8.6	Coherence - internal	COHER_INTERNAL	The extent to which statistics are consistent within a given data set. Explanation of data incoherence within the statistical dataset concerned, and the justification for the dissemination of such results.

Item	Concept Name	Concept Code	Descriptions
9	Accessibility and clarity	ACCESSIBILITY_CLARITY	Description of the mass media used as a dissemination vehicle for statistical data and metadata. Description of the various dissemination channels used to deliver the dataset to users (including the various available dissemination formats and access to them).
9.1	News release	NEWS_REL	Regular and ad-hoc press releases associated with the data. Description of regular and ad-hoc press releases associated with the dataset in question.
9.2	Publications	PUBLICATIONS	Regular and ad-hoc publications making the data available to the public. Brief description of publications reflecting the dataset in question.
9.3	Online database	ONLINE_DB	Information about on-line databases in which the disseminated data can be accessed. Provide the domain name and link to the on-line database (if any). Provide number of accesses to on-line databases.
9.3.1	Data tables – consultations	DATATABLE_CONSULT	Number of consultations of data tables within a statistical domain for a given time period displayed in a graph.
9.4	Microdata access	MICRO_DAT_ACC	Information on whether micro-data are also disseminated. Description of how access to the dataset as micro-data is provided, if available (e.g., for researchers). A brief description of the anonymisation rules for micro-data should also be provided.
9.5	Other	DISS_OTHER	References to the most important other data dissemination done. Description of the most important other means of information dissemination (e.g., in other publications, policy documents)
9.6	Documentation on methodology	DOC_METHOD	Number of metadata consultations within a statistical domain for a given

Item	Concept Name	Concept Code	Descriptions
			time period.
9.7	Quality documentation	QUALITY_DOC	Descriptive text and references to methodological documents available. List national reference metadata files, methodological papers, summary documents and handbooks relevant to the statistical process.
9.7.1	Metadata completeness - rate	METADATA_COMPLETE	The ratio of the number of metadata elements provided to the total number of metadata elements applicable.
9.7.2	Metadata - consultations	METADATA_CONSULT	Documentation on procedures applied for quality management and quality assessment. List relevant quality related documents, for example, other quality reports, studies.
10	Cost and Burden	COST_BURDEN	Cost is linked to the collection and production of the statistical product, whereas burden is associated with respondents. A brief overview of statistical production costs and response burden (overall time investment). Furthermore, targets and actions regarding burden reduction should be provided.
11	Confidentiality	CONF	A property of data indicating the extent to which their unauthorised disclosure could be prejudicial or harmful to the interest of the source or other relevant parties. The legislation (or other formal regulation) applied to statistical confidentiality for the dataset in question must be described, as well as the processing of current confidential data (including aggregated data for dissemination).
11.1	Confidentiality – policy	CONF_POLICY	Legislative measures or other formal procedures which prevent unauthorised disclosure of data that identify a person or economic entity either directly or indirectly.
11.2	Confidentiality – data treatment	CONF_DATA_TR	Rules applied for treating the datasets to ensure statistical confidentiality and prevent unauthorised disclosure.

Item	Concept Name	Concept Code	Descriptions
			Rules applied to the processing of the dataset to ensure statistical confidentiality must be described (e.g., controlled rounding, cell suppression, aggregation of disseminated information, aggregation rules for confidential aggregated data, basic confidentiality associated with individual data values, etc.
12	Comment	COMMENT_DSET	Supplementary descriptive text which can be attached to data or metadata.

Quality indicators recommended for inclusion in the report^{*)}

Concept name	Quality indicators
Accessibility and clarity	
On-line database	AC1. Data tables - consultations: Number of consultations of data tables within a statistical domain for a given time period displayed in a graph.
Documentation on methodology	AC2. Metadata - consultations: Number of metadata consultations within a statistical domain for a given time period. AC3. Metadata completeness - rate: The ratio of the number of metadata elements provided to the total number of metadata elements applicable.
Relevance	
Dolğunluq	A1. Data completeness- rate: The ratio of the number of data cells provided to the number of data cells required by a regulation /guideline.
Accuracy	
Sampling error	A1. Sampling error - indicators: Assessment of deviations to determine the accuracy of indicators for the selected sample.
Non response error	A2. Over-coverage - rate: The proportion of units accessible via the frame that do not belong to the target population. A3. Common units - proportion: The proportion of units covered by both the survey and the administrative sources in relation to the total number of units in the survey. A4. Unit non-response - rate: The ratio of the number of units with no information or not usable information to the total number of in-scope (eligible) units, at a level of detail appropriate for a producer report. A5. Item non-response - rate : The ratio of the in-scope (eligible) units which have not responded to a particular item and the in-scope units that are required to respond to that particular item, at a level of detail appropriate for a producer report.. A7. İmpyutasiya əmsalı: buraxılmış, lakin şərti hesablanmış (doldurulmamış) göstəricilərin miqdarının ümumi göstəricilərin miqdarına nisbəti.
Data revision	A6. Data revision - average size: "Information on the data revision practice. The average over a time period of the revisions of a key item, for user report.
Timeliness and punctuality	

Timeliness	TP1. The number of days (or weeks or months) from the last day of the reference period to the day of publication of first results, at producer report level of detail. TP2. The number of days (or weeks or months) from the last day of the reference period to the day of publication of complete and final results.
Punctuality	TP3. Time lag between the actual delivery of the data and the target date when it should have been delivered.
Coherence and comparability	
Comparability - geographical	CC1. Asymmetry for mirror flows statistics - coefficient: The difference or the absolute difference of inbound and outbound flows between a pair of countries divided by the average of these two values.
Comparability - over time	CC2. The number of reference periods in time series from last break.

**) Priority quality indicators are presented in bold.*

References

1. <http://dublincore.org/>
2. <https://webgate.ec.europa.eu/fpfis/mwikis/sdmx/index.php/ReferenceMetadata>
3. <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:168:0050:0055:EN:PDF>
4. <http://ec.europa.eu/eurostat/documents/10186/6203776/ESMS-Structure-rev122014.xlsx/967ba715-b5cb-4f6e-9a7d-b205cc867d65>
5. <http://ec.europa.eu/eurostat/documents/10186/6203776/ESQRS-Structure-rev-122014.xlsx/8a1b2d61-ebff-45ae-ad16-f191ffb00ec2>
6. <http://ec.europa.eu/eurostat/documents/64157/4373903/SIMS-2-0-Revised-standards-November-2015-ESSC-final.pdf/47c0b80d-0e19-4777-8f9e-28f89f82ce18>

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