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Quality monitoring system for the European statistical business registers

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Abstract

This paper presents the quality monitoring system of the European statistical business registers implemented by the European Statistical System (ESS) under the European business statistics quality framework.

Regulation (EU) 2019/2152 on European business statistics, which came into effect in January 2021, strengthens the European framework for statistical business registers to be used as an authoritative source for deriving high quality and harmonised statistical business register populations to produce consistent business statistics. The European framework for statistical business registers includes the national statistical business registers (NSBRs) and the EuroGroups register (EGR).

Eurostat Directorate for Business and Trade Statistics set up a harmonised monitoring system to assess the quality and compliance of all the domains to the Regulation, and this paper presents the components for the European framework for the statistical business registers, the quality indicators that are used, the whole annual process and activities, which have been largely automated in the last years in order to ensure high quality of the assessment results, a structured documentation and a standard method for business continuity.

Keywords: European business statistics quality framework, European statistical business registers, quality monitoring system.

1. Introduction

Statistical business registers (SBRs) are essential for business and macroeconomic statistics. Regulation (EU) 2019/2152 on European business statistics (the EBS Regulation) strengthens the role of the European framework for statistical business registers. This framework includes national statistical business registers and the EuroGroups register (EGR), as the authoritative sources for deriving high-quality and harmonised statistical business register populations for statistics related to businesses and multinational enterprise groups.

Eurostat implements a harmonised quality and compliance framework for all statistics produced under the EBS Regulation. Under this framework, the assessment system focuses on four quality dimensions: (i) punctuality; (ii) completeness; (iii) accuracy and reliability; and (iv) coherence and comparability.

For each area of the European framework for statistical business registers i.e., the national statistical business registers and the EuroGroups register, every year Eurostat evaluates and assesses 4 quality dimensions, based on data and metadata data provided by the national statistical institutes.

This paper presents the components of the European framework, the EBS Regulation quality and compliance framework, the annual process of evaluation and assessment, including the calculation of the quality indicators for this system, the communication of the results to the Member States, EFTA countries and candidate countries and the dissemination of metadata to users and the public. Finally, it highlights some points of consideration.

2. European framework for statistical business registers

The European framework for statistical business registers was established by the EBS Regulation 2019/2152, which came into effect on 1st January 2021. The framework covers the **national statistical business registers (NSBRs)** and the **EuroGroups register (EGR)**, as well as the exchange of data between them.

According to the EBS Regulation, NSBRs and the EGR are the authoritative sources for obtaining high-quality and standardised statistical business register populations, which are used to produce consistent European statistics. Authoritative source is recognised as the primary and trustworthy provider of data on statistical business register units. The data provided by the

authoritative source is used as a basis for conducting surveys, analysing business demographics, and forming statistical units, making it a crucial component to produce high-quality and harmonised business statistics.

The **NSBRs** are the primary source for national statistics on business register populations. They serve as the basis for conducting and coordinating surveys, as a source of information for analysing the business population and its demographic events, for using administrative data, and for identifying and constructing statistical units. The national statistical institutes are responsible for establishing the NSBRs, with a common core that is harmonised in line with the EBS Regulation.

The **EGR** on multinational enterprise groups is set up by Eurostat for statistical purposes at European Union (EU) level. The EGR is a unique register requiring the coordination of cross-border information related to multinational enterprise groups implemented in EU-European Free Trade Area (EFTA) countries. The EGR brings together microdata on multinational enterprise groups from the national statistical business registers in EU and EFTA countries, in line with the EBS Regulation. Data on enterprises and multinational enterprise groups operating outside the EU and EFTA are provided by a commercial data source.

The EBS Regulation and its Implementing regulation (EU) - 2020/1197 specify the statistical units and variables that have to be recorded and maintained in the NSBRs, the exchanges of confidential micro data of units and variables with the Commission (Eurostat) for the production of the EGR and the rules for the dissemination of the EGR statistical frame to the national statistical institutes (NSIs), national central banks (NCBs) and the European central bank (ECB).

In addition to establishing a common framework for data requirements in business and trade statistics, the EBS Regulation defines the quality framework too, and specifies the obligation to accompany all data transmission with quality reports and metadata reports.

Therefore, Eurostat has put in place a comprehensive EBS quality and compliance framework that defines the set of instruments aimed at ensuring the compliance monitoring and reporting to the Regulation and a transparent communication of metadata information to users.

In the following paragraphs, after an overview of the EBS quality and compliance framework, the paper will present how this is applied to the statistical business registers domain. Then the

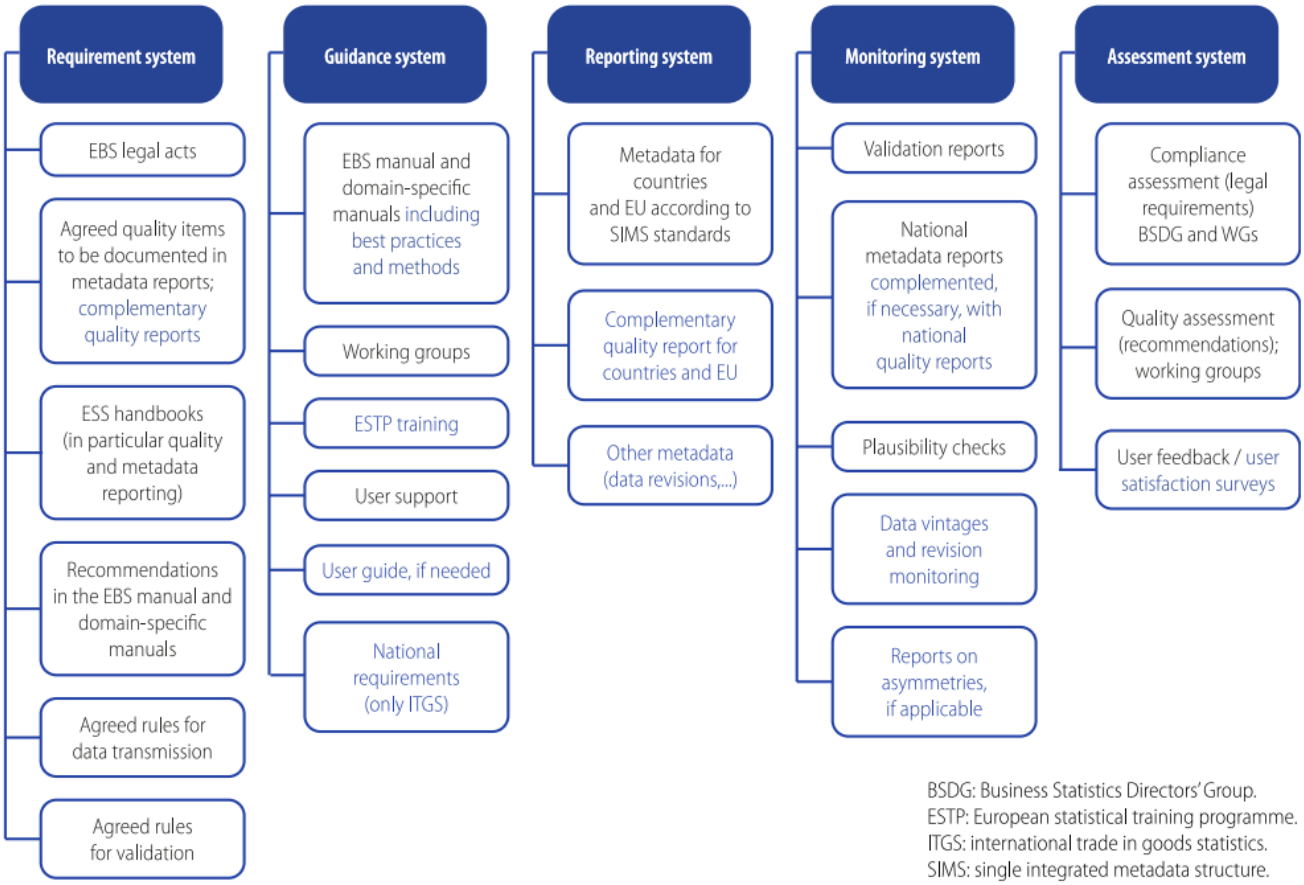
description of the annual process of quality and compliance monitoring and reporting and the assessment at national and European level is provided, including information on the detailed activities carried out and the statistical indicators utilised. Finally, the paper mentions how the results are disseminated to the Member States, EFTA countries and candidate countries as well as to the public.

3. EBS quality and compliance framework

The EBS quality and compliance framework follows the principles set out in the European statistics code of practice and in the Quality assurance framework of the European statistical system.

The systems and their set of instruments are described in the following figure.

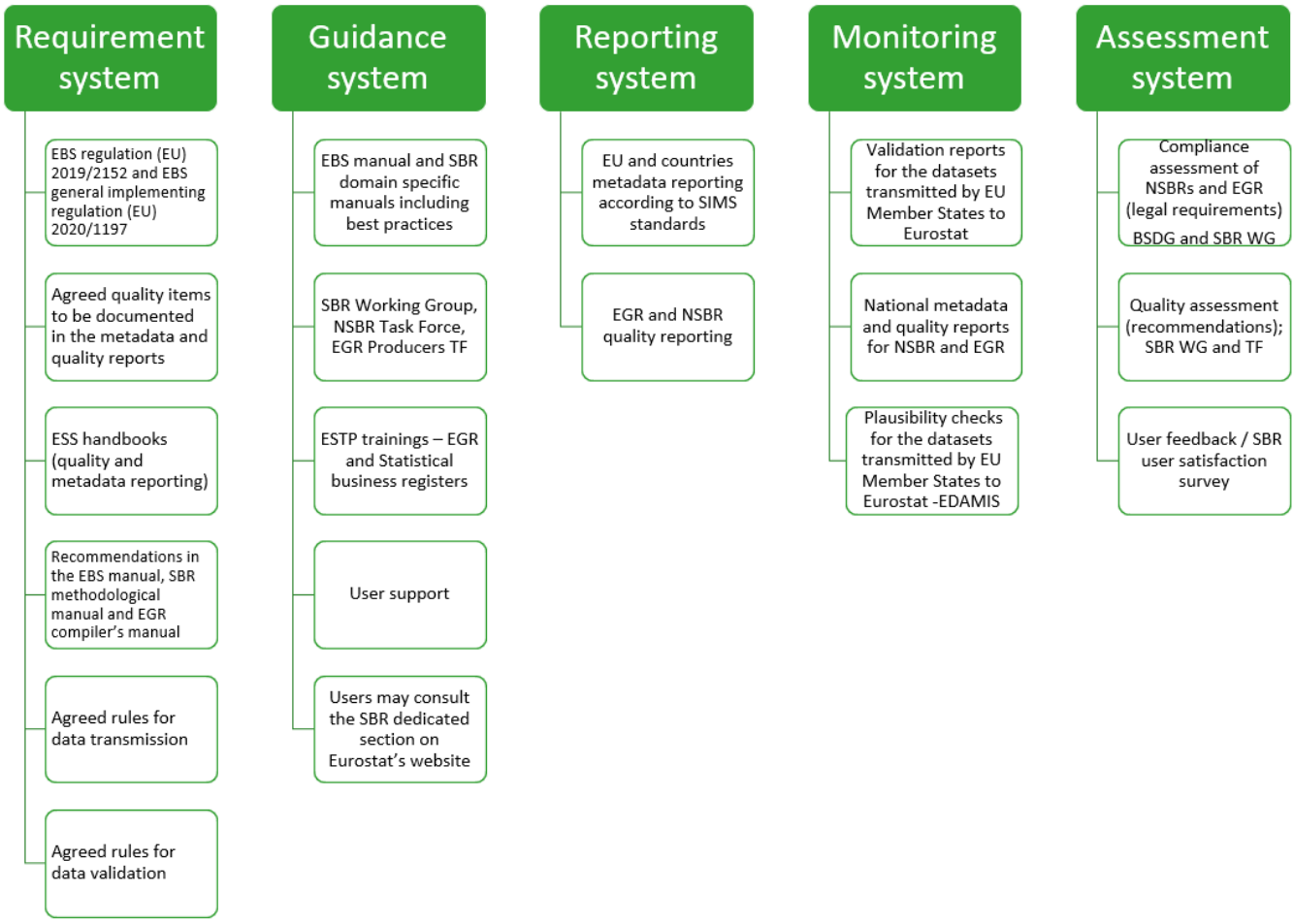
The EBS quality framework



Note: The instruments in black font are essential in ensuring the quality of business and trade statistics and should be in place for all business and trade statistics. The instruments in blue font are considered optional based on the needs of individual domains.

4. European statistical business registers quality and compliance framework

The quality and compliance framework, system and instruments used for European statistical business registers are aligned with the core EBS quality framework and illustrated as follows:



- **The requirement system** includes the legal requirement (EBS Regulation and Implementing regulation - 2020/1197); the agreed quality items to be documented in the metadata and quality reports; the recommendations from the European Statistical System (ESS) Handbook for Quality and Metadata Reports); the European Business

Statistics Manual, the European business statistics methodological manual for statistical business registers; the European business statistics compilers' manual for EuroGroups register, agreed rules for data transmission and data validation.

- **The guidance system** includes the European Business Statistics Manual; the European business statistics methodological manual for statistical business registers; the Expert groups (Statistical business register working group, NSBR task force, EGR producers TF); the dedicated trainings provided with the European statistical training programme (ESTP); the User support; and the Eurostat's statistical business register web page.
- **The reporting system** includes the annual transmission by national statistical institutes of datasets and metadata on national statistical business registers and on EGR input data to Eurostat according to the ESS standards (EDAMIS for the dataset and single integrated metadata structure (SIMS) standards for the metadata); the metadata disseminated on the Eurostat website (Eurostat's European and national metadata reports).
- **The monitoring system** includes the process run by Eurostat to validate the datasets and metadata sent by the EU Member States. The validation uses the ESS tools (STRUVAL and CONVAL) and includes other plausibility checks. The content of the datasets is detailed in paragraphs 5.
- **The assessment system** includes the annual calculation of statistical indicators run by Eurostat to assess the compliance and the quality of the data in the national statistical business registers and those transmitted to the EGR. In addition, since 2017, Eurostat conducts regular User Satisfaction Surveys, usually every 3 years, to assess the use and quality of statistical business registers by other domains**.**

5. Quality and compliance process

Eurostat conducts the quality and compliance process on an annual basis. This process involves reporting, monitoring, and assessment tasks, which are supported by dataset and metadata from the National Statistical Institutes (NSIs) of Member States, EFTA countries, and candidate countries. Additionally, it includes setting tasks in advance and providing assessment results with NSIs afterwards. The process also encompasses tasks carried out by Eurostat and/or NSIs, as well as milestones that signify important events and accomplishments within the process.

- **Setting** includes design/update of the dataset to be sent by NSI; implement/update the validation rules (STRUVAL&CONVAL); update of the guidelines related to the dataset and metadata; update the programme handling the assessment; provide online training to the NSI coordinator detailing the reporting and how to handle the transmission tool (EDAMIS, ESS-MH); draft a note to inform the NSIs coordinators of the reporting launch.
- **Reporting, validation, and assessment** includes compilation and submission of quality and metadata reports by NSIs; automatic validation of the structure and content of the quality reports; validation of the metadata reports; and assessment of quality and compliance of the registers.
- **Results and dissemination** include preparing and sending to the NSIs coordinators a detailed report with the quality and compliance assessment results; draft a document for the SBR WG gathering the main results of the quality and compliance assessment; provide the BSDG with a summary table presenting for each NSI the assessment of the four quality dimensions.

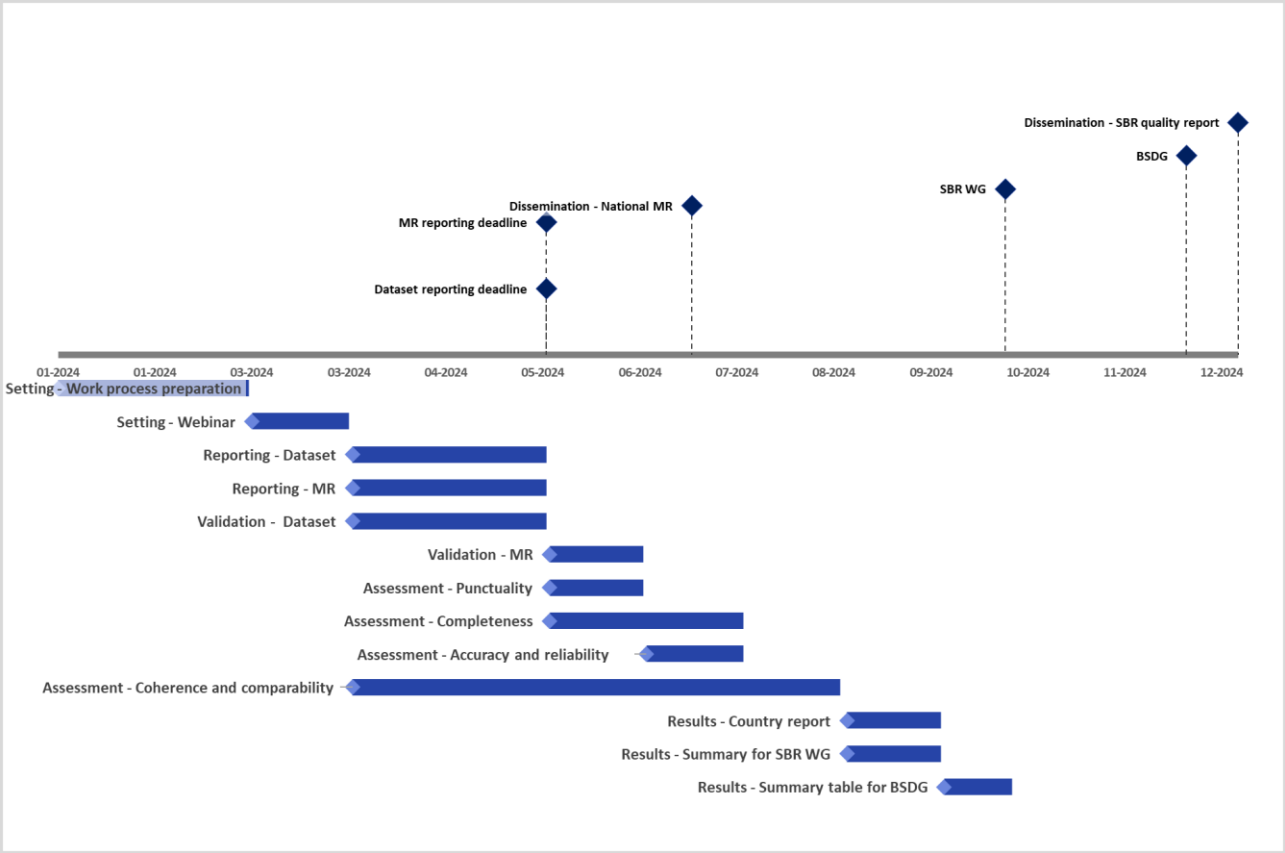
The dissemination milestones are the release, on Eurostat website, of the validated metadata depicting the countries' NSBRs and the publication of the Quality report on European statistical business registers. The dissemination is detailed under the point 8.

The main output of the quality and compliance process are the **national assessment reports** that are transmitted to the respective NSIs. The overall situation is also discussed during the annual expert groups' meetings, with the view to identify data gaps and solutions to improve the quality of the European statistical business registers further and continuously.

Every year, Eurostat receives from each NSI several datasets extracted from their NSBRs, that are used for two different processes.

One process is the **quality and compliance of the NSBRs** to the EBS Regulation 2019/2152. To meet this objective, Eurostat requires quantitative information on statistical units and their characteristics that must be recorded and maintained in the NSBR according to the Regulation. To this end, the dataset transmitted to Eurostat by each NSI includes aggregate values on statistical units and their respective variables.

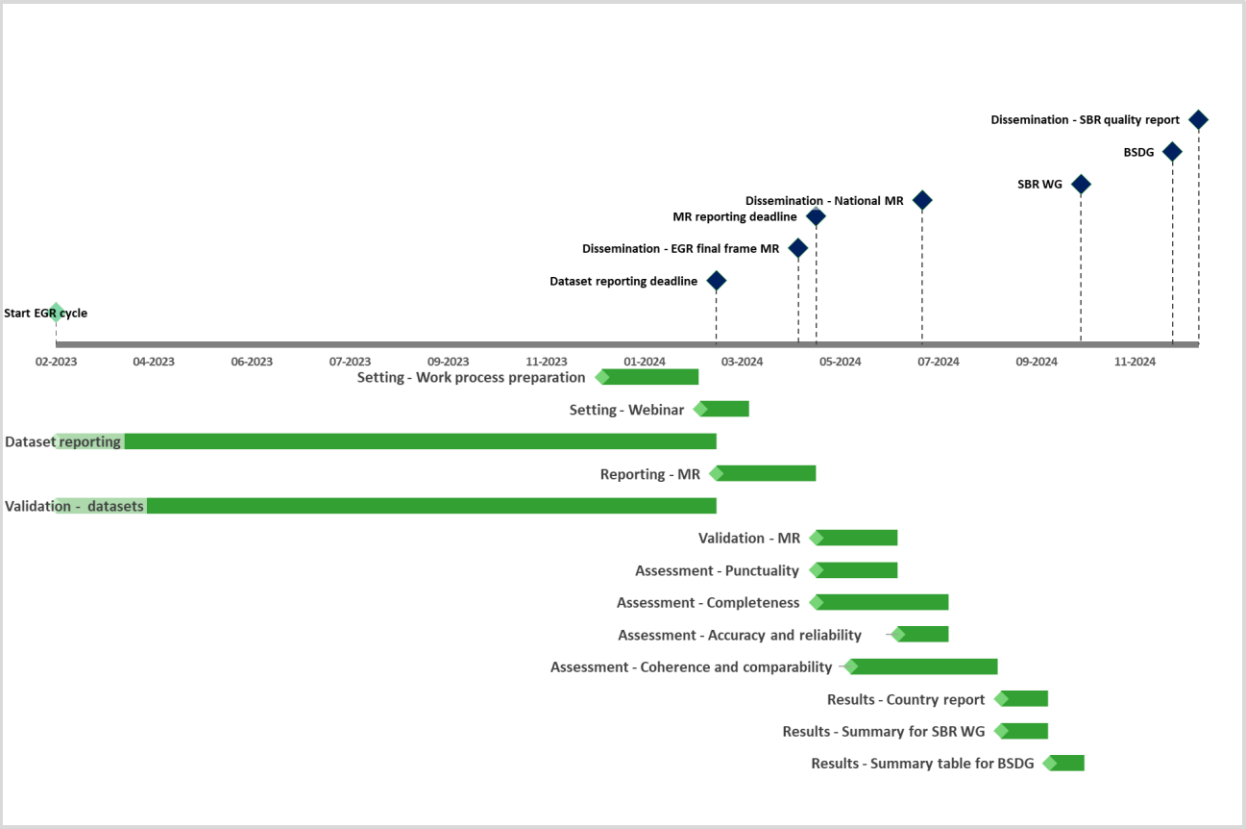
The **quality and compliance of NSBR process timeline** is illustrated by the following graph.



The second process pertains to the **quality and compliance** of datasets extracted from NSBRs for the specific purpose of creating the **EuroGroups Registe**r by Eurostat. These datasets contain individual confidential microdata. As these data exchanges fall under the EBS Regulation 2019/2152, Eurostat is also required to conduct a compliance assessment.

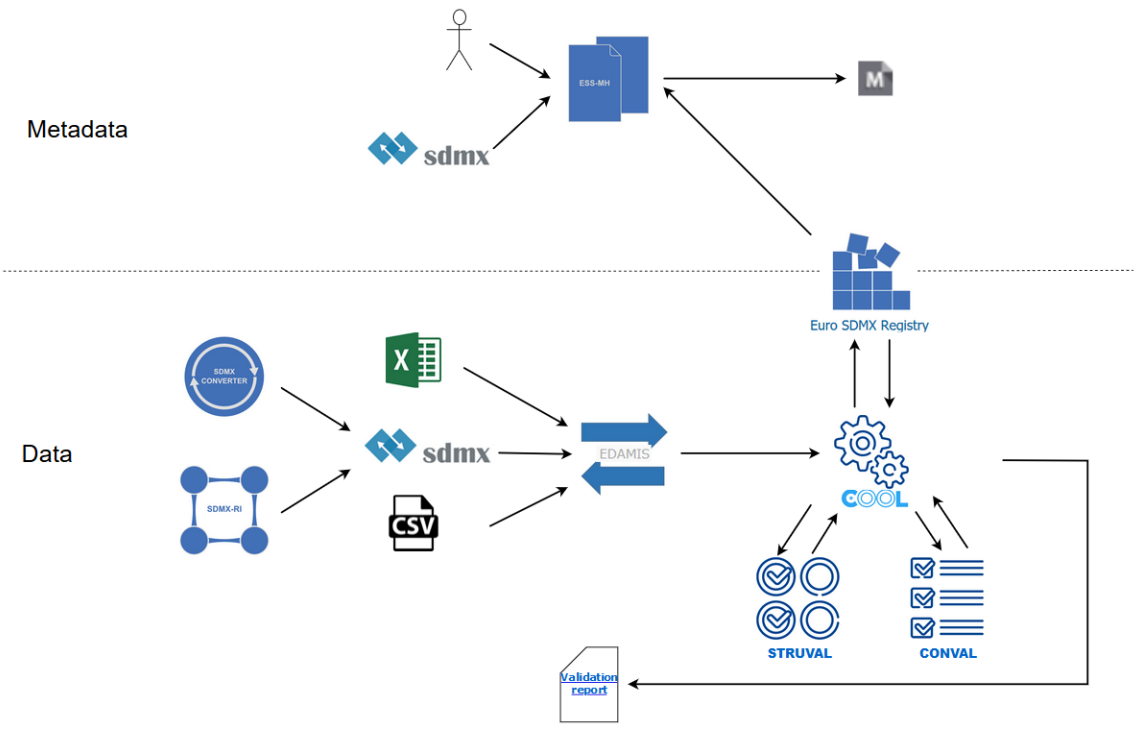
The **process** for the data sent by NSIs to create the **EGR** follow the same pattern. However as previously mentioned, the datasets used for monitoring and reporting, and assessment process are the same datasets used to create the EGR. In other words, the dataset deliveries adhere to the EGR cycle timetable.

The **quality and compliance process timeline of the data transmitted for the EGR** is illustrated by the following graph.



Reporting and monitoring

For all dataset transmissions, NSIs use SDMX format and EDAMIS secure channel, and accompany them by metadata according to SIMS. The dataflows use the corporate tools and standard of Eurostat as illustrated below.



For each dataset transmission, the NSIs receive a validation report detailing the transmission status and any potential inconsistencies that need to be corrected. The validation system is automated and includes both the dataset structure validation (STRUVAL) and the content validation (CONVAL). The dataset structure validation consists of a set of rules, such as the dataset format, the code list to be used or if a data cell must be filled in. The content validation consists of a set of rules focusing on the dataset content, such as inconsistency or mismatch between the total and the detailed values.

To reduce to the minimum, the error during the data transmission, Eurostat has set out detailed guidelines for NSIs including both the dataset structure and the content validation rules. The validation reports include error or warning messages indicating where and what is the detected inconsistency. The system automatically sends reports to the NSIs.

In addition to the above-mentioned datasets, NSIs send to Eurostat metadata via the ESS Metadata handler (MH), that is the platform used by NSIs for the metadata transmission. The validation status of the metadata is visible to the NSIs in the platform. The ESS MH system also sends notifications when the validation status changes. The metadata complies with the Single Integrated Metadata Structure - the Euro-SDMX Metadata Structure. It includes 19 sections to be filled in by the NSIs annually.

The dataset and metadata are considered successfully delivered only if they have passed the validation process.

Concerning the **NSBR quality and compliance**, every year (T), Eurostat receives from each NSI one **dataset containing aggregate values** for statistical units and their respective variables contained in the NSBR.

The information sent to Eurostat must reflect the state on the NSBR at the end of the year (T-2), including all units active during the reference year at any point of time and their requested characteristics. The dataset is a structured Excel file that includes:

- Number of Legal Units, Enterprises, Local Units, Kind of Activity Units and Enterprise Groups that are recorded in the NSBR;
- distribution of statistical units, their employment and turnover by main activity sector (NACE section);
- distribution of the Enterprises, their employment and turnover by type (simple Enterprise corresponding to one Legal Unit or complex Enterprise made up of several Legal Units);
- distribution of the Enterprise groups, their employment and turnover by type of group (full-resident, multinational);
- Count of the filled (not missing) variables required by the EBS Regulation, for each of the units.

The dataset only includes aggregated non confidential data.

Concerning the **EGR input from NSIs quality and compliance**, every year, according to a defined timetable, NSIs shall transmit to Eurostat several **datasets of individual confidential micro data** for the creation of the EuroGroups Register. The list and content of the datasets are included in Annex IX to Implementing act (EU) 2020/1197 Part A, and include:

- full population of resident incorporated legal units sent for identification;
- population of foreign legal units sent for identification;
- resident legal units belonging to the multinational enterprise groups;
- relationships between legal units;
- enterprises belonging to the multinational enterprise groups;
- links (one-to-one, one-to-many, or many-to-one) between enterprises and legal units;
- multinational enterprise groups when the national statistical institute is in the country of the groups' global decision centre.

Eurostat uses the dataset and metadata transmitted by the NSIs to assess the compliance and the quality of European statistical business registers, as detailed under the next point.

6. The assessment process

Every year, Eurostat assesses the EBS compliance and quality of European statistical business registers based on the metadata and datasets received from the NSIs. The detailed assessment reports are sent to the national statistical business register coordinators and reported to the statistical business registers (SBR) working group and to the Business statistics directors' group (BSDG) at their annual meetings.

Process workflow

Concerning the **NSBR**, an automation of the assessment process for the NSBRs was introduced by Eurostat in 2023. The automated process especially includes loading of the validated datasets in the production system (SAS) that computes the four quality dimensions and creates the national assessment reports of EU Member States, EFTA countries and candidate countries.

The process inputs are:

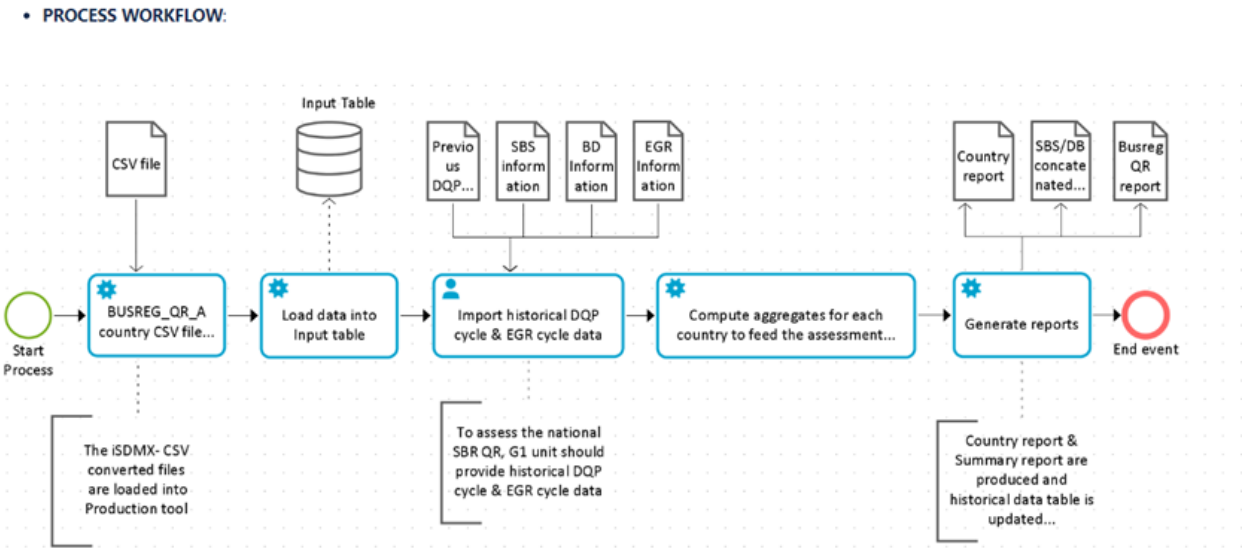
- Delivery dates of the validated dataset sent by NSI for the NSBR assessment;
- Validated datasets sent by NSIs for the NSBR assessment;
- Aggregates values for from previous year dataset delivery;
- Validated metadata report specifying the overall accuracy of the NSBR;
- Aggregates available to Eurostat from other business and trade statistics domains, e.g. EGR, Structural business statistics (SBS) and Business demography (BD).

The process outputs are;

- Country compliance and quality assessment reports;
- Dataset including aggregates values for statistical units and their respective variables to be used by other business domains (EGR, SBS, BD);
- Concatenation of validated datasets sent by NSIs to be used for next assessment and specific requests.

The assessment process/program is illustrated by the following graph.

NSBR assessment process workflow



Concerning the compliance and quality assessment of the **data transmitted by the NSIs to the EGR** an automation was initiated in 2023 and will need further development. The process especially is fuelled by information from the validated datasets, computes the four quality dimensions and creates the national assessment reports of EU Member States, EFTA countries.

The process inputs are:

- Delivery dates of the validated dataset transmitted by NSIs for EGR;
- Number of units and their respective variables based on the validated dataset transmitted by NSIs for the EGR;

- Aggregates values for from previous year dataset delivery;
- Validated metadata report specifying the overall accuracy of the data transmitted by NSIs for EGR;
- Aggregates values from dataset sent by NSI for NSBR assessment (output NSBR assessment process).

The process outputs are:

- Country compliance and quality assessment reports;
- Dataset including aggregates values for statistical units and their respective variables to be used for NSBR assessment.

Quality dimensions

As said, the 4 quality dimensions considered for the quality and compliance assessment to EBS for the business and trade statistics domains have been aligned and they are: **punctuality, completeness, accuracy and reliability, coherence and comparability**.

For each quality dimension, a two-step approach is used. First, several quantitative and qualitative information are derived from the datasets and metadata sent by the NSIs, and based on them an evaluation is conducted to assign each indicator a quantitative value. Second, a classification is applied to rank the indicator and provide the assessment. The classification includes four classes: (i) compliance, (ii) minor non-compliance, (iii) serious non-compliance and (iv) serious and persistent non-compliance.

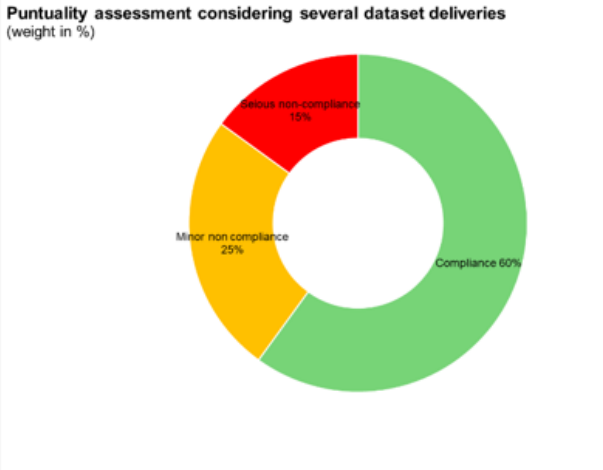
Punctuality

The punctuality indicator measures the delay between the data delivery date and the target date, which is when the data should have been delivered by the NSIs to Eurostat according to the agreed timetable. The punctuality assessment addresses the question: Is the information delivered on time?

For the dataset containing number of statistical units and their variables in the NSBRs, the delivery concerns one dataset only. The indicator assesses the potential delay in calendar days, equalling 0 if the dataset is delivered before or the day of the deadline.

For the datasets containing the individual confidential microdata that have to be used as input for the EGR, the delivery concerns several datasets, each of them being assigned a weight, based on the relevance of the dataset for the EGR process. The indicator evaluates the potential delay in calendar days, also equalling 0 if the dataset is delivered before or the day of the deadline. The assessment considers both the dataset's indicator value and its weight.

Dummy example



In this example a dataflow includes 6 datasets to be delivered. The settings are as followed:

Dataset	weight	Days of delay	Assessment
Dataset N°1	30%	0	Compliance
Dataset N°2	20%	0	Compliance
Dataset N°3	10%	6	Minor non compliance
Dataset N°4	5%	5	Minor non compliance
Dataset N°5	15%	10	Seious non-compliance
Dataset N°6	20%	0	Compliance

The overall punctuality assessment considers that 60% of the dataflow comply with the punctuality request, 25% show minor non-compliance and 15% serious non-compliance.

Remarks

Eurostat closely monitors punctuality, as delays in data delivery can disrupt the subsequent process. For example, delays in data transmission to the EGR will impact the delivery and coverage of the EGR frame, as the EGR process relies on data sharing from all EU-EFTA NSIs. It is essential that the timetable for data delivery is established and well-known in advance, as any changes can have significant impact in the assessment.

Completeness

The completeness indicator measures, in percentage from 0% to 100%, the availability of each of the mandatory, conditional, and optional variable in the datasets provided by the national statistical institutes, according to the EBS Regulation requirements. The completeness assessment addresses the question: Do the European statistical business registers include all

the necessary information to support the production of high-quality business statistics as an authoritative source?

Certain variables should be available for all units. For example, the activity sector of an enterprise (NACE code) should be available for all enterprises. The indicator, for this variable, measures the share of enterprises with a NACE code compared to the total number of enterprises in the statistical business register. However, some variables should only be available for some of the units, such as the date of liquidation of a legal unit. For this variable, the indicator only measures the presence of the variable.

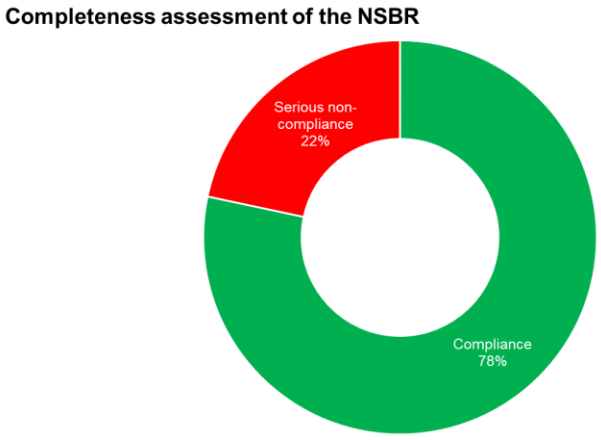
Dummy example

In the example a NSBR contains 100 LEUs, 90 of which have a recorded name and 18 have a liquidation date. For the legal unit, the completeness indicator is equal to 90% for the name and 100% for the liquidation date.

The overall indicator is the average of values measured for all considered variables.

Completeness indicator: C = ∑ (availability of variable) / (Total number of variables)

Dummy example



In this example, a NSBR includes 2 types of units, each of them having 3 recorded variables. 78% of the variable are available so comply but 22% are missing which is considered as serious non-compliance.

Unit	Variables	Availability
Legal unit	ID number	100%
	Name	90%
	Date of incorporation	30%
Enterprise	ID number	100%
	Name	90%
	NACE code 4-digits	60%
Indicator	**Value**	**Status**
Completenes	78%	Compliance
Missing	22%	Serious non-compliance

Despite the assessment being based on the average availability of all considered variables, each component of the average is detailed and provided to the NSIs. For the dataset containing number of statistical units and their variables in the NSBRs, the indicator considers the mandatory variables as recorded in *Annex VIII* to the to Implementing act (EU) 2020/1197.

For the datasets containing the individual confidential microdata that have to be used as input for the EGR, the indicator considers the mandatory variables as recorded in *Annex IX* to the to Implementing act (EU) 2020/1197, along with some conditional variables provided for the largest multinational enterprise groups.

Remarks

The completeness of the European statistical business registers, in contrast to other domains under the EBS Regulation, considers the availability of variables for each specific statistical unit type, rather than checking if a value is missing or provide. For example, every enterprise must have a recorded name in the statistical business register. Therefore, to assess the completeness of the variable 'name of enterprise' the number of enterprise names recorded alone does not provide information about completeness, but it must be compared with the number of enterprises recorded in the register.

Another peculiarity of the assessment of European statistical business registers completeness is that some units' variables listed in the EBS Regulation may be recorded in the statistical business register as a combination of several separated elements. For example, the address of a legal unit typically includes as separated elements number, street, postal code, city, and country. However, what constitutes a complete address? Some elements could be missing but still render the address complete, therefore several combinations of elements are considered, and if all of them are present in one of the combinations, then the address is considered complete.

Accuracy and reliability

The accuracy and reliability are measured by a binary variable (Y/N) based on the information provided by the national statistical institutes in the metadata reports under this quality dimension. National statistical institutes must self-assess the overall accuracy, specify the process to detect the main issues, the actions taken to reduce them, and especially reduce potential bias. The accuracy and reliability of the registers depend on factors such as the

absence of duplicated units, correct units' status (e.g., active instead of liquidated), and accurate variables (e.g., activity sector or employment).

The accuracy and reliability assessment addresses the question: Can the European statistical business registers be trusted to design surveys or produce statistics?

Remarks

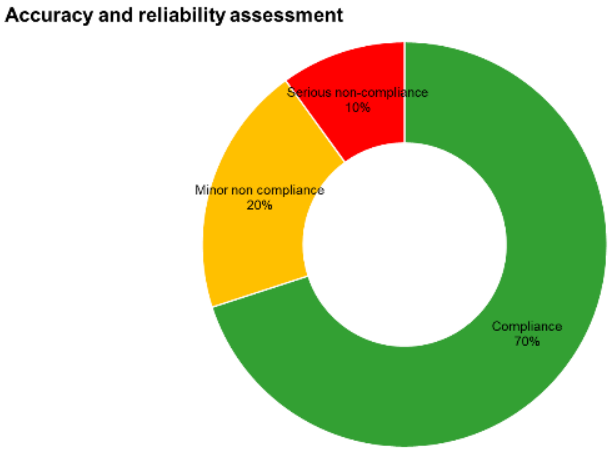
Measuring the accuracy and reliability of national statistical business registers is challenging as the registers use various and multiple data sources that differ between countries, such as administrative sources or surveys.

To improve this quality dimension measurement, Eurostat is considering incorporating results from the statistical business register user survey. However, since the survey is conducted every 3 years, while the compliance and assessment exercise is annual, this presents a timing challenge.

Another option to investigate is to compare the distribution of units by activity, for instance. The comparison will consider the distribution from the statistical business register and a different business domain using a survey stratification based on activity provided by the register frame. The test used to compare the distribution must consider that the distributions are not independent. For instance, use non-parametric tests, such as Chi-square or Mc Nemar's Chi-square test, to examine whether the distribution of categorical data differs significantly across 2 groups.

If the accuracy and reliability indicator will consider other component that the metadata, one could apply the same method used for the punctuality of several datasets. That is to say to weight each of the indicator component.

Dummy example



In this example, the Accuracy and reliability considers 3 components as followed.

Accuracy components	Indicator	Assessment	weight
Metadata	**Yes**	Compliance	70%
EU SBR survey - %good+very good	**60%**	Minor non compliance	20%
Chi-square test Distribution identical SBR/SBS	**N**	Serious non-compliance	10%

Note: Depending on dependency hypothesis one may use either

Chi-square test statistic

$\chi^2 = \Sigma (O - E)^2 / E$

Where O = the observed frequency for each category E = the expected frequency for each category or

McNemar test statistic

$\chi^2 = (|b-c|-1)^2 / (b+c)$

, with b = the number of discordant pairs c = the number of concordant pairs

Coherence and comparability

The coherence and comparability indicator measures the difference between the data transmitted by national statistical institutes on national statistical business registers and other domains of business statistics (cross-domain coherence) or between data sent in previous years (coherence over the time). The coherence and comparability assessment addresses the question: Can the European statistical business registers be considered the 'backbone' for business statistics under the EBS Regulation?

For the dataset containing number of statistical units and their variables in the NSBRs, the indicator considers the difference between NSBRs and structural business statistics in terms of employment, between NSBRs and business demography in terms of number of enterprises and number of legal units, and between NSBRs and EGR final frame in terms of number of multinational enterprise groups.

The overall indicator is calculated as an average of all the above differences.

Remarks

The main challenge concerning the assessment of coherence and comparability of national statistical business registers lies in the fact that the indicator only highlights the existing differences but does not provide indications for correcting them. This can be done only at the national level, by investigating the reasons of the differences and implementing measures to reduce them.

7. Points for consideration

As previously mentioned, all statistics produced under the EBS Regulation are assessed using a harmonised set of four quality dimensions. This allows for an overall assessment of compliance and quality across statistical domains under the EBS Regulation by compiling the results of all domains and/or sub-domains for each quality dimension.

However, the specific aspects of the domains need to be considered, such as the indicator used for the evaluation and thresholds applied to provide the assessment.

For the punctuality and the completeness, the indicators are rather easy to build and harmonise. For all domains, a punctuality indicator can be set up by measuring the days potential days of delays, and for the completeness by measuring the share of not missing/missing information.

One must also consider that some of the datasets fuelling the EGR are not standalone datasets. For instance, some datasets are split due to their size and some only include information to be update or discarded. In this case, the completeness indicator may require additional information from the EGR database or when datasets have been consolidated.

The accuracy and reliability or coherence and comparability indicators are more challenging to build and harmonise across domains as they are quite specific to the domain itself. For instance, the accuracy of survey data can be evaluated by using a model bias-variance decomposition model, but to set up this indicator for the statistical business register is quite challenging.

Harmonising the threshold is also quite challenging. For instance, a delay of 3 days in some dataset delivery could disrupt the EGR process, whereas it may have a minor impact on the NSBRs assessment process. The completeness requirement for the European statistical registers is quite high because they will be used as authoritative sources for conducting business surveys.

8. Dissemination of the results

Dissemination of the compliance and quality of the European statistical business registers results, and process is crucial for ensuring transparency and trust in the data, and for enabling informed decision-making by the users of the statistical business register.

Some results are provided to NSIs, while others are publicly released. This approach ensures that relevant stakeholders have access to the necessary information while also providing the public with essential insights into the quality of the European statistical business register.

Quality and compliance assessment results

At the conclusion of the assessment, each NSI coordinator will receive two detailed assessment reports. One report is focused on the assessment of the NSBR, while the other report is centred on the assessment of the data transmitted to the EGR. Each report includes a set of tables. The first table presents the results and values of the four indicators, and the other tables provide a detailed evaluation of each indicator. A template for these reports is included in the Annexes. A summary document containing the assessment of all countries is presented at the SBR WG, along with a summary table that presents the assessment of the four quality dimensions for each NSI.

Dissemination

Eurostat publishes all the validated national metadata reports national business registers and of the EuroGroups Register on the Eurostat website: Methodology - Statistical business registers - Eurostat (europa.eu)

Additionally, Eurostat disseminates the Statistical business registers quality report publication providing users comprehensive information on the quality of European statistical business registers (SBRs), on the SBR dedicated section Quality - Eurostat (europa.eu).

Acknowledgment

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ANNEXES

Annex 1: Template for NSBR countries report

National Statistical Business Register compliance assessment under the EBS

Country code	Country	DQP cycle	Reference year
CC	Country label	2024	2022

NSBR compliance assessment under the EBS

Quality dimensions	Compliance – C	Minor non-compliance – M	Serious non-compliance – S	Serious and persistent non-compliance – N	Total
Punctuality	100%	0%	0%		100%
Completeness	96%	4%	0%		100%
Accuracy and reliability	100%	0%	0%		100%
Coherence and comparability	70%	0%	30%		100%

Punctuality of the report delivery

Starting date DQP	Deadline	NSBR QR delivery date	Delay in calendar days	Compliance status
04-03-2024	31-05-2024	15-05-2024	0	C

Completeness of the NSBR

	%missing mandatory variables	%completeness of mandatory variables
Mandatory variable completeness	96%	4%

Statistical Unit	SU implemetation (Y/N)
Enterprise group	Y
Enterprise	Y
Local unit	Y
Kind of activity units	Y

Accuracy and reliability of the NSBR

Source	Accuracy and reliability (Y/N)	Compliance status
NSBR MR concept 13.1	Y	C

Coherence and comparability of the NSBR

Items	Value from NSBR	Other domain	Value from other domain	Gap (in absolute %)
Average gap				30%
Number of incorporated legal units legally active at least a part of the reference year	1 151 783	EGR IS	1 759 329	53%
Number of MNE groups operating on the national territory (with legal units located in the country)	58 407	EGR final frame	51 053	14%
Number of MNE groups domestically controlled	12 988	EGR final frame	16 775	23%
Total employment of enterprises belonging to the NACE sections B to N excluding K	27 892 878	SBS	36 260 741	30%
Number of enterprises belonging to the NACE sections B to N excluding K	2 543 990	BD	3 307 187	30%
Total employment - national	40 804 556	Previous NSBR QR	40 562 706	1%

Statistical units reported in NSBR

DQP	2 020	2 021	2 022	2 023	2 024
Reference year	2 018	2 019	2 020	2 021	2 022
Legal unit	3 633 199	3 637 067	3 720 801	3 529 490	3 547 574
Local unit	3 923 554	3 928 450	4 017 042	3 833 649	3 843 819
Enterprise	3 575 230	3 607 171	3 602 973	3 403 864	3 415 042
Enterprise with more than one legal unit	81 922	72 607	77 884	102 259	109 371
Kind of activity units	0	0	0	1 255	1 248
Enterprise group	188 172	194 406	204 358	249 071	270 633
All-resident enterprise group	146 397	150 899	157 037	194 704	212 226
Multinational enterprise group	41 775	43 507	47 321	54 367	58 407
Total employment - national	.	.	.	40 562 706	40 804 556
Employment in complex enterprise - national	.	.	.	18 177 373	18 528 025
Employment in enterprise group - national	.	.	.	23 677 053	24 160 450
% employment of complex enterprise				77%	77%

Completeness of mandatory variable in the NSBR - detailed

Unit	Variable N°	Variable description	Missing (%)
LEU	1.1	ID number	0.0%
LEU	1.2	Name	0.2%
LEU	1.3	Address (at the most detailed level, including postcode)	0.0%
LEU	1.5	Value Added Tax (VAT) registration number or, failing that, other administrative identity number	0.0%
LEU	1.6	Date of incorporation for legal persons or date of official recognition as an economic operator for natural persons	0.0%
LEU	1.7	Date on which the legal unit ceased	0.0%
LEU	1.8	Legal form	0.7%
LEU	1.9	Legal activity status	0.7%
LEU	1.17	Identity number of the enterprise group (2.1) to which the unit belongs	0.0%
LEU	1.18	Date of association to the enterprise group	0.0%

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KAU	5.5	Date of commencement of activities	0.0%
KAU	5.6	Date of final cessation of activities	0.0%
KAU	5.7	Activity code at NACE 4-digit level	0.0%
KAU	5.8	Size (e.g. turnover, employment) of the KAU	0.0%
KAU	5.9	Identity number of the enterprise of which the KAU is part	0.0%
EG		Enterprise Groups mandatory variables	0.0%
ENT		Enterprises mandatory variables	2.0%
KAU		Kind of activity units variables	4.0%
LEU		Legal units mandatory variables	6.0%
LoU		Local unit mandatory variable	6.0%
All units		Mandatory variables	4.0%

Annex 2: Template for EGR countries report on data transmitted to EGR 2022 cycle

Data transmitted to EGR 202: EBS quality and compliance assessment

Country code	Country	DQP cycle	EGR cycle	Reference year
CC	Country label	2024	2022	2022

Data transmitted to EGR EBS quality and compliance assessment summary

Quality dimensions	Punctuality	Completeness	Accuracy and reliability	Coherence and comparability
Compliance – C	85%	98%	100%	96%
Minor non-compliance – M	5%	2%	0%	4%
Serious non-compliance – S	10%	0%	0%	
Serious and persistent non-compliance – N	0%		0%	
Total	100%	100%	100%	100%

Punctuality of the files' deliveries

File	Deadline	Delivery date	Calendar days of delay	Compliance status	Weight
ISRLE	31-05-2023	28-05-2023	0	C	10%
ISNORLE/ISLEID	31-10-2023	25-10-2023	0	C	5%
LEU	15-11-2023	15-11-2023	0	C	25%
REL	15-11-2023	15-11-2023	0	C	25%
ENT	15-11-2023	15-11-2023	0	C	8%
LEL	15-11-2023	15-11-2023	0	C	8%
GEG/EGR IM	11-03-2024	11-03-2024	0	C	20%
				Total weight	100%

Completeness of mandatory variables and conditional variables of specific interest in the files transmitted to EGR

% missing madatory variables	% completeness of mandatory variables
2%	98%

Accuracy and reliability of the data transmitted to EGR

Source	(Y/N) or Gap in%	Compliance status
EGR MR concept 13.1	Y	C

Coherence and comparability of the data transmitted to EGR

Comparison	Value from data transmitted to EGR	Other domain	Value from other domain	Gap (in absolute %)
			Average gap	4%
Number of incorporated legal units legally active at least a part of the reference year	700 000	NSBR	750 000	6%
Number of legal units delivered in the LEU file	30000	EGR previous cycle	29310	2%

Completeness of mandatory variables and conditional variables of specific interest in the files transmitted to EGR - detailed

Files	Unit	Variable N°	Variable description	Missing (%)
ISRLE	LEU	1.1	ID number	0%
ISRLE	LEU	1.2	Name	0%
ISRLE	LEU	1.3	Address (at the most detailed level, including postcode)	1%
ISRLE	LEU	1.5	Value Added Tax (VAT) registration number or, failing that, other administrative identity number	0%
ISRLE	LEU	1.6	Date of incorporation for legal persons or date of official recognition as an economic operator for natural persons	0%
ISRLE	LEU	1.7	Date on which the legal unit ceased	0%
ISRLE	LEU	1.8	Legal form	0%
ISRLE	LEU	1.9	Legal activity status	0%
ISNORLE	LEU	1.2	Name	0%

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Completeness of GEG variables based on EGR final frame by country of GDC location	GEG	2.9	Identity number of the legal unit being the global group head. If the global group head is non-resident the EGR identity number. For natural persons that are not economic operators, the country of residence has to be recorded under 2.10a	0%	
Completeness of GEG variables based on EGR final frame by country of GDC location	GEG	2.14	Principal activity code of the enterprise group at NACE 2-digit level, if multinational group the EGR principal activity code	0%	
Completeness of GEG variables based on EGR final frame by country of GDC location	GEG	2.16	Number of employees and self-employed persons in the enterprise group, if multinational group the EGR number of employees and self-employed persons	0%	Top-tiers MNE
Completeness of GEG variables based on EGR final frame by country of GDC location	GEG	2.17	Net turnover (and currency) of the enterprise group, if multinational group the EGR net turnover (and currency)	2%	Top-tiers MNE
Completeness of GEG variables based on EGR final frame by country of GDC location	GEG	2.18	Total assets (and currency) of the enterprise group, if multinational group the EGR total assets (and currency)	0%	Top-tiers MNE
Average missing values				2%	