Manual on the Maturity Model for Statistical Business Registers

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Preface

The maturity model for Statistical Business Registers (SBRs) was developed as a tool to assist countries in identifying areas for improvements for their SBRs. It was prepared by the United Nations Committee of Experts on Business and Trade Statistics (UNCEBTS), which recognizes, in its strategic view for business and trade statistics[1], the fundamental role of SBRs in the production and compilation of business and trade statistics and in supporting the development of new statistics or improving the quality and granularity of existing ones.

To reflect this strategic view, the UNCEBTS established two task teams to advance the conceptual and practical development of SBRs; namely, the Task Team on Exhaustive Business Registers and the Task Team on Capacity Building on SBR. The discussion led to the formulation of a Maturity Model for SBRs to provide countries with a framework where they can assess their SBR and identify possible areas for improvement.

The Task Team on Exhaustive Business Registers defined its main goals as developing guidance for the SBRs to become more inclusive and exhaustive in a rapidly changing economy and to be better tailored to the needs of statistical production. The task team discussed the elements of an ideal SBR, in terms of the requirements and roles of an SBR, that would serve as a target (or "dot on the horizon") for future developments in the SBR regardless of the stage of implementation in the country. The "dot on the horizon" represents the concept of an ideal SBR that should be aimed at being developed over time, but also reflects the fact that it is a moving target, meaning that with new developments insociety, technology and economic activities, the dot on the horizon may have to be reviewed and adapted in order to remain relevant and to meet the increasing demand for better integrated, coherent and comparable statistics across countries and statistical domains.

The Task Team on Capacity Building focused its efforts on developing an assessment of the implementation of SBRs in countries to identify gaps and support the development of training material to address these gaps. The main objective of the work was to reduce the gap between advanced and less advanced countries in the implementation of SBRs.

Discussions between these two task teams of the UNCEBTS led to the formulation of a Maturity Model for SBRs to provide countries with a framework whereby they can assess the current status of implementation of the SBR in their country and more clearly see how to move toward the "dot on the horizon."

The Manual on the Maturity model for Statistical Business Registers was prepared by the Task Team on Exhaustive Business Registers under the leadership of Hank Hermans (Statistics Netherlands) and the Task Team on Capacity Building led by Saleh Al Kafri (Palestinian Central Bureau of Statistics). Members of the task teams included the following experts: Luisa Ryan (Australia), Michelle Gifford (Australia), Tomas Van Wyk (Australia), Willem Erasmus (Australia), Niveen Mohamed Awad Shebl (Egypt), Mennat Allah Mohamed Mosaad Abou Hasswa (Egypt), Pierrette Schuhl (France), Marie Leclair (France), Olivier Aguer (France), Noor Masayu (Malaysia), Durand Alcantara Gerardo Alfonso (Mexico), Free Florquin (Netherlands), Hank Hermans (Netherlands), Rico Konen (Netherlands), Rooijakkers, B.G. (Bastiaan) (Netherlands), Sagaren Pillay (South Africa), Esraa Abu Salameh (State of Palestine), Mohammad Qalalweh (State of Palestine), Christian Ekstroem (Sweden), Cecilia Hertzman (Sweden), Christian

[1] Stefano Menghinello and others (2020) A strategic and data production framework for the development of business statistics. Statistical Journal of the IAOS 36 (2020) 701–713. Retrieved from https://content.iospress.com/download/statistical-journal-of-the-iaos/sji200687?id=statistical-journal-of-the-iaos%2Fsji200687.

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The Manual greatly benefitted from the numerous constructive and helpful comments and suggestions made by national statistical offices, regional commissions, international and regional organizations, research institutes and colleagues from the Statistics Division during the global consultation which took place from December 2021 to February 2022.

The responses were overwhelmingly positive and provided a number of suggestions for consideration. An editorial group was created to review the comments from the global consultation and finalize the Manual. The editorial group included: Hank Hermans and Rico Konen (Statistics Netherlands), Saleh Al Kafri (Palestinian Central Bureau of Statistics), Luisa Ryan (Australia), Willem Erasmus (Australia), Michelle Gifford (Australia), Abel Chauke (South Africa), Marietha Gouws (South Africa), Andrew Allen (United Kingdom), Rebecca Hutchinson (United States), Enrica Morganti (Eurostat), Andrew Baer (IMF), Ilaria Di Matteo (UNSD), Maki Arakaki (UNSD), Masahiko Yagi (UNSD), Nancy Snyder (UNSD), Pedro Farinas (UNSD), Zhiyuan Qian (UNSD).

The invaluable support all these experts is acknowledged with gratitude. Particular mention should be made of the contributions by Hank Hermans (Statistics Netherlands) and Saleh Al Kafri (Palestinian Central Bureau of Statistics) for leading the discussion at the task team meetings and substantially contributing to the preparation of the Manual.

Several experts from the Statistics Division have supported the preparation, drafting and finalization of this Manual, in particular: Zhiyuan Qian, Maki Arakaki (during her fellowship in the Statistics Division), Masahiko Yagi (during his fellowship in the Statistics Division), Pedro Farinas, and Nancy Snyder. The manual was prepared under the responsibility of the United Nations Statistics Division under the guidance of Ilaria Di Matteo (UNSD).

Chapter 1: Introduction

1.1 This chapter describes the vision of the United Nations Committee of Experts on Business and Trade Statistics (UNCEBTS) for an inclusive and exhaustive statistical business register (SBR). This vision, called a 'dot on the horizon', represents a sketch of the ideal SBR in terms of its roles and requirements which can serve as a target for future developments in the SBR regardless of the current stage of implementation in a country.

A. Roles of the Statistical Business Register

1.2 The SBR is often described as the backbone of economic statistics, as it provides the core infrastructure to support the collection of economic data and the production of economic statistics. Specifically, the SBR is the coordinating mechanism, as it provides a coherent set of units and classifications to collect and assemble data across all domains and a consistent set of rules to maintain this data over time. The SBR also serves as the backbone for producing economic statistics that meet the increasing demand for better integrated, coherent and comparable statistics across countries and statistical domains. These statistics should also be able to describe new phenomena, such as globalization, digitalization, well-being and sustainability. With these new demands, an inclusive and exhaustive SBR becomes an increasingly more important element of the statistical infrastructure for maintaining the relevance, responsiveness and quality of economic statistics in order to measure the structure and dynamics of economic activity.

1.3 Moreover, as National Statistics Offices (NSOs) continuously respond to new and emerging user needs in terms of coverage, frequency and timeliness of business and trade statistics, they should do so efficiently, while keeping the response burden as low as possible. Therefore, efforts must be made to modernize production processes, to use administrative data to reduce survey burden, to redesign survey systems, to harmonize surveys and variables, to comprehensively link administrative data and survey sources, and to cooperate more closely with administrative authorities on a continuous basis to improve the quality of the SBR. Greater international dependencies and globalization of production also increasingly requires better consistency between the various statistical domains at the national and international level.

1.4 The SBR plays a key role in responding to all of these developments. Therefore, the current and future challenges in business and trade statistics are, at the same time, challenges for the SBR. The SBR delivers the basic information for conducting economic surveys by providing the populations of statistical units and their characteristics for national business and globalization-related statistics as well as business contact and related information that facilitates survey data collection. Further, by linking/transforming administrative and legal units into statistical units, the SBR thus facilitates the use of administrative data for statistical purposes. It also provides unique identifiers for businesses, enabling linkages at the micro-level across statistical domains that are needed for producing national and international statistics. Finally, it is the central data source for statistical analysis and calculations, identification and delineation of units, definitions of statistical weights and micro-data linking.

1.5 In particular, the SBR also has a fundamental role for the production of high quality, reliable and consistent business statistics, which in turn have a significant effect on the national accounts and other macroeconomic statistics. The quality of business and trade statistics greatly depend on the availability of

a quality SBR. A high-quality SBR fulfills user needs in an optimal way and, when based on international concepts, definitions and classifications, it also serves as the basis for international harmonization of economic statistics in terms of coverage, statistical units and frame methodology

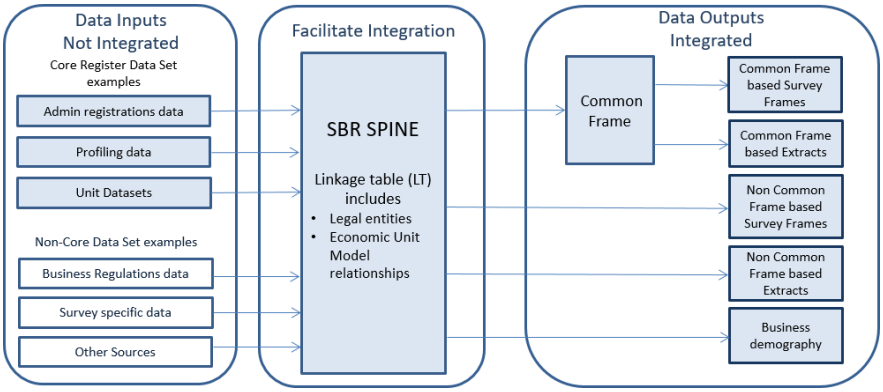
B. Core Requirements of the Statistical Business Register

1.6 Among the most important requirements of an SBR is to reflect the real world as much as possible and to be regularly maintained. The SBR has usually been implemented for this purpose by integrating data into a single structured database. Yet, as described previously, addressing the new needs for more integrated data will in part rely on being able to integrate data more flexibly from a variety of sources, while minimizing the storage of redundant information in the SBR. To facilitate this integration, a "spine" data model has been developed by the Australian Bureau of Statistics (ABS) and is supported by the UNCEBTS.

1.7 In the spine data model, registers are no longer held in a single structured database. Rather, they are created virtually via data linking. The spine is the minimum set of information (e.g., identifiers and the relationships in the economic unit model as well as information to describe the relationship like aggregation and proration ratios, and the live status of the relationship) required to link two or more datasets, and there is a separation between data inputs, the spine and data outputs. Under this approach the SBR becomes a register environment rather than a stand-alone register. The spine data model also supports inter-operability between registers.

1.8 The register environment in this model includes the core register input datasets (not integrated), the spine, and the business rules and views that use the spine to transform data inputs into integrated data outputs. The supporting environment must be sufficiently flexible to enable new datasets to be related to the spine as they are created or obtained. To support coherence within the data, all economic collections should be based on frames from the SBR or be linked to the SBR. Figure 1 depicts a schematic representation of the SBR spine model, according to the current thinking and design of the Australian Bureau of Statistics as of 2023.

Figure 1
Schematic representation of the spine model



1.9 Although the core of an SBR should be kept to the minimum set of information that would allow the linking of input and output data, its coverage should be maximized. That is, an SBR should record all institutional units in the national economy that are engaged in productive economic activities; i.e., activities contributing to the gross domestic product (GDP). The production activities of a national economy can be divided into three parts: the formal sector (private and public sector), the informal sector, and household non-market production for own final use. Ideally, the first two parts should be fully covered by an SBR. In reality, complete coverage of all these units within the Systems of National Accounts (SNA) production boundary is impossible to achieve. However, for the purposes of international comparisons, it is desirable that the coverage of an SBR meet agreed standards, with completeness being the ultimate aim.

1.10 Aiming for completeness will lead to new challenges that cannot be addressed only by relying on conventional methods, administrative sources and the traditional survey-based approach. The digital transformation, data revolution and emergence of "big data" all influence the way NSOs collect data. Data are everywhere, generated by everything and everyone. These developments should be seen as opportunities to enrich existing datasets, further characterize enterprises and determine and differentiate subpopulations, noting that new approaches need to be repeatable. To take advantage of all the potential opportunities associated with advanced data collection approaches, much guidance is still needed.

1.11 In addition, important pre-conditions for a "modern" SBR are the existence of a legal business registration system and an identity management system. A legal business registration system comprises well-maintained and updated registrations of single businesses identified by a unique national legal unit identifier. Such a system requires specific legislation to support the use of technological communications devices for registration purposes, such as computers and the Internet, for the provision of public services to citizens and other persons in a country or region over the internet, better known as e-government. The recommended core functions for such a business registry are listed in the United Nations Commission on International Trade Law (UNCITRAL) Legislative Guide on Key Principles of a Business Registry.[2]

[2] UNCITRAL Legislative Guide on Key Principles of a Business Registry, 2019, Vienna, Austria.
https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/lg_business_registry-e.pdf

1.12 Moreover, the existence of a legal and institutional framework that mandates the NSO for data collection, facilitates the access to administrative sources and other relevant sources, and that includes provisions to facilitate the access to these sources in an efficient and secure way provides an important basis for an efficient establishment and maintenance of SBRs. This is also in line with the UN Guidelines on Statistical Business Registers (UN 2020)[3], which recommends that SBRs be created and maintained primarily using administrative sources. The main benefits of administrative data are that they provide comprehensive coverage of registered businesses, are constantly updated, and are readily available to NSOs.

C. International cross-border data linking

1.13 The discussion above primarily relates to SBRs at the national level. However, the increasingly global activities and structures of enterprises pose a challenge for the integration, coherence, consistency and comparison of business, trade and macroeconomic statistics across countries and across statistical domains. This situation requires a structured solution where cross-border relationships and activities of the largest and most important multinational enterprise (MNE) groups can be identified, stored, maintained and made available for compiling statistics on cross-border phenomena. In the European context, the EuroGroups Register (EGR)[4] is the joint tool in the European Statistical System (ESS) that links and coordinates basic information about MNEs from the EU Member States' SBRs to create the harmonized global structures of MNEs in the EU and their constituent legal units.

1.14 Similar efforts have been made at global level in the last several years. In 2015 the United Nations Statistical Commission recognized that creation of a global enterprise group register (complementing to a certain extent the EGR) that shows the legal structure of the largest MNEs would assist countries to understand the non-national part of the MNEs in their country; facilitate the data sharing among countries; and, more generally, aid the analysis of globalization effects and global value chains.[5] In response to the United Nations Statistical Commission (UNSC) decision, the United Nations Statistics Division (UNSD), in collaboration with Eurostat, examined various methods for building a global group register based on public information that would complement the EGR, and in December 2020 published the first experimental release of the Global Group Register (GGR),[6] a public, open-source database containing profiles of the world's largest 100+ MNEs as a proof of concept. At the same time, the Organisation for Economic Co-operation and Development (OECD) developed the Analytical Database on Individual Multinationals and Affiliates (ADIMA),[7] based on public sources and has released information on an annual basis since 2018 on the top 500 MNEs. In 2023 OECD and UNSD combined their efforts and developed a joint Multinational Enterprise Information Platform(MEIP)[8], covering a global register of the largest 500 MNEs and their subsidiaries and affiliates as well as a digital register of their

[3] UN Guidelines on Statistical Business Registers (2020) https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

[4] EuroGroups Register (EGR) https://ec.europa.eu/eurostat/web/statistical-business-registers/eurogroups-register

[5] UNSC Decision 46/107. https://unstats.un.org/unsd/trade/events/2016/newyork-egm/documents/core/Decision%2046-107%20-%20Statistical%20Commission%202015.pdf.

[6] Global Group Register (GGR) https://unstats.un.org/unsd/business-stat/GGR/.

[7] The 2018 release of ADIMA included the profiles of 100 MNEs, expanding to the largest 500 MNEs in the 2019 and 2020 release. OECD also produces a monitoring report on major corporate restructurings, based on company press releases on mergers and acquisitions. https://www.oecd.org/sdd/its/statistical-insights-the-adima-database-on-multinational-enterprises.htm

[8] Multinational Enterprise Information Platform (MEIP) : https://unstats.un.org/unsd/business-stat/mne-platform/

web presence around the world. The Multinational Enterprise Information Platform is built from publicly available information, such as the Global Legal Entity Identifier Foundation (GLEIF),[9] Opencorporates, companies' websites, and companies' annual reports.

1.15 The availability of publicly available global unique identifiers greatly facilitates the further development and coverage of regional and global registers as they facilitate the linking of information. Similar problems are experienced at national level, where the lack of national unique identifiers of businesses is often seen as one of the main obstacles in the establishment and improvement of SBRs in countries and greatly hampers the use of administrative data and linking to other registers. Efforts are being made at the international level to encourage the use and maintenance of national unique identifiers for businesses and promote their link to global identifiers.

D. The vision of a dot on the horizon

1.16 The 'dot on the horizon' is an expression to symbolize the vision of the UNCEBTS for an ideal SBR which fulfills the following roles: as the backbone for business and trade statistics; in producing high quality business and trade statistics (including data collection and compilation); in addressing emerging data challenges (including the creation of new statistics or improving the quality and granularity of existing ones); and in tracking continuity of enterprises and their histories. The dot on the horizon also reflects the need for the SBR to represent the real world and be maintained over time.

1.17 The vision of a 'dot in the horizon' also includes the view of an ideal SBR which: has complete or full coverage (with maximizing coverage, including the informal sector, as the second-best solution); is developed as part of an interoperable system of registers rather than a stand-alone register; is used as the main source for the integration of new datasets and data sources (e.g., administrative data sources, Big Data, etc.); provides common/frozen frames for all economic data collections; and finally is developed based on the spine model which focuses on the core data requirements (e.g., identifiers and the relationships in the economic units model) and allows the linking between various datasets.

1.18 Finally, in the vision of the dot on the horizon, the SBRs is the tool to foster cross-border data integration and improve the quality of information on MNEs which play an important role in national economies. An SBR's ability to communicate and exchange data with global registers such as the Global Register of the Multinational Enterprise Information Platform would be an ideal situation to link information while preserving the confidentiality.

[9] Global Legal Entity Identifier Foundation (GLEIF) https://www.gleif.org/en/

Chapter 2: The Maturity Model for Statistical Business Registers

A. Introduction

2.1 The previous chapter elaborates on the vision for the SBR that can stand the test of time and that represents the aspirational goal for SBRs. In practice, however, the starting point and the pace of SBR development varies across countries as it depends on many factors. The Maturity Model for SBRs is a tool to assess the stage of development of an SBR and identify possible avenues for improvements.

2.2 The Maturity Model for SBRs is based on the identification of seven dimensions that characterize an SBR, and the stages of development for each dimension. There are, however, certain considerations regarding SBRs that are not explicitly covered by the Maturity Model. They include, for example, considerations about funding, governance, and organizational and human resource considerations. They are described in Chapter 11 of the UN Guidelines on Statistical Business Registers (UN 2020) as they are particularly relevant for countries where an SBR is being established. Although it is recognized that these elements are particularly important for SBRs, the Maturity Model does not explicitly address these aspects in separate dimensions as it is not possible to give prescribed levels of maturity as they highly depend on the specific context.

2.3 The funding model for the SBR is itself an important aspect of its governance and decision-making process and should be carefully considered at the outset. The costs of creating and maintaining the SBR are not likely to be recovered on a fee-for-service basis, as the SBR is a public-good type of resource used by multiple programs for diverse purposes. (Para. 11.24 UN 2020)

2.4 With regard to considerations on human resources, it is important that sufficient resources are allocated to the development and maintenance of SBRs. This will ensure that SBRs are continuously updated and upgraded. The human resource allocation depends on a number of factors including, for example, the size of the NSO and the size of the SBR. In general, to develop and maintain a mature SBR it is important to have dedicated resources in an SBR team. In small offices, it may not be practical to have a dedicated SBR team, so the goal would be to ensure that the SBR is built into the organizational structure and that staff are trained in the procedures to maintain and update the SBR. In all offices it is likely that some SBR support will come from outside the team e.g., IT and methodology.

2.5 The organizational structure of the SBR within an NSO is also important both for the development of an SBR and, even more, for its maintenance and for providing support for users. The UN Guidelines for SBRs (UN 2000) indicate that the SBR should be, if possible, a separate organizational unit with a dedicated manager within the NSO. However, the exact location of this unit within the NSO depends on many factors such as numbers of staff in the NSO and in the economic statistics programme, the number of surveys that the SBR is servicing or will service, the degree of centralization/regionalization of the NSO, the scope/need for regional business registers, and the availability of IT systems supporting SBR operations. (Para. 11.19 and 11.33 UN 2020)

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2.6 The governance of an SBR has to be put in place in order to develop and maintain an efficient SBR. It generally refers to the process by which decisions are made and implemented, and can vary from a situation where business populations are updating locally in various statistical divisions, to a situation

where the SBR is managed centrally for the whole NSO. The manager of the SBR unit should ideally be included in organizational decision-making impacting statistical infrastructure and perform horizontal coordination of SBR matters. In addition, it is also a good practice that the SBR manager is involved in the discussion regarding the use and access to administrative registers.

2.7 The Maturity Model should not be seen as a static framework for the maturity of SBRs. As technology, economic behaviour and user needs evolve, the maturity model will have to adapt to new realities. It is envisaged therefore that the maturity model is a live framework that is periodically reviewed and adjusted. The Maturity Model for Statistical Business Registers is a tool to:

- share knowledge and best practices
- determine the current state of a national SBR
- determine possible next steps for development
- find help and guidelines to actually be able to take those steps
- help decision makers prioritize SBR development (funding, resources).

B. Maturity and maturation

2.8 The Maturity Model for SBRs describes the different stages of an SBR along seven dimensions. For each dimension, the stages are described by characteristics that are typical for a certain level of development.

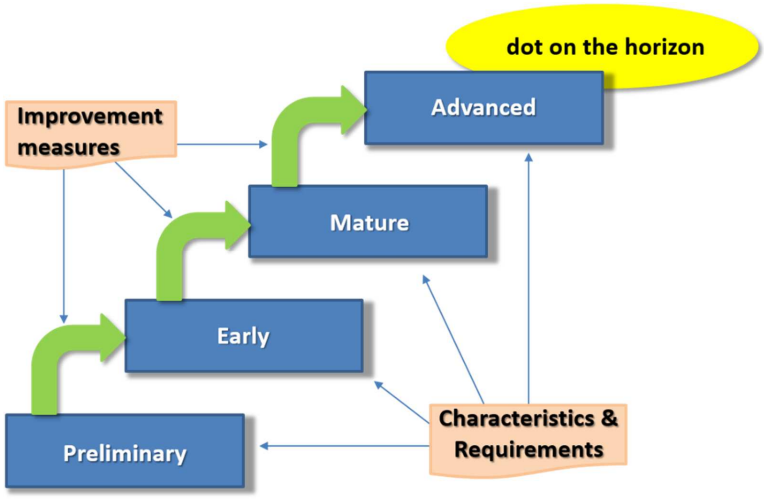
2.9 Stages progress from 'Preliminary,' where there is almost nothing in place to, 'Early', 'Mature' and finally 'Advanced'. The Advanced level can be viewed as the ideal situation for the specific dimension and generally described as the dot on the horizon in Chapter 1. The stages were developed in such a way that they show a progression of development.

2.10 Each stage is defined by characteristics and requirements that are specific for that stage. When the Maturity Model for SBRs is in place, it is important that an NSO is able to assess the level that applies to its SBR. To facilitate this, checklists are developed for performing a self-assessment. Although the dimensions are interrelated, each individual dimension of the Maturity Model is evaluated separately, and therefore no overall stage of development can be derived from this model.

2.11 One advantage of using the Maturity Model for SBRs is that it can provide guidance on how to move from one stage to the next. In fact, it is possible to define guidance for specific characteristics and requirements. Several guidelines, handbooks and recommendations for SBRs have been developed and can be used as guides for the improvement of SBRs. The guidelines should provide practical advice on the development and implementation of characteristics and requirements.

2.12 The Maturity Model for SBRs should ideally be built in an online environment, so that its contents are easy to maintain and the model itself is dynamic based on the latest developments and insights. Existing material can easily be re-used by linking to its location. Figure 2 depicts a conceptual visualization of the Maturity Model for SBRs.

Figure 2
Conceptual visualization of the Maturity Model for SBRs



Chapter 3: Dimensions of the Maturity Model for SBRs

A. Overview

3.1 The Maturity Model for SBRs is based on seven dimensions that characterize an SBR. These dimensions were selected based on a close review of the Generic Statistical Business Process Model (GSBPM).[10] The GSBPM provides a framework of all the business processes needed to produce official statistics. SBRs are crucial for providing the population frames and designing efficient data collection processes for economic statistics. Therefore, SBRs should be fully integrated into the national statistical production process in accordance with the GSBPM as the instrument to produce and coordinate business statistics.

3.2 The dimensions of the Maturity Model for SBRs describe the most important characteristics affecting the basic design principles for populations, survey frames and data collection in the GSBPM. The stages provide an insight of the maturity status of a particular dimension. The combination of both dimensions and stages aims to help develop efficient design principles in the business architecture for use by an individual NSO. In this respect, the Maturity Model for SBRs then becomes an instrument for improvement.[11] The seven dimensions of the business model are presented in Table 1.

Table 1
Overview of the dimensions of the Maturity Model for SBRs

N	Dimension	Description
1.	Legal and institutional framework	This dimension refers to the legal and institutional framework relevant for establishing and maintaining the SBR.
2.	Data sources for the SBR	This dimension refers to the various data sources that the NSO can use to build and maintain the SBR.
3.	Maintenance and update of the SBR	This dimension refers to the maintenance and update procedures for the SBR, and in particular the operational requirements of maintaining effective and reliable systems.
4.	Coverage of the SBR	This dimension refers to the coverage of the businesses in the SBR.
5.	Use of SBR	This dimension refers to the use of the SBR, both by external users and internally within the NSO.
6.	IT Environment	This dimension refers to the IT environment that supports the data storage, maintenance, update and dissemination of SBRs.
7.	Interoperability	This dimension refers to the ability of an SBR to communicate and exchange standardized data with other registers, be they domestic, regional, or global.

3.3 The stages of the Maturity Model for SBRs refer to the maturity levels of the Capability Maturity

[10] Generic Statistical Business Process Model (GSBPM)
https://statswiki.unece.org/display/GSBPM/Generic+Statistical+Business+Process+Model
[11] https://aisel.aisnet.org/ecis2011/28/

Model[12] and aim to improve the development processes for SBRs. While the Capacity Maturity Model defines 5 maturity levels, the Maturity Model for SBRs contains 4 maturity levels. The 'Preliminary' stage is characterized by ad hoc efforts or initial plans to start the development. The 'Early' stage is characterized by the establishment of defined and documented standard processes subject though to some degree of improvement over time. The 'Mature' stage is characterized by the implementation of a tested and adapted system that fit the process objectives. For the purposes of the SBR this stage is when the SBR can be considered as the backbone in support of economic statistics. The 'Advanced' stage is where extensions and further improvements are put in place in order to improve the quality and performance of the system.

3.4 Each stage is defined by a number of characteristics that describe the typical incremental path for the specific dimension. Not all the characteristics may be present at the same time for a specific SBR, and, at times, an SBR may contain characteristics across various stages. It is envisaged that the stage that is more reflective of an SBR is the assigned stage of development.

3.5 In the next paragraphs, the dimensions and the stages for each of the dimensions are elaborated. The dimensions are not independent, rather they are interlinked and interdependent. The Maturity Model does not provide a ranking of the dimensions and, therefore, it does not provide guidance on which dimension to prioritize. Once the status of implementation of an SBR is assessed, the choice of which dimension(s) to improve will depend on national priority, human and financial resources. However, it would be unusual to push ahead in one dimension without also developing the rest of the dimensions. In defining the different stages for each dimension, some elements have been taken from the Handbook on Civil Registration and Vital Statistics Systems: Management, Operation and Maintenance[13] (Handbook on CRVS). The Handbook on CRVS takes a holistic systems approach covering civil registration, vital statistics, and population registers, and they identify issues related to the structural design, business processes, infrastructure, management and operations of an integrated system for registration, issuance of legal documents, register development, and the compilation of statistics.

B. Dimension 1: Legal and institutional framework

3.6 This dimension of the maturity model refers to the legal and institutional framework relevant for establishing and maintaining an SBR. A sound legal and institutional framework that regulates official statistics and, in particular, the rights and obligations related to data collection and acquisition, including access to administrative records and other relevant sources, provides an essential basis for the development and maintenance by the NSO of an effective and efficient of SBR. The legal framework refers primarily to the Statistical Act or Statistical Law regulating official statistics in a country but also other legal instruments and provisions regulating privacy and data protection, access, sharing and archiving. While the legal framework can take different forms rooted in the country's constitutional and institutional environment, some common elements are identified and elaborated in the Generic Law on Official Statistics (GLOS)[14]. The United Nations Economic Commission for Europe (UNECE) developed the GLOS in 2016 to provide recommendations and good practice guidance on the statistical laws for official statistics. Box 1 hereunder shows some critical provisions provided in the GLOS for the development and maintenance of SBRs.

[12] Capability Maturity Model https://en.wikipedia.org/wiki/Capability_Maturity_Model
[13] Handbook on Civil Registration and Vital Statistics Systems (Handbook on CRVS) https://unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Handbooks/crvs/crvs-mgt-E.pdf
[14] Generic Law on Official Statistics (GLOS) https://unece.org/DAM/stats/publications/2016/ECECESSTAT20163_E.pdf

Box 1
Relevant articles on SBRs in the Generic Law on Official Statistics (GLOS)

In general, the Statistical Act or Statistical Law covers various aspects of the NSO's work, but some aspects are particularly relevant for SBRs. These include:

- Mandate for data collection (Article 15 of GLOS)

15.1 The Producers of Official Statistics shall be entitled to select data sources based on professional considerations and collect the necessary data to compile official statistics directly from respondents if sufficient data are not already available in the National Statistical System and cannot be obtained from existing data, for example those maintained by national and local authorities outside the National Statistical System.

15.2 Data collection shall be designed with due consideration to quality of statistics, costs of data provision and response burden.

15.3 Irrespective of the data collection methods and sources, data obtained by Producers of Official Statistics are under their ownership and shall be processed, stored and disseminated in full compliance with the provisions of the present Law.

15.4 Within the limits of the provisions on statistical confidentiality in Articles 20-26, Producers of Official Statistics may share data and metadata within the National Statistical System to avoid any duplication of data collection and improve the quality of official statistics.

- Access to administrative data (Article 17 of GLOS)

17.1 All national and local authorities are obliged to provide the Producers of Official Statistics, free of charge, with data in their possession at the level of detail necessary for the production of official statistics and with the metadata that enable assessing data quality. Special confidentiality or secrecy provisions in other legislation cannot be invoked unless the legislation explicitly excludes the use of data for statistical purposes.

17.2 If the providers of administrative data plan to develop a new data collection or carry out a major revision in their data collection or processing in a way that may affect data provided for official statistics, they shall consult the National Statistical Office and, where appropriate, the Other Producers of Official Statistics, in advance of the decision.

- Legislative mandate for NSO on the establishment and maintenance of SBR (Article 19 of GLOS)

19.1 The National Statistical Office may establish and maintain statistical registers, to be used exclusively for statistical purposes. Statistical registers refer to lists of statistical units and their characteristics, including identifiers that are necessary for statistical production.

- Data subject to statistical confidentiality (Article 20 of GLOS)

20.1 Individual data subject to confidentiality, as defined in paragraph 3.1 f, are those that allow natural or legal persons to be identified, either directly or indirectly, thereby disclosing individual information. In addition, the following aggregated data are subject to statistical confidentiality:

a. Aggregates composed of 1 to 3 units, when the unit is a natural or legal person, if one of these units could be identified indirectly, thereby disclosing individual data about this unit. Aggregates composed of more than 3 units may be declared confidential by the Chief Statistician if required to ensure statistical confidentiality;

b. Information declared as a state secret on the basis of [name of the legal act].

20.2 Statistics referring to national or local authorities are not protected by statistical confidentiality, unless declared as state secrets. The Chief Statistician can waive the protection of statistical confidentiality for other legal persons of the public sector.

- Access to individual data of the National Statistical System (Article 23 of GLOS).

23.2 Producers of Official Statistics may produce and release to the public sets of individual data only if the data have been processed so that identifiers have been removed and natural or legal persons cannot be identified in any way, either directly or indirectly. To determine whether a natural or legal person is indirectly identifiable, account shall be taken of all relevant means that might reasonably be used.

- Provision for data dissemination (Article 29 of GLOS).

29.1 Official statistics shall be disseminated in a timely and punctual manner in full compliance with Articles 29-30 and the principles in Articles 3-4 of the present Law, particularly in respect of protecting statistical confidentiality and ensuring equal and simultaneous access as required under the principle of impartiality.

29.2 Each Producer of Official Statistics shall establish and make public an advance release calendar that indicates the planned dates and times for the releases of official statistics. Any expected divergence from the advance release calendar shall be communicated to the public before the planned release date. A new date for the release shall be set within reasonable time and made public.

29.3 Releases of official statistics shall be accompanied by metadata and explanatory comments, and access shall be granted to all users free of charge. The Producers of Official Statistics may set the price of printed publications and other material, as regulated in [name of the legal act].

3.7 Beyond the Statistics Act or Law, other provisions in administrative rules and regulatory frameworks can support the development and maintenance of SBRs. These include:

- The establishment and use of a unique identifier for businesses in the country
- Registration requirements for countries that have a business register, which is a data source for the SBR. Recommendations on business registers can be found in the Legislative Guide on Key Principles of a Business Registry, prepared by the United Nations Commission on International Trade Law (UNCITRAL).
- Exemptions for the NSO from specific provisions in data privacy, protection, sharing and archiving acts to access and process microdata and to combine microdata from various sources for statistical purposes, including the development and maintenance of statistical registers.

3.8 A memorandum of understanding (MOU), a service level agreement (SLA), or similar arrangement can be used to formalize, in a less binding arrangement, the cooperation between institutions to access administrative data. These MOUs generally cover data flows, metadata, communications, protection of the confidentiality, and often include a clause ensuring that the NSO will be informed in advance of any changes made to administrative process that will affect the resulting data.

3.9 The Guidelines on the Legislative Framework for Civil Registration, Vital Statistics and Identity Management (United Nations 2019) [15], notes that the legal framework can cover the following aspects: business registration; business registers; unique identifiers, data protection and privacy; compliance,

[15] Guidelines on the Legislative Framework for Civil Registration, Vital Statistics and Identity Management(United Nations 2019) https://unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Handbooks/crvs/CRVS_GOLF_Final_Draft-E.pdf

enforcement, rights and remedies; and transitional provisions. A further elaboration of the legislative framework for SBRs would be useful and could be developed using the UN Guidelines on the Legislative Framework for Civil Registration as a model.

3.10 The availability of international or regional regulations/legislation, such as those at European level, can also cover important elements for the establishment, maintenance and dissemination of SBRs. For example, the legal basis for European business statistics (Regulation (EU) 2019/2152 of the European Parliament and of the Council of 27 November 2019 on European business statistics) covers, in addition to the various business statistical domains, the statistical business register (Eurostat, 2021).[16]

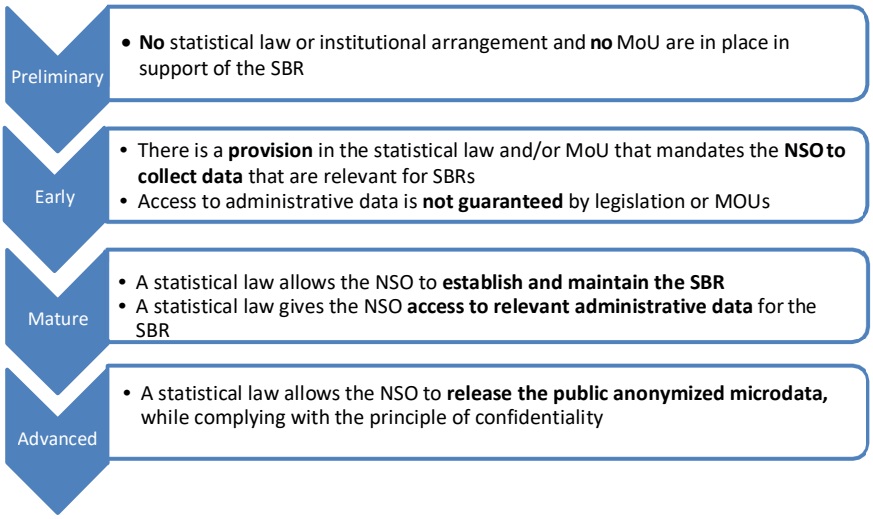
3.11 Institutional arrangements for SBRs are also important elements of this dimension of the Maturity Model. It refers to the arrangements among the relevant institutions in the country for the maintenance and update of SBRs. A clear understanding of the roles of the different institutions is important to establish an institutional arrangement. The NSO is typically the institution responsible for the SBR, and it is vital for the NSO to establish and maintain good relations with other institutions, especially the owners who are responsible for data sources. Depending on the nature of the national statistical system; i.e., centralized vs decentralized, there may be special institutional arrangements that guarantee the sharing of relevant information. Institutional arrangements can also be put in place with relevant agencies within the country, such as the institution in charge of businesses registration.

3.12 The availability of a national institution that is responsible for the registration of businesses is an important element for the SBR. A business register, administrative business register, or business registry are different from the SBR as they represent the country's mechanism for receiving, storing and making accessible to the public certain information about businesses, as required by domestic law. Most countries have a business registry supported by the legislation that require businesses to register in order to participate in the formal economy. When available, they represent an important source of information for SBRs.[17]

[16] European business statistics methodological manual for statistical business registers 2021 edition https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/ks-gq-21-001

[17] https://uncitral.un.org/en/texts/msmes/legislativeguides/business_registry

Figure 3
Summary of stages of maturity for Dimension 1: Legal and Institutional Framework



Preliminary stage

There is no statistical law, no institutional arrangement and no MOU that can be effectively used to support the SBR, namely that have specific provisions for the SBR on the mandate for data collection, access to administrative data, management of identifiers, compulsory business registration, dissemination and confidentiality.

Early stage

There is a provision in the statistical law or a MOU that mandates or allows the NSO to collect data that are relevant for the SBR. This includes for example conducting economic censuses and surveys that can support the maintenance of the SBR. An administrative business register may or may not be available in the country. Where it is available, access to it may not be guaranteed by law or MOU. In the same manner, access to other forms of administrative data is limited and not guaranteed by legislation or MOUs.

Mature stage

A statistical law allows the NSO to establish and maintain an SBR. There is a statistical law that gives the NSO access to relevant administrative data (see GLOS Article 17.1) for the SBR. This includes access to business registry and other administrative sources. The statistical law or MOU has the provision that all providers of administrative data should provide the NSO with access to their data, and at the level of detail necessary for SBR. Where possible, metadata to enable data quality assessment should also be provided. This provision should be ideally complemented by legal instruments such as data privacy, protection, sharing and archiving acts allowing the NSO to access, process and combine microdata from various sources (including private sources) for the development and maintenance of statistical registers.

The statistical law or MOU also contains the provision that providers of administrative data shall maintain the continuity of data provision where possible. If they plan to develop a new data collection or carry out a major revision in their data collection or processing in a way that may affect data provided for official statistics, they shall consult the NSO in advance of the decision. In addition, there is a provision in the legislation that regulates access to business micro (unit record) data within the National Statistical System through the application of appropriate confidentiality rules.

There is a legislation that obliges businesses to register and support the creation of a unique identifier among all the relevant institutions. However, this provision is in general not regulated by the statistical legislation, but other laws.

Advanced stage

Within the fundamental principle of data confidentiality, there is a provision that allows the dissemination of aggregate data or anonymized unit record data from the SBR.

The statistical law has the provision that allows micro-data sharing from the SBR with statistical authorities of other countries or international/regional organizations while complying with the principle of confidentiality.

The NSO is consulted before the providers of administrative data carry out major changes in their data collection or processing that may affect the data provided.

Formal agreements to allow some data sharing between the national SBR and the SBRs of other countries may exist.

There is an inter-institutional committee or other coordinating mechanism with the aim of cooperating in the collection and/or promoting the quality of the administrative data.

In line with GLOS Article 15.1, the Statistical Law or MoU permits the use of a survey as an instrument to collect data with respondents only when information is not already available in the national statistical system or cannot be obtained from existing data, for example those maintained by national and local authorities outside the National Statistical System. This provision effectively makes the use of administrative data mandatory. The quality of administrative data should be considered in this aspect.

C. Dimension 2: Data sources for the SBR

3.13 This dimension of the Maturity Model refers to the characteristics of the SBR in terms of the data sources used for establishing and maintaining the SBR. The data sources depend greatly on the country's situation and the availability of relevant information from other institutions. Therefore, the choice of the best data source depends very much on the specific context of a country. However, in line with the UN Guidelines on Statistical Business Registers (para 6.4 UN 2020), the recommendation is for SBRs to be created and maintained primarily using administrative sources. They enable good coverage and stability. This approach is in line with Principle 5 of the United Nations Fundamental Principles of Official Statistics, which states "Data for statistical purposes may be drawn from all types of sources, be they statistical surveys or administrative records. Statistical agencies are to choose the source with regard to quality,

timeliness, costs and the burden on respondents."

3.14 There are clear benefits to the SBR when high quality administrative data are available and can be exploited for use in the SBR. Administrative data provide comprehensive coverage of registered businesses, are constantly updated, and are readily available to an NSO. In a country with good access to administrative data, collectively these data determine the coverage of the SBR and hence of the survey frames it provides. In countries where access to administrative data is limited, statistical data may have to be used to provide adequate coverage. The quality of administrative data is an important consideration. Close coordination between an NSO and the administrative source is imperative to ensure the administrative data are well understood and that there are no surprise changes in the data flow or content.

3.15 In general, the use of economic censuses as a main source for the maintenance an SBR is not recommended for the following reasons:

a) Economic censuses are very expensive even if the scope is restricted to businesses with identifiable premises. They are generally conducted at best every five or ten years. Thus, NSOs should consider a suite of annual surveys based on a register-based list to be much more cost-effective.

b) SBRs need to be updated between economic censuses. The small businesses located during area enumeration are volatile in the sense that they may go rapidly in and out of production, or ownership, or change their activities or addresses. Thus, to be truly effective as a source of survey frames in the years between censuses, the SBR must be constantly updated, which itself can be costly.

c) In addition to its high cost, the enumeration approach has the disadvantage of not being able to identify and document non-recognizable places of business, or enterprises without a fixed location, for example web-based businesses or individual entrepreneurs such as electricians and plumbers providing services at locations other than their homes.[18]

3.16 It should be recognized that there are countries where the NSO does not have access to administrative data, comprehensive administrative data do not exist, or the quality of the administrative data is not sufficient for the update of the SBRs. In these countries, the traditional economic censuses or other kinds of business surveys, as well as household surveys, are therefore an indispensable source for the SBRs. Economic censuses, mostly based on the establishment unit, deliver relevant and core information for the SBR on each establishment, such as address, economic activity, legal unit, number of employees. Even in countries that are able to use administrative data for their SBRs, data from censuses may be used as a complementary source for checking or updating the SBR.

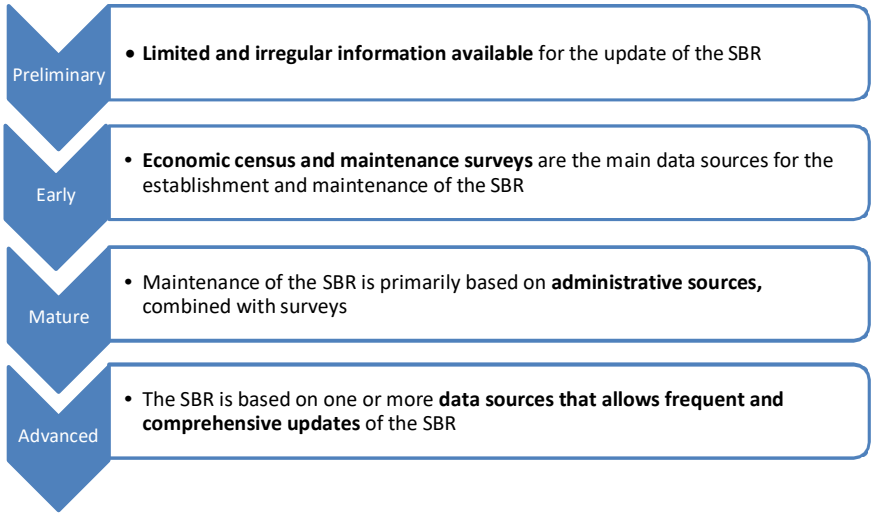
3.17 The preferred data sources depend on the specific situation in any given country, including the availability of administrative data and the scope and complexity of the national statistical system itself.

3.18 However, efforts should be undertaken by countries in exploring potential administrative sources for use in the SBR, understanding their coverage and concepts, and assessing their quality. The improvement of the quality and timeliness of the SBR goes hand-in-hand with the improvement of administrative data. In addition, the NSO should aim to actively partner with administrative data providers and influence datasets for use in the SBR.

[18] United Nations, 2021 the handbook on management and organization of statistical systems https://unstats.un.org/capacity-development/handbook/index.cshtml

3.19 The advanced SBR could be based on multiple data sources using advanced technology such as web scraping and data mining. The availability and use of data sources will be a strong determinant of the maintenance process and effort.

Figure 4
Summary of stages of maturity for Dimension 2: Data sources for the SBR



Preliminary stage

The information for the update of the SBR is very limited and irregular. If an economic census is available, it may not be conducted on a regular basis. There is no up-to-date comprehensive source on establishments/enterprise/business units for statistical purposes. Scoping exercises may be underway.

Early stage

The establishment and maintenance of the SBR is based mainly on the economic census together with maintenance surveys. There may be periodic economic censuses to update the SBR, but in general the maintenance procedure between census years is limited, causing a significant time lag in the update of SBR data.

No profiling or substantial data confrontation with other sources is undertaken. An assessment of the availability and quality of administrative data for SBRs is being undertaken in the country.

Mature stage

The maintenance of the SBR is primarily based on administrative sources, such as business registers, taxation data, etc. Statistical surveys (including an SBR improvement survey) are used in combination with administrative data.

Economic censuses may or may not be used, but if used, regular and comprehensive updates of the SBR during the inter-census period are conducted by additional sources such as administrative data which enable the addition of new units and updated variables.

Advanced stage

The SBR is based on one or more data sources (e.g., economic census, statistical surveys, multiple administrative sources, big data, private data sources) that allows comprehensive and frequent updates of the SBR regularly or in line with the frequency of data source updates.

Web scraping and data mining techniques may be used to scrape different websites of the companies and to 'mine' or 'classify' the text on the websites to verify/update the content of the SBR.

Where there is enabling supranational legislation, data from other countries can be used to update and validate the SBR.

D. Dimension 3: Maintenance and update of the SBR

3.20 This dimension of the Maturity Model refers to the maintenance and update procedures for the SBR and, in particular, to the operational requirements of maintaining effective and reliable systems.

3.21 In general, the key objective of maintenance is to update the coverage and content of the SBR, taking into account continuity and stability rules, according to a well-defined calendar, and in as timely a fashion as the information sources allow. This is so the SBR is able to provide economic surveys with sampling frames that are accurate and as up to date as possible. (Para. 7.1 UN 2020)

3.22 The operational requirements of a maintenance program include the modification of records and preservation of stored records. Modernizing and maintaining the operational requirements is a prerequisite of contemporary functions of NSOs, essential to improving services to the public.[19]

3.23 Part of the maintenance of the SBR includes the digitalization and automatization of procedures. However, these aspects are elaborated under the IT dimension of the Maturity Model. In this dimension, the focus is on the following aspects:

- the sources of information described in Dimension 2 (e.g., administrative sources, economic censuses, feedback from surveys and SBR improvement surveys) and rules for dealing with conflicting information;
- continuity and stability rules determining whether a statistical unit is deemed to have continued despite significant changes (for example, of ownership, size, economic activity and/or location), or to have died and been replaced by another unit, as are stability rules (sometimes called resistance rules) that restrict the speed with which changes of characteristics are applied in order to inhibit unwanted oscillations in values;

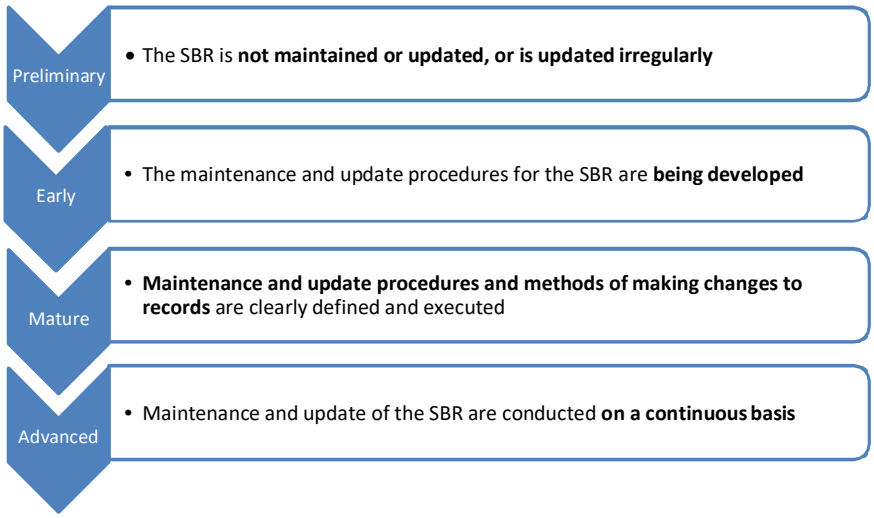
[19] Handbook on CRVS (para. 228)
https://unstats.un.org/unsd/demographic-social/Standards-and-Methods/files/Handbooks/crvs/crvs-mgt-E.pdf

- consistency in maintenance rules, procedures, methodologies, standards, definitions and concepts, and over time;
- quality evaluation of the SBR
- preservation of stored records (e.g., procedures for storing and preserving records);
- validation procedures;
- the frequency of updates

3.24 The methods used and the level of effort required for the maintenance and update are highly dependent on the main data source(s). Although maintenance activities are well documented, it could be possible that they are not fully implemented due to inadequate resources.

3.25 A well-established and functioning SBR relies on a well-maintained and documented set of procedures that deal with the various aspects mentioned above, and a frequent update procedure. The Mature stage is characterized by developing methods of making changes to the records, ways of maintaining the integrity of the records, and keeping a log of all such changes to ensure traceability.

Figure 5
Summary of stages of maturity for Dimension 3: Maintenance and update of the SBR



Preliminary stage

The SBR is not maintained or updated or is updated irregularly with no agreed procedures.

Early stage

The maintenance and update procedures for the SBR are being developed. Methods of making changes to the records, the ways of maintaining the integrity of the records, and keeping a log of all such changes are being developed. Procedures for storing and preserving records are not in place and internal review mechanisms for system functions may or may not be elaborated.

Validation procedures are not regularly done and when in place are ad-hoc and usually done manually. The SBR is not updated on a regular basis, or at most annually.

Mature stage

There are clearly defined maintenance and update procedures that cover the continuity rules for the units in the SBR, rules for dealing with inconsistencies across data sources, the timing of the updates, the rules for the maintenance of the historical register, as well as rules for the generation of frozen frames.

Methods of making changes to the records, the ways of maintaining the integrity of the records, and keeping a log of all such changes are well developed and documented. Similarly, procedures for storing and preserving records and internal review mechanisms for system functions are well established and functioning.

Validation is conducted on a regular basis by, for example, cross-referencing the multiple sources used to update the SBR (on an at least an annual basis) like business registrations, taxation data dedicated SBR surveys, direct contact with businesses, and other government sources.

Maintenance procedures are in place to integrate and transform administrative data into statistical units through profiling. There is a profiling team which engages with the largest and most statistically significant organizations in the national economy.

The SBR is updated regularly, at least once every year.

Unique identifiers are available in the government institutions and are used for maintenance and update of the SBR.

The quality of the SBR is periodically evaluated against a set of defined objectives pertaining to coverage of units and variables, accuracy and timeliness of source data, effectiveness of validation and maintenance procedures, and the extent to which SBR outputs meet user needs.

Advanced stage

The maintenance and update of the SBR (live register) are conducted at a higher frequency and on a regular basis or in line with the updates from the administrative data sources.

The SBR maintenance is based around the supply of administrative data and supports SBR outputs, including frozen frames for SBR based surveys and the publication of data from the SBR. The schedule indicates to users the likely variations in SBR coverage and content over time. (Para. 7.19 UN 2020)

NSO may have a Large Case Unit (LCU). Profiling methods and strategies are established to identify and maintain complete and timely information at the establishment level, with well-maintained geographic coding. Profiling is regularly conducted and covers a substantial proportion of a country's economic activity in terms of industry value add. Profiling ensures that where there are significant contributors to economic activity in a particular industry, reporting units are set up to report on that activity, regardless of the legal entity structure. Profiling uses timely administrative data to identify units for investigation; for both new units or to identify changes to existing units. Detailed unit record level reports are created which explain

all key changes and are made available to all internal stakeholders.

The quality of the SBR is regularly evaluated against a set of defined objectives, with produced reports widely shared with SBR stakeholders. Action plans to improve quality are developed based on the completed evaluation. The objectives are regularly reviewed and updated based on best practices in peer countries, with emphasis on continuous improvement.

E. Dimension 4: Coverage of an SBR

3.26 This dimension of the maturity model refers to the coverage of SBRs. There are three key aspects of SBR coverage[20]:

- Completeness is the extent to which the SBR includes all institutional units within the 2008 SNA production boundary.
- Coverage is the proportion of total national economic production that the units represent.
- Content is the set of characteristics (e.g., types of units, institutional sector, size, location and registration status) of the units contained in the SBR.

3.27 In principle, an SBR should record all institutional units in the national economy that are engaged in productive economic activities; i.e., activities contributing to the gross domestic product (GDP). Thus, NSOs should aim to cover as much national production as possible in their SBRs by including all types of institutional units engaged in production. However, where complete coverage is not easily attainable in practice, and a more realistic aim for coverage can be taken.

3.28 One particular issue is coverage of the informal economy, which is highly diversified and for which no administrative data exist. It is usually not recommended to focus on coverage of the informal economy in early stages of SBR development. However, in certain countries – particularly developing and emerging economies – the informal economy is important, and the collection of economic data about it is a priority. In such cases, it is vital to consider to what extent, if at all, the SBR will cover the informal sector and how the economic production of those enterprises not covered by the SBR can be measured or estimated.

3.29 In general, groups of units should not be omitted without an assessment of their economic importance. SBRs should aim to record, at a minimum, all active economic units in the formal economy that are engaged in economic activities contributing to the gross domestic product (GDP).

3.30 Figure 3.5 of the UN Guidelines on Statistical Business Registers (UN 2020) provides the set of recommendations on the coverage of institutional sectors in the SBR. In general, when first establishing an SBR, the corporations sector is the focus, as it is the most easily covered. The inclusion of the government sector, non-profit institutions and the household sectors provide more complete coverage. In general, a modular approach is recommended for the development of an SBR, with the initial focus on capturing the part of the population that is most important economically and that can be most reliably identified. The need to manage with limited human and technological resources, and to use initial funding efficiently, should limit the scope of the initial SBR population. (Para. 11.9 UN 2020)

3.31 In many cases it is not possible to incorporate and maintain the full set of possible statistical units

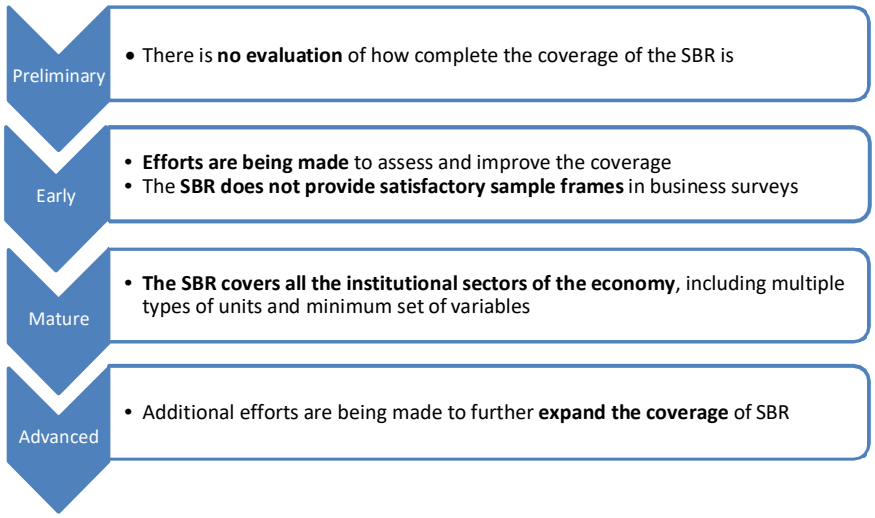
[20] UN Guidelines for Statistical Business Registers (2020) (para. 3.2)
https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

in an SBR. The statistical units to be included should be prioritized based on the requirements of the business statistics system. Those statistical units which are needed for business statistics should be maintained in the SBR. National and international regulations (such as the EU regulation on SBRs)[21] play a role in the choice of the statistical units in the SBR. (Para. 4.2 and 4.15 UN 2020) In general the SBR should contain not only data on statistical units (e.g. establishments, enterprises, enterprise groups, etc.) but also on legal units and administrative units.

3.32 The coverage of the characteristics of the units maintained in the SBR also needs to be considered. Figure 5.1 of the UN Guidelines on Statistical Business Registers (UN 2020) provides a list of variables that should be included in the SBR using the following groupings: Identification and contact; Demographic; Economic/stratification; Links and external references.

3.33 The coverage of the SBR highly depends on the coverage of the data sources used to update the SBR, and also on the broader legal framework governing the SBR (for example, if it is compulsory for businesses to register and whether the NSO can access administrative data or not). This dimension, therefore, is very interlinked with other dimensions of the maturity model.

Figure 6
Summary of stages of maturity for Dimension 4: Coverage of an SBR



Preliminary stage

There is no evaluation of how complete the coverage of the SBR is, although there might be some initial ideas or discussions how to make an assessment and improve the coverage in terms of institutional units, statistical unis and their characteristics.

[21] https://ec.europa.eu/eurostat/web/statistical-business-registers/legislation

Early stage

Efforts are being made to assess and improve the coverage.

For various reasons, the SBR does not meet the minimum requirements at the mature stage (discussed below) or does not provide satisfactory sample frames in business surveys consistently for each time period.

Mature stage

Coverage is considered satisfactory, since it satisfies all the below mentioned conditions:

- all the institutional sectors of the economy are included in the SBR;
- the SBR includes multiple types of units (e.g., legal units, establishment, local units, kind of activity units, enterprises, or enterprise groups) and the links between them;
- the SBR contains the following groups of characteristics of the units: identification and contact information; demography; economic/stratification variables; links and external references;
- the coverage of the units in the SBR is comprehensive for the formal sector.

Coverage issues are monitored on a regular basis, and the cases which cause the issues are clearly identified.

Advanced stage

This stage includes additional efforts to further expand the coverage of SBR. These efforts may include:

- the inclusion of the informal sector in the SBR if it is relevant in the country;
- the inclusion of geospatial information and usage of geographic standards for delineating regional and geolocational information in the SBR;
- additional variables are included in the SBR (or can be linked to the SBR) that can support thematic analysis such as digitalization, etc.
- cooperation with external institutions to improve the coverage and the usability of the SBR
- dedicated efforts are in place to keep coverage adequate at all times (e.g. monitoring by a special team such as the chain management team).

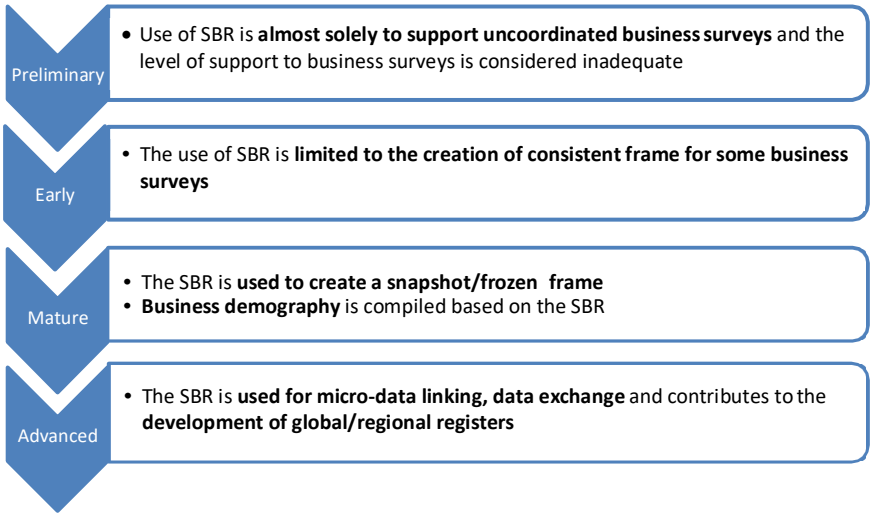
F. Dimension 5: Use of SBR

3.34 This dimension of the Maturity Model refers to the use of the SBR. As the SBR develops, it lends itself to a wider range of uses by users internal to the NSO as well as by external users. This dimension focuses, therefore, on how well the SBR meets the needs of its users and the significance of the SBR within the NSO. In a sense, this dimension includes elements of quality of the SBR, as the quality of the SBR influences how broadly user needs can be met. The use of the SBR in statistical processes will probably depend on the stage of maturity of the other SBR dimensions. Confidentiality is also a key consideration.

3.35 The stages of development of this dimension are very much based on the roles of the SBR

described in the UN Guidelines on Statistical Business Registers (UN 2020).The SBR develops from a preliminary stage into an early stage by contributing to coordinating business surveys and consistency of business statistics, as well as to reducing the duplication and burden on reporters, thus proving full support in business surveys. As the SBR matures, it can take more roles in the production of business statistics, for example, from solely supporting different surveys to providing the populations of statistical units with links to administrative units at fixed points in time for specific reference periods, enabling the production of consistent and coordinated business statistics. As the SBR matures, it is used as the basis for the compilation of business demography and other statistics based directly on the SBR. Finally, as the SBR advances, it is used as the basis for micro-data linking and data exchange, and contributes to the development of international regional group registers.

Figure 7
Summary of stages of maturity for Dimension 5: Use of SBR



Preliminary stage

In this stage, the use of the SBR is almost solely used to support uncoordinated business surveys. There is no attempt to provide a common frame for the production of consistent and coordinated business statistics.

Early stage

The use of SBR is limited to the creation of consistent frame for some business surveys.

The SBR is not used as a primary source for the production of SBR-based statistics such as business demography statistics.

The users of the SBR have limited involvement in the SBR development and maintenance.

Mature stage

The SBR is used to create a snapshot/frozen frame from which most economic survey including register-based census frames are drawn using the standardized economic unit model and unique identifiers.

Business demography is compiled based on the SBR.

The SBR is fully integrated in the production process of economic statistics and thus it serves as a backbone in the production of economic statistics, effectively taking multiple roles in the preparation and coordination of surveys, as a source of information for statistical analysis of the business population and its demography, to link administrative data, and for the identification and construction of statistical units.

Advanced stage

This stage is characterized by additional uses of the SBRs such as, for example:

- micro-data linking with other registers;
- data exchange for statistical purposes among producers of official statistics[22]; and
- contributing to the development of international or regional group registers.

In the advanced stage, anonymized unit record data may also be released to researchers in line with legislation and the confidentiality principle of official statistics. The use of the SBR is improved by strong communication with its users. User feedback is regularly sought and incorporated into improvement plans.

G. Dimension 6: IT Environment

3.36 This dimension of the Maturity Model refers to the IT infrastructure that supports data storage, maintenance, update and dissemination of SBRs. IT infrastructure refers to a combined set of hardware, software, networks and related facilities that are used to develop, test, deliver, monitor, control or support IT services. People, processes and documentation are not considered part of ITInfrastructure.[23]

3.37 The IT infrastructure is a fundamental element for efficient SBRs. Given the size of SBRs (in both small and large economies) and the necessary frequency of updates, it is not possible to efficiently maintain an SBR without proper IT infrastructure. Generic SBR applications have been developed to provide tools for the establishment of an SBR; they include, for example, the ADB SBR System developed by the Asian Development Bank and STATBUS developed by Statistics Norway, which are implemented by a number of developing countries (box 11.9 and 11.10 UN 2020).

3.38 The stages of maturity of this dimension range from a non-existent IT infrastructure in the preliminary stage, where information is generally stored in excel sheets with no automated procedures to update the records, to a well-developed and supported IT infrastructure with automated procedures such as the update of records, automatic data transfer from administrative data, and validation of the information, etc. The IT infrastructure for the SBR should be part of the NSO integrated production system.

Box 2

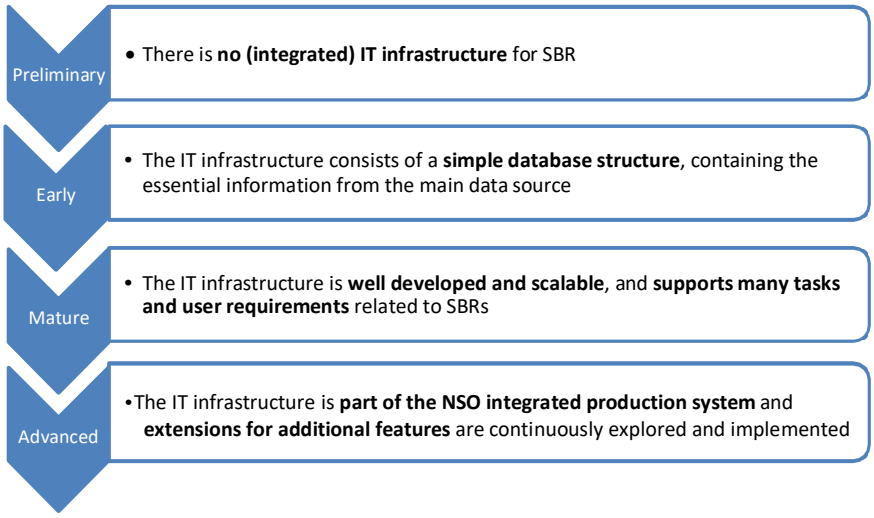
[22] Page 14 of the https://unece.org/sites/default/files/2021-02/Data%20sharing%20guide%20on%20web_1.pdf
[23] Page 724 of the https://unstats.un.org/capacity-development/handbook/index.cshtml

Integrated production system

An **integrated production system** is an IT environment that can support the whole statistical data production cycle as defined by the GSBPM and meet the requirements of a large part of the various statistical surveys maintained by an NSO. An integrated system enables an NSO to transition from a fragmented, stove-pipe oriented production with specific systems for each domain, to the modern generic and standardized statistical production environment. A fully integrated system utilizes applications and processes that use standards and metadata to talk to each other in order to make the whole production cycle less burdensome, easier to manage and less expensive to operate.

Source: Section 5.5.5 of the UN Handbook on Management and Organization of National Statistical Systems Ver.2.2 (United Nations, 2021)

Figure 8
Summary of stages of maturity for Dimension 6: IT environment



Preliminary stage

There is no (integrated) IT infrastructure for the SBR. Records are generally kept manually (e.g., in Excel spreadsheets). There exists only a basic maintenance strategy.

Early stage

The IT infrastructure for the SBR consists of a simple database structure, containing the essential information from the main data sources. There may be separate applications built to perform different tasks (e.g., updating records, validating data, and extracting samples frames, etc.), but they are not integrated and maintained at a sufficient level. No rules exist on the organization of the IT infrastructure or software.

Mature stage

The IT infrastructure for the SBR is managed as a project, implemented in phases, is well-developed and scalable, and supports many tasks and user requirements related to SBRs, such as the updating and validation of records, the importing of data from administrative sources, the maintenance of historical frozen frames, the creation of the common/frozen frame, and the maintenance of unique identifiers and other functions.

The IT infrastructure is supported by continuous maintenance procedures and dedicated staff.

Advanced stage

The IT infrastructure for the SBR is part of the NSO integrated production system.

The IT infrastructure is extended to include additional features and is continuously improved. These new approaches may include, for example: new data science technologies such as big data, web scraping, data mining, graph databases and cloud environments, or dedicated portals for businesses to enter and edit their information.

H. Dimension 7: Interoperability

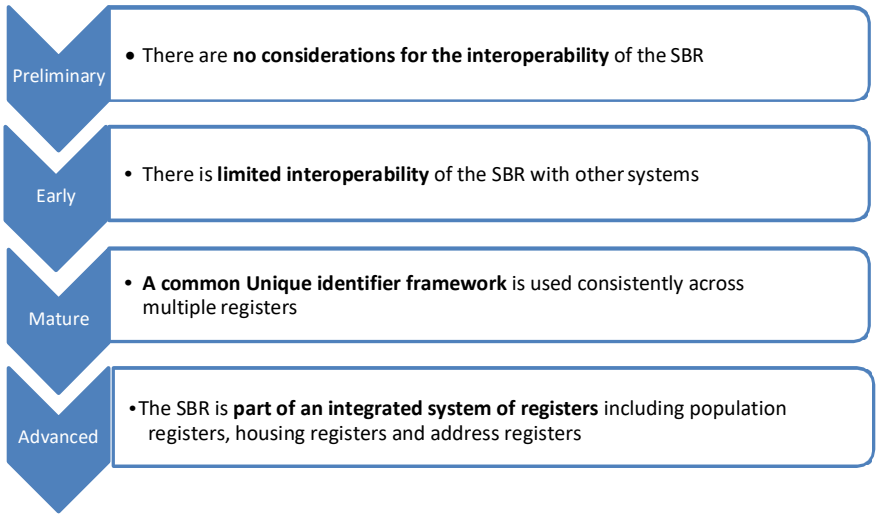
3.39 This dimension of the Maturity Model refers to interoperability, namely the ability of an SBR to communicate and exchange standardized data with other registers, be they domestic, regional, or global. Although this dimension could be seen as part of the IT infrastructure, it is separately identified because of its importance as a key element for a modern SBR which takes advantage of communicating with other administrative or statistical systems with the aim to increase the coherence in national and international statistics.

3.40 In general, interoperability is the ability to join-up and merge data without losing meaning (JUDS 2016[24]). In practice, data is said to be interoperable when it can be easily re-used and processed in different applications, allowing different information systems to work together. Interoperability is a key enabler for the development sector to become more data-driven.[25]

3.41 Interoperability for SBRs has a narrower focus, covering how the IT system for SBRs is linked to other administrative or statistical registers or datasets. SBRs must have at least a common unique ID and standardized classification or characteristics to be linked to registers or datasets. The stages of development in this dimension range from a system that has no considerations for its interoperability, to an SBR system that is fully interoperable with other administrative or statistical registers and serves as spine to link datasets with clear governance. Interoperability is also important to increase efficiency since the linked data would avoid duplication of activities between institutions.

[24] Joined-Up Data Standards project. (2016). The frontiers of data interoperability for sustainable development http://devinit.org/wp-content/uploads/2018/02/The-frontiers-of-data-interoperability-for-sustainable-development.pdf
[25] Gonzales, Luis and Tom Orrell, 2020. Data interoperability: a practitioner's guide to joining up data in the development sector https://unstats.un.org/wiki/download/attachments/36143964/Guide%20to%20interoperability.pdf?version=1&modificationDate=1540053145360&api=v2

Figure 9
Summary of stages of maturity for Dimension 7: Interoperability



Preliminary stage

In the preliminary stage, the country has to manually match information from data sources without any automated routines and there are no considerations for the interoperability of the SBR with other registers.

Early stage

In this stage, there are no unique identifiers but automated routines exist to match (still requiring human intervention and checking), and interoperability of the SBR with other systems is limited to administrative sources.

Mature stage

A common Unique identifier framework is used (to identify people (natural persons as well as enterprises) consistently across domestic administrative and statistical registers. Where relevant, variables within the SBR are compatible with international standards and classifications such as ISIC.

Advanced stage

Micro-data linking, such as linking business demography and trade by enterprise characteristics data, can be easily performed due to the interoperable nature of the SBR. The SBR is interoperable with international registers facilitated by the use of global identifiers.

The SBR is part of an integrated system of registers, including population, housing and address registers.

Chapter 4: Maturity model toolkit

4.1 The Manual for the Maturity Model for SBRs is accompanied by "toolkit" which consists of the following:

- a self-assessment questionnaire which provides an online tool for the assessment of the status of implementation of the SBR;
- a platform to share country practices, manuals, handbooks and training material relevant for SBRs;
- a global assessment on the implementation of SBR in countries which is used to take stock of the implementation of SBRs at global level.

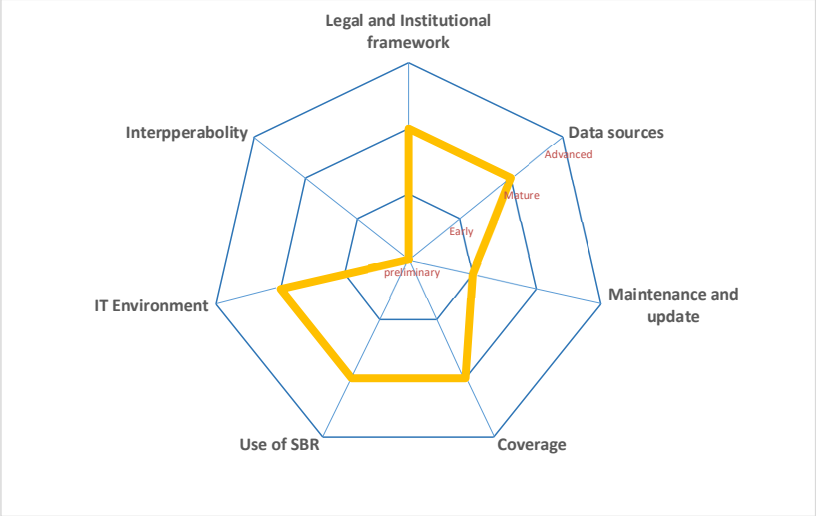
4.2 The Maturity Model toolkit is intended to provide tools to help NSOs to identify gaps in their SBRs' level of maturity and to provide easy access to resources, handbooks and training material on SBRs. The Maturity Model as described in Chapter 3 provides the basis for the self-assessment questionnaire, as well as the organization of country practices, manuals, handbooks and training material and the development of a global assessment on the implementation of SBR in countries.

4.3 As mentioned before, the framework for the Maturity Model for SBRs together with the toolkit will be periodically reviewed and adjusted to reflect changes in technology, data sources, practices and also user needs in order to remain relevant in changing times. UNSD, under guidance from the UNCEBTS, will periodically assess if revisions are needed.

A. Self-assessment questionnaire

4.4 The Maturity Model can serve as a benchmark against which countries can assess the current state of maturity of their SBR. A self-assessment questionnaire was developed as an online tool to help NSOs self-assess their SBR's stage in each dimension. It consists of simple multiple-choice questions which result in an assessment of the stage of maturity for each dimension. The results of the self-assessment are private and can be conducted as many times as needed. It is important to note that the Maturity Model was not designed as a tool to assign a single score to define the status of implementation of the SBR in a country. It is rather a multidimensional model that helps to identify elements of the SBR that could be improved. The outcome of the self-assessment is displayed as radar chart as shown below.

Figure 10
Visualization of self-assessment results



4.5 The SBR maturity model self-assessment can therefore help to identify possible areas for improvement. The areas chosen to improve will be determined by a cost benefit analysis that takes into account the country's resources, constraints, legislation, knowledge, and infrastructure as well as other factors.

B. Global assessment on the implementation of the SBR in countries

4.6 The Maturity Model and the self-assessment questionnaire are the basis for the development of a global assessment on the implementation of SBR in countries. The global assessment questionnaire is intended to conducted on a regular basis. The main objectives of the global assessment are to monitor the implementation of SBRs at global level, and to identify priority areas to develop technical assistance programmes and further guidance and training materials. The global assessment will provide a complement to the Country Progress Reports which are regularly collected by the Wiesbaden Group on Statistical Business registers and the UNECE/Eurostat and OECD Expert Group on Statistical Business Registers on the occasions of their regular meetings, and is coordinated in such a way that it will provide a global overview without posing additional burden to members of the two experts groups.

4.7 It is envisioned that a website of the Maturity Model framework and its dimensions will be developed. The website will link the dimensions and stages of the Maturity Model to existing resources on how to improve an SBR in each dimension. The website will also provide a space to share country practices on specific topics related to SBRs and links to the existing manuals, handbooks and training materials.

Annexes

Annex I: Table of dimensions and stages

	Preliminary	Early	Mature	Advanced
Dimension 1	**No** statistical law or institutional arrangement or MoU are in place in support of the SBR	There is a **provision** in the statistical law and/or MoU that mandates the NSO **to collect data** that are relevant for SBRs. Access to administrative data is not guaranteed by legislation or MOUs	A statistical law allows the NSO to **establish and maintain SBR** A statistical law gives the NSO **access to relevant administrative data** for SBR	A statistical law allows the NSO to **release the public anonymized microdata,** when complying with the principle of confidentiality
Dimension 2	**Limited and irregular information available** for the update of the SBR	**Economic census and maintenance surveys** are the main data sources for the establishment and maintenance of the SBR	Maintenance of the SBR is **primarily based on administrative sources**, combined with surveys	The SBR is based on one or more **data sources that allows frequent and comprehensive updates** of the SBR
Dimension 3	The SBR is **not maintained or updated, or is updated irregularly**	The maintenance and update procedures for the SBR are **being developed**	**Maintenance and update procedures and methods of making changes to records** are clearly defined and executed	Maintenance and update of the SBR are conducted **on a continuous basis**
Dimension 4	There is **no evaluation** of how complete the coverage of the SBR is	**Efforts are being** made to assess and improve the coverage The **SBR does not provide satisfactory sample frames** in business surveys	**The SBR covers all the institutional sectors of the economy**, including multiple types of units and minimum set of variables	Additional efforts are being made to **expand the coverage** of SBR
Dimension 5	Use of SBR is **almost solely to support uncoordinated business surveys** and the level of support to business surveys is considered inadequate	The use of SBR is **limited to the creation of consistent frame for some business surveys**	The SBR is **used to create a snapshot/frozen frame** **Business demography** is compiled based on the SBR	The SBR is **used for micro-data linking, data exchange** and contributes to the **development of global/regional registers**
Dimension 6	There is **no (integrated) IT infrastructure** for SBR	The IT infrastructure consists of a **simple database structure**, containing the essential information from the main data source	The IT infrastructure is **well developed and scalable**, and **supports many tasks and user requirements** related to SBRs	The IT infrastructure is **part of the NSO integrated production system** and **extensions for additional features** are continuously explored and implemented
Dimension 7	There are **no considerations for the interoperability** of the SBR	There is **limited interoperability** of the SBR with other systems	**A common Unique identifier framework** is used consistently across multiple registers	The SBR is **part of an integrated system of registers** including population, housing and address registers

Annex II: Self-assessment questionnaire

Introduction
The SBR Self-assessment Questionnaire is a tool that can assist the NSOs in their assessment on the status of development for their SBR in a multi-dimensional approach. It is based on the methodological framework as described in the SBR Maturity Model, which was produced by the UNCEBTS Task Team on SBRs.
It is recommended that you read the SBR Maturity Model first, before completing this questionnaire.
The questionnaire contains seven modules, with each module corresponding to one of the seven dimensions defined in the SBR Maturity Model. In each module, there is a set of questions regarding the current status of your country's SBR in a particular dimension. For each question, please select the answer(s) that best describes your country's SBR. You will receive an assessment result indicating the stage of SBR development in the dimension. The results can be viewed in the Result tab as well.

Questions
*Within a dimension, always answer from the top (e.g., in dimension 2, 2.1 -> 2.2 -> 2.3) to ensure correct results. If you need to go back, delete the answers and start from scratch.

Dimension 1: Legal and institutional framework

1.1 Is there a provision in the statistical law or a MOU that mandates or allows the NSO to collect data that are relevant for SBR? (This includes for example the conducting of economic censuses and surveys, or access to an administrative business register.) Select one of the following.

☐A. Yes

☐B. No

If A is selected, proceed to the next question. Otherwise skip to the end of this dimension and give assessment "Preliminary stage"

1.2 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A. The statistical law allows the NSO to establish and maintain an SBR.

☐ B. The statistical law gives the NSO access to relevant administrative data.

☐ C. The statistical law or MOU has the provision that all providers of administrative data should provide the NSO with access to their data, and at the level of detail necessary to produce official statistics.

If A plus at least one other answer are selected, proceed to the next question. Otherwise skip to the end of this dimension and give assessment "Early stage"

1.3 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A. Within the fundamental principle of data confidentiality, the statistical law has the provision that allows the dissemination of aggregate data or anonymized unit record data (microdata) from the SBR.

☐ B. The statistical law has the provision that allows microdata sharing from the SBR with statistical authorities of other countries or international/regional organizations when complying with the principle of confidentiality.

☐ C. The statistical law or MOU contains the provision that the providers of administrative data shall consult with NSO before carrying out major changes in their data collection or processing that may affect the data provided.

☐ D. There are formal agreements to allow some data sharing between the national SBR and the SBRs of other countries.

☐ E. There is an inter-institutional committee or other coordinating mechanism with the aim of cooperating in the collection and/or promoting the quality of the administrative data.

If one or more answers are selected, give assessment "Advanced stage". Otherwise give assessment "Mature stage"

Dimension 2: Data sources for SBR

2.1 Is there information which enables regular updating and maintenance of the SBR is based on administrative data (business registers, taxation data, etc.); or economic censuses (possibly in conjunction with SBR improvement surveys)

☐A. Yes

☐B. No

If Yes is selected, proceed to the next question. Otherwise skip to the end of this dimension, and give assessment "Preliminary stage"

2.2 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A The maintenance of the SBR is primarily* based on administrative sources, such as business registers, taxation data, etc. (*Most of the new units are included and the variables are updated)

☐ B. If economic censuses are used, regular and comprehensive updates of the SBR during the inter-census are conducted by additional sources such as administrative data which enable the addition of new units and updated variables.

If A or B is selected, proceed to the next question. Otherwise skip to the end of this dimension, and give assessment "Early stage"

2.3 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A. The SBR is based on one or more data sources that allow comprehensive and frequent updates of the SBR regularly or in line with the frequency of data source updates.

☐ B. Web scraping and data mining techniques may be used to verify/update the content of the SBR.

☐ C. Where there is enabling supranational legislation, data from other countries can be used to update and validate the SBR.

If one or more answers are selected, give assessment "Advanced stage." Otherwise give assessment "Mature stage"

Dimension 3: Maintenance and update of SBRs

3.1 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A. The SBR is updated irregularly with no agreed procedures or schedule.

☐ B. Maintenance and updating procedures are not well established and continuously reviewed, but under development.

☐ C. The maintenance and update procedures are well established and regularly reviewed.

If A is selected, skip to the end of this dimension and give assessment "Preliminary stage." If B is selected, skip to the end of this dimension and give assessment "Early stage." Otherwise proceed to the next question.

3.2 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A. Validation is conducted on a regular basis.
☐ B. The SBR is updated regularly:

- ☐ on an annual basis
- ☐ several times in a year (e.g., on a quarterly basis)
- ☐ on a continuous basis

☐ C. The quality of the SBR is periodically evaluated against a set of defined objectives pertaining to coverage of units and variables, accuracy and timeliness of source data, the effectiveness of validation and maintenance procedures, and the extent to which SBR outputs meet user needs

☐ D. Unique identifiers are available in the government institutions and are used for maintenance and update of the SBR.

If all of A-E (one of the three for C) are selected, proceed to the next question. Otherwise skip to the end of this dimension, and give assessment "Early stage"

3.3 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A. The maintenance and update of the SBR (live register) are conducted at a higher frequency (more than once in every year) on a regular basis or in line with the updates from the administrative data sources

☐ B. The SBR maintenance supports SBR outputs, including frozen frames and publication of data from the SBR, and the schedule indicates to users the likely variations in SBR coverage and content over time.

☐ C. There is a Large case unit to profile the largest, most complex or significant companies in the country.

If one or more answers are selected, give assessment "Advanced stage." Otherwise give assessment "Mature stage"

Dimension 4: Coverage of an SBR

4.1 Is there some evaluation of how complete the coverage of the SBR is?

☐ A. Yes

☐ B. No

If A is selected, proceed to the next question. Otherwise skip to the end of this dimension, and give assessment "Preliminary stage"

4.2 Are the following descriptions true for your country's SBR? (Select all that apply)

A. Which institutional sectors of the economy are included in the SBR:
- ☐ Non-financial corporations
- ☐ Financial corporations
- ☐ General Government
- ☐ Households
- ☐ Non-profit institutions serving households

B. Which types of units are included in the SBR:
- ☐ Legal units
- ☐ Local units
- ☐ Establishments (local kind-of-activity units)
- ☐ Kind of activity units
- ☐ Enterprises
- ☐ Enterprise groups

C. Which types of variables are included in the SBR:
- ☐ Identification and contact information
- ☐ Demography
- ☐ Economic/stratification variables
- ☐ External links

☐ D. The coverage of the units in the SBR is comprehensive* for the formal sector. (*All (or almost all) active economic units in the formal economy that are engaged in economic activities contributing to the gross domestic product)

☐ E. Coverage issues are monitored on a regular basis (and the cases which cause the issues are clearly identified)

If all of A (at least "Non-financial corporations" and "Financial corporations"), B (two or more), C (at least "Identification and contact information", "Demography", "Economic/stratification variables"), D and E are selected, proceed to the next question. Otherwise skip to the end of this dimension, and give assessment result "Early stage"

4.3 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A. the SBR includes the informal sector in the SBR if it is relevant in the country

☐ B. the SBR includes geospatial information and usage of geographic standards for delineating regional and geolocational information in the SBR to allow for spatial analyses

☐ C. Other additional variables are included in the SBR (or can be linked to the SBR) that can support thematic analysis such as digitalization, etc.

☐ D. Dedicated efforts are in place to keep coverage adequate at all times (e.g. monitoring by a special team such as the chain management team)

If one or more answers are selected, give assessment "Advanced stage." Otherwise give assessment result "Mature stage"

Dimension 5: Use of SBR

5.1 Is the SBR used to create consistent frames for some business surveys?

☐ A. Yes

☐ B. No

If A is selected, proceed to the next question. Otherwise skip to the end of this dimension, and give assessment "Preliminary stage"

5.2 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A. The SBR is used to create a snapshot/frozen frame from which most economic surveys including register-based census frames are drawn

☐ B. Business demography is compiled based on the SBR.

☐ C. The SBR is used to link to administrative data.

If all of A-C are selected, proceed to the next question. Otherwise skip to the end of this dimension and give assessment "Early stage"

5.3 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A The SBR is used for microdata linking with other registers
☐ B The SBR is used as a tool for data exchange for statistical purposes among producers of official statistics
☐ C The SBR contributes to the development of international or regional group registers
☐ D The SBR (or part of the SBR) is publicly disseminated in line with legislation and the confidentiality principles of official statistics
☐ E The SBR (or part of the SBR) is released to researchers in line with legislation and the confidentiality principles of official statistics
☐ F User feedback is regularly sought and incorporated into SBR improvement plans
If one or more answers are selected, give assessment "Advanced stage." Otherwise give assessment "Mature stage"

Dimension 6: IT Environment

6.1 Does the IT infrastructure for the SBR consists of a database structure (not, for example, an Excel spreadsheet)?

☐ A. Yes

☐ B. No

If A is selected, proceed to the next question. Otherwise skip to the end of this dimension and give assessment result "Preliminary stage"

6.2 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A. The IT infrastructure supports multiple tasks and user requirements related to SBRs, such as the updating of records, the validation of records and the importing of data from administrative sources.

☐ B. The IT infrastructure is supported by continuous maintenance procedures and dedicated staff.

If A and B are selected, proceed to the next question. Otherwise skip to the end of this dimension and give assessment "Early stage"

6.3 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A. The IT infrastructure incorporates elements such as dealing with big data, web scraping, datamining, or cloud environments.

☐ B. There is a dedicated portal for businesses to enter and edit their information (either directly or via the organization that administrative data is sourced from).

If A or B is selected, give assessment "Advanced stage". Otherwise, give assessment "Mature stage"

Dimension 7: Interoperability

7.1 Is The SBR interoperable with other systems or registers including administrative sources?

☐ A. Yes

☐ B. No

If A is selected, proceed to the next question. Otherwise skip to the end of this dimension and give assessment "Preliminary stage"

7.2 Are the following descriptions true for your country's SBR? (Select all that apply)

☐ A. Unique identifiers for businesses are available across national administrative sources.

☐ B. Where relevant, variables within the SBR are compatible with international standards and classifications, such as ISIC.

If A and B are selected, proceed to the next question. Otherwise skip to the end of this dimension and give assessment "Mature stage"

7.3 Are the following descriptions true for your country's SBR? (Select all that apply)

☐A. The SBR contains regional or global identifiers where available.

☐B. The SBR is part of an integrated system of registers including population registers, housing registers and address registers.

If A or B are selected, give assessment "Advanced stage." Otherwise give assessment "Mature stage"

Annex III: Glossary

Activity

An activity is a process; i.e., the combination of actions that result in a certain set of products. Activities are defined as the use of inputs (e.g., capital, labour, energy and materials) to produce outputs. The outputs that result from undertaking activities can be transferred or sold to other units (in market or non-market transactions), placed in inventory or used by the producing units for own final use.

In practice the majority of units carry on activities of a mixed character. One can distinguish between three types of economic activity:

Principal activity: The principal activity is the activity which contributes most to the total value added of the unit under consideration.

Secondary activity: A secondary activity is any other activity of the unit that produces goods or services.

Ancillary activity: Any ancillary activities are those that exist solely to support the main productive activities of a unit by providing non-durable goods or services for the use of that entity.

Source: United Nations, Statistics Division, "International Standard Industrial Classification of all Economic Activities (ISIC)", Statistical Papers Series M No. 4, Rev. 4, New York, 2008.

Link: https://unstats.un.org/unsd/classifications/Econ/isic

Administrative business register

An administrative business register is a regularly updated structured list of specific business units in a territorial area, which is maintained by administrative authorities for administrative, legal or taxation purposes (e.g., recording and maintaining certain details of businesses or taxation).

Source: UN Guidelines on Statistical Business Registers (2020).

Link: https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Administrative register, statistical business register

Administrative data

Data originally collected for non-statistical purpose. Control of the methods by which the administrative data are collected and processed rests with the administrative agency. In most cases the administrative authority will be a government unit.

Source: United Nations Economic Commission for Europe, "Using Administrative and Secondary Sources for Official Statistics: A Handbook of Principles and Practices", United Nations, New York and Geneva, 2011.

Link: http://www.unece.org/fileadmin/DAM/stats/publications/Using_Administrative_Sources_Final_for_web.pdf

Related terms: Administrative register, administrative source

Administrative source

Administrative source are files of data collected by government bodies for the purposes of administering taxes and benefits or monitoring populations. More generally, administrative sources contain information that is not primarily collected for statistical purposes.

Source: United Nations Economic Commission for Europe, "Using Administrative and Secondary Sources for Official Statistics: A Handbook of Principles and Practices", United Nations, New York and Geneva, 2011.

Link: http://www.unece.org/fileadmin/DAM/stats/publications/Using_Administrative_Sources_Final_for_web.pdf

Related terms: Administrative register, administrative data

Administrative unit

An administrative unit is designed for the purposes of conforming with an administrative regulation, for example for registration purposes or for accounting purposes of VAT and other taxes.

Source: UN Guidelines on Statistical Business Registers (2020).

Link: https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Statistical unit

Business

Term is used as a type of enterprise, namely a "commercial enterprise" or legal unit with commercial economic activity.

Source: UN Guidelines on Statistical Business Registers (2020).

Link: https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Enterprise

Business demography

Business demography covers events, like births and other creations of units, deaths and other cessations of units, and their ratio to the business population. It covers follow-up of units in time dimension, thus gaining information on their survival or discontinuity. It also covers development in time dimension according to certain characteristics like size, thus gaining information on the growth of units, or a cohort of units, by type of activity. Demographic information can in principle be produced for any statistical unit; however, a clear political interest in Europe is on enterprise demography. In other regions business demography data are often calculated based on establishments. The demography of enterprises can be assessed by studying enterprise births and enterprise deaths and by examining the change in the number of enterprises by type of activity; i.e., by examining the flows and stocks to get a complete picture of the enterprise dynamism.

Source: European Commission (Eurostat), Organisation for Economic Cooperation and Development (OECD), "Eurostat – OECD Manual on Business Demography Statistics", Methodologies and Working papers, Publication Office of the European Communities, Luxembourg (2007). UN Guidelines on Statistical Business Registers (2020).

Link: http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-RA-07-010-EN.pdf and https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Continuity, survival

Characteristic

A characteristic is one of a set of information that is stored in a business register to describe a statistical unit. Characteristics are provided for identification of a unit like name, address, and identification numbers, for economic description of a unit, like activity code, turnover or employment of a unit or for the structure of a unit, like the relationship to other statistical units.

Source: UNECE Guidelines on Statistical Business Registers (2015). UN Guidelines on Statistical Business Registers (2020).

Link: https://unece.org/DAM/stats/publications/2015/ECE_CES_39_WEB.pdf and https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Variable

Common frame

See: Frozen frame

Consistent frame

In this document, the term refers to extracted frames when only a limited area of survey frames can be covered by the SBR.

Delineation

The various needs of the users of the business registers require providing different units correctly delineated with respect to structure, and characteristics of the unit. The delineation of statistical units is done by grouping or dividing administrative or other relevant units according to harmonised rules, and also by using classifications to delineate the unit according to its activity, location or any other characteristics.

Source: European Commission, Eurostat, "Business Registers Recommendations Manual", Methodologies and Working papers, Publication Office of the European Union, Luxembourg (2010). UN Guidelines on Statistical Business Registers (2020).

Link: http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-32-10-216-EN-C-EN.pdf and https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Statistical unit, profiling

Economic census

A survey conducted on the full set of observation objects belonging to a given business population.

Source: Economic Commission for Europe of the United Nations (UNECE), "Terminology on Statistical Metadata", Conference of European Statisticians Statistical Standards and Studies, No. 53, Geneva (2000). UN Guidelines on Statistical Business Registers (2020).

Link: https://unece.org/DAM/stats/publications/53metadaterminology.pdf and https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Economic survey

Economic/stratification variables

Variables (such as turnover, employment size etc.) used for sampling survey frames, grossing up sample data and/or presenting results.

Source: UN Guidelines on Statistical Business Registers (2020).

Link: https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Economic survey

An investigation about the characteristics of a given business population by means of collecting data from a sample of that population and estimating their characteristics through the systematic use of statistical methodology

Source: Economic Commission for Europe of the United Nations (UNECE), "Terminology on Statistical Metadata", Conference of European Statisticians Statistical Standards and Studies, No. 53, Geneva (2000). UN Guidelines on Statistical Business Registers (2020).

Link: https://unece.org/DAM/stats/publications/53metadaterminology.pdf and https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Economic census

Economic unit

An economic unit is a legal unit, or part of a legal unit, with economic production as defined in the current version of the SNA.

Source: System of National Accounts (2008).

Link: https://unstats.un.org/unsd/nationalaccount/docs/sna2008.pdf

Related terms: Legal unit, economic production, statistical unit

Economic production

Economic production may be defined as an activity carried out under the control and responsibility of an institutional unit that uses inputs of labour, capital, and goods and services to produce outputs of goods or services.

Source: System of National Accounts, 2008.

Link: http://unstats.un.org/unsd/nationalaccount/docs/sna2008.pdf

Related terms: Activity, economic unit

Enterprise

An enterprise is a legal unit (or the smallest set of legal units) producing economic goods and services with autonomy in respect of financial and investment decision-making, as well as authority and responsibility for allocating resources for the production of goods and services. It may be engaged in one or more productive activities. An enterprise may be a corporation (or quasi-corporation), a non-profit institution or an unincorporated enterprise. Corporate enterprises and non-profit institutions are complete institutional units. On the other hand, the term “unincorporated enterprise” refers to a household or government unit in its capacity as a producer of goods and services. The enterprise is the level of statistical unit at which information relating to its transactions, including financial and balance-sheet accounts, are maintained, and from which international transactions, an international investment position (when applicable), consolidated financial position and net worth can be derived.

Source: United Nations, Statistics Division, "International Standard Industrial Classification of all Economic Activities (ISIC)", Statistical Papers Series M No. 4, Rev. 4, New York, 2008.

Link: https://unstats.un.org/unsd/classifications/Econ/isic

Related terms: Multinational enterprise, standard statistical unit

Enterprise group

An enterprise group is an association of enterprises bound together by legal and/or financial links. A group of enterprises can have more than one decision-making centre, especially for policy on production, sales and profit. It may centralise certain aspects of financial management and taxation. It constitutes an economic unit which is empowered to make choices, particularly concerning the units which it comprises. An enterprise group is a set of enterprises controlled by the group head.

Source: European Commission, Eurostat, "Business Registers Recommendations Manual", Methodologies and Working papers, Publication Office of the European Union, Luxembourg (2010). UN Guidelines on Statistical Business Registers (2020).

Link: http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-32-10-216-EN-C-EN.pdf and https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: All-resident enterprise group, multinational enterprise group, truncated enterprise group

Establishment

The establishment is defined as an enterprise or part of an enterprise that is situated in a single location and in which only a single (non-ancillary) productive activity is carried out or in which the principal productive activity accounts for most of the value added.

Source: United Nations, Statistics Division, "International Standard Industrial Classification of all Economic Activities (ISIC)", Statistical Papers Series M No. 4, Rev. 4, New York, 2008.

Link: https://unstats.un.org/unsd/classifications/Econ/isic

Related terms: Standard statistical unit

EuroGroups Register (EGR)

The EuroGroups Register (EGR) builds a framework of registers, consisting of a central register kept at Eurostat and registers in each EU Member State and in EFTA countries. The central register contains information about multinational enterprise groups, which have statistically relevant financial and non-financial transnational operations in at least one of the European countries. Registers in the EU Member States and in EFTA countries contain information regarding multinational enterprise groups active in the respective countries and are fully consistent with the central register.

The aim of the EGR network is to hold a complete, accurate, consistent and up-to-date set of linked and coordinated statistical registers, which offer compilers a common frame of multinational enterprise groups, global as well as truncated national groups, operating in the economy of the EU and EFTA countries, together with their constituent legal units and enterprises and the ownership and control relationships between legal units.

Source: European Commission, Eurostat, "Business Registers Recommendations Manual", Methodologies and Working papers, Publication Office of the European Union, Luxembourg, 2010.

Link: http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-32-10-216-EN-C-EN.pdf, https://ec.europa.eu/eurostat/web/statistical-business-registers/eurogroups-register

Related terms: European System of interoperable statistical Business Registers, multinational enterprise group

European System of interoperable statistical Business Registers (ESBRs)

The ESBRs project (2013-2020) is rationalising, strengthening and standardising national SBRs and EGR in the European Statistical System (ESS) with the ultimate aim of making them an efficient interoperable system. It is a continuation of previous EGR and profiling projects carried out in the ESS. A core goal is the improvement of the EGR statistical frames so that they can provide better quality information on multinational enterprise groups (MNEs) for globalisation statistics. It includes an updated and agreed methodology for EU profiling that enables all ESS countries to achieve the same view of MNEs (*seeing the whole elephant);* it is based on a collaborative approach with different countries contributing to profiling the same MNEs according to defined roles and responsibilities and supported by a secure platform for sharing confidential data. The ESBRs project includes also practical pilot exercises aimed at testing the proposed solutions with ESS countries.

Source: European Commission (Eurostat), "The European System of interoperable Business Registers (ESBRs)", Compact guides, Publication Office of the European Union, Luxembourg, 2013.

Link: http://ec.europa.eu/eurostat/documents/4031688/5931580/KS-03-13-411-EN.PDF, https://ec.europa.eu/eurostat/web/ess/esbr

Related terms: EuroGroups Register

Frame

The frame for a given survey is the subset of the frozen frame, comprising the set of units that match the specification of the survey target population. Thus, for example, a survey of employment will include units in all (or at least most) industries that are employers, i.e., will exclude units that are non-employers. A survey of manufacturing will include all units that have an ISIC code in the manufacturing group, whether they have employees or not. A survey of capital expenditure may include all units above a certain size. Thus, the survey frames are typically different from one another but may be extracted from the same common set of units; i.e., a frozen frame. A frame may be referred to as a survey frame also as a sampling frame or a survey sampling frame.

Source: UN Guidelines on Statistical Business Registers (2020).

Link: https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Frozen frame

Frozen frame

The frozen frame is a subset of the snapshot that comprises all statistical units that are active, or potentially active, or active within the previous reference year. It also includes administrative units that are linked to these statistical units. The aim is to include all units and all characteristics that are used by subsequent processes. In other words, it is a trimmed down version of the snapshot that is easier to manipulate because the possible large number of inactive units are not there. It may be further restricted by containing only units for which there are values for the characteristics that are to be used for frame extraction and sample selection for at least one survey.

Source: UNECE Guidelines on Statistical Business Registers (2015). UN Guidelines on Statistical Business Registers (2020).

Link: https://unece.org/DAM/stats/publications/2015/ECE_CES_39_WEB.pdf, https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Frame, live register

General Statistical Business Process Model (GSBPM)

The Generic Statistical Business Process Model (GSBPM) models the phases of the statistical business process and provides generic terms to describe them. The GSBPM is used to harmonise statistical computing infrastructures, facilitate the sharing of software components and provide a framework for process quality assessment and improvement. The GSBPM is intended to apply to all activities undertaken by producers of official statistics, at both the national and international levels, that result in data outputs. It is designed to be independent of the data source, so it can be used for the description and quality assessment of processes based on surveys, censuses, administrative records, and other non-statistical or mixed sources.

Source: United Nations European Commission for Europe (UNECE), UNECE Statistics Wiki. As of 1st July 2019, the current version is GSBPM v5.1.

Link: https://statswiki.unece.org/display/GSBPM/Generic+Statistical+Business+Process+Model

Related terms: GSIM

Head office

Head offices are units exercising some aspects of managerial control over its subsidiaries. Their activities include the overseeing and managing of other units of the company or enterprise; undertaking the strategic or organizational planning and decision making role of the company or enterprise; exercising operational control and manage the day-to-day operations of their related units.

Source: System of National Accounts, 2008.

Link: http://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf

Related terms: Holding company

Identifier

The purpose of an identifier is to identify a unit and to link it with other units in the register and with administrative and statistical sources. The identity number of a legal unit can be either specific to the statistical business register or an external one, common or shared with other institutions in the Member State, a so called unique identifier.

Source: European Commission, Eurostat, "Business Registers Recommendations Manual", Methodologies and Working papers, Publication Office of the European Union, Luxembourg (2010). UN Guidelines on Statistical Business Registers (2020).

Link: http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-32-10-216-EN-C-EN.pdf and

https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Characteristic

Informal sector

The informal sector is broadly characterised as consisting of units engaged in the production of goods or services with the primary objective of generating employment and incomes to the persons concerned. These units typically operate at a low level of organisation, with little or no division between labour and capital as factors of production and on a small scale. Labour relations – where they exist – are based mostly on casual employment, kinship or personal and social relations rather than contractual arrangements with formal guarantees. The informal sector thus defined excludes households producing exclusively for own final use.

Source: Measuring the Non-Observed Economy: A Handbook, OECD, IMF, ILO, Interstate Statistical Committee of the Commonwealth of Independent States, 2002.

Link: http://www.oecd.org/dataoecd/9/20/1963116.pdf

Institutional sector

In the 2008 SNA all resident institutional units are grouped together to form five institutional sectors, on the basis of their principal functions, behaviour and objectives:

S.11. Non-financial corporations are institutional units which are independent legal entities and market producers that are principally engaged in the production of goods and non-financial services.

S.12. Financial corporations are institutional units which are independent legal entities and market producers that are principally engaged in financial services including financial intermediation.

S.13. General Government consists of institutional units that, in addition to fulfilling their political responsibilities and their role of economic regulation, produce services (and possibly goods) for individual or collective consumption mainly on a non-market basis and redistribute income and wealth.

S.14. Households are institutional units consisting of individuals or groups of individuals as consumers and as entrepreneurs producing market goods and non-financial and financial services provided that the production of goods and services is not by separate entities treated as quasi-corporations. It also includes individuals or groups of individuals as producers of goods and non-financial services for exclusively own final use.

S.15. Non-profit institutions serving households (NPISHs) are separate legal entities which are non-market producers that are principally engaged in the production of services for households or the community at large and whose main resources are voluntary contributions.

Source: System of National Accounts 2008.

Link: http://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf

Related terms: Institutional unit

Institutional unit

An institutional unit is an economic unit that is capable, in its own right, of owning assets, incurring liabilities and engaging in economic activities and in transactions with other entities. Thus an institutional unit is entitled to own goods or assets in its own right; to exchange ownership of goods or assets in transactions with other institutional units, is able to take economic decisions and engage in economic activities for which it is itself held to be directly responsible and accountable at law, is able to incur liabilities on its own behalf, to take on other obligations or future commitments and to enter into contracts, has a complete set of accounts or it would be possible to compile a complete set of accounts if they were required.

Source: System of National Accounts 2008.

Link: http://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf

Related terms: Institutional sector, standard statistical unit

Kind-of-activity unit (KAU)

A kind-of-activity unit is an enterprise or part of an enterprise that engages in only one kind of productive activity or in which the principal productive activity accounts for most of the value added. Compared with the establishment, the KAU is not restricted on the geographic area in which the activity is carried out but it is characterized by homogeneity of activity.

Source: United Nations, Statistics Division, "International Standard Industrial Classification of all Economic Activities (ISIC)", Statistical Papers Series M No. 4, Rev. 4, New York, 2008.

Link: https://unstats.un.org/unsd/classifications/Econ/isic

Related terms: Establishment

Legal unit

Legal units include:

- Legal persons whose existence is recognised by law independently of the individuals or institutions which may own them or are members of them.
- Natural persons who are engaged in an economic activity in their own right.

The legal unit is usually recorded in one or more administrative sources. The sources used for statistical business registers do not necessarily provide identical views of legal units. These units can vary both between different sources within a country and between countries. Thus, the legal unit is not suitable as a statistical unit, particularly for international comparisons. The characteristics of a legal unit are: it owns goods or assets, it incurs liabilities and it enters into contracts. The legal unit always forms, either by itself or sometimes in combination with other legal units, the basis for the statistical unit known as the "enterprise".

Source: European Commission, Eurostat, "Business Registers Recommendations Manual", Methodologies and Working papers, Publication Office of the European Union, Luxembourg (2010). UN Guidelines on Statistical Business Registers (2020).

Link: http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-32-10-216-EN-C-EN.pdf and https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Legal form, legal person, natural person

Local kind-of-activity unit (local KAU)

See: Establishment

Local unit

A local unit is an enterprise or part of an enterprise (for example, a workshop, factory, warehouse, office, mine or depot) that is engaged in productive activity at or from one location. The definition has only one dimension in that it does not refer to the kind of activity that is carried out.

Source: United Nations, Statistics Division, "International Standard Industrial Classification of all Economic Activities (ISIC)", Statistical Papers Series M No. 4, Rev. 4, New York, 2008.

Link: https://unstats.un.org/unsd/classifications/Econ/isic

Related terms: Enterprise, statistical unit

Micro data

An observation data collected on an individual object – statistical unit.

Source: Conference of European Statisticians Statistical Standards And Studies – No. 53 UNECE “Terminology on Statistical Metadata,” Geneva, 2000.

Link: https://unece.org/DAM/stats/publications/53metadaterminology.pdf

Related terms: unit record data

Multinational enterprise group

A multinational enterprise group is an enterprise group that has at least two enterprises or legal units located in different countries.

Source: European business statistics methodological manual for statistical business registers 2021 edition.
Link: https://ec.europa.eu/eurostat/documents/3859598/12433023/KS-GQ-20-006-EN-N.pdf/0c31c77a-5d20-9954-9223-2b856fdb93c9?t=1613481618625

Related terms: All-resident enterprise group, enterprise group, truncated enterprise group

Natural person

The term natural person is used by the law and by many administrative authorities to denote a human being endowed with all the rights constituting legal personality.

Source: European Commission, Eurostat, "Business Registers Recommendations Manual", Methodologies and Working papers, Publication Office of the European Union, Luxembourg (2010).

Link: http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-32-10-216-EN-C-EN.pdf

Related terms: Legal person

Production unit

A production unit carries out an economic activity under the control and responsibility of an institutional unit using inputs of labour, capital and goods and services to produce outputs of goods and services. Enterprises can be very heterogeneous if they have several secondary activities that are quite different from their principal activities. In order to obtain groups of producers whose activities are more homogeneous, enterprises are partitioned into smaller and more homogeneous units of production like local units, kind-of-activity units, and establishments.

Source: System of National Accounts 2008.

Link: http://unstats.un.org/unsd/nationalaccount/docs/SNA2008.pdf

Related terms: Economic unit, institutional units, market producer, product, statistical unit

Profiling

Profiling is a method to analyze the legal, operational and accounting structure of an enterprise group at national and world levels, in order to establish the statistical units within that group, their links and the most efficient structures for the collection of statistical data.

Source: Eurostat (2020), European Business Profiling — Recommendations manual. UN Guidelines on Statistical Business Registers (2020).

Link: https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/ks-gq-20-002 and https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Delineation

Quality

The degree to which a set of inherent characteristics of an object fulfils requirements. A simple definition is “fit for use” or “fit for purpose”. It is the users’ needs that define the quality. Different users may have different needs that must be balanced against each other.

For statistics, the general definition of quality is operationalized by specifying a set of factors or dimensions that characterize the quality of the product. The UN-NQAF identifies quality dimensions linked to statistical products in quality principles 14 to 18 covering the following dimensions (some principles cover two closely related dimensions):

- Relevance: the extent to which the statistics satisfy the needs of the users.
- Accuracy: the closeness of estimates to the exact or true values that the statistics were intended to measure.
- Reliability: the closeness of the initially estimated value(s) to the subsequent estimated value(s) if preliminary figures are disseminated.
- Timeliness: the length of time between the end of a reference period (or date) and the dissemination of the statistics.
- Punctuality: the time lag between the release date and the target date by which the data or statistics should have been delivered.
- Accessibility: the ease and conditions with which statistical information can be obtained.
- Clarity: the availability of appropriate documentation relating to the statistics and the additional assistance that producers make available to users.
- Coherence: the ability to reliably combine statistics and data sets in different ways and for various uses. Consistency is often used as a synonym for coherence.
- Comparability: the extent to which differences in statistics from different geographical areas, non-geographical domains, or over time, can be attributed to differences between the true values of the statistics.

Source: United Nations National Quality Assurance Frameworks Manual for Official Statistics, New York, 2019.

Link: https://unstats.un.org/UNSDWebsite/data-quality/user-manual

Related terms: Quality indicator

Reporting unit

The reporting unit is the unit that reports to the survey authority. It reports information for each of the observation units. In certain cases, it may correspond to an observation unit. An example where it is not the same is where an accounting business reports data on behalf of a client business that is the actual subject of the survey.

Source: European Commission, Eurostat, "Business Registers Recommendations Manual", Methodologies and Working papers, Publication Office of the European Union, Luxembourg, 2010.

Link: http://ec.europa.eu/eurostat/ramon/statmanuals/files/KS-32-10-216-EN-C-EN.pdf

Related terms: Observation unit

Statistical Business Register (SBR)

The business register for statistical purposes is a fully and comprehensive, regularly updated and structured list of business units engaged in the production of goods and services, which is maintained by national statistical authorities for statistical purposes to assist the compilation of statistical data and particularly as a (backbone) tool for the preparation and coordination of surveys, as a source for information for statistical analysis of the business population and its demography, for the use of administrative data, and for the identification and construction of statistical units.
Source: European business statistics methodological manual for statistical business registers 2021 edition. UNECE Guidelines on Statistical Business Registers (2015).

Link: https://ec.europa.eu/eurostat/documents/3859598/12433023/KS-GQ-20-006-EN-N.pdf/0c31c77a-5d20-9954-9223-2b856fdb93c9?t=1613481618625,
https://unece.org/DAM/stats/publications/2015/ECE_CES_39_WEB.pdf

Related terms: Administrative business register

SBR improvement survey

A survey conducted by statisticians to improve SBR quality.

Source: UN Guidelines on Statistical Business Registers (2020).

Link: https://unstats.un.org/unsd/business-stat/SBR/Documents/UN_Guidelines_on_SBR.pdf

Related terms: Statistical business register

Statistical units

Statistical units are the units for which information is sought and for which statistics are ultimately compiled. Commonly used types of statistical units for economic statistics are the enterprise, the enterprise group, the kind-of-activity unit (KAU), the local unit and the establishment (in Europe called local kind-of-activity unit (LKAU)). In national accounts also the institutional unit is of importance.

Source: United Nations, Statistics Division, "International Standard Industrial Classification of all Economic Activities (ISIC)", Statistical Papers Series M No. 4, Rev. 4, New York, 2008.

Link: https://unstats.un.org/unsd/classifications/Econ/isic

Related terms: Legal unit, institutional unit

Survey Frame

See: Frame