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Role of Business Registers

New functionalities of SBR – a central backbone on the horizon

INTRODUCTION

Slovenia decided for register-based statistics in the 1970s following predominantly the Nordic model of setting up and keeping registers. Because of the needs for informatised and centrally kept data, the Statistical Office of the Republic of Slovenia (SURS) has set up three base administrative registers: the register of territory, the population register and the business register. These three registers represent the basic administrative core of data on the territory, population and business entities. Due to growing needs for setting up and keeping statistical registers for various observation units, after 1995 SURS transferred the mentioned three registers to other national authorised institutions and started to develop EU harmonised statistical registers that enable high-quality and comparable dissemination of data on various observation units.

One of the statistical registers set up by SURS in 2004 was the Statistical Business Register (SBR) as a combination of administrative and statistical sources used in a limited set of statistical domains (i.e. SBS, business demography, Enterprise Group Register).

During the years it was proved that the needs for the SBR increased from year to year. The users needed more up-to-date information on the business population, more reliable information on the main activity code, complete coverage of local units, timely monitoring of demographic events and insolvency proceedings, following the continuity of units, etc. Those needs were the main reasons for major reengineering of the SBR in the 2011–2016 period.

The paper focuses on the main new functionalities (sources and methodology) set up during the reengineering of the SBR.

1 General reasons for and objectives of setting up the new SBR

The basic source of data for the Statistical Business Register at SURS is the Administrative Business Register (ABR), which was in 2002 taken over from SURS by the Agency of the Republic of Slovenia for Public Legal Records and Related Services (AJPES) and is for administrative needs a high-quality source

of information on all business entities and their local units performing activities on the territory of the Republic of Slovenia. However, for statistical purposes it has also some limitations. The aim of the SBR project was to bridge them in a way that the data from the administrative register, in combination with statistical sources, would satisfy statistical needs to the greatest possible extent.

In some cases the main activity of enterprises in the administrative register is used also for applying for various subsidies and other administrative benefits. Such information on activity does not always reflect the real situation, which is extremely important for monitoring statistical phenomena by activity. The second large deficiency of the administrative register is registration of administrative local units, which is in some cases deficient and was part of the upgrade of units in the SBR. To survive, enterprises are increasingly integrating, transforming and are thus involved in various types of demographic events (merger, split-off, transformation, etc.). Such information is very important in the process of conducting statistical surveys. All mentioned deficiencies of the ABR led to the situation that SURS in order to solve the mentioned problems set up various processes tailored to individual surveys, which often led to inconsistent use of such information.

The wish and need to set up a new, central, frequently updated statistical system of information that would be used for business statistics was thus very large. New sources of information that appeared in recent years in Slovenia, EU recommendations for keeping the registers and statistical experience from a variety of areas of statistical data processing were very welcome in setting up the new SBR.

For the new SBR the following objectives were set:

- To set up the central database on statistical units that will be used for preparing the sampling frame and directories as well as for all other processes in business statistics
- To use for the SBR all available administrative and statistical sources
- To introduce central recording of statistical activity and other important statistical variables
- To provide LKAUs that are not available in the ABR but are important for statistical purposes
- To provide monthly updates of the SBR
- To introduce a statistical identifier SIR for monitoring the continuity of statistical units and to monitor demographic events and insolvency proceedings centrally
- To make sure that SBR data will be used in all relevant processes of business statistics as well as in other areas not covered by FRIBS (labour market, national accounts, etc.), which will contribute to greater comparability and harmonisation of statistical areas

Realisation of the above objectives followed FRIBS recommendations to provide the SBR as the backbone of business statistics.

2 Main sources used for the SBR

As regards the availability of administrative data sources, the conditions in Slovenia are very favourable. On the basis of the National Statistics Act, SURS has free access to all administrative sources in the country. To this end, SURS signed agreements on data transmission with institutions managing individual sources and technical protocols determining in detail the content, technical takeover and periodicity of obtaining data from administrative sources.

The main source of data for the SBR is the Administrative Business Register (ABR).

2.1 ABR

This is a central public database containing all business entities and their local units in the country performing any type of profit or non-profit activities, including affiliates of foreign companies. Thus, the ABR contains data on more than 200,000 business entities. Information about the identity, formation, legal and organizational form, local units and activities performed is provided for each business entity. In keeping with its long-term goal, AJPES endeavours to collect all data on business entities in one place, so that users can access it through a single resource. AJPES is modernizing the method of collecting data on business entities from primary registers. For this reason, it has already established the appropriate IT channels with individual registration authorities. The manner of ensuring public availability of data contained in the ABR has also been modernized by making the data available on the AJPES website. Data in the ABR are updated daily, but SURS receives them on a weekly basis. In the ABR there is no threshold of units and all entities are uniquely identified by administrative ID. The identification number for legal and natural persons and their local units in Slovenia is assigned by the ABR and is used in almost all administrative registers. Such an approach enables linking of administrative data from different sources as efficiently as possible. Data from the ABR are used for different purposes, i.e. administrative, statistical and commercial.

2.2 Court Register

The legislation stipulates that all companies, co-operatives, institutions and affiliates of foreign companies must be registered in the Court Register. Entry into the Court Register means that conditions for establishing individual forms of business entities, especially companies, have been fulfilled and that the entered business entities can perform certain activities because at registration the existence of legal conditions is ascertained and legal protection and legitimacy of operation are protected. By entry into the Court Register, companies obtain the status of legal persons. Besides the ordinary variables, the Court Register comprises the structure of ownership for all legal persons that are subject of entry into the register. As regards the organisation of the IT database, in 2008 the Court Register became part of the ABR database. For making decisions on legal matters, courts are still in charge.

An important set of data within the Court Register is decisions issued by courts in legal matters for legal units. Decisions contain information on participation of units in various demographic events (mergers, take-overs, etc.). A disadvantage of these decisions is that they are textual, so that before they can be used for demographic events they have to be manually processed.

2.3 Annual accounts, tax data

Data on turnover for the SBR are mostly obtained annually or monthly from various administrative sources such as annual accounts, VAT data, annual accounts of banks, insurance companies, etc.

Data from annual accounts are administrative sources taken over from AJPES. These are various types of annual accounts: e.g. annual accounts for companies, sole proprietors, co-operatives, legal entities of private law, some other users, societies, etc. Data from annual accounts are available in T+5 months and are the main source for monitoring turnover of enterprises. If an enterprise does not show any turnover in this source, one of the other sources mentioned above is used.

2.4 Data from the database of transaction accounts

Data on the number and type of transaction accounts held by individual legal units at banks (also abroad) are available in the Register of Transaction Accounts (RTR) kept by AJPES. RTR data are one of the sources for the SBR for determining insolvency, since in the RTR transaction accounts involved in bankruptcy or liquidation proceedings and closed transaction accounts are marked. If all enterprise's transaction accounts are closed, this is a reliable source of information on possible inactivity of the enterprise.

2.5 Employment data

Data on employment for the SBR are primarily based on the Statistical Register of Employment (SRDAP) and the monthly statistical survey on earnings paid by legal persons (ZAP-M).

SRDAP contains data on persons in employment (employed or self-employed) in Slovenia. The main sources for updates on persons in employment are data on registration, deregistration and changes of social insurance, which SURS receives monthly from the Pension and Disability Insurance Institute.

The ZAP-M survey provides an insight into the amount of and trends in average monthly earnings in Slovenia. The data are important for wage and pension policy-making, for collective bargaining and for calculating various social benefits. Observation units are legal entities of public and private sectors and/or their local units registered for performing activities in Slovenia. From the ZAP-M survey SURS obtains information on persons in employment who received earnings, irrespective of whether they are in permanent or temporary employment, full-time or part-time employment.

2.6 Other sources

In addition to data and information obtained from administrative sources, SURS also has databases of statistical data compiled by conducting statistical surveys. These are mostly surveys on business statistics (i.e. industry, construction, trade, business tendency, investment and external trade). From the surveys, for the SBR additional information is used for monitoring the activities of enterprises, turnover, status of operation and participation of units in demographic events.

2.7 Enterprise Groups Register (national EGR)

The EGR contains data on enterprise groups: resident, truncated and multinational. The main data sources for the EGR are: the Central Register of Dematerialised Securities, kept by the Central Securities Clearing Corporation, the Court Register and the data on capital investment, collected by the Bank of Slovenia, and the SBR. The Enterprise Groups Register was set up by SURS in 2006. For the new SBR the EGR provides information whether the enterprise is a part of the group and, if yes, which group. The SBR and the EGR can be directly connected via the legal unit identifier.

2.8 Partial databases for the SBR

As mentioned, there are several input sources (administrative and statistical) for the SBR. They are available in different periods and can use different definitions and units.

In the first phase of the SBR project we studied the existing sources, analysed, inventoried and searched for additional appropriate sources for missing variables and deliberated about the system that would

support the planned functionalities. A lot of time was spent analysing the quality of sources, their timeliness, overlapping, etc. Based on the analyses a decision was made that SBR data should be monitored monthly and annually. For the SBR system to be as simple and manageable as possible in terms of content and technical solutions, first from each input source for the SBR a partial table is prepared containing only units and variables from the source that are necessary in the further process of updating the SBR. Most of the variables are part of the main SBR integration base; some are selected only for control purposes. Controls are implemented on partial tables, since input sources are not always complete. The selection of variables of input sources depends on the SBR functionality and is based on the EU regulation for the BR and also covers those that enable the preparation of a master sampling frame, coordinated sampling and directories.

3 SBR units

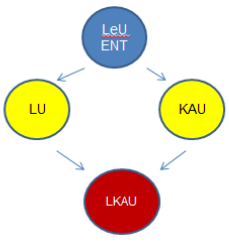
As regards managing the units and variables in the SBR, the EU regulation on business registers (No. 177/2008) and Eurostat's methodological recommendations for managing business registers were taken into account to the greatest possible extent.

Basic units of the SBR are: legal units (LEUs) or enterprises and LKAUs, including fictitious LKAUs and enterprise headquarters. Enterprise groups are part of the national EGR and are linked with LEUs ID with the SBR.

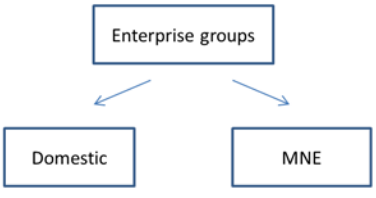
In principle an enterprise is an active legal unit (has turnover and/or employment, investment). Complex enterprises (composed of several legal units) are currently not kept in the SBR because they are in the testing phase; however, the system is technically designed so that in the future, if it proves relevant for Slovenia, this will be enabled. Quasi fictitious units (i.e. units usually of a level lower than LKAUs – usually reporting units) are not part of the SBR since they are not statistical units, but they are kept within the SBR processes for reporting, for centralising the processes and for satellite registers (tourism, education, etc.). Data for enterprises and LKAUs are monitored monthly. Based on monthly states annual states for enterprises and LKAUs are set up. Data for KAUs and LUs are derived from LKAUs once a year.

Hierarchically the lowest statistical unit in the SBR is the LKAU from which hierarchically higher units (enterprise, LU and KAU) can be derived by relations between units. In the SBR process the statistical identifier SIR is assigned to all the mentioned units; the methodology of its management is independent of administrative identifiers.

SBR units



National EGR units (linked with LEUs ID with SBR)



4 Main new functionalities of SBR

Within the setting up of the new SBR three new statistical processes of the register were set up:

1. SBR-DEM – central management of demographic and insolvency events
2. SBR-NACE – central management of statistical activity
3. SBR-FIKT – central management of so-called fictitious LKAUs that are not registered in the ABR but are important for statistical purposes

The comprehensive implementation of SBR processes is complemented by two technical functionalities:

a) SBR-SIR – central management of the statistical identifier and the continuity of units
b) SBR-REL – central management of relations between units, which will be able to support the monitoring of complex enterprises

For each of the above-mentioned processes it was necessary to unify and centralise some non-uniform approaches for the entire SURS, which was a special process and organisational challenge for the project.

4.1 SBR-DEM

SBR-DEM is a process with which the demography and insolvency of SBR units (LKAUs and enterprises) is managed; i.e. cessations, mergers, take-overs, bankruptcies, etc. The process is generally based on administrative sources (ABR, court decisions, database of transaction accounts) and statistical algorithms. Based on the mentioned statuses, data in the basic integration database SBR are updated, where continuity of the statistical identifier SIR is preserved in cases when this makes sense due to demographic events.

Determining demographic events and the continuity of the statistical identifier derives from Eurostat's methodological recommendations; however, for internal purposes these recommendations had to be defined in greater detail based on practical examples, so that determination of statuses was as harmonised as possible regarding the different forms of events appearing in practice. For example, status 73 – Take-over is assigned to units acquired by another unit that is at least three months old. Status 81 is assigned to sole proprietors converted into companies. In these cases the new company must be up to three months old, otherwise the event is classified as take over. Eurostat's recommendations were a good starting point for managing demographic events; practice has shown that they needed to be supplemented with more operative criteria.

The procedure of determining demographic events starts with the weekly list of ceased units, which are assigned status 42 (unit deleted from the SBR). For all ceased units, from the database of the Court Register the textual description of the event which involved the unit (and in what role) is added. Enterprises are then manually assigned the status of the demographic event. Manually assigned statuses are finally edited with automatic algorithms, so as to minimise the impact of the human factor. Statuses are primarily assigned to enterprises, while for their LKAUs statuses are assigned automatically based on specific criteria. Within the processing of LKAUs, in some cases new fictitious LKAUs can be generated (e.g. Figure 1).

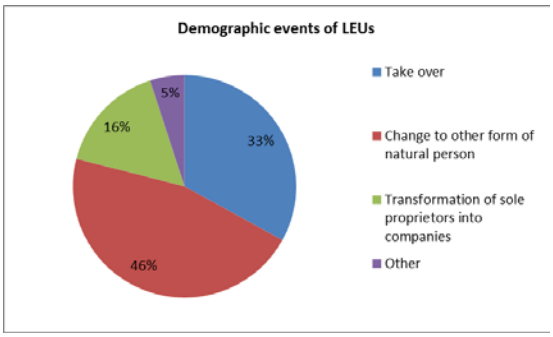
For natural persons that have been ceased and could not be assigned demographic statuses based on administrative sources, we try to determine the successor with statistical algorithms. These algorithms are based on SAS matching used in business demography and adjusted for monthly determination of successors. The criteria on which the mentioned algorithms are based are legal and organisational form, date of establishment and cessation, activity, location and data on the founder, including the personal identification number. This proved a very effective method and with it we find the highest number of successors of natural persons that very often take part in demographic events.

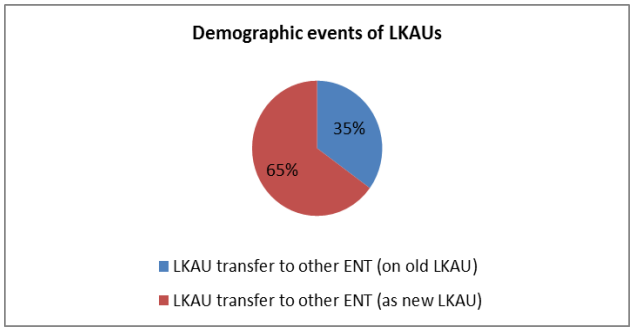
Demographic events are assigned weekly; central results are used in most areas and are welcome both in data processing and for annual monitoring of business demography, high-growth enterprises, SBS, etc.

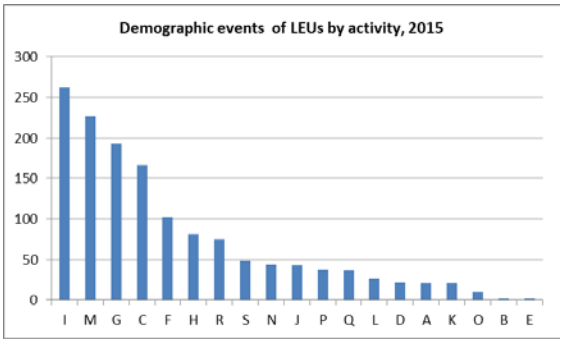
In monitoring business demography within the SBS, from potential births units that are not real births (i.e mergers) are eliminated. For large enterprises (10+ employees) these not real births were more or less eliminated manually by reviewing individual cases. Central determination of demographic events in SBR-DEM contributed to this part of activities within business demography, since a third of not real births is now identified on the basis of uniform statuses from the SBR-DEM and these units are mostly large representing two thirds of persons employed in not real births. SBR statuses have a similar effect in determining not real deaths; a quarter of not real deaths are determined on the basis of SBR statuses representing almost three quarters of persons employed in not real deaths. We can conclude that for business demography automatic elimination of units that are not real births and deaths increased and manual work in this domain was reduced based on new SBR data.

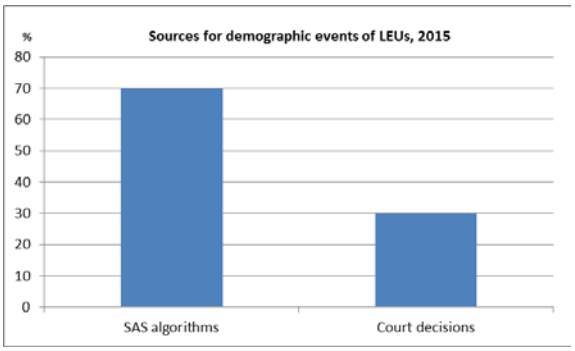
In line with the European practice and recommendations, we are monitoring demographic events of enterprises for those SBR units that are classified into institutional sector codes S11, S12, S141 and S142, which determines market activity. Because for other units or non-market activities (general government, societies, etc.) there is also a need for these data, we partly monitor demography also for this part. For non-market activities we do not have permanent administrative and statistical sources, so for these units we monitor demography when we detect changes from the surveys or in some other way (e.g. from the media). The same demographic rules and determination of statistical IDs (SIRs) are applied for market and non-market part of the units.

In the process of determining demographic events, statuses of direct successors predominate, which mostly refer to changes from one form of natural person to the other (46%), followed by take overs (33%) and transformation of sole proprietors into companies (16%). Most of the demographic events are detected at the end and the beginning of the year. As regards activity, enterprises in accommodation and food service activities (I), professional, scientific and technical activities (M), trade (G) and manufacturing (C) are the most frequently involved in demographic events. In determining demographic events, SAS matching of natural persons and court decisions predominate.







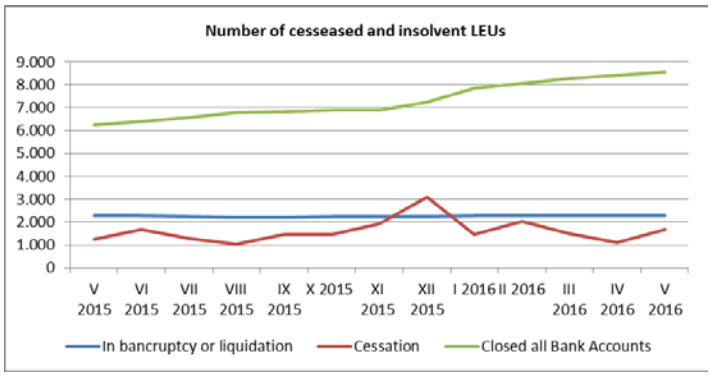


The second large set of statuses in the SBR-DEM process is assigned to administratively still living units. This is mainly assigning statuses arising from insolvency. To this end we use ABR information (if the words “bankruptcy” or “liquidation” appear in the name of the legal entity), court decisions and the database of transaction accounts from which information on bankruptcy procedures and/or closure of all transaction accounts of a legal unit (enterprise) can be obtained. Information on insolvency is useful in statistical data processing and in sending questionnaires to reporting units, since in some cases due to long insolvency procedures it makes no sense to include such units into statistical surveys. If an insolvent unit reopens its transaction accounts or is no longer in the bankruptcy procedure, this is properly recorded in the demographic database. Such units can again become potential units for observation. Data on insolvency are also important for treating units in the SBS, which SURS conducts solely on the basis of administrative sources. Such units can have in annual accounts high values of turnover for which it is not necessary that they match the observation in line with definitions, so they have to be treated carefully.

In general, final demographic and insolvency statuses for units are determined by the 20th in the month for the previous month, while statuses (provisional) for STS needs are determined weekly. Practice has shown minimal differences between provisional and final statuses, so provisional statuses are beneficial for STS where treatment of units is very tight in terms of time and any prior quality information is more than welcome.

As regards insolvency events, recording enterprises whose all transaction accounts were closed predominated with 77%, followed by bankruptcies and liquidations with 23%. For about 10% of units we

are able to identify that for them the conditions for inactivity largely no longer apply and can again become potential units for observation.



4.2 SBR-FIKT

SBR-FIKT is a process in which SURS set up central management of fictitious units. Fictitious units are units that are not part of administrative databases and registers, so legally they do not exist. They are fictitious, "virtual" units that statistics generates artificially to help in statistical coverage, processing and presentation of actual (de facto) phenomena. Generating of fictitious units is a kind of statistical editing of units that "should" or "could" be part of administrative sources but are not because for various reasons enterprises did not register them in administrative databases. In the SBR there are three types of fictitious units:

1. real fictitious units (FE) – type of LKAU
2. real fictitious units as enterprises' headquarters (F00) – type of LKAU
3. quasi fictitious units (KFE) – lower type than LKAU

A real fictitious unit is always a part of the enterprise. A fictitious unit as a part of the enterprises can be generated only if the enterprise as its subordinate unit is actually registered in the ABR. A real fictitious unit (FE) is part of the enterprise (LKAU) that is not registered in the ABR and employs at least one person. The criteria for registration are location and activity. The fictitious unit performs the same or different activity on a different location than other existing LKAUs or a different activity on the same location of existing LKAUs. Sources of generating real fictitious units in the SBR are statistical surveys and demographic events (SBR-DEM).

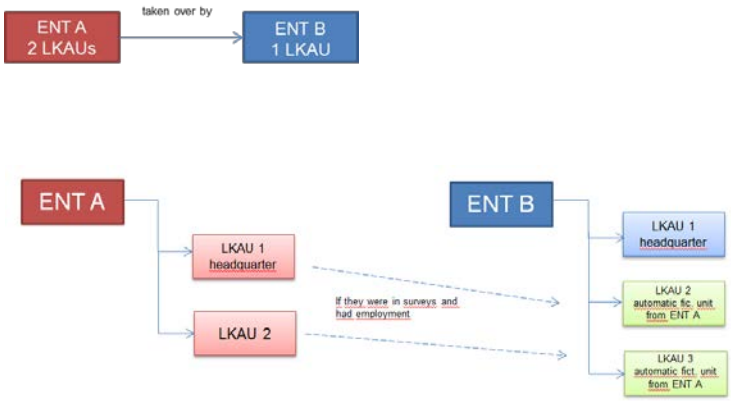
A fictitious unit as an enterprise's headquarters (F00) is a part of the enterprise (LKAU) that generally has the same location and activity as the enterprise. These units are generated automatically on the basis of data on enterprises from the ABR.

A quasi fictitious unit (KFE) is a part of the enterprise that is not registered in the ABR and is on the same location with the same activity as the existing LKAUs. Such units represent an actually hierarchically lower level of units than LKAUs and are in a way necessary for satellite registers. Because SURS does not yet have such satellite registers in all areas, with this the SBR partly supports these functionalities but

in a limited way (tourism, education). Statistical surveys are the main source of information for quasi fictitious units.

Fictitious units need to be treated in the statistical system comprehensively and centrally; therefore, for this purpose a common system for managing fictitious units was developed and persons performing this work (a group of SBR-IRA employees) were appointed. For monitoring fictitious units an internal mailbox was created where statisticians send all information related to the management of fictitious units. Fictitious units are updated on the basis of an internal form transmitted by statisticians or these units are generated automatically in the system of managing demographic events. In the SBR system fictitious units are updated monthly. Most of the fictitious units are registered in education, trade and industry.

Figure 1: Automatic generation of fictitious units in the case of take-over



4.3 SBR-NACE

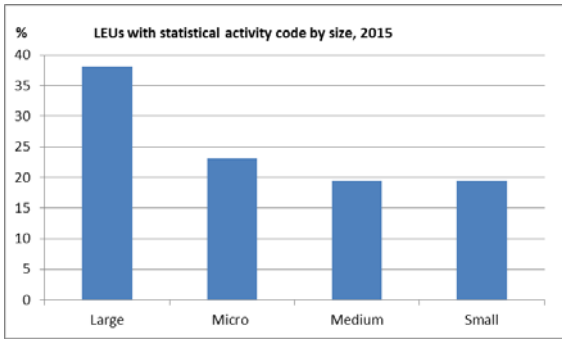
One of the variables kept in the ABR for enterprises and their local units is the main activity determined on the basis of the national Standard Classification of Activities, which is based on NACE Rev. 2.

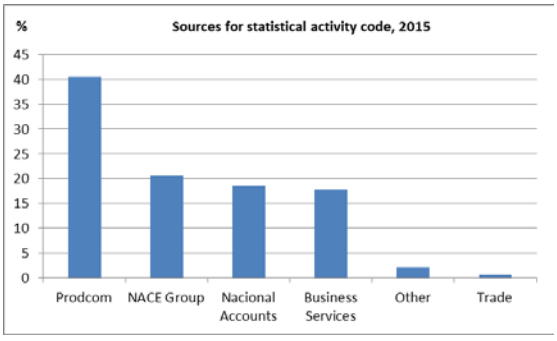
The current practice of classifying units in the ABR is that enterprises determine the main activity in the ABR for themselves and for their local units. Because this variable in the ABR is used in various administrative procedures (e.g. for granting subsidies), it does not always reflect the actual situation regarding the operation of units. Therefore, SURS organised an internal group of NACE methodologists striving to make the main activity in the SBR reflect as much as possible the actual situation regarding the operation of units, particularly for very important units that have large impact on statistical data dissemination. The NACE Group is composed of experts from business and social statistics, national accounts and general methodology. Invited to participate in the group's meetings are always also statisticians proposing the treatment of enterprises on the basis of survey information. The NACE Group prepared a common methodology of treatment, which is being occasionally supplemented by practice and new available sources. In determining the statistical activity EU recommendations regarding the stability of activity are taken into account to the largest extent. In practice, there are cases where for various reasons the stability of various sources cannot be provided, because in larger units a large change in activity was actually possible, but this is more an exception than a rule.

In its work the NACE Group gives priority to possible misclassification by activity for very important enterprises. In doing this the group uses available information from statistical surveys, publicly released data (annual reports, internet, etc.) and, if necessary, contacts the enterprises. Enterprises are often advised to select a more appropriate activity code to be entered into the ABR since not knowing the NACE classification is frequently the reason for inappropriate entry of activity in the ABR. If a business entity does not change the activity in the ABR to an appropriate one, this activity is managed centrally only for the statistical purpose. The statistical activity was first introduced in business statistics; it will be gradually introduced in other domains (national accounts, labour market, etc.). By introducing the statistical activity, SURS will provide central and consistent treatment of enterprises' activities in all statistical domains.

Wishes to make the statistical activity uniform first referred to annual and short-term statistics for the same reference year, but it turned out that in practice this is difficult to implement. In general, the current methodology is: decisions regarding the statistical activity adopted by the NACE Group during the year T are used in preparing the sampling frame for year T+1, which means that the activity determined by the group during 2016 is used in preparing the sampling frame for 2017. And the sampling frame for 2017 is used for annual statistics for the reference year 2016 and for short-term statistics for 2017.

In the SBR most entities with statistical activities are large and medium-sized enterprises. As regards the section of activity, enterprises in industry and in professional, scientific and technical activities predominate. The main sources for determining the activity are the PRODCOM survey and treatment by the NACE Group.





This functionality in particular contributes to greater treatment of units by the NACE Group. At the same time it maximizes the awareness among statisticians of using the results from the central system of the SBR. Statistical activity codes enable statisticians to present information more realistically and coherently.

4.4 SBR-REL

Functionalities of the SBR-REL and SBR-SIR have a technical role, namely table SBR-REL shows links between various types of statistical units on the basis of the statistical identifier SIR. In table SBR-SIR there is a list of assigned SIRs, the date of the assignment and elimination of the identifier, and the indicator telling us to which type of unit it belongs.

Based on the relational table, relations between units are currently kept: history of LKAUs belonging to enterprises and which administrative identifier of the unit belongs to it. For LUs and KAUs in relational

tables information is kept from which LKAUs the LU and/or the KAU is composed and to what enterprise it belongs. This information is kept at the annual level.

Table 1: SBR-REL for local kind of activity units (LKAU) – bitemporally managed

SIR_LKAU	SIR_ENT	Admin_ID_LeU	Admin_ID_LKAU	Date_from (valid time)	Date_to (valid time)	Date_from (transaction time)	Date_to (transaction time)

Relational tables SBR-REL, as well as some other SBR tables, are bitemporal (BT).

The purpose of bitemporal (BT) tables is to preserve changes (monitor the events) in the valid and transaction time. The valid time is the time in which changes in observation units take place. The transaction time is the time in which changes in table entries take place. An entry in the table is the description of the observed unit. The valid and transaction times are independent. The use of BT tables enables monitoring the history of observed units (valid time) as well as following the changes of knowing this history (transaction time).

Table 2: SBR-REL for local units (LU) – annually managed

SIR_LU	SIR_LKAU	SIR_ENT	Admin_ID_LKAU	Admin_ID_LeU	Year

LU is composed of LKAUs on the same location.

Table 3: SBR-REL for kind of activity units (KAU) – annually managed

SIR_KAU	SIR_LKAU	SIR_ENT	Admin_ID_LKAU	Admin_ID_LeU	Year

KAU is composed of LKAUs with the same activity code.

In the future, based on the SBR-REL functionality the SBR will be able to simply expand to managing so-called complex enterprises, if it proves relevant for Slovenia.

4.5 SBR-SIR

The introduction of the statistical identifier (SIR) in the SBR derives from EU recommendations and the existing deficiency of the ABR. At entry into the SBR, all units are assigned the statistical identifier SIR (Statistical IdentifikatoR), which was introduced due to the need to monitor statistical successors. To centralise the processes, SIR is also assigned to quasi fictitious units and KAUs and LUs; however, for quasi fictitious units the identifier is only a number and is not used for monitoring successors and continuity. SIR enables monitoring the continuity of statistical units independently of managing the administrative units, which is based on administrative identifiers ABR (Admin_ID). SIR is a nine-digit number that differs from other identifiers used at SURS (register number, personal identification number,

tax number) in its length. In the SBR SIR is the key assigned to all units and always acting in pair with the administrative identifier Admin_ID. In the SBR the administrative identifier has a role of a variable for linking data from the administrative environment. One SIR can only be assigned to one unit and after cessation this SIR is never again assigned to any other unit.

For linking various databases (statistical, administrative), monthly and annual links (SIR: Admin_ID) are prepared, making it possible to assign the appropriate SIR for each Admin_ID. In the observation period one SIR can have several Admin_IDs and vice versa.

The criteria for the continuity of SIRs are based on EU recommendations, which in some cases had to be defined in greater detail in line with the practice. In determining the continuity, activity, location and the number of employees are taken into account. Managing the continuity of SIRs is based on statistical rules valid for demographic events (merger, take-over, etc.). However, these rules are not always the same as the rules of managing administrative identifiers. Elimination of Admin_ID in the ABR does not necessarily mean elimination of SIR in the SBR. In the SBR the continuity of SIR LEU is determined in about 76% of demographic events. For LKAU events the share is 95%.

5 Statistical outputs of the SBR for users

5.1 Master sampling frame – improved approach

Based on the new processes and functionalities, the new SBR simplifies the construction of the annual master sampling frame. Now it could be better prepared since it uses the pre-prepared central registration of all units relevant for statistics from the SBR (better coverage) and with better stratification variables (i.e. employment, NACE code, turnover). This new master sampling frame is used for business surveys and partially for social surveys and in the future plans national accounts are waiting in the queue, too.

5.2 Main SBR users

The SBR was set up for the needs of business statistics, so currently the main users are subject-matter methodologists conducting surveys on enterprises and LKAUs (i.e. STS, SBS, FATS, BD, etc.).

In future it is planned that the SBR will start to became a backbone also for other statistical domains (annual accounts, labour market , etc.).

5.3 Monthly SBR state

Around the 20th in the month the monthly SBR is prepared with data for the previous month and data on employment and VAT for m-2[1]. The function of the monthly SBR is primarily to monitor monthly changes happening to units in the field and in the ABR, so to manage the demography of units, appearance of fictitious units and other changes, including new registration and deletion of units. As such, the monthly SBR offers to the methodologists information necessary for managing their surveys, for preparing directories and for final editing of data collected with statistical questionnaires.

[1] Example: around 20 March of year T the SBR is prepared for the reference month February of year T: the state covers all changes that happened to units in February, including all demographic events that happened in February. Also covered are cessations and new registrations of units in February. EXCEPTION: The mentioned monthly state of the SBR for February of year T covers the data on employment and VAT for the reference month January of year T (this is an exception because we obtain this source later than e.g. ABR data and court decisions).

5.4 Annual SBR states

The annual SBR contains more data than the monthly SBR (e.g. data in investment, annual turnover) and is prepared on the basis of monthly states and annual statistical and administrative sources. The annual SBR is prepared several times for specific needs.

1. For the first time at the end of November (T-1) as a provisional master frame to pre-prepare the final master frame.
2. For the second time in January (T+1) as the final master frame.
3. For the third time the annual SBR is prepared as provisional, particularly for the needs of SBS, business demography, high-growth enterprises, etc. With data on turnover it is filled successively as they are received from the managers of administrative sources; the latest data on turnover are received at the end of June (T+6).
4. For the fourth time the annual SBR is prepared as the final version in November (T+11), when it is supplemented with data on investment. As such it is the basis for preparing and reporting final data on various surveys: SBS, enterprise demography, etc. On this final version imputation of missing data is implemented.

The fundamental difference between different annual states is additional information (i.e. turnover), which in the final state refers to year T and in the provisional state to year T-1, which has an impact on determining the set of active enterprises.

Users at SURS have a user interface SBR.net for simple reviewing of individual SBR data and for preparing various individual and aggregate outputs.

6 Introduction of the new SBR into surveys

Due to the complexity, the new SBR will be introduced into the processes at SURS gradually. To this end, before the completion of the SBR project a group of experts was established, which will in 2016:

1. Review the subject-matter impact of introducing the new SBR into statistical processes at SURS
2. Study technical aspects of the impact of SBR solutions (introduction of fictitious units, SIR, statistical activity) on statistical processes at SURS
3. Select statistical surveys (monthly and annual) and on them test the introduction of the SBR and its solutions
4. Propose an action plan for the transition of surveys to new solutions

Based on the findings of the group for the introduction of the SBR, as necessary, some adjustments of the SBR system will be implemented and timetables and the method of transition of surveys to the new system of SBR data will be determined. It will therefore be possible to analyse in greater detail the impact of the new SBR on surveys only in the coming years.

<u>Possibility of upgrading the SBR</u>

The SBR is set up as a flexible tool, so that it enables current updates and upgrades of all processes and procedures. Due to the need for a relatively stable implementation of the monthly SBR, regular updates and upgrades will be made only once a year at the end of the year.

Conclusion

The SBR will enable the preparation of consistent data, but only when all business statistics will derive from the SBR. In view of the quality of statistical data, it is also important that all business statistics treat and manage changes on the field in the same way, which is made possible by centrally managed sub-processes and procedures in the SBR. The use of results deriving from central management of changes does not only provide larger consistency of statistical data but also contributes to the quality of implementing these operations. The use of the SBR in all business statistics is the optimisation of processes, since centrally managed sub-processes and procedures cover and manage changes for all users.

All mentioned new functionalities will reduce the setting up of different kinds of statistical solutions on purpose in some statistical domains and strengthen the central role of the SBR. At the end the SBR started to became a backbone not only for business statistics but also for other statistical domains (i.e. national accounts, social statistics). We actually got a new central backbone on the horizon.

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