

# Twinning Project

Contract: GE 16 ENI ST 06 18

## Strengthening the Capacity of the Georgian Statistical System

### Component 3: *“Development of Business Statistics”*

#### Sub-component 3.2: *“Statistical Business Register (SBR)”*

## MISSION REPORT

### Activity: 3.2.B *“Implementation of specific changes”*

Mission carried out by  
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December 9<sup>th</sup> – December 12<sup>th</sup> 2019

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## 1. General comments

This mission report was prepared within the EU Twinning Project "Strengthening the Capacity of Georgian Statistical System". This was the second mission within the sub-component 3.2: "Statistical Business Register (SBR)" and was mainly devoted to Implementation of specific changes with focus on the data model and structure for tables with temporal (historical) information.

The purposes of the mission were:

- Discussion of current situation and outline of a work plan and thereby;
- Presentation of the description of update methodology for Legal unit from Georgia
- Presentation of Danish historic model seen from the IT side from Denmark
- Presentation of variables for updating enterprises and local units from Georgia
- Discussions about rules for updating enterprise and local units
- Side by side work on the IT-system (at least 1½ day)
- Presentation of an "in-house estimate" and the quality for several statistics
- Is the plan made in September realistic, the management shall look in to the budget for each of the eight items
- Presentation of algorithm for automatic calculation of sector for 99% of the legal entities from Denmark

The consultants would like to express their gratitude to all officials and individuals met for the kind support and valuable information which they received during the stay in Georgia and which highly facilitated the work of the consultant.

The views and observations stated in this report are those of the consultants and do not necessarily correspond to the views of the European Union, Geostat, Statistics Denmark, or other statistical institutions involved in the implementation of the project.

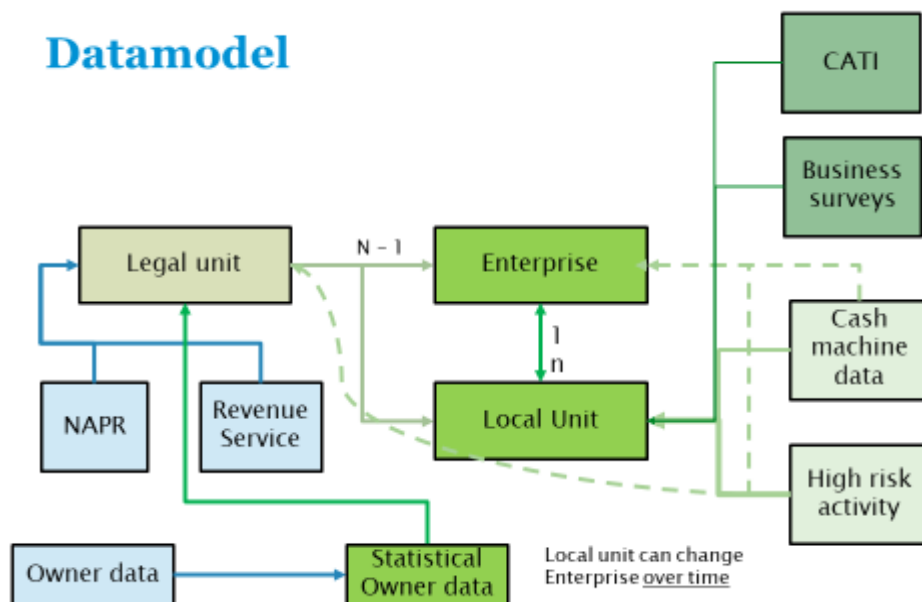
## 2. Assessment and results

Since the first mission, the SBR team at Geostat, including IT, have been working with the topics and recommendations made at the latest mission. Work has been done on both priority A and B tasks. Concerning one prioritized topic about getting data from Central Bank about foreign affiliates, the SBR-team need help from the management to get access to data. Concerning the topic about having an "in-house estimate" on Response burden, which was presented on the mission in September. The Methodology department consider it a task for their department. It will be up to the management to ensure that the task will be completed. It is not a big task, but it is relevant for Geostat.

The mission had focus on the IT system, historical information, dataflow and how to prioritize different sources to SBR. It is a big IT development project and will take months to develop. One of the experts is an expert in IT who worked side-by-side for a full day with the Geostat IT-specialist, looking into the existing SBR system. The Geostat IT-specialist already had many good ideas, which was discussed, and an optimized solution was found. New table structures, historical data and a finished data model will make a good basis for further development. The new table structure focuses on splitting Legal and Statistical Units into more tables, which in turn creates a more streamlined register that is much easier to maintain.

On this mission, it was decided which data belonged where (Legal unit, Enterprise or Local unit) and how to send data from Legal units to Enterprise and Local units.

Fig. 1 Data model with different sources



There are several data-sources for Legal units. NAPR and Revenue Service are in production with monthly update. Geostat has received data from a Public institution, about schools, but the data transaction is not in production. Nevertheless, even if there are more sources there will only be one relevant source for each Legal unit.

A change was decided in respect to the updating procedure of the Legal units, which will now only be updated from their primary source. All other information are concentrated on statistical units, Enterprises and Local units.

For the statistical side it is decided to have as few activity codes as possible. Today many Enterprises has more than 2, 5, 10 activities, which cannot be used for statistics. In the future, there will only be one main activity on each Enterprise and only if more than one local unit, with known different activity, there will be a registration of secondary activities. For units defined as “small” (less than 50 empl.) there will be no search for secondary activities.

If information about several activities exist a random method shall be used. The SBR team need to clean up on existing statistical units.

The SBR team presented a decision tree for data about “Cash Machine” and “High Risk activity”. A few changes to the decision tree were agreed upon and there are now rules for updates with these data.

In annex 3 more information about the decisions can be found.

The experts find that it would be a good idea to contact the Revenue Service and NAPR to improve the registration process for Geostat to get better knowledge about the companies, but also the public sector in general and for the private sector. Good administrative data create jobs and value for the society.

Continuity rules were discussed and the experts recommended using the local units (bottom up) to follow Enterprises over time. It means that a Local Unit can change enterprise over time. The continuity for Enterprises is a “Enterprise\_over\_time” Id. Before it will be possible to move Local unit from one Enterprise to

another, there is a need for further investigation to find sources for “take over” of Local units. If local units can be followed over time, there are rules that can be implemented for almost all units. There are still a lot of work to be done on this topic, and the quality of administrative data will not make it easy.

The experts presented the Danish model for calculating sector codes in the SBR. There are three key elements in calculating a Sector code. It is Legal form, activity code and owners. Geostat has access to all of them. The Danish model for having Sector codes in SBR follow ESA2010. It means there are many different codes, and it can be difficult to use for other than the National Account. For the SBR team it is necessary to get demands from the National Account for Sector Codes in SBR. A possibility is to have the discussion on a mission with experts from National accounts.

### 3. Conclusions and follow up

From mission 3.2.A eight items was noticed, cf. the mission report from 3.2.A. An updated status is given.

- Priority A, to get automatic updating procedures to Enterprise and Local Units
  - Model described. Work on description and rules is still in progress
- Priority A, to look at loading new data deliveries (each month) from NAPR and how to handle historical information
  - Tables created and work is ongoing
  - A meeting with NAPR and Revenue Service about company registration should be arranged
- Priority A, to create Frozen SBR frames in production and used by surveys.
  - A final version for 2018 will be created before Christmas with old methodology.
  - A preliminary version for 2019 for creation of populations will be created in January with old methodology.
  - In spring 2020 there will be a discussion with users about how to work with frozen versions. Topic for visit before summer
  - New methodology will be developed in 2020.
  - Final version for 2019 will be created in September 2020
- Priority B, to have information about Cash registers in production, to improve knowledge about NACE and creation of Local units
  - Description of how to use it is made for both Cash Machine Data and High Risk activities
- Priority B, to assess the possibilities for automatic creation of Enterprise Groups and how to manage automatic updating
  - No work on these topics
- Priority B, to get access to data about Joint Stock companies from the Central Bank.
  - There is a need for handling from the management because it is confidential data.
- Priority A, to obtain preliminary knowledge about the extent of foreign affiliates and the possibilities for surveying the domain.
  - A presentation will be made in Copenhagen of FATS statistics
  - Follow up on a later mission.
- Priority A, to have an “in-house estimate” about Response burden for the management
  - The task is taken over by the Methodology division. SBR not allowed to doing it.

Actions needed for moving forward:

| Action  | Deadline       | Responsible person     |
|---|----------------|------------------------|
| Danish expert will send a translation of Danish legal forms and group them as | December, 2019 | Mr. Christian Bendtsen |

|  |                        |   |
|--|------------------------|---|
| used by Eurostat   |                        |   |
| IT will continue the work with the new table structure   | March, 2020            |   |
| SBR team will make a decision tree for moving data from Legal unit to Enterprise and Local unit                              | February, 2020         |   |
| IT will start implement rules for update Enterprise and Local unit from Legal Unit   | March 2020             | Ms. Manana Telia<br>Mr. Giorgi Kartvelishvili |
| Demands from NA to sector code will be described –meeting with NA. NA maybe will need to talk to Danish experts              | May, 2020              | Ms. Manana Telia<br>Mr. Steen Bielefeldt      |
| A meeting with the Central Bank should be held by the management for giving access to data about foreign affiliates          | April 2020             | Geostat                                       |
| Meeting with NAPR and/or Revenue Service about advantage with better data from registration for the public sector in Georgia | May 2020, next mission | Geostat                                       |
| SBR team and IT will together decide rules for updating and overwrite of statistical information with adm. sources           | April 2020             | Ms. Manana Telia                              |
| SBR team will update the list of sources. So each statistic there make deliveries for update in SBR can be identified        | April 2020             | Ms. Manana Telia                              |
| SBR decides main activity for all Enterprises and Local units and removes all secondary activities as agreed                 | Februar 2020           | Ms. Manana Telia                              |

Next activity will be a study visit in Copenhagen and the Danish experts will work around this agenda.

## Annex 1. Terms of Reference

### Terms of Reference

#### EU Twinning Project GE 16 ENI ST 06 18

December 9<sup>th</sup> – December 12<sup>th</sup> 2019

### Component 3: Development of Business Statistics

#### Sub-component 3.2: Statistical Business Register (SBR)

##### Mandatory results and benchmarks for sub-component 3.2

- Statistical business register (SBR) improved

##### Indicators of Achievement (baseline and targets):

- Availability of SBR-Storage procedures
  - **Baseline:** 2019 – Updating and storage procedures of SBR are insufficient
  - **Target:** December 2020 – Relevant changes applied for Ownership classifications, Continuity rules, Time stamps, Data changes and activity codes in SBR

#### Activity 3.2.B: “Implementation of specific changes”

##### 1. Purpose of the activity

To present, discuss and work on the below mentioned subjects:

- Presentation of the description of update methodology for Legal unit from Georgia
- Presentation of Danish historic model seen from the it side from Denmark
- Presentation of variables for updating enterprises and local units from Georgia
- Discussions about rules for updating enterprise and local units
- Side by side work on the it-system (at least 1½ day)
- Presentation of an “in-house estimate” and the quality for several statistics
- Is the plan made in September realistic, the management shall look in to the budget for each of the eight items
- Presentation of algorithm for automatic calculation of sector for 99% of the legal entities from Denmark

##### 2. Expected output of the activity

- Work plan for sub-component 3.2 updated.
- Agreement on rules for updating legal unit when we have two sources
- Started on description of rules for updating statistical side
- IT has been presented for the Danish history and there has been given advises for structure of tables and updating procedure.
- Approved “in-house estimate” for statistics to sending to the management
- Decision about how to Work with code for sector in the future
- Mission report written
- Preparation of ToR for next mission





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## Annex 2. Persons met

### Geostat

Ms. Lia Dzebisauri, Deputy Executive Director

Mr. Giorgi Sanadze, Head of Business Statistics Department,

Ms. Manana Telia, Head of Business Register Division,

Ms. Manana Sharukhia, Chief Specialist of Business Register Division,

Mr. Givi Ioseliani, Senior Specialist of Business Register Division,

Ms. Khatuna Bzhalava, Senior Specialist of Business Register Division

Ms. Makvala Datukishvili, Specialist of Business Register Division

Mr. Giorgi Kartvelishvili, IT-specialist

### RTA Twinning Team

Mr. Steen Bielefeldt Pedersen, Resident Twinning Advisor

Ms. Eka Lobzanidze, Resident Twinning Advisor Assistant

Ms. Nino Grdzelisvili, Resident Twinning Advisor Translator

## Annex 3. Summary of the discussion about the data model and rules

### 1. The big picture

#### Next step for SBR

| Rank | What  |
|------|---|
| 1    | Change the model for loading data from NAPR, only read changes  |
| 2    | Implement updating priority rules for LeU, other admin sources is there a ranking between sources   |
| 3    | Decide on which tables GEOSTAT will implement the danish history model – <i>Adress, Activity code on Ent and Local units</i>                              |
| 4    | Implement rules for creation/updating of Enterprises  |
| 5    | Implement rules for creation/updating of Local units  |
| 6    | Updating rules for Enterprises (can be done in other ways)<br>– Lock (for how long if GEOSTAT information)  |
| 7    | Updating rules for Local units (can be done in other ways)<br>– Lock (for how long if GEOSTAT information)  |
| 8    | Tables about registration data and changes of owners. Name and surname, citizenship of two different countries. Correct information in statistical tables |
| 15   | Business Demography   |
| 16   | Large Case Unit – enterprises with >1 Legal unit  |

### 2. Administrative updates

- Administrative updates
  - Legal form decide who is responsible
    - NAPR, Revenue Service, Others. But only one source for each legal unit
    - No updates from statistical side on Legal Units
    - If new LeU, automatic creation of Enterprise and Local unit
- Statistical units: Enterprise and Local Unit
  - Max 4 activity codes
  - Small units only one activity code per Local Unit
  - Changes on address and activity code will have dates related to frozen versions If update of NACE/Address a date must be set
    - Before September from last year january 1<sup>st</sup>
    - From september 1<sup>st</sup> from actual year january 1<sup>st</sup>

### 3. Data on statistical units and rules to ensure overwriting

## Variable Enterprise and lock information for update from admin. Registers (4+5+(10))

| Variable                         | Ent | CATI/BR/ A+Q<br>Survey + bus. Surveys<br>(Id 6+7+9+11) | LU  | CATI/BR/ A+Q<br>Survey + bus. Surveys<br>(Id 6+7+9+11) |
|----------------------------------|-----|--|-----|--|
| Name                             | X   |  | X   |  |
| Address                          | X   | 2 m  | X   | 2 m  |
| Activity Code                    | X   | 1 y  | X   | 1 y  |
| - up to 3 secondary              | X   | 1 y  | X   | 1 y  |
| Lock for adm. Update of activity | X   |  | (X) |  |
| Legal form                       | X   |  |     |  |
| Sector Code                      | X   |  |     |  |
| Life (Creation/liquidation) LeU  | X   |  | X   |  |
| Active Status                    | X   | 1 y  |     | 1 y  |
| Turnover (Statistic)             | X   |  |     |  |
| Employed (Statistic)             | X   |  | X   |  |

### 4. Rules for automatic updating

It is just a start. There is a need for many rules, but it is a good start

## Automatic rules

| Rule | Happening                                      | Action   |
|------|--|--|
| 1    | Change activity on local unit                  | Automatic update on Ent  |
| 2    | More employed on LU than Ent                   | Quality . SBR team   |
| 3    | New Lu is created                              | Automatic update on Ent  |
| 4    | Change activity on Ent.                        | If 1 LU or same NACE on all local units, automatic update else quality |
| 5    | SBR tries to close the last LU                 | Can't be updated, not legal  |
| 6    | Transmit employment from ENT to LU if old data | Can be calculated, but it must be marked it is not reported            |



### 5. Sector Coding

For sector codes there is a need for close cooperation with National Account

## Sector classifications in Danish BR

- Why in BR?
  - One common sector classification in Statistics Denmark and Danish economy
- Sector classification variables in Danish BR
  - Stored on Local unit
    - Transmitted calculated to enterprise level
    - **Recommend to store it on enterprise or legal unit level**
  - Continuously updated version of sector
    - Algorithm runs once a week to update the sector
  - Start and end dates of variables
  - Dates of changes
  - All previous sector classes (with start and end dates)



## Quality control

- Government finances (National accounts)
  - Provide/update lists of units
  - Provide/update determination chart and automatic rules
  - Quality control and quality control tables
  - Manual checks on possibly erroneous sector classifications of individual units
- Business Register
  - Technical implementation of lists and units
  - Update runs
  - Technical quality control
    - Was the update run successful?
  - Quality on BR variables used in determination chart (nace, legal form...)



## Breakdown of sectors into Danish SBR

|      | Sector title               | SBR sectorcode |
|------|----------------------------|----------------|
| S.11 | Not financial corporations | 11-19          |
| S.12 | Financial corporations     | 20-69          |

|             |  |                  |
|-------------|--|------------------|
| S.121       | Central Bank   | 21               |
| S.122       | Banks and mortgage banks<br><i>ESA2010_Banks, except central bank</i>  | 27-29            |
| S.123       | Money Market Funds MMF   | 31-33            |
| S.124       | Investment funds, except MMF   | 37-39            |
| S.125       | Other financial intermediaries<br><i>ESA2010_ Other financial intermediaries, except insurance companies and pension funds</i> | 41-43            |
| S.126       | Financial Aid Units  | 47-49            |
| S.127       | Group affiliated financial institutions and moneylenders   | 51-53            |
| S.128       | Insurance companies  | 57-59            |
| S.129       | Pension funds  | 61-63            |
| <b>S.13</b> | <b>Public administration and service</b>   | <b>71-79</b>     |
| S.1311      | Government administration and service  | 71-72            |
| S.1313      | Municipal and regional administration and service  | 74-77            |
| S.1314      | Social funds and foundations   | 79               |
| <b>S.14</b> | <b>Households</b>  | <b>81 (+83*)</b> |
| <b>S.15</b> | <b>Non-profit institutions aimed at households</b>   | <b>89</b>        |
| S.2         | Abroad   | 91               |
|             | Not known*   | 99               |

## Example on rules in the Danish SBR to establish the sector code

There are in total 44 rules to establish the Sector code

| Rule |      |   | ESR<br>sektor | ESA2010<br>sektor |
|------|------|---|---------------|-------------------|
| 1    | if   | Legal form  |               |                   |
|      |      |   |               |                   |
|      | and  | Activity Code   |               |                   |
|      | then |   |               |                   |
|      |      | Exceptions  | 18            | 110020            |
|      |      |   |               |                   |
|      | if   | Owned by state  |               |                   |
|      | then |   | 14            | 110010            |
|      | if   | Owned by regions  |               |                   |
|      | then |   | 16            | 110010            |
|      | if   | Owned by municipalities   |               |                   |
|      | then |   | 15            | 110010            |
|      |      | exception to exception  |               |                   |
|      |      | joint municipal unit owned by municipalities, but not market-based, ie. owned by municipality but not ESR sector 15 / ESA2010 sector S.110010 |               |                   |
|      | if   |   |               |                   |
|      | then |   | 77            | 131300            |