TWINNING CONTRACT

BA 15 IPA SR 01 17

Support to the reform of the statistics system in Bosnia and Herzegovina

MISSION REPORT

Activity 2.1.5:
Enterprise groups and profiling III

Component 2: Business Statistics
Sub-component 2.1: Statistical Business Register

Mission carried out by
Søren Kristensen, Statistics Denmark
Timo Laukkanen, Statistics Finland

02 - 05 September 2019

Version: Final

Expert contact information

Søren Kristensen
Statistics Denmark
Copenhagen, Denmark
Email: skr@dst.dk

TimoLaukkanen
Statistics Finland
Helsinki, Finland
Email: timo.laukkanen@stat.fi

Table of contents

List of Abbreviations

BHAS	Agency for Statistics of Bosnia and Herzegovina
BiH	Bosnia and Herzegovina
CBBH	Central Bank of Bosnia and Herzegovina
EC	European Commission
EU	European Union
FBiH	Federation of Bosnia and Herzegovina
FIS	Institute for Statistics of Federation of Bosnia and Herzegovina
MS	EU Member State
RSIS	Institute for Statistics of Republika Srpska
RTA	Resident Twinning Adviser
ToR	Terms of Reference

Executive Summary

Much work and progress has been made in regard to the enterprise group register, which is highly commendable.

The work should continue to focus on the enterprise group register and place less emphasis on profiling for the time being. Some stages of profiling would fit well with the creation of enterprise groups.

The model for the enterprise group register is clear and workable, but it does have some shortcomings which should be considered.

- When designing the database some fields for crucial variables for later use should be assigned. These variables include turnover, employment, balance sheet total, and EGR id variables.

- The EG identifier should differ from the GGH identifier, as this will otherwise cause some problems when the continuity rules are fully implemented in the future.

- The LEU-EG relation table should have primacy over the ENT-EG table in the enterprise group system, as the enterprise groups always are created on the basis of relations between LEUs.

Other topics which are important to address are:

- how to deal with natural persons in the enterprise group structure,
- how to assign activity codes to enterprise groups and enterprises,
- and how to deal with public sector enterprise groups.

1. General comments

This mission report was prepared within the EU Twinning Project "Support to the reform of the statistics system in Bosnia and Herzegovina". It was the fourth mission to be devoted to Enterprise Groups within Component 2: Business Statistics, Sub-component 2.1: Statistical Business Register of the project.

The purposes of the mission were:

- Follow up from the previous activities
  To be done by the BC
  - Further analysis of sources

  - Consider flow and division of work for creation of EG register

  - Develop the profiling cases further for the next mission on profiling

- Further work on enterprise groups
- Plan for how to produce and disseminate official data on enterprise groups

The consultants would like to express their thanks to all officials and individuals met for the kind support and valuable information which they received during the stay in Bosnia-Herzegovina 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 EU, BHAS, FIS, RSIS, CBBH, Statistics Denmark, INSEE, Statistics Finland and Croatian Bureau of Statistics.

2. Assessment and results

Since the last mission devoted to profiling was carried out in September 2018 a lot of progress has been made in BiH. The mission on profiling gave the BC a good insight into the practice of profiling and also into the complexity of profiling. As a well-functioning enterprise group register is a precondition for profiling, it was decided to put more attention into developing the enterprise group register for the BiH. The consultants fully agree that this is the best way to prioritise the efforts given that the enterprise group register is a first step towards integrating enterprise groups and the statistical unit "enterprise" into the SBR. A precondition for efficient profiling and delineation of statistical units is to have a good overview of enterprise groups active in BiH.

The BC gave an update on the work on the enterprise group register. The question of how to create a register encompassing all of BiH has now been solved, which is a major step forward. It has now been agreed that all data on relations will be sent to and merged at BHAS who will then be responsible for running the algorithm creating the EGs. For the time being the data on employment and turnover will not be loaded into the database.

At the same time a lot of work has been done in regard to the IT solution for the enterprise group register. This is described in detail in previous mission reports. A few highlights may be mentioned here. It has been decided that a separate database will be set up for the creation on enterprise groups. The SBR will be updated with the relevant units from this database. This database has been created, but some work on the updating procedures has still to be done. The algorithm which creates the enterprise groups has been tested and works. It has been decided to select enterprise groups where at least one LEU has more than 50 employees as input to the system. As the input data table is compiled manually it is necessary to have this threshold so as to not spend too many resources. The number of enterprise groups to enter into the system can always be expanded later when the system is up and running and once better sources are made available.

The consultants agree with this approach and also pointed out that it is more important to successfully include the large and more complex enterprise groups than to ensure full coverage in the initial phase.

It should be noted that although the delineation of enterprises has not been a main priority, the profiling work has by no means come to a complete halt. Based on the work with practical examples from BiH on the last profiling mission, the BC has continued to analyse the structure of chosen large enterprise groups. This is an important first step in the profiling work.

Due to the focus on setting up the enterprise group register it was decided, at the request of the BC, that this mission should address some of the important methodological and practical issues in regard to the creation of enterprise groups.

The following topics were therefore agreed upon for the remaining part of the mission:

- Natural persons and the enterprise group register

- Continuity rules for the enterprise groups.

- A discussion of the IT model for the enterprise group register to ascertain whether it meets methodological requirements

- To discuss updating procedures for the enterprise group register and subsequently the SBR.

- Public enterprises and enterprise groups

Natural persons and the enterprise group register

To initiate this discussion FIS gave a very thorough presentation of their analysis of the structure of one of the larger enterprise groups in BiH. This case was used as an example at the previous profiling mission and further knowledge about the enterprise group has been collected since. FIS has a good understanding of the structure and operations of the enterprise group and has in the meantime also learned that the group has foreign subsidiaries as well. In order to validate the analysis of the group, FIS had sent a letter with some questions and a list of subsidiaries to the group. The response and the demographic events in the meantime led FIS to redraw the structure of the enterprise group – some LEUs were included and some removed – and it also led to some clarifications about the operations of the group. FIS had also recently received the consolidated report from the group in question.

The specific issue that led to the use of this example was that one of the important LEUs belonging to the group appeared to be owned 100 pct. by a natural person, and not by any other LEU in the group. But in the consolidated report from the group this LEU was reported as being owned 100 pct. by the group. Both of these circumstances cannot be true at the same time, and by all accounting standards the LEU would not be part of the group if it was owned 100 pct. by a natural person. However this information about the private ownership was what in the first place made FIS connect the LEU with the rest of the group.

In Denmark and Finland natural persons are omitted from the EG register, and the relations are built solely based on relations between legal units (including foreign legal units). In discussions it was stated that natural persons can be left out from the new emerging EG register but their role cannot still be completely neglected. This kind of close screening and analysis is needed for getting a complete picture of EG structures but recording natural persons to EG register is still not needed.

Finnish Enterprise Group Register application

Mr. Laukkanen presented the outlines of the Finnish Enterprise Group Register application with a remote desktop connection to Statistics Finland. The application contains several views (screens) representing different operations which are done by each of these views. This application is used in manual updating of the enterprise groups in Finland, as well as a checking and verification tool in different statistical processes and domains. One of the most important view is showing the tree structure of the group and consistent legal and/or foreign units, as well as some key information such as NACE code of the legal units. This view is based on the direct relations table, containing the link between two units, their control and owning shares as well as starting and cessation dates of this relation. Most of the updating process takes place in updating the links between units, and the structure of the group (as well as value of many attributes) is then automatically updated according the new and ended relations.

Other relevant view is the annual values view where annual basic values such as turnover, number of employees and total sum of balance sheet is saved. The annual structural view, presenting the structure of the EG in different years, was also viewed. Here the deducted structure (based on direct relation between units) is saved on separate table, ensuring the easy access for users to this EG structure information. In discussion the BC members showed great interest towards the visual presentation of the group structure in tree form as well as other features in Finnish EGR application.

Continuity rules for enterprise groups

In order to structure the discussion of continuity rules, the consultants gave a short presentation of how this issue is dealt with in the Business Register Recommendations Manual. Enterprise groups, just like LEUs and enterprises, experience demographic events. What is necessary to discuss is when and under what circumstances the occurrence of these events should lead the creation of new enterprise groups or the cessation of existing enterprise groups. A specific characteristic of enterprise group events is that they are connected to the relations between LEUs and not necessarily the LEUs themselves. A new enterprise group can be created by the joining of two existing LEUs, and the death of an enterprise group does not necessary lead to the death of its constituent LEUs.

The IT model for the enterprise group register suggests that the status of the GGH decides whether a group continues or a new is created. This leaves out all other types of situations where it would be appropriate to consider a change in the continuity of the enterprise group. And it may lead to "false" creations of new enterprise groups where a simple change at the top of the group is implemented – e.g. the creation of a new holding company. However, the report from the mission on the IT system clearly shows that there is awareness about these shortcomings. The choice has been made with a view to easy implementation and simplicity. It is in that report suggested that analyses of the outcomes should be carried out and then at a later stage the model may be further refined. The consultants agree with these conclusions as it is better to design a model that can be implemented to take the initial steps rather than spending too much time on fine tuning.

Discussion of the IT model for the enterprise group register to ascertain whether it meets methodological requirements

The data model developed by the BC members and the Danish expert Søren Netterstrøm was discussed and some points were raised during the meeting.

- In the selected approach, the EG identifier is the same as the group head ID, which may lead to some problems later when applying further continuity rules of the EG. With this model the change of the group head will always lead to a change of the EG id. This means that following the continuity, when expanding the continuity rules, must be secured in some other way (saving preceeding and following group head ID in some of tables).

- The EG register should present in the first place the links between EG and legal units and only secondary links between EG and the (statistical) enterprise. It is essential that the EG-LEU is existing after complex enterprises (enterprises consisting of more than one legal unit) is introduced to SBR as the maintenance of the EG can virtually be impossible if linking is done only from EG-ENT. In addition to this the construction of the certain EG precedes profiling activities, where the composition of the enterprises is carried out.

- Basic stratification variables such as turnover, number of employees and balance sheet total should be included in the model, even if data for these variables may be not available today.

- Variables for the Eurogroup register IDs (LEUID and EGR group ID) should be included as attributes in the model for later use even if the data concerning these may not be available today.

- The assignment of activity codes to EG was discussed. The question was whether the activity codes of the LEU or the statistical unit enterprise should be used for the assignment of activity codes for the EGs. In BiH the statistical agencies have no influence on the LEUs activity codes in the administrative system so it is necessary to assign them in the statistical system; either through creating a copy of the administrative units or by assigning the codes to the enterprise. If the latter is not possible – for instance due to the existing SBR data model – then the EG activity code will have to be based on Enterprises. This raised the question of how to deal with this in the case of complex enterprises. But as complex enterprises are delineated through profiling activity codes for the EG they belong to and for the complex enterprises themselves

will be established in the profiling process. Finland and Denmark have adopted different approaches to this; Finland employs a bottom-up model taking departure in the LKAU, while Denmark uses a top-down model starting from the Enterprise.

- The consultants expressed some concern that the selection of criteria for selection of relations to be processed – as described in step 3 of the activities to be carried before the running of the algorithm would lead to the dismissal of important relations and LEUs. However, the actual procedure which has been implemented by RS seems to take some of this into account. Moreover, the consultants agree that as this is a first step and as less than perfect input material is used, this procedure could be a good and practical way of moving forward. Also, the results of the EGs could be tested against other sources, e.g. financial statements in order to validate the creation of EGs in the system.

Updating procedures for the enterprise group register and subsequently the SBR

On the basis of the discussions and valuable input from the consultants during this mission, the BC made conclusions in order to modify the IT model designed in the previous mission.

Public enterprises and enterprise groups

The treatment of the public sector controlled enterprise groups was discussed in the meeting. Mr. Laukkanen brought up some special features and differences between public groups and publicly owned business groups. In Finland local government groups are present in the common EG register, and the group head in these is usually a municipality or company/ organisation owned by several municipalities. These public groups are built with relations only from group head to first level subsidiary. Subgroups of these groups are saved to EG register as common business groups.

Enterprise groups where majority of the controlling shares are owned by the government ('State') are treated as common business groups and government as well as other government bodies such as ministries are not included in EG register. Government owning is flagged for group's each (majority owned) legal unit and enterprise in SBR in attribute presenting type of ownership. For all controlled units the type of ownership is same as group head's and it is not depending if the group itself is saved as a public business group in the register. BC members discussed about this information and how BiH public groups should be treated in future. It was noted also that these public groups are not in great importance for European EGR as cross-border activities are quite rare, since local governments are not usually investing directly abroad.

3. Conclusions and recommendations

Much work and progress has been made in regard to the enterprise group register. And the consultants would like to commend the results and the focus on making practical solutions to difficult problems.

The consultants agree that the BC should keep on the track currently outlined. I.e. to prioritise the enterprise group register and place less emphasis on profiling for the time being. Some stages of profiling, i.e. the delineation of the structure enterprise groups might though be a natural element in the creation of the enterprise group register.

The model for the enterprise group register is clear and workable, but it does have some shortcomings which should be considered. Many of these shortcomings are indeed foreseen at the previous mission and are viewed as a tool in order to make quick progress. The consultants agree with that approach, but have a few recommendations.

- When designing the database some fields for crucial variables for later use should assigned. These variables include turnover, employment, balance sheet total, and EGR id variables. The values of these variables need not to be included now, but as they will be necessary at some point in the future it is easier to make space for them initially.

- The EG identifier should differ from the GGH identifier, as this will otherwise cause some problems when the continuity rules are fully implemented in the future.

- The LEU-EG relation table should have primacy over the ENT-EG table in the enterprise group system, as the enterprise groups always are created on the basis of relations between LEUs.

In addition to these specific recommendations the consultants also recommend that the discussion on the other topics dealt with during this mission is continued. These topics include how to deal with natural persons in the enterprise group structure, how to assign activity codes to enterprise groups and enterprises, and how to deal with public sector enterprise groups. These topics are dealt with differently in different countries and it doesn't seem that there is one correct way of handling them. Therefore they should be discussed and experience from other countries could be gathered but above all BiH should make solutions which of course are in line with recommendation manuals and regulations whilst taking into account what is practically possible in the BiH context.

The tasks for the BC agreed upon in the previous mission still remains active. As the topics discussed during this mission all relate to the already agreed activities there is no need to formulate a new set of activities.

Annex 1. Terms of Reference

<div style="border:1px solid black;">

Terms of Reference
EU Twinning Project BA 15 IPA ST 01 17

Component 2: Business Statistics
Sub-component 2.1: Statistical Business Register
02 - 05 September 2019
Hosting Institution: Agency for Statistics of B&H
Zelenih beretki 26, Sarajevo

</div>

Activity 2.1.5: Eenterprise groups and profiling III

1. **Mandatory result and benchmarks for the component**

Mandatory result:
- Volume of characteristics in the Statistical Business Register increased and quality of data improved in line with EU standards by 8th project quarter

Benchmarks:
- 5-year development plan for the statistical business register updated and adopted by 2nd project quarter
- Staff trained in profiling methods by 5th project quarter
- First test profiling created by 5th project quarter
- 5-year development plan for the statistical business register updated and adopted by 8th project quarter
- Enterprise groups data integrated into the statistical business register by 8th project quarter
- Plan developed for updating the statistical business register data model by 8th project quarter

2. **Purpose of the activity**
- Follow up from the previous activities
  To be done by the BC
  - o Further analysis of sources
  - o Consider flow and division of work for creation of EG register
  - o Develop the profiling cases further for the next mission on profiling
- Further work on enterprise groups
- Plan for how to produce and disseminate official data on enterprise groups

3. **Expected output of the activity**
- Further work on enterprise groups made
- Plan developed for how to produce and disseminate official data on enterprise groups

- Input provided to the ToR of next activity

4. Participants

Agency for Statistics of BiH (BHAS)
- Dzenita Mustafic, SBR Coordinator

- Mevlija Odobasic, SBR

- Ivana Tavra Colo, SBR

- Branislava Cvijetic, IT BHAS

- Senija Facic, Branch Office Brcko District

- Vedad Osmanovic, IT Branch Office Brcko District

Institute for Statistics of Federation of BiH (FIS)
- Emira Beširević, SBR Coordinator

- Enisa Rastić, Head of SBR and Economic Classifications Department

- Envera Hurić, Senior Advisor in SBR and Economic Classifications Department

- Amar Bisić, Senior Associate for Registers

- Razija Bičakčić, IT expert for SBR

Institute for Statistics of Republika Srpska (RSIS)
- Nada Malinović, SBR Coordinator

- Jelena Baroš, Senior Statistician SBR

- Stevan Marjanović, Senior Statistician SBR

- Pero Kazanović, IT RISIS

MS Experts
- Søren Kristensen, Statistics Denmark

- Timo Laukkanen, Statistics Finland

Twinning Project Administration
- Katja Møller Hjelvang, RTA
- Đemka Šahinpašić, RTA Assistant
- Haris Imamovic, Interpreter

Agenda

Location: Zelenih beretki 26, Sarajevo

Time	Day	Place	Event	Purpose / Details
9:00-11:00	02 September Monday	Hotel	MS experts	Discuss the programme Preparation of activity
12:00-15:30	02 March Monday	BHAS	Meeting with BC Experts	Follow up from the previous mission Discussion about the agenda Further analysis of sources
9:00-12:00	03 September Tuesday	BHAS	Meeting with BC Experts	Follow up from the previous mission (Continue from day 1) Consider flow and division of work for creation of EG register Develop the profiling cases further for the next mission on profiling
13:00-15:30	03 September Tuesday	BHAS	Meeting with BC Experts	Further work on enterprise groups
9:00-12:00	04 September Wednesday	BHAS	Meeting with BC Experts	Further work on enterprise groups
13:00-15:30	04 September Wednesday	BHAS	Meeting with BC Experts	Plan for how to produce and disseminate official data on enterprise groups
9:00-12:00	05 September Thursday	BHAS	Meeting with BC Experts	Agreement on summary mission report Identification of work to be done until next activity. Input to ToR of next activity Conclusions and next steps