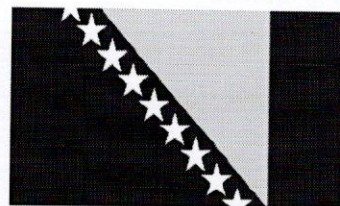
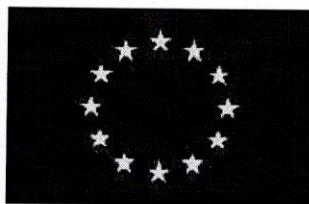


TWINNING CONTRACT

BA 15 IPA SR 01 17

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



MISSION REPORT

Activity 2.1.3:
Enterprise groups and profiling II

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

Mission carried out by
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10 - 13 September 2018

Version: Final

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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

Since the last mission a lot of progress has been made in regard to the implementation of EGs in the SBR. The databases have been merged and the entities and the agency have all gained experience in compiling data for the EG register. There is a high degree of willingness to continue the work, and there was a discussion about the division of labour. The issue of how to deal with exchange of turnover and employment data has not been solved, but it is not necessary to do that at this point, as the focus could remain on including the structure of the EGs in the SBR. Then the data can be included later.

The progress is very positive and very reassuring for the future work on the EG register.

Coming up to this mission all statistical institutions carried out a profiling exercise. They all presented really interesting cases and revealed a high level of understanding of the issues of profiling. Again this also suggests that there is a good foundation for the future. Bearing in mind that profiling is very complicated and that one only really becomes proficient through continuous practical work in the field it is of course the case that there is still a lot of work to do.

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 third mission to be devoted to 2.1 within Component 2 of the project.

The purposes of the mission were:

- Further work on enterprise groups incl. testing data
- Workshop: profiling - practical work on cases that experts will prepare (smaller groups of participants will work together on profiling, after that every group will have opportunity to present their work and discuss results together)
- Testing profiling on actual cases from BiH - practical work
- Presentation by MS experts on model for data consistency in statistics

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 consultants.

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

On the first day of the mission, the agenda was discussed in order to agree on how to prioritise the topics, and how to approach them over the coming days. The mission dealt with three different topics, which all on their own are quite extensive and complicated, but are also interrelated. The first topic is the creation of enterprise groups and their introduction into the SBR. The second is profiling, and the third is data consistency work.

There were no major changes to the agenda. Except that the first item of the second day was moved to the first day of the mission leaving more time to deal with other items.

The introduction of enterprise groups in the business register

The three statistical institutions presented the results of their work on the EG register, and also gave a more thorough introduction to the data sources for the register.

The expert from Denmark gave a short presentation of the Danish EG register. The main source of information is data obtained from a commercial data provider in form of a file, which is sent to Statistics Denmark each month. The file contains relations between legal units and information on share of ownership. A procedure or algorithm, which is embedded in the Oracle database hosting the system, is used to create the EG register is then employed to create the EGs. The expert stressed the importance of perceiving the implementation of EGs in the SBR as consisting of several sub processes, one being finding data and entering it into an input table, and another being the actual formation of EGs. Using an algorithm for the latter is necessary as it will be virtually impossible to carry this part of the process out manually.

The expert from Finland presented the development and outline of the Finnish EG register and the main points on maintenance and updating of the national EG register. From the discussion earlier it appears that the model for the BiH EG is very similar to the Finnish EG, and there is no need for major changes in BiH data model. The role of the direct links between the units is vital in updating of the EGR, and the BiH data model does already contain this table but it is not yet used as a primary table for updating.

The content of the Finnish EG register can be divided into two distinctive parts, one representing the relations between the legal units (including also foreign legal units) and second describing the characteristics of the EG or the constituting unit. The information concerning the relations between the units is not sensitive in Finland (based on Finnish Statistical Act) so EG register micro-level data is available for data users, which range from Central bank to private companies. For economic research purposes the data is available also through Statistics Finland's Research Laboratory.

Since the last mission on EGs the agency and the entities have been working on entering data into the access database, which was created by BHAS and subsequently sent to the entities. The database follows a data model, which was developed by BHAS based on input from experts on previous missions. The model includes the tables, variables and relations, which can also be found in other countries' model for the implementation of EGs in the SBR.

On the previous mission it was reported that the entities and the agency had managed to create a number of EGs using various data sources available. But these EGs had not yet been amalgamated into one database. The fact that this has now been done is very reassuring and an important step forward in regard to the implementation of EGs in the SBR. It was reported that the database contains only some of the EGs in BiH and also that many links to foreign LEUs are missing. The incompleteness of the database does however not detract from the important result of putting it together for the first time. Moreover, as both MS experts stressed, implementing the EG in the SBR is a long process, with continuous quality issues to address.

As the database has been compiled by adding the input from the entities and the agency it is likely that it will contain duplicates and possibly missing links. But BHAS assured that these issues have been dealt with in the amalgamation of data. An important issue, which remains though, is the incompleteness of input sources. Some sources are already available, i.e. tax records, whereas others have yet to be obtained. BHAS is negotiating with the High Judicial and Prosecutorial Council of BiH in order to obtain necessary information. On this point both MS experts also stressed that problems obtaining high quality input data is not altogether uncommon, and that it must be expected that it will be a continuous issue to address.

So far the database only includes majority relations, i.e. ownership above 50 pct. Ideally minority relations should also be included. Partly to ensure that a complete image of the EG is drawn, i.e.

including both controlled and associated legal units, partly because legal units may be controlled indirectly if two or more minority owners all are owned by the same legal unit.

The data models and the algorithm in Finland and Denmark are very similar. A main difference is that Denmark uses a datafile as input and Finland uses mainly group accounts from which relations are entered manually. As data has been entered over a number of years, the annual task of updating is far less labour intensive than the number of updated groups would suggest.

In BiH the process has just begun and whilst data has to be entered manually into the input file one could foresee that in time the process of updating will be less laborious. The contents of all the tables in the data model have been compiled and entered via manual processes. BiH has so far not used an algorithm to create the EGs from the input table. It was however agreed that the way forward is to develop such an algorithm. A starting point for this could be the description of this form of procedure from an earlier mission report. It was agreed the entities and BHAS would continue with the division of labour, which has so far been successfully employed. It was also agreed that the BHAS will develop a draft version of an algorithm based on the procedure from an earlier mission. This draft version will be discussed at the next mission.

Data consistency

The expert from Finland presented the data consistency model and practices in Finland. The overall awareness of consistency problems led to the formation of different cross-statistical domain working groups. It also led to the implementation of the large cases unit (LCU) in the business register division, which today has a leading role in the consistency work in Finland. Problems of consistency always appear in the compilation of the National Accounts, so it is vital that, in addition to primary statistics (such as the Business register, SBS, STS, and Prodcom) National Accounts is deeply involved in this work as well. In Finland the coordinating role is given to the LCU /business register but it might as well be some department in National Accounts. Micro level data consistency checks should cover all relevant statistics, so the consistency working group should have representatives from all these statistical domains. It was also demonstrated how the Finnish joint business statistics system YTY has improved the consistency compared to situation where all statistical domains operated with separate IT systems and databases.

There was some discussion about consistency work and its place in the statistical institutions. The main conclusion was that National Accounts should be the driving force in this work.

Profiling

The Finnish expert's presentation of the profiling activities in Finland focused on some of the principles in profiling work, pointing out that the theoretical framework and practical work and solutions on profiling can sometimes conflict with each other. The definition of the statistical unit "enterprise" basically follows the same rules as IFRS 8 accounting standard segment reporting. Utilising existing segments is still problematic in statistical profiling due to fact that accounting segments are not restricted by national borders. In case of profiling large and complex enterprise groups, the only practical way to compile enterprises is to contact the enterprise groups and discuss how the group accounting practises may meet the statistical needs, and in the end, how the statistical enterprises should be delineated. One of the very central ideas in the profiling of different statistical units is that the information should be already available in companies reporting system.

The expert from Denmark gave a presentation on profiling which mostly focussed on the purposes of profiling and on how to go about it on a more practical level. To aid the profiling process and ensure a similar approach being used operational rules have been formulated under the auspices of Eurostat. The

expert went through the main rules and used examples from the Danish context to illustrate how they work in practice. A main conclusion is that the rules are quite general and a deeper analysis of the EGs being profiled is necessary in order to delineate enterprises. Some very useful sources for this are the EG register, which BiH is currently working on, annual reports from the group as well as from each individual legal unit, the internet, and of course through contact with the group.

It had been agreed before the mission that the two entities and the agency would identify and present some cases from BiH for discussion.

FIS presented work which had been carried out on a group in BiH. It consisted of quite a large number of legal units, some with majority links and some just associated. It had only been possible to obtain a full image of the EG by identifying the natural persons owning the main legal units. The natural person is not in focus in Finland or Denmark, when it comes to analysing groups and their structure, but there might be some differences in the business structure which make it useful to look at in BiH. FIS also presented data which had been compiled for all the legal units, including variables on intra group trade. This is very useful information in the profiling process although more information on the activities of the legal units is necessary, e.g. which legal units trade with each other and what do they trade. This information can probably only be obtained by contacting the group as very little information is available in the annual reports.

BHAS presented a case of a foreign controlled group with legal units in BiH (specifically in Brcko). The five legal units in BiH are owned by a company in Austria. At the same time, there is another truncated EG in Brcko which is also owned by a company in Austria. Through analysing the links it was suggested that these two groups might in fact be considered as constituting one group in BiH, but further analysis is necessary to settle that. In any case an argument could be made that the legal units in BiH belonging to the first group could be considered as one enterprise. The presentation also lead to a discussion of how to approach foreign controlled EGs as opposed to domestic controlled. The Danish approach is that whereas the latter is to be profiled in its entirety, although statistical units are only created for the national part, then the profiling of the former will only focus on the particular branch of the EG represented in Denmark.

RSIS presented a case with an EG consisting of 9 legal units. The units include forestry, a saw mill, wood preparation and production of windows and panels. In RSIS own analysis this seem to fit the criteria of vertical integration. This is of course an initial analysis as some details will have to be looked into further. For instance, most of the legal units in the EG report that they export some of the production. And, as was discussed several times during the profiling part of this mission, market orientation is an indicator of autonomy. So, if legal units are market oriented they should generally be considered enterprises in their own right. There are however no rules on the extent of market orientation. Should there be no threshold, or should a threshold of 30 or 50 pct. be employed? These things are also being discussed in other countries.

3. Conclusions and recommendations

Since the last mission a lot of progress has been made in regard to the implementation of EGs in the SBR. The databases have been merged and the entities and the agency have all gained experience in compiling data for the EG register. There is a high degree of willingness to continue the work, and there was a discussion about the division of labour. The issue of how to deal with exchange of turnover and employment data has not been solved, but it is not necessary to do that at this point, as the focus could remain on including the structure of the EGs in the SBR. Then the data can be included later.

The progress is very positive and very reassuring for the future work on the EG register.

Coming up to this mission all statistical institutions carried out a profiling exercise. They all presented really interesting cases and revealed a high level of understanding of the issues of profiling. Again this also suggests that there is a good foundation for the future. Bearing in mind that profiling is very complicated and that one only really becomes proficient through continuous practical work in the field it is of course the case that there is still a lot of work to do.

Enterprise groups

- It is recommended that the entities and the agency continue the positive cooperation regarding the compiling of legal unit relations and build further on the experiences already gained.
- A main focus at this point should be to get the system up and running rather than attempting to create a complete and perfect system before launching it. This means that it should be accepted that the EG register will be incomplete at the outset.
- It is recommended that a high priority be given to the development of the algorithm, which creates enterprise groups from legal unit relations. Even with a relatively small number of relations, the manual creation of EGs may soon become unmanageable. The running of the algorithm should be the responsibility of BHAS.
- The entities and the agency should continue the search for better and improved data sources bearing in mind that there will always be data problems. It is a continuous process to improve the sources.
- The minority links should be included, but at a later stage. It is important that the search and inclusion of these does not stop the progress.
- At this point it is important to focus on the structure, i.e. relations between legal units and the creation of EGs, and not on data on turnover and employment. This data can be included at a later stage.

Profiling

- The three statistical institutions should continue their work on profiling by identifying and analysing selected, important EGs.
- Manual profiling, i.e. desk research and contact, should only be carried out for the large and important EGs in BiH.
- To the extent possible, the three statistical institutions should exchange experiences regarding profiling. Both to ensure a similar approach and to help building profiling competencies.

Data consistency

- The discussions on improving data consistency should be started with all stakeholders in the statistical institutions even though this development work is not on top of the priority list. Especially the key stakeholder National Accounts should be informed about the issue and find out if there are realistic possibilities to improve the data consistency by cross-statistical domain co-operation.

Action	Deadline	Responsible institution
Develop a draft of an algorithm for the creation of EGs	Before mission 2.1.4	BHAS
Describe and agree on a division of labour in regard to the EG register	Before mission 2.1.5	BHAS, FIS, RSIS
Develop the profiling cases further for the next mission on profiling.	Before mission 2.1.5 on profiling in February 2019.	BHAS, FIS, RSIS

Annex 1. Terms of Reference

Terms of Reference

EU Twinning Project BA 15 IPA ST 01 17

Component 2: Business Statistics

Sub-component 2.1: Statistical Business Register

10 – 13 September 2018

**Hosting Institution: Republika Srpska Institute for Statistics
Veljka Mladenovića 12d, Banja Luka**

Activity 2.1.3: Enterprise groups and profiling II

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

- Further work on enterprise groups incl. testing data
- Workshop: profiling - practical work on cases that experts will prepare (smaller groups of participants will be work together on profiling, after that every group will have opportunity to present they work and discuss results together)
- Testing profiling on actual cases from BiH - practical work
- Presentation by MS experts on model for data consistency in statistics

3. Expected output of the activity

- First testing on actual cases made
- Model for data consistency in statistics presented
- Further work on enterprise groups made

- 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
- Senija Facic, Branch Office Breko District
- Branislava Cvijetic, IT Branch Office Breko 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
- Razija Bičakčić, IT expert for SBR

Institute for Statistics of Republika Srpska (RSIS)

- Nada Malinović, SBR Coordinator
- Nataša Teinović, Senior Statistician SBR

MS Experts

- Søren Kristensen, Statistics Denmark
- Timo Laukkanen, Statistics Finland

Twinning Project Administration

- Katja Møller Hjeltvang, RTA
- Demka Šahinpašić, RTA Assistant
- Svjetlana Pavičić, Interpreter

Agenda

Location: Banja Luka, Veljka Mladenovića 12d

Time	Day	Place	Event	Purpose / Details
9:00-11:00	10 September Monday	Hotel	MS experts	Discuss the programme Preparation of activity
12:00-15:30	10 September Monday	RSIS	Meeting with BC Experts	Welcome and introduction Follow up from the previous mission
9:00-12:00	11 September Tuesday	RSIS	Meeting with BC Experts	Presentation and discussion of the results of the comparative analyses of the databases
13:00-15:30	11 September Tuesday	RSIS	Meeting with BC Experts	Presentation by MS experts on model for data consistency in statistics
9:00-12:00	12 September Wednesday	RSIS	Meeting with BC Experts	Workshop
13:00-15:30	12 September Wednesday	RSIS	Meeting with BC Experts	Testing of profiling with real EGs and real data in BiH
9:00-12:00	13 September Thursday	RSIS	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

Annex 2. Persons met

Agency for Statistics of BiH (BHAS)

- Dzenita Mustafic, SBR Coordinator
- Ivana Tavra Colo, SBR
- Branislava Cvijetic, IT BHAS

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
- Razija Bičakčić, IT expert for SBR

Institute for Statistics of Republika Srpska (RSIS)

- Nada Malinović, SBR Coordinator
- Nataša Teinović, Senior Statistician SBR

Signatures

For the approval of the contents of this report, representatives from BHAS, FIS and RSIS as well as MS experts and the RTA sign here:

Date: 13st of September 2018



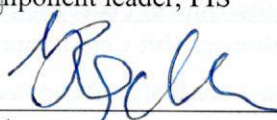
Component leader, BHAS



Component leader, FIS



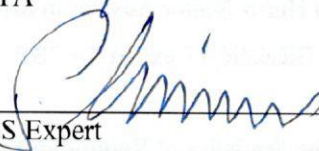
Component leader, RSIS



RTA



MS Expert



MS Expert