

**TWINNING CONTRACT**

**Support to the State and Entity Statistical  
Institutions, phase V**

**Bosnia-Herzegovina**



**FINAL  
MISSION REPORT**


**on**

**Structural Business Statistics**

**Component no 1.2.6 activity**

Mission carried out by  
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2<sup>nd</sup> December – 6<sup>th</sup> December 2013

		 <b>STATISTICS DENMARK</b>

*IPA 2008*

## Abbreviations

BiH	Bosnia-Herzegovina
BHAS	BiH Agency for Statistics
BRC	District of Brcko
FIS	Federation Institution for Statistics
RSIS	Republic Institution for Statistics
SBS	Structural Business Statistics
SBR	Structural Business Register
FS	Financial Statements
NA	National accounts
KAU	Kind of Activity Unit
LKAU	Local Kind of Activity Unit
LU	Local unit

## 1. Summary of the component 1.2

The goals set up for this component when the project started were met in the course of the project. The BiH SBS system has been improved to meet the EU SBS standards. In terms of coverage, only data on entrepreneurs is missing, due to lack of stratification variables in the SBR. During the missions, a plan has been developed for their inclusion in the near future. SBS survey documentation has also been developed and improved. SBS survey results have been analyzed and several improvements to the SBS have been made and suggested during the missions.

The first mission on the SBS component took place in February 2012. During this mission the SBS Regulation (EU Regulation No. 295/2008) was analyzed and it was discussed how to calculate some of the important items in the Regulation from the data collected from the enterprises. The results from the 2010 survey were not available when this mission took place. During the mission it was recommended to start activities to go through the questionnaire to investigate if the questionnaire could be reduced, and if the wording of some of the questions could be improved in order to ease the burden on respondents. It was also recommended to investigate if the electronic forms which were used by the staff of the Statistical Institutes could be developed to a form to be used directly by the enterprises. Finally it was recommended to analyze how to find ways to get SBS information from entrepreneurs, as entrepreneurs were not in the population for the SBS.

During the second mission the timetable for the 2011 survey was discussed. The inclusion of entrepreneurs in the sample was discussed and it was recommended to discuss with the staff of the business register (SBR) how to be able to get entrepreneurs into the frame for the SBS survey. The SBS questionnaire was discussed, and it was recommended to go through the questionnaire every year in order to reduce it if possible. During this mission a web questionnaire was presented, and it was recommended to create a plan for developing a common web questionnaire for BiH SBS. Finally it was recommended to start cooperation with tax authorities in order to get access to their administrative data.

The third mission was dedicated to discuss editing and imputation practices and the use of administrative data from the financial statements. The different practices for editing and imputation were discussed, and it was discussed how to take in the consistency rules of the Eurostat SBS manual. It was recommended to define a common editing and imputation strategy and to develop and apply automatic initial editing and imputation procedures. It was also recommended to review how to make use of the financial statements in the SBS production either as auxiliary information or as the basis for production of parts of the SBS.

In October 2012 the mission on study visit to Statistics Finland took place. The production of the SBS and SBR data in Finland was presented to the BiH delegation for inspiration to the work with the BiH SBS. Also data delivery to Eurostat, renewal project on business statistics and other topics were presented and discussed.

The fourth mission to BiH focused on data transmission to Eurostat and on the documentation of the SBS system. Data transmitted to Eurostat must be encrypted to ensure that no confidential data are revealed by a publication by Eurostat. This is a rather heavy task, and during the mission it was recommended to get the tau-Argus software from Eurostat and to train the persons responsible for data transmission in using this software. It was also recommended to fill in parts of the Eurostat quality report in order to start the process of documentation of the production of SBS. It was noted by the consultants that the processes of

editing and sampling had been harmonized to a good degree in BiH, and it was recommended that the common editing and imputation processes should be described in a document which should be reviewed on continual basis. It was also recommended to produce a set of quality indicators.

The fifth mission dealt with a number of items. BiH had made analyses of using administrative data from the fiscal system, and it was recommended to use these data and in that way be able to reduce the sample for SBS. The consultants stated that the BiH SBS system fulfills the requirements of annex I-IV of the SBS Regulation very well. The coverage of entrepreneurs was still a problem, and it was recommended to make a sample of entrepreneurs or to estimate the variables for entrepreneurs by using the information on the number of employees for each entrepreneurship from the SBR. Data transmission was also discussed, and even if a lot of work is involved it was recommended to use the tau-Argus software from Eurostat for encryption purposes. The Eurostat quality report on SBS was discussed and partly filled in during the mission, and it was decided that BiH would make methodology documentation for SBS before the next mission. Relationship with NA and SBS was also discussed and it was recommended to enhance the co-operation with the NA and SBS.

Before this mission which is the sixth mission on the component 1.2, BiH SBS data for 2011 have been transmitted to Eurostat. BiH has got some feedback from Eurostat especially on secondary encryption which must be improved. The methodology documentation which was agreed in the former mission was presented by BiH and it was discussed. The consultant stated that the documentation was a very good and that it is very important to have such documentation. It was recommended to update the report on SBS every year, and the consultant gave some remarks as to issues which could be amended in the reports for the next years. The inclusion of entrepreneurs in the SBS was also discussed. Number of employees for entrepreneurs has recently come into the SBR and it will be a part of the SBR in the future. Ways to use this information in order to include entrepreneurs in the SBS were discussed.

## **2. Executive Summary of mission 1.2.6**

The mission was carried out under the component 1. business statistics and sub-component 1.2 Structural business statistics of EU Twinning Project BA 08-IB-FI-03. Expected activities were inclusion of entrepreneurs in the SBS, methodology documentation, discussion about transmission of SBS data to Eurostat and summing up the component results. Consultation consisted of five days of discussions in small expert group.

### **Methodology documentation**

BiH staff has prepared methodology documentation for the SBS. Quality of the report was found to be very good and explanations were clear and thorough. Few suggestions were made; To add the questionnaires as an annex to the documentation and to add further description on the differences between preliminary and final publication as well as some other smaller changes.

### **Entrepreneurs in the SBS**

At the moment entrepreneurs are not included in BiH SBS figures. Recently SBR has added activity code and number of employees in their register, making it possible to include

entrepreneurs to SBS. It was recommended to estimate the SBS variables of entrepreneurs based on existing SBS sample and information from SBR. This solution would be simple and cost-effective. Other recommendable solution is to add the entrepreneurs to SBS sample once turnover is available in SBR.

### **Data transmission to Eurostat**

BiH has already delivered SBS data for the year 2011 to Eurostat. Main unsolved problem in the delivery was the absence of secondary confidentiality flags. BiH SBS contained only primary encryptions. The consultants recommended to contact Eurostat to ask them to make the secondary confidentiality flags for BiH or to use the tau Argus software for this task.

## **3. Assessment and results of mission 1.2.6**

### **Methodology documentation**

BiH had prepared methodology documentation for the SBS. Documentation was gone through and discussed. Quality of the report was found to be very good and explanations were clear and thorough. Few suggestions were made; To add the questionnaires as an annex to the documentation nad to add further description on the differences between preliminary and final publication as well as some other smaller changes.

### **Entrepreneurs in the SBS**

At the moment entrepreneurs are not included in BiH SBS figures. Recently SBR has added activity code and number of employees in their register, making it possible to include entrepreneurs to SBS.

The contents of the tax registers was discussed. Number of employees, activity codes and activy status are available from the administrative tax registers. The tax authorities of entities collect the data on monthly basis and data is then delivered to SBR on quarterly basis. Tax authorities also collect yearly data on revenues and costs, but these are not stored in databases, but only as paper forms or scanned pictures and thus are not be available for statistical uses. Data on revenues is collected from entrepreneurs daily by tax authorities through fiscal system. The contents and availabilty of this data is as of yet unknown. It was suggested that entity institutes should investigate it further with the focus of adding it as a proxy variable of turnover in the SBR.

With the data available at the moment in SBR, namely the number of employees and activity code, it is possible to produce data about entrepreneurs for BiH SBS. A number of possible ways to do this was discussed. It would be possible to draw a separate sample of the entrepreneurs and collect data directly, preferably in co-operation with National Accounts. Entrepreneurs could also be added as part of the current sample of SBS. There were a few points against these solutions, however. Turnover as a stratification variable is missing for entrepreneurs and adding them to the sample would assumably require a much larger sample and thus more resources in the data collection and editing phases.

Third option would be to estimate the SBS variables of entrepreneurs based on existing SBS sample and information from SBR. This estimation could be done by calculating the SBS variables per employee at the level of activity and size class from final SBS figures. These coefficients would then be used on observation units or any aggregated level of the entrepreneurs to form the SBS variables needed. This solution was recommended by the

consultants as it is simple and cost-effective. Other recommendable solution is to add the entrepreneurs to SBS sample once turnover is available in SBR.

### **Data transmission to Eurostat**

BHAS has already deliver SBS data for the year 2011 to Eurostat and received questions related to warnings and errors of Eurostat SBS validity checks. BHAS has analyzed these and checked the warnings for true errors. The problems in the SBS process causing true errors have been dealt with.

Main unsolved problem was the absense of secondary confidentiality flags. BiH SBS contained only primary encryptions. The reasons and problems in making secondary encryptions were discussed during the mission. Consultants recommended to contact Eurostat once again to ask if Eurostat is willing to undertake the secondary encryptions for BiH. If Eurostat will not undertake this task, the consultants recommended to use tau Argus as a primary solution. If the use of tau Argus is not preferable in BiH and BiH would choose to try to make their own program for the secondary encryption, then it would be recommendable to explain the principles of these encryptions to Eurostat and agree in advance whether they are sufficient or not.

## **4. Outstanding issues and recommendations**

*The outstanding issues and recommendations for future development of BiH SBS system are (in order of priority):*

- 1. Inclusion of entrepreneurs into SBS through estimation based on number of employees and nace code from SBR and SBS data on enterprises or adding them to SBS sample.*
- 2. Secondary confidentiality flags for SBS data should be made. Preferably with tau Argus.*
- 3. Development and implementation of electronic questionnaires for SBS*
- 4. Use of financial statements administrative data as basis for production of parts of SBS*
- 5. Agree on an annual working plan for SBS between BHAS and the entities including development projects and arrange annual meetings for SBS personnel to follow up on this*
- 6. Co-operation with the NA about the production and use of SBS should be further developed*
- 7. Develop a set of quality indicators for monitoring the process and methods used*
- 8. Development of automatic editing and selective editing to the editing process.*

## Annex 1. Terms of reference

**Structural Business Statistics**  
**2th to 6th of December 2013**  
**Terms of Reference - Activity 1.2.6**  
**EU Twinning Project BA 08-IB-FI-03**  
**Agency for Statistics of Bosnia and Herzegovina,**  
**Ferhadija 15, Sarajevo**

Component 1	Business statistics 1.1. Statistical Business Register <b>1.2. Structural Business Statistics</b> 1.3. Construction Statistics 1.4. Retail Trade Statistics 1.5. Tourism Statistics
Component 2	Houshold Budget Survey
Component 3	Institutional Capacity 3.1. Long term strategy 3.2. Metadata and classification system development 3.3. Promotion of dissemination

### Benchmarks

- A) Sample designed (of 2011 reference year) improved by 3rd project quarter  
 B) Questionnaire sent out for SBS survey (2011 reference year) by 4th project quarter  
 C) Annual SBS results analysed by 8th project quarter  
 D) Annual SBS survey methods documented 8th project quarter

### 1.2.6. Activity

Follow up on the work done on structural business statistics

The expected activities are:

- Entrepreneurs in the SBS
- Methodology documentation for SBS 2011
- Discussion of transmission SBS data to Eurostat
- Summary of the activities and results of SBS component

### Expected output

- ✓ Recommendations for the use of existing administrative data of entrepreneurs for the production of SBS variables
- ✓ Improved Methodology documentation for SBS 2012
- ✓ Mission report – summarized and detailed version completed for this mission and for subcomponent SBS

### List of participants

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