#### TWINNING CONTRACT

#### **BA 12 IB ST 01**

# Support to the State and Entity Statistical Institutions, phase VI



## **MISSION REPORT**

on

## Activity 1.4 Plan for ESA 2010 updates III

Mission carried out by Mika Sainio, Statistics Finland Antti Pasanen, Statistics Finland

28 September – 02 October 2015

Version: Final







#### Expert contact information

Antti Pasanen Statistics Finland Työpajankatu 13 FI-00022 Helsinki Finland

Tel: +358 29 551 2629

Email: antti.pasanen@stat.fi

Mika Sainio Statistics Finland Työpajankatu 13 FI-00022 Helsinki Finland

Tel: +358 29 551 3218 Email: mika.sainio@stat.fi

#### Table of contents

1. General comments	3
2. Assessment and results	4
3. Conclusions and recommendations	
Annex 1. Terms of Reference	
Annex 2. Persons met	12

## **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

### 1. General comments

This mission report was prepared within the Twinning Project "Support to the State and Entity Statistical Institutions, phase VI". It was the fourth mission to be devoted to national accounts within Component 1 of the project.

The purposes of the mission were:

- to continue the analysis of main differences between previous and new ESA manual and to identify areas relevant for updating in the BiH National Accounts, focusing on the capitalization of research and development expenditure;
- to further develop the plans for implementation of ESA 2010 by finalizing the first complete version of the implementation plan

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 or Statistics Finland.

## 2. Assessment and results

## The situation of national accounts component in the project, future plans

A general overview of the situation of national accounts activities in the project was presented. After the current mission, half of the activities included in the work plan have been finalised. So far the focus has been on training on new methdology, transmission requirements, identification of relevant ESA 2010 issues for BiH and the preparation of ESA 2010 implementation plan. In the second half of the project, the focus will be on training on sector classification, and on implementation work of both sector classification and ESA 2010 issues.

The experts proposed that the content of activities (missions) 1.6-1.9. would be modified so that also the follow-up of ESA 2010 implementation would be on the agenda, while the sector classification would remain as the primary subject. This change would also be reflected in the action points of each mission: the action points would include both sector classification items and also ESA 2010 implementation issues. It was agreed that these changes would be useful.

The BiH authorities reported on their situation as regards different development projects and current national accounts compilation, from the standpoint of availability of human resources. It was concluded that the situation is very challenging for all institutions. The scarcity of national accounts staff limits the possibilities to carry out different development activities, and has a negative impact on the timetable of that work. It was agreed that the situation will be taken into account also in the planning of the forthcoming missions of this project.

## Follow-up from previous mission

The action points related to previous mission (Activity 1.3.) were discussed. The primary action point related to the preparation of ESA 2010 implementation plan. BiH authorities had prepared a draft version, and the experts congratulated for that achievement. The calculation of FISIM is currently missing from the ESA 2010 plan, but the issue will be revisited in the future. The second action point related to the establishment of ESA 2010 working group which would have tasks related to sector classification. Progress has been good also in that point: the group has now been established, and the members of the group will be invited for the forthcoming mission (Activity 1.6.) on sector classification. On that occasion, the members will also consider the timing of the first actual meeting of the working group.

The third action point related to investigation of data sources for the calculation of non-life insurance. BiH authorities informed that relevant information has been collected, as planned. Other action points related to testing of SDMX transmission and PIM model. Concerning SDMX, BiH authorities informed that the issue has been discussed with an IT expert, but the issue is not urgent before the end of year 2017. As regards PIM, preliminary calculations have been made, but it was explained these should be considered as very experimental, and this pilot exercise primarily serves the purpose of identifying gaps in data sources.

## ESA 2010 implementation plans

BiH authorities presented the status of current draft ESA 2010 implementation plan. Some modifications have been made to previous versions: for example, there have been some fine-tuning of timetable, and application of NUTS classification (level 2) is reflected in the plans. In general, the plan has been extended to cover new relevant issues.

During the mission, all the elemenents on the current implementation plan were analysed. Some clarifications and changes were made. As a result, it was agreed that the document could be considered as a final version (complete version). It was also agreed that the plan would be a living document, and changes would be made to it during implementation phase, as needed.

## Capitalisation of research and development expenditure (R&D)

The general methodological background for capitalisation of R&D expenditure was introduced: the rationale for the change in SNA/ESA, borderline issues, compilation challenges, the main impacts on the accounts, components of GDP change from supply and demand side, and the impact of the change in EU countries.

The experts presented the data sources and methods used in the R&D calculation in Finland. The calculation of R&D is based on availability of detailed R&D expenditure data for all types of units from R&D surveys. The use of this source data, supplementary sources and calculation process of different national accounts variables were explained for both market and non-market producers. It was noted that for some details, there is no exact guidance available in ESA 2010 manual. Therefore, some assumptions must be made, for example concerning the borderline between R&D investments and R&D services. Also methods and data sources for back casting of time series, constant price calculations, service lives and consumption of fixed capital were briefly presented.

BiH authorities gave an overview about the current situation concerning R&D source data for national accounts. The R&D survey which is made in accordance with OECD manual (Frascati) have been made for a few latest years. In addition, there are data in financial statements that are used as a source data in national accounts, and in that data source the borderline between current and capital expenditure is, according to the book-keeping standard, already consistent with ESA 2010. Data on R&D is also available from an investment survey.

Problems faced so far relate e.g. to the fact that the current estimate of own-account production of software is higher than the preliminary estimate of R&D investment (before deducting the part related to software production). This would result in a negative value for R&D investments.

The quality issues of source data were discussed, and some issues related to Eurostat table on R&D compilation were clarified. The experts recommended that in the longer run, the quality of source data could be improved by making comparisons on individual companies' answers between different questionnaires and by communicating possible inconsistencies to source data providers.

The experts recommended taking the current Frascati data as a starting point. It seemed that for own-account production of software, it would be reasonable to choose an alternative (significantly lower) estimate, so that the elimination of software overlap would fit better into the R&D calculation. Concerning the recording of R&D purchases, it appears that the current book-keeping standards and source data provide an appropriate basis for ESA 2010 accounts. As one option, it would be possible to deduct from the Frascati data the amounts recorded as R&D in financial statements, and consider the remaining part as own-account production of R&D. The use of this option could be further explored by comparing the data of individual companies in both data sources.

In general, it became evident that the impact of R&D is at the moment relatively small for BiH. It was agreed that even though the compilation approach for R&D should be methodologically consistent, the small impact of the issue should be taken into account when allocating resources to different development activities.

On the basis of discussions, it was concluded that faster progress can be achieved for non-market producers of R&D than for market producers of R&D. Therefore, the experts recommended starting with the compilation of R&D output and investments of non-market producers, based on R&D survey data for

2013 or 2014. After that, these variables should be back-casted using data on e.g. universities' or other relevant units' employees, wages, or other available indicators. This data, along with available price indices, can be used in estimating the consumption of fixed capital using the simplified calculation approach presented by the experts.

## Output of non-life insurance

In earlier missions, BiH authorities and MS experts had discussed the ESA2010 changes related to calculation of non-life insurance output in general, and the treatment of catastrophic losses (floods in 2014) in particular. It had been recommended to investigate insurance corporations' data on equalization reserves in order to implement the new methodology.

BiH authorities presented the results of investigations, as well as different possible solutions that have been proposed. The proposal related to the use of equalisation reserves is clearly not feasible, because separate data on that item is not available. To overcome the issue of large claims related to floods in 2014, there is a possibility to adjust the large claims by using an average of a few past years, or alternatively the claims related to floods could be treated as capital transfer (this could be implemented at the time of ESA 2010 implementation).

During the discussions, it was clarified that only a small share of the change in insurance companies' technical reserves should be potentially included in the calculation formula for non-life insurance output. If the premiums are recorded on an accrual basis, the change in technical reserves does not impact the output at all (only the investment income related to those reserves impacts the output). It was concluded that the current problem with the fluctuation of output can be mostly overcome by making the necessary adjustments to calculation formula. As for ESA 2010 implementation, it was recommended to implement the adjusted claims approach by using a moving average of actual claims from e.g. 3-5 years.

## Own-account production of software

The experts introduced the ESA 2010 methodology and Finnish application of those rules. Calculation of software investment methods and source data for Finland were presented for both market and non-market producers. BiH authorities described the situation regarding the compilation of own-account production of software. It was agreed that main point for future development for BiH would be to investigate the new data that will be available in 2018

(structural earnings survey), to be used as a possible new source data for own account software calculation.

## Preparations for next activities

The next mission Activity 1.6 Institutional sectors I takes place on 19.10 -23.10.2015 in Sarajevo.

## 3. Conclusions and recommendations

The first complete version of ESA 2010 implementation plan has now been finalised, and the relevant ESA 2010 transition issues for BiH have been identified. This plan should be regularly updated, and additions and modifications should be made as needed. The next activities in the project shall focus on sector classification, but at the same time follow-up of the progress of ESA 2010 transition issues should be carried out.

Regarding the capitalisation of research and development, BiH authorities should start the implementation work with non-market producers. Sufficient source data seems to be available to compile appropriate estimates. After that, also R&D output and investments of market producers should be estimated using available information, although there are some problems regarding source data for certain calculation components.

Concerning the output of non-life insurance, adjusted claims approach should be introduced at the time of ESA 2010 implementation. In the short run, the fluctuations of non-life insurance output can be decreased by ensuring that changes in most types of technical reserves do not impact the value of output.

Action	Deadline	Responsible person
To provide a short description of 1-3 borderline units (or unit types) from the point of view of sector classification	Before Activity 1.6.	BHAS, FIS, RSIS
To calculate preliminary estimates of R&D output and investments of non-market producers for 2005-2013: using R&D survey data and backcasting methods	Before Activity 1.7.	BHAS, FIS, RSIS
To calculate preliminary estimates of consumption of fixed capital of R&D for nonmarket producers, using a simplified approach	Before Activity 1.7.	BHAS, FIS, RSIS

To calculate preliminary estimates of R&D output,	Before Activity 1.8.	BHAS, FIS, RSIS
investments and consumption of fixed capital of market producers for 2005-2014: using	9009281	Augest I. Terms of Re
R&D survey data, back-casting methods and simplified approach for CFC	Winning Project BA-12-18- Terms of Reference	143

## **Annex 1. Terms of Reference**

## EU Twinning Project BA-12-IB-ST-01 **Terms of Reference**

**Component 1: National Accounts** 

28<sup>th</sup> September – 03<sup>th</sup> October 2015

Sarajevo, Zelene beretke 26,- Agency for Statistics of Bosnia and Herzegovina

#### Activity

1.4 Plan for ESA 2010 updates III

#### **Benchmarks**

- Staff in three statistical institutions trained to implement SNA 2008/ESA 2010 by 8th project quarter
- Delimitation of market and non-market producers according to the ESA 2010 criteria completed by 8th project quarter
- Guidelines for implementation of institutional sectors according to SNA 2008/ESA 2010 available by 8th project quarter

#### Purpose of activity

#### The expected activities are:

- Main differences between previous and new manual (ESA 2010)
- Areas relevant for updating the BiH National Accounts

#### **Expected output**

- Presentation of differences between new and old manual (ESA 2010) made
- Issues to be updated in the BiH NA identified
- Final plan on implementation of ESA2010 updates made (what, how, who, when)

## Agenda

## Location: Sarajevo, Zelene beretke 26, 1<sup>st</sup> floor

Time	Day	Place	Event	Purpose / Detail of event
10:00-12:00	Monday, morning	MS e the R	experts briefning with	To discuss the mission, introduce the experts to each other, discuss previous experience
13:00-15:30	Monday, afternoon	Wor Exp	rkshop with BC erts	Welcome and Introduction Discussion on Plan for implementation of ESA 2010 in national accounts of BiH, prepared by BiH experts, draft – overview and discussion BC participants and MS experts
8:30-15:30	Tuesday, morning and afternoon	Wor Exp	kshop with BC erts	EU requirements in area of implementation of the ESA 2010 – R&D:  - Methodological background  - Data sources and methods used in Finland  BC participants and MS experts
8:30-15:30	Wednesday, morning and afternoon	Wor Exp	kshop with BC erts	EU requirements in area of implementation of the ESA 2010 – R&D:  - Discussion and validation on data sources and methods in BiH  BC participants and MS experts
8:30-15:30	Thursday, morning	Work Experts	kshop with BC	<ul> <li>ESA 2010 Outstanding issues:</li> <li>Insurance</li> <li>Own accounts software</li> <li>Back casting for some specific transitional items</li> <li>Plan for implementation of ESA 2010 in national accounts of BiH, prepared by BiH experts, final document</li> <li>BC participants and MS experts</li> </ul>
	Thursday, afternoon	Work Experts	shop with BC	Preparation of Activity Report  BC participants and MS experts
8:30-13:00	Friday, morning	Meeting with BC Experts		Presentation of results, Agreement on report. BC participants and MS experts

## Annex 2. Persons met

#### Agency for Statistics of BiH

Dijana Mlikota, Assistant Director for Macroeconomic Statistics Vanja Papaz, Junior Officer

### Institute for Statistics of Federation of BiH (FIS)

Nisveta Džebo, Assistant Director for Economic Statistics Nermina Ibrišević-Ademović, Head of National Accounts Department Zlatka Tukić, Senior Adviser Zumreta Dugalija, Senior Adviser Šejla Šehović-Karšić, Senior Adviser

## Institute for Statistics of Republika Srpska (RSIS)

Rada Radanović, Head of National Accounts Department Dijana Maleš, Senior Associate Žana Alagić, Senior Associate Jadranka Luburić, Senior Associate

#### **Twinning Project Administration**

Søren Leth-Sørensen, RTA Djemka Šahinpašic, RTA Assistant Svjetlana Pavicic, Interpreter

## **Signatures**

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

Date: 02.October 2015.

| Madewon of Component leader, BHAS | Component leader, FIS |
| Madewon of Component leader, FIS |
| Matewor of Component leader, FIS |

## Signatures

For the approval of the contents of this repose estatives from RHAS. FIS and RSIS as well as expents and the RTA sign base:

Date: 62. Sciober 2015.

2 A HH refrest tomorrows

2129 rehard menogens

Component toader, 8313

mercy PT 23V

21E arbunt muman

del resset massegmed

How

2012

- L