TWINNING CONTRACT

# BA 17 IPA ST 01 20



# Further Support to the Reform of Statistics System in Bosnia and Herzegovina



# **MISSION REPORT**

Activity 1.3.2B Index of Service Production Component 1.3.2 Index of Services Production (ISP)

> Mission carried out by Mathias Bluhme, Statistics Denmark Lina Pedersen, Statistics Denmark

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Version: Final





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#### List of Abbreviations

Agency for Statistics of Bosnia and Herzegovina
Bosnia and Herzegovina
Central Bank of Bosnia and Herzegovina
European Commission
European Union
Federation of Bosnia and Herzegovina
Institute for Statistics of Federation of Bosnia and Herzegovina
EU Member State
Institute for Statistics of Republika Srpska
Resident Twinning Adviser
Terms of Reference





#### **Executive Summary**

This mission was the first on-site mission on this component of the Twinning project after a long period without any missions due to the situation regarding Covid19. It was with great gratitude representatives of BiH and MS experts met to share findings in the work with Index of Services Production (ISP). The mission started with a brief recap about the ISP and the EU-requirements. Then the focus was on updating the work plan for this component. The rest of the mission then focused on data for NACE sections H and I including alternative sources. This discussion also included the possibility of exploring the use of VAT data instead of survey data. We also discussed the way of making error checks in the data and the use of weights to construct indices of aggregated level. At the end, there was a brief discussion on metadata requirements to Eurostat before making a plan for the next activity on this component.

### 1. General comments

This mission report was prepared within the EU Twinning Project "Further Support to the Reform of the Statistics System in Bosnia and Herzegovina". It was the second mission to be devoted to the Index of Service Production Component of the Project.

The purposes of the mission were:

The component 1.3.2.1 – Index of Service Production (ISP) is currently not calculated in BiH. It is therefore a major priority in the project to be able to publish and deliver Index of Service Production to Eurostat at the of the project period.

The experts would like to express their thanks to all officials and individuals from BiH for meeting us with kind support and valuable information which highly facilitated the work.

This views and observations stated in this report are those of the experts and do not necessarily correspond to the views of EU, BHAS, FIS, RSIS, CBBH, Statistics Denmark, Statistics Finland, Statistics Sweden and The Italian National Institute of Statistics.

# 2. Assessment and results

The component 1.3.2.1 – Index of Service Production (ISP) is currently not calculated in BiH. It is therefore a major priority in the project to be able to publish and deliver Index of Service Production to Eurostat at the of the project period.

In this mission, we have:

Refreshed the EU requirements for Index of Service Production. We discussed the EU requirements for a monthly index. In this reference BiH needs to use a model for going from quarterly data to monthly data. The MS experts recommend using the Cubic Splice model as recommend by the ISP manual. Under this subject, we also updated the work plan for this component of the project keeping in mind that BiH could benefit from develop a production system that is "simple" and sustainable.

The updated work plan is annexed to this report.

Discussed how to compile the indices for section for transportation (H) and for accommodation and food service activities (I). In general, BiH has good data on section H and on section I. However,



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the data is resource heavy because it is mainly paper surveys. BiH could look at using VAT data instead as VAT data already is collected by the Tax authorities and contains the relevant data and at the same time keep in mind that data needs further checks for errors. Under this subject, we also discussed how to make error checks. The experts recommend doing it top – down, starting at the two-digit level.

**Discussed the metadata requirements for the ISP.** In the general BiH has good metadata. The experts recommends using templates used by the EU. Also under this subject, BiH should keep in mind the need to keep tracks on revisions (once they start production of the ISP) because the EU requires revisions indicators also known as QPI. Under this subject, we also briefly discussed the general way to disseminate data.

**Discussion on weighting structures.** Under this subject, we discussed how to use weights to make aggregated indices both between subgroups and between regions. In general the MS experts recommend that BiH use weights derived from value added from SBS statistics.

**Discussion on sector coverage and shortcomings.** Under this subject, we discussed what to do in case of missing data or other shortcomings. In this mission, the focus was on NACE section for transportation (H) and for accommodation and food service activities (I) where BiH in general have good data. For BiH it is a challenge to go from quarterly to monthly data, where the Cubic Splice model can be used to do this. The MS experts agrees that this statistical model needs advanced statistics tools. Furthermore, the experts recommends switching from burden heavy survey data to VAT data.

**Preparation of ToR for next activity.** The BiH and the MS experts agreed on the following before the next activity:

- BiH should compare survey data with VAT data on ISP sub groups (focus on NACE sections H and I)
- BiH should compile turnover indices for the ISP sub groups based on VAT data using SBS weights (focus on NACE sections H and I)
- BiH should try to develop a first model for compiling the ISP keeping in mind that it should be simple and sustainable (focus on NACE sections H and I). In this work, they could consult Croatia on their methods.

# 3. Conclusions and recommendations

Once again, the MS experts would like to acknowledge our BiH counterpart. In general, BiH does have the data needed for construction the ISP – at least for NACE sections H and I. However BiH could benefit from using more frequent and less burden heavy VAT – data. In addition, the MS experts acknowledge that BiH needs to improve quality of the price indices used as deflators.

The experts recommends that BiH focus on comparing the VAT – data with the survey data to see if they can use that instead. This would reduce the burden from using paper surveys for both BiH and the reporting companies. This work should be done for each NACE section starting with H and I. In this work, BiH should focus the error checks from at top – down approach starting at the two-digit level.



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Parallel with the work, BiH should work on improving the quality of the price indices (which is another activity under this component of the project).

The MS experts recommends that BiH try to make turnover indices based on the VAT – data (for NACE sections H and I) unless huge unexplained differences between the survey data and the VAT - data is found.

Based on the turnover indices BiH should make preliminary ISP indices (for NACE sections H and I) using the available price indices as deflators knowing that these might need improvement.

### 4. What to do before the next mission for the BC Counterpart

Action	Deadline	Responsible person
BiH should compare survey	End of august 2022	
data with VAT – data on ISP		
sub groups (focus on NACE		
sections H and I)		
BiH should compile turnover	End of august 2022	
indices for the ISP sub groups		
based on VAT data using SBS		
weights (focus on NACE		
sections H and I)		
BiH should try to develop a first	End of august 2022	
model for compiling the ISP		
keeping in mind that it should		
be simple and sustainable		
(focus on NACE sections H and		
I). In this work, they could		
consult Croatia on their		
methods.		



## Annex 1. Terms of Reference for the current mission

#### **Terms of Reference**

### EU Twinning Project BA 17 IPA ST 01 20

### Component 1.3.2 B - Index of Service Production June 13<sup>th</sup> – 15<sup>th</sup>

Venue: Sarajevo, Agency for Statistics of Bosnia and Herzegovina

#### Activity 1.3.2B: Index of Service Production

#### 1. Mandatory result

Sub-result 1.3 Short Term Statistics (STS) enhanced

The component 1.3.2.1 – Index of Service Production (ISP) is currently not calculated in BiH. It is therefore a major priority in the project to be able to publish and deliver Index of Service Production to Eurostat at the of the project period.

Indicator / Relevant Milestones / Internal deadlines:

• Indicators ISP published and delivered to Eurostat

#### 2. Purpose of the activity

• Refresh the EU requirements for Index of Service Production

• Discussion and examples on how to compile the indices for section H – different sources for creating volume indicators

• Discussion and examples on how to compile the indices for section I - different sources for creating volume indicators

- Preparing metadata for the ISP
- Discussion on how and what to disseminate nationally and for Eurostat
- Discussion on weighting structure
- Sector coverage and shortcomings
- Preparation of ToR for next activity

#### 3. Expected output of the activity

- Main output is a plan / road map to ensure at least pilot calculations of Index of Service Production available Q1 2023
- Mission report



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# Annex 2. Topics for the next mission

On next mission or activity there should be:

- A follow up on the tasks BiH has been asked to prepare
- The MS experts would like BiH to prepare a presentation on their VAT-data
- The work with data for the ISP should continue looking at the data for the next NACE sections J, L and M. This topic should include the special divisions of M required by Eurostat
- A theoretical examination of the Cubic Splice model when going for quarterly data to monthly data





# Annex 3. Persons met

BHAS:

Alen Bajramović, Head of Department for Services Statistics Maja Hadži-Stojanov, Senior Officer Mirza Agić, Senior Officer

FIS:

Ademira Veličanin, Senior advisor for Home Trade statistics Ajdina Jerković, Senior Advisor Nikola Radović, Expert Associate

RSIS:

Jelena Glamočika, Head of Department for Services Statistics Aleksandra Đonlaga, Senior Statistician

<u>MS Experts:</u> Lina Pedersen, Statistics Denmark Mathias Blume, Statistics Denmark

<u>RTA Team:</u> Niels Madsen Larisa Muslimovic

Haris Imamovic, Interpreter





# Annex 4: Work Plan

#### IPA 2017 TWINNING PROJECT - WORKING PLAN FOR INDEX OF SERVICES PRODUCTION (ISP)

No.	MAIN ACTIVITY	COMPONENTS OF MAIN ACTIVITY*	DATE OF IMPLEMENTATION **	STATUS OF ACTIVITY	RESPONSIBLE INSTITUTIONS	MS EXPERT SUPPORT NEEDED
1	INVENTORY OF STATISTICAL AND ADMINISTRATIVE DATA SOURCES FOR DEFLATORS	Current status of availability and potential use of statistical data (prices) and administrative data. Draft inventory list prepared.	End of November	Partly achieved	BHAS, RSIS, FIS	
		Preliminary data analysis for calculation of deflators made.	End of November 2021	Partly achieved	BHAS, RSIS, FIS, MS experts	YES
		Training of staff on how to evaluate quality of available data sources	End of March 2023	Work initiated	BHAS, RSIS, FIS, MS experts	YES





No.	MAIN ACTIVITY	COMPONENTS OF MAIN ACTIVITY*	DATE OF IMPLEMENTATION **	STATUS OF ACTIVITY	RESPONSIBLE INSTITUTIONS	MS EXPERT SUPPORT NEEDED
	METHODOLOGY FOR DEFLATORS AND INDEX OF SERVICES PRODUCTION	Weighting structure for construction of deflators prepared	End of March 2023	Work initiated	BHAS, RSIS, FIS, MS experts	YES
		Experimental production of deflators at group level (3-digit NACE)	End of the project (minus three months)	Not started	BHAS, RSIS, FIS, MS experts	YES
		Temporal disaggregation methods for quarterly deflators	End of 2022	Work initiated	BHAS, RSIS, FIS, MS experts	YES (from statistical methodologist)
2		Methods for calculation of ISP agreed	End of 2022	Work initiated	BHAS, RSIS, FIS, MS experts	YES
		Experimental calculation for available ISP's	End of the project (minus three months)	Work initiated	BHAS, RSIS, FIS, MS experts	YES
		Revision policy	March 2023	Not started	BHAS, RSIS, FIS, MS experts	YES
		Seasonal adjustment method	March 2023	Not started	BHAS, RSIS, FIS, MS experts	YES
		Draft methodological document for ISP	March 2023	Not started	BHAS, RSIS, FIS, MS experts	YES



No.	MAIN ACTIVITY	COMPONENTS OF MAIN ACTIVITY*	DATE OF IMPLEMENTATION **	STATUS OF ACTIVITY	RESPONSIBLE INSTITUTIONS	MS EXPERT SUPPORT NEEDED
	CALCULATION OF INDEX OF SERVICES PRODUCTION	Calculation of available ISP gross series	End of project	Not started	BHAS, RSIS, FIS, MS experts	YES
		SA and WDA series prepared	End of project	Not started	BHAS, RSIS, FIS, MS experts	YES
3		Final methodological document developed	End of project	Not started	BHAS, RSIS, FIS, MS experts	YES
		Formats for data transmission to Eurostat adjusted	End of project	Not started	BHAS, RSIS, FIS, MS experts	YES

\*Activities proposed in this Plan could be changed during the IPA Project implementation

\*\*Proposed dates are provisional



### **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:

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Component leader, BHAS

БонлагаА

Component leader, RSIS

Mathias Bluhme

MS Expert

Ademira Veličanin Component leader, FIS

Miels Moder RTA LIMP

MS Expert



