

# TWINNING CONTRACT

BA 17 IPA ST 01 20



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



## MISSION REPORT

### Activity 1.3.2E Index of Service Production II Component 1.3.2 Index of Service Production/Service Producer Price Index

Mission carried out by  
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24– 28 April 2023

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
CE	Completely Enumerated
CPA	Classification of Products by Activity
GSBPM	Generic Statistical Business Process Model
DST	Danmarks Statistik (Statistics Denmark)
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
NSI	National Statistics Institute
RSIS	Institute for Statistics of Republika Srpska
RTA	Resident Twinning Adviser
SBS	Structural Business Statistics
SPPI	Service Producer Price Index
ToR	Terms of Reference

# 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 fifth mission devoted to the Index of Service Production /Service Producer Price Index component of the Project.

The purposes of the mission were:

- Presentation on SPPI development, initial research phase (implemented activities according to roadmap)
- Presentation and discussion on updated methodology for metadata and internal use (draft metadata, draft methodology)
- Presentation of experimental calculation on SPPI for J61-Telecommunications, for review and discussion
- Proposal of sampling methods and weighting scheme to be used for pilot SPPI (J62, M69, M70.2 and M73)
- Presentation and discussion of the currently used weighting structure for production of SPPI aggregates
- Discussion on quality adjustment for selected SPPI (J61 and M71.1)
- Example of statistics Denmark on rebasing and recalculation of data series, implementation of new base year (2021)
- Danish example of Pricing Methods used for compilation of SPPI for M69, M70.2 and M73, specially for J62
- Preliminary road map / forward plan (including ToR for the next activity and time table)

Where appropriate, written advice provided in previous mission reports are retained for development steps that are yet to be fulfilled and where advice is still relevant and consistent to contemporary shifts in the BiH statistical landscape.

The consultants would like to express their thanks to all officials and individuals from Bosnia and Herzegovina for their kind support and valuable information 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, Statistics Finland, Statistics Sweden and The Italian National Institute of Statistics.

## 2. Assessment and results

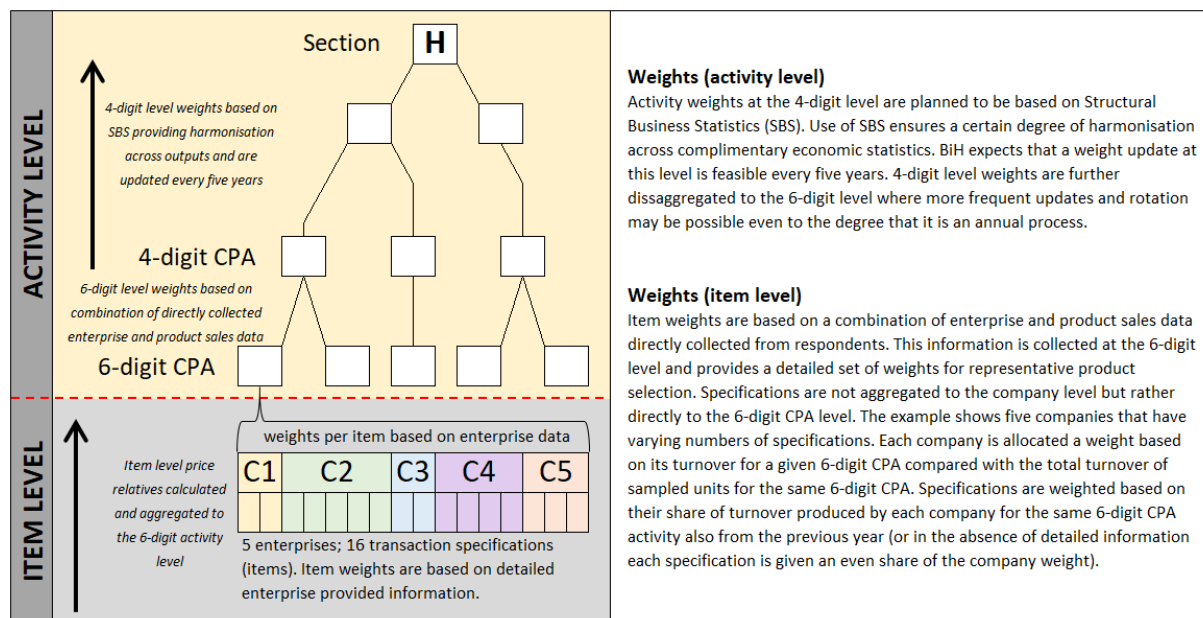
### 2.1 Actions and results addressed during the mission

The following action items were set at the December 2022 mission and were all completed as per this mission.

Action	Status	Summary
Investigate weight sources for the various levels within the aggregation structure.	Complete.	SBS to be utilised for 4-digit level and current direct collection practises for 6-digit level.
BiH to conduct a review of sampling methods to be able to appropriately account for both high and low market concentration scenarios.	Complete.	BiH understand the different sampling methods and when to apply them.
Select a sample of companies for the new SPPI.	In-progress.	A frame for SPPI is sorted and learnings from practical sessions on sampling methods are expected to result in final steps being completed in the selective use of PPS-sampling where the cut-off method is not an adequate solution.
BiH to investigate if supply/use tables can enable the usage of CPI as an alternative data source for price coverage.	Complete.	BiH does not currently have an iteration of Supply and Use tables that can be used to stratify weights into business-to-business and business-to-consumer.
Initiation questionnaires and collection aids for development of new activities finalised.	Complete.	BiH have developed their materials for specific industries and have commenced outreach using a top down approach.
Prepare an overview of telecommunications for review and discussion at the next mission.	Complete.	BiH presented their current telecommunications questionnaire and data.
BiH to present progress on documentation development for metadata purposes, CSM development, eventual publication purposes and for internal use.	Complete.	BiH provided a copy of their documentation for review that will be discussed at the next mission.

## Weighting Pattern, Index Aggregation and Calculating the Index

BiH reviewed weight sources for the various levels within the aggregation structure. A determination was made to utilise weights derived from Structural Business Statistics (SBS) to weight together indices at the 4-digit level. This gives a harmonised and common base both within the PPI structure and in relation to other statistics contributing to the measurement of real GDP. It is estimated, at this stage, that BiH has the capacity to update these weights on a five year cycle. Stratification below the 4-digit level, that is, the 6-digit level remains as previously advised via direct collection. The following diagram has been updated from the previous report to reflect the developments made in the aggregation design.



## Sampling

BiH is focusing on the implementation of further industries in their SPPI-program and researching for the optimal sampling design. Cut-off, PPS and judgemental sampling sessions were continued during the mission week with the presentation of examples and application of methods to BiH test data. BiH is now positioned to consult internally and select strategically sampling methods balancing index representativeness (quality) with respective resource costs. It should be noted that even as exact sampling methods are being ratified, BiH has been in parallel conducting outreach and enrolment (that is, BiH is on track as per the indicative forward plan). The following is a summary of the methods and DST welcomes between mission meetings if support is required.

### Sampling – Revisiting the theory

For the following summarised methods, each unit in the sampling frame requires a measure of size. Ideally weights for PPI are production values (sales plus change in inventories). As almost all service production leaves no inventory, sales can often be considered as equivalent to production value. Values should be in basic prices.

### Probability Proportionate to Size

The formula used in the PPS selects the largest units with certainty (that is, they are completely enumerated (CE units) and represent their individual share of activity). Non-certainty units are selected using size based random sampling (that is, the probability of selecting a unit is proportional to its size). Non-certainty units are effectively weighted to represent similar frame units that were not selected.

This method is the most statistically precise and allows for sample error calculation. The drawback is that, as each non-certainty unit weight is unique, substitution to alternate units can be a more complex process.

### **Stratified Random Sample**

Each unit in the sampling frame has a measure of size which determines its strata. The largest units can be selected with certainty followed by a random selection of units from each subsequent strata beyond the CE units. Within each non-CE strata units are considered to have the same weight proportional to the size of the strata and the number of units selected. Substitution is relatively straight forward as units that are no longer reporting can be directly replaced by another unit within the same strata.

### **Cut-off Sample**

Each unit in the sampling frame has a measure of size. Units are ordered from largest to smallest and are included for data collection if they are within a pre-determined cut-off or cumulative percentage coverage (for example, 80 or 90 percent). The specific percentage should include a reflection on staffing resources as when it comes to activities that have low concentration a high number of companies may be required to reach a certain cut-off. Conversely, as with any of the methods, a minimum number of businesses should be selected (often at least three) to ensure confidentiality is maintained. If units can no longer report the next largest business is rotated in from the sampling frame.

### **CPI as an alternative data source**

BiH price statisticians have progressed this action and have had discussions with National Accounts. Current work efforts regarding Supply-Use tables have not reached a stage where they are able to be utilised to stratify activities into business-to-business and business-to-consumer. It should be noted that EBS regulation does not require such stratification and the use of CPI is primarily as an opportunity to reduce burden following the “collect once, use many times” line of strategy. In the absence of Supply-Use tables, information about the predominance of resident consumers as the main customer group and/or price development of the consumer segment aligning to commercial transactions can be obtained either directly from businesses and/or from other statistics and studies. The usage of CPI as an alternative data source is at the discretion of BiH.

A recent alternative data survey conducted by the Voorburg Group on Service Statistics showed a high level of CPI usage in covering activities related to Transportation and storage; Accommodation and food services; Information and communication; and Other service activities.

### **CPI as an alternative data source – Revisiting the theory**

For activities that are predominantly sold to households the CPI can be used as a proxy for direct collection. This is also applicable where price development experienced by households is representative of price development experienced by businesses. For activities where the CPI is considered a representative proxy BiH can therefore focus their resources elsewhere where direct collection is required.

When the CPI is used to indicate changes in producer prices there are a number of factors that need to be considered to ensure that the CPI is fit-for-purpose. For example, CPI classification categories must be converted to relevant CPA codes and adjustments need to be made when tax rates change to where the valuation basis for PPI is basic prices in contrast to the CPI valuation basis of purchaser prices. Further advice on these important factors can be found via the Voorburg Group on Service Statistics<sup>1</sup>.

<sup>1</sup> Alignment of Methodology and Scope between Services Producer Price Indices (SPPIs) and Consumer Price Indices (CPIs): Developing a framework for using CPIs in SPPI calculation.

<https://www.voorburggroup.org/Documents/2021%20Washington/Papers/3008.pdf>

## Data collection

Questionnaires have been developed for six activities and outreach and contact with associations and reporting units has commenced in two activities. BiH is positively building up their underlying enabling infrastructure and knowledge base and the expectation is that this contribute to a ramping up of collection work over the coming months. BiH would like some direct outreach support at a future mission which DST agree would be beneficial. BiH also raised the concept of constant quality and whilst discussions were held, DST recommend that a targeted session be held at the next mission presenting constant quality in relation to all aspects of the price statistics fundamentals (including data collection). An overview of the fundamentals can be found in annex 4.

### Data collection – Revisiting the theory

Data collection for new activities is recommended to commence with outreach to trade associations, government departments and/or large companies to learn primarily about record keeping and options for price collection. Topics to be discussed may include:

- Types of price data used in company internal analysis
- Existing data collection conducted by trade associations
- Market structure, major products, and pricing strategies
- Key drivers and trends (past and expected)
- Cost structure and demand factors
- Frequency of price changes and factors affecting prices
- Specifications that can be used to follow price changes

Data collection may be conducted utilizing a number of mediums and fall into three basic types: personal interview, self-enumeration, and telephone interview. The choice of medium is dependent on a number of factors including but not limited to: topic complexity, non-response, data availability, and market concentration.

Practical initiation templates and tools such as questionnaires, collection aids, scripts, and/or contact management spreadsheets should be established. This includes procedures for selecting items, specifying transactions, and collecting price updates. Initiation procedures and supportive templates typically fall into three stages: pre-initiation; at the meeting; and post meeting. If possible, collect price information for historical periods. This will allow for simulating publication processes with real data earlier in the development phase.

Businesses' willingness to participate in surveys and provide data can be a challenge and educating and building rapport is critical. A concerted effort during the outreach phase should be made to address potential respondent concerns. Some specific recommended actions include:

- Senior-level staff engagement with trade organizations and large businesses.
- Build company profiles for the largest businesses to ensure that the interviewer is well-informed prior to contact with the respondent.
- Investigate any current and/or prior contact history that a potential respondent has already had with the statistical institutes and maintain records of contact with the respondent for future reference.



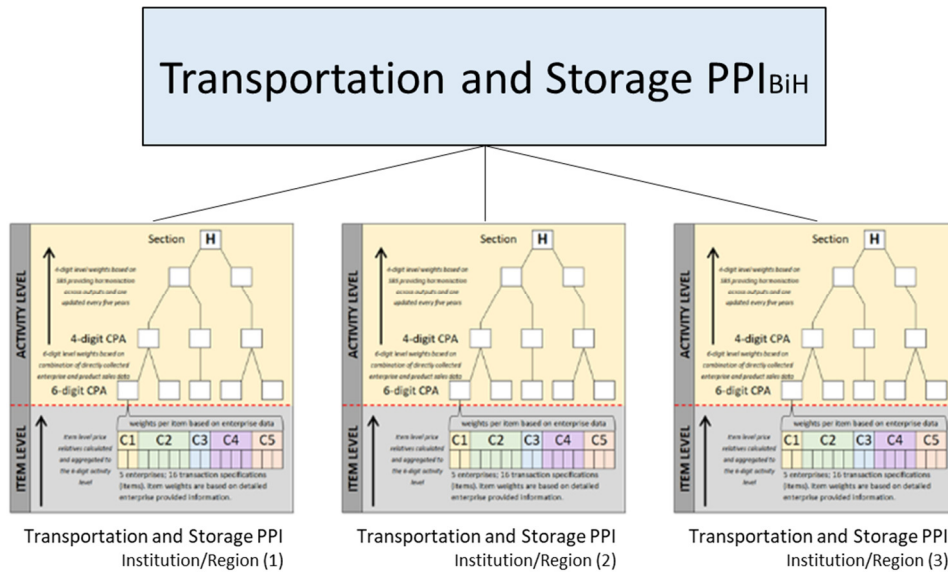
- Produce informative documentation about the statistics institute and/or the statistical collection that can be sent electronically or provided physically to potential respondents.
- Target contact to an appropriate personnel level within the trade organization and/or business. Ideally the individual(s) will have knowledge of products and price development and the authority to report information to the statistical institute.

### Imputation, aggregation and user needs

Delving deeper into the structural complexities of producing this statistic across the three institutions some discussions took place regarding the main objective(s) for the PPI and therefore how the PPI will aggregate in consideration to the sampling and data collection practices.

A common approach for PPI calculation is as a national level output for national level deflationary purposes. In this instance the item level for a given elementary aggregate would consist of all items connected to domestic production irrespective of geographical location. If an item (price observation) is missing all other observed items and quality adjusted items would be used, for example, to calculate an imputation for that missing item. That is, price development based on price observations from all three institutions (and therefore respective regions) would be used to estimate the missing price observation. This essentially ‘preserves’ the price development of national level indicators.

A less common approach for PPI calculation is calculating regional indices in the first instance essentially meaning that default imputation is conducted utilising regional data rather than national data.



In this example, using a class mean imputation, regional price development is ‘preserved’, that is, as this item level imputation is taken from the regional level it will have the same movement as the regional level aggregate at the activity level. If a national level imputation was utilised the imputation would impact the regional level and vice versa if a regional level imputation is utilised it impacts the national level. Practises occurring in other economic statistics are also of relevance when seeking to harmonise PPI with complimentary indicators. DST recommends a session be dedicated to this at the next mission and that BiH conducts in-house discussions between missions.

## 2.2 Advice addressed during the previous mission relevant for continued development

### Testing the production cycle

The PPI is due to become a part of the official suite of price indicators that BiH publishes and that are utilised by key stakeholders such as National Accounts, Central Bank of Bosnia and Herzegovina, and eventually an important contributor to the European Statistical System (ESS).

Upon the inaugural official publication there will be an expectation from users that the new indicator will continue to be published on time and to a particular quality. To secure the certainty of this output, BiH will need to consider their strategic stance regarding core staff levels to secure a sustainable knowledge base of PPI and to ensure consistent production and publication activities.

Prior to the inaugural publication it is recommended that BiH conduct a series of test publications, for internal use only, giving staff an opportunity to test procedures and documentation. This will further allow for stress testing if staff resources are adequate or if additional staff are required. The time constraints of a fixed production schedule (collection, processing, analysis, dissemination) are significantly more rigid outside of the research phase.

Secondly, testing the production cycle is also an opportunity to champion the new statistics to other internal stakeholders to further internal use and communication and ensuring harmonization across economic statistics in BiH. Testing of the production cycle is recommended to start during 2023.

### Maintaining and reviewing weights and samples

BiH is recommended to investigate to what extent annual reviewing of weights and samples in the production cycle can be actioned over the course of the year taking some of the pressure off the bottleneck months of December and January. Annual activities should be mapped out into actionable items and described with how-to documentation. Dependencies should be thoroughly understood and strategies in place to avoid potential delays, for example, periodic meetings with key internal data providers.

### Publication - Delivery +45 days

Current regulation states that SPPIs are to be delivered T+90, but recently Eurostat has expressed a wish for this to be reduced to T+45. As BiH has yet to implement a consistent and systematic production cycle for quarterly data deliveries to Eurostat - this investigation point is recommended to be included in their initial research phase.

### An integrated system of price statistics

An integrated approach to the system of price statistics translates to a harmonized suite of price statistics with data based on standardised concepts, definitions, and classifications. Furthermore, this ensures that as a national statistics institute (NSI) we are maximising opportunities that our price statistics are able to be used and correlated between statistical products and across statistical domains – a win for both the NSI and statistical users.

What do we have to gain?

- Scalable and sustainable connections to organisational ideals
- Rapid “point-in-time” checking of harmonised concepts and methods
- Integrated and automated monitoring opportunities
- Institutionalised knowledge
- Adaptive organisation that is more agile to contemporary needs

What do we risk?

- Disconnection from organisational ideals

- Erosion of harmonised concepts and method
- Continuity and succession planning challenges
- Slow moving organisation with multiplying bespoke solutions

The development of SPPIs and therefore the fulfilment of the EBS requirements is as ambitious as it is necessary. BiH is recommended to consider their SPPI development both as part of a system of price statistics and an integrated stakeholder within economic statistics. This can be seen as an investment in development but also an investment in future savings and sustainable outputs.

### 3. Conclusions and recommendations

BiH have continued to build upon their strong foundations to continue the development of the SPPI to meet the new EBS requirements in the near future. BiH is progressing well with their ambitious (indicative) forward plan, see annex 3, and is meeting current development goals.

With this in mind, the recommendations and expectations for further development and a future mission are as follows (some remain relevant from the previous mission).

#### *Recommendations:*

- Price statistics development fundamentals and the European Business Statistics manual should be used to enable and inform best practice and requirements for SPPI develop.
- BiH have investigated weight sources for the various levels within the aggregation structure and have a preliminary strategy for weight updates. The update strategy and process should be confirmed with internal stakeholders and confirmed for implementation.
- BiH to investigate if other alternative data sources can indicate if there exists candidate activities for coverage using the CPI.
- BiH to apply sampling methods to finalise samples appropriately accounting for both high and low market concentration scenarios. BiH methods unit to support decision process.
- Initiation activities to continue and personal interviews to be utilized. Existing materials to be adapted where possible (questionnaires; collection aids) but also tailored as required.
- It is advised that during 2023 BiH tests production and publication capabilities for eventual official publication and also to champion their statistics to internal stakeholders ensuring high quality and harmonization across economic statistics. This testing includes:
  - Data Publication / Delivery +45 days.
  - Understanding what aspects of annual updates can be spread-out across the year
- BiH to prepare an overview of activities that require specific support for review and discussion at the next mission. Activities should be flagged in advance for DST to prepare session materials. DST is available for meetings in-between mission on a needs basis.
- DST to review developed materials that have been provided and provide feedback at the next mission. This is mainly focused on CSM development but other materials provided are also open for review on a needs basis. For example, outreach and/or enrolment materials are welcome to be included for a review round.

- SPPI development activities should be considered as a part of an integrated system of price statistics.
- Targeted session on constant quality and how it enters into different aspects of the price statistics fundamentals to be presented by DST at the next mission.
- National versus regional aggregation and publication requirements to be workshopped at the next mission. BiH should have internal discussions to work towards a strategy that can be discussed and finalised.

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

*Action items are not necessarily required to be completed prior to the next mission but internal discussions and consultation with Statistics Denmark should be conducted on a needs basis to enable the next mission.*

Action	Deadline	Responsible person
<b>Sample design and weights – State level versus Regional level.</b> Implications exist in respect to the purpose of the sub-indices and subsequent methods, e.g. imputation rules.	Next mission.	BiH
<b>Calculation design</b> and aggregation steps mapped and/or implemented.	Next mission.	BiH
<b>Analysis tools, data visualisation and publication templates</b> developed and tested.	Next mission.	BiH and DST
<b>SBS Weights. Full weighting structure. Explain weights process at DST.</b> Explain weights sources. Explain weights updates. Explain relationships.	Next mission.	DST
<b>Concepts, sources and methods documentation review.</b>	Next mission.	DST
<b>Test Publication</b> (dependent on data collection progress)	Next mission.	BiH
<b>Outreach and visitation to associations and/or establishments.</b>	Next mission.	BiH and DST

## **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 - Index of Service Production/Service Producer Price  
Index**

**24<sup>th</sup> April 11 a.m. – 28<sup>th</sup> April noon 2023**

**Venue: Sarajevo, FIS, Zelenih beretki 26**

**Room: 1st Floor**

#### **Activity 1.3.2E: Service Producer Price Index II**

##### **1. Mandatory result**

New STS indicators for SPPI and ISP (Services Producer Price Index, and Index of Services Production new proposed FRIBS Regulation) produced according to the FRIBS (current EU regulation STS No 1165/98)

New methodology for calculation of SPPI (for selected service industries) developed.

SPPI produced based on new methodology and delivered to Eurostat (N, SA, WDA and T)

New methodology for calculation of ISP (production of volume index) developed according to the FRIBS

ISP produced based on new methodology and delivered to Eurostat

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 statistics are compiled based on turnover index from the statistic Purchases and Sales by Enterprises and on price index from Producer Price Index for Services (SPPI) and the Consumer Price Index (CPI). In this way the subcomponent relates to the work on SPPI carried out by the previous Twinning project and continued in this project.

Indicator / Relevant Milestones / Internal deadlines:

- Indicators for SPPI and ISP published and delivered to Eurostat

## 2. Purpose of the activity

- Presentation on SPPI development, initial research phase (implemented activities according to roadmap)
  - Presentation and discussion on updated methodology for metadata and internal use (draft metadata, draft methodology)
  - Presentation of experimental calculation on SPPI for J61-Telecommunications, for review and discussion
  - Proposal of sampling methods and weighting scheme to be used for pilot SPPI (J62, M69, M70.2 and M73)
  - Presentation and discussion of the currently used weighting structure for production of SPPI aggregates
  - Discussion on quality adjustment for selected SPPI (J61 and M71.1)
  - Example of statistics Denmark on rebasing and recalculation of data series, implementation of new base year (2021)
  - Danish example of Pricing Methods used for compilation of SPPI for M69, M70.2 and M73, specially for J62
  - Preliminary road map / forward plan (including ToR for the next activity and time table)

## 3. Expected output of the activity

- The items described under *Purpose of the activity* presented and conclusions made
- Mission report prepared
- Road map/work plan for the component updated
- ToR for the next mission and time and time table for the rest of the in the Project planned SPPI missions made

## Annex 2. Revised Schedule

TIME	Monday	Tuesday	Wednesday	Thursday	Friday
	24-apr	25-apr	26-apr	27-apr	28-apr
0845-0900	TECHNICAL	TECHNICAL	TECHNICAL	TECHNICAL	TECHNICAL
0900 -0930		<b>Registers, weights and aggregation (B&amp;H)</b> <i>- Investigate weight sources for the various levels within the aggregation structure</i>	<b>Sampling (B&amp;H)</b> <i>- BiH to conduct a review of sampling methods to account for both high and low market concentration scenarios</i> <i>- Select a sample of companies for the new SPPI</i>	<b>J61 - Telecommunications (ALL)</b>	<b>Rebasing Theory and Practical (DST)</b>
0930 -1000					
1000 -1030					
1030 -1045	TEA BREAK	TEA BREAK	TEA BREAK	TEA BREAK	TEA BREAK
1045 -1115	<b>Introductions, agenda &amp; recap of previous mission (ALL)</b>	<b>Registers, weights and aggregation (B&amp;H)</b> <i>- Investigate weight sources for the various levels within the aggregation structure</i>	<b>Administrative Data Seminar</b>	<b>J62 - Computer programming etc.</b> <b>M69 - Legal &amp; accounting</b> <b>M70.2 - Mngmt. Consultancy</b> <b>M73 - Advertising (ALL)</b>	<b>Results, road map, forward plan and next mission (ALL)</b>
1115 -1145					
1145-1215					
1215-1245	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
1245-1315					
1315-1345	<b>Documentation (B&amp;H)</b> <b>+</b> <b>Questionnaires, collection aids and outreach (B&amp;H)</b>	<b>Sampling (B&amp;H)</b> <i>- BiH to conduct a review of sampling methods to account for both high and low market concentration scenarios</i> <i>- Select a sample of companies for the new SPPI</i>	<b>Administrative Data Seminar</b>	<b>Index Calculation and Model Building in Excel</b>	
1345-1415					
1415-1445					
1445-1500					



### Annex 3. Forward Plan (indicative)

The following forward plan is an indicative plan developed during the December, 2022 mission and will be utilised by BiH for internal planning purposes. BiH has thus far held to the timeframe of this indicative plan. The columns in blue represent potential months for future support missions.

Action / Activity	Current status	Output	2023												2024												2025							
			Q1			Q2			Q3			Q4			Q1			Q2			Q3			Q4			Q1							
			J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M					
Selection of activities to include in the new SPPI.	Done																																	
Propose an activity weighting structure for the new SPPI.	To be completed.	Aggregation diagram																																
Select a sample of companies for the new SPPI.	To be completed.	Sample designed at entity level Following documentation		x																														
Create initiation questionnaires and collection aids for activities included in the new SPPI. Finalize and document procedures for selecting items, specifying transactions, and collecting price updates.	To be completed.	Questionnaire designed Guidelines for RU Initial letters SPPI Methodology		x	x																													
Outreach to appropriate trade associations, government departments, and large companies to communicate the SPPI development and generate support (for example, Industry Association, Chamber of Commerce).	To be completed.	Contact established Visitation notes made and shared between RSIS, FIS and BHAS Knowledge on industry gained			x	x	x	x	x	x	x	x	x	x																				
Initiation of selected respondents in new SPPI (Q4 2023 data and *Q1 2024 data). Includes: determine frequency and price collection strategy.	To be completed.	Sample verified and finalized												x																				
Begin collecting price updates for companies initiated in Q2* and Q3*. Combination of phone and email (personal visits on a needs basis).	To be completed.	Prices are collected quarterly						x*		x*					x		x		x		x						x							
Setup and adjustment of current SPPI IT application for new activities	To be completed.	IT application set						x		x		x		x																				
Finalise weighting structure and publication structure for new SPPI.	To be completed.	Weighting structure designed													x																			
Develop publication documentation and schedule.	To be completed.	Press Release designed																		x														
Quarterly calculation of SPPI with Q4 2023=100. Quarterly testing of collection and calculation procedures and instruments.	To be completed.	Experimental Index Calculation of New indices														x		x		x									x					
Test publication(s). Internal presentation.	To be completed.	Publication Schedule Designed Internal presentation made																															x	
Concepts, sources and methods documentation	Draft available	Ongoing process / work																																
Disseminate notice about upcoming release of new SPPI.	To be determined, expectations are circa 2028																																	
Publish new SPPI - Official Launch.	To be determined, expectations are circa 2028																																	
Use of SPPI indices for calculation of ISP/National Accounts	To be determined, expectations are circa 2028																																	

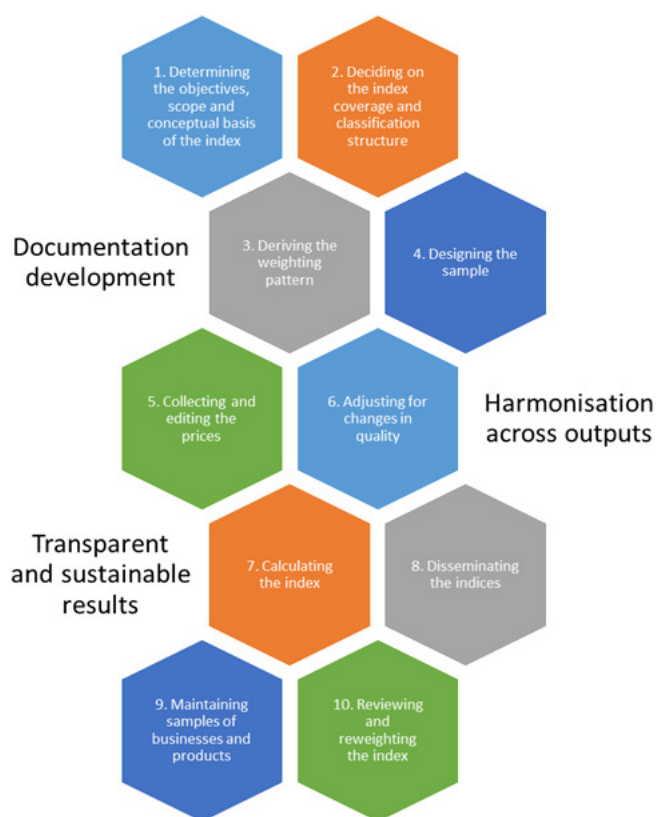
## Annex 4. Price Statistics Development Fundamentals

Over the course of the mission the ten fundamental aspects of price development<sup>2</sup> were discussed and used as a baseline to understand current progress and future needs.

The fundamental aspects break up price statistics activities into the following aspects:

1. Determining the objectives, scope and conceptual basis of the index;
2. Deciding on index coverage and classification structure;
3. Deriving the weighting pattern;
4. Designing the sample;
5. Collecting and editing the prices;
6. Adjusting for changes in quality;
7. Calculating the index;
8. Disseminating the indices;
9. Maintaining samples of businesses and products;
10. Reviewing and reweighting the index

These price statistics building blocks were delivered in combination with GSBPM fundamentals with the end-to-end production and future development of SPPIs at BiH a focal point for discussions. Findings led to high quality technical discussions and the subsequent mapping of an indicative roadmap for SPPI development.



<sup>2</sup> The ten steps for price statistics development can be found in three official price statistics manuals including: An Overview of the Steps Necessary for Developing PPIs (PPI Manual; 2004; p50-60); An Overview of the Steps Necessary for Developing XMPPIs p59-70; Chapter 1 (CPI Manual; 2020; p1-27)

## Annex 5. Persons met

### BHAS:

Maja Hadži-Stojanov, Senior Officer for Producer Prices in Services  
Alen Bajramović, Head of Department for Services Statistics

### FIS:

Merima Beganović, Senior Advisor for Business Services  
Ademira Veličanin, Senior Advisor for Home Trade Statistics

### RSIS:

Aleksandra Đonlaga, Senior Officer for Producer Prices in Services  
Jelena Glamočika, Head of Department for Services Statistics

### RTA TEAM:


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