

TWINNING CONTRACT

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



STUDY VISIT REPORT

on

Study visit to France

Activity no. 2.B.10.

Study visit to France – use of administrative data for STS production

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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

1. General comments

This study visit (SV) report was prepared within the EU Twinning Project "Support to the reform of the statistics system in Bosnia and Herzegovina" and organised under component no 2, activity no 2.B.10.

The main focus of the study visit to INSEE was to get closely acquainted with their practices on using administrative data (VAT database) for compilation of STS indicators and to learn from their experience in development of the common IT solution (Harmonica software). In addition, we were introduced with their practice of compiling of STS turnover indicators, methodology used and the organization of the business statistics production process in INSEE.

The statistical institutions in BiH use traditional statistical surveys for calculation of STS turnover indices on monthly and quarterly basis. One of the main data sources should become the administrative (VAT data base), obtained on the monthly basis from Indirect Taxation Authority of BiH (ITA BiH). It is important to switch from traditional survey to administrative data source and consequently reduce response burden on businesses entities in BiH. Obligation to provide monthly turnover index for all business services, as important short-term economic indicator, is foreseen by FRIBS as mandatory. Therefore, movement from quarterly to monthly periodicity is the one of key objective of the new methodology that need to be developed for STS production. Since monthly processing allows very limited amount of time for all the survey activities, the important goal is to make the whole process as automated as possible. In that sense, there will be need for reviewing of current methodology and IT solutions used in BiH for the purpose of production of STS turnover indices.

The statistical institutions in BiH are devoted to improve current STS production system used in BiH, by introducing administrative data sources and development of the common IT solution that will be used in production of STS turnover indicators.

During the study visit we were introduced with experience of our colleagues in INSEE in implementation of administrative data sources in production of STS indicators and on their work on full implementation of new FRIBS regulation. Also, we were introduced with all phases of statistical production process in INSEE which is based on GSBPM. Similar approach should be applied in short-term business statistics surveys in Bosnia and Herzegovina.

Experiences gained during the SV were very useful for representatives of BiH's statistical institutions and will be used in future development of common STS IT system in Bosnia and Herzegovina.

The staff of BHAS, FIS and RSIS 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 country and which highly facilitated the work.

This views and observations stated in this report are those of the staff 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. Lessons Learned

At the beginning of the study visit, participants from BiH's statistical institutions were introduced with historical development of turnover indices (ICA) and their dissemination in accordance with current EU STS regulation in France. The first day of the study visit, Ms Laurence Jaluzot, head of Turnover Index Section, presented methodology used for production of turnover indices, current status of STS production and compliance to the new demands based on FRIBS requirements.

INSEE has a long tradition in using administrative data, first by using sample based on admin data and from 2016 extensive use of VAT database (1.5 million VAT return form monthly) for production of STS turnover indices. One of main priorities of INSEE was to reduce the burden on reporting units, increase use of administrative data sources as much as it is possible and also to improve overall quality of produced statistics.

INSEE practices on conducting Industry and Construction statistics and Trade and Services statistics surveys were presented. Only for RTI they conduct monthly survey of big retailers (EMAGSA survey) and this data are combined with estimations made from monthly VAT data. INSEE has developed Index of production in services (ISP) which is used to measure the monthly change in the services production of the companies in the services sectors (new FRIBS requirements).

We were introduced to the whole statistical production process for compilation of STS turnover indicators in INSEE which is integrated by using Harmonica software. In order to implement new approach in production of turnover indices, INSEE adopted new methodology for index calculation, reorganize their statistical production process, which is based on GSBPM and developed new IT application. Implementation of new statistical production system in INSEE has provided many advantages starting from significant improvement in coverage of statistical units, refining current procedures (selective editing, data validation, imputation procedures, etc.) and improving overall index quality.

Main part of SV was dedicated to presentation of methodology used for STS production, functionalities of Harmonica software and on practical presentation of all phases of statistical production process in INSEE. Also, we had opportunity to present current situation in BiH's statistical institutions regarding current status of STS production and IT support. Our intention is to apply similar IT solution in statistical production system of STS indicators in BiH.

We were familiarised with current STS production in INSEE, main phases and functionalities, as well as, development process which incorporated different IT solutions (developed in-house) into one production system. Almost all phases of statistical production process of STS indicators are performed in Harmonica. Currently, only seasonal adjustment is done outside the production system Harmonica, by using JDemetra+ application. As BC participants, we were especially interested in main functionalities of this system which are explained in a very detailed way. Harmonica is developed to support extensive use of administrative VAT data in production of Short-term business statistics. Also, we were introduced with other application/registers which are used in order to support statistical production process in INSEE.

For the purpose of matching of business entities they use SIREN-a administrative register (unique ID numbers of business entities) and APE register (NACE activity code). We were familiarised with a Statistical Business Register in INSEE (SIRUS) which is used as a basis for

statistical production. They provided detailed explanations of structure, maintenance of SIRUS, its updating from administrative data sources as well as statistical surveys. For now, KAU has not been implemented in SIRUS. We had a productive discussion how to improve cooperation between statistical business register, annual statistics (SBS) and short-term business statistics in order to define appropriate methodology (procedures) for de-linearization of statistical units (KAU) in accordance with FRIBS requirements.

Expert from INSEE presented real examples of using Harmonica software in production of STS turnover indicators. We were introduced with all functionalities of Harmonica in practice, from data entry, controls during and after data entry phase, validation of data, imputation of missing and wrong data, aggregation and preparation of outputs, which are used for internal and external purposes. On micro level there are controls of negative values, null values (zero values), double entries (duplicates) and for paid leave of accountants. Macro controls are implemented on higher level of aggregation, in general at NACE 3-digit (group level) and by using top-down approach all inconsistencies are further investigated.

Also, we were introduced with procedures for calculation of contribution of indices, which is applied for the most influential companies. A lot of questions were raised from our side concerning organisation of work, production stages which are essential for development of such comprehensive STS IT system in BiH's statistical institutions. IT experts from INSEE, Mr Jean-Michel Goillot and Mr Samuel Toubon, provided a lot of technical information regarding functioning and maintenance of Harmonica software. There is one big data base (1.5 TB) with fourth external data sources. That requires a large batch file with very high processing speed. As BC participants, we were especially interested in main functionalities of this system, which were explained in details. Ms Mylène Chaleix, head of Information System Development Department in INSEE, introduced us to the overall structure of Information System Directorate (DSI), main administrative sources which are used for statistical production and currently used IT solutions in INSEE. It was brief introduction to the IT system with main functionalities implemented, as well as development process which incorporated different IT solutions (developed in-house) into one system.

Last topic was on sharing IT architectures and IT tools at European and international levels presented by Mr Franck Cotton, scientific advisor in DSI. We were introduced to the main challenges of every national statistics and high demand for standardization at conceptual, methodological and technical level. The amount of digitized data is increasing rapidly and there is a need for modernisation of statistical production in each NSI.

We were acquainted with Common Statistical Production Architecture (CSPA) and ESSnets projects on sharing common functionalities in the ESS (SCFE) and implementing shared statistical services (I3S).

3. Conclusions and recommendations

This study visit to Statistics France fulfilled all our expectations, particularly in part of getting detailed information on their experience on implementation of administrative data sources for STS production. Having in mind that we still do not use administrative data for production of STS turnover indices in BiH, experience gained will be used as a basis for our further development activities. We were introduced to Harmonica software, main functionalities which are developed in-house by INSEE, resources needed and all development stages. Common

opinion of all BC participants is that Harmonica is a well-structured production system based on the GSBPM model, which covers the most important stages of statistical production process. Since the common IT application in BiH is still in the initial phase, the lessons learned during the study visit will be very helpful in our further work. Integration of different production systems currently used by three statistical institutions in BiH is essential for modernization of statistical production process in BiH. So far, BiH's statistical institutions only use traditional statistical surveys for production of STS turnover indices on monthly and quarterly basis.

One of our main priorities is to start using administrative data sources (VAT database) for production of STS indicators in BiH. Having in mind complexity of statistical system in BiH, development of integrated statistical production system in BiH will require quite a long time period. Currently, all three statistical institutions in BiH are facing lack of IT staff, which means that we will have to be focused on using outsourcing services.

We had the opportunity to exchange our experience with colleagues from INSEE and to get their advice regarding future development of integrated statistical production system in BiH. This SV provided us with comprehensive overview of development process in INSEE and many useful information, which will contribute to our future work on development of similar IT solution in BiH.

We are very satisfied with gained knowledge and possibility to learn from their practices in development of generic IT production system based on GSBPM model. Furthermore, we had a very productive discussion on various STS methodological issues.

Since INSEE has one of the most advanced STS production systems based on use of VAT data and other administrative data source this was very valuable experience for us to learn from the French experts. All received materials and presentations will be further analysed and made available to all interested parties in the statistical system of BiH.

Actions needed for moving forward

Action	Deadline	Responsible institution / person
Regular analysis of administrative data on VAT and its comparison with statistical data	Continuously	BHAS, FIS, RSIS
Identification of potential KAUs in line with FRIBS requirements (in coordination with SBR staff)	July 2021	BHAS, FIS, RSIS
Revising of methodology used for production of STS indicators due to inclusion of selected administrative (VAT) data	September 2021	BHAS, FIS, RSIS
Defining procedures for development of appropriate IT solution for the use of administrative VAT data in production of STS turnover indicators in BiH	December 2021	BHAS, FIS, RSIS
Comparison analyses of STS turnover indices originating from two different sources	2021/2022	BHAS, FIS, RSIS

Getting access to all available administrative data sources in BiH (at all administrative levels) suitable for production of official statistics	Continuously	BHAS, FIS, RSIS
Implementation of GSBPM for modernization of statistical production system in BiH	2022	BHAS, FIS, RSIS
Development of web data collection	2022	BHAS, FIS, RSIS
Development of common IT solution for use of administrative VAT data in production of STS turnover in BiH according to agreed procedures	end of 2022	BHAS, FIS, RSIS
Start with production of STS turnover indicators by combining admin and survey data	from reference January/Q1 2023	BHAS, FIS, RSIS

Annex 1. Programme

Day 1 – Thursday 6 February – Production of turnover indexes – “Fairway”

building, meeting room F2

8:45–09:10 – Welcome of the delegation at INSEE’s reception, 88 avenue Verdier, Montrouge – Walk to “Fairway”, INSEE’s annex building (155 bis avenue Pierre Brossolette, Montrouge) and security procedures (for security reasons, an ID document will be asked)

Mr Serge DARRINE, program officer, INSEE’s cooperation with Europe and Asia

09:10–10:40 – Session 1 – General presentation of turnover indexes (ICA in French): history, use, scope and dissemination of ICA, what is requested for the European regulation ‘FRIBS’ (90 minutes, questions and answers included)

Ms Laurence JALUZOT, head of Turnover Index Section, Directorate of business statistics

10:40–11:00 – Coffee break (20 minutes)

11:00–12:00 – Session 2 – Administrative source used: monthly VAT data (60 minutes, Q&A included)

Ms Laurence JALUZOT

12:00–13:30 – Lunch break (90 minutes)

13:30–14:30 – Session 3 – Treatments with “Harmonica”, INSEE’s application used for the expertise and the analysis of indices in value: scheduling, micro-controls (zoom on the treatment of missing values), macro-controls, treatment of company reorganizations (60 minutes, Q&A included)

Ms Laurence JALUZOT

14:30–15:30 – Session 4 – Methodology: calculation of elementary indices, calculation of aggregated indices, impact of the taking into account of the demography of companies, computation of indexes in volume, seasonal adjustment, sources of revisions of indices (60 minutes, Q&A included)

Ms Laurence JALUZOT

15:30–15:50 – Coffee break (20 minutes)

15:50–16:50 – Session 5 – Running an ICA campaign: phases and actors (60 minutes, Q&A included)

Ms Laurence JALUZOT

Day 2 – Friday 7 February – The IT dimension of turnover indexes – meeting room 4-C-507

9:00 – Welcome of the delegation at INSEE’s reception, 88 avenue Verdier, Montrouge

9:10-10:40 – Session 6 – “Harmonica”, an INSEE’s application for VAT data processing (90 minutes, Q&A included)

Mr Jean-Michel GOILLOT and Mr Samuel TOUBON, IT experts,
by videoconference from INSEE’s IT Development Service in Nantes

10:40–11:00 – Coffee break (20 minutes)

11:00–12:00 – Session 7 – The way INSEE turns administrative data into statistical data (60 minutes, Q&A included)

Ms Mylene CHALEIX, head of Information System Development Department

12:00–13:30 – Lunch break (90 minutes)

13:30–15:00 – Session 8 – Sharing IT architectures and IT tools at European and international levels (90 minutes, Q&A included)

Mr Franck COTTON, scientific advisor at the Information System Directorate

15:00–15:30 – Evaluation of the study visit

Mr Serge DARRINE

Annex 2. Participants

Agency of Statistics in Bosnia-Herzegovina (BHAS)

- Mr Fahir KANLIĆ - Head of Department for Industry and Construction Statistics
- Mr Alen BAJRAMOVIĆ - Head of Department for Services Statistics
- Ms Bojana CICOVIĆ - Senior Official in Department for Structural Business Statistics
- Mr Radomir MUTABDŽIJA – Senior Official in Department for Industry and Construction Statistics

Institute for Statistics of Republika Srpska (RSIS)

- Ms Jelena GLAMOČIKA, Head of Services Statistics Department
- Ms Biljana ĐUKIĆ, Head of Production Statistics Department
- Ms Danica BABIĆ, Senior Statistician for SBS
- Mr Borjan CVJETKOVIĆ, IT expert

Federal Institute for Statistics of FBiH (FIS)

- Ms Alma ČOLPA, Advisor for Structural Business Statistics
- Ms Ademira VELIČANIN, Advisor for Internal Trade Statistics
- Ms Nasiha IMŠIROVIĆ, Advisor for Industry Statistics
- Mr Damir OMANOVIĆ, Senior Official in Department for Industry Statistics

Twinning Project

- Ms Ivana BILIĆ, Interpreter