TWINNING CONTRACT

BA 15 IPA SR 01 17

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

MISSION REPORT

Activity 2.A.1:
Component 2: Business Statistics
EU standards for quality reporting

Mission carried out by
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05-09 November 2018

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
DDI	Data Documentation Initiative
EC	European Commission
EU	European Union
ESMS	Euro-SDMX Metadata Structure
ESQRS	ESS Standard for Quality Reports Structure
ESS	European Statistical System
FBiH	Federation of Bosnia and Herzegovina
FIS	Institute for Statistics of Federation of Bosnia and Herzegovina
GSBPM	Generic Statistical Business Process Model
MS	EU Member State
NA	National Accounts
QI	Quality Indicators
RSIS	Institute for Statistics of Republika Srpska
RTA	Resident Twinning Adviser
SIMS	Single Integrated Metadata Structure
ToR	Terms of Reference

1. General comments

This mission report was prepared within the EU Twinning Project " Support to the reform of the statistics system in Bosnia and Herzegovina". It was the first mission to be devoted to quality reporting within Component 2 of the project.

The purposes of the mission:
- Introduction to EU standards on quality of statistics
- Introduction to EU standards for quality reporting and its template
- Discussion on application in BiH
- Specific work on first input to draft quality reports

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, Statistics Denmark.

2. Assessment and results

The result for the activity (from the ToR):
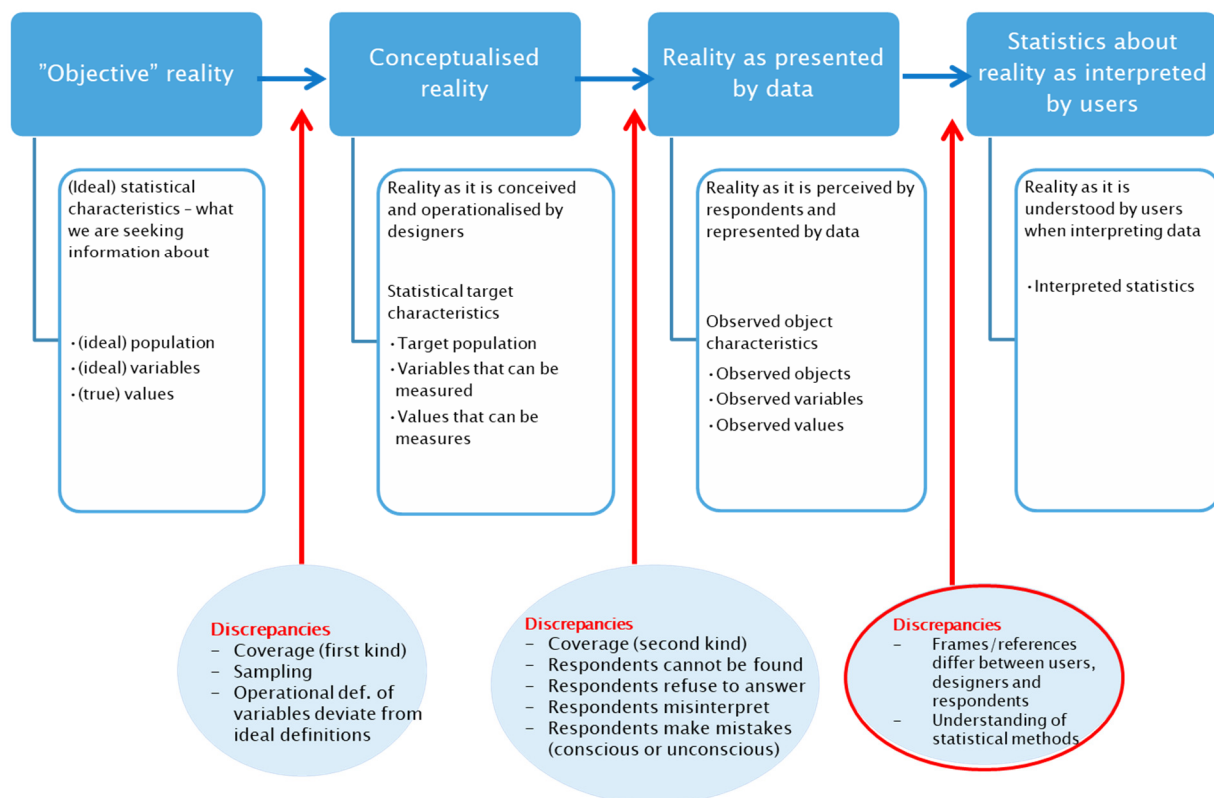- Knowledge gained on EU standards for quality reporting

The mission was initiated by Mrs. Ljiljana Okuka giving a presentation on the status for implementing a quality framework of BHAS. The presentation clearly showed that the knowledge within BHAS, RSIS and FIS on EU standards on quality of statistics and quality reporting is already solid and in the process of being implemented. An introduction to the national quality report guidelines and template was given. The national quality reports are common for the three institutions and the guidelines and framework have been developed by the quality working group that consists of a member from each of the three institutions. Training has been given in the guidelines and the national quality reports have been compiled for several statistics. The national quality reports are based on selected fields from SIMS (Single Integrated Metadata Structure) developed in the ESS (European Statistical System).

The consultants presented the European frame for quality and quality reporting. The European frame was compared to other international quality frames to emphasize that the quality frameworks of international organisations are closely linked.

The implementation of the European frame in Statistics Denmark was presented and in particular the implementation of a new system for quality reporting in Statistics Denmark. The overall metadata vision of Statistics Denmark was explained and the implementation of it so far was shown.

Statistics Denmark implemented a new system for quality reports in 2015. This was the first step in the implementation of the overall metadata vision. With the implementation of the new quality reporting system a new tool – the DDI based system Colectica – was implemented and will be the common system for all metadata in Statistics Denmark. One important feature in the new metadata structure is to *write once – use many times*. In order to achieve this it was chosen that for all statistical products published by Statistics Denmark all the fields of SIMS should be completed in the system. When this is done, quality reporting could be completed for national (e.g. at www.dst.dk – the user oriented fields) and international purposes (e.g. the ESS Metadata handler – ESMS or ESQRS). With the implementation of the new system for quality reports in Statistics Denmark a quality assurance function for quality reports was also introduced.

The following model adopted from the Swede Bo Sundgren, to illustrate the production of statistics was introduced to underpin what is needed in quality reports and why it is needed:

Completing quality reports is often seen as an extra burden for statisticians. As quality reports are an essential part of understanding statistics the approach of integrating the work with quality reports in the production process was introduced by going through the processes in GSBPM (Generic Statistical Business Process Model). It was illustrated how approximately 80-90 percent (depending on the statistics) of SIMS can be completed through the three first phases of GSBPM; Specify Needs, Design and Build. The rest of the completion of SIMS can be carried out in the phases; Collect, Process, Analyse and Disseminate. If the completion of a quality report is done following the processes in the production of the statistics, the perceived burden will be less and the quality reports will be completed at the same time as the statistical output is ready for publishing.

Each of the fields in SIMS was discussed and a link with SIMS the dissemination structure used in Statistics Denmark and the quality reporting template developed for the three institutions BHAS, FIS and RSIS was made (Annex 3). This was the basis for the exercise completed on day three by five groups; two groups concentrating on National Accounts, one group concentrating on trade statistics, one on construction statistics and one on forestry statistics and SBS. After the completion each field was discussed with examples from the five groups and experiences from Statistics Denmark.

Main findings
- The three institutions BHAS, RSIS and FIS are highly committed to quality.
- A working group with one representative from each of the three statistical institutions has been established – this group has developed the guidelines and template for the national quality reports.
- The template and guidelines take outset in SIMS but adjusted to local conditions.
- In general terms the BiH has more focus on producer oriented fields and calculations of Quality Indicators (QI) whereas Statistics Denmark has chosen to focus more on user oriented fields – since user needs is highly prioritized in their strategy.
- A BHAS representative is engaged in Eurostat's Working Group on Quality in Statistics – and has gained solid knowledge on international standards for Quality and Quality reporting.

- Plans for yearly training of staff members in quality reporting are in place and the first training course has been conducted.
- The methodology divisions in all three statistical institutions can provide assistance in calculating QI.
- Several Quality Reports are completed and published on the internet (local language and some also in English).
- A policy for quality management in all three statistical institutions in BiH has been outlined.
- The aim is to publish quality reports for all statistical products published.
- Quality reports will be updated on an annually basis.
- The National Account Department of BHAS express a need for microdata from the entities to be able to provide comprehensive quality reports fully meeting the EU Standards for quality reporting.
- The consultants suggested that all statistical products in the three institutions provide quality reports for every statistical product together with data.

3. Conclusions and recommendations

- As important experience has been achieved when introducing guidelines and template for national quality reports, it is recommended to use the knowledge collected to adjust the quality report guidelines and template.
- As both external and internal users need quality reports to fully understand the statistical outputs, it is recommended to have both external and internal users in mind if and when the template for national quality reports are updated.
- In order to ensure that the user's needs are met it is recommended to establish domain specific user groups or similar to meet at a regular basis e.g. once or twice a year.
- As users are in need of both reference and structural metadata it is recommended to consider whether quality reports can be connected or integrated with other metadata.
- In order to be able to reuse metadata it is recommended to investigate the possibility of implementing an IT platform that can support this e.g. DDI or similar.
- As the statistical output cannot be fully understood without the proper metadata it is recommended to publish quality reports at the same time as the data are published.
- In order to ease the task of completing quality reports at the same time as the statistical output, it is recommended to encourage integrating the work with quality reports in the production process.
- To ensure consistency and accessible for quality reports, it is recommended to introduce a quality assurance process. This could be done by a dedicated quality team/unit or by colleagues from another unit.
- For S.3.1- Data description it is suggested to consider including description of content, variables and key figures that the users can expect to find in the statistics in addition to purpose in the template for the national quality reports.
- For S.3.6 - Statistical population is not included in the template for the national quality report. As this is the target of the statistical product it is suggested to include this.
- The two fields S13.3.4 – Processing errors and S13.3.5 Model assumption errors are not a part of the template for the national quality reports. To be able to give a complete picture of Non-sampling errors it is suggested to include the two in the template.
- To ensure the successful implementation of user friendly quality reports it is recommended that the management support and engage in the process.

Annex 1. Terms of Reference

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Terms of Reference

EU Twinning Project BA 15 IPA ST 01 17

Component 2: Business Statistics
05-09 November 2018

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Activity 2.A.1: EU standards for quality reporting

1. **Result for the activity**
   - Knowledge gained on EU standards for quality reporting

2. **Purpose of the activity**

   - Introduction to EU standards on quality of statistics
   - Introduction to EU standards for quality reporting and its template
   - Discussion on application in BiH
   - Specific work on first input to a draft quality report on SBS

3. **Expected output of the activity**

   - Knowledge on EU standards of quality and quality reporting gained
   - Procedure for filling in quality reports defined
   - Participants comfortable with the EU template of quality report
   - First input to a draft quality report on SBS

4. **Participants**
Agency for Statistics of BiH (BHAS)
   - Ljiljana Okuka, Methodology, standards, planning, quality and coordination, Senior advisor
   - Anita Brković, Industry and Construction Statistics, Senior Officer
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Annex 3. Mapping of SIMS to Statistics Denmark and BHAS, FIS and RSIS quality report structure

SD number	SIMS no	Veza sa Izvještajem o kvalitetu BHAS-a	Metadata Item	Notes
1			**Introduction**	
9	**S.1**	**X**	**Contact**	
9.1	**S.1.1**	X	Contact organisation	
9.2	S.1.2	X	Contact organisation unit	
9.3	S.1.3	X	Contact name	
9.4	S.1.4	X	Contact person function	
9.5	S.1.5	X	Contact mail address	
9.6	S.1.6	X	Contact email address	
9.7	S.1.7	X	Contact phone number	
9.8	S.1.8	X	Contact fax number	
	S.2	X	**Metadata update**	
	S.2.1	X	Metadata last certified	
	S.2.2	X	Metadata last posted	
	S.2.3	X	Metadata last update	
2	**S.3**	X	**Statistical presentation**	
2.1	S.3.1	1.1	Data description	
2.2	S.3.2	1.4	Classification system	
2.3	S.3.3	X	Sector coverage	
2.4	S.3.4	1.7	Statistical concepts and definitions	
2.5	S.3.5	1.3	Statistical unit	
2.6	S.3.6	X	Statistical population	

2.7	S.3.7	X	Reference area	
2.8	S.3.8	X	Time coverage	
2.9	S.3.9	X	Base period	
2.10	**S.4**	X	**Unit of measure**	
2.11	**S.5**	X	**Reference period**	
	S.6	X	**Institutional mandate**	
2.13	S.6.1	1.2	Legal acts and other agreements	
	S.6.2	X	Data sharing	
	S.7	X	**Confidentiality**	
8.9	S.7.1	8.1	Confidentiality - policy	
8.10	S.7.2	8.2	Confidentiality - data treatment	
	S.8	X	**Release policy**	
8.1	S.8.1	X	Release calendar	
8.2	S.8.2	X	Release calendar access	
8.3	S.8.3	X	User access	
2.12	**S.9**	X	**Frequency of dissemination**	

8	S.10	X	Accessibility and clarity	
8.4	S.10.1	6.1	News release	
8.5	S.10.2	6.2	Publications	
8.6	S.10.3	6.3	On-line database	
	S.10.3.1	6.7	AC1. Data tables - consultations	
8.7	S.10.4	6.4	Micro-data access	
8.8	S.10.5	X	Other	
	S.10.5.1	6.8	AC 2. Metadata - consultations	
8.11	S.10.6	6.5	Documentation on methodology	
	S.10.6.1	6.9	AC 3. Metadata completeness - rate	
8.12	S.10.7	X	Quality documentation	
5.4	S.11	X	Quality management	
5.5	S.11.1	X	Quality assurance	
5.6	S.11.2	X	Quality assessment	

4	**S.12**	X	**Relevance**	
4.1	S.12.1	2.1.1	User needs	
4.2	S.12.2	2.1.2	User satisfaction	
4.3	S.12.3		Completeness / R1. Data completeness - rate for U	
	S.12.3.1	2.2.1	R1. Data completeness - rate for P	
5	**S.13**	X	**Accuracy and reliability**	
5.1	S.13.1	X	Overall accuracy	
5.2	S.13.2	X	Sampling error / A1. Sampling errors - indicators for U	
5.2.1	S.13.2.1	3.1.1	A1. Sampling errors - indicators for P	
5.3	S.13.3	X	Non-sampling error and A4. Unit non-response - rate for U and A5. Item non-response - rate for U	
5.3.1	S.13.3.1	X	Coverage error	
5.3.1.1	S.13.3.1.1	3.2.1.1	A2. Over-coverage - rate	
5.3.1.2	S.13.3.1.2	3.2.1.2	A3. Common units - proportion	
5.3.2	S.13.3.2	3.2.2.1 3.2.2.2	Measurement error	
5.3.3	S.13.3.3	X	Non response error	
5.3.3.1	S.13.3.3.1	3.2.3.1	A4. Unit non-response - rate for P	
5.3.3.2	S.13.3.3.2	3.2.3.2	A5. Item non-response - rate for P	

5.3.4	S.13.3.4	X	Processing error	
5.3.5	S.13.3.5	X	Model assumption error	
6	**S.14**	X	**Timeliness and punctuality**	
6.1	S.14.1	X	Timeliness andTP2. Time lag - final results for U	
	S.14.1.1	4.1.1.	TP1. Time lag - first results	
	S.14.1.2	4.1.2	TP2. Time lag - final results for P	
6.2	S.14.2	X	Punctuality and TP3. Punctuality - delivery and publication for U	
	S.14.2.1	4.1.3	TP3. Punctuality - delivery and publication for P	
7	**S.15**	X	**Comparability**	
7.1	S.15.1	5.3.1	Comparability - geographical	
	S.15.1.1	5.2.1	CC1. Asymmetry for mirror flows statistics - coefficient	
7.2	S.15.2		Comparability - over time and CC2. Length of comparable time series for U	
	S.15.2.1	5.2.2	CC2. Length of comparable time series for P	
7.3	S.15.3	X	Coherence- cross domain	
7.3.1	S.15.3.1	X	Coherence - sub annual and annual statistics	
7.3.2	S.15.3.2	X	Coherence- National Accounts	
7.4	S.15.4	X	Coherence - internal	

2.14	**S.16**	7.1 and 7.2	**Cost and burden**	
	S.17	X	**Data revision**	
5.7	S.17.1	X	Data revision - policy	
5.8	S.17.2	X	Data revision - practice / A6. Data revision - average size for U	
5.8.1	S.17.2.1	3.2.5.1	A6. Data revision - average size for P	
3	**S.18**	X	**Statistical processing**	
3.1	S.18.1	9.1	Source data	
3.2	S.18.2	9.2	Frequency of data collection	
3.3	S.18.3	9.3	Data collection	
3.4	S.18.4	9.4	Data validation	
3.5	S.18.5	9.5	Data compilation	
3.5.1	S.18.5.1	3.2.4.1	A7. Imputation - rate	
3.6	S.18.6	9.6	Adjustment	
3.6.1	S.18.6.1	9.6.1	Seasonal adjustment	
2.15	**S.19**	X	**Comment**	

Signatures

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

Date: 09 of November 2018

_____   _____
Component leader, BHAS   Component leader, FIS

_____   _____
Component leader, RSIS   RTA

_____   _____
MS Expert   MS Expert