



QUALITY MANAGEMENT STRATEGY

STATISTICAL OFFICE

QUALITY MANAGEMENT STRATEGY

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I. INTRODUCTION

The Quality Management Strategy is a strategic development document in the field of quality assurance in the statistical system of Montenegro. Statistical Office, as the most significant coordinator of statistical system has a legal obligation, together with other producers of official statistics to continuously and systematically deal with the quality enhancement.

The Quality Management Strategy determines the basic elements of quality management systems, which are based on the Code of Practice of European statistics, as well as the manner of their accomplishments.

This is a document that will be revised and changed in the medium term, i.e. supplemented and it will serve as a ground for the preparation of action plans in the field of quality assurance (short-term, medium-term and long-term).

The purpose of the Quality Management Strategy is to implement and apply the principles of the TQM model, (Total quality management) that represent a common framework for the quality of the European Statistical System. It is a systemic and organized model which goal is to meliorate the quality of the results of official statistics and enhance the quality of its production. The TQM model is based on the processes of planning, organizing, controlling and continuously improving production of results of official statistics, with the participation of all employees.

Statistical Office has recognized the importance of introducing the quality system and in this regard, formed the Department of Quality, which is devoted to issues of quality, coordination and implementation of the defined goals. The implementation of quality management systems has been supported through IPA Project 2014 Multi-beneficiary Statistical Cooperation Programme.

The Quality Management Strategy represents a basic document for the preparation of the Implementation Plan for the establishment of quality management system and the Guidelines for the implementation of the Quality Management Strategy.

II. LEGAL BASIS FOR THE QUALITY MANAGEMENT STRATEGY ADOPTION

The Quality Management Strategy develops a quality management system as one of the priority fields concerning the development of the Montenegrin statistical system. This is the first Quality Management Strategy, which is being prepared for the system of official statistics of Montenegro, in accordance with national and international documents:

- The Law on Official Statistics and the Official Statistics System¹:
 - Principle 4 - *Quality commitment* - which provides that producers of official statistics in Montenegro work and cooperate in accordance with the international principles of quality of the statistical system;
- Development Strategy and Official Statistics Programme 2014 -2018²:
 - Goal 2 – *Quality management through monitoring the implementation of the European Statistics Code of Practice*;
- Report by LPR assessment on the implementation of the European Statistics Code of Practice in Montenegro³:
 - Principle 4 – *Quality commitment* - To establish a quality management system with a comprehensive quality management plan so that all employees in MONSTAT will be trained regarding quality management;
- Declaration of Quality of the European Statistical System⁴;
- Article 338 of the Treaty on the Functioning of the European Union;⁵
- Regulation (EC) no. 759/2015 on amending Regulation (EC) no. 223/2009 on European Statistics;⁶
- European Code of Practice⁷.

¹ http://www.monstat.org/Userfiles/file/o%20nama/11_4_12_iZAKON%20O%20ZVANICNOJ%20%20STATISTICI.pdf

² [http://www.monstat.org/Userfiles/file/o%20nama/Strategija%20razvoja%20zvanicne%20statistike%202014%20-%202018%20\(2\)\(1\).pdf](http://www.monstat.org/Userfiles/file/o%20nama/Strategija%20razvoja%20zvanicne%20statistike%202014%20-%202018%20(2)(1).pdf)

³ http://www.monstat.org/Userfiles/file/o%20nama/LPR_Report_Montenegro_mne_18_8_12.pdf

⁴ <http://ec.europa.eu/eurostat/documents/64157/4392716/quality-declaration-ESS.pdf>

⁵ <http://www.mvep.hr/custompages/static/hrv/files/pregovori/111221-lisabonski-prociscena.pdf>

⁶ <http://eur-lex.europa.eu/legal-content/HR/TXT/PDF/?uri=CELEX:32015R0759&from=HR>

⁷ <http://ec.europa.eu/eurostat/web/quality/european-statistics-code-of-practice>

III. QUALITY MANAGEMENT MODELS

The quality management models implemented in the systems of official EU countries' statistics are:

- Total Quality Management (TQM);
- ISO 9000 Family Norms (Quality Management System);
- The EFQM Excellence Model (European Foundation for Quality Management);
- The Common Assessment Framework (CAF);
- The ESS CoP and the QAF - The European Statistical System Quality Framework. meliorating the functioning of the organization, work and each individual.

Statistical Office opted to implement elements of TQM, which stimulate the development and enhancement of the functioning of institutions, producing results of official statistics, as well as each individual.

Basic elements of Total Quality Management – TQM are as follows:

1. User focus;
2. Process-Oriented;
3. Committed leadership;
4. Participation of everyone;
5. Decisions based on facts;
6. Continuous improvements.

Within the medium term, the Statistical Office has decided to implement the TQM model elements through the following goals:

Table1. Quality management goals of the Statistical Office

	Quality management goals of the Statistical Office	Elements of the TQM model
A.	A firm commitment to users and other interested parties	User orientation
B.	Quality statistical processes and products	Process-Oriented
C.	Professional orientation of employees	Development and participation of employees
D.	Constant promotions of the quality of the statistical product	Constant promotions
E.	Reducing the utilisation of reporting units	

Defined goals in the Statistical Office will be elaborated in detail through the following documents:

- Implementation plan on the establishment of a quality management system;
- Guidebook for the implementation of the Quality Management Strategy.

A. A firm commitment to users and other interested parties

Goal description:

Producers of official statistics are responsible for the collection, production, processing and dissemination of statistical data. Official statistics are used for different purposes, by a large number of different users (decision makers, research institutions, analysts and researchers, journalists and the media, educational institutions and the public). Consequently, the available results of official statistics must meet users' needs of European institutions, governments, research institutions, business entities and the public at all

It is necessary for producers of official statistics to "listen" to the needs of users, monitor trends concerning data requirements and harmonize their production with new trends in the "data market". The very process of Montenegro's accession to the European Union has determined the demand for new results of official statistics, which imposes a new direction for the development of the statistical system, in accordance with the needs of the users. Users' requirements may refer to meliorating production in any of the quality dimensions - relevance, accuracy and reliability, timeliness and precision, coherence and comparability. In order to increase the availability of official statistics and information regarding data and processes, the Statistical Office will conduct a *User Satisfaction Survey*. In this way, information concerning the needs of users for statistical data will be obtained.

Also, users' commitment will be enhanced by the increased availability of statistical results over the Internet. Regarding statistical practice, the Internet has become the most important channel for dissemination, because it meets the general needs of users of statistical data, provides easy accessibility and flexibility for users to create their own way of presenting statistics. The expectation of users is growing in terms of visual presentation of statistical data, as well as the choice of technologies used, especially due to the intense use of social media and mobile devices.

The creation of a new official website of the Statistical Office, as well as the introduction of new forms of communication and presentation of statistical data, will be the future activities of the Statistical Office.

Within this goal, the system for reporting users concerning quality will be improved and it will provide explanations regarding the production of results of official statistics by production stages. In this regard, the Statistical Office will develop a *National Quality Report* for users as well as relevant guidelines.

Activities for the implementation of the goal:

- Intensify communication with data users in order to meet users' needs;
- Increased availability of statistical results to users via the Internet;
- Establish a national quality reporting system to users;
- Improve the system of confidentiality and protection of confidential data.

Indicators:

- *User Satisfaction Survey* was conducted in 2017 (two-year research);
- The new official website of the Statistical Office and content and technical integration of web site with social media;
- The systematic increase in the number of national reports concerning quality in the period 2018-2020;
- Defined clear guidelines and procedures on the system of confidentiality and protection of confidential data.

B. Quality statistical processes and products

Goal description:

Implementation of statistical production standards is necessary in order to improve the quality and international comparability of statistical results. Standards are required in order to provide clear communication in the system and to make process components interoperable.

Standardization of the Statistical Office will include three directions, introducing GSBPM models, development of the system of internal control and systematized management of projects.

In order to standardize statistical processes, the Statistical Office has decided to implement the Generic Statistical Business Model - GSBPM. It is a standard view of a statistical business process that identifies activities, responsibilities, resources, documents statistical processes in a standardized way. Using the model, a system for monitoring, documenting and controlling all phases in the production of official statistics is being developed, and employees are trained and they continue education for the implementation of the GSBPM model.

The implementation of the GSBPM model in the Statistical Office is developed by using the Integrated System of Data Processing (IST). It's a net application and a unique database of active metadata. It has been developed on the ground of the GSBPM model, and each IST module represents a single phase from the GSBPM model.

The IST application represents the automatization of individual phases of the GSBPM model, from data entry to dissemination. In this way, constant monitoring of data flow and monitoring of data quality is enabled. The most significant components of IST are: updating IST metabases, generating data entry, web application generator, logical control, automatic correction, advanced search of individual and aggregated data from the database, generating reports and the possibility of managing database procedures that contain individual and aggregated data.

The GSBPM is not designed as a strictly defined framework in which all steps must be implemented in the same order, but as a model that identifies steps in the statistical business process and interdependencies between them. Although the model displays a logical sequence of phases in most statistical business processes, model elements may appear in different sequences. Therefore, the GSBPM is a simple model and consequently widely applicable. The same principle was implemented to IST. IST modules are independent of each other, can be used multiple times, and the sequence of module use is not sequential.

Another aspect of the standardization process is the development of the internal control system and its implementation through the PIFC model.

The internal financial control of the public sector is a model developed by the European Commission in order to facilitate understanding and implementation of well-developed and efficient system of internal control in the process of accession to the European Union.

The goal of establishing a system of planning and control in the Statistical Office is to boost the ability to accomplish strategic goals, mission and vision of the Statistical Office, through the internal control system, properly established, or through the formation of an environment that contributes to the higher quality and results of all activities, at all levels. The most important principles of internal control are based on well-established organizational techniques and practices, which are derived from the way the management manages a certain activity, programme and project and are integrated into the management process. The Statistical Office formed a working team in order to establish a system of planning and control instruments through the PIFC concept. *The Methodological Guide to Financial Management and Control and the Rulebook on Internal Procedures and other documentation* has been developed at the Statistical Office and it contains 25 internal instructions and procedures. The guide is available to all employees of the Statistical Office.

Instruments that will enhance the internal control system are the *Risk Management Strategy and the Risk Register*. The definition and implementation of these instruments will

create a framework for identifying, assessing, controlling and monitoring risks that may adversely affect the accomplishment of strategic goals.

The third aspect of process standardization is systematized and organized project management. For the efficient implementation of international statistical projects, the Project Management Department was established. This Department provides adequate support to statisticians concerning the implementation of statistical processes and production of official statistics results. The management and monitoring of international statistical projects in the field of official statistics implies financial and coordination support in the production of new results of official statistics. By systematized project management, the implementation and fulfillment of plans is continuously monitored, and the project plan serves as a means of communication. Works and results are documented; resources are responsibly managed, which together influence the quality improvement.

Activities for the implementation of the goal:

- Define the project task for the introduction of the GSBPM model within the Statistical Office;
- Form a team for the introduction of the GSBPM model within the Statistical Office;
- Establishment and implementation of the Audit Policy;
- Develop the implementation of IST within the Statistical Office;
- Develop the internal control system and its further implementation;
- Develop a project management system.

Indicators:

- Project task on the implementation of the GSBPM model within the Statistical Office;
- Developed and implemented IST for all statistical surveys;
- Integration of statistical system data through IST;
- Rulebook of internal procedures and other documentation – FMC;
- Risk Management Strategy;
- Risk Register;
- Audit Policy;
- The procedure on unplanned audits;

- Guidelines for preparing and publishing Calendar concerning publishing statistical data;
- Procedure for business trips within the GRANT programme;
- Guidelines for the preparation and implementation of the GRANT programme;
- Guidelines for financial business within the GRANT programme;
- Guidelines for public procurement within the GRANT programme.

C. Professional orientation of employees

The Statistical Office is an institution that carries out tasks by applying scientific and professional methods. The competence, expertise and motivation of employees are important elements on which the quality of the results of official statistics depends, and that expertise and motivation will be built and achieved over time.

The employees are the crucial factor concerning the success of the Statistical Office and therefore, continuous efforts are being made to develop the professionalism and competence of employees. There are two directions of employees' development: (i) development of managerial skills and (ii) development of professional staff.

The development of existing managers and further training in the field of management is crucial for all employees. Good governance implies the involvement and stimulation of each employee (as individuals) and investment in his/her personal development.

The Statistical Office primarily recognizes the need to strengthen the staff potential by hiring young, educated people who are experienced concerning statistical research, theoretical knowledge of statistics, and also to develop existing staff with practical experience and professional development. Statistics covers different fields. Compliance with digital transformation, globalization, harmonization and implementation of new statistical methods and standards are particularly significant for the production of quality statistical data. Therefore, training and learning of statistics are necessary in order to meet the challenges set before official statistics. Trainings in different and most diverse fields of statistics are a necessary tool for further development and enhancement.

Permanent education of employees through enhancement of cooperation with universities and attending international postgraduate Study Programme "*European master in official statistics*", monitoring employees' satisfaction and defined internal communication at all levels represent elements for professional orientation of employees.

Activities for the implementation of the goal:

- Define the training programme at the national and international level;
- Increase the number and regular presence of the staff of the Statistical Office on trainings within the ESS and other statistical organizations and institutions regarding expert statistical fields;
- Participation of employees within the scope of the EMOS postgraduate Study Programme, intended for the development and creation of statisticians by profession;
- Develop an internal communication system at all levels;
- Research on employees' satisfaction;
- Boost cooperation with universities and throughout the scientific-research community in order to educate employees.

Indicators:

- Calendar of trainings with national and international trainings and courses in the field of official statistics;
- Research on employees' satisfaction was conducted;
- Memorandum of Understanding was signed with universities and throughout the scientific and research community;
- Rules of Procedure, governing the organization and mode of work, were defined.

D. Constant promotions of the quality of the statistical product

Data are the source and input element of statistical production and their quality is a crucial point, and therefore an important segment of permanent melioration is important. The needs of data users are constantly changing, particularly in the process of globalization, which directly affects the statistical activity.

Digital transformation and increasing availability of data is a trend that is of strategic significance for official statistics which, in addition to theoretical, conceptual and methodological development, creates the ground for raising the quality of statistics, and thus better meeting the requirements and needs of users. It is often the case that users of official statistical results say that they want "*good quality*" data, but when they do it, they do not have the required evidence to evaluate how well "*good*" data are. Out of this reason, it is essential that metadata tracking the statistical results provide users sufficient information to evaluate the quality of the statistical results.

Statistical Office is currently focused on the development of two lines concerning improving the quality of statistical products: development of system metadata and development of the Report on the quality.

The development process of the metadata database system is developed pursuant to the GSBPM model, as well as the standards recommended by the UN and EUROSTAT through three columns:

1. **Reference** - within which the SIMS structure (Unique Integrated Metadata Structure) is implemented, recommended by EUROSTAT to generate reference metadata. Reference metadata provide precise information on each statistical survey used in the statistical production process;
2. **Statistical** - In addition to reference metadata, static metadata are also developed to generate the Annual Plan of Official Statistics and the Release Calendar for statistical data for all producers of official statistics, providing accurate and timely

information concerning all statistical surveys. These grounds are associated with reference metadata, in accordance with the SIMS structure;

- 3. Active** - Metadata enable daily production of data. Daily output of data depends on the active metadata. Each stage of statistical production is based on the active metadata.

In this way, the credibility and trust of the users in the Statistical Office will increase, which will have a positive impact on the perception of quality for the longer period.

In recent years, the European Statistical Office (EUROSTAT) has prepared, through a special high-quality working group, the documents *ESS Handbook for Quality Reports and the Handbook on Data Quality*, which elaborate in detail the various components of the *Reporting on the quality of the statistical product*. The general goal of the *ESS Standard for Quality Reports (ESQR)* is to provide recommendations for the preparation of comprehensive *Quality Reports* for a range of statistical processes and their results.

The focus of the Statistical Office is on the *National Reports on the quality of users and producers of official statistics*, with reference to the seven most important principles of quality (relevance of statistical concepts; accuracy and reliability; timeliness and precision; availability and clarity; coherence and comparability; cost-effectiveness and confidentiality).

Stated quality goals are contained within the "QUALITY BASIS" which has been developed on the existing reference metadata at the Statistical Office. Therefore, "QUALITY BASIS" is the widest quality framework, source, which contains all the elements that are vital for the preparation and production of the Quality Report for both users and producers of official statistics.

Activities for the implementation of the goal:

- Establish a "QUALITY BASIS" by meliorating the structure of reference metadata, which will contain all the essential elements for the development of national Quality Reports for producers and users;
- Develop instruments and training system for the development of a *National Quality Report* for users and producers;
- Enhance the quality of official statistics through metadata columns.

Indicators:

- Established a "QUALITY BASIS" through an improved metadata system;
- Incorporating a database of other producers of official statistics into the "QUALITY BASIS" through the reference metadata model;
- Created instruments for the preparation of a national Quality Report for producers of official statistics;
- Created instruments for the preparation of a national Quality Report for users;
- A professional staff trained for the preparation of the Quality Report;
- Visibility of the metadata of producers of official statistics.

E. Reducing the utilisation of reporting units

The principle of the official statistics *Reducing the utilisation of reporting units*, represents the proportion between the workload and the costs necessary for the collection of statistical data and the results of official statistics in order to optimally use the available resources and reduce the utilisation on the reporting units. The utilisation of the obligation to provide data should be in line with the needs of the users and should not be excessive for the reporting units.

The general goals of the Statistical Office are to increase the use of administrative data for statistical purposes and to modernize the collection of official statistics data.

Regulation (EC) no. 759/2015 on amending Regulation (EC) no. 223/2009 on European Statistics defines a stronger approach to the use of administrative records. In this direction, the Statistical Office has been developed and it has established the Department for National Coordination of Statistical Data Sources, whose main activity is establishing cooperation with administrative data holders. The most important activity that should be done is the harmonization the methodology used by administrative sources for collecting data according to the requirements of official statistics, i.e. with EU standards. Through direct cooperation with other producers and institutions, the Statistical Office will influence the coherence, integrity and implementation of standard classifications, the definitions in the formation of statistical indicators.

The development of an electronic data collection system enables reporting units to fill in the data electronically, through the web portal of the Statistical Office, which affects the reduction of the utilisation of reporting units.

Another future activity, which will relate to the reduction of the utilisation of reporting units, is the development of a methodology for assessing the utilisation of reporting units on an annual basis. During the preparation of the methodology, knowledge from statistical theory and practice will be used, with the help of modern information tools, so that the utilisation of reporting units is arranged as much as possible among the population being tested, through appropriate sampling techniques.

The results obtained on the basis of the defined methodology will be used during the preparation of an analysis of the utilisation of reporting units on an annual baseline against which the utilisation will be monitored and goals set for their reduction over time.

The modernization process of collecting and introducing new ways of collecting data with adequate support ICT contributes to improving the quality of the entire system.

By developing the Integrated Data Processing System (IST), the Statistical Office will be able to introduce CAPI, CAWI and CATI methods in a faster and easier way in the data collection process for most statistical surveys.

Activities for the implementation of the goal:

- Increase the use of data from administrative sources in the production of official statistics;
- The introduction of new methods and ways into the data collection process;
- Methodology for assessment of the utilisation of reporting units

Indicators:

- Number of signed Agreements on Cooperation with holders of administrative data;
- Increased number of statistical surveys, which use an electronic system to collect data;
- Increased number of statistical surveys, which use administrative sources of data;
- Annual analysis of the utilisation of reporting units.