

# QUALITY GUIDELINES OF THE CROATIAN BUREAU OF STATISTICS

November 2022



# Contents

Foreword.....	3
Abbreviations .....	4
Introduction .....	5
Institutional Environment .....	6
Statistical Processes.....	11
Statistical Output.....	15
References .....	19
List of links .....	20

# Foreword

The quality of statistical products and services is the main backbone of the operation of the Croatian Bureau of Statistics (hereinafter referred to as: the CBS). Given that I hold the position of chief state statistician, it is my responsibility to ensure all the necessary prerequisites in order to make high-quality statistical data available to users, which are suitable for various analyses and informed decision-making, in accordance with international and European standards and defined deadlines.

Since statistics reflect the situation in the society and are subject to constant changes, it is necessary to continuously take care of this living organism in order to earn the trust of the public. Therefore, a lot of statistical knowledge, skills and effort has been invested into the preparation of these guidelines, as one of the goals of the CBS is to promote high standards of statistical quality, which are not only essential for the statistical system of the Republic of Croatia, but also for the statistical system of all Member States of the European Union.

The guidelines are a tool that will help the CBS as the main producer, disseminator and coordinator of the official statistical system in the Republic of Croatia and as the main representative of the national statistical system before the European and international bodies competent for statistics to fulfil the quality requirements from the European Statistics Code of Practice (hereinafter referred to as: the Code).

Furthermore, with this document, we have ensured the consistency of information about our statistics and allowed users to assess the level of quality and applicability of statistics in accordance with their needs.

It is our wish that the application of the provisions of this document take root among the users of statistics.

DIRECTOR GENERAL

Lidija Brković

# Abbreviations

CROMETA	Central Metadata Database
CBS	Croatian Bureau of Statistics
ESF	European Structural Funds
ESMS	Euro SDMX Metadata Structure
ESQRS	ESS Standard for Quality Reports Structure
EC	European Community
GPP	Annual Implementation Plan of Statistical Activities of the Republic of Croatia
GSBPM	Generic Statistical Business Process Model
ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
ISIS	Integrated Statistical Information System
IT	Information technologies
Code	European Statistics Code of Practice
NACE	Statistical Classification of Economic Activities in the European Community
NN	Narodne novine, official gazette of the Republic of Croatia
POMI	Application and quality base
PSA	Programme of Statistical Activities of the Republic of Croatia
PUK	Total Quality Management
SIMS	Single Integrated Metadata Structure

# Introduction

The development of the statistical system is a complex procedure that requires constant dialogue with users of statistical data, data providers and other producers of official statistics who participate in the development and production of official statistics, the systematic monitoring and application of international standards, and the provision of other appropriate data sources.

Focus on the quality of official statistics is guaranteed by the Official Statistics Act, which prescribes the basic principles of official statistics and the European Statistics Code of Practice. In the development, production and dissemination of official statistics, in addition to the basic statistical principles, the principles of the Code are applied, which are aimed at efficient institutional environment, optimal statistical processes and quality statistical results<sup>1</sup>. It is an autonomous instrument based on 16 principles, which cover the institutional environment, statistical production processes and statistical results.

For each of the principles, a set of good practice indicators and standards are prescribed that provide guidelines for evaluating the application of the Code, which consequently increases the transparency of the European Statistical System.

The CBS, as the main producer, disseminator and coordinator of the official statistical system of the Republic of Croatia and as the main representative of the national statistical system before the European and international bodies competent for statistics, is aware of how important the quality of statistical processes, products and services is for the continuous development and improvement of the statistical system. Therefore, the intention is to promote these statistical guidelines as an auxiliary tool for those for whom statistics is not their main activity, but through their indirect participation they contribute to improving the quality of the overall Croatian statistical system.

Quality Guidelines of the CBS have the same chapters as the Code, as follows:

1. Institutional Environment
2. Statistical Processes
3. Statistical Output

For each of the three listed topics, the principles are presented in a concise form, including a series of guidelines for the implementation of the principles.

In order for the document to fulfil its purpose, the guidelines have been adapted to the Croatian environment and the Code has been adapted to the production of official statistics in the Republic of Croatia. Each guideline is defined by a set of criteria and examples of good practice are provided for each guideline.

Given that Article 5a of Regulation (EU) 2015/759 of the European Parliament and of the Council of 29 April 2015 stipulates that heads of national statistical institutes shall produce national quality guidelines and thereby ensure the continuous development, production and dissemination of European statistics within the national statistical system, monitor and review their implementation and continuously work on improving the quality according to all principles of the Code, this document is another contribution to the continuous improvement of the quality of the statistical system of the Republic of Croatia.

---

<sup>1</sup> Programme of Statistical Activities of the Republic of Croatia 2021 – 2027 (p. 10)

# Institutional Environment



Institutional and organisational factors have a significant influence on the effectiveness and credibility of a statistical authority developing, producing and disseminating European statistics. The relevant Principles are professional independence, coordination and cooperation, mandate for data collection, adequacy of resources, quality commitment, statistical confidentiality, impartiality and objectivity.

## **PRINCIPLE 1 Professional independence**

Professional independence of statistical authorities from other policy, regulatory or administrative departments and bodies, as well as from private sector operators, ensures the credibility of European Statistics.

## **PRINCIPLE 1a Coordination and cooperation**

National statistical institutes and Eurostat ensure the coordination of all activities for the development, production and dissemination of European statistics at the level of the national statistical system and the European Statistical System, respectively. Statistical authorities actively cooperate within the partnership of the European Statistical System, so as to ensure the development, production and dissemination of European statistics.

## **PRINCIPLE 2 Mandate for data collection and access to data**

Statistical authorities have a clear legal mandate to collect and access information from multiple data sources for European statistical purposes. Administrations, enterprises and households, and the public at large may be compelled by law to allow access to or deliver data for European statistical purposes at the request of statistical authorities.

## **PRINCIPLE 3 Adequacy of resources**

The resources available to statistical authorities are sufficient to meet European Statistics requirements.

## **PRINCIPLE 4 Commitment to quality**

Statistical authorities are committed to quality. They systematically and regularly identify strengths and weaknesses to continuously improve process and output quality.

## **PRINCIPLE 5 Statistical confidentiality and data protection**

The privacy of data providers, the confidentiality of the information they provide, its use only for statistical purposes and the security of the data are absolutely guaranteed.

## **PRINCIPLE 6 Impartiality and objectivity**

Statistical authorities develop, produce and disseminate European Statistics respecting scientific independence and in an objective, professional and transparent manner in which all users are treated equitably.

GUIDELINES	CRITERIA	EXAMPLES OF GOOD PRACTICE
<p><b>1. The production of European statistics is professional and independent. Users should be confident that statistics are produced using objective methods independent of political and economic interests.</b></p>	<p>1a A legal framework has been established that enables independence of the CBS organisational units.</p>	<p>The Official Statistics Act (NN, No. 25/20) regulates the fundamental principles of official statistics, including professional independence. Quality criteria are defined, which are applied to and cover the organisation, status, tasks and coordination of the official statistics system.</p> <p>The Development Strategy of Official Statistics of the Republic of Croatia 2021 – 2030 (NN, No. 29/22) regulates the institutional environment and organisational factors.</p>
<p><b>2. The head of the national statistical institute has full responsibility regarding the application of statistical methods, standards and procedures, as well as the content and periodicity of publishing statistical publications.</b></p>	<p>2a Transparent procedures have been established that enable the head of the national statistical office to manage the statistical system independently.</p>	<p>Pursuant to Article 17, paragraph 1 of the Official Statistics Act (NN, No. 25/20) and Article 5a, paragraph 1 of Regulation (EC) No. 223/2009, the Director General of the CBS is professionally independent in the performance of their tasks, defined by the aforementioned Act and Article 5a, paragraph 2 of Regulation (EC) No. 223/2009.</p>
<p><b>Decision on the methods and periodicity of statistical data publishing, etc. is the sole responsibility of the statistical unit engaged in the production of statistics. Respecting and following the rules of the profession, every piece of statistical data is protected against possible political influence.</b></p>	<p>2b A potential dismissal of the head of the statistical unit must not endanger the professional independence of the unit.</p>	<p>Official statistics system has been established that enables continuous production of statistics in accordance with programme documents.</p>
	<p>2c The choice of methods, standards and procedures, as well as the content and dynamics of statistical data publishing, excludes all forms of political influence.</p>	<p>The independence of official statistics of the Republic of Croatia is established by the Official Statistics Act (NN, No. 25/20) and therefore, any form of political influence is eliminated.</p>
<p><b>The coordination of all activities for the development, production and dissemination of European statistics at the level of the national statistical system has been established.</b></p>	<p>2d The Committee for Official Statistics System of the Republic of Croatia has been established, which consists of the representatives of the producers of official statistics in the Republic of Croatia.</p>	<p>Article 26 of the Official Statistics Act (NN, No. 25/20) prescribes the establishment of the Committee for Official Statistics System of the Republic of Croatia for the purpose of coordinating and ensuring the efficiency and quality in the development, production and dissemination of official statistics of the Republic of Croatia.</p>
<p><b>3 Physical, technical and organisational measures have been taken to ensure the use of confidential data exclusively for statistical purposes.</b></p> <p><b>The protection of personal data against misuse is essential for establishing trust with both natural and legal persons. Moreover, it is a prerequisite for access to data and its use in the long term, thus creating prerequisites for achieving a high level of quality in the preparation and creation of statistics. The collected data on natural and legal persons are used exclusively for statistical purposes and are presented in aggregate form. These data may not be used or forwarded to other persons or bodies for determining the rights</b></p>	<p>3a Physical precautions have been taken to monitor data security and prevent data confidentiality violations.</p>	<p>Pursuant to Article 20, paragraph 4 of Regulation (EC) No. 223/2009 on European statistics and Article 71 of the Official Statistics Act, the CBS shall take all necessary regulatory, administrative, technical and organisational measures to ensure the physical and logical protection of confidential data.</p> <p>Instruction on the Protection of Confidential Statistical Data of the Croatian Bureau of Statistics (NN, No. 78/2021) and Instruction on the Rules and Methods of Protection in the Dissemination of Official Statistical Data of the Croatian Bureau of Statistics (NN, No. 78/2021) have been published.</p>
	<p>3b All accesses to confidential data in statistical databases are recorded and monitored.</p>	<p>Ordinance on Access to Confidential Statistical Data of the Croatian Bureau of Statistics within the Official Statistics System (NN, No. 59/2021)</p>

GUIDELINES	CRITERIA	EXAMPLES OF GOOD PRACTICE
<p><b>and obligations of the reporting units (such as administrative, legal or tax purposes) or for checking the reporting units.</b></p>	<p>3c A clear distinction has been made between the data collected and processed for statistical purposes and the data used for other purposes, e.g. administrative data.</p>	<p>The CBS keeps the Register of Business Entities, which is also an administrative data source.</p> <p>The Statistical Business Register has been established separately for statistical purposes.</p> <p>The CBS has a clear policy on which data may be used publicly and which may be used only for statistical purposes.</p>
	<p>3d Access to confidential statistical data for scientific purposes is subject to legal, physical, technical and organisational measures aimed at preventing unauthorised access to data.</p>	<p>Article 68 of the Official Statistics Act enables the use of confidential statistical data for scientific purposes. Information on the manner and conditions under which the use of confidential statistical data for scientific purposes can be allowed is publicly available on the CBS website.</p>
<p><b>4 Employees sign a Statement regarding the confidentiality and protection of statistical data in accordance with the provisions of the Official Statistics Act.</b></p> <p><b>Access to statistical data collected for the needs of a particular statistical activity before they are officially published is exclusively granted to the CBS's employees and the Director General, in the scope and for the needs of the phase of work for which they are in charge.</b></p>	<p>4a Employees who work with confidential statistical data are required to sign a Statement of Statistical Confidentiality under material and criminal liability.</p>	<p>The CBS employees accept the obligation of business secrecy and, when employed in the civil service, they are informed of the potential consequences of violating business secrecy.</p> <p>Each civil servant is obliged to pass a state qualifying exam pursuant to the Civil Servants Act (NN, Nos 92/05, 107/07, 27/08, 49/11, 150/11, 34/12, 49/12, 37/13, 38/13, 1/15, 138/15 - Decision of the Constitutional Court of the Republic of Croatia, U-I-2036/2012 of 21 December 2015, 61/17, 70/19 and 98/19).</p>
	<p>4b All persons authorised to perform the tasks of official statistics sign a statement in which they undertake to preserve the confidentiality of statistical data.</p>	<p>The confidentiality statement is signed by all interviewers who have a contractual relationship with the CBS and all legal entities that have established a contractual relationship based on the procurement procedure.</p>
	<p>4c The users of confidential statistical data for scientific purposes sign an agreement on access to microdata, which prohibits data copying.</p>	<p>Scientists establish a contractual relationship on access to confidential statistical data for the purpose of performing scientific and research activities. An integral part of the contract is the Confidentiality Statement signed by researchers who have the right to access confidential statistical data.</p>
<p><b>5 The Publishing Programme and the Calendar of Statistical Data Issues are available on the CBS website.</b></p> <p><b>Any deviation from the announced statistical data publishing dates is announced on the CBS website in a timely manner.</b></p> <p><b>To ensure that the politics do not affect the publication of statistical data, publishing dates are publicly announced in advance and are available in the Calendar.</b></p> <p><b>This ensures that the publishing dates cannot be adjusted to a politically convenient moment.</b></p>	<p>5a There is the Calendar of Statistical Data Issues and the Publication Programme that contain the statistical data publishing dates, the publication of which was organised by the organisational unit responsible for the dissemination of statistical data.</p>	<p>The Calendar of Statistical Data Issues is available on the CBS website and it contains a precise overview of the planned publishing dates of all the statistical data that the CBS plans to publish for the entire statistical year in advance. The Calendar is published three months before the publishing date of the first statistical data in the following calendar year.</p>
	<p>5b The date and time when statistical data are published is known.</p>	<p>All statistical data are available on the CBS website and are published in accordance with the publishing dates announced in the Programme and the Calendar at 11 a.m.</p>

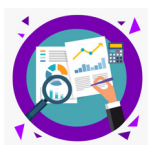


GUIDELINES	CRITERIA	EXAMPLES OF GOOD PRACTICE
<p><b>For the same reason, users are explained the reasons for the potential deviation from the publishing dates announced in the Calendar.</b></p>	<p>5c The Calendar is updated from time to time and contains all planned statistical data for the current year.</p>	<p>The Calendar is published on the CBS website. <a href="https://dzs.gov.hr/UserDocsImages/dokumenti/02-Kalendar%202022_21.3.2022.pdf">https://dzs.gov.hr/UserDocsImages/dokumenti/02-Kalendar%202022_21.3.2022.pdf</a></p>
	<p>5d Statistical data are available to all users in the same way and at the same time and are published exactly at 11 a.m. according to pre-announced publishing dates.</p>	<p>Any deviation from the announced publishing dates is announced at least three working days before the publishing date on the CBS website, with an explanation of the reasons for the deviation.</p>
	<p>5e The accuracy of statistical publications is monitored and documented.</p>	
<p><b>6 Only statistical data with a clear message that it is a specific statistical phenomenon are published, that is, that politics and interest groups have no influence on the publication of official statistics.</b></p> <p><b>Separating the publishing of statistical data from political analyses, assessments and statements, strengthens the principles of timeliness and punctuality, and accessibility and clarity.</b></p> <p><b>Users can clearly distinguish between statistical publishing media and non-expert interpretations of statistics.</b></p>	<p>6a The comments accompanying statistical data are based on statistical, and not on political assessments.</p>	<p>Since the Calendar provides a precise overview of the data that the CBS will publish for the entire statistical year, i.e. a year in advance, it is clear that each publication depends solely on the CBS.</p>
	<p>6b Statistical publishing media do not contain political announcements, political interpretation of data on statistical phenomena or political action plans.</p>	<p>Statistics are never published in connection with any politics or a political statement.</p>
<p><b>7 Strong criticism, misuse and misinterpretation of statistics are systematically commented on.</b></p> <p><b>Criticism, misuse or misinterpretation of statistics can contribute to endangering statistics and the management structures involved in their production. Therefore, to maintain credibility, it is important to be prepared for such cases and have pre-prepared scenarios on how to react to them.</b></p>	<p>7a There is a system for monitoring media releases related to any statistical domain.</p>	<p>The CBS systematically monitors media releases and reacts in a timely manner in cases of unfounded criticism, misuse and misinterpretation of official statistics.</p>
	<p>7b There are instructions for dealing with cases of unfounded criticism, misuse or misinterpretation of statistical data.</p>	
<p><b>8 When errors are detected in published statistical data, they are corrected and announced.</b></p> <p><b>Significant errors are immediately published in the designated place on the CBS website with an estimate of when the corrected statistics will be available.</b></p> <p><b>Errors may happen, and when they do, it is very important to publish, correct and document them. This maintains trust in statistics and statistical integrity.</b></p>	<p>8a For the published statistical data, there is an instruction for handling in cases of publishing errors.</p>	<p>If errors are detected in the published statistical data of the CBS, corrections are published as soon as possible, and information about the errors are published on the CBS website, where the corrections are also published.</p>
		<p>If significant errors occur, the CBS publishes a correction as soon as possible to enable users to use accurate statistical data.</p>
<p><b>9 There is no privileged access to statistical data, all users have equal access to statistical data at the same time.</b></p>	<p>9a No privileged access is granted before the publication of statistical data.</p>	<p>Statistical data are available to all users in the same way and at the same time and are published exactly at 11 a.m. according to pre-announced publishing dates.</p>

GUIDELINES	CRITERIA	EXAMPLES OF GOOD PRACTICE
<p><b>Equal access to statistical data for all users is essential to ensure impartiality.</b></p>	<p>9b Official statistics are transparently developed, produced and disseminated so that all users are approached in the same way.<sup>2</sup></p>	
<p><b>10 The set criteria for the quality of statistics are publicly available on the CBS website.</b></p> <p><b>By establishing and publishing clear criteria for the production of quality statistics, it is emphasised that quality has become a priority in the collection, processing, publication and dissemination of statistics.</b></p> <p><b>Quality statistics provide users with certainty for the successful implementation of analyses and comparisons and the preparation of long-term programme documents.</b></p> <p><b>Making supporting statistical documentation that includes methodological explanations and metadata available strengthens the trust of the public in official statistics, which are developed, produced and disseminated in accordance with the principles of quality of official statistics, such as relevance, accuracy, timeliness and punctuality, coherence and comparability, accessibility and clarity.</b></p>	<p>10a The assessment of methods and processes for the most important statistics and indicators is carried out regularly, and in some cases, with the participation of external experts.</p>	<p>The CBS has published the documentation on quality that gives a clear picture of quality management in the statistical system of the Republic of Croatia.</p>
	<p>10b The CBS continuously works on quality improvements through various EU projects.</p>	<p>The quality section on the CBS website provides users with relevant information.</p>
	<p>10c The CBS continuously monitors and promotes knowledge about quality in statistics and emphasises it as a priority for the successful functioning of official statistics as a whole.</p>	<p>The quality of official statistics is one of the priorities of the CBS, therefore, it is an integral part of the following documents:</p> <ul style="list-style-type: none"> <li>Official Statistics Act (NN, No 25/20)</li> <li>Total Quality Management – TQM</li> <li>Instructions on Quality according to GSBPM Model</li> <li>Development Strategy of Official Statistics of the Republic of Croatia 2021 – 2030 (NN, No 29/22)</li> <li>Programme of Statistical Activities of the Republic of Croatia 2021 – 2027 (NN, No 29/22)</li> </ul>
	<p>10d The CBS exchanges theoretical and practical knowledge in the field of quality at the national and international level.</p>	<p>Quality reports for statistical surveys prescribed by Annual Implementation Plan are generated from the POMI quality database and are published on the CBS website under the Quality section.</p> <p>The structure of quality reports is in accordance with the requirements of producers and users of statistics.</p>

<sup>2</sup> Development Strategy of Official Statistics of the Republic of Croatia 2021 – 2030 (p. 6)

# Statistical Processes



European and other international standards, guidelines and good practices are fully observed in the statistical processes used by the statistical authorities to develop, produce and disseminate European Statistics, while constantly striving for innovation. The credibility of the statistics is enhanced by a reputation for good management and efficiency. The relevant Principles are sound methodology, appropriate statistical procedures, non-excessive burden on respondents and cost effectiveness.

## **PRINCIPLE 7 Sound methodology**

Sound methodology underpins quality statistics. This requires adequate tools, procedures and expertise.

## **PRINCIPLE 8 Appropriate statistical procedures**

Appropriate statistical procedures, implemented throughout the statistical processes, underpin quality statistics.

## **PRINCIPLE 9 Non-excessive burden on respondents**

The response burden is proportionate to the needs of the users and is not excessive for respondents. The statistical authorities monitor the response burden and set targets for its reduction over time.

## **PRINCIPLE 10 Cost effectiveness**

Resources are used effectively.

GUIDELINES	CRITERIA	EXAMPLES OF GOOD PRACTICE
<p><b>11 The comprehensive framework for statistical methods is in line with European and other relevant international standards, guidelines and good practice.</b></p> <p><b>The quality of statistics depends on the methods and processes used in the production process.</b></p> <p><b>The functionality of statistics results from the definitions and classifications that are applied in the same way in all statistical domains.</b></p> <p><b>The reliability of statistics is increased by applying international standards.</b></p> <p><b>Regulations, methodologies, standards and classifications are an integral part of Eurostat's statistical manual (Statistical Requirements Compendium).</b></p>	<p>11a Statistics are prepared using European and international methodological standards.</p> <p>11b In statistical surveys and administrative data sources used for the production of statistics, uniform standards are applied for the coverage, definition of variables, observation units and classifications.</p>	<p>The CBS produces statistics in accordance with EU methodologies and standards, which are specified in Eurostat's statistical manual – Statistical Requirements Compendium.</p> <p>The CBS produces statistics in accordance with the obligations arising from the membership of the Republic of Croatia in the EU, which are specified in the Statistical Requirements Compendium (2021 edition). Therefore, the elaboration of the activities and development goals of the Program of Statistical Activities of the Republic of Croatia (hereafter: the PSA) is structured according to statistical domains in accordance with the subject document<sup>3</sup>.</p> <p>Organisational units dealing with the collection, processing, production and dissemination of statistical data use different software solutions.</p> <p>For the purpose of applying unique standards, a web application was established for the organisation and implementation of statistical surveys prescribed by the Annual Implementation Plan.</p> <p>In addition, CROMETA – Central Metadata Database was created as the core of the system for processing statistical surveys, the so-called Integrated Statistical Information System (ISIS)</p> <p>Furthermore, Metadata Manager application was created for users who are responsible for metadata content, including administrators of the entire CROMETA database and users from expert departments for certain types of metadata.</p> <p>Survey Processor, or popularly called Generator, is a survey processing application that is dynamically connected to the central metadata database, from which information about statistical surveys, persons performing processing, procedures included in processing, data, etc. are loaded.</p> <p>As part of the ISIS system, the Warehouse Browser is also used, which enables the tabulation and browsing of data described in the central metadata database through the Survey Processor application.</p> <p>Part of this complex system is KLASUS, a tool in which all classification versions are kept at one place.</p> <p>In order for the coverage of statistical units in the survey to be complete, the Statistical Business Register is used to create an address book for the implementation of statistical surveys that are conducted using the sampling method.</p>

<sup>3</sup> Programme of Statistical Activities of the Republic of Croatia 2021 – 2027 (p. 7)

GUIDELINES	CRITERIA	EXAMPLES OF GOOD PRACTICE
	11c Concepts, definitions and classifications are documented.	<p>Tasks related to sampling procedures are organisationally established centrally at the CBS level in the organisational unit that is exclusively dedicated to this.</p> <p>All classification versions are stored in KLASUS.</p> <p>The names of current international and national regulations are updated from year to year in the Annual Implementation Plan.</p>
	11d Descriptions of methodologies and processes, as well as other documentation, are continuously revised and updated.	A description according to all GSBPM basic processes and sub-processes was prepared for each statistical survey.
	11e Potential deviations from European and international standards are explained and published.	<p>GSBPM – prepared national version in accordance with good practice as well as Quality Instructions according to the same model.</p> <p>The GSBPM module was developed in the POMI quality database and application.</p> <p>Information for statistical surveys prescribed by the Annual Implementation Plan according to the ESS reporting structures ESMS, ESQRS and SIMS are stored at one place, as well as information on statistical surveys according to the GSBPM.</p>
<p><b>12 Revisions are conducted according to standardised, well-established and publicly announced rules.</b></p> <p><b>New information (new data) lead to the possibility of revising statistics, so that they show more objectively changes in the society. Therefore, it is sometimes necessary to revise statistical data. Revision procedures need to be prepared, organised and applied in a transparent manner, in order to maintain users' trust in official statistics.</b></p>	12a There are guidelines for the revision of the published statistics.	<p>The General Revision Policy of the CBS, which applies to all statistical domains, describes in a transparent and comprehensive manner the revision procedures that further improve the accuracy and reliability of data and increases confidence in official statistics.</p> <p>It is published on the CBS website.</p> <p>In addition, special revision policies for individual statistical domains are prepared, for example, the Revision Policy for the Domain of National Accounts and Government Finance Statistics / Excessive Deficit Procedure Statistics.</p>
	12b Methodological explanations that lead to revisions are presented to users.	The revision of economic classifications is a good example of familiarising users with all stages of the revision via the CBS website and other media. The revisions of international statistical classifications include a comprehensive review of user needs, as well as conceptual bases and user tools related to the development, creation and application of classifications.
<p><b>13 Appropriate methods are used for editing and correcting the observed phenomena, for which the collected data are incomplete.</b></p> <p><b>All processes are regularly checked, revised or updated as necessary.</b></p>	13a Recognised statistical methods are used and tools for achieving appropriate quality are developed.	<p>The CBS processes a large amount of the collected data based on standard procedures, by comparing them with previous reporting periods or similar respondents.</p> <p>The organisational unit in charge of methodologies continuously works on improving methods and applies software solutions necessary for the implementation of the sampling procedure and seasonal adjustments.</p>

GUIDELINES	CRITERIA	EXAMPLES OF GOOD PRACTICE
<p><b>A detailed programme prepared for all processes and sub-processes is one of the prerequisites for achieving a high level of statistical quality.</b></p>	<p>13b Statisticians continuously participate in meetings, seminars, congresses, etc. in order to improve their knowledge, skills and competencies.</p>	<p>The CBS statisticians continuously improve their knowledge, skills and competences by participating in international meetings, seminars and congresses and actively participate in the work of Eurostat working groups.</p>
<p><b>14 The need for new statistics is analysed and evaluated depending on newly created requirements and situations.</b></p> <p><b>Collecting, producing and disseminating statistics requires human, financial and IT resources. In order to ensure adequate resources for the production of statistics, it is essential that the available resources are used efficiently. The utilisation of resources can be monitored by comparing the needs for new statistics with the related production costs.</b></p>	<p>14a Procedures for assessing the needs for new statistics have been established.</p>	<p>When compiling the Annual Implementation Plan, the Statistical Council of the Republic of Croatia discusses the content of the document (type of survey, periodicity, availability of sources), provides comments and suggestions, and finally, approves the document.</p>
	<p>14b The creation of a financial model for estimating the existing and new costs of official statistics is in progress.</p>	<p>Using ESF funds, the plan is to create a software solution that will generate the total cost according to the basic GSBPM processes at the level of a statistical product.</p>
	<p>14c The creation of a financial model is in progress, which will be used to estimate how much the existing statistics contribute to the production of new statistics.</p>	<p>The CBS continuously invests efforts to integrate all the collected statistics, from business, agricultural to social ones, with the aim of preventing double data collection, i.e. ensuring the best use of resources, and taking care to reduce the burden on respondents.</p>
<p><b>15 The costs related to respondents and statistical production are measured and reduced as much as possible.</b></p> <p><b>The production of statistics is aimed at data providers, taking into account that it will result in a minimal burden on their regular work. The costs of official statistics production must be proportionate to the importance of the target result and benefits and resources must be used optimally. Whenever possible, the requested data should be produced based on already existing data sources.<sup>4</sup></b></p> <p><b>If the data required for the production of certain statistics are not available from administrative sources, the collection of data from potential respondents will be organised. By keeping records on the burden (i.e. costs) on respondents, the transparency of production and focus on systematic reduction of the burden on respondents was achieved.</b></p>	<p>15a The burden on respondents is continuously reduced.</p>	<p>The production of statistical data in the CBS is increasingly focused on using administrative data sources.</p>
	<p>15b Earlier data are used as much as possible and to the extent that it can be professionally justified.</p>	
	<p>15c The burden on respondents in the private sector is systematically assessed.</p>	

<sup>4</sup> Development Strategy of Official Statistics of the Republic of Croatia 2021 – 2030 (p. 6)

# Statistical Output



Available statistics meet users' needs. Statistics comply with the European quality standards and serve the needs of European institutions, governments, research institutions, business concerns and the public generally. Output quality is measured by the extent to which the statistics are relevant, accurate and reliable, timely, coherent, comparable across regions and countries, and readily accessible by users, i.e. the Principles of Statistical Output.

## **PRINCIPLE 11 Relevance**

European Statistics meet the needs of users.

## **PRINCIPLE 12 Accuracy and reliability**

European Statistics accurately and reliably portray reality.

## **PRINCIPLE 13 Timeliness and punctuality**

European Statistics are released in a timely and punctual manner.

## **PRINCIPLE 14 Coherence and comparability**

European Statistics are consistent internally, over time and comparable between regions and countries; it is possible to combine and make joint use of related data from different data sources.

## **PRINCIPLE 15 Accessibility and clarity**

European Statistics are presented in a clear and understandable form, released in a suitable and convenient manner, available and accessible on an impartial basis with supporting metadata and guidance.

GUIDELINES	CRITERIA	EXAMPLES OF GOOD PRACTICE
<p><b>16 User satisfaction is monitored simultaneously with monitoring the relevance of existing statistics and new user needs.</b></p> <p><b>The goal of statistics is to establish communication with users as well as to act in accordance with professional independence and maintain impartiality towards all users.</b></p> <p><b>Continuously build an objective and reliable system, respecting the principles of confidentiality of statistical data and cost efficiency.</b></p> <p><b>Users are therefore key to the results of the CBS. Contact and feedback from users enable statistical products and services to remain relevant.</b></p>	<p>16a Constant contact with users was established through User Councils.</p>	<p>The CBS has established several permanent User Councils for individual statistical domains in order to receive feedback from users on the quality and content of statistical data and possible future improvements.</p>
	<p>16b Surveys on user needs are conducted.</p>	<p>The CBS conducts the User Satisfaction Survey.</p> <p>Answers to user requests for data and specific information are prepared.</p>
<p><b>17 Programme documents prescribe activities at an annual and multi-annual level and explain priorities.</b></p> <p><b>Programme documents specify plans for new statistics, as well as the development or amendment of existing statistics, enabling users to plan their own activities and use of statistics accordingly.</b></p>	<p>17a A description of the planned activities and priorities for the following year is published.</p>	<p>In connection with the implementation of strategic goals and plans of the CBS at an annual and multi-annual level, consultation with the interested public is organised.</p>
	<p>17b Annual Work Programme</p>	<p>The Annual Work Program describes in detail the activities and financial resources needed to implement the measures defined in the Implementation Programme.</p>
<p><b>18 Statistics are accurate and disseminated in a timely manner and respecting to publishing deadlines in accordance with European and other international standards.</b></p> <p><b>In order for users to be able to use statistics for the analysis and planning of the development in society, it is important that the statistics are timely. It is important that statistical data are published as planned, so that users can plan their activities accordingly.</b></p> <p><b>Users' trust in official statistics is thus strengthened.</b></p>	<p>18a In order to ensure the timeliness of statistics, standards are prescribed on how long the production should last. Therefore, all relevant European standards for that area are applied.</p>	<p>Publishing dates are specified in the Annual Implementation Plan.</p>
	<p>18b In order to ensure timeliness, the Publishing Programme and the Calendar of Statistical Data Issues are available on the CBS website.</p>	<p>The Calendar is published on the CBS website  <a href="https://dzs.gov.hr/UserDocsImages/dokumenti/02-Kalendar%202022_21.3.2022.pdf">https://dzs.gov.hr/UserDocsImages/dokumenti/02-Kalendar%202022_21.3.2022.pdf</a>.</p> <p>The Calendar for a specific year contains a precise overview of the planned publishing dates of all the statistical data that the Bureau plans to publish for the entire statistical year in advance, depending on the completion of the processing of a particular statistical survey and the possibilities of creating a particular publishing medium.</p>
	<p>18c Deviations from the planned publishing dates are announced in a timely manner on the CBS website.</p>	<p>Any deviation from the announced publishing dates is announced at least three working days before the publishing date on the CBS website, with an explanation of the reasons for the deviation.</p>
<p><b>19 Statistical data are comparable within a reasonable period of time across statistical domains and spatial units.</b></p> <p><b>Statistics should be comparable over time, so that it is possible to</b></p>	<p>19a It is possible to compare statistical data of a certain period of time, and in cases of breaks in time series, methodological explanations are prepared.</p>	<p>The POMI quality database contains descriptions of concepts and it is possible to compare quality indicators by EU user and producer concepts ESMS, ESQRS and SIMS.</p>



GUIDELINES	CRITERIA	EXAMPLES OF GOOD PRACTICE
<p>use statistics to describe and analyse developments in key statistical domains.</p> <p>There will always be a discussion about what is a "reasonable" time frame balancing the timeliness and reliability of statistics.</p> <p>In some cases, changes in the <i>acquis communautaire</i> will affect the new procedure for producing statistics and thus cause them to no longer be comparable with earlier statistics.</p>	<p>19b Statistics can be compared to the similar statistics of other EU Member States.</p> <p>19c The concepts used in statistics for several domains are used consistently to ensure comparability between statistical domains.</p>	<p>The application of European classifications, standards, methodologies and <i>acquis communautaire</i> enables comparison with similar statistics of other EU Member States.</p> <p>Comparability is guaranteed by applying the same concepts.</p>
<p><b>20</b> Statistical data are published in a form that is clear and easily accessible to users, and data and metadata are archived so that publications from earlier years are available.</p> <p>The published statistical data should be understandable and easily accessible to users. The usefulness of statistics is thus increased, which means that users can download statistical data from the website in a computer-readable form.</p> <p>Moreover, statistics should be presented in a user-friendly way (e.g. graphic and cartographic representations, tables, etc.). Access to the published data from earlier years should also be provided.</p>	<p>20a Statistical data are published in an easily accessible form, making them easy to download and reuse.</p> <p>20b All statistical data are available in electronic form.</p> <p>20c Methodological explanations have been prepared for all statistical terms, expressions and statistical data.</p> <p>20d Previously published statistical data are available in archives.</p> <p>20e Good practice is followed when preparing methodological explanations, cartographic representations, graphs, tables, etc.</p>	<p>Statistical data are published in various publishing media on the CBS website.</p> <p>Statistical databases  <a href="https://web.dzs.hr/PX-Web.asp?url=%22Hrv/Archive/stat_databases.htm%22">https://web.dzs.hr/PX-Web.asp?url=%22Hrv/Archive/stat_databases.htm%22</a>  <a href="https://stsbaza.dzs.hr/">https://stsbaza.dzs.hr/</a>            Statistics in Line            (<a href="https://podaci.dzs.hr/hr/statistika-u-nizu/">https://podaci.dzs.hr/hr/statistika-u-nizu/</a>) provides data on relevant statistical domains at one place.</p> <p>Methodological explanations are available and are an integral part of all statistical publications, including the publication of data on the GEOSTAT portal.</p> <p>Released Data Archive is available at <a href="https://web.dzs.hr/arhiva.htm">https://web.dzs.hr/arhiva.htm</a>.</p> <p>Cartographic representations are available on GEOSTAT portal <a href="https://geostat.dzs.hr">https://geostat.dzs.hr</a>, including the metadata catalogue.  <a href="https://geostat.dzs.hr/geonetwork/srv/hrv/catalog.search#/home">https://geostat.dzs.hr/geonetwork/srv/hrv/catalog.search#/home</a></p>
<p><b>21</b> Metadata, i.e. documentation that describes the production of statistics, data sources, statistical methods, quality of statistical processes and products, etc., is published together with statistical data.</p> <p>An explanation and description of the concept of statistics and the quality of those statistics can help users to understand, use, and evaluate the statistics. There are several ways to describe statistics. The use of standardised methods enables the exchange and sharing of metadata.</p> <p>It is particularly important for European statistics, with which metadata can be exchanged in cases where other EU Member States submit similar statistics.</p>	<p>21a A professional and methodological explanation (sources and methods of data collection) is available for each statistical domain.</p>	<p>In the CBS, the Quality Database – POMI contains a description of all statistics produced according to the Annual Implementation Plan, but also key parameters such as relevance, accuracy, timeliness and punctuality, accessibility and clarity, as well as comparability and coherence. The CBS has an appropriate organisational structure that provides guidelines, recommends appropriate methodologies and periodically checks the methods used in statistical processes. The publication of guidelines and manuals is crucial both for informing users and for educating them on new statistical topics.</p> <p>Users are informed about the methodology of statistical processes, concepts and definitions. A brief explanation related to the definitions of the main terms and methodological explanations are available to users for all official statistical data.</p>

GUIDELINES	CRITERIA	EXAMPLES OF GOOD PRACTICE
<p><b>There will always be some uncertainty related to statistics, but the uncertainty should be reduced within a given framework, so that communication with users is as precise and reliable as possible.</b></p> <p><b>We should be constantly aware of the reliability of statistics and constantly try to increase its level of reliability.</b></p> <p><b>For the use of statistics, it can be of great importance to know the sources of data that can improve the level of quality.</b></p>		<p>The CBS continuously prepares and provides even more detailed methodological notes to advanced users of official statistics as well as to researchers in quality reports that are generated from the data on quality entered in the POMI quality database. The POMI quality database is a metadata repository containing detailed textual and numerical data (quality indicators) according to key quality dimensions defined in standard quality reporting structures (ESQRS / ESMS / SIMS). Therefore, it is possible to generate quality reports from the POMI database, which are then published on the CBS website in the Quality section. In addition, information on the introduced innovations and changes that have occurred in statistical surveys are published, for example, on the introduction of new versions of the ISCO, NACE and ISCED classifications, an increase in the sample size, changes to the sample selection framework, etc.</p>
	<p>21b Quality reports contain quality descriptions and numerical quality indicators for every statistical domain.</p>	<p>All publications on the CBS website are published bilingually.</p> <p>The quality database is also prepared bilingually, thus enabling the generation of quality reports in Croatian and English.</p> <p>Bilingualism of the prepared statistics and documentation enables the use of official statistics of the Republic of Croatia by a wide range of users.</p>
	<p>21c Descriptions follow international metadata standards.</p>	<p>In statistical surveys and other activities, classifications are applied according to national and international standards. Classifications, their versions and levels are an important area of metadata and are included in the CROMETA database.</p>

## References

1. Statistical Requirements Compendium, 2021 edition
2. European Statistics Code of Practice for the National Statistical Authorities and Eurostat (EU statistical authority), Luxembourg: Publications Office of the European Union, 2018
3. Naputak o načinu zaštite povjerljivih statističkih podataka u Državnom zavodu za statistiku (NN, br. 78/2021) (Instruction on the Protection of Confidential Statistical Data of the Croatian Bureau of Statistics)
4. Naputak o pravilima i metodama zaštite pri diseminaciji službenih statističkih podataka DZS-a (NN, br. 78/2021.) (Instruction on the Rules and Methods of Protection in the Dissemination of Official Statistical Data of the Croatian Bureau of Statistics)
5. General Revision Policy of the Croatian Bureau Of Statistics, May 2021
6. Implementation of the Total Quality Management Model in the Croatian Bureau of Statistics – TQM
7. Pravilnik o načinu zaštite statističkih podataka (Ordinance on the Statistical Data Protection Method), CLASS: 950-01/04-01/16, REG. NO.: 555-11-01-04-1, of 2 July 2004
8. Ordinance on Media Relations, Croatian Bureau of Statistics, March 2015
9. Pravilnik o pristupu povjerljivim podacima Državnog zavoda za statistiku unutar sustava službene statistike (NN, br. 59/2021.) (Ordinance on Access to Confidential Statistical Data of the Croatian Bureau of Statistics within the Official Statistics System)
10. Program statističkih aktivnosti Republike Hrvatske 2021. – 2027. (NN, br. 29/22) (str. 7 i 10) (Programme of Statistical Activities of the Republic of Croatia 2021 – 2027)
11. Strategija razvitka službene statistike Republike Hrvatske 2021. – 2030. NN, br. 29/22. (str. 6) (Development Strategy of Official Statistics of the Republic of Croatia 2021 – 2030)
12. Instructions on Quality according to GSBPM Model
13. Regulation (EU) No 2015/759 of the European Parliament and of the Council of 29 April 2015, Article 5a
14. Regulation (EC) No. 223/2009 on European statistics
15. Uredba o unutarnjem ustrojstvu Državnog zavoda za statistiku (NN, br. 97/20.) (Regulation on the Internal Organisation of the Croatian Bureau of Statistics)
16. Official Statistics Act (NN, No. 25/20)

## List of links

1. Organisation Chart of the Croatian Bureau of Statistics 2020 Accessed via: <https://dzs.gov.hr/UserDocsImages/slike/organigram-dzs-2020-eng.pdf?vel=345291> (on 6 April 2022)
2. Calendar of Statistical Data Issues 2022 Accessed via: [https://dzs.gov.hr/UserDocsImages/dokumenti/22-kalendar%202022 od 14.11.2022.pdf](https://dzs.gov.hr/UserDocsImages/dokumenti/22-kalendar%202022_od_14.11.2022.pdf) (on 6 April 2022)
3. Statistical Databases. Accessed via: [https://web.dzs.hr/PX-Web\\_e.asp?url=%22Eng/Archive/stat\\_databases.htm%22](https://web.dzs.hr/PX-Web_e.asp?url=%22Eng/Archive/stat_databases.htm%22) (on 6 April 2022)
4. STS Databases. Accessed via: <https://stsbaza.dzs.hr/en> (on 6 April 2022)
5. Statistics in Line Accessed via: <https://podaci.dzs.hr/en/statistics-in-line/> (on 6 April 2022)
6. Released Data Archive Accessed via: [https://web.dzs.hr/arhiva\\_e.htm](https://web.dzs.hr/arhiva_e.htm) (on 6 April 2022)
7. Cartographic representations in the GOSTAT portal. Accessed via: <https://geostat.dzs.hr/geonetwork/srv/eng/catalog.search#/home> (on 6 April 2022)
8. GEOSTAT catalogue. Accessed via: <https://geostat.dzs.hr/geonetwork/srv/eng/catalog.search#/home> (on 6 April 2022)
9. Register of Business Entities. [https://web.dzs.hr/adrRPS\\_e.htm](https://web.dzs.hr/adrRPS_e.htm)