

# PEER REVIEW REPORT

ON COMPLIANCE WITH THE CODE OF PRACTICE AND  
THE COORDINATION ROLE OF THE NATIONAL STATISTICAL INSTITUTE

## REPUBLIC OF CROATIA

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## 1. EXECUTIVE SUMMARY

The National Statistical System (NSS) of the Republic of Croatia consists of the Croatian Bureau of Statistics (CBS), the Croatian National Bank, the Administrative Body of the City of Zagreb and other authorised bodies determined in the Programme of Statistical Activities. The NSS operates on the basis of the Official Statistics Act (OSA), which applies to all national producers of official statistics. The CBS is the central authority for national statistics and the main producer of European statistics in Croatia. CBS headquarters are in Zagreb and there are many regional offices. Major elements of the European statistics Code of Practice (CoP) are enshrined in the OSA, such as professional independence, statistical confidentiality, the mandate for data collection and the right of access to administrative data. It was clear to the Peer Review team that the independence of the CBS is widely recognised and that it enjoys a high level of trust.

The Statistics Council is the advisory body for the NSS. It is intended to represent the voice of users, and its tasks include providing opinions on strategic documents and work programmes. Although in theory the general public can attend Council meetings, in practice the visibility of the Council is poor: information is not published on its membership, meetings or opinions. Council members, in some cases, see themselves as representing the interests of their own organisations rather than being responsible for the NSS as a whole. The Peer Review team recommends a rebalancing of the Council membership, and the publication of Council minutes and opinions. To further strengthen coordination, the Peer Review team also recommends the establishment of a committee of producers of official statistics, as well as the development of national guidelines for the production of official statistics.

The assessment of resources available to the CBS obviously needs to take account of the implications of Croatia becoming an EU Member State in 2013. Since then, the CBS has been facing higher expectations regarding the production of European statistics while at the same time pre-accession assistance has been gradually disappearing. With restrictions on filling vacancies in recent years, the number of staff at the CBS has fallen substantially. There is an imbalance in the age structure and the average age of CBS staff is high. As staffing constraints can adversely affect the production of statistics, the Peer Review team considers that there is a need to ensure that the CBS has sufficient human resources, in terms of level and skills, to meet its obligations in the production of European statistics.

In order to better support budget requirements with evidence, a good knowledge of costs and cost-effectiveness is essential. Since the CBS does not currently use a method for estimating the costs of statistical products and processes, this needs to be addressed.

The documents provided to the Peer Reviewers, and other evidence provided during the peer review visit, indicate that the CBS is committed to quality. Strong legal support is given by the OSA, which incorporates the principles and quality requirements defined in the CoP. The CBS has introduced Total Quality Management (TQM), and the Generic Statistical Business Process Model (GSBPM) is being integrated into the statistical production process. However, the Peer Reviewers consider that coordination within the NSS on quality issues should be reinforced, and that external experts should participate in the auditing of key statistics.

The CBS website needs to be redesigned and updated. Both the CBS and the users share this opinion. The website is not user-friendly, its structure is unclear, navigation is not intuitive and it requires too many clicks to get information. Some technical factors add to the difficulties: an outdated system gives rise to problems for users and makes it difficult to analyse website usage. The content of the website databases should also be extended.

Finally, the Peer Review team identified an innovative practice of the CBS that could benefit the European Statistical System (ESS): the concept of the Integrated Statistical Information System (ISIS) and its associated Database of Quality Information (DBQI).

The Peer Review team recognises the good level of compliance of the CBS with the principles of the CoP on the basis of the detailed documentation supplied and the information provided by the CBS and other participants during the peer review visit. Nevertheless, the Peer Review team has identified some issues where further improvements should be undertaken, falling under the broad themes below. These recommendations are intended to achieve or further enhance compliance with the CoP.

## **RECOMMENDATIONS**

### **Governance**

1. The responsible Croatian authorities should promote legislative amendments laying down clear provisions for the appointment and dismissal of the Director General of the Croatian Bureau of Statistics in line with the European statistics Code of Practice. (European statistics Code of Practice, indicator 1.8.)
2. The responsible Croatian authorities should amend the Official Statistics Act to ensure that the Statistics Council adequately represents the voice of the users of official statistics. (European statistics Code of Practice, indicator 11.1 and Coordination.)
3. The Croatian Bureau of Statistics should provide visibility for the activities of the Statistics Council by publishing Council minutes, opinions and other relevant documentation on its website. (European statistics Code of Practice, Principle 11 and Coordination.)

### **Coordination**

4. The responsible Croatian authorities should amend the Official Statistics Act to establish a committee of producers of official statistics. (Coordination.)
5. The Croatian Bureau of Statistics should provide national guidelines, in line with European standards, for the development, production and dissemination of official statistics, and should set up a system for monitoring compliance with these guidelines. (Coordination.)

### **Resources**

6. The responsible Croatian authorities should ensure that the Croatian Bureau of Statistics has sufficient human resources, in terms of level and skills, to meet its obligations in the production of European statistics. (European statistics Code of Practice, indicators 3.1 and 7.5.)
7. In order to increase the expertise required for producing quality statistics, the Croatian Bureau of Statistics should develop and implement a human resources policy covering continuous training for its staff. (European statistics Code of Practice, indicator 7.6.)
8. The Croatian Bureau of Statistics should develop a mid-term plan for the replacement of the system of branch and regional offices, for example by a system of home-based interviewers or teleworkers. (European statistics Code of Practice, indicators 3.1, 10.2 and 10.4.)
9. The Croatian Bureau of Statistics should introduce a system of procedures and tools to allow the estimation of costs of statistical products and processes. (European statistics Code of Practice, indicator 10.1.)

10. The responsible Croatian authorities should take steps to allow the Croatian Bureau of Statistics to retain earned income. (European statistics Code of Practice, indicator 3.1.)

### **Quality**

11. The Croatian Bureau of Statistics should establish a unit to support quality management within the organisation and to reinforce coordination within the national statistical system on quality issues. (European statistics Code of Practice, Principle 4.)

12. The Croatian Bureau of Statistics should make arrangements for the participation of external experts, where appropriate, when key statistics are being audited. (European statistics Code of Practice, indicator 4.4.)

13. The Croatian Bureau of Statistics should commission a comprehensive security audit of its information technology infrastructure taking international standards into account. (European statistics Code of Practice, indicator 5.5.)

### **User services**

14. The Croatian Bureau of Statistics should redesign its website to improve layout, navigation and usability. (European statistics Code of Practice, indicator 15.2.)

15. The Croatian Bureau of Statistics should extend the coverage of its web databases so that they contain, at least, all of the data in its statistical releases; the data should be available as soon as possible after the release is published, and ideally at the same time. (European statistics Code of Practice, indicator 15.2.)

16. The Croatian Bureau of Statistics should provide improved commentary in its statistical releases, and should ensure that all releases have a well-chosen headline. (European statistics Code of Practice, indicator 15.1.)

17. The Croatian Bureau of Statistics should extend the release calendar to cover the publication of data in its web databases. In cases where there is a delay, an explanation should be provided. (European statistics Code of Practice, indicators 6.5 and 13.4.)

18. The Croatian Bureau of Statistics should publish its policy documents (dissemination policy, confidentiality policy, revisions policy) on its website. (European statistics Code of Practice, indicators 5.4, 8.6 and 15.1.)

19. The Croatian Bureau of Statistics should provide quality reports on its website for all of its statistical products; these reports should conform to international standards, and links to the reports should be provided on the relevant statistic pages. (European statistics Code of Practice, indicators 4.3, 15.6 and 15.7.)

20. The Croatian Bureau of Statistics should improve the service for authorised researchers by providing a remote access facility to microdata, and by supplying appropriate standardised documentation on the datasets and variables. (European statistics Code of Practice, indicators 15.4 and 15.5.)

21. The Croatian Bureau of Statistics should establish standing user groups for key statistical areas. (European statistics Code of Practice, indicator 11.1.)

## **Response burden**

22. The Croatian Bureau of Statistics should extend web-based data collection to all business surveys, where appropriate. (European statistics Code of Practice, Principles 9 and 10.)
23. The Croatian Bureau of Statistics should systematically measure the response burden for all surveys and report annually on the trend. (European statistics Code of Practice, Principle 9.)

## 2. INTRODUCTION

This peer review report is part of a series of assessments, the objective of which is to evaluate the extent to which National Statistical Institutes (NSIs) and the European Statistical System (ESS)<sup>1</sup> comply with the European statistics Code of Practice (CoP).

The CoP, which sets out a common quality framework for the ESS, was first adopted in 2005 by the Statistical Programme Committee and updated in 2011 by its successor, the European Statistical System Committee. The CoP – 15 principles and related indicators of good practice – covers the institutional environment, the statistical production process and the output of European statistics. The ESS is committed to fully complying with the CoP and is working towards its full implementation. Periodic assessments review progress towards reaching this goal.

The first global assessment, a round of peer reviews in 2006–2008, explored how the NSIs and Eurostat were progressing in implementing the parts of the CoP relating to the institutional environment and dissemination of statistics (principles 1–6 and 15). This resulted in reports for each NSI and Eurostat, available on the Eurostat website<sup>2</sup>. These reports also include a set of improvement actions covering all the principles of the CoP; these informed the annual monitoring of the implementation of the CoP in the ESS in the period 2009-2013.

The scope of this second round of peer reviews is broader: the assessment of CoP compliance covers all principles; the CoP compliance of selected other national producers of European statistics (as well as the NSI) in each country is assessed; and the way in which statistical authorities coordinate the production and dissemination of European statistics within their statistical systems is explored.

It should be underlined that there is a fundamental difference between the reports in the previous round of peer reviews conducted in 2006-2008 and the reports from this round. In the 2006-2008 round compliance with principles 1 to 6 and 15 of the CoP was assessed by means of a four-level scale (fully met; largely met; partly met and not met) and improvement actions were agreed on all 15 principles. After five years of continuous development most of the improvement actions have been implemented and significant progress towards full compliance with the CoP has been made. Therefore, rather than stating the state of play for all principles of the CoP, the reports from the 2013-2015 round mainly focus on issues where full compliance with the CoP has not been found or further improvements are recommended by the Peer Review team.

In order to gain an independent view, the peer review exercise has been externalised and an audit-like approach, where all the answers to the self-assessment questionnaires have to be supported by evidence, has been applied. As in 2006-2008, all EU Member States, the EFTA/EEA countries and Eurostat are subject to a peer review.

Each peer review in the Member States and EFTA/EEA countries is conducted by three reviewers and has four phases: completion of self-assessment questionnaires by a country; their assessment by Peer Reviewers; a peer review visit; and the preparation of reports on the outcomes. The peer

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<sup>1</sup> The ESS is the partnership between the Union statistical authority, which is the Commission (Eurostat), the national statistical institutes (NSIs) and other national authorities responsible in each Member State for the development, production and dissemination of European statistics. This Partnership also includes the EFTA /EEA countries.

<sup>2</sup> <http://ec.europa.eu/eurostat/web/quality/first-round-of-peer-reviews>

review of Eurostat has been conducted by the European Statistical Governance Advisory Board (ESGAB).

To test and complete the methodology, it was piloted in two countries, Iceland and Slovakia, over the summer of 2013.

The peer review of the Republic of Croatia was conducted by Ms Ulrike Rockmann (chair), Ms Isabelle de Pourbaix and Mr Adrian Redmond, who conducted a peer review visit to Zagreb on 11-15 May 2015. The programme of the visit is in Annex A and the list of participants in Annex B.

This report focuses on compliance with the CoP and the coordination of European statistics within the Croatian statistical system. The report highlights some of the strengths of the Croatian Bureau of Statistics in these contexts and contains recommendations for improvement. Improvement actions developed by the Croatian Bureau of Statistics (CBS) on the basis of this report will be published within the four-week period starting when the final report is sent to the NSI.



### **3. BRIEF DESCRIPTION OF THE NATIONAL STATISTICAL SYSTEM**

#### **National Statistical System**

The Croatian Bureau of Statistics (CBS) was established by the Act on the Organisation and Scope of Ministries and other Central State Administration Bodies (OG No. 150/2011) as the state administrative organisation responsible for official statistics in the Republic of Croatia.

The Official Statistics Act (OSA) (Consolidated version, OG No. 12/2013) lays down the fundamental principles of official statistics, including professional independence. It defines the quality criteria to be applied, and covers the organisation, status, tasks and coordination of the official statistical system. It states that the CBS is the chief producer, disseminator and coordinator of the official statistical system, and the main representative of the National Statistical System (NSS) internationally. Under Article 41, the CBS has the right to use all administrative data sources, and the holders of administrative data are bound to allow the CBS to assess the content and potential possibilities of data sources. The obligation to follow the CoP is stated in Article 67: *“In meeting international obligations, the producers of official statistics shall achieve comparability with other European countries, abide by and apply international standards and the European Statistics Code of Practice, thus actively participating in the development of official statistics at an international level.”*

#### **Other National Authorities**

Article 7 of the OSA lists the producers of official statistics. These are the CBS, the Croatian National Bank, the Administrative Body of the City of Zagreb, and other authorised bodies determined by the Programme of Statistical Activities. In 2014, these other bodies were the Croatian National Institute of Public Health, the Ministry of the Interior, the Ministry of Finance, the Ministry of Agriculture, the Croatian Environment Agency and the Croatian Regulatory Authority for Network Industries. The CBS has signed Memoranda of Understanding with some of these producers.

The CBS has the coordination and monitoring role in the NSS (OSA, Article 9). According to Article 24 of the OSA, *“The proposal of the Development Strategy of Official Statistics of the Republic of Croatia shall be drawn up by the Croatian Bureau of Statistics in cooperation with the producers of official statistics.”* Similarly, the CBS drafts the Annual Implementing Plan in cooperation with other producers.

#### **Statistics Council**

The Statistics Council is the advisory body for strategic issues concerning official statistics, and is intended to ensure that user needs are taken into account (OSA, Article 16). The Council provides expert opinion and proposals on the Development Strategy of Official Statistics, the Annual Implementation Plan, the Annual Implementation Report and various other matters (OSA, Article 17).

The Council has 19 members (OSA, Article 18). The Director General of the CBS is a member *ex officio*. The other members are nominated by the following institutions and appointed by the Croatian government: the Croatian National Bank, the Ministry of Finance, the Croatian Parliament, state administration bodies, the body of local and regional self-government units, the Croatian Chamber of the Economy, the Employers' Association, trade unions, non-governmental organisations, civil society organisations, the Croatian Chamber of Trades and Crafts, the Ministry of Economy, the Ministry of Entrepreneurship and Crafts, the Ministry of Labour and the Pension System, the Ministry of Regional Development and EU Funds, the State Office for Trade Policy, and

scientific-professional institutions (two members). Members are appointed for five years with the possibility of being reappointed. The Council elects one of its members as president, and meets about once a month.

### **Appointment of the Director General**

According to Article 51 of the Act on the State Administration System (OG No. 150/2011), the Director General of the CBS, being the head of a state administrative organisation, is appointed (and dismissed) by the government based on a proposal of the Prime Minister. The appointment is not for a fixed term.

### **Organisation of the CBS**

The organisational scheme is stipulated in the Regulation on the Internal Organisation of the CBS (OG No. 80/2012). The organisation is structured in eight directorates located in two premises in Zagreb. A further directorate is made up of the 13 regional units and the 34 branch offices.

At the end of 2014, the CBS had 560 employees (full-time equivalents), of which 526 were permanent employees and 34 full-time equivalent temporary interviewers and other staff. The share of staff with a Master's degree or higher was 50%. The average age of the staff was 49. As to the age distribution, 52% were over 50, and 4% under 30.

The CBS is financed through the state budget. The budget allocation in 2014, of about €11,4 million, covered all European and national statistics to be carried out during the reference year, as well as the planned development projects funded by the EU and other sources.

## **4. COMPLIANCE WITH THE CODE OF PRACTICE AND THE COORDINATION ROLE WITHIN THE NATIONAL STATISTICAL SYSTEM**

This section summarises the views of the Peer Review team on the extent of CoP compliance and the nature and effectiveness of coordination within the NSS. It first summarises the strengths of the CBS in these respects (4.1), and then explores specific issues, and provides recommendations that the Peer Review team considers would strengthen compliance with the CoP (4.2).

### **4.1 STRENGTHS OF THE NATIONAL STATISTICAL INSTITUTE IN RELATION TO ITS COMPLIANCE WITH THE CODE OF PRACTICE AND TO ITS COORDINATION ROLE**

The Croatian statistical system underwent many changes over the past few years. The CBS, as the main producer of national and European statistics in Croatia, had to manage most of these changes. The main strategic objectives of the CBS are harmonisation with European procedures and standards, the implementation of a more effective organisational structure and the renewal of its Information Technology (IT) infrastructure. The CBS found its way to cope with these and other challenges and the associated uncertainties. The staff met by the Peer Review team was motivated, and showed high involvement and dedication. (European statistics Code of Practice, Principles 7, 8 and 10.)

The Croatian statistical system operates on the basis of the OSA, which covers the official statistical activities of all national producers. All the main elements of the CoP are stipulated in the OSA, such as professional independence, statistical confidentiality, the mandate for data collection and access to administrative data, as well as the procedures for long- and short-term planning. (European statistics Code of Practice, all Principles.)

Discussions with ministries, researchers, the media and other stakeholders showed that the CBS enjoys a high level of trust. Its independence and impartiality are widely recognised. (European statistics Code of Practice, Principles 1 and 6.)

The CBS is the coordinator of the NSS, as stipulated by the OSA. Accordingly, the CBS is responsible for drafting the strategy and programme documents that govern NSS activities. The Development Strategy of Official Statistics (10-year programme), the Programme of Statistical Activities (covering a 5-year period aligned with the European Statistical Programme) and the Annual Implementing Plan are drafted in cooperation with all other producers of official statistics. In line with the general regulations applying to the Croatian public administration, the drafts are made available for the general public and comments received are integrated into the subsequent discussion before the drafts are finalised. (European statistics Code of Practice, Principle 11 and Coordination.)

The process modelling approach was applied with the introduction of the Generic Statistical Business Process Model (GSBPM), which serves as a structural element for the Integrated Statistical Information System (ISIS). GSBPM implementation was tested with six pilot surveys, and is now being extended to all surveys based on standard documentation for describing statistical processes. (European statistics Code of Practice, Principles 4 and 7.)

The OSA provides all producers of official statistics with a strong mandate to access administrative data for statistical purposes, free of charge. It also determines the obligations of administrative data owners: they must allow assessment of the statistical potential of data sources, and are obliged to give timely notification to the CBS of proposed or planned changes to sources. Moreover, the CBS has the right to recommend methodologies to the holders of data sources in

order to increase the usability of the sources for official statistics. (European statistics Code of Practice, Principle 2 and Coordination.)

The CBS has successfully introduced modern technologies and methods for collecting data, replacing traditional paper-based surveying. These methods include computer-assisted personal interviewing, computer-assisted telephone interviewing and web-based questionnaires. The modification of the collection methods goes along with a modernisation of workflows in the office, transferring tasks from the IT department to the subject-matter units. These developments have resulted in increased efficiencies and a reduction in processing costs, and have benefited both respondents and the CBS. Data quality has improved as a result of the plausibility checks implemented at the point of data entry. (European statistics Code of Practice, Principles 4, 7, 8, 9 and 10.)

The Peer Review team identified the Integrated Statistical Information System (ISIS) and the associated Database of Quality Information (DBQI) as an innovative practice. ISIS allows increasing standardisation, harmonisation and cost-effectiveness, while decreasing the number of tailor-made solutions and bottlenecks in the production process. ISIS covers the entire process chain, which in the CBS is structured according to the GSBPM. Conducive to sustainability and flexibility, the system builds on interfaces using already existing solutions and integrating new ones. The DBQI is the CBS's central application for storing information on quality. It includes all necessary frameworks and tools to produce the standard quality reports in line with ESS standards, and allows comparative analysis of quality indicators. The DBQI was tested successfully in a small number of pilot surveys, and is now being extended to all CBS statistics. (European statistics Code of Practice, Principles 4, 7, 10 and 15.)

## 4.2 ISSUES AND RECOMMENDATIONS

Issues and recommendations are grouped into six themes. Section 4.2.1 deals with overarching topics concerning the bodies responsible for national statistics. Section 4.2.2 deals with aspects related to the coordination of the NSS. Section 4.2.3 considers the availability and use of resources. Section 4.2.4 considers quality matters. Section 4.2.5 considers the needs of users and the service provided to them. Finally, Section 4.2.6 considers aspects related to the burden on respondents.

### 4.2.1 GOVERNANCE

The first section deals with overarching aspects that have an impact on the NSS as a whole. These are related to the appointment procedure of the Director General of the CBS, and the functions and operation of the Statistics Council.

#### 4.2.1.1 APPOINTMENT OF THE DIRECTOR GENERAL

The provisions for the appointment of the Director General of the CBS are covered by Article 51 of the Act on the State Administration System (OG No. 150/2011). This Act regulates public administration in the Republic of Croatia. The Director General, being the head of a state administrative organisation, is appointed and dismissed by the government on the basis of a proposal of the Prime Minister. The current Director General was appointed on this basis in 2013, without a public advertisement for the position. The appointment is not for a fixed term.

This issue was identified previously in the Light Peer Review, in which the CBS participated in 2010 as a candidate country. The subsequent follow-up action plan called for an amendment of the OSA in order to achieve compliance with indicator 1.8 of the CoP, which states that *“The appointment of the heads of the National Statistical Institutes and Eurostat and, where appropriate, of other statistical authorities, is based on professional competence only. The reasons on the basis of which the incumbency can be terminated are specified in the legal framework. These cannot include reasons compromising professional or scientific independence.”*

In 2011, the CBS prepared a proposal for an amendment to the OSA. However, this amendment was not accepted by the Ministry of Public Administration on the grounds of inconsistency with the Act on the State Administration System. Given the work involved in amending the Act, a decision was taken to wait for the amendment of Regulation (EC) No 223/2009 on European statistics, because this would strengthen the argument for revising the basic legal framework in relation to the appointment and dismissal procedure, and the term of office, of the Director General of the CBS.

The revision of Regulation (EC) No 223/2009 took longer than expected, but this has now been resolved. Accordingly, the CBS expects that the national legal framework will be amended before the end of 2015.

To achieve compliance with the CoP, **the Peer Review team recommends that:**

- 1. The responsible Croatian authorities should promote legislative amendments laying down clear provisions for the appointment and dismissal of the Director General of the Croatian Bureau of Statistics, in line with the European statistics Code of Practice. (European statistics Code of Practice, indicator 1.8.)**

#### **4.2.1.2 THE STATISTICS COUNCIL**

The Statistics Council is the advisory body for strategic issues concerning the NSS. Article 16 of the OSA stipulates that *“The Council shall be an advisory and professional body for strategic issues concerning official statistics, and shall be established with the aim of ensuring the influence of users, science and the general public on the Programme.”*

Article 17 lists the tasks of the Council in more detail. The Council gives opinions on strategic documents and working plans as well as their implementation. It also provides opinions and proposals on *“the need to implement censuses, introduce, revise or terminate extensive statistical surveys, infrastructure projects, and the funds necessary for their implementation”*, on the *“proposal of acts and other legal documents, which concern the activities or producers of official statistics”*, on *“cases of nondisclosure of data by bodies that manage administrative data sources”* and on *“the development and promotion of the official statistics system and international cooperation”*.

Besides the tasks defined by the OSA, the Council lists further working areas in its own Rules of Procedure, including:

- coordination of the integrated system of official statistics,
- statistical standards, classifications, nomenclature and definitions, data collection methods and the methodological bases of statistical research,
- establishment of registers and administrative records in the state administration to be used for official statistics purposes,
- issues related to quality assurance and the contents and forms of dissemination of official statistics,
- issues related to data confidentiality and protection as well as the use of official statistics.

The Council has 19 members (OSA, Article 18) and it meets about once a month. The members of the current Council were appointed, or in some cases reappointed, in February 2014. The list of the institutions represented shows a dominance of administrations to the disadvantage of other user groups (Section 3). Accordingly, the Peer Review team proposes a rebalancing of the membership of the Council to more adequately represent the voice of users.

All in all, the Peer Review team formed the impression that, although the legal mandate of the Council is strong, the spirit of the general mandate of Article 16 of the OSA to represent the voice of users is not yet quite implemented. The Peer Review team noted during its meeting with the Council members that, in some cases, they see themselves as representing the interests of their own organisations rather than being responsible for the NSS as a whole. Not all members see the Council as a safeguarding body for protecting the reputation of official statistics in case its independence were to be defended. Based on Council minutes seen by the Peer Reviewers, discussions seem to be detailed rather than broad or strategic.

In order to strengthen the coordination and efficiency of national official statistics, **the Peer Review team recommends that:**

2. **The responsible Croatian authorities should amend the Official Statistics Act to ensure that the Statistics Council adequately represents the voice of the users of official statistics. (European statistics Code of Practice, indicator 11.1 and Coordination.)**

The Statistics Council has no visibility. It has no website. The CBS website provides no information on the Council or its activities. The Council publishes no opinions or any other documents, and no vision or mission statement is available. Minutes of meetings and opinions passed by the Council are available on the CBS intranet, but are not otherwise published. This poor visibility was confirmed by media representatives and by the Council itself. The general public can attend meetings, as long as confidential topics are not being discussed, but this – as far as members recall – has never happened.

In order to strengthen the coordination and efficiency of national official statistics, **the Peer Review team recommends that:**

- 3. The Croatian Bureau of Statistics should provide visibility for the activities of the Statistics Council by publishing Council minutes, opinions and other relevant documentation on its website. (European statistics Code of Practice, Principle 11 and Coordination.)**

## **4.2.2 COORDINATION**

This section considers how communication and coordination across the Croatian statistical system could be improved by establishing a committee of producers of official statistics, and by providing national guidelines for the development, production and dissemination of official statistics.

### **4.2.2.1 COMMITTEE OF PRODUCERS**

According to the OSA, the CBS is the chief producer, disseminator and coordinator of the Croatian statistical system. It has the main coordinating role in preparing the Development Strategy of Official Statistics and in preparing the Programme of Statistical Activities, including the Annual Implementation Plan and the Annual Implementation Report. It also has the task of setting and monitoring standards for other producers of official statistics.

To ensure good coordination at the operational level, and not just at the planning and programming levels, systems need to be in place to allow an effective exchange of information between producers.

Currently, this communication takes place in four ways: discussions on the annual plan and the annual report; formal agreements, in some cases between the CBS and other producers; ad hoc methodological working groups; and bilateral contacts on a case-by-case basis.

In the CBS organisational structure, the coordination unit is the Strategic Development of the Statistical System Department. This unit coordinates the planning and programming of official statistical activities, and ensures that there is close consultation and collaboration when drafting strategies and work programmes. For example, a draft of the Annual Implementation Plan is prepared with the active assistance of all other producers of official statistics. This is a very detailed document, containing structured information on hundreds of statistical activities to be carried out by the CBS and other producers. Consultations on the draft are held with public administration bodies and other users, seeking their suggestions. The Statistics Council gives its view on the document before it is submitted to the government and parliament for final approval.

There are some formal agreements between the CBS and other producers. A Memorandum of Understanding has been signed between the CBS, the Ministry of Finance and the Croatian National Bank on cooperation in the area of national accounts and related statistics. Agreements have also been signed with some other producers, for example in the area of agricultural statistics.



The CBS occasionally sets up ad hoc working groups when significant methodological changes take place. This was done, for instance, when implementing the European System of National and Regional Accounts (ESA 2010), and when implementing major changes in international classifications.

There are many informal bilateral contacts between the CBS and other producers. For example, there is very close methodological coordination between the CBS and the Croatian National Institute of Public Health, the organisation that conducts the European Health Interview Survey.

The Peer Review team agrees that coordination is good, particularly for the annual programme, and that there are many contacts between the CBS and other producers. However, it feels that coordination should be improved by establishing a dedicated forum for the exchange of information between producers of official statistics. It could be argued that the Statistics Council already provides such a forum. Among its 19 members, there are representatives of the Ministry of Finance and the Croatian National Bank. However, most producers of official statistics are not represented. Moreover, the Council is not a coordination body, but acts at a strategic level: it is designed to represent the views of users and to advise the CBS on general issues (OSA, Article 16).

A forum for the producers of official statistics, which could perhaps be called the Coordination Committee or the Committee of Official Statistics, would improve coordination, enhance compliance with the CoP and provide a stronger identity and greater visibility for the NSS. The committee could discuss ESS developments, CoP implementation, relevant training opportunities and quality reporting. It could promote the provision of microdata for research, assess the needs of users, and develop IT tools for official statistics. The committee could also consider the possibility of a more integrated service to users via a single portal to official statistics, a coordinated release calendar and common dissemination tools. The committee should be chaired by the CBS, and the membership should include the heads of the statistical units of each of the other producers. While a legal change is not required for the CBS to set up such a committee, the Peer Review team considers that it would be stronger if there was a statutory basis. Indeed, the CBS has already proposed amending the OSA to set up such a coordination body, and the Peer Review team fully supports this.

To enhance compliance with the CoP, the Peer Review team recommends that:

4. The responsible Croatian authorities should amend the Official Statistics Act to establish a committee of producers of official statistics. (Coordination.)

#### **4.2.2.2 GUIDELINES FOR PRODUCERS OF OFFICIAL STATISTICS**

While statistical cooperation has a strong legal basis, it could be improved at the operational level.

Article 9 of the OSA lists the tasks of the CBS. These include “*Establishing, updating and maintaining methodological bases, [...] monitoring the application of these methodological bases, and providing instructions to other producers of official statistics on the application of the methodology*”, and “*Monitoring and implementing quality control of statistical results*”. However, the CBS has provided little by way of standards or guidelines for other producers to assist them in implementing the CoP. Nor does the CBS monitor their compliance with the CoP.

The CBS provides information on methodology and classifications for other producers, but the Peer Review team considers that it needs to provide further assistance on CoP implementation. Guidelines, in line with the CoP, should be laid down to cover quality and methodology reporting, the treatment of errors, and the handling of revisions, release calendars and dissemination. The CBS should also set up a system for assessing compliance with these guidelines.



The Peer Reviewers were informed that the CBS plans to set up on its website an information repository for the NSS. This could provide a useful means of promulgating the guidelines, and should assist in improving communication and coordination within the system.

To improve overall coordination across the Croatian statistical system, **the Peer Review team recommends that:**

- 5. The Croatian Bureau of Statistics should provide national guidelines, in line with European standards, for the development, production and dissemination of official statistics, and should set up a system for monitoring compliance with these guidelines. (Coordination.)**

### **4.2.3 RESOURCES**

This section considers issues related to the availability and use of resources. According to Principle 3 of the CoP, the resources available to statistical authorities should be sufficient to meet the requirements of European statistics. The assessment of resources available to the CBS needs to take account of the implications of Croatia becoming an EU Member State in 2013. The CBS is now facing higher expectations on the production of European statistics while at the same time technical support gained through pre-accession assistance is gradually disappearing. Moreover, the CBS, like other public bodies, has been affected by budgetary cuts stemming from the global financial and economic crisis.

#### **4.2.3.1 ADEQUACY OF HUMAN RESOURCES**

In terms of financial resources, the CBS has experienced substantial reductions since 2010. Between 2010 and 2013, its budget decreased by 11%. Despite this, the CBS considers that it can meet current statistical needs provided relevant conditions to increase productivity are met, especially optimising the human resources potential.

The CBS in recent years has engaged in an impressive series of fundamental reforms, many providing a significant dividend in terms of cost-effectiveness and data quality. Developments have been particularly intensive in the areas of increased use of administrative data, the implementation of statistical registers and the development of integrated IT solutions to standardise and improve statistical processes (including data collection) and their documentation. As a consequence, there is a growing need for more highly qualified staff with the skills to operate and further develop the new processes. The pressure is particularly acute on IT specialists who have to hand over developed applications and systems to statistical areas and at the same time to continue new developments of the new IT systems and platforms while still maintaining the old production systems.

The public administration has a policy of reducing the level of human resources. There is now an imbalance in the age structure in the CBS: 52% are over 50 and only 4% under 30. The average age of the staff is 49. This could have negative effects in future for the quality and sustainability of statistical production. Some restrictions are in place on the recruitment of new employees and the filling of vacancies. As regards recruitment, competitions are organised for individual posts, and it can take a long time before a post is actually filled. The CBS sometimes cannot place newly recruited employees in positions other than those left vacant. These procedures are partly out of the control of the CBS, but they have an impact on the timely availability of adequately skilled resources to fulfil the obligations of the CBS regarding the production of quality European statistics.

During the peer review, the pressure on resources was underlined by several key users, who consider that the lack of skilled staff affects the quality of services provided by the CBS and generally puts statistics, including European statistics, at risk.

In order to ensure that the CBS can operate in a more productive and effective manner in producing European statistics and thus enhance compliance with the CoP, **the Peer Review team recommends that:**

6. **The responsible Croatian authorities should ensure that the Croatian Bureau of Statistics has sufficient human resources, in terms of level and skills, to meet its obligations in the production of European statistics. (European statistics Code of Practice, indicators 3.1 and 7.5.)**

#### **4.2.3.2 LEVEL OF EXPERTISE**

Within the framework of pre-accession activities, the CBS increased the competency of certain categories of employees directly involved in the areas that the pre-accession programmes focused on. IT professionals, some staff involved in methodological areas such as sampling and seasonal adjustment, and some staff in statistical areas such as national accounts, improved their knowledge and skills through pre-accession assistance.

The priority now should be to maintain and further enhance the level of acquired expertise and to share it to increase the general level of competence across the organisation. Although the CBS has produced a strategic framework for the development of the human resources management system, it has not yet produced a human resources policy that would address continuous vocational training.

During the review, the Peer Review team observed certain imbalances between various staff categories, resulting in insufficient competences in certain areas. Statisticians are not all capable, for example, of producing new statistical tables from their databases, and many younger staff members still see the IT department as the unit responsible for each process that requires some new analysis using IT tools. The fact that IT staff has to perform tasks that others should be able to do hinders their capacity to gain further knowledge on IT methodology and techniques. The overdependence on key staff in specific areas is also a definite risk. The Peer Review team was informed that there is not enough competence on sampling and that the few people with sampling knowledge are under considerable pressure.

Staff members joining the CBS are invited to general training sessions organised by the State School for Public Administration. Specific training on statistical matters has until now been linked to pre-accession projects. In some cases, training sessions, workshops or seminars have been organised on specific topics to share knowledge among CBS staff. The CBS makes much use of the European Statistical Training Programme (ESTP) to further train its staff. In the period 2012-2014, 114 ESTP courses were attended by a total of 232 CBS staff members. In the same period, CBS staff attended 47 Eurostat task force meetings and 7 people were integrated in traineeship programmes of 4-6 months in Luxembourg, Spain or Slovenia within the framework of the Instrument for Pre-Accession Assistance (IPA) programmes.

There is no specific structure in the CBS to broaden staff expertise through regular internal training. The option of increasing staff mobility should be considered in order to increase staff competence and adaptability, though in practice the options are rather limited currently because of resource constraints. It is important for the CBS to increase its staff skills both in specialist statistical areas and in IT (such as the use of Statistical Analysis System (SAS) and PC-Axis software tools, and the generation of statistical tables).

In the light of this, and in order to enhance compliance with the CoP, **the Peer Review team recommends that:**

- 7. In order to increase the expertise required for producing quality statistics, the Croatian Bureau of Statistics should develop and implement a human resources policy covering continuous training for its staff. (European statistics Code of Practice, indicator 7.6.)**

#### **4.2.3.3 REGIONAL OFFICES**

For a relatively small country, a relatively large proportion of CBS staff is distributed in its decentralised units. There are 13 regional offices and 34 branch offices, and these contain a total of 151 full-time equivalent staff, or 27% of the total staff.

This structure is a result of older methods of operation, where the main tasks performed in the regions were linked to data collection activities (business entity-based surveys, household-based surveys and prices collection) and local data dissemination. Such structures are now becoming obsolete in the light of the introduction of new technologies for data dissemination, the increased use of administrative data and the wider use of computer-assisted telephone interviewing and web-based surveys.

While the regional offices are still mainly involved in data collection, this activity does not keep them fully occupied: over 20% are not involved in data collection tasks, and the ones involved are not all working on interviewing on a full-time basis. Indeed, the CBS currently hires 34 full-time equivalent temporary interviewers to supplement the number of regional interviewers.

In the opinion of the Peer Review team, integrating some regional office and branch staff should provide an opportunity to increase the absolute number of qualified staff in the CBS headquarters, in a budget-neutral way, to better meet business objectives. In the broader perspective of evolving ways of working, there is also an opportunity to develop an efficient network of teleworkers involved in interviews or other business that can be conducted from home.

In order to enhance compliance with the CoP and to increase the effective use of resources, **the Peer Review team recommends that:**

- 8. The Croatian Bureau of Statistics should develop a mid-term plan for the replacement of the system of branch and regional offices, for example by a system of home-based interviewers or teleworkers. (European statistics Code of Practice, indicators 3.1, 10.2 and 10.4.)**

#### **4.2.3.4 MONITORING THE USE OF RESOURCES**

During the visit, the Peer Review team noted that the CBS does not currently use tools for estimating the costs of statistical products and processes.

A cost-accounting system was developed and used for EU-funded projects, but that system would require fundamental adaptations to be integrated into the current CBS account management system. Therefore the CBS is not in a position to identify the extent to which available resources have been effectively used, and it cannot support its budget requirements with evidence showing the level of resources that the production of quality official statistics requires.

One of the important pillars of the CBS quality management policy relates to the implementation of the GSBPM model. This provides a potential basis for implementing a cost-accounting system, where resources could be classified according to the main phases of the model.

To improve cost-effectiveness and to further enhance compliance with the CoP, **the Peer Review team recommends that:**

- 9. The Croatian Bureau of Statistics should introduce a system of procedures and tools to allow the estimation of costs of statistical products and processes. (European statistics Code of Practice, indicator 10.1.)**

#### **4.2.3.5 FINANCIAL FLEXIBILITY**

Currently, the CBS cannot retain income earned from the provision of data (including microdata for researchers) or services and must remit all such income to the Ministry of Finance. This works as a counter-incentive to providing a good service because the additional costs involved cannot be covered.

Own-generated income in 2014 amounted to €204,900 which represents 1,8% of the overall CBS budget. The Peer Review team considers that the CBS should be permitted to retain the portion of this income that relates to the customised work it delivers. This would provide an incentive for the CBS to offer a good service to specialist users and researchers.

Some important users are keen to commission tailored services from the CBS. For example, the Croatian National Bank asked the CBS to introduce a new survey on household assets. It would have been willing to pay for the costs of this work, but the CBS was not in a position to dedicate resources to satisfy this request because the income could not be retained. Similarly, researchers complained to the Peer Review team about the difficulties in accessing microdata, noting a lack of incentive on the part of the CBS to promote its greater use.

In order to improve the provision of services to users of official and European statistics, and to enhance compliance with the CoP, **the Peer Review team recommends that:**

- 10. The responsible Croatian authorities should take steps to allow the Croatian Bureau of Statistics to retain earned income. (European statistics Code of Practice, indicator 3.1.)**

#### **4.2.4 QUALITY**

This section considers quality management within the CBS, and the coordination within the NSS on quality issues. It also deals with the auditing of key statistics and of the IT infrastructure.

##### **4.2.4.1 QUALITY MANAGEMENT**

The provisions of the OSA cover the principles and quality requirements of the CoP. The documents provided for the Peer Review, and other evidence given during the Peer Reviewers' visit, indicate that the CBS is committed to quality.

The CBS is intensively engaged in setting up a framework for the development of a system to continuously evaluate and improve the quality of its statistical processes and products. The CBS implemented an important Pre-Accession Assistance (IPA) project called "Technical Assistance in Business Statistics and Quality Documentation". In the framework of this project, the CBS elaborated a draft document on Total Quality Management. This document presents the strategy of the CBS on adherence to quality principles and describes the instruments and tools under development at the CBS to upgrade the quality of its statistical processes and products in line with EU recommendations.

The CBS is progressively incorporating in the Integrated Statistical Information System (ISIS) the applications that are relevant to quality management: a central metadata repository, a metadata manager, a glossary of quality terms, a database of quality indicators, survey processing tools, data browsing and tabulation facilities and a classifications maintenance tool. ISIS represents an efficient centralised tool for standardised quality reporting and monitoring. The associated Database of Quality Information (DBQI) is becoming a key tool for quality assessment, quality documentation and quality reporting for all CBS surveys. While the Peer Reviewers recognise that the CBS focuses on quality, there is not yet an effective system of exchanging good practices across the NSS in relation to quality issues.

The CBS does not have a clearly established structure dedicated to quality management. This task is currently left to different statistical areas. The Peer Reviewers consider that there should be a centralised unit for dealing with all quality management. Such a unit would strengthen quality management within the CBS, and, together with the proposed national guidelines (Recommendation 5), it would help to strengthen quality management across the NSS.

In order to enhance compliance with the CoP, **the Peer Review team recommends that:**

- 11. The Croatian Bureau of Statistics should establish a unit to support quality management within the organisation and to reinforce coordination within the national statistical system on quality issues. (European statistics Code of Practice, Principle 4.)**

#### **4.2.4.2 STATISTICAL AUDITS**

The CBS has an internal audit department, currently consisting of two people, responsible for the implementation of regular financial and statistical reviews. The department follows international auditing standards as well as national regulations and guidelines established by the Ministry of Finance. Internal audits comply with strategic and annual internal auditing plans. The current Strategic Internal Audit Plan covers the period 2014–2016, and annual plans are aligned with this multi-annual strategy following a risk assessment.

When the CBS started implementing quality reviews, activities were mainly focused on financial processes rather than on statistical ones. To date, several statistical outputs have been the focus of auditing activities, and these resulted in audit reports available for internal purposes. The audit reports result in detailed plans for improvement actions.

The Peer Review team feels that the internal audit process should be improved, in the case of the main statistics, by the inclusion of external experts where appropriate.

In order to enhance compliance with the CoP, **the Peer Review team recommends that:**

- 12. The Croatian Bureau of Statistics should make arrangements for the participation of external experts, where appropriate, when key statistics are being audited. (European statistics Code of Practice, indicator 4.4.)**

#### **4.2.4.3 SECURITY AUDIT**

The CBS IT infrastructure is owned and mainly managed by the CBS itself. The central components are located in the two CBS premises in Zagreb. The CBS IT security policy, which is published on the intranet, stipulates the rules for the use of computers. Further documents available are the CBS Ordinance on access to confidential statistical data and documents on physical, technical and organisational IT protection.

The Peer Review team was informed that the systems are constantly monitored by CBS staff, but that no external auditing takes place. Due to the dependence on the continuous availability of the infrastructure, and in the light of other possible risks, the Peer Review team proposes a more systematic approach to IT security monitoring with the involvement of specialist external expertise, possibly in cooperation with the Croatian Information Systems Security Bureau. Ideally, there should be external audits based on international standards, such as COBIT (Control Objectives for Information and Related Technology) or any other generally accepted international standard. Annual priority tasks could be based on a risk analysis.

In order to further enhance compliance with the CoP, **the Peer Review team recommends that:**

- 13. The Croatian Bureau of Statistics should commission a comprehensive security audit of its information technology infrastructure taking international standards into account. (European statistics Code of Practice, indicator 5.5.)**

## **4.2.5 USER SERVICES**

This section considers how the CBS's services could be enhanced through improving its website, extending the range of statistics provided in its web databases, providing improved commentary in statistical releases, extending the use of the advance releases calendar, publishing a wider range of quality reports and other documentation, providing a remote access facility for researchers and establishing user groups for the main statistical areas.

### **4.2.5.1 ACCESSIBILITY AND CLARITY OF STATISTICS**

In April 2015, the CBS conducted a user satisfaction survey. The questionnaire was emailed to key users and other known customers, and was also accessible on the CBS website and via social media. A total of 952 responses were received. Several aspects got a positive rating: for instance, CBS statistics are considered to be of high quality, and users are very satisfied with the service they receive from CBS staff. However, it was clear from the survey that there is a low level of satisfaction with the design, navigation and usability of the website, with users being particularly critical about the limited number of statistics accessible in the web databases. There were 780 responses to the question "What are you most dissatisfied with at CBS?", to which respondents were permitted to tick multiple choices. The vast majority of responses to this question related to the website: 41% chose "Insufficient databases" (i.e. insufficient statistical information available in web database form), 30% chose "No possibility to download data in different formats", 25% ticked "Website is not user-friendly", 21% were dissatisfied with "Publication format", and 21% were dissatisfied with "Website contents".

During the Peer Reviewers' meetings with the media and other stakeholders, the views on the website were mixed and sometimes quite critical. CBS management also agreed that considerable improvement is required.

The Peer Reviewers share the users' views of the CBS website. It is not user-friendly, its structure is unclear, navigation is not intuitive and it requires too many clicks to get to information. Some technical factors add to the difficulties: the site uses frames, which gives rise to usability problems and makes it more difficult to manage the site (for instance, it is not possible to track the use of particular pages, or to provide direct links to particular pages); a Content Management System is not used, making it difficult to manage the site efficiently and effectively; and responsive web design is not used, so that the viewing experience cannot be optimised across devices.



The Peer Reviewers note that there have been some positive developments recently. The new interactive, bilingual release calendar works well and is a good way of getting access to recently published statistics; statistical releases (called “First Releases”) have a clear, consistent layout, with a good mixture of text, tables, graphs and methodology notes, and are published in both Croatian and English; and the CBS makes good use of social media. Despite these improvements, more needs to be done, and the Peer Review team believes that the CBS website should be redesigned to improve its layout, navigation and usability. Account should be taken of the views of users and improvements planned accordingly. If necessary, the CBS should commission external specialist support.

In order to ensure greater accessibility and clarity of statistics and to improve compliance with the CoP, **the Peer Review team recommends that:**

**14. The Croatian Bureau of Statistics should redesign its website to improve layout, navigation and usability. (European statistics Code of Practice, indicator 15.2.)**

The Peer Reviewers also agree with the views from the user survey that insufficient statistical information is available in interactive web databases.

The CBS employs the widely used PC-Axis software (developed originally at Statistics Sweden and now being maintained by the Nordic countries) for disseminating statistics in interactive tables. But only a limited number of statistical areas are covered, and even in these cases the coverage tends to be rather limited. Users commented on the lack of long time series, and of the very limited information available on a regional basis. Entire areas are missing: for example, there is nothing on vital statistics, the labour force survey, the household budget survey, crime or macroeconomic statistics, and virtually nothing on the 2011 Census of Population, Households and Dwellings. The CBS agrees that a wider range of statistical data should be provided in database form, and to this end will arrange training for its statisticians in PX-Edit, the tool developed by Statistics Finland for editing and generating PC-Axis files. The Peer Reviewers consider that the CBS should aim to provide all data in statistical releases, and as far as practicable in other statistical publications, in web database form. Strong central control should be exercised to ensure that the data files are structured in the most useful way from the users’ perspective.

Furthermore, statistics in the databases are published by the CBS later than the corresponding statistics in the releases. The aim should be to publish the material in the releases and databases simultaneously so that users could use the data from either source at the time of publication, according to their needs.

In order to improve compliance with the CoP, **the Peer Review team recommends that:**

**15. The Croatian Bureau of Statistics should extend the coverage of its web databases so that they contain, at least, all of the data in its statistical releases; the data should be available as soon as possible after the release is published, and ideally at the same time. (European statistics Code of Practice, indicator 15.2.)**

The results of statistical surveys are published for the first time in “First Releases”. These releases are therefore a vital component of dissemination, providing the latest information to the media and other users. It is important that they are well-written with suitable commentary and that they tell the story behind the data in an interesting way. If so, they will inform users effectively and are more likely to be used by the media and elsewhere. However, while the First Releases are objective and well laid out in a consistent style, the textual commentary is terse and uninteresting, densely peppered with figures and percentage changes, making the information difficult to digest. The text in successive releases is usually identical, with just the numbers changing. To make the releases more informative and the statistics more widely used, the Peer Reviewers propose that

CBS statisticians carefully examine the data structurally and over time, and find the best way of bringing the statistics to life by telling the story in an interesting way.

Remarkably, the statistical releases from the CBS have no headline. A well-chosen headline will capture attention, encourage users to continue reading and make it more likely that a release gets media attention. The Peer Reviewers consider that the CBS statisticians, having drafted the story behind the figures, should then spend time drawing up an interesting headline to encapsulate the most interesting and newsworthy part of the story.

The CBS makes good use of Twitter. When a statistical release is published, it issues a tweet with a headline, a graphic and a link to the release. However, instead of composing a headline just for a Twitter message, it would be more efficient to create the headline for the release and then to use that headline automatically for the Twitter message.

The CBS should consider providing appropriate training to staff writing releases. They should also consider the possibility of employing a journalist for a period of time to give advice on writing statistical commentary in a newsworthy way.

In order to ensure that its statistics are more widely used and reliably interpreted, and to improve compliance with the CoP, **the Peer Review team recommends that:**

- 16. The Croatian Bureau of Statistics should provide improved commentary in its statistical releases, and should ensure that all releases have a well-chosen headline. (European statistics Code of Practice, indicator 15.1.)**

The CBS provides an interactive advance release calendar on its website. It is published in October and covers publications due for the whole of the following year. It is well-designed and provides an easy way for users to see forthcoming publications and to access recently released data. One can readily see all publications for any day, week or month.

However, the calendar does not cover statistics published in the web databases. As already explained, only part of the statistics in the releases is currently published in the databases, and there is a delay before database publication takes place. Therefore users do not know when information is published in the databases.

The calendar could be improved in one other respect. While the CBS's record on punctuality is very good, very occasionally the calendar deadline cannot be met. When this happens, users are notified at least three days before the original release date and are informed of the new release date, and the original publication date remains visible to users. However, the reason for the delay is not provided.

To enhance compliance with the CoP, **the Peer Review team recommends that:**

- 17. The Croatian Bureau of Statistics should extend the release calendar to cover the publication of data in its web databases. In cases where there is a delay, an explanation should be provided. (European statistics Code of Practice, indicators 6.5 and 13.4.)**

#### **4.2.5.2 IMPROVE THE AVAILABILITY OF DOCUMENTATION AND METADATA**

In the interests of clarity and transparency, certain policy documents should be accessible to users.

The CBS has an internal policy document on dissemination, "Ordinance on the dissemination of official statistical data". This covers dissemination practices, the various types of statistical publication, the role of the release calendar, the communication channels used (including social



media channels), the possibilities for providing custom-made analyses, the rules for correcting errors in published statistics and the extent to which English is used in statistical outputs. This dissemination policy document is not accessible to users.

Similarly, there is internal documentation on the protection of statistical confidentiality during data collection, processing and dissemination, but no confidentiality policy document is accessible to users (apart from documents on the access to confidential statistical data for scientific purposes). This is not in line with indicator 5.4 of the CoP, which states *“Guidelines and instructions are provided to staff on the protection of statistical confidentiality in the production and dissemination processes. The confidentiality policy is made known to the public.”*

The CBS has a revision policy for some subject-matter domains, such as national accounts, short-term business statistics, and Prodcop. While an overall revision policy has been drafted, covering matters such as how seasonally adjusted series should be revised, it is not yet operational or publicly available. The Peer Review team considers that users should have access not just to the revision policy for particular statistics but to the overall revision policy of the CBS.

To improve transparency, and to achieve compliance with the CoP, **the Peer Review team recommends that:**

- 18. The Croatian Bureau of Statistics should publish its policy documents (dissemination policy, confidentiality policy, revisions policy) on its website. (European statistics Code of Practice, indicators 5.4, 8.6 and 15.1.)**

Users should have access to information on quality and methodology conforming to international standards. Currently, quality reports are available for only a few of the CBS’s statistics. Methodology notes are provided in all releases and publications, though they are rather limited and not in a standard form.

The CBS has set up the DBQI, which was demonstrated to the Peer Reviewers during their visit. The DBQI will become the key tool for quality assessment, quality documentation and quality reporting for CBS statistics. The database contains numerical (quality indicators) and descriptive information. It contains an exhaustive list of quality information based on the two ESS structures – the Euro-SDMX Metadata Structure (ESMS) and the ESS Standard for Quality Reports Structure (ESQRS). Since it contains all fields from both structures, it could be used (if all variables are populated) to generate quality and methodology reports based on the Single Integrated Metadata Structure (SIMS) or any subset thereof. The database is now being progressively populated for the different surveys, and a small number of standard quality reports have been published on the CBS website. The reports contain a subset of variables from the DBQI, including the legal basis, classifications, definitions, coverage, scope, sampling and non-sampling errors, level of non-response and imputation, timeliness, comparability and response burden.

The Peer Review team considers that the DBQI should be extended to cover all of the CBS’s statistical outputs. (The CBS plans for full coverage.) The ensuing quality reports should provide a wide range of information on quality and methodology in line with international standards, and users should have ready access to the reports from the statistics web pages.

To enhance compliance with the CoP, **the Peer Review team recommends that:**

- 19. The Croatian Bureau of Statistics should provide quality reports on its website for all of its statistical products; these reports should conform to international standards, and links to the reports should be provided on the pages for the relevant statistics. (European statistics Code of Practice, indicators 4.3, 15.6 and 15.7.)**

### 4.2.5.3 OTHER SERVICES FOR USERS

The CBS provides access for authorised researchers to confidential microdata. This is provided for in the OSA (Article 65), and involves the signing of a special contract between the CBS and a researcher or a research entity. Currently, two methods are used to provide access to microdata. Researchers can go to the safe room in the CBS in Zagreb, or the microdata can be transmitted to the researcher. In the latter case the data are anonymised (using the  $\mu$ -ARGUS software developed by Statistics Netherlands) to protect against unauthorised disclosure. Researchers can access datasets from five household surveys and several business surveys, and the CBS plans to provide researchers with access to microdata from the 2011 Census of Population, Households and Dwellings.

Researchers welcome the option of having access to survey microdata but in the meeting with the Peer Review team they expressed some dissatisfaction with certain aspects of the service provided. They feel that the metadata on the datasets and variables are lacking in detail and are insufficiently standardised. And they expressed a desire to be able to access the data remotely: users who are not from Zagreb find it inconvenient to travel to the capital to access the data in the CBS safe centre. The Peer Reviewers consider that both of these concerns should be addressed. CBS management has informed the Peer Reviewers that it plans to provide a remote access service, and that this will be done when the required security infrastructure has been put in place and tested.

To enhance compliance with the CoP, the Peer Review team recommends that:

20. **The Croatian Bureau of Statistics should improve the service for authorised researchers by providing a remote access facility to microdata, and by supplying appropriate standardised documentation on the datasets and variables. (European statistics Code of Practice, indicators 15.4 and 15.5.)**

User consultation in Croatia takes place in a variety of ways, both formal and informal. The main communication channel is the Statistics Council, though discussions there are (or should be) at a high strategic level. Users also have an opportunity to comment on draft strategies and programmes published on the CBS website. The user survey in April 2015, which was an updated version of a survey first performed in 2013, provided useful feedback and comments from a wide range of users, and the CBS intends to repeat the survey annually. Various working groups exist. There are many bilateral contacts with the main users, and many informal contacts with occasional users.

User groups are set up, very occasionally, on an ad hoc basis, such as when planning for the ESA 2010 change. The Peer Reviewers believe that the CBS should make greater use of user groups. Standing user groups, which might meet once or twice a year, could be established for key statistical areas. These groups could focus on specific statistical topics (such as economic statistics) or on specific categories of users (such as researchers). The groups should comprise major users, which, depending on the area, could include ministries, economists, journalists, and representative organisations. Such groups would provide an effective means for collecting feedback on statistical services and products, including the CBS website, for informing users about quality and methodology reports and other metadata, and for promoting topics for discussion. They could also usefully provide views on CBS proposals to address any concerns expressed in user satisfaction surveys.

To enhance compliance with the CoP, the Peer Review team recommends that:

21. The Croatian Bureau of Statistics should establish standing user groups for key statistical areas. (European statistics Code of Practice, indicator 11.1.)

## **4.2.6 RESPONSE BURDEN**

This section deals with the efficiency of data collection from businesses, and the measuring and reporting of the statistical burden on respondents.

### **4.2.6.1 DATA COLLECTION**

The CBS's strategic plan for 2014–2016 identified electronic data collection as an important method for reducing the reporting burden on businesses. Web-based data collection from businesses has the benefit of increasing efficiency and data quality, and of reducing timeliness and the burden on respondents. Experience shows that respondents prefer computer-assisted web interviewing (CAWI) to paper questionnaires, and thus the perception of response burden is further decreased.

The CBS has made good progress in the use of CAWI for business surveys: increasingly, businesses can provide data using the online application accessible from the CBS website. Currently, CAWI is available for 19 surveys, and it is being extended in line with available resources. Given the considerable advantage of web-based data collection for business surveys, the Peer Review team considers that web-based data collection should be extended to all business surveys, where appropriate.

To enhance compliance with the CoP, the Peer Review team recommends that:

22. The Croatian Bureau of Statistics should extend web-based data collection to all business surveys, where appropriate. (European statistics Code of Practice, Principles 9 and 10.)

### **4.2.6.2 BURDEN MONITORING**

Several CBS activities are concerned with reducing the burden on respondents from completing statistical surveys. The use of administrative data has increased in recent years, and it will increase further over the coming years. Web-based data collection is being extended (Section 4.2.6.1), a register of samples is planned to reduce the burden and spread it more fairly, and some questionnaire testing is taking place.

However, the overall effect on respondents of these measures is not known because the burden is not measured and monitored systematically.

Currently, the burden is measured only for some surveys. This is done by including a question on how long it takes to complete the questionnaire, including the time spent extracting the required information from business files. The averages are calculated (using the median rather than the mean, as occasional extreme responses would distort the estimate) and analysed by responsible line managers. But the burden is not reported. The Peer Reviewers consider that the CBS should estimate the response burden for all statistical surveys, and that it should publish the details on its website.

To enhance compliance with the CoP, the Peer Review team recommends that:

23. The Croatian Bureau of Statistics should systematically measure the response burden for all surveys and report annually on the trend. (European statistics Code of Practice, Principle 9.)

### **4.3 NATIONAL STATISTICAL INSTITUTE VIEWS WHERE THEY DIVERGE FROM PEER REVIEWERS' ASSESSMENT**

CBS has no diverging views from the Peer reviewers' findings.

## ANNEX A: PROGRAMME OF THE VISIT

### CROATIAN BUREAU OF STATISTICS

#### AGENDA

Peer review visit to Zagreb (11 May 2015–15 May 2015)

Time		Programme	Participants
<b>Day 1 – Monday 11 May 2015</b>			
09.00 – 10.15	1	PR team discussion to finalise the preparation of the visit	PR team
10.15 – 10.30	-	Coffee break	
10.30 – 11.45	2	Preparatory meeting with the NSI coordinator team and, possibly, other national participants in the visit to discuss practical aspects of the visit	CBS PR TEAM
11.45 – 12.15	3	Welcome and introduction of programme, organisational matters	CBS PR TEAM
12.15 – 13.00	-	Lunch	
13.00 – 13:45	4	General information session with a description on how the national statistical system is organised (bodies, distribution of responsibilities, relations between authorities)	<i>Opening presentation – The Croatian Statistical System</i> CBS PR TEAM, Andrea Galić Nagyszombaty
13.45 – 15.15	5	The statistical law and related legislation (CoP Principles 1 and 2)	CBS PR TEAM, Nada Pejić, Maja Pekeč, Zrinka Pavlović
15.15 – 15.30	-	Coffee break	
15.30 – 16.30	6	Coordination role of the NSI	CBS PR TEAM, Andrea Galić Nagyszombaty, Maja Pekeč, Nada Pejić, Maja Ledić Blažević
16.30 – 17.30	7	Cooperation	CBS PR TEAM, Zrinka Pavlović, Mario Gavrić, Maja Pekeč, Dubravko Škrlec, Mario Vlajčević, Marianne Iđaković, Nevena Jerak Muravec, Dejan Božić, Milenka Primorac Čačić, Mira Šimanović, Suzana Čajkušić
<b>Day 2 – Tuesday 12 May 2015</b>			
09.00 – 10.30	8	Meeting with main users – ministries and other public/private institutions (including the Central Bank as a user)	CBS PR TEAM, Maja Pekeč MINISTRY OF AGRICULTURE -Jasna Putar, MINISTRY OF LABOUR AND PENSION SYSTEM - Sanja Crnković Pozaić, MINISTRY OF FOREIGN AND EUROPEAN AFFAIRS – Tatjana Vinković, MINISTRY OF FINANCE - Mladen Duliba, Željka Papež, Dinko Pavuna, WORLD BANK - Sanja Madžarević Šujster, CROATIAN ENVIRONMENT AGENCY - Bernarda Rožman, ZAGREBAČKA BANKA - Hrvoje Dolenc, RAIFFEISEN BANK Zrinka Živković –Matijević, Tomislava Ujević, CROATIAN NATIONAL BANK - Vedran Šošić
10.30 – 10.45	-	Coffee break	

Time	Programme	Participants
10.45 - 12.15	9 Meeting with ONAs	CBS PR TEAM, Andrea Galić Nagyszombaty CROATIAN NATIONAL INSTITUTE OF PUBLIC HEALTH - Tomislav Benjak, Tanja Čorić, MINISTRY OF FINANCE - Mladen Duliba, Željka Papež, MINISTRY OF AGRICULTURE/DIRECTORATE OF FISHERY – Damir Grgić, Vedran Kolarić
12.15 - 13.15	Lunch	
13.15 - 14.45	10 Meeting with the Statistics Council	CBS PR TEAM, STATISTICS COUNCIL - Anto Bajo, Jasna Belošević-Matić, Zrinka Debeljak, Mladen Duliba, Igor Jemrić, Emil Kuhtić, Mirjana Rađenović, Blaženka Sečkar, Dario Runtić, Franka Vojnović, Boris Feis
14.45 - 15.00	Demonstration of the DBQI	CBS PR TEAM, Mario Gavrić, Maja Ledić Blažević (NEW SESSION)
15.00 - 17.00	11 Programming, planning and resources, including training (CoP Principles 3, 9 and 10)	CBS PR TEAM, Tihana Cukina, Dubravka Rogić-Hadžalić, Nada Pejić, Andrea Galić Nagyszombaty, Mario Gavrić, Maja Ledić Blažević, Zrinka Pavlović, Mario Vljajčević
<b>Day 3 – Wednesday 13 May 2015</b>		
08.45 - 10.15	12 Dissemination, including user's consultation (CoP Principles 6, 11 and 15)	CBS PR TEAM, Maja Pekeč, Maja Ledić Blažević, Andrea Galić Nagyszombaty, Nada Pejić, Mario Gavrić, Dubravka Rogić-Hadžalić, Milenka Primorac Čačić, Mario Vljajčević; Snježana Varga, Predrag Cvjetičanin, Suzana Čajkušić, Blaženka Vukelić
10.15 - 10.30	Coffee break	
10.30 - 11.30	13 Meeting with main users – media	CBS PR TEAM, Maja Pekeč VEČERNJI LIST - Ljubica Gatarić, SLOBODNA DALMACIJA - Frenki Laušić, NOVI LIST - Branko Podgornik, PRIVREDNI VJESNIK - Igor Vukić
11:30 - 12.30	14 Meeting with main users – scientific community	CBS PR TEAM, Maja Pekeč FACULTY OF ECONOMICS AND BUSINESS - Ksenija Dumičić, Marin Strmota, INSTITUTE OF ECONOMICS - Andrea Mervar, CENTRAL EMPLOYMENT SERVICE AND FACULTY OF LAW - Teo Matković, INSTITUTE OF PUBLIC FINANCE - Ivica Urban INSTITUTE OF SOCIAL SCIENCES IVO PILAR - Nenad Pokos, Ivo Turk
12.30 - 14.00	Official lunch with the CBS	
14:00 - 15.30	15 Meeting with junior staff	Gordana Bogdanović, Maja Dozet, Dario Legčević, Ana-Marija Kolić, Zrinka Lokas, Ana Lekić, Iva Zdravec
15:30 - 15.45	Coffee break	
15.45 - 17.15	16 Meeting with main data providers/respondents	CBS PR TEAM, Zrinka Pavlović, Suzana Čajkušić, Dubravka Rogić- Hadžalić, Milenka Primorac Čačić, Financial Agency – FINA Branka Viduka, MINISTRY OF AGRICULTURE - Jasenka Halapija Vujatović, MINISTRY OF FINANCE TAX ADMINISTRATION - Gordana Marić, Dubravka Medoš, LEDO CROATIA - Saša Košćević, CROATIAN EMPLOYERS' ASSOCIATION - Emil Kuhtić; CROATIAN PENSION INSURANCE INSTITUTE – Damir Salar
<b>Day 4 – Thursday 14 May 2015</b>		
09.00 - 17	17 Confidentiality (CoP Principle 5)	CBS PR TEAM, Ana Beljan Šćuric, Maja Pekeč, Nada Pejić, Dubravko Škrlec, Dario Legčević, Dubravka

Time		Programme	Participants
10.30			Rogić-Hadžalić, Milenka Primorac Čačić, Mario Vlačević; Snježana Varga, Predrag Cvjetičanin, Maja Ledić Blažević, Mario Gavrić
10.30 – 10.45		Coffee break	
10.45 – 11:45	18	Accuracy , reliability, timeliness, punctuality, coherence and comparability (CoP Principles 12–14)	<i>Presentation Development of QM in CBS</i> CBS PR TEAM, Mario Gavrić, Ljiljana Ostroški, Dubravka Rogić – Hadžalić, Mario Vlačević, Maja Ledić Blažević; Ljiljana Ostroški, Maja Pekeč, Blaženka Vukelić, Milenka Primorac Čačić
11.45 – 12.15		Demonstration of ISIS	CBS PR TEAM, Maja Ledić Blažević, Mario Gavrić (NEW SESSION)
12:15 – 13:15		Lunch	
13:15 – 14:00	19	Quality (organisational structure, tools, monitoring, implementation of QM... and discussion) (CoP Principle 4)	<i>Presentation Development of QM in CBS</i> CBS PR TEAM, Mario Gavrić, Ljiljana Ostroški, Dubravka Rogić – Hadžalić, Mario Vlačević, Maja Ledić Blažević; Milenka Primorac Čačić
14.00 – 15.00	20	Methodology, data collection, data processing and administrative data (CoP Principles 2, 7 and 8)	CBS PR TEAM, Mario Gavrić, Nada Pejić, Bojan Kosalec, Zrinka Pavlović, Stjepan Boroš Milenka Primorac Čačić, Dubravko Škrlec, Dubravka Rogić – Hadžalić, Mario Vlačević, Tihana Cukina, Damir Plesac, Suzana Čajkušić, Maja Ledić Blažević, Mladen Krulik, Ljiljana Ostroški, Ana Beljan Šćuric
15.00 – 15.15		Coffee break	
15.15 – 17.00	21	Methodology, data collection, data processing and administrative data (CoP Principles 7 and 8) (Cont'd)	CBS PR TEAM, Mario Gavrić, Nada Pejić, Bojan Kosalec, Zrinka Pavlović, Stjepan Boroš Milenka Primorac Čačić, Dubravko Škrlec, Dubravka Rogić – Hadžalić, Mario Vlačević, Tihana Cukina, Damir Plesac, Suzana Čajkušić, Maja Ledić Blažević, Mladen Krulik, Ljiljana Ostroški, Ana Beljan Šćuric
<b>Day 5 – Friday 15 May 2015</b>			
08.30 – 10.00	22	PR team discussion	PR team
10.00 – 10.15		Coffee break	
10.15 – 11.00	23	Clarifications, remaining or additional issues and focus areas	CBS PR TEAM
11.00 – 13.00		PR team discussion / Lunch	
13.00 – 15.00	24	Meeting with senior management: conclusions and recommendations	CBS PR TEAM, Suzana Čajkušić, Maja Pekeč, Dubravka Rogić – Hadžalić, Irena Malec, Nada Pejić, Milenka Primorac Čačić, Dubravko Škrlec, Andrea Galić Nagyszombaty, Mario Gavrić; Zrinka Pavlović



## ANNEX B: LIST OF PARTICIPANTS

### Peer Review team

Ms Ulrike Rockmann (chair)
Ms Isabelle de Pourbaix
Mr Adrian Redmond

### Eurostat observer

Mr John Allen (Head of Unit, Social statistics - modernisation and coordination, Eurostat/F1)
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### 1. CBS PEER REVIEW TEAM /DELEGATION (CBS PR TEAM)

NAME	FUNCTION
Mr Marko Krištof	Director General
Mr Robert Knežević	Deputy Director General
Mr Darko Jukić	Director, Business Statistics Directorate
Ms Maria Kamenski	Head, International Relations Department
Ms Anica Markusi	Head, Internal Audit Department
Ms Jasna Pugar	Head, Industry, Energy and Information Society Department – (CBS PR coordinator)

### 2.a OPENING PRESENTATIONS ON THE PEER REVIEW MEETING

TITLE	PRESENTER
The Croatian Statistical System	Ms Andrea Galić Nagyszombaty, Head of Strategic Development of Statistical System Department

### 2.b INTEGRATED STATISTICAL INFORMATION SYSTEM (ISIS)

TITLE	PRESENTER
Integrated statistical information system	Ms Maja Ledić Blažević, Head of Information Systems Design and Development Department

### 2.c QUALITY PRESENTATIONS ON THE PEER REVIEW MEETING

TITLE	PRESENTER
Development of the Quality Management System	Mr Mario Gavrić, Head of Statistical Business Register Department/ Deputy Leader of the CBS Working Group for Quality Management

### 2.d OTHER CBS PARTICIPANTS

NAME	FUNCTION
Ms Nada Pejić	Director, Legal, Financial and General Affairs Directorate
Ms Dubravka Rogić - Hadžalić	Director, Social Statistics Directorate
Ms Ana Beljan Šćuric	Head, Classifications, Sampling, Statistical Methods and Analyses Unit
Mr Mario Gavrić	Head, Statistical Business Register Unit/ Deputy Leader of the CBS Working Group for Quality Management
Ms Tihana Cukina	Head, Development and Implementation of Data Collection Methods Department
Ms Ljiljana Ostroški	Head, Publishing Department
Ms Zrinka Pavlović	Head, Statistical Business Register, Classifications, Sampling, Statistical Methods and Analyses Department

Ms Maja Ledić Blažević	Head, Information Systems Design and Development Department
Ms Andrea Galić Nagyszombaty	Head, Strategic Development of Statistical System Department
Ms Maja Pekeč	Director, Customer Relations Directorate
Mr Mario Vlačević	Head, Crime Administration System and Social Protection Statistics Department
Ms Suzana Čajkušić	Director, National Accounts Directorate
Mr Dubravko Škrlec	Director, Information Technology Directorate
Ms Milenka Primorac Čačić	Director, Agriculture, Forestry and Fisheries and Environment Department
Ms Mira Šimanović	Head, Agriculture, Forestry and Fisheries Production Statistics Department
Mr Stjepan Boroš	Senior Advisor - Specialist, Structural Business Statistics Department
Mr Bojan Kosalec	Senior Advisor, Human Resources Unit
Mr Damir Plesac	Senior Advisor, Population Statistics Department
Mr Dario Legčević	Senior Advisor, Classifications, Sampling, Statistical Methods and Analyses Unit
Ms Blaženka Vukelić	Senior IT Advisor, User Communication Department
Ms Marianne Iđaković	Senior IT Advisor, User Communication Department
Ms Nevena Jerak Muravec	Senior IT Advisor, Information Systems Development Unit
Mr Dejan Božić	IT Clerk, Information Systems Design Unit

### 3. CBS JUNIOR STAFF

NAME	DEPARTMENT
Ms Gordana Bogdanović	Agriculture, Forestry, Fisheries and Environment Directorate / Environment, Prices and Economic Accounts in Agriculture and Forestry Statistics Department
Ms Ana-Marija Kolić	Economic Statistics Directorate/National Accounts Department
Mr Dario Legčević	Statistical Infrastructures Directorate / Classifications, Sampling, Statistical Methods and Analyses Unit
Ms Zrinka Lokas	Business Statistics Directorate / External Trade in Goods Statistics Department
Ms Maja Dozet	Business Statistics Directorate / Services Statistics Department
Ms Ana Lekić	Business Statistics Directorate / Services Statistics Department
Ms Iva Zadavec	Business Statistics Directorate / Industry, Energy and Information Society Department

### 4. LIST OF MANAGEMENT AND SENIOR STAFF OF THE CBS TO BE INVOLVED IN THE SESSIONS: CONCLUSIONS AND RECOMANDATIONS

NAME	FUNCTION
Mr Marko Krištof	Director General
Mr Robert Knežević	Deputy Director General
Mr Darko Jukić	Director, Business Statistics Directorate
Ms Suzana Čajkušić	Director, National Accounts Directorate
Ms Dubravka Rogić - Hadžalić	Director, Social Statistics Directorate
Ms Irena Malec	Director, Implementation of Statistical Surveys in Counties
Ms Nada Pejić	Director, Legal, Financial and General Affairs Directorate

Ms Milenka Primorac Čačić	Director, Agriculture, Forestry and Fisheries and Environment Department
Ms Maja Pekeč	Director, Customer Relations Directorate
Mr Dubravko Škrlec	Director, Information Technology Directorate
Mr Mario Gavrić	Head, Statistical Business Register Unit/Statistical Infrastructure Directorate
Ms Zrinka Pavlović	Head, Statistical Business Register, Classifications, Sampling, Statistical Methods and Analyses Department/ Statistical Infrastructure Directorate
Ms Andrea Galić Nagyszombaty	Head, Strategic Development of Statistical System Department
Ms Marija Kamenski	Head, International Relations Department
Ms Anica Markusi	Head, Internal Audit Department
Ms Jasna Puĝar	Head, Industry, Energy and Information Society Department (CBS PR coordinator)

## 5. OTHER PARTICIPANTS TO BE INVOLVED IN THE SESSIONS

Ms Zana Šaškin	Consecutive translator
Ms Blanka Mikuš	Assistant of the Croatian Peer Review Team

## II. EXTERNAL PARTICIPANTS

### 1. ONAs

NAME	INSTITUTION
Mr Tomislav Benjak	Croatian National Institute of Public Health
Ms Tanja Ćorić	Croatian National Institute of Public Health
Mr Mladen Duliba	Ministry of Finance
Ms Željka Papež	Ministry of Finance
Mr Damir Grgić	Ministry of Agriculture/ Directorate of Fishery
Mr Vedran Kolarić	Ministry of Agriculture/ Directorate of Fishery

### 2. MAIN USERS

#### A. MINISTRIES

NAME	MINISTRY
Ms Jasna Putar	Ministry of Agriculture
Ms Sanja Crnković Pozaić	Ministry of Labour and Pension System
Ms Tatjana Vinković	Ministry of Foreign and European Affairs
Mr Mladen Duliba	Ministry of Finance
Ms Željka Papež	Ministry of Finance
Mr Dinko Pavuna	Ministry of Finance

#### B. OTHER PUBLIC/PRIVATE INSTITUTIONS

NAME	INSTITUTION
Ms Sanja Madžarević Šujster	World Bank
Ms Bernarda Rožman	Croatian Environment Agency
Mr Hrvoje Dolenc	Zagrebačka Banka
Ms Zrinka Živković - Matijević	Raiffeisen bank
Ms Tomislava Ujević	Raiffeisen bank

### C. CROATIAN NATIONAL BANK

Mr Vedran Šošić, Vice governor	Croatian National Bank
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### D. MEDIA

NAME	MEDIA
Ms Ljubica Gatarić	Večernji list
Mr Frenki Laušić	Slobodna Dalmacija
Mr Branko Podgornik	Novi list
Mr Igor Vukić	Privredni vjesnik

### E. SCIENTIFIC COMMUNITY

NAME	SCIENTIFIC INSTITUTE
Ms Ksenija Dumičić	Faculty of Economics and Business
Mr Marin Strmota	Faculty of Economics and Business
Ms Andrea Mervar	Institute of Economics
Mr Teo Matković	Central Employment Service, Faculty of Law
Mr Ivica Urban	Institute of Public Finance
Mr Nenad Pokos	Institute of Social Sciences Ivo Pilar
Mr Ivo Turk	Institute of Social Sciences Ivo Pilar

### F. MAIN DATA PROVIDERS/ RESPONDENTS

NAME	DATA PROVIDER/RESPONDENT
Ms Branka Viduka	Financial Agency (FINA)
Ms Jasenka Halapija Vujatović	Ministry of Agriculture
Ms Gordana Marić	Ministry of Finance -Tax Administration
Ms Dubravka Medoš	Ministry of Finance - Tax Administration
Mr Emil Kuhtić	Croatian Employers' Association
Mr Saša Košćević	Ledo CROATIA d.d.
Mr Damir Salar	Croatian Pension Insurance Institute (HZMO)

### 3. STATISTICS COUNCIL

NAME	INSTITUTION	FUNCTION in the institution
Mr Anto Bajo	Institute for Public Finance	Researcher
Ms Jasna Belošević-Matić	Croatian Chamber of Economy	Assistant Director of Financial Institutions, Business Information and Economic Analyses Sector and Head of Macroeconomic Analyses Division
Ms Zrinka Debeljak	Croatian Chamber of Trade and Crafts	Advisor for Statistics and Analysis
Mr Mladen Duliba	Ministry of Finance	Director General of Bureau for Macroeconomic Analyses and Planning
Mr Igor Jemrić	Croatian National Bank	Chief Advisor in the Statistics Area
Mr Marko Krištof	Croatian Bureau of Statistics	Director General
Mr Emil Kuhtić	Croatian Employers' Association	Economic Adviser to the Director General
Ms Darija Magaš	Ministry of Economy	Directorate for Industry, Investments and EU Programmes, Head of Department

Ms Mirjana Rađenović	Ministry of Labour and Pension System	Assistant Minister
Ms Blaženka Sečkar	NGO representative	Head of Finance at GONG
Mr Dario Runtić	Association of Cities	Advisor
Mr Franka Vojnović	Ministry of Regional Development and EU Funds	Head of Sector for Regional Development Policy