

PEER REVIEW REPORT

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

CYPRUS

JEAN-MICHEL DURR

PETER HACKL

TOMAŽ SMREKAR

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1. EXECUTIVE SUMMARY

The Statistical Service of Cyprus (CYSTAT) is the main producer of European statistics in Cyprus, according to the Statistics Law. CYSTAT enjoys a high level of trust and its independence is largely recognised, despite not being enshrined in the law.

Statistical production is still based to a large extent on surveys. All business and household surveys are mandatory, thus ensuring very high response rates. The Statistics Law also provides CYSTAT with access to administrative data. More and more administrative sources are used, which increases the cost-effectiveness of statistical data production.

The Peer Review team identified four broad issues in which compliance with the European statistics Code of Practice (CoP) could be enhanced. These issues are related to strengthening the institutional environment, enhancing cost-effectiveness, developing user orientation and improving dissemination.

The legal framework of the Cypriot Statistical System presents some weaknesses, and the planned revision of the law to comply with the provisions of the recently amended European Statistical Law provides the opportunity to build on its principles to strengthen CYSTAT's independence and establish effective coordination of the National Statistical System (NSS).

The financial crisis in Cyprus had serious consequences for CYSTAT's financial and human resources. Whereas CYSTAT could absorb some of these reductions by rationalising its data collection tools and developing the use of administrative sources, it also had to discontinue some statistical operations and request derogations to delay the implementation of new European obligations. It is therefore of utmost importance to ensure sustainable resources for CYSTAT to fulfil its current and future statistical obligations.

Given the scarcity of its resources, CYSTAT should further develop quality management to enhance its cost-effectiveness, following the principle of continuous improvement in the identification of weaknesses and the search for upgrading processes, outputs and services. CYSTAT's model of statistical production is still largely of the stove-pipe type. More efficiency could be gained by moving to an integrated statistical production model, a movement in which many of the National Statistical Institutes (NSIs) within the European Union are engaged and making progress.

The shortage of CYSTAT resources seems likely to have contributed to a more production-oriented approach rather than a user-oriented one. There is no proper mechanism to consult users of official statistics in Cyprus. A proper platform, such as a User Council, would be useful to better engage with users. In particular, CYSTAT would certainly benefit from strengthening relations with the academic community, to develop the use of statistical information for research purposes.

Dissemination is a domain to which CYSTAT should devote effort, for example to provide a more user-friendly website, accessible to various sizes of device screens, including visualisation tools, and to provide access to detailed statistical data in an interactive way for more advanced users.

Generally, the Peer Review team considers that the NSS of Cyprus is largely compliant with the CoP. The recommendations in this report are intended to further enhance compliance.

RECOMMENDATIONS

Strengthen the institutional environment

1. A new Cypriot Statistics Law should be prepared and adopted to ensure compliance with the recently amended European Statistical Law. This new Law should explicitly mention the professional independence of the Statistical Service of Cyprus, either as a department of the Ministry of Finance or as an independent agency. (European statistics Code of Practice, indicator 1.1.)
2. The new Cypriot Statistics Law should state that the head of the Statistical Service of Cyprus has sole responsibility for deciding on statistical methods, standards and procedures, and on the content and timing of statistical releases. (European statistics Code of Practice, indicators 1.3 and 1.4.)
3. The role of the Statistical Council as an advisory board should be reinforced in the new Cypriot Statistics Law. (European statistics Code of Practice, indicators 7.2 and 15.1.)
4. The working arrangements between the Ministry of Finance and the Statistical Service of Cyprus as regards the professional independence of the latter should be formalised and made public. (European statistics Code of Practice, Principle 1.)
5. Cypriot financial authorities should ensure adequate resources to enable the Statistical Service of Cyprus to fulfil its legal obligations. (European statistics Code of Practice, Principle 3.)
6. The new Cypriot Statistics Law should designate the Statistical Service of Cyprus as the coordinator of the National Statistical System. (European statistics Code of Practice, Principles 1 and 3.)
7. Adequate resources should be allocated for the implementation of coordination of the National Statistical System. (European statistics Code of Practice, Principles 1 and 3.)
8. The Statistical Service of Cyprus should offer its training programme, in particular training related to quality management and reporting, to the staff of other national statistical authorities. (European statistics Code of Practice, Principle 4 and indicator 7.6.)
9. The Statistical Service of Cyprus should establish and maintain a common dissemination portal for official statistics with the contribution of the other national producers, including a common release calendar. (European statistics Code of Practice, Principle 15.)

Enhance cost-effectiveness

10. The Statistical Service of Cyprus should establish a unit explicitly dealing with quality management. The head of the unit should have a high hierarchical standing, reporting directly to the Director of the Statistical Service of Cyprus. The Statistical Service of Cyprus should also establish a Quality Management Committee to regularly discuss needs and potential for improvement in cost-effectiveness and quality. (European statistics Code of Practice, indicator 4.1.)
11. The Statistical Service of Cyprus should adopt quality guidelines which describe in detail the implementation of quality management within the statistical production processes. (European statistics Code of Practice, indicators 4.1 and 4.2.)

12. The Statistical Service of Cyprus should further align its internal organisation with the Generic Statistical Business Process Model for better cost-effectiveness, and for this purpose seek cooperation with other European National Statistical Institutes. (European statistics Code of Practice, Principles 4 and 10.)
13. The Statistical Service of Cyprus should provide users with quality reports for all statistics. Reports should be improved by standardising the format and enhancing the content, where necessary. Producer-oriented quality reports should be made available for internal purposes and for expert users. (European statistics Code of Practice, indicators 4.3, 6.4 and 15.5.)
14. The Statistical Service of Cyprus should extend the training programme for its staff to technical topics, including quality management, taking into consideration the needs expressed in the annual review process. (European statistics Code of Practice, indicators 7.6 and 10.1.)
15. The Statistical Service of Cyprus should foster the circulation of information in the office by strengthening internal communication and conducting regular staff opinion surveys. (European statistics Code of Practice, indicator 10.1.)
16. The Statistical Service of Cyprus should complete formal agreements with all providers of administrative data and develop systematic documentation of these data. (European statistics Code of Practice, indicator 2.2.)
17. The Statistical Service of Cyprus should further develop data collection by Computer Assisted Personal Interviewing, Computer Assisted Telephone Interviewing and e-questionnaires to gain efficiency and data quality. (European statistics Code of Practice, indicators 9.3 and 10.2.)
18. The Statistical Service of Cyprus should supplement its Code of Practice for the Collection, Publication and Storage of Statistical Data with practical guidelines for the staff on the protection of confidentiality in the processes of production and dissemination of statistics. (European statistics Code of Practice, indicator 5.5.)
19. The Statistical Service of Cyprus should further develop a policy for backing up and archiving its statistical data in order to ensure security and preservation. (European statistics Code of Practice, indicators 5.5 and 15.1.)
20. The Statistical Service of Cyprus should assess the risk of disclosure of confidential data stored in its information technology system, which is part of the government administration network, and take appropriate action if needed. (European statistics Code of Practice, indicator 5.5.)

Develop user orientation

21. The Statistical Service of Cyprus should establish a platform for communication with users allowing discussion of users' needs and collection of users' feedback. (European statistics Code of Practice, indicator 11.3.)
22. The Statistical Service of Cyprus should fully adopt the procedure of a fixed-date release of official statistics and disseminate an annual release calendar by November of the previous year. (European statistics Code of Practice, indicator 6.5.)

23. The Statistical Service of Cyprus should establish a revision policy following standard, well-established, transparent procedures and publish it on its website, including a revision calendar to inform users of when revisions of statistical results are planned to be published. (European statistics Code of Practice, indicators 6.6 and 8.6.)
24. The Statistical Service of Cyprus should develop stronger relations with academia, by developing and promoting its service of access to anonymised microdata to researchers, by offering internships to students and by promoting the use of statistical data for research purposes. (European statistics Code of Practice, indicators 7.7 and 15.4.)

Improve dissemination

25. The Statistical Service of Cyprus should upgrade its website as the main dissemination channel, by improving its structure, navigation, design and responsiveness for devices with small screens. (European statistics Code of Practice, Principle 15.)
26. The Statistical Service of Cyprus should develop advanced functionalities on its website to provide access to detailed statistical data in an interactive way. (European statistics Code of Practice, Principle 15.)
27. The Statistical Service of Cyprus should further supplement its statistical products with visualisation such as graphs, maps and info-graphics. (European statistics Code of Practice, Principle 15.)

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)¹ 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 website². 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 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.

¹ 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.

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

The peer review of Cyprus was conducted by Mr Jean-Michel Durr (chair), Mr Peter Hackl, and Mr Tomáš Smrekar, who conducted a peer review visit to Nicosia on 2–6 March 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 Cypriot statistical system. The report highlights some of the strengths of the Cypriot statistical system in these contexts and contains recommendations for improvement. Improvement actions developed by the Statistical Service of Cyprus 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

Legislation

The Statistical Service of Cyprus (CYSTAT) is the competent authority responsible for the compilation and dissemination of most of the official statistical data in Cyprus. Its functions are governed by the Statistics Law, No. 15(I) of 2000 and the Public Service Laws. The Statistics Law specifies, amongst others, the tasks of the Statistical Service and defines its role and function. Although CYSTAT is a department of the Ministry of Finance, as provided by the Statistics Law, it maintains its professional independence and autonomy in technical matters and has exclusive responsibility for the choice of methodology, definitions and procedures for the realisation of the programmes of statistical activities, as well as for the publication of the statistical data produced.

Statistical Council

The Statistics Law establishes a Statistical Council (SC), with the role of providing advice with regard to the preparation and implementation of the programmes of statistical activities. The SC is composed of a Chair (President), who is the Director General of the Ministry of Finance, and ten other members as follows: (a) the Director-General of the Planning Bureau or its representative; (b) the Director-General of the Ministry of Labour and Social Insurance or its representative; (c) the Director-General of the Ministry of Agriculture, Natural Resources and Environment or its representative; (d) the Director of CYSTAT; (e) a representative of the Central Bank; (f) two representatives of the employers' associations; (g) two representatives of the trade union associations; and (h) an academic representative of the University of Cyprus. The President and the other members of the SC must have knowledge of or experience in statistical matters or deal with such matters. They are appointed by the Council of Ministers.

Mission

CYSTAT's mission is to produce and publish accurate, timely and comprehensive statistical information. CYSTAT is mainly concerned with the initiation, organisation and carrying out of various censuses, surveys and statistical enquiries of an economic, social or environmental content and the publication of the results with the intention of satisfying the needs of the government and the private sector in Cyprus as well as the European Union and international organisations.

Head of the Statistical Service

Responsibilities of the Director of CYSTAT as well as qualifications required for the position are not stated in the Statistics Law, but are laid down in the so-called *Service Scheme for the position of the Director of CYSTAT* which, although adopted by the House of Representatives and published in the official gazette of Cyprus, is not referred to in the Statistics Law. The post of the Director of CYSTAT is at the rank usually assigned to heads of government departments and services. The post is not at the level of Director-General, which is a rank reserved only for the permanent secretaries of ministries or semi-government organisations. The procedure for appointment of the Director of CYSTAT is not specified in the Law either, but is the same as that followed for all public officials and is governed by the Public Service Laws. Applicants fulfilling the requirements laid down in the Director's Service Scheme are called for an interview by the Public Service Commission (PSC). The Director is a civil servant and remains in the post until retirement.

Organisational structure

CYSTAT is organised by subject matter on the basis of four main divisions, each headed by a senior statistical official, and three supporting sections. The four statistical divisions are: National Accounts, Public Finance, Foreign Trade and Agriculture; Business Statistics, Energy, Environment, Science and Technology, International Cooperation and Programming; Methodology, Statistical Dissemination, Prices, Labour Market, Labour Cost and Information and Communication Technology Surveys; and Demography, Social Statistics and Tourism. The supporting sections are: Data Processing and Technical Support, Registry, and Accounts. Regarding CYSTAT personnel, there are currently 114 permanent employees working at CYSTAT. Of the 114 permanent employees, 99 are assigned to statistical duties and 15 to administrative duties. Of the 99 who have statistical duties, 82 hold a Bachelor's degree (of which 78 are in a numerical discipline, such as mathematics, statistics, computer science, economics, etc.) and 6 hold other certificates or diplomas from higher education institutions. Two-thirds also hold a Master's degree. 67.5% of the permanent staff is women. The average age is 43.7 years for male staff and 38.5 for female staff.

Official Statistics Work Programme

Subject to the provisions of the Statistics Law, CYSTAT compiles a five-year programme of statistical activities, which includes the surveys or work which will be carried out during this period. The programme is submitted to the Statistical Council for comments and to the Council of Ministers for approval. CYSTAT also prepares an annual programme of statistical activities that further elaborates on the surveys or the work referred to in the five-year programme that will be carried out during the year in question.

National Statistical System (NSS)

A number of other government departments/bodies also produce statistics, specific to their area of competence. CYSTAT works in cooperation and has established regular contacts with them, in particular regarding the procedures for disseminating data to Eurostat. The production of European statistics in Cyprus is highly centralised at CYSTAT with only a few other producers of European statistics. Even though CYSTAT is not explicitly given the coordination role regarding the statistical activities within the NSS, Other National Authorities producing European statistics (ONAs) consider CYSTAT to have the leading role in the NSS. They cooperate with CYSTAT production units on a regular basis for the production of European statistics, mainly seeking methodological advice and guidance.

Dissemination

CYSTAT's dissemination is based on three articles of the Statistics Law, and its statistical products are released in accordance with the Dissemination and Pricing Policy. All statistical products are released on CYSTAT's website at noon, following a release calendar, and releases are announced by an e-mail alert service to registered users and via CYSTAT's Twitter account. CYSTAT's website is available in Greek and nearly all of its content is in the English language, too. Data tables are available in PDF and Excel formats. Methodological information is available in non-standardised format and in structured metadata standards as Euro SDMX Metadata Structure (ESMS) and the ESS Standard for Quality Reports Structure (ESQRS). CYSTAT publishes more than 50 publications every year and all of them are available on its website for free. CYSTAT provides tailor-made statistics and analyses upon user request and provides microdata for research purposes under strict protocols.

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

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

CYSTAT staff represents an important asset and strength regarding its compliance with the CoP. With 114 staff members, CYSTAT is rather small, and the fact that it has 20 vacant positions illustrates the difficult resource situation in which it finds itself at present. However, CYSTAT staff is relatively young: the age-pyramid of the staff shows a proportion of 41% in the age-group 25–35 years. The average age is about 40. Staff members are well-educated: 72% of staff members hold a Bachelor's degree and 59% also hold a Master's degree. During the various sessions and in particular in the meeting with junior staff, the Peer Reviewers got the impression that staff is highly motivated, find their tasks interesting, and are eager to contribute to CYSTAT's goals (European statistics CoP, Principle 3 and indicator 7.5).

Despite the fact that professional independence is not explicitly stipulated in the Statistics Law, the interlocutors during the review visit unanimously recognised that CYSTAT acts with full professional independence. Although CYSTAT is a department of the Ministry of Finance, the various stakeholders, such as representatives of the business world, academia, and the media reported that they have never found any evidence of influence from politics on the contents of CYSTAT's statistical output (European statistics CoP, Principle 1).

Representatives of the business world, academia, and the media also uniformly stressed the high level of professionalism of CYSTAT staff, in particular their readiness to provide users with explanations and unpublished details, attitudes which are well suited to strengthening public trust in CYSTAT's statistical output (European statistics CoP, Principles 6, 7 and 15).

The Statistics Law stipulates the mandatory response of respondents in all surveys, both enterprises and households. This favourable situation is well reflected in the response rates, which in nearly all surveys are above 90%, and in many surveys above 95%. The Statistics Law also ensures that CYSTAT has access to administrative data; the development of a government data warehouse, which will contain a wide range of data from the public administration, will further facilitate the use of administrative data in the near future. This strong basis for collecting data in surveys and for getting access to data from administrative sources gives reason to expect a high level of accuracy and other dimensions of quality of the statistical results (European statistics CoP, Principle 2).

4.2 ISSUES AND RECOMMENDATIONS

This section presents the issues where the Peer Review team considers that the overall level of compliance with the CoP throughout the NSS could be enhanced:

- Strengthen the institutional environment;
- Enhance cost-effectiveness;
- Develop user orientation;
- Improve dissemination.

These issues are discussed with specific recommendations in the following sections of the report.

4.2.1 STRENGTHEN THE INSTITUTIONAL ENVIRONMENT

The legal framework of the Cypriot Statistical System presents some weaknesses that should be corrected. The need to comply with the provisions of the recently adopted amended European Statistical Law provides a unique opportunity for Cypriot official statistics in general, and for CYSTAT in particular, to build on its principles to strengthen CYSTAT's independence and establish effective coordination of the NSS.

The financial crisis in Cyprus had serious consequences for CYSTAT's financial and human resources. Whereas CYSTAT could absorb some of these reductions by improving its cost-effectiveness, for example by rationalising its data collection tools and developing the use of administrative sources, it also had to prioritise some statistical operations and to take advantage of the possibilities to request derogations to delay the implementation of new European obligations. It is therefore of utmost importance to ensure sustainable resources for CYSTAT to fulfil its current and future statistical obligations.

The Statistics Law does not formally provide for the establishment of the NSS, and does not explicitly give CYSTAT the role of coordinator of statistical activities in the country. While cooperation is reported as quite effective, this lack of legal power prevents CYSTAT from playing an effective coordination role, in particular in ensuring that all ONAs follow European quality standards.

This section considers how the institutional environment could be strengthened through:

- Updating the legal framework;
- Ensuring sustainable resources;
- Strengthening coordination of the NSS.

4.2.1.1 UPDATING THE LEGAL FRAMEWORK

The current Cypriot Statistics Law, adopted in 2000, does not provide for the existence of a formalised NSS, and does not refer explicitly to the ESS.

While CYSTAT's statistical independence is currently seen as granted, it is not enshrined in the Statistics Law. Article 12.2(a) of the Law states that "*the Statistical Service maintains its autonomy in technical matters and has exclusive responsibility for the choice of methodology, technique, definitions and procedures for the realisation of the programmes of statistical activities...*", but it does not explicitly refer to the independence of the NSI from political or other external interference in developing, producing and disseminating official statistics. In this regard, CYSTAT's status as a department of the Ministry of Finance raises some questions about the independence of the Statistical Service with regard to political interference. Whereas the Peer Review team did not detect any lack of trust from the stakeholders interviewed, some of them pointed out that the situation would be clearer were CYSTAT an independent agency.

Responsibilities of the head of the Statistical Service of Cyprus as well as the qualifications required for the position are not stated in the Law, but are laid down in the so-called *Service Scheme for the position of the Director of CYSTAT* which, although adopted by the House of Representatives and published in the official gazette of Cyprus, is not referred to in the Statistics Law. The post of Director of CYSTAT is at the rank usually assigned to heads of government departments and services. The post is not at Director-General level, which is a rank reserved for the permanent secretaries of ministries or semi-government organisations. The procedure for the appointment of the Director of CYSTAT is not specified in the Statistics Law either, but is the same

as that followed for all public officials and is governed by the Public Service Laws. The vacant position is advertised in the *Official Journal of the Republic of Cyprus* by the Public Service Commission (PSC), the independent body responsible for all appointments in the public sector. Applicants fulfilling the requirements laid down in the Director's Service Scheme are called for an interview by the PSC. He is a civil servant and remains in the post until retirement.

The Law establishes a Statistical Council (SC), with the role of providing advice with regard to the preparation and implementation of the programmes of statistical activities. The SC is composed of a Chair (President), who is the Director General of the Ministry of Finance, and ten other members as follows: (a) the Director-General of the Planning Bureau or its representative; (b) the Director-General of the Ministry of Labour and Social Insurance or its representative; (c) the Director-General of the Ministry of Agriculture, Natural Resources and Environment or its representative; (d) the Director of CYPSTAT; (e) a representative of the Central Bank; (f) two representatives of the employers' associations; (g) two representatives of the trade union associations; and (h) an academic representative of the University of Cyprus. The President and the other members of the SC must have knowledge of or experience in statistical matters or deal with such matters. They are appointed by the Council of Ministers. Over the years, the role of the SC has evolved from a strictly advisory role to some users' consultation role, although neither role has been formally assigned to the SC nor has the SC's composition been completed to fully represent all categories of Cypriot users. Whereas there is a need to develop users' consultation, as developed in recommendation 21, the role of the SC as an advisory body should be reinforced.

The recent adoption of the EU Regulation amending the European Statistical Law requires Cyprus to revise its national statistical legislation so as to adapt it to the new provisions, for instance concerning the role and conditions of appointment of the head of the NSI.

In the opinion of the Peer Review team, statistical independence, responsibilities of the Director of CYPSTAT as well as the role of the SC need to be clearly regulated in the new statistical law. This includes extending them to the whole NSS.

In order to provide an adequate framework for Cypriot statistics and to ensure compliance with the CoP, the Peer Reviewers recommend that:

- 1. A new Cypriot Statistics Law should be prepared and adopted to ensure compliance with the recently amended European Statistical Law. This new Law should explicitly mention the professional independence of the Statistical Service of Cyprus, either as a department of the Ministry of Finance or as an independent agency. (European statistics Code of Practice, Indicator 1.1.)**
- 2. The new Cypriot Statistics Law should state that the head of the Statistical Service of Cyprus has sole responsibility for deciding on statistical methods, standards and procedures, and on the content and timing of statistical releases. (European statistics Code of Practice, indicators 1.3 and 1.4.)**
- 3. The role of the Statistical Council as an advisory board should be reinforced in the new Cypriot Statistics Law. (European statistics Code of Practice, indicators 7.2 and 15.1.)**

The Peer Review team was told that the working arrangements between the Ministry of Finance and the Statistical Service were neither formalised nor publicly documented; there is no practice of ministerial approval of the content of statistical releases. However, it is the opinion of the Peer Review team that such working arrangements should be formalised and made public.

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

- 4. The working arrangements between the Ministry of Finance and the Statistical Service of Cyprus as regards the professional independence of the latter should be formalised and made public. (European statistics Code of Practice, Principle 1.)**

4.2.1.2 ENSURING SUSTAINABLE RESOURCES

The financial crisis in Cyprus had serious consequences for CYSTAT's resources. In terms of human resources, the number of permanent staff decreased from 133 in 2012 to 114 in 2015 (-14%). In addition, there are 20 vacant positions (or 15% of the total number of positions) that cannot be filled due to the moratorium that has been imposed by law on the recruitment of new staff in the public sector until the end of 2016. Staff retirements will aggravate the deficit further. Available resources for field interviews have shrunk from 215 person-years in 2012 to 120 person-years in 2014 (-44%).

CYSTAT's financial resources have also been reduced over the years due to the economic situation. In 2012, the annual budget of CYSTAT amounted to €11.2 million (including salaries, equipment, travel expenses, and other administrative expenses), while in 2014 the budget was only €7.3 million, a decrease of 35%.

Although CYSTAT's situation is no worse than that of other Cypriot public institutions, it limits seriously its capacity to fulfil its EU obligations as well as to answer users' needs for information. So far CYSTAT has tried to free up resources from some activities and to engage in a rationalisation programme. For example, sampling for all household surveys, previously carried out in each subject matter unit, is now centralised in the methodology unit. A decision was also taken to use only one system for data collection – Blaise. In addition, CYSTAT sought to increase the use of administrative sources. Nevertheless, this was not sufficient to absorb the reduction of resources and CYSTAT had to discontinue some surveys, while keeping European statistics as a priority. For example, the household energy consumption survey, conducted for the first time in 2009 with a three-year frequency, was not repeated. Since this survey now has a legal basis, CYSTAT requested a time-limited derogation of three years. Derogations of two years' duration were also requested regarding environment accounting for all six modules. The adjustment programme should end in 2017, but the financial authorities have not indicated to CYSTAT how resources will be adjusted on this horizon and whether they will allow the Statistical Service to meet national and international requirements. The Peer Review team formed the opinion that this situation bears a high risk for CYSTAT not being able to fulfil its EU obligations once the current derogations have expired. While the Peer Review team considers that CYSTAT should further enhance its cost-efficiency, it also considers that CYSTAT should be resourced adequately.

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

- 5. Cypriot financial authorities should ensure adequate resources to enable the Statistical Service of Cyprus to fulfil its legal obligations. (European statistics Code of Practice, Principle 3.)**

4.2.1.3 STRENGTHENING COORDINATION OF THE NSS

The Statistics Law does not formally provide for the establishment of the NSS, and does not explicitly give CYSTAT the role of coordinator of statistical activities in the country. However, several provisions of the law set the ground for a certain coordination role for CYSTAT. For example, Article 3.2 states that any ministry or service of the government of the republic or of a public corporation shall inform the Director of CYSTAT before conducting a survey; shall use the classification systems used by CYSTAT; and shall observe the same quality principles of suitability, impartiality, reliability, transparency and statistical confidentiality that govern CYSTAT's activities.

Cooperation is reported as effective between CYSTAT and the ONAs. CYSTAT's expertise is recognised among the other producers of official statistics and they frequently seek its methodological guidance, as reported to the Peer Reviewers by the Cyprus Tourism Organisation for example. In some cases, CYSTAT compiles data produced by ONAs, performs controls to check the quality and sends data to Eurostat via the Electronic Data files Administration and Management Information System (eDAMIS), as in the case of data on the causes of deaths produced by the Health Monitoring Unit. Even when the ONAs directly send data to Eurostat, CYSTAT is informed by e-mail.

However, CYSTAT has no clear overview of the compliance of all ONAs with European standards of quality, and ONAs publish quality reports only when required by legal provisions. In the forthcoming process of the revision of the Cypriot Statistics Law, it is envisaged that the coordinating role of CYSTAT within the NSS will be specified, and the Director of CYSTAT given a clear mandate to issue guidelines on quality requirements and ensure that ONAs are aware of those guidelines.

Training courses have been offered to ONAs on eDAMIS and the Statistical Data and Metadata eXchange (SDMX) converter, as well as on the coding of the Statistical classification of economic activities in the European Community (NACE), but CYSTAT does not systematically offer ONAs the opportunity to participate in its internal training. Some of the ONAs interviewed expressed an interest in being invited to such training courses.

In terms of dissemination, there are no uniform guidelines for ONAs, and no common dissemination policy. There is no direct link to the ONAs' websites on CYSTAT's website; only a footnote refers to the original producer of some statistics. It is the opinion of the Peer Reviewers that CYSTAT could enhance the dissemination and accessibility of official statistics by providing a common portal and a common release calendar for the whole NSS.

In order to improve the overall coordination across the NSS, the **Peer Reviewers recommend that:**

- 6. The new Cypriot Statistics Law should designate the Statistical Service of Cyprus as the coordinator of the National Statistical System. (European statistics Code of Practice, Principles 1 and 3.)**
- 7. Adequate resources should be allocated for the implementation of coordination of the National Statistical System. (European statistics Code of Practice, Principles 1 and 3.)**
- 8. The Statistical Service of Cyprus should offer its training programme, in particular training related to quality management and reporting, to the staff of other national statistical authorities. (European statistics Code of Practice, Principle 4 and indicator 7.6.)**
- 9. The Statistical Service of Cyprus should establish and maintain a common dissemination portal for official statistics with the contribution of the other national producers, including a common release calendar. (European statistics Code of Practice, Principle 15.)**

4.2.2 ENHANCE COST-EFFECTIVENESS

Given CYSTAT's difficult situation with respect to personnel resources, the optimal use of these resources is of utmost importance. The Peer Reviewers saw potential for improving efficiency and enhancing cost-effectiveness.

Among this potential the further development of quality management within CYSTAT is the most promising. Quality management encompasses all elements of the organisation, and follows the principle of continuous improvement in the identification of weaknesses and the search for upgrading processes, outputs and services.

Another potential for enhancing cost-effectiveness is the change from a stove-pipe type of statistical production to integrated statistical processes, a movement in which most of the NSIs within the European Union are engaged and making progress. This conversion is not an easy task, but the future architecture of the statistical processes will certainly be much more efficient than the traditional one.

Other potential includes standardisation of quality reports both for users and experts within and outside of CYSTAT, amendment of the training programme, and more structured and user-friendly internal communication.

This section discusses further how cost-effectiveness could be enhanced through:

- Developing quality management;
- Improving data collection;
- Strengthening statistical confidentiality and data security.

4.2.2.1 DEVELOPING QUALITY MANAGEMENT

The Five-year Programme of Statistical Surveys and Activities 2013–2017 mentions a number of activities that indicate CYSTAT's commitment to ensuring the quality of statistics. Besides projects related to the utilisation of administrative data and to the development of electronic devices for data collection, the establishment of a quality management system is on the agenda. These activities are managed by CYSTAT's methodology unit, but the name of this unit does not indicate such responsibility and a quality coordinator post has not yet been explicitly established.

Given the severe difficulties for CYSTAT caused by scarce personnel resources, quality management could be a suitable means of coping with the tough staff situation and could help increase the efficiency of available resources.

An overarching principle of quality management is continuous improvement, implying the steady lookout for potential to enhance the quality of processes and products. Such potential can be found in relations with customers, in the management of staff, in interactions with respondents, and in the organisation of statistical processes. Most of the improvements result in more efficient use of resources and, consequently, in higher cost-effectiveness.

CYSTAT needs an organisational structure which:

- (a) Clearly assigns the responsibility for quality management to a senior expert within CYSTAT who acts as the Quality Coordinator and is the head of the Quality Unit;
- (b) Gives a Quality Management Committee the function of a steering task force with the role of identifying potential for improvements.

The Quality Coordinator needs to have a high hierarchical standing, reporting directly to the Director of CYSTAT. The members of the Quality Management Committee must be senior experts who know CYSTAT very well from being staff members through many years in various functions and positions. It is recommended also to include a representative of the junior staff who might bring in fresh views. The Quality Management Committee, composed of three to five experts chaired by the Quality Coordinator, should conduct their brainstorming-like sessions several times a year. The Quality Unit should coordinate all activities which are necessary to implement the decisions taken or recommended by the committee. With this infrastructure, CYSTAT will profit from the systematic identification of weaknesses and the implementation of improvement actions, continuously gaining in cost-effectiveness of statistical production and the improved quality of statistical products and services.

According to the ESS Quality Assurance Framework, CYSTAT should have quality guidelines on how to implement quality management within the statistical production process. Developing and complying with such guidelines helps improve the efficiency of statistical processes. Such guidelines are also an important tool for ensuring the consistently high quality of statistical products. The guidelines facilitate the work of the line departments, including the training of new staff, and demonstrate to users of the statistical products that CYSTAT is aware of and striving for compliance with the European statistics Code of Practice.

To further enhance compliance with the CoP, the **Peer Reviewers recommend that:**

- 10. The Statistical Service of Cyprus should establish a unit explicitly dealing with quality management. The head of the unit should have a high hierarchical standing, reporting directly to the Director of the Statistical Service of Cyprus. The Statistical Service of Cyprus should also establish a Quality Management Committee to regularly discuss needs and potential for improvement in cost-effectiveness and quality. (European statistics Code of Practice, indicator 4.1.)**
- 11. The Statistical Service of Cyprus should adopt quality guidelines which describe in detail the implementation of quality management within the statistical production processes. (European statistics Code of Practice, indicators 4.1 and 4.2.)**

The implementation of the Generic Statistical Business Process Model (GSBPM) is perhaps the most promising project for enhancing CYSTAT's cost-effectiveness. Standardised tools for all steps of the statistical process allow automation on all levels from data collection to the production of reports. This will result in improved quality of the statistical products and reduction in the need for human interventions during the statistical processes. The experience of other NSIs shows that the efforts needed for the implementation of GSBPM are tremendous and that its implementation is rather a long-term project. Consultation of other NSIs, exchange of experience, cooperation with a partner institution and a careful planning of the implementation in a number of phases are necessary to implement the GSBPM, in particular for a small NSI like CYSTAT.

To further enhance compliance with the CoP, the **Peer Reviewers recommend that:**

- 12. The Statistical Service of Cyprus should further align its internal organisation with the Generic Statistical Business Process Model for better cost-effectiveness, and for this purpose, seek cooperation with other European National Statistical Institutes. (European statistics Code of Practice, Principles 4 and 10.)**

CYSTAT has produced quality reports for many of its statistical products, mostly following the ESMS and the ESQRS. The reports, available on the CYSTAT website and also on the Eurostat website, contain information requested by Eurostat in order to assess whether the NSIs comply with the related EU regulations. The quality reports are also valuable information for users who need

relevant metadata to understand the statistics and assess their quality. Producer-oriented quality reports cover additional information, giving more details on all stages of the statistical production process; they are needed for internal purposes and may also be requested by advanced users. The preparation of a producer-oriented quality report implies the detailed analysis of all steps of the related statistical process; it is an excellent means of identifying potential for improving the statistical process. Such improvements may refer to quality dimensions of the statistical product, but more important are the improvements that lead to a more efficient production of the statistics.

To further enhance compliance with the CoP, the **Peer Reviewers recommend that:**

- 13. The Statistical Service of Cyprus should provide users with quality reports for all statistics. Reports should be improved by standardising the format and enhancing the content, where necessary. Producer-oriented quality reports should be made available for internal purposes and for expert users. (European statistics Code of Practice, indicators 4.3, 6.4 and 15.5.)**

The well-educated staff has already been mentioned as one of CYSTAT's strengths. As a supplement to this strong basis, CYSTAT has to ensure that the skills needed to achieve the business objectives are developed, and aim at having a sustainable statistical capacity within CYSTAT for the longer term. An annual review process is in place in CYSTAT, resulting in a list of training needs. However, in recent years, the offer of training courses has been rather limited. The results of the annual review process should be incorporated into individual personal development plans and into CYSTAT's annual training plan. Training evaluation procedures should be used to help monitor the quality of training and its value against business needs. In particular, the training programme should cover courses on quality management.

To further enhance compliance with the CoP, the **Peer Reviewers recommend that:**

- 14. The Statistical Service of Cyprus should extend the training programme for its staff to technical topics, including quality management, taking into consideration the needs expressed in the annual review process. (European statistics Code of Practice, indicators 7.6 and 10.1.)**

The Peer Reviewers noted that internal communication within CYSTAT is based (a) on e-mails circulated by the top management on one hand, and (b) on informal chats between staff members on the other. This mode of information is very costly and these information channels cannot be considered efficient tools. An improvement and strengthening of the internal communication, such as setting up an intranet or a corporate social network, would allow easy efficiency gains. In this context, staff opinion surveys are also to be mentioned. They would be an excellent means of analysing the attitudes and sentiments of the personnel with respect to the organisation, allowing deeper insights into problems and potential, thereby resulting in better motivation and higher efficiency of the staff.

To further enhance compliance with the CoP, the **Peer Reviewers recommend that:**

- 15. The Statistical Service of Cyprus should foster the circulation of information in the office by strengthening internal communication and conducting regular staff opinion surveys. (European statistics Code of Practice, indicator 10.1.)**

4.2.2.2 IMPROVING DATA COLLECTION

The Statistics Law explicitly stipulates that CYSTAT has free access to the administrative records of public institutions. The Statistics Law also stipulates the obligation of public institutions to provide CYSTAT with any information or material that is necessary for or which will be used in the production of statistics. This obligation is in some cases provided in a specific legislation. CYSTAT has developed close and friendly relations with many owners of administrative data; such relations are the basis for the efficient support of CYSTAT by these entities. Nevertheless, CYSTAT needs to sign formal agreements with the providers of administrative data in order to secure the sustainability of these relations. Such agreements should include a systematic documentation of the data and a procedure for adapting the data transmission to changes in content and availability of the administrative data.

CYSTAT started rather early to implement modern devices for data collection. Household surveys are conducted using netbooks and Blaise, consisting of an electronic questionnaire installed on a netbook. For the 2011 population and housing census, the Cyprus Blaise Integrated Census System (CY-BICS) was implemented. CYSTAT also started to use Blaise in business surveys. These devices are used both in face-to-face and in telephone interviews. The gains in quality of the statistical products and in the efficiency of the statistical process from using modern devices for data collection like Computer Assisted Personal Interviewing (CAPI), Computer Assisted Telephone Interviewing (CATI) and electronic questionnaires are evident. The further development of electronic questionnaires for business surveys will be advantageous for cost reduction and improved efficiency.

To further enhance compliance with the CoP, the **Peer Reviewers recommend that:**

- 16. The Statistical Service of Cyprus should complete formal agreements with all providers of administrative data and develop systematic documentation of these data. (European statistics Code of Practice, indicator 2.2.)**
- 17. The Statistical Service of Cyprus should further develop data collection by Computer Assisted Personal Interviewing, Computer Assisted Telephone Interviewing, and e-questionnaires to gain efficiency and data quality. (European statistics Code of Practice, indicators 9.3 and 10.2.)**

4.2.2.3 STRENGTHENING STATISTICAL CONFIDENTIALITY AND DATA SECURITY

CYSTAT has developed the Cypriot Code of Practice for the Collection, Publication and Storage of Statistical Data. The Code describes in detail the legal framework for statistical confidentiality, followed by issues related to statistical confidentiality in data collection, rules of disclosure control, and issues relevant to the storing of personal data. The annex of the Code has a solemn statement that each staff member has to sign. In addition, the Strategic Plan for Quality and the Dissemination and Pricing Policy of the Statistical Service of Cyprus contain relevant statements and outline the principles governing statistical confidentiality.

It is the Peer Reviewers' opinion that guidelines about appropriate methodologies for data protection and for ensuring confidentiality would be useful and helpful for the staff as they need guidance for the practical application of the principles of statistical confidentiality. Such guidelines should cover the production and the dissemination process.

CYSTAT's situation with respect to the use and the maintenance of information technology (IT) equipment is rather uncommon. With the exception of the PCs on the desks of the statistical experts, CYSTAT's IT equipment belongs to the Department of Information Technology Services

(DITS) of the Ministry of Finance, which is also in charge of maintaining the system and application software. Two DITS staff members work for CYSTAT and have their desks within CYSTAT. As a consequence, the statistical data collected and processed by CYSTAT are stored and archived on computers which are administered according to standards provided by the DITS that are common to all government entities. The computers used by CYSTAT are protected by means of user passwords, a firewall and antivirus programmes. It was not possible for the Peer Reviewers to assess the risk of disclosure of confidential data stored on this IT system. In addition, the Peer Review Team noted the lack of a policy for the storing and archiving of statistical data. Detailed corresponding guidelines would be useful for the staff to ensure security and preservation.

To further enhance compliance with the CoP, the **Peer Reviewers recommend that:**

- 18. The Statistical Service of Cyprus should supplement its Code of Practice for the Collection, Publication and Storage of Statistical Data with practical guidelines for the staff on the protection of confidentiality in the processes of production and dissemination of statistics. (European statistics Code of Practice, indicator 5.5.)**
- 19. The Statistical Service of Cyprus should further develop a policy for backing up and archiving its statistical data in order to ensure security and preservation. (European statistics Code of Practice, indicators 5.5 and 15.1.)**
- 20. The Statistical Service of Cyprus should assess the risk of disclosure of confidential data stored in its information technology system, which is part of the government administration network, and take appropriate action if needed. (European statistics Code of Practice, indicator 5.5.)**

4.2.3 DEVELOP USER ORIENTATION

It is likely that the scarcity of CYSTAT resources has contributed to a more production-oriented rather than a user-oriented approach. In addition, there is no direct requirement for user consultation in the Statistics Law. As mentioned earlier, the SC established by Statistics Law has the role of providing advice, opinions and suggestions with regard to the preparation and implementation of the programmes of statistical activities, but due to the absence of a user forum, it also serves as a user consultation mechanism, even though it is not representative in terms of all components of Cypriot society. As a consequence, there is no proper mechanism to consult all users of official statistics in Cyprus.

Users need precise information related to up-coming releases to plan their activities dependent on statistical information. CYSTAT's release calendar on the website is given only for the coming three months and revisions of major statistics are not announced in a standardised way and early enough.

CYSTAT has no strong relations with the academic community. This has the negative consequence that researchers are not fully aware of the possibility to access survey microdata for research purposes, and thus do not contribute enough to the analysis of statistical data. In addition, CYSTAT deprives itself of potentially useful methodological assistance from academics.

This section considers how user orientation could be further improved by CYSTAT through:

- Establishing a platform for the communication with users;
- Better informing users about release dates and revisions;
- Developing stronger relations with academia.

4.2.3.1 ESTABLISHING A PLATFORM FOR THE COMMUNICATION WITH USERS

The Statistical Council is established by Statistics Law mainly to provide advice, opinions and suggestions with regard to the preparation and implementation of the programmes of statistical activities; to follow and evaluate the programmes; and to submit suggestions for their further development. But because it represents different user groups and due to absence of a user forum, it also serves as a user consultation mechanism.

The structure of the SC is not fully representative in terms of users of official statistics as it is mainly composed of representatives of different ministries, employers and trade union associations but to a lesser degree of representatives of the academic community and civil society. The Peer Reviewers were told by CYSTAT that there are plans to establish a User Council, possibly in the new Statistics Law.

To reinforce the voice of users in a more efficient way, the Peer Review team considers it useful to establish a platform for better communication with users like a User Council, open to all categories of users, both governmental and from the civil society (business, non-governmental organisations, professional and workers unions, media, etc.) with the possible mission of:

- Organising dialogue between producers and users of official statistics, ranging from identification of areas to be covered to evaluation of statistical operations;
- Providing opinions and recommendations regarding the programmes of work of the NSS;
- Providing a detailed follow-up of opinions issued in the previous year and assessments of the work programmes carried out by CYSTAT (annual and mid-term);
- Setting up thematic task forces or working groups to examine particular topics in detail and provide recommendations to CYSTAT;
- Promoting public seminars on particular topics related to official statistics (new areas, new data collection methodologies, dissemination and confidentiality).

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

- 21. The Statistical Service of Cyprus should establish a platform for communication with users allowing discussion of users' needs and collection of users' feedback. (European statistics Code of Practice, indicator 11.3.)**

4.2.3.2 BETTER INFORMING USERS ABOUT RELEASE DATES AND REVISIONS

CYSTAT provides users with a wide range of statistical results, tables and figures on its website. Users are informed about planned publication dates by means of a release calendar, which covers the International Monetary Fund's (IMF's) Special Data Dissemination Standard (SDDS), a short-term release calendar that contains the exact dates of planned releases for the coming week and a tentative time schedule for releases within the next three months. For the most important short-term statistics, fixed dates have also been set; for example, the consumer price index (CPI) is announced on the first Thursday of each month and the industrial producer price index (PPI) on the last working day of each month. A comprehensive annual release calendar is not yet available.

It is the opinion of the Peer Review team that an overarching yearly release calendar would be helpful for users in planning their work dependant on official statistics and in building trust and the perception of independence of CYSTAT.

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

22. The Statistical Service of Cyprus should fully adopt the procedure of a fixed-date release of official statistics and disseminate an annual release calendar by November of the previous year. (European statistics Code of Practice, indicator 6.5.)

Revisions of the national accounts statistics and various other statistics are not conducted in a standardised way and are announced in different places. Major revisions are documented in the statistical work programme and in the methodology section on CYSTAT's website. As revisions do not follow a well-established, transparent procedure, some users told the Peer Review team that they lacked precise information about the timing of revisions, information that would make their work easier.

It is the opinion of the Peer Review team that a proper revision policy has to be defined and published. All revisions should be planned and the users informed with the help of a comprehensive calendar of revisions.

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

23. The Statistical Service of Cyprus should establish a revision policy following standard, well-established, transparent procedures and publish it on its website, including a revision calendar to inform users of when revisions of statistical results are planned to be published. (European statistics Code of Practice, indicators 6.6 and 8.6.)

4.2.3.3 DEVELOPING STRONGER RELATIONS WITH ACADEMIA

Although CYSTAT staff sometimes seeks advice on methodological issues from academic experts, and although a professor of mathematics and statistics from the University of Cyprus is member of the SC, CYSTAT has no organised cooperation with the academic community.

The service of providing microdata is stated in the Statistical Law and promoted on CYSTAT's website. The Peer Reviewers were informed that researchers can, in principle, use all household survey data, but the usage of microdata is not developed (twelve projects in 2013, only one in 2014). Many researchers use microdata from Eurostat. For example, the University of Cyprus has applied to Eurostat for the CYSTAT data on Labour Force Survey and the European Union Statistics on Income and Living Conditions (EU-SILC). In discussions with researchers, the Peer Reviewers noticed that the possibility of getting microdata for research purposes is not familiar enough to them.

The Peer Review team was told by representatives of the academic community that they were eager to cooperate with CYSTAT. It is the opinion of the Peer Review team that there is great potential in developing cooperation with academia in different fields such as training, development of methodologies, and collaboration in the production of official statistics and in using microdata. With an average of only two days per year, the amount of training of CYSTAT staff is rather weak. Besides CYSTAT's training needs, ONA staff also has training needs. A systematic approach to the development of methodologies in collaboration with the academic community could have an important impact on data quality. Student internships at CYSTAT would add human resources to statistical processes, enable better recruitment of future staff and make potential users of statistics aware of the availability and usability of official statistics. The broader use of microdata for research purposes would increase the value of statistical information.

To enhance compliance with the CoP, the Peer Reviewers recommend that:

24. The Statistical Service of Cyprus should develop stronger relations with academia, by developing and promoting its service of access to anonymised microdata to researchers, by offering internships to students and by promoting the use of statistical data for research purposes. (European statistics Code of Practice, indicators 7.7 and 15.4.)

4.2.4 IMPROVE DISSEMINATION

CYSTAT's dissemination has a lot of potential for further development. With limited resources CYSTAT is focused on the production of European statistics and the timely transmission of these statistics to Eurostat, and because of this it even encourages users of Cyprus statistics to use Eurostat's website. More resources will be needed to upgrade the CYSTAT website, provide access to detailed statistical data in an interactive way and supplement statistical products with more visualisation.

The public is aware of Cypriot official statistics but a relatively low number of users use CYSTAT's website, many of them accessing statistics from abroad. CYSTAT's website is now obsolete and its products lack a visual presentation of data that would enable the public to better understand developments in Cypriot society and economy.

CYSTAT's dissemination is based on three articles of the Statistics Law describing the obligation to disseminate statistics with equal access to all users and taking statistical confidentiality into account. CYSTAT's statistical products are released in accordance with the Dissemination and Pricing Policy that contains all relevant elements, such as user orientation, dissemination tools, data access procedures and error treatment. All statistical products are released on CYSTAT's website based on a release calendar at noon, announced by an e-mail alert service to registered users and via Twitter. The CYSTAT website is available in Greek and nearly all of its content is available in the English language, too.

Data tables are available in PDF and Excel formats. Methodological information is available in non-standardised format and in structured metadata standards such as the ESMS and the ESQRS. CYSTAT publishes more than 50 publications every year and all of them are available online for free. CYSTAT is gradually moving from paper publications to electronic ones. CYSTAT provides tailor-made statistics and analyses upon user request and provides microdata for research purposes under strict protocols.

This section considers how CYSTAT's dissemination activities could be further improved through:

- Upgrading the website;
- Providing access to detailed statistical data in an interactive way;
- Supplementing statistical products with more visualisation.

4.2.4.1 UPGRADING THE WEBSITE

CYSTAT's website is considered by CYSTAT and its users as the main dissemination channel for official statistics. It was released in 1997 as one of the first governmental websites and its layout has been changed three times, the last time in 2010. It is based on a standard layout for governmental websites in Cyprus, which implies restrictions. The needs of CYSTAT's users are different from the needs of those using ministry and other governmental agency websites. This was not taken into consideration when designing the website.

The Peer Reviewers were told several times by different users that the structure of the website is not clear for new users, the design is not particularly attractive, and that users have difficulty with navigation.

The basic principle for data on the Web is accessibility. Many different types of devices, such as mobile phones, tablets and portable computers, are increasingly used. This brings the challenge of adapting to small screens, and in that regard CYSTAT's website is not properly designed. Accessibility to CYSTAT's data would be considerably more efficient were the website designed in a responsive way, enabling full data utilisation on small screens. Applications for smartphones and tablets presenting main statistical indicators would also increase the use of official statistics.

It is the opinion of the Peer Review team that CYSTAT's dissemination through its website is not efficient enough, and this was also the opinion expressed by CYSTAT's staff.

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

- 25. The Statistical Service of Cyprus should upgrade its website as the main dissemination channel, by improving its structure, navigation, design and responsiveness for devices with small screens. (European statistics Code of Practice, Principle 15.)**

4.2.4.2 PROVIDING ACCESS TO DETAILED STATISTICAL DATA IN AN INTERACTIVE WAY

Some users mentioned that CYSTAT's website does not provide access to detailed statistical data in an interactive way. They had had experience with interactive access to detailed data on websites of foreign NSIs and find it useful.

The Peer Reviewers were told that CYSTAT has studied the PC-Axis tool for the dissemination of its statistics and that it had had discussions with an expert from Statistics Sweden. The project was not launched due to the costs and human resources needed to create hypercubes for PC-Axis.

It is the opinion of the Peer Review team that provision of access to detailed statistical data in an interactive way, using tools like PC-Axis, would make the use of detailed statistical data more efficient for users. They would be able to select the variables they need, explore data patterns with visual tools, and download only the amount of data they need and in the format that is most appropriate for their particular needs.

To enhance compliance with the CoP, the Peer Reviewers recommend that:

- 26. The Statistical Service of Cyprus should develop advanced functionalities on its website to provide access to detailed statistical data in an interactive way. (European statistics Code of Practice, Principle 15.)**

4.2.4.3 SUPPLEMENTING STATISTICAL PRODUCTS WITH MORE VISUALISATION

As statistical skills are not common in the population, the more help that is given through good data presentation, the better the message will be understood by lay users.

CYSTAT provides some visualisation of statistics in its publications. It is the opinion of the Peer Review team that more visualisation is needed as users lack time and quite often statistical literacy also. Besides traditional visual presentations, different visual presentations like infographics combining commentary, graphs and pictures can add to understanding of statistics and statistical concepts.

It is the opinion of the Peer Review team that adding dynamic interactive visualisation to CYSTAT's website would present the main economic and social trends in a more accessible way and enable users to get key messages in a concise and user friendly manner.

CYSTAT is in the final stage of building interactive web maps, which show data from the last two population censuses on population by age group, sex, nationality and number of dwellings. The web-map site will be hosted by a private company which users can access by a link from CYSTAT's website. It is the opinion of the Peer Review team that this development will enhance CYSTAT's dissemination.

It is the general opinion of the Peer Reviewers that CYSTAT needs to supplement its statistical products with more static and dynamic visualisation like graphs, maps and info-graphics to maximise the impact of its products.

To further enhance compliance with the CoP, the Peer Reviewers recommend that:

- 27. The Statistical Service of Cyprus should further supplement its statistical products with visualisation such as graphs, maps and info-graphics. (European statistics Code of Practice, Principle 15.)**

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

CYSTAT has no diverging views from the Peer Reviewers' findings.

ANNEX A: PROGRAMME OF THE VISIT

PEER REVIEW VISIT TO CYPRUS

2–6 March 2015

STATISTICAL SERVICE OF CYPRUS, NICOSIA

Time	Programme	Organisation	Participants
Day 1 – Monday 2 March 2015			
09.00 11.30	- PR team discussion to finalise the preparation of the visit.	PR team	PR team
11.30 11.45	- Coffee break		
11.45 12.30	- Preparatory meeting with CYPSTAT coordinator team and, possibly, other national participants in the visit to discuss practical aspects of the visit	CYPSTAT	Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa
12.30 13.30	- Lunch		
13.30 14.00	- Welcome and introduction of programme, organisational matters	CYPSTAT	Mr George Georgiou, Mr Stavros Karagiorgis, Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa
14.00 15.00	- General information session with a description of how the national statistical system is organised (bodies, distribution of responsibilities, relations between authorities).	CYPSTAT	Mr George Georgiou, Mr Stavros Karagiorgis, Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa
15.00 15.30	- Coffee break - PR team meeting		PR team
15.30 17.00	- The Statistical Law and related legislation (CoP Principles 1, 2, 5 and 6)	CYPSTAT	Mr Stavros Karagiorgis, Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa, Mr Isidoros Kypridakis, Mr Sofronis Vikis, Mr Thomas Gregoriou, Mr Kyriakos Voutouris, Mr George Theodoulou
Day 2 – Tuesday 3 March 2015			
9.00 – 9.30	PR team meeting		PR team
9.30 – 10.30	Coordination role of the NSI	CYPSTAT	Mr Stavros Karagiorgis, Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa
10.30 11.00	- Coffee break - PR team meeting		PR team
11.00 12.00	- Meeting with main users – ministries and other public/private institutions		Mr Andreas Charalambous, Mr George Panteli, Ms Ioanna Markidou, Ms

Time	Programme	Organisation	Participants
	(including the Central Bank as a user)		Eliana Psimolophites, Ms Evangelia Christodoulou, Mr Chrysostomos Tsoundas, Mr Deme-tris Georgiades, Mr Yiannis Mourouzides, Mr Antonis Frangoudis Observers: Mr Stavros Karagiorgis, Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena Loukaidou
12.00 13.00	- Lunch		
13.00 14.30	- Programming, planning and resources, including training (CoP Principles 3, 9 and 10)	CYSTAT	Mr Stavros Karagiorgis, Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa, Mr Yiannos Karashialis, Ms Evi Kalogirou, Mr Demetris Ioannou, Mr Charalambos Alkiviadous, Mr Thomas Gregoriou
14.30 15.00	- Coffee break - PR team meeting		PR team
15.00 16.00	- Cooperation/level of integration of the ESS	CYSTAT	Mr Stavros Karagiorgis, Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa, Mr Vasilis Hailos, Mr Sofronis Vikis, Mr Thomas Gregoriou, Mr George Theodoulou
16.00 17.00	- Meeting with main users – the media		Ms Fiona Mullen, Ms Dorita Yiannakou, Mr George Vakis Observer: Ms Maria Poupa
Day 3 – Wednesday 4 March 2015			
09.00 10.30	- Methodology, data collection, data processing and administrative data (CoP Principles 2, 7 and 8)	CYSTAT	Mr Stavros Karagiorgis, Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa, Ms Georgia Ioannou, Mr Sofronis Vikis, Mr Charalambos Alkiviadous, Mr Thomas Gregoriou
10.30 11.00	- Coffee break - PR team meeting		PR team
11.00 12.30	- Quality (organisational structure, tools, monitoring...) (CoP Principles 4 and 11–15)	CYSTAT	Mr Stavros Karagiorgis, Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa, Mr Vasilis Hailos, Ms Loukia Makri, Mr Sofronis Vikis, Mr Charalambos Alkiviadous, Mr Thomas Gregoriou, Mr George Theodoulou, Mr Kyriakos Voutouris, Ms Constantia Papageorgiou
12.30 13.30	- Lunch		
13.30 14.15	- Implementation of quality management: concrete example and	CYSTAT	Mr Stavros Karagiorgis, Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena

Time	Programme	Organisation	Participants
	discussion		Loukaidou, Ms Maria Poupa, Ms Nasia Petsa
14.15 14.45	- Coffee break - PR team meeting		PR team
14.45 15.45	- Meeting with main users – scientific community		Mr Tasos Christofides, Mr Paris Kleanthous, Mr Christos Zoumides Observers: Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa, Ms Loukia Makri
15.45 16.45	- Dissemination, including confidentiality and users' consultation (CoP Principles 5, 6, 11 and 15)	CYSTAT	Mr Pantelis Protopapas, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa, Mr Yiannos Karashialis, Mr Isidoros Kypridakis, Mr George Theodoulou, Mr Kyriakos Voutouris
16.45 17.00	- PR team meeting		PR team
Day 4 – Thursday 5 March 2015			
9.00 – 10.00	Meeting with main data providers/respondents		Mr Marios Alambritis, Mr Panayiotis Kyriakides, Mr Minos Mourettos, Mr Andreas Demetriades, Ms Maria Chrysostomou, Mr Costas Manouhou Observers: Mr Pantelis Protopapas, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa
10.00 10.30	- Coffee break - PR team meeting		PR team
10.30 11.30	- Meeting with the Health Monitoring Unit of the Ministry of Health	Ministry of Health	Dr. Pavlos Pavlou Observers: Ms Koulia Onisiforou, Ms Maria Poupa, Ms Nasia Petsa, Ms Eleni Kyriacou
11.30 12.00	- PR team meeting		PR team
12.00 13.00	- Lunch		
13.00 14.00	- Meeting with the Cyprus Tourism Organisation	Cyprus Tourism Organisation	Mr Constantinos Chappas, Mr Constantinos Kattamis Observers: Ms Koulia Onisiforou, Ms Maria Poupa, Ms Nasia Petsa, Ms Loukia Makri
14.00 15.15	- Meeting with junior staff	CYSTAT	Mr Vasilis Kounadis, Mr Charalambos Charalambous, Ms Niki Chrysostomou, Ms Nafsika Apostolou, Ms Maria Michael, Ms Nasia Petsa, Ms Ioanna Leontiou
15.15 15.30	- Coffee break		
15.30 16.00	- Clarifications, remaining or additional issues and focus areas	CYSTAT	Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa, Ms Georgia Ioannou, Mr George Theodoulou, Mr

Time	Programme	Organisation	Participants
			Charalambos Alkiviadous
16.00 17.00	- PR team meeting		
Day 5 – Friday 6 March 2015			
09.00 11.30	- PR team discussion		PR team
11.30 12.30	- Meeting with senior management: conclusions and recommendations	CYSTAT	Mr George Georgiou, Mr Stavros Karagiorgis, Mr Pantelis Protopapas, Ms Koulia Onisiforou, Mr Costas Diamantides, Ms Marilena Loukaidou, Ms Maria Poupa, Ms Nasia Petsa
12.30 13.30	- Lunch		
13.30 17.00	- Preparation of the report: task sharing	PR team	PR team

ANNEX B: LIST OF PARTICIPANTS

	Peer reviewers
1	Mr Jean-Michel Durr (chair)
2	Mr Peter Hackl
3	Mr Tomaz Smrekar
	Eurostat observer
4	Ms Michail Skaliotis, Head of the Task Force Big Data, Eurostat
	Management of the Statistical Service of Cyprus
5	Mr. George Georgiou, Director
6	Mr. Stavros Karagiorgis, Senior Statistics Officer, Head of the National Accounts, Public Finance, Foreign Trade and Agriculture Division
7	Mr. Pantelis Protopapas, Senior Statistics Officer, Head of the Business Statistics, Energy, Environment, Science and Technology, International Cooperation and Programming Division
8	Mr. Costas Diamantides, Senior Statistics Officer, Head of the Methodology, Statistical Dissemination, Prices, Labour Market, Labour Costs and ICT Surveys Division
9	Ms Koulia Onisiforou, Senior Statistics Officer, Head of the Demography, Social Statistics and Tourism Division
	Peer review coordinator team of the Statistical Service of Cyprus
10	Mr. Costas Diamantides, Senior Statistics Officer, Head of the Methodology, Statistical Dissemination, Prices, Labour Market, Labour Costs and ICT Surveys Division
11	Ms Marilena Loukaidou, Statistics Officer, Methodology
12	Ms Maria Poupa, Statistics Officer, International Cooperation and Programming
13	Ms Nasia Petsa, Statistics Officer, Methodology
	Other participants from the Statistical Service of Cyprus
14	Mr. Vasilis Hailos, Statistics Officer A', National Accounts
15	Ms Loukia Makri, Statistics Officer A', Demography and Tourism Statistics
16	Ms Evi Kalogirou, Statistics Officer A', Short-Term Statistics (STS)
17	Ms Georgia Ioannou, Statistics Officer A', Demography, Social Indicators and Crime Statistics
18	Mr. Sofronis Vikis, Statistics Officer A', Foreign Trade
19	Mr. Isidoros Kypridakis, Statistics Officer A', Construction, R&D, Statistical Confidentiality
20	Mr. Demetris Ioannou, Statistics Officer A', Agriculture and SBS
21	Ms Eleni Kyriacou, Statistics Officer, Health Statistics
22	Ms Marilena Loukaidou, Statistics Officer, Methodology
23	Ms Maria Poupa, Statistics Officer, International Cooperation and Programming
24	Mr. Charalambos Alkiviadous, Statistics Officer, Structural Business Statistics (SBS)
25	Mr. Thomas Gregoriou, Statistics Officer, Business Register
26	Mr. George Theodoulou, Statistics Officer, Dissemination

27	Mr. Kyriakos Voutouris, Statistics Officer, Purchasing Power Parities (PPPs)
28	Ms Constantia Papageorgiou, Statistics Officer, Harmonised Consumer Price Index (HCIP)
29	Mr. Yiannos Karashialis, IT Officer A', Data Processing and technical support
	Junior staff from the Statistical Service of Cyprus
30	Mr. Vasilis Kounadis, Statistics Officer, National Accounts
31	Mr. Charalambos Charalambous, Statistics Officer, EU-SILC
32	Ms Niki Chrysostomou, Statistics Officer, Methodology
33	Ms Nafsika Apostolou, Statistics Officer, Energy Statistics
34	Ms Maria Michael, Statistics Officer, National Accounts
35	Ms Nasia Petsa, Statistics Officer, Methodology
36	Ms Ioanna Leontiou, Statistics Officer, Foreign Trade
	Representatives of Ministries and other public/private institutions
37	Mr. Andreas Charalambous, Director of Financial Stability, Ministry of Finance
38	Mr. George Panteli, Head of Economic Policy and EU Affairs, Ministry of Finance
39	Ms Ioanna Markidou, Economic Officer, Directorate of Public Debt Management, Ministry of Finance
40	Ms Eliana Psimolophites, Head of Money and Banking Statistics and Financial Accounts Section, Central Bank of Cyprus
41	Ms Evangelia Christodoulou, Head of Balance of Payments Section, Central Bank of Cyprus
42	Mr. Chrysostomos Tsoundas, Head of General Statistics Section, Central Bank of Cyprus
43	Mr. Demetris Georgiades, President of the Fiscal Council
44	Mr. Yiannis Mourouzides, Acting Director of the Directorate of Research and Programming, Human Resource Development Authority of Cyprus
45	Mr. Antonis Frangoudis, Senior Officer, Cyprus Employers and Industrialists Federation
	Representatives of main users, data providers/respondents
46	Mr. Marios Alambritis, Financial Controller of Lefkaritis Bros Ltd, Lefkaritis Industries Ltd and Petrolina
47	Mr. Panayiotis Kyriakides, Officer of Economic Affairs, Office of the Commissioner of Electronic Communications and Postal Regulation
48	Mr. Minos Mourettos, Accounts Supervisor, Louis Hotels Public Company Limited
49	Mr. Andreas Demetriades, Planning Manager, PHC Franchised Restaurants Public Ltd
50	Ms Maria Chrysostomou, Social Insurance Officer, Social Insurance Services, Ministry of Labour, Welfare and Social Insurance
51	Mr. Costas Manouhou, Head of the Department of Financial Management, Cyprus Telecommunications Authority (CYTA)

	Representatives of the scientific community
52	Mr. Tasos Christofides, Professor, Department of Mathematics and Statistics, University of Cyprus
53	Mr. Paris Kleanthous, Professor, Cyprus International Institute of Management
54	Mr. Christos Zoumides, Post-doctoral fellow, The Cyprus Institute
	Representatives of the Media
55	Ms Fiona Mullen, Journalist, Economist Intelligence Unit
56	Ms Dorita Yiannakou, Journalist, Phileleftheros Newspaper
57	Mr. George Vakis, Journalist, Stockwatch
	Participants from ONAs
58	Dr. Pavlos Pavlou, Head of the Health Monitoring Unit, Ministry of Health
59	Mr. Constantinos Chappas, Tourism Officer, Statistics and Research Section, Cyprus Tourism Organisation
60	Mr. Constantinos Kattamis, Tourism Officer, Statistics and Research Section, Cyprus Tourism Organisation