



Session 1: Quality frameworks for assessing and improving statistical activities carried out by international organizations

**QUALITY FRAMEWORK FOR OECD STATISTICS
GETTING OUR OWN HOUSE IN ORDER**

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A. Introduction

The quality of statistics disseminated by an international organization depends on two aspects, the quality of national statistics received, and the quality of internal processes for the collection, processing, analysis and dissemination of data and metadata. In several fields, national statistics are developed closely in accordance with international standards. On the other hand, statistical processes at international level are often derived from best practices developed at national level. Thus, there is a clear inter-dependence between the two aspects.

Much of the work to date by international and supranational organisations on data quality has centred on the development of quality frameworks and processes for measuring and improving the quality of data compiled and disseminated by statistical agencies in member countries. However, the Quality Framework for OECD Statistics (QFOS) described below (OECD 2003) in Part C of this paper focuses on improving the quality of data collected, compiled and disseminated by the OECD through an improvement in the Organisation's internal statistical processes and management, though there will also be a positive spillover effect on the quality of data compiled at the national level.

The starting point for the development of the QFOS was the considerable work undertaken previously by other international organizations (e.g. IMF, Eurostat) and national statistical offices (e.g. Statistics Canada) which entailed the development of quality frameworks to improve their organizations and the quality of data produced. The OECD quality framework has benefited from this work and we have avoided "reinventing the wheel" by adapting existing definitions of quality components and approaches, etc, to the OECD context.

Part D of this paper provides a brief description of the implementation of the framework in the review of new activities and a small selected number of and existing statistical activities in 2003, the first year of operation of the Framework. This Part also outlines lessons learned from the first round of reviews.

The paper concludes in Part E with a discussion of the possibilities and benefits of developing common ICT and statistical infrastructures and quality frameworks between international organisations.

B. Background and OECD context

The OECD is a very well known institution worldwide, active in several fields, with co-operation agreements with almost all other international organisations. The OECD Secretariat requires a wide range of comparable statistics for its ongoing work of monitoring developments in Member countries and in key non-Member economies. The OECD also disseminates a very large amount of statistics to external users. To ensure comparability and reliability of these statistics the Secretariat promotes the development and adoption of international statistical standards and best methodological practice. The Organisation is often called upon to develop recommendations in emerging areas of policy interest to governments. In many

instances, this requires the development of new types of statistics, new statistical standards and statistical systems. These activities are normally carried out in co-operation with national statistical offices (NSOs), central banks, other government agencies and other international organisations.

The organisation of statistical activities at the OECD is based on a “decentralised model”, which means that various statistics are developed both by the Statistics Directorate and by eight other Directorates across the house responsible for analytical studies and policy analyses.

The OECD has a high reputation for both the quality of its analytical work and for the statistics that underpin that work. In some areas, OECD’s statistics are internationally recognised as the “best” in terms of coverage, timeliness, and comparability. The network of national and international experts created, through the Committees and Working Parties, gives to the Organisation the possibility to launch research activities (and data collections) on new topics, playing a leading role in producing new statistics and developing new definitions, classifications and standards.

In common with almost all organisations at the national and international levels, the OECD faces challenges that have emerged over the last few years due to the development of new Information and Communication Technologies (ICT) for statistics, the evolution of the international statistical system, budget pressures on the Organisation and the need to improve the efficiency of its statistical activities in order to devote more resources to new statistical developments. To face these challenges the Organisation launched a new Statistics Strategy (OSS) in 2001.

The implementation of the OSS has been underway for just over three years and several important objectives have been achieved in the key elements of the Strategy. These comprise:

- the publication in 2003 of the first edition of the OECD Statistical Programme of Work (OSPW) which was the very first opportunity to present to OECD stakeholders and external clients, in a structured manner, the main characteristics of statistical activities carried out by the Secretariat (OECD 2004);
- significant investments in the development of the OECD statistical information system which are now beginning to provide statisticians working in the Secretariat with new and advanced corporate tools for data and metadata collection, verification, storage, retrieval and dissemination (Samuelson and Thygesen 2004);
- implementation of several initiatives in the field of training for statisticians, with a relevant increase in the number of available courses. The recent OECD Statisticians Satisfaction Survey, developed in the context of the Quality Framework for OECD Statistics provided an opportunity for staff to express their views and concerns about the working conditions of OECD statisticians and the technical tools available for carrying out statistical activities;
- the development of the first version of the QFOS in late 2002 and its use in 2003 for the review of both new statistical activities and a small number existing statistical activities.

In the context of the OECD’s decentralised statistical environment and the other elements of the OSS, the QFOS provides a common framework which can be used to systematically assess, compare and further improve OECD statistics. A quality framework that is applied across all Directorates in the Organisation responsible for the collection and dissemination of statistics:

- provides a visible and systematic tool for the ongoing identification and resolution of quality problems;
- significantly increases the transparency of processes used by the OECD to assure quality; and

- reinforces in the mind of the governing Council of the Organisation and national Delegations the central role of high quality statistics in the analytical work of the Organisation and the needs and costs for ensuring that OECD statistics continue to be of high quality.

The support of senior management across the OECD has been a key aspect in the development and, in particular, the implementation of the QFOS. Without such support, implementation would have been only partially successful. In the OECD context, senior management support has entailed the commitment from the Secretary General, the governing Council collectively, individual Member country delegations to the OECD, the Directors of other OECD Directorates involved in statistical activities and staff in the OECD's Information Technology Network (ITN) and Publication and Communication (PAC) areas. Obtaining the support of these internal stakeholders has required lengthy consultation during both the development and consultation phases.

C. Description of Quality Framework for OECD Statistics (QFOS)

The QFOS has four elements, a:

- definition of quality and its dimensions;
- set of broad principles or core values on which OECD statistical activities are to be conducted and quality guidelines covering all phases of the statistical production process;
- procedure for assuring the quality of proposed new statistical activities;
- procedure for evaluating the quality of existing statistical activities on a regular basis.

Definition and dimensions of data quality

Quality is defined as “fitness for use” in terms of user needs. This definition is broader than has been customary used in the past when quality was equated with accuracy. It is now generally recognized that there are other important dimensions. Even if data is accurate, they cannot be said to be of good quality if they are produced too late to be useful, or cannot be easily accessed, or appear to conflict with other data. Thus, quality is viewed as a multi-faceted concept. The quality characteristics of most importance depend on user perspectives, needs and priorities, which vary across groups of users.

Several statistical organisations have already identified the dimensions of quality, and as mentioned above, these have been adapted to the OECD context. Thus, the OECD views quality in terms of seven dimensions: relevance; accuracy; credibility; timeliness; accessibility; interpretability; and coherence. Another factor is that of cost-efficiency, which though is not strictly speaking, a quality dimension, is still an important consideration in the possible application of one or more of the seven dimensions cited previously to OECD statistical output.

OECD core values

In addition to quality dimensions, the following “core values” for OECD statisticians have been identified, using the UN Fundamental Principles of Official Statistics as the key reference¹:

- a. OECD statistics are compiled and made available on an impartial basis. OECD statistics are produced according to strictly professional considerations, including scientific principles and professional ethics

¹ OECD statisticians are also committed to carrying out their work according to the International Statistical Institute's declaration on professional ethics.

with regard to methods and procedures used for the collection, processing, storage and dissemination of statistical data.

- b. The OECD presents statistical information according to scientific standards on the sources, methods, and procedures adopted to produce its statistics.
- c. Individual data collected by the OECD for statistical compilation are considered to be strictly confidential and used exclusively for statistical purposes. Specific measures are taken to ensure the full protection of confidential data from any potential disclosure.
- d. Internal rules and measures under which the OECD statistical system operates are made public.
- e. The OECD is committed to carrying out its statistical activities in co-ordination with national statistical agencies and with other international organisations.
- f. The OECD is committed to developing bilateral and multilateral co-operation in statistics in order to contribute to the development of systems of official statistics in all countries.
- g. Within the constraints of resource availability, OECD data products are of the best possible overall quality in terms of each of the seven quality dimensions outlined in the Organisation's Quality Framework. Effort involved in assuring quality is commensurate with the scale of the statistical activity, the purpose of the activity and its frequency (i.e. whether it is intended to be repeated regularly or occasionally, or is one-off).

Procedures for assuring the quality of OECD statistical activities

The procedures summarized below are aimed at a single statistical activity. These procedures are documented fully in the QFOS. However, statistical activities do not exist in isolation. They are bound together by the same statistical infrastructure and the fact that their outputs may be viewed and used in combination. Improvements to the OECD's statistical infrastructure are the subject of other initiatives within the OSS described above. However, whilst the guidelines do not explicitly cover the infrastructure supporting statistical activities – computing, methodology, and publication – they do take into account the interaction between statistical activities through consideration of the data they jointly make available.

Procedure for assuring the quality of new activities

The main steps in the development of a new statistical activity are defined as:

- a. definition of the data requirements in general terms;
- b. evaluation of other data currently available;
- c. planning and design of the statistical activity;
- d. extraction of data and metadata from databases within and external to OECD;
- e. implementation of specific data and metadata collection mechanism;
- f. data and metadata verification, analysis and evaluation; and
- g. data and metadata dissemination.

For each step the quality concerns and the instruments available to help in addressing are identified in the QFOS. In particular, a set of guidelines and concrete procedures have been prepared for each step, taking

into account good existing practices within the OECD and in other statistical agencies. In order to minimise the burden placed on activity managers, a simplified version of the procedure would be appropriate for statistical activities planned to be once rather than repeated.

Procedure for reviewing the quality of existing activities

The procedure for reviewing the quality of existing statistical activities conducted across the OECD takes into account the fact that the review will be carried out on a rotation basis over a number of years. The stages envisaged are as follows:

- a. identification by the OECD Statistical Policy Group² (SPG) of the statistical activities for review during the course of the following year;
- b. self-assessment by the statistical activity manager and staff, resulting in a brief report (normally less than 10 pages) that includes a summary of quality problems and a prioritised list of possible improvements, together with an assessment of additional resources required for their implementation. The QFOS documentation includes both a self-assessment template and more detailed guidelines on how to carry out the assessment.
- c. review of and comments on the self-assessment report by major users;
- d. review of and comments on the self-assessment report by statistical, information technology, and dissemination staff, co-ordinated by an expert designated by the SPG;
- e. preparation of the final quality report, combining all comments, jointly by the activity manager and designated expert, and tabling of the report to the SPG;
- f. discussion and resolution of any concerns about the report by the SPG, and transmission of the report to the relevant Director;
- g. assignment of resources for selected quality improvement initiatives by the directors and possibly through a centrally allocated Central Priorities Fund for high priority projects within the OECD;
- h. feedback by the Chief Statistician to stakeholders on the quality improvement initiatives proposed and the plans for their implementation.

A more detailed overview of the procedures for a proposed new statistical activity and for existing statistical activities are provided in Tables 1 and 2 respectively at the end of this paper. Also provided is the self-assessment template for existing statistical activities. These procedures and template were used in the 2003 round of quality reviews described in Part D.

Stages (b), (c), (d) and (e) are the core of the procedure. They involve the preparation of a quality self-assessment by the activity manager, its review by users and experts, and the blending of all comments into a final report. Given that there are about 70 OECD activities potentially subject to such reviews, it is vital that the procedure is flexible. In this context it is recognised that:

- The procedure itself should be reviewed and fine-tuned each year. Before the end of each year, the Chief Statistician of the OECD proposes to the SPG necessary changes, if any, to the Quality Framework and/or to Quality Guidelines. The SPG discusses and finally endorses proposed amendments. The updated Quality Frameworks and Guidelines are made available on the Intranet statistics site.

² Comprising representatives from each of the Directorates in the OECD collecting or disseminating statistics.

- The scale of the reviews and resources invested in them should be commensurate with the benefits that can be envisaged – in particular, a simplified process may be appropriate for small scale/ low profile activities.

D. QFOS implementation experience to date and lessons learned

During the first year of operation of the QFOS seven reviews of existing activities were conducted for: quarterly national accounts, annual labour force statistics, external debt statistics, education statistics, migration statistics and the STAN database for industrial analysis. Managers of these activities found the exercise useful and provided concrete suggestions for the simplification of the questionnaire used for self-assessments.

In 2004 quality reviews will be carried out for: annual national accounts, balance of payments, structural business statistics, institutional investors, globalisation statistics, creditor reporting system, analytical data base, health statistics, composite leading indicators and social expenditure statistics. In addition, recommendations identified by quality reviews carried out in 2003 will be implemented. Finally, the first version of the Framework will be updated and amended, taking into account the availability of the Statistical Information System and the experience made with the 2003 reviews. For example, more precise guidelines will be prepared for the fields of revision policies, management of microdata and citation practices, while the questionnaire for self-assessments will be shortened and simplified.

A major benefit has been a heightening of the importance of high quality statistics in the work of the OECD in the eyes of the Organisation's governing Council and individual national Delegations. The QFOS is a high profile document within the OECD and provides the context for discussions on the need for appropriate resourcing for statistical infrastructure development and ongoing statistical work (both collection/dissemination and statistical standards) across the Organisation. The QFOS and the quality reviews flowing out of it have contributed to increasing the visibility of statistics and their importance within the Organisation.

In terms of lessons learned from the 2003 round of quality reviews, the first lesson concerns the time necessary to complete the initial round of reviews which took longer than expected (the first review was launched in March 2003, while the last one will be completed in May 2004). However, this delay should not be necessarily considered a weakness of the procedure. In fact:

- the calendar of individual reviews is established by activity managers taking into account their overall workload during the year and this can vary a lot across Directorates;
- the reviews were conducted very carefully, in some cases involving relevant Committees or working parties and this required time. In addition, in-depth analysis of ICT issues required time, but the final result of such analysis was an integral part of the review.

Activity managers found the exercise very useful. Although the questionnaire used for the self assessment needs to be improved, it was considered well structured and helpful to address various issues. The self-assessments were very accurate and transparent. All managers reported that the exercise helped them to identify new problems never addressed before. In addition, the quality review process actually pushed "horizontal" Directorates to look at the same activity from different perspectives, identifying possible "corporate" solutions in co-operation with the activity managers.

The reviews were conducted while the new Statistical Information System was being developed. Whenever weaknesses in tools previously used for data and metadata collection, management and dissemination were identified by managers of the activity under revision, the discussion immediately focused on the possibility of using the new procedures to improve the previous situation. As a result, several activities analysed in 2003-2004 will adopt new ICT tools in 2004, with a relevant improvement of several quality dimensions (especially accessibility, interpretability and coherence), as well as of the efficiency of statistical activities.

As expected, the implementation of recommendations contained in final quality reports requires changes in current procedures and further investments. It is interesting to note that few Directorates directly absorbed such implementation costs, although existing budget constraints will slow down the process of implementing. On the other hand, the use of the limited resources provided by the Central Priority Fund for the Statistics Reform were vital to integrate resources provided by individual Directorates, making possible the implementation of some recommendations (for example in the case of STAN database, the additional resources were used for the development of the new database and the software for validating and managing data and metadata).

E. Quality frameworks for international organisations: A key challenge

A key element in the development of the QFOS in the context of the OECD Statistics Strategy has been the enhancement of a sense of partnership between OECD statisticians working in various Directorates across the Organisation. This is being achieved through their participation in the development of the IT infrastructure which will provide common sets of corporate tools which will result both in improvements in efficiency of activities carried out at the Directorate level and for the OECD as a whole in terms of maintenance and support of these tools. The various formal and informal meeting processes that are an essential element of both the QFOS and the broader OSS have strengthened the “horizontal” perspective of statistics across the Organisation through discussion and resolution of common problems and challenges.

The notion of a strengthened partnership of statisticians within the existing OECD decentralised statistics environment is analogous to the possibilities and benefits of a similar strengthening that could be obtained through the development of common IT and statistical infrastructures and quality frameworks between international organisations. The final part of this paper discusses possibilities in this area.

Comparing the attention paid by NSOs and international organisations to the development of internal quality management approaches, it is quite evident that the latter lag behind the former. Over the last ten years, regular contacts have been established among NSOs to develop, compare and improve their quality management approaches. Quite often, such contacts have been promoted and facilitated through conferences and workshops organised by international organisations, but only very recently have the latter started to apply to themselves the approaches they recommend to national agencies. Furthermore, it is quite paradoxical that international organisations spend a large part of their resources in developing methodological standards to encourage national data providers to improve the quality of data they produce, yet collectively expend so little effort in adopting quality management approaches to improve their own statistical practices.

A possible explanation of such a situation can be found in the way in which international organisations look at themselves. Even though several international organisations have a long and fruitful history of co-operation in developing standards and research activities, they have never felt part of a “system of international organisations”. In other words, they developed their activities mainly with their own national constituencies in mind, trying to co-ordinate as much as possible their actions (to maximise the effectiveness, to minimise duplications, etc.), but without looking at other international organisations as possible partners to improve their internal processes.

This institutional environment largely explains the difficulty of developing common solutions to quality management issues in international organisations. Statistical departments have different roles and status in their own organisations, and their capacity for co-ordinating statistical activities carried out in other Departments varies a lot, etc. In addition, competition among international organisations regularly emerges, especially when the international community expresses new statistical needs. Finally, the former UN body in charge of co-ordination of international organisation statistical activities (the ACC, created in the 1990s and suppressed in 2001) never tried to develop a common strategy for helping international organisations to manage their statistical activities.

On the other hand, as statistical activities are normally only a small part of the overall activities carried out by international organisations, ICT solutions used by international organisations for collecting, analysing

and disseminating statistics are frequently chosen in accordance with the requirements of other parts of their own organisations. Therefore, statistical divisions of international organisations have never had the opportunity to develop common platforms and software solutions for managing similar problems, as several NSOs have done over the last few years.

Fortunately, recent signals show a greater degree of awareness in international organisations on the need to rethink their role and the organisation of their work. The Committee for the Coordination of Statistical Activities (CCSA) was established in 2003 for the co-ordination of international organisations' statistical work. In addition, seven organisations (IMF, UN, OECD, Eurostat, ECB and the Bank for International Settlements and the World Bank) established a task force to develop Standards for Data and Metadata Exchange (SDMX) based on new technologies, and a few organisations planned major reorganisations of their ICT systems, developing and sharing new software solutions. Finally, international organisations have set-up an ambitious agenda for the next five years to develop new methodological standards, especially for economic statistics.

Bilateral and multilateral co-operation among international organisations has improved over the last few years mainly following a bottom-up approach, especially among the larger organisations, but a more general "strategy" encompassing both ICT infrastructure and quality issues is now necessary to orient international organisation activities and to benefit from the opportunities created by new institutional set-ups and technological changes, bearing in mind the final target of improving the quality of international statistics.

F. Conclusion

The OECD experience of the QFOS, both with respect to its development and the first year of implementation, has been quite positive and we would strongly encourage other international organisations to initiate similar processes. However, this work should only be undertaken with a realistic prior understanding of the time and effort required for the success of the exercise, for both the sponsoring unit within an agency charged with the task of developing the framework and overseeing its implementation and other parts of the organisation undertaking quality reviews. In this respect essential preconditions entail the visible support of the most senior people in the organisation and an understanding of the "political" environment and nuances that would support and hinder the development and implementation phases.

Finally, as discussed in Part E above, international organisations face a number of common challenges and there are synergies to be taken advantage of involving ICT, the development of quality frameworks and our work in developing and promoting international statistical standards. The OECD would strongly support such initiatives being undertaken in the context of an international statistics strategy and would welcome CCSA discussion in this area. How "formal" such a strategy would be and the role of the CCSA in its development are still open agendas.

References

OECD, 2003, *Quality Framework and Guidelines for OECD Statistical Activities*, Paris, available at www.oecd.org/statistics

OECD, 2004, *The OECD Statistical Programme of Work*, Paris, available at www.oecd.org/statistics

Samuelson L. and Thygesen, 2004, *Building OECD's New Statistical Information System*, mimeo

Table 1: Procedures for a proposed new statistical activity³

WHAT	HOW	POTENTIAL PROBLEMS	INSTRUMENTS AVAILABLE WITHIN QUALITY FRAMEWORK	CONTRIBUTION TO CORPORATE TOOLS
(a). Initial definition of output data requirements in general terms: coverage, content, users, uses	Obtain initial views of data requirements through: 1. discussion with users, including Committees and internal users; 2. discussion with other Directorates	1. Difficulties in evaluating relevance		
(b). Evaluation of data currently available within OECD and from other international and national organisations, and identification of needs for data	1. Review literature 2. Review data currently available within the OECD 3. Review data currently available from other international organisations 4. Review data currently available from national organisations	1. Difficulties in identifying and accessing data available within the OECD 2. Difficulties in identifying and accessing data available outside the OECD 2. Difficulties in interpreting data and metadata available	1. OECD Statistical Work Programme (OSWP) 2. Gateway to OECD statistical databases 3. UN/ECE Integrated Presentation of Statistical Work and internet sites of international organisations 4. OECD Glossary of Statistical Terms 5. Consultation with SPG members 6. OECD Quality guidelines 7. OECD.Stat ⁴	1. Brief note about the proposed activity to SPG
(c). Planning and design involving all stages of the statistical activity ⁵	1. Assess resource requirements and time frame - IT aspects - skills required - financial implications 2. Design activity ⁶ in terms of: - definitional content and coverage - statistical methodology, IT needs - marketing and dissemination 3. Establish contacts with experts in national and international statistical organisations	1. Underestimating resources required 2. Underestimating time required 3. Poor choice of statistical methods 4. Lack of communication with and involvement of national statistical experts responsible for coordination with international organisations 5. Inefficient IT solution ⁷	1. Contacts through the Analytical Statistical Task Force (ASTF) with ITN, STD, PAC and other experts working in the Secretariat 2. Toolbox for IT solutions 3. OECD.Statworks 4. Training program for statisticians 5. OECD Quality guidelines 6. OECD Glossary of Statistical Terms	1. Completion of OSWP entry for the activity 2. Information about activity to relevant international and national statistical organisations

³ In accordance with the terminology of the OECD Statistical Work Programme, a statistical activity is interpreted as an activity that produces at least one statistical output, such as a dataset or database available to internal or external users through Internet, Intranet, OLISNet, CD-ROM, etc., or a publication (whether classified or not) that is statistical or is analytical with extensive statistical content.

A new statistical activity can be proposed as ongoing, i.e., to be repeated at regular intervals, or one-off. This table is intended primarily for activities that are proposed to be ongoing, but can be used, possibly in abbreviated form, for an activity that is one-off.

Table 2 below outlines processes for an existing ongoing statistical activity.

⁴ OECD.Stat is the new OECD statistical information system. It comprises a data warehouse, where final statistical data are stored, and a set of procedures for extracting data and metadata from OECD statistical databases. Among other things, the system provides users with a catalogue of variables available in individual databases. See Annex 4.

⁵ "All stages" implies the complete data life cycle - definition, feasibility study, collection, management, dissemination, etc. The problems uncovered and the design decisions made during this step are re-examined and elaborated in subsequent steps, i.e., there is interaction between steps.

WHAT	HOW	POTENTIAL PROBLEMS	INSTRUMENTS AVAILABLE WITHIN QUALITY FRAMEWORK	CONTRIBUTION TO CORPORATE TOOLS
(d). Extract data from databases within and external to OECD	1. Direct access to data, i.e. without the need to involve data providers in data collection or transmission	1. Inefficiencies in accessing internal and external databases 2. Difficulties in interpreting data and metadata 3. Incoherence across databases	1. OECD Glossary of Statistical Terms 2. Gateway to OECD Statistical Databases 3. OECD Quality guidelines 4. OECD.Stat 5. Corporate procedures to extract data and metadata from existing sources	
(e). Implement new data collection mechanism	1. Contacts with data providers 2. Preparation and test of questionnaire ⁸ 3. Dissemination of questionnaire 4. Data and metadata collection/transmission	1. Insufficient contact with national data providers 2. Incorrect or inefficient questionnaire design 3. Use of inappropriate definitions 4. Inefficient choice of systems for data, metadata transmission	1. OECD Glossary of Statistical Terms 2. International statistical guidelines and recommendations 3. OECD Quality guidelines 4. OECD.Statworks ⁹ 5. Corporate procedures to extract data and metadata from external sources	1. Update OECD Glossary of Statistical Terms 2. Update OSWP
(f). Data and metadata verification, compilation, storage, analysis and evaluation	1. Verification of individual data 2. Evaluation of coherence of data: - across data items within datasets - over time - across countries - with other data sources 3. Overall evaluation of data relative to objectives	1. Inappropriate or inefficient statistical methods 2. Different methods across countries for the same series	1. OECD Glossary of Statistical Terms 2. Gateway to OECD Statistical Databases 3. Statistical and econometric software for dealing with series breaks 4. Advice from STD and other OECD experts 5. OECD.Statworks 6. OECD.Stat 7. OECD Quality guidelines	1. Update Data Catalogue 2. Update OECD Glossary of Statistical Terms
(g). Data and metadata dissemination	1. Paper publications 2. Offline databases 3. Online databases 4. Through the OECD Statistics Portal	1. Inefficient dissemination procedures 2. Inconsistency across databases 3. Inappropriate presentation of metadata 4. Disclosure of confidential data 5. Inappropriate data release procedures, affecting credibility	1. OECD Style Guide 2. OECD Quality guidelines 3. Assistance from ITN and PAC 4. OECD.Statworks	1. Update OSWP 2. Update OECD Glossary of Statistical Terms 3. Contribute to OECD.Stat

⁶ This includes: selection of software, design of the database, definition of data and metadata storage needs, definition of a new survey at the national level (if required), definition of rules for treatment of confidential data, etc.

⁷ For example, leading to difficulties in database access by internal users, difficulties in data and metadata exchange with other databases, disclosure of confidential data, use of non-corporate software, etc.

⁸ The questionnaire may be designed to collect macro or micro level data from national data providers or micro level data from enterprises, households, etc.

⁹ OECD.Statworks is a set of IT tools for collecting, storing, validating and disseminating data and metadata. It also comprises a tool for designing electronic questionnaires.

Table 2: Procedures for existing statistical activities¹⁰

WHAT	BY WHOM	TARGET DATE / TIME SPAN	HOW	POTENTIAL PROBLEMS	INSTRUMENTS AVAILABLE	OUTPUTS
(a). Identification of statistical activities for review on a rolling biannual calendar ¹¹	SPG	By the end of January (year t)	1. Discussing review proposals and schedules presented by Directorates	1. Directorates slow to agree on schedule for quality reviews	1. OECD Statistical Work Programme (OSWP)	Set of statistical activities to be reviewed by end of year
(b). Self-Assessment (self assessment template on subsequent sheet) ¹²	Statistical activity manager and staff	3 months	1. Consulting major users, including Committees and experts in capitals 2. Consulting appropriate national and international agencies ¹³ 3. Comparing current practices with guidelines 4. Identifying cost-efficiency of currently adopted procedures	1. Operational concerns take priority away from quality review 2. Inadequate evaluation of all quality dimensions 3. Poor identification of quality improvements 4. Available resources	1. Quality checklist for selfassessment 2. OECD Quality guidelines	Self-assessment report including summary of quality problems, prioritised list of possible improvements and an assessment of additional resources (if any) required for implementation (included new data developments)
(c). User review of the self-assessment report ¹⁴	Statistical activity manager and staff	1 month	1. Asking major users, including Committees and/or experts in capitals, to comment on the self-assessment	1 Major users do not have time or resources to make detailed comments		Additional potential improvements and priority assignment from user perspective
(d). Horizontal review of the selfassessment report	Statistical activity manager and designated expert ¹⁵	1 month	1. Commenting on the self-assessment from a "corporate" perspective and suggesting improvements	1. Incorrect evaluation of quality dimensions 2. Incorrect identification of proposed improvements	1. OECD Quality Guidelines	Additional potential improvements and priority assignment from horizontal perspective and evaluation of resource assessments

¹⁰ In accordance with the terminology of the OECD Statistical Work Programme, a statistical activity is interpreted as an activity that produces at least one statistical output, such as a dataset or database available to internal or external users through Internet, Intranet, OLISNet, CD-ROM, etc., or a publication (whether classified or not) that is statistical or is analytical but with extensive statistical content. Table 1 outlines procedures for proposed new statistical activities.

¹¹ All statistical activities would be reviewed over a time frame of four years. A review should be conducted when main technical or organisational changes are envisaged (for example, when the software used to maintain the database has to be changes/revised).

¹² The scale of selfassessment should be commensurate with scale and significance of activity. A simplified approach is appropriate for small scale activities.

¹³ Not only national statistical offices, but also other data providers.

¹⁴ Activities (c) and (d) are normally carried out in parallel.

¹⁵ For each activity, or group of activities, the SPG will designate an expert to be responsible for conducting the horizontal review and for drafting the final quality report, in co-operation with the manager of the statistical activity. The horizontal review will be done with the assistance of STD, PAC and ITN experts and other statisticians.

WHAT	BY WHOM	TARGET DATE / TIME SPAN	HOW	POTENTIAL PROBLEMS	INSTRUMENTS AVAILABLE	OUTPUTS
(e). Preparation of the final quality report	Statistical activity manager and designated expert	1 month	1. Merging the self-assessment and comments received through the reviews 2. Identifying a final list of proposals for potential quality improvements	1. Conflicting views from managers, users and horizontal Directorate experts	1. OECD Quality Guidelines	Final quality report including summary of quality problems, prioritised list of possible improvements and an assessment of resources required for implementation tabled with SPG
(f). Review by SPG and transmission of official report to relevant Director	SPG	1 month	1. SPG members may comment on conclusions, discuss in detail or raise their concerns. 2. After resolution of any concerns, or in absence of comments, the report is regarded as official.	1. SPG members slow to react		Final quality report including summary of quality problems, prioritised list of possible improvements and an assessment of resources required for implementation sent to relevant Director
(g). Assignment of resources for quality improvement initiatives	Relevant Director, Budget Committee, Secretary General, Chief Statistician	By the end of December	1. Evaluating priorities at Directorate level 2. Identifying initiatives to be financed by the CPF	1. Improvements are not made because of lack of resources		Quality improvement initiatives embedded in Programme of Work
(h). Feedback to stakeholders on initiatives to improve the quality of OECD statistics	Chief statistician	By the end of January (year t+1)	1. Proposing changes (if any) to quality framework and guidelines 2. Summarising proposed quality improvement initiatives 3. Indicating which proposed improvements are being implemented and how	1. Credibility of the OECD data is affected if quality problems not solved		Annual report to the SG and to Council on the implementation of the quality framework

Table 3: Self-assessment template for existing statistical activities

WHAT ¹⁶	HOW	POTENTIAL PROBLEMS	INSTRUMENTS
1. Relevance	<ol style="list-style-type: none"> Identifying policy needs that require changes in data already collected or new data developments Analysing feedback from marketing activities Taking into account general strategies of the OECD 	<ol style="list-style-type: none"> Changes in priorities that interrupt production of statistics Overlapping with initiatives of other Directorates and/or organisations Tensions between different priorities coming from various parts of the Organisation 	<ol style="list-style-type: none"> UN/ECE Integrated Presentation Gateway to external sources OSWP OECD.Stat Gateway to OECD statistical databases Assistance by PAC
2. Accuracy	<ol style="list-style-type: none"> Evaluating accuracy problems in original sources Evaluating statistical treatments currently used to manage data and metadata and to improve coherence (over time, across countries, etc.) 	<ol style="list-style-type: none"> Use of non-optimal sources from accuracy viewpoint Inappropriate checking of data and metadata Insufficient metadata for evaluating accuracy Use of inappropriate definitions or classifications Inappropriate method for improving coherence 	<ol style="list-style-type: none"> OECD Glossary of Statistical Terms Assistance by STD and other Directorates OECD Quality guidelines
3. Credibility	<ol style="list-style-type: none"> Evaluating the way in which data quality is currently assessed Assessing how scientific principles and professional ethics are implemented and how political pressures are managed Evaluating the transparency of procedures used for producing statistics 	<ol style="list-style-type: none"> Undermining the OECD image as a professional organisation Undermining the confidence of users in OECD statistics 	<ol style="list-style-type: none"> OECD Quality guidelines
4. Timeliness and punctuality	<ol style="list-style-type: none"> Evaluating the efficiency and the quality of data collection, verification, management and dissemination procedures Identifying a calendar for data releases 	<ol style="list-style-type: none"> Inefficient or inappropriate data capture and verification processes Inefficient data dissemination processes Missing deadlines Inappropriate use of nowcasting procedures 	<ol style="list-style-type: none"> OECD Quality guidelines Assistance by STD, ITN and PAC
5. Accessibility and interpretability	<ol style="list-style-type: none"> Evaluating data and metadata management, dissemination procedures Evaluating user needs for different channels for accessing data and metadata Evaluating product integration in OECD statistical information system 	<ol style="list-style-type: none"> Inefficient or inappropriate data and metadata management and dissemination systems Use of non-corporate software for data and metadata management and dissemination Inappropriate quality of corporate software 	<ol style="list-style-type: none"> OECD Quality guidelines OECD.Statworks OECD.Stat OECD Glossary of Statistical Terms Assistance by STD, ITN and PAC
6. Coherence: within a dataset, across datasets, over time, and across countries	<ol style="list-style-type: none"> Identifying overlap between already existing series Analysing how to meet different user needs in various parts of OECD Analysing and/or developing good practices for improving coherence 	<ol style="list-style-type: none"> Incorrect or inefficient statistical treatment for improving coherence Overlap between existing estimates Insufficient availability of metadata to interpret inconsistencies Weakness of policy conclusions based on incoherent data 	<ol style="list-style-type: none"> OECD.Stat Gateway to external sources OECD Quality guidelines OECD Glossary of Statistical Terms Gateway to OECD statistical databases Assistance by STD and other Directorates

¹⁶The OECD quality dimensions used for the self assessment template are defined in Section 1.1 of the OECD Quality Framework.

