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COORDINATION OF INTERNATIONAL STATISTICAL WORK IN THE UNECE REGION

Rapporteur Report on Quality Frameworks and the link with institutional frameworks and principles<sup>1</sup>

Submitted by Statistics Sweden (in cooperation with Eurostat, International Monetary Fund and Statistics Canada)

I. EXECUTIVE SUMMARY

1. Much work is going on in statistical organizations across the world to improve quality, both in the results and in the production process, through the application of frameworks and principles. During the last couple of years several frameworks have been put in place aiming at supporting improvement of quality in the organizations as well as enhancing the credibility of the output. This clearly shows the ambition of the statistical organizations to continuously improve and provide better service to its users through strengthening of the organizations and their processes. Approaches are put in place to implement and support the different frameworks. Cooperation between NSOs, supra- and international statistical organizations generally develop in a positive direction.

2. There are a number of concerns and opportunities for improvements that should be addressed. The multitude of largely overlapping frameworks puts a burden of having to adjust to several “standards” on the organizations. The lack of overall leadership within this field

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<sup>1</sup> This paper has been prepared at the invitation of the secretariat.

contributes to this. At the same time the un-coordinated activities and failure to achieve an efficient sharing of knowledge and experiences across organizations are obstacles to the improvement of the statistical systems worldwide.

3. An important prerequisite for improving quality is to be able to measure it. This will provide information on strengths and weaknesses, and thus guide the efforts, and will encourage activities since results will be visible. We do not do enough with regard to measuring and informing users on the quality on the levels of product, process and organization today.
4. There is a need to use the emerging standards, e.g. ISO-standard for surveys and integrate them into a single statistical quality framework (or perhaps two, one for producers of primary statistics and one for compilers of statistics across domains).

## II. PROGRESS BEING MADE COLLECTIVELY BY ORGANIZATIONS IN THE FIELD OF QUALITY FRAMEWORKS AND THE LINK WITH INSTITUTIONAL FRAMEWORKS AND PRINCIPLES

5. Quality frameworks for statistics have been defined by several international organizations as well as by different NSOs, including Eurostat, the IMF, Statistics Canada and Statistics Sweden.
6. Institutional frameworks have been defined by several international organizations and include the UN Fundamental Principles of Official Statistics (1994), The European Statistics Code of Practice (2005) and the Principles Governing International Statistical Activities (2005). There is a growing trend towards integrating quality frameworks into the institutional frameworks and thus formalise the link between them. Such models are a very useful complement to more general business excellence models such as the EFQM model used by some NSOs in Europe.
7. Both quality frameworks and institutional frameworks are being used to assess performance levels through definition of sets of quality indicators. A first round of self-assessments carried out by European Statistical System against principles and indicators of the European Statistics Code of Practice has been carried out during 2005. This assessment has been deemed useful by the participating organizations. To produce Data Modules of the Reports on Observance of Standards and Codes (data ROSCs) assessing the quality of its member countries' statistical systems, IMF has been using its Data Quality Assessment Framework (DQAF) for quality assessments since 2001. The DQAF framework was updated in July 2003.
8. A UN Committee for the Co-ordination of Statistical Activities (CCSA) project co-ordinated by Eurostat has been established to promote the use and the convergence of international quality assurance systems and systems for quality control. The view being to streamline quality reporting requirements between producers of statistics and to harmonise the formats used for informing users on the quality of statistics.
9. Reviews and audits are implemented in a systematic fashion for statistical systems as well as for many individual organizations to assess their performance and provide recommendations for improvements. For example, IMF has conducted extensive quality reviews of the statistical systems of 59 of its 184 member countries since 2001 in its ongoing data ROSC program and the

European Statistical System during 2006/07 undertakes to carry out peer reviews of the national statistical systems and Eurostat against the European Statistics Code of Practice.

10. Rolling reviews are a realistic alternative to more extensive reviews covering many areas and many quality aspects of each area. Rolling reviews will gradually increase our knowledge about quality dimensions and the impact of specific error sources on estimates. They also help identify areas for improvement. Many organizations perform in-house reviews of surveys or other processes. The reviews can be performed by in-house staff or by external experts and usually result in improvement action plans. As an example in this vein among international organizations, IMF periodically performs focused quality assessment updates for selected countries and data categories following initial data ROSC assessments.

11. Launching of a Eurostat quality website<sup>2</sup> providing information on the European Statistical System approach towards quality in statistics comprising information on the quality of European Statistics, tools and standards for quality reporting, European Statistical System practices and quality framework.

12. Development of handbooks/current best methods/standards in areas relating to the European Statistical System Quality Recommendations and the Code of Practice, respectively.

13. A wealth of modern and relevant literature associated with various quality dimensions and levels has emerged. Examples include quality frameworks, standard quality report systems and methodology handbooks.

14. Quality assurance frameworks are being developed by both international organizations and individual NSOs linking the institutional approaches to the processes and the resulting statistics. These frameworks often include strategies, corporate planning, user liaison programs, standardized processes and review approaches together with integrated reporting systems.

15. The continuing series of European Conferences on Quality and Methodology in Official Statistics has put the focus on the links between the institutional frameworks, processes and the resulting quality of the statistics and the quality frameworks.

16. An ISO-standard for Market, Opinion and Market research is being developed by an international group with representatives from NSOs. This standard will provide a framework that covers both institutional aspects and the underlying processes.

### III. ISSUES AND PROBLEMS (KEY NEW ISSUES, GAPS, PROBLEMS AND DEVELOPMENTS)

17. A wider realisation of the need to work on quality on three levels: product, process, and organization, has taken hold. It should be realised that these levels require different approaches, e.g. structured frameworks, guidance documents, measuring and analyzing key process variables and the application of the European Code of Practice or some business excellence model. There is a clear need to work with a holistic view of the institution and to recognise the links between the levels and the existing quality approaches.

18. The problems posed by the existence of different, partly overlapping, quality frameworks and benchmarking activities at the international level leading to double reporting by NSOs and different kinds of evaluation approaches. Although total convergence can never be achieved, and indeed is not desirable because of the different purposes the frameworks have been developed to fulfill, there is a need to eliminate the unjustified variation. The formats to inform the users on the quality of statistics differ and the different definitions of quality lead to some confusion among users and provide an obstacle to sharing metadata on quality between different systems. It is regrettable that the involvement of users in defining the quality frameworks has been almost non-existent despite the fact that one of the key reasons for developing the frameworks in the first place was to utilise them to inform the users on the quality of the statistics.

19. There is, in fact, a general scarcity of measurements of various quality dimensions despite the ambitious efforts to develop and define quality indicators made by many organizations. Measurements are often replaced by less informative indicators of quality. It seems as if there is greater need for measures of error magnitudes and less need for revised or new frameworks.

20. The implementation of the European Statistics Code of Practice as a comprehensive quality framework for the European Statistical System (ESS) comprising the institutional environment, statistical processes and outputs supported by Eurostat and the organizations within the ESS. The status of the code within the ESS and its members has been assessed by an extensive questionnaire covering the 15 principles of the code and the associated indicators. A report on the status is being developed and will be presented to the Economic and Financial Committee of the ECOFIN Council in May 2006. The approach for a peer review process is under development and will be put into practice during 2006/07. This process aims at providing support for the ESS in implementing the Code and at the same time assures the validity of the self-assessment.

21. The problem is that assessments of trans-organizational statistical systems are almost non-existent. Many approaches exist and are being further developed to assess the quality of individual statistics or areas of statistics, but no clear approaches are in place to target the totality of statistical systems, like the European Statistical System, the family of UN statistical areas or the statistics compiled under the IMF umbrella.

22. The existence of a number of different methods used for reviewing/auditing surveys, statistical areas or whole organizations. These methods however are not coordinated in any way across different organizations and how they relate to each other is not particularly clear. Which approach to choose in a specific situation is largely up to the individual organization without any guidance. This leads to missed opportunities for cooperation and benchmarking which would enhance the efficiency of statistical systems across the world. At the same time the reviews are quite burdensome on the countries and better coordination should alleviate this problem.

23. The differences in the situations of the producer of primary statistics (e.g. an NSI) and compilers of statistical data (e.g. an international organization) mean that there are different issues on the two levels. Not least is this apparent in the basic fact that supra- and international organizations have to compile data that originates from sometimes extremely diversified national statistical systems. Comparability becomes a much more central issue and the possibilities for having information about the resulting quality and being able to provide it to users are much

smaller. It is not self-evident that the same quality framework should be used in both situations.

#### IV. IMPORTANT ISSUES THAT SHOULD BE BROUGHT TO THE ATTENTION OF THE THE CONFERENCE

24. Make use of the system being built up around the European Statistics Code of Practice, incl. peer reviews to be conducted during 2006/07 involving the partners from the European Statistical System as well as (some) outside peers, as a driving force to improve quality within the ESS.

25. Continue the efforts of harmonisation of different quality frameworks and to alleviate the extensive problems in measuring central and theoretically measurable components like accuracy in practical situations.

26. The user perception of quality reports needs to be further explored in order for statistical organizations to be better able to communicate the quality information in an attractive and clear fashion. At present quality reports are underused by the users of statistics in general.

27. Begin to develop a system for sharing experiences between statistical organizations and to discuss the issues related with the lack of processes for conducting peer reviews according to a common framework (although the approach being developed based on the European Statistics Code of Practice will help in this regard).

28. Build the necessary capacity for interpretation and assistance for utilising the future ISO-standard for "Market, Opinion and Social Research" in such a way that official statistics will continue be at the forefront of the field of statistical information.

29. Continue the UN Committee for the Co-ordination of Statistical Activities (CCSA) project coordinated by Eurostat on promoting the use and the convergence of international quality assurance systems and systems for quality control. The view being to streamline quality reporting requirements between producers of statistics and to harmonise the formats used for informing users on the quality of statistics.

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<sup>2</sup> <http://europa.eu.int/comm/eurostat/quality>