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**EUROPEAN COMMISSION
STATISTICAL OFFICE OF THE
EUROPEAN COMMUNITIES (EUROSTAT)**

**ORGANISATION FOR ECONOMIC
COOPERATION AND DEVELOPMENT (OECD)
STATISTICS DIRECTORATE**

Joint ECE/Eurostat/OECD meeting on the management of statistical information systems
(Geneva, 17-19 February 2003)

Topic IV: Review and follow-up to the activities of the Conference of European Statisticians in the field of statistical information processing

**REVIEW AND FOLLOW-UP TO THE ACTIVITIES OF THE CONFERENCE OF EUROPEAN
STATISTICIANS IN THE FIELD OF STATISTICAL INFORMATION PROCESSING**

Submitted by Statistics Norway¹

I. INTRODUCTION

1. At its June 2002 plenary session, the Conference of the European Statisticians conducted an in-depth review of statistical data collection and processing. As a result of this the Conference identified several issues requiring a follow-up by the international organisations. In particular, the Conference asked the international organisations:

- ◆ To investigate the possibility of developing a common system (portal) for monitoring data collection activities by international organisations;
- ◆ To ensure the development of data sharing models;
- ◆ To give both National Statistical Offices (NSOs) and other data providers easy access to statistics available at the international organisations in a form allowing comparisons and usage in national dissemination programmes;
- ◆ To put in place secure and operational methods and tools for the transmission of sensitive information. The experiences from the STADIUM/STATEL solution supporting GESMES CB should be considered in this context;
- ◆ To investigate the possibility of defining a standard codification scheme for economic time-series (for national accounts and balance of payments) with an initial focus on short-term indicators;
- ◆ To work with national statistical offices to facilitate the reuse of their standard products.

2. The Conference asked the international organisations active in the area to present a progress report on the issue at next year's plenary session of the Conference. The purpose of this note is to discuss the proposals and to contribute to the follow-up process.

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3. It should be noted that two papers presented at this session provided an input to identifying the issues above:
- Delivery of statistical data to international organisations - a country perspective. Paper submitted by Statistics Norway (CES/2002/7)
 - Progress report on new developments in data and metadata collection for international organisations. Submitted by the IMF and OECD (CES/2002/8)

II. A FIRST DISCUSSION OF THE PROPOSALS

(i) To investigate the possibility of developing a common system (portal) for monitoring data collection activities by International Organisations

4. The background for this proposal is the multitude of data streams, formats and technologies to exchange statistical data and metadata between national statistical organisations and different international organisations. There is at present no complete picture of the flows of statistical data, neither at the international level, nor at the national level in most countries.

5. The proposal can be given different interpretations:

- a) The most far-reaching interpretation could mean that all data that different international organisations ask for should be routed through a common solution (portal) in order to ensure that overlapping requirements are handled in a systematic way and to monitor all data flows (see also proposal (ii)).
- b) A less demanding, and short-term target, could mean that an updated overview shall be made available to the NSOs and other data providers of what data the different organisations ask for and receive, as a basis for further actions harmonization and improved efficiency.

6. As part of the specification, it is necessary to clarify the following:

- The level of detail: does it mean only a rather general overview of files/data sets/tables received, or does it mean a detailed specifications down to variable level?
- Should it further comprise all possible deliveries - or should it be restricted to regular deliveries above some specified volume?
- Further, should it comprise all possible international organisations collecting statistics, or should it, at least in the first round, be limited to the major organisations such as Eurostat, OECD, UN, UNECE?

7. Possible solutions to be evaluated could include:

- a) Extension of the Integrated Presentation (IP) database so as to include the necessary details. As neither the IP database nor the written text so far has included monitoring of data collection activities, this will require a major change in the database and in the applications for uploading and viewing. Furthermore, it will require putting in place reporting mechanisms both at receiving and sending institutions.
- b) Development of a separate function for data collection/monitoring. This function will possibly have to be linked to one of the existing international organisation. Already now the collection of some data sets is centralized in the way that one organisation collects the data for further distribution of all or part of the data set to other organisations. This function could be extended and generalized

8. The following challenges have to be taken into account:

- The large differences between the international organisations regarding the coverage of countries and topics covered;
- The differences in the organisation of statistical work within different organisations and within different countries;

- The present lack of a systematic overview of existing data collection activities both within some international organisations and at national level.

(ii) To ensure the development of data sharing models

9. In the previously mentioned document (CES/2002/8) three possible models for data sharing or efficient data exchange are outlined:

- a) The NSOs send the same file to all international organisations. Assumes a coordination of content format and medium between organisations.
- b) The NSOs send data to one international organisation that redistributes the data to other organisations (cp. issue 1). Used at present for the transmission of National Accounts data for EU and accession countries (incl. EFTA/EEA?) to Eurostat and the OECD. A drawback is the lack of direct contact.
- c) The real 'data sharing model' implies that the NSOs upload data to a repository accessible to the International Organisations. If a common format is used this could be seen as a common database. A simple solution for a data-sharing model is said to be the situation where NSOs make all the required data available on the Internet. This model is considered very efficient from the data provider's view. Other important advantages of this model are that it offers possibilities for automatic of for instance metadata and corrections to data errors. However, the implementation will require a high degree of cooperation among data providers and data collectors.

10. At present there are initiatives developing the use of the options a) and b), for instance in the field of major short-term economic indicators for the OECD, Eurostat and the IMF. These initiatives should be encouraged.

11. The last option appear to closely linked to proposal (vi) (reuse of standard products) and in order to proceed in this direction a separate task force may be necessary (see (vi)).

(iii) To give both NSOs and other data providers easy access to statistics available at the international organisations in a form allowing comparisons and usage in national dissemination programmes

12. This proposal is derived from paper CES/2002/7, and the reason is that improved access will motivate the timely provision of data and in general improve quality. National statistical products will also become more relevant and user oriented by increased use of international comparisons.

13. Easy access and a user-friendly format can imply the following:

- As much as possible of the publishable statistics at the international organisations should be accessible in a web base free of charge allowing easy downloading in a standard format.
- Further, there should be few restrictions on reusing data in national publications, and any contractual mechanisms should be simple to implement.

14. This proposal is basically targeting the international organisations, and they can, to some extent on an individual basis, provide a self-assessment on the extent to which the requirements are met, or how they want to proceed. Improved standardisation of the interfaces and database structures would be important. Thus, a specific review may be necessary.

15. The NSOs may have to describe and agree on the requirements they will formulate in relation to the international organisations. This might be done within the existing working groups (for instance the Eurostat Dissemination Working Group). It might also be a task related to any task force addressing the 'data sharing' issue (cp proposals (ii) and (vi)).

- (iv) **To put in place secure and operational methods and tools for the transmission of sensitive information. The experiences from the STADIUM/STATEL solution supporting GESMES CB should be considered in this context**

16. This proposal is also derived from paper CES/2002/7, and the background is the lack of standardisation of transfer formats. The use of GESMES/CB is also discussed in CES/2002/8, where it is said that further investigations are needed in order to determine the model's scalability for a global context.

17. The question is: who can take responsibility for the follow up of this proposal? One possibility is to leave the task to the SDMX initiative that includes some major actors on the international level (BIS, ECB, EUROSTAT, IMF, OECD, and the UN). However, this proposal is also related to any development of the ideas of data sharing, and it might also be a task for any task force following up on this issue.

- (v) **To investigate the possibility of defining a standard codification scheme for economic time-series (for national accounts and balance of payments) with an initial focus on short-term indicators**

18. The proposal is from the paper CES/2002/8, and is related to some cooperative efforts already going on between i.a. Eurostat, OECD and the IMF. Hopefully a proposal will come out of this work that can form a basis for further discussion and agreement in relevant working groups and management committees.

- (vi) **To work with national statistical offices to facilitate the reuse of their standard products**

19. As pointed out in the paper (CES/2002/8) the OECD already has been making use of the web databases for extracting main economic indicators in a number of countries. According to OECD, this solution would become even more efficient if the following problems were solved:

- Lack of completeness of coverage, in terms of subjects or time period;
- Different systems used in several parts of the same organisation;
- Lack of support for metadata;
- Lack of reliability in systems used;
- Level of sophistication of some database systems making automatisation difficult.

20. Thus, the main issue here appears to be the need for standardisation of the databases available via the web within different NSOs. First of all, there is a need to agree on the requirements in relation to the web databases, followed up by an evaluation of existing solutions and identifying possible lines of action.

21. As a starting point it would be interesting to learn whether at present there are solutions offered, and already more or less in use by one or more NSOs that can be considered 'best practise' and form a basis for further work.

22. This proposal appears very much linked to the issues of data sharing and standardisation of exchange formats, and it will require concerted efforts involving both international organisations and NSOs. A specific task force can therefore be a possibility (see next point).

III. CONCLUSIONS AND FOLLOW UP

23. The overview above identifies that there are some possible overlaps between the proposals that makes it necessary to look for synergies in the follow up. Some of the proposals are also easier to implement than others, and one has to identify short-term actions and actions that require a more long-term perspective. It is thus necessary to set milestones for some concrete actions.

24. One should further take account of experiences from previous projects/programmes, such as the DSIS (Distributed Statistical Information Services) initiative by Eurostat working in the direction of a data sharing approach. One lesson learned is that the implementation problems are, to a lesser extent technological rather than organisational, given the complex structure of the statistical production system at national level in many countries, and not least the many actors on international level.

25. In order to get concrete results it is also necessary to identify who the actors are and which role different partners can play.
26. As a background for this discussion an overview of the relevant elements of the Integrated Presentation is provided in the Annex. This overview also lists the different groups that might be involved.
27. In this context the Conference of European Statisticians, including its Bureau, is a central body that has attached much interest to improved coordination of data exchange, and has asked for this specific follow up. The Conference will for instance have to take a decision whether the IP should be extended to include the necessary details for the "portal" and to modify the IP database accordingly.
28. The programme element '2.1 Management of information technology infrastructure' should have a central role to play, and the objectives should be evaluated in order to see to what extent they support the targets as set by the proposals above. And it should be underlined that most of the actions necessary to meet the proposals above have to be performed by these organisations. The joint Meeting on the Management of Statistical Information Technology, is an important forum to give guidance to this work. The joint Work session on Statistical Data Confidentiality, will also play a role in relation to some of the issues addressed.
29. Actually, there is a separate programme element called: 6.1 Dissemination of data and coordination of international data collection. This element overlaps to some extent with 2.1, and includes some specific coordination activity, such as the SDMX project. But there is no meeting linked to this element.
30. Programme element '2.2 Statistical data collection and processing' has mainly to do with primary data collection, and a main activity is concerned with electronic data reporting. However, the Eurostat Metadata workshop is listed here, and as the work on standardisation of metadata is central to the proposals discussed, at least this workshop should be involved.
31. Programme element '2.3 Dissemination and interchange of statistical information' also includes several objectives and initiatives that are fundamental for solving the issues raised. Once again, the objectives of the different organisations should be reviewed in the light of the proposals. The ECE working group linked to this element (dissemination to mass media) is not particularly relevant in this context, but the Eurostat working groups (STNE and dissemination) should be involved.
32. Many of the necessary actions may thus be discussed and promoted within the established framework. However, it remains to be evaluated whether there is a need to clarify objectives of some specific programme elements and work sessions. Furthermore, is there a need to put in place additional structures to address specific issues?
33. As already indicated, there might be reasons to set up a task force consisting of representatives from both international organisations and selected NSOs in order to address the following issues:
- Analysing the prerequisites for developing a model based on data sharing;
 - Providing good examples on web databases offering potential as a basis for reuse by international organisations;
 - Producing a plan for developing a data sharing solution, possibly by a gradual involvement of partners and topics covered.
34. If possible, this task force should be supported by a specific project that could elaborate on technical aspects. This action will mainly cover proposals (ii) and (vi). Proposal (i) is suggested to be evaluated by the UNECE secretariat in cooperation with other international organisations (Eurostat, OECD; IMF) with the aim to put forward a proposal to the UNECE Bureau and the Conference. Proposal (iii) should be discussed in relevant Eurostat working groups and possibly also be addressed by the proposed task force. Proposal (iv) could mainly be followed up by the SDMX group. Proposal (v) should be followed up within the joint cooperation framework by Eurostat, OECD and IMF.

Annex

An overview of relevant IP program elements

PE 1.1 Promotion and coordination of multilateral statistical work

This program element has at its main goal:

'That multilateral statistical work is consistent, coherent and harmonious in regard to its use of classifications and definitions, publications, work programmes and collection of data.'

The strategic medium term objectives are formulated as:

- ◆ Decisions by the Conference of European Statisticians (CES) to the ECE secretariat on the Conference's own work programme and on the work programme of the ECE's Population Activities Unit, and guidance by the Conference to other ECE Principal Subsidiary Bodies and to other international and supranational organisations on statistically-related activities in their work programmes.
- ◆ Reach agreements and protocols with wide dissemination on unified questionnaires, single databases, work programmes and meeting agendas.
- ◆ Submit to the plenary session of the CES integrated work programmes and streamlined programmes of data collection; make it available to the UNSD for its Integrated Presentation.
- ◆ Consistency in the data dissemination by international statistical offices.

To support these objectives there is an annual Joint ECE/OECD/Eurostat Programme review meeting and several joint Inter-secretariat Working Groups.

PE 1.2 Management and policy issues of direct concern to presidents of national statistical offices

The goal of this programme element is:

'That relationships among the top management level of the national statistical institutes as well as contact with the management of international statistical organisations be efficient.'

The annual plenary sessions of the Conference of European Statisticians as well as the regular activity of the Bureau of the Conference, are the main activity of this programme element. A main focus of the Bureau and of the Conference has been the improved coordination between international organisations, not least in the field of data collection activities.

PE 2.1 Management of information technology infrastructure

This programme element has as its goal:

'That the benefits of information and communication technology (ICT) be harnessed to the greatest extent possible in the collection, processing and dissemination of statistical data.'

The strategic medium-term objectives are formulated as

For the ECE:

- ◆ A re-designed architecture for collection, processing and dissemination of statistical data under the rapid development in ICT with emphasis on the integration of data sources and data dissemination on both national and international levels.
- ◆ Improved dissemination of official statistics via Internet.
- ◆ Increased level of implementation of common EDI messages standards in transition countries.
- ◆ Complete preparation of methodological material on "Business' Perception of Confidentiality".

For Eurostat:

- ◆ Agreement on common architecture for statistical information services (collection, production & internal reference, external reference, dissemination).

- ◆ Adoption and integration of open-EDI technologies such as common exchange standards for documents, statistical reports, statistical data, classifications and meta-data.
- ◆ Agreement on common EDI messages and APIs to couple distributed statistical information services (e.g. locating, extracting and downloading relevant statistical data for a specific domain).

For the OECD:

- ◆ Further standardise and integrate statistical work in the Organisation with the aim of creating a corporate data warehouse.
- ◆ Further co-ordinate statistical data collection and dissemination with other international organisations and relevant countries.

For World Bank:

- ◆ To develop a web-based statistical data collection and dissemination system for its own staff and for users in other countries and institutions by 2005. Its aims will include:
 - ◆ As a first step, socio-economic, external debt and trade indicators and other related Bank/IDA data will be included in this warehouse;
 - ◆ The capability of supporting user specified queries over the Internet;
 - ◆ Differentiated access based on privileges;
 - ◆ The development of software that could be disseminated to countries to increase their statistical capacity.

The joint meeting on the Management of Statistical information is contributing to this programme element. The ECE/Eurostat work session on statistical data confidentiality and the Eurostat IT Steering Committee is also related to this element.

2.2 Statistical data collection and processing

Goal

'That the benefits of ICT be harnessed to the greatest extent possible in the collection and processing of statistical data.'

This program element has mainly to do with primary data collection, but there is also some link to data transmission to international organisations.

An ECE/Eurostat work session on electronic data reporting is one of the activities. A Eurostat Metadata workshop is also mentioned as contributing to this part of the programme, together with the Committee on Statistical Confidentiality and a Working Group on EDICOM/IDEP/EDIFACT.

2.3 Dissemination and interchange of statistical information

The goal is:

'That the benefits of ICT be harnessed to the greatest extent possible in the dissemination and interchange of statistical information

Strategic medium-term objectives

For the ECE:

- ◆ Progress in the re-engineering of data dissemination caused by expansion of Internet services.
- ◆ Progress in the integration of metadata related to the dissemination of statistics by international organisations.
- ◆ Preparation of a handbook on best practices in disseminating statistical data to the information media and on statistical offices' media relations.
- ◆ Improved use of common standards for EDI in transition countries.

For EUROSTAT:

- ◆ Agreement on concentrated efforts, investments and resources on DSIS 6 priorities (metadata, reference environment, raw data collection, design and integration of EDI technologies, multimedia and information highways, integration with networking technologies).

- ◆ Agreement on use of standardized EDI messages as a corner to exchange data and metadata between reference environments.
- ◆ Implementation of reference and dissemination environments (new architecture) conforming to common recommendations, requirements and memorandum of understanding (including access rights, copyrights, accounting practices).
- ◆ Feasibility studies on how statistical information services can benefit from EDI and multimedia technologies.
- ◆ Improvement in the quality of publications and reductions in the number of titles.

For the OECD:

- ◆ Further increase the dissemination of free data on the Internet and improve the coherence of on-line dissemination by integrating datasets and improving the descriptive metadata content.

For the IMF:

- ◆ Completion of SDMX project for exchange of information on the Internet.

For the UNSD:

- ◆ Development of the Millennium Indicators Database for monitoring the implementation of the Millennium Declaration.

The following meetings are of relevance to this program element:

- ◆ EUROSTAT: Working Group: Statistics, Telematic Networks & EDI (STNE), 7-9 October 2002, (+ twice a year in March and October)
- ◆ EUROSTAT: Working Group: Dissemination of statistical Information, 24-25 October 2002 (+ twice a year in April and October)
- ◆ ECE: Work session on statistical output for dissemination to the mass media, 4-6 November 2002
- ◆ EUROSTAT: Working Group: Data Shop Network Meeting, 18-20 November 2002 (+ once a year in November)

6.1 Dissemination of data and coordination of international data collection

The goal is formulated as:

"That coordination of international data collection and dissemination is done effectively.

The strategic medium-term objectives are:

- ◆ Issuing of statistical publications and products by all the organisations.
- ◆ Improved procedures and tools for co-ordination of data collection

Expected outcomes in the next two years

- ◆ Joint data collection by ECE and Eurostat of macro-economic data from the EU candidate countries (see also PE 3.1).
- ◆ Full implementation of the OECD/UNSD data sharing agreement concerning international trade in goods covering all OECD member countries (see also PE 3.3).
- ◆ Finalisation of the electronic version of the common questionnaire by Eurostat and ECE for the collection of transport statistics (see also PE 3.4).
- ◆ Identification of the common data set and agreement on data transmission between OECD and Eurostat on Structural Business Statistics (see also PE 3.8 and 3.11).
- ◆ Establishment of a Website on annual energy questionnaires jointly by IEA and OECD (see also PE 3.12).
- ◆ A coordinated work-plan for data collection in the field of labour statistics for statistics to be collected by Eurostat, ILO and OECD (see also PE 4.4).
- ◆ Expansion of joint UNESCO/OECD/Eurostat data collection procedures and definitions in the area of education and training statistics to more countries in the ECE region (see also PE 4.5).

- ◆ Completion of the Statistical Data and Metadata Exchange (SDMX) project for exchange of information over Internet (see also PE 2.3).

There is no joint meeting directly linked to this programme element but the results are dependent on actions and decisions taken in other groups and on work performed in the different organisations.
