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STATISTICAL COMMISSION and ECONOMIC COMMISSION FOR EUROPE

CONFERENCE OF EUROPEAN STATISTICIANS

Forty-fourth plenary session  
(Paris, 11-13 June 1996)

PROGRAMMES OF INTERNATIONAL STATISTICAL  
WORK IN THE ECE REGION, 1996/97 AND 1997/98:  
AN INTEGRATED PRESENTATION

**SUB-PROGRAMME 2  
TECHNICAL INFRASTRUCTURE AND OTHER CROSS-CUTTING ISSUES**

The format of this integrated presentation

1. This is intended to be a fully integrated presentation of international work programmes in the ECE region. That is to say it includes not only the statistical work of the Economic Commission for Europe (ECE), but also the relevant statistical work carried out in the ECE region by the Commission of the European Communities, OECD, the UN Statistical Division (UNSD), ILO, WHO, IMF, the World Trade Organization (ex GATT), the World Bank, The Interstate Statistical Committee of the Commonwealth of Independent States (CIS STAT) and many other agencies. The programmes are presented in six separate documents - one for each domain in the Conference's programme of work - as follows:

Sub-programme 1: Organization and Operation of statistical services  
(CES/1996/R.30/Add.1)

Sub-programme 2: Technical infrastructure and other cross-cutting issues  
(CES/1996/R.30/Add.2)

Sub-programme 3: Economic statistics (CES/1996/R.30/Add.3)

Sub-programme 4: Social and demographic statistics (CES/1996/R.30/Add.4)

Sub-programme 5: Environment statistics (CES/1996/R.30/Add.5)

Sub-programme 6: Dissemination and support for secretariat activities  
(CES/1996/R.30/Add.6)

2. The integrated presentation is prepared annually, according to the following timetable:

GE.96-31317

i) December-February: The ECE secretariat obtains information from the other organizations on their programmes of work and prepares a first draft of the integrated presentation for review by the Bureau of the Conference of European Statisticians at its February meeting of each year.

ii) March-June: The integrated presentation is updated and amended to include the Bureau's recommended decisions to the Conference in each field of statistics, and it is presented in draft form for review by the Conference at its annual meeting in June.

iii) July-August: The integrated presentation is amended to reflect the decisions taken by the Conference at its June meeting concerning its own work programme, and it is issued in its final form for the forthcoming two-year period.

3. Thus, the material presented in the six documents referred to above has been amended to reflect decisions taken by the Conference at its June 1996 plenary session. The Conference approved the parts of the integrated presentation that comprise its own work programme. It also offered suggestions and advice on planned future work in the parts of the integrated presentation that are the responsibility of other international organizations.

4. Each sub-programme is sub-divided into a number of programme elements, and each programme element is described within the following framework:

OBJECTIVES OVER THE NEXT SEVERAL YEARS: Broad aims of national statistical offices for international work in that field over the next several years.

EXPECTED COLLECTIVE OUTPUT IN THE NEXT TWO YEARS: Specific outputs expected by countries in the next two years.

ISSUES TO WHICH THE ATTENTION OF THE CONFERENCE IS DRAWN: List of issues in each field of statistics that the Bureau of the Conference considers should be brought to the attention of the Conference at its plenary session.

RECOMMENDED DECISIONS BY THE CONFERENCE AT THE 1996 PLENARY SESSION: List of decisions on its programme of work recommended to be taken by the Conference at the plenary session.

MEETINGS IN THE NEXT TWO YEARS: Sponsoring agency, title, date.

RAPPORTEUR: International organization that the Conference has recommended be assigned responsibility for preparing short issue- and strategic-oriented reports for the Bureau and for assessing on behalf of the Conference progress towards the objectives and outputs specified for a programme element.

ACTIVITIES AND MEANS IN THE NEXT TWO YEARS: Description of the major activities of agencies in that field in the coming two years. Information is also given in this section on ECE resource

implications for the work to be carried out by the ECE secretariat (the resource implications are classified as follows: minimal (less than 3 work months; moderate (3-6 work months); and substantial (over 6 work months)), and on priority ratings for the Conference's own programme of work (which are labelled "Priority A", "B" or "C" - Priority A indicates work to be undertaken by the Conference in 1996/97; Priority B means work is planned for 1997/98 but not for 1996/97; Priority C indicates work is not planned to be undertaken by the Conference in that field during the next two years).

#### Priority menus and lists of meetings

5. The "priority menu" summarizing the major types of activities the Conference plans to work on during the next two years in all projects in the sub-programme is given at the end of this addendum, together with a consolidated list of meetings that the ECE, Eurostat and the OECD plan to organize under this sub-programme in the next two years.

#### List of programme elements in the programme of work of the Conference

6. The list of programme elements in the whole programme of work of the Conference is given in Table 1, together with an indication of the document in which information for that programme element can be found.

#### Other related information

7. As the integrated presentation is being presented in the same format in six separate documents, this explanatory note on the new format of the presentation is being reproduced in each of the documents. A separate short document (CES/1996/R.30) describes the background to the development of the format used here and provides additional information including an explanation of acronyms used.

Table 1. List of programme elements in the programme of work of the Conference (together with an indication of the document in which information for that programme element can be found)

Sub-programme	Programme element
<u>Sub-programme 1: Organization and Operation of statistical services (See document CES/1996/R.30/Add.1)</u>	1.1 Promotion and coordination of multilateral statistical work 1.2 Managerial and policy issues of direct concern to presidents of national statistical offices 1.3 Countries in transition in the ECE region 1.4 Relations with countries outside the ECE region (including countries in the Mediterranean region)
<u>Sub-programme 2: Technical infrastructure and other cross-cutting issues (See document CES/1996/R.30/Add.2)</u>	2.1 Management of information technology infrastructure 2.2 Statistical data collection and processing 2.3 Dissemination and interchange of statistical information 2.4 Industry, commodity and occupation classifications 2.5 Statistical research and development 2.6 Geographical and regional data 2.7 Human resource development
<u>Sub-programme 3: Economic statistics (See document CES/1996/R.30/Add.3)</u>	3.1 Implementation of the system of national accounts 3.2 Money and banking, government finance, and balance of payments 3.3 International trade in goods 3.4 Transport 3.5 Distributive trades 3.6 International trade in services 3.7 Tourism 3.8 Other marketed services, and non-marketed services 3.9 Price statistics, including purchasing power parities 3.10 Agricultural statistics 3.11 Industrial statistics 3.12 Energy statistics 3.13 Science and technology statistics 3.14 Business registers and administrative records in support of economic statistics 3.XX Other work in the field of economic statistics

Sub-programme	Programme element
<p><u>Sub-programme 4</u>: Social and demographic statistics (See document <b>CES/1996/R.30/Add.4</b>)</p>	<p>4.1 Social indicators and frameworks  4.2 Gender statistics  4.3 Multi-purpose social surveys  4.4 Registers and administrative records for social and demographic statistics  4.5 Population and housing censuses  4.6 Health statistics  4.7 Crime and criminal justice statistics  4.8 Education and training statistics  4.9 Culture statistics  4.10 Labour statistics  4.11 Demographic statistics (including projections, migration and fertility)  4.12 Human settlements and housing statistics  4.13 Statistics of household income and expenditures, of the welfare of the population, and of poverty and income inequality  4.14 Statistics on population groups of special interest  4.XX Other work in the field of social and demographic statistics</p>
<p><u>Sub-programme 5</u>: Environment statistics (See document <b>CES/1996/R.30/Add.5</b>)</p>	<p>5.1 Sectoral concepts, definitions and classifications  5.2 Environmental accounting  5.3 Environmental databases and reporting</p>
<p><u>Sub-programme 6</u>: Dissemination and support for secretariat activities (See document <b>CES/1996/R.30/Add.6</b>)</p>	<p>6.1 Coordination of international data collection  6.2 Other statistically-related activities of the ECE secretariat</p>

**SUB-PROGRAMME 2**  
**TECHNICAL INFRASTRUCTURE AND OTHER CROSS-CUTTING ISSUES**

**2.1 MANAGEMENT OF INFORMATION TECHNOLOGY INFRASTRUCTURE**

**Objectives over the next several years:** To assist in the development of an appropriate strategy in the implementation of information technology (IT) and to improve its management in statistical agencies, including the definition of suitable architectures for computing, communications and information holdings, the choice of appropriate interface standards, the impact of IT development on the organization of statistical services in statistical agencies, the cost-effective management of IT services, strategy in training and requalification of statistical staff caused by the proliferation of personal computers and networking in statistical agencies. This programme element also oversees the IT-related activities in other programme elements of the sub-programme. For the coming period, emphasis should be placed on the following: the impact of IT to reduce costs of statistical production in statistical agencies; the requalification of statistical staff under the conditions of networking and distributed processing of statistical information; the utilization of available broadband and ATM communication technologies; and electronic data interchange to speed up and automate data collection, data exchange and dissemination process.

**Expected collective output in the next two years:** For the ECE: proposals for future work in programme elements 2.2 -- Statistical data collection and processing, and 2.3 -- Dissemination and interchange of statistical information; use of EDIFACT standards for ED of statistical messages in transition countries and at the international level; improved computer architecture in national statistical offices with emphasis on client-servers and networking; improved organization of national statistical services under the conditions of networking and distributed processing; improved metadata management in national and international statistical agencies.

For Eurostat: agreement on common architectures for statistical information services (production, reference, dissemination); adoption and integration of open-EDI technologies such as common exchange standards for documents, statistical reports, statistical data, classifications and metadata; 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: implementation of a main statistical database in the "Corporate Data Environment".

**Attention of the Conference was drawn to the following:**

- The text shown above under the "Objectives" and "Expected output" headings is new text that was prepared by the ECE secretariat and approved by the Bureau.
- The Bureau renamed this programme element at its November 1995 meeting to "Management of information technology infrastructure" and considered that it should deal with both strategy and management issues arising in the IT field in statistical agencies, including for example the cost effective management of IT services.

**Decisions taken by the Conference at the 1996 plenary session:**

- To designate the ECE as the rapporteur for this programme element.
- To approve the activities to be undertaken by the Conference in this programme element (see the list for the ECE/CES in the "Activities and Means" section below and CES/1996/R.30/Add.7).

**Meetings in the next two years:**

ECE: 25th session of the Working Party on EDP (18-21 February 1997)

ECE: Seminar ISIS'98 (Bratislava, Slovakia, May 1998).

EUROSTAT: Committee on statistical confidentiality (7-8 October 1996)

**Rapporteur:** ECE

**Activities and means in the next two years:**

**Activities of ECE: (CES Priority A)**

(a) Twenty-fifth session of the Working Party on Electronic Data Processing (1996/97, and convened for documentation purposes as a seminar) to consider: (i) Impact of new technology on statistical data processing with special attention to strategic management issues related to technological changes such as the growth of client-server approaches to computing; (ii) The use of efficient methods and techniques in collection and processing operations, and assessment of the planned direction of work in the project on statistical data editing in the CES work programme; (iii) New methods and techniques in the dissemination of statistical information focusing on EDI, and assessment of the planned direction of work in the projection statistical metadata in the CES work programme; and (iv) Assessment of other activities related to statistical information technology being undertaken in subprogramme 2 of the programme of work of the Conference of European Statisticians.

(b) Seminar on Integrated Statistical Information Systems and related matters (ISIS'98) in 1997/98 to consider:

a) (The text on Working Party on EDP is already provided in CES/1996/R.19/Add.2)

b) Seminar on Integrated Statistical Information Systems and related matters (ISIS'98) in 1997/98 to consider: (i) Use of communication technologies for external and internal dissemination of statistical data (including the need for metadata and new ways of representing data); (ii) Security and confidentiality of statistical data; (iii) Management of development and operation of statistical IT projects, applications and infrastructure; (iv) Automation of data collection and its relation with the achievement of lower costs and greater efficiency.

Secretariat resources: Substantial.

**Activities of OECD:** Exploiting opportunities provided by new computing and communications technologies to further improve the effectiveness of its statistical activities. Thus the architecture for the Organisation's new statistical information management environment will be based on open-system

technologies. Pilot studies are being carried out for statistical databases in new IT architecture including the development of a metadata structure; also the re-engineering of the Foreign-Trade data process. Open-system architecture will facilitate integration of a variety of software tools and provide easy sharing of data among different information systems on a range of computing platforms. OECD is embarking on a project to establish a Corporate Data Environment. Taking advantage of possibilities provided by evolving international network technologies, to enhance methods and procedures for exchange of statistical information. Direct computer-to-computer links with statistical agencies in Member countries are being expanded, based on the OECD World data Network (OWN/d).

**Activities of Eurostat** (Themes 10, 11,13: Data security; General and support services; Computer architecture): Development and introduction of an integrated set of services intended to cover the needs generally observed in the fields of processing and disseminating information and office automation. In particular, the introduction of the local office automation scenario will be continued; possibilities of the use of electronic mail both within and outside the Commission is being explored, including the distribution of documents for meetings by e-mail; design of a new graphic architecture for Eurostat.

The smooth operation of the local computer infrastructure and improvement of local network management will be ensured.

Emphasis will be placed on multimedia issues, on full utilisation of information highways and on required standardisation measures in the field of telecommunication and metadata processing. Basic electronic mail systems (X400, Internet) and gateways between them are now operational and the automation of the processing of structured e-mail data flows is progressing. Emphasis will also be placed on raw data collection from enterprises and small and medium size companies. GIS and remote sensing (see sub-programme element 2.6) will also be priority areas in Eurostat. In EDI the priority will be the implementation of developed EDIFACT messages into the data processing environments of NSIs and international organisations.

Continued development of classification servers (see sub-programme element 2.4).

#### **Activities of other organizations:**

**Interstate Statistical Committee of the Commonwealth of Independent States:** Particular attention will be devoted to the introduction of new technologies for the collection, processing, interchange and dissemination of statistical data and to the preparation and dissemination of publications in electronic form.

The work plan calls for meetings of CIS STAT's permanent Working Group of Experts on Computerization of Statistics to consider the following issues: (i) problems in the design and introduction of registers of enterprises and organizations; (ii) use of an electronic data processing system to maintain such registers; (iii) experience with the development, use and standardization of media for electronic interchange of statistical information; and (iv) problems in the design and development of networked statistical databases using client-server architecture.

## 2.2 STATISTICAL DATA COLLECTION AND PROCESSING

**Objectives over the next several years:** To promote the use of efficient methodology and software in the common collection and processing operations carried out by statistical agencies (e.g. sampling, data entry, editing, coding, estimation); best practices and best software tools are to be identified and made available. For the coming period, emphasis should be on the following objectives: (i) to support the identification of innovative approaches to cost reduction through technology being undertaken in 2.1; (ii) to assess the current status of the useful work already accomplished in this area and to identify further work that would be of benefit; (iii) to promote the automation of the data collection/processing cycle using new digital communication technologies and structured data architectures; (iv) to diminish manual intervention in the production process; (v) to monitor the development of applicable standards and of IT technologies of the respondents.

**Expected collective output in the next two years:** For the ECE: publication "Data Editing Methods and Techniques -Volume 2"; established programme for further work in this programme element; assessment of statistics related to data editing assessment of new approaches to data editing; recommendations for techniques used to limit overediting.

For EUROSTAT: agreement on the use of EDI messages to specify the statistical requirements to the economic operators and their declarants; production of documentation on EDI projects for decision-makers, key partners in data collection, key technological players such as software houses, EDI providers, and standardization bodies, etc.

For the OECD: implemented EDIFACT standards in data collection; data stored in the statistical database in the "Corporate Data Environment".

**Attention of the Conference was drawn to the following:**

- The text shown above under the "Objectives" and "Expected output" headings is new text that was prepared by the ECE secretariat and approved by the Bureau.

**Decisions taken by the Conference at the 1996 plenary session:**

- To designate the ECE as the rapporteur/focal point for this programme element.
- To approve the activities to be undertaken by the Conference in this programme element (see the list for the ECE/CES in the "Activities and Means" section below)

**Meetings in the next two years:**

ECE: Work session on Statistical Data Editing (18-21 November 1997)

EUROSTAT: Task Force: Progress with Electronic Data Collection (28-29 October 1996)

**Rapporteur:** To be designated at the 1996 plenary session.

**Activities and means in the next two years:**

**Activities of ECE: (CES Priority A)**

a) Work session on statistical data editing (1997/98) to consider: (i) national reports on development and progress in statistical data editing, (ii) compilation, evaluation and analysis of statistics related to the data editing process, (iii) new approaches related to data editing, imputation and coding (e.g. neural networks, new imputation methods, graphical techniques), (iv) impact of electronic data inputs on the editing process, (v) techniques used to limit over-editing, (vi) the use of external and administrative data sources in the editing process.

b) Publication "Data Editing Methods and Techniques -- Volume 2", the aim of which is to recommend efficient techniques for individual data editing operations.

Secretariat resources: Substantial

**Activities of OECD:** A common statistical information management environment is progressively being implemented, integrating the functions of data collection, storage, manipulation, analysis and dissemination, as well as associated metadata and data catalogue. This environment will provide expanded functionality; improved performance; greater ease of use, maintenance and upgrade; improved integration with document and publication production technologies; and lower costs.

OECD has initiated some pilot studies for the implementation of statistical databases, and the implementation of EDIFACT standards. Work has also started on the redesign of publication procedures.

Data collection methods and procedures are being further improved through progressive replacement of paper- and fax-based media with electronic media. Existing online services will be enhanced to provide for automated capture of data from statistical agencies. Operating over OWIN/d, this enhanced service, will increase timeliness of statistical information received, eliminate errors inherent in manual procedures, and reduce the reporting burden.

**Activities of Eurostat** (Theme 14: Sectoral applications): The broad lines of action are: development of the work programme by the Working Party on Statistics, Telematic Networks and EDI with the following five priorities: metadata, reference environment, design and integration of EDI messages, collection of basic data, inter-organisational telematic network; meeting the needs resulting from enlargement making CRONOS-based information systems available on open systems; meeting the needs identified in the Corporate Planning exercise. Specific work will be done in the area of automated data collection from enterprises.

**Activities of other organizations:**

**Interstate Statistical Committee of the Commonwealth of Independent States:**

Work is continuing on standardization of the electronic interchange of statistical information with national statistical services of CIS countries and international organizations. Ten of the 12 CIS statistical services now transmit data each month to CIS STAT by electronic mail using standardized

tables (questionnaires) so that they can be collated and fed back to the Commonwealth countries in consolidated form. Turkmenistan and Tajikistan are due to be connected to the system in 1996. This system provides a computerized chain from collection and processing of data to database management and the preparation of publications.

Electronic interchange of statistical data is being introduced using EDISTAT software developed on the basis of EDIFACT standards.

Refinements will be made both in the software and in the content of existing computerized databases. Components of the databases such as national accounts, foreign trade, finance and prices will be expanded and supplemented by relevant indicators.

**The World Bank:** Engaged in a broad dialogue with the member countries on data collection and dissemination issues. The data supplied by the member countries through statistical publications and during the Bank staff missions are used to design the projects and for policy dialogue with the Governments.

**The Council of Europe:** Five main reports will be presented at the Mediterranean Conference (see item 1.4), which are based on statistical information: (i) Migration from African and Eastern Mediterranean countries to Western Europe (paper from the Netherlands); (ii) Dynamics of demography and development in the Mediterranean basin: implications to the potential for migration to Europe (Egypt paper); (iii) Immigration, demographic trends and the labour market (Belgium paper); (iv) Development cooperation and international migration: the European Union and the Maghreb (paper by France); and (v) New strategies for development cooperation (Egypt paper).

See also 4.11

### **2.3 DISSEMINATION AND INTERCHANGE OF STATISTICAL INFORMATION**

**Objectives over the next several years:** To build up an information and a technological infrastructure for dissemination of statistical data corresponding to the needs of different users groups; to disseminate statistical information through various electronic media that meet the clients' requirements; to promote the full use of electronic information highways, e-mail facilities and point-to-point connections to disseminate statistical products to end-users and to exchange structured statistical data between the producers of statistics; to build up a reference environment on the availability of statistical information at national and international levels (this requires emphasis on metadata architecture and designing and developing of methodologies for a standard description of statistical data and metadata). Over the next two years, emphasis should be given in this programme element to the marketing and pricing of statistical information. However, policy issues related to marketing and pricing will be considered under programme element 1.2. (Rapporteur to modify the objectives: see ECE/CES/50, para. 40).

**Expected collective output in the next two years:** For the ECE: publication of the methodological materials "Common Terminology of Statistical Metainformation System" and the second issue of "Inventory of Standards for the Presentation of Statistical Data and Metadata"; recommendation on how

to design metadata and information holdings; assessment of the use of metadata in the statistical life-cycle with special emphasis on dissemination of statistical information and marketing; widening of EDI based on the standards developed by the Group MD6 of the Western European EDIFACT Board with 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 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.

For the OECD: revised electronic presentation of the main statistical publications including on-line services.

**Attention of the Conference was drawn to the following:**

- The text shown above under the "Objectives" and "Expected output" headings is new text that was prepared by the ECE secretariat and approved by the Bureau.
- The Bureau considered that objectives of this programme element needed to be broadened to include more substantive issues such as needs of different client groups, different vehicles of dissemination, information on metadata, the marketing and pricing of statistical products, and methodological and organizational aspects relating to data environments.

**Decisions taken by the Conference at the 1996 plenary session:**

- To designate the ECE as the rapporteur/focal point for this programme element.
- To approve the activities to be undertaken by the Conference in this programme element (see the list for the ECE/CES in the "Activities and Means" section below)

**Meetings in the next two years:**

ECE: Work session on statistical metadata (Berlin, Germany, 22-25 October 1996).

ECE: Work session on statistical metadata (14-17 October 1997).

ECE: Work session on statistical output for dissemination to Information Media (1997).

EUROSTAT: Working party: DOSIS (9-10 September 1996).

EUROSTAT: Working party: Statistics, telematic networks and EDI - 3rd meeting (7-8 October 1996).

EUROSTAT: Working party: Dissemination of Statistical Information.

**Rapporteur:** ECE

**Activities and means in the next two years:**

**Activities of ECE: (CES Priority A)**

a) Preparation and publication of the methodological material "Common Terminology for Statistical Metainformation Systems"

Secretariat resources: Substantial.

b) Maintenance and publication of the second issue of the "Inventory of Standards for the Presentation of Statistical Data and Metadata".

Secretariat resources: Substantial.

c) Work session on statistical metadata (1997/98) to consider:  
(i) national reports on progress in implementation of Statistical Metainformation Systems (SMSs); (ii) progress reports on common terminology for SMSs and inventory of standards suitable for statistics);  
(iii) architecture and design of metadata holdings and metadata systems including issues of quality assurance, comparability and flexibility;  
(iv) role of metainformation in the statistical life-cycle including the following phases: design of concepts and surveys, data capture, data processing, retrieval of data, dissemination and marketing; (v) exchange of metadata tools and metadata holdings.

Secretariat resources: Substantial.

d) Participation in the development of international standards for statistical EDI (Group MD 6 of the Western European EDIFACT BOARD). Coordination of implementation of those standards in countries in transition. Development of trial electronic collection of macroeconomic data from countries in transition.

Secretariat resources: Substantial.

e) Work session on Dissemination of Statistical Output to Information Media (1997/98) to consider: (i) further development of Internet; (ii) techniques and approaches in training of statisticians in media relations; (iii) legalities, principles, implications and application of copyright by statistical agencies in dissemination of statistical output to media; (iv) Pricing principles in dissemination of statistic outputs to media; (v) Methods, techniques and tools used within statistical offices to support preparation of data for dissemination; (vi) Policies of analysis of statistical data for dissemination to the media; (vii) How to establish fixed release dates for major indications and how to meet them; (viii) Experiences in evaluating the quality of communication with the media.

Secretariat resources: Substantial.

**Activities of OECD:** Improvement of the speed, quality and flexibility with which the Organisation's statistical publications are produced. Improvement also in the presentation of electronic publications with the inclusion of metadata. A database publishing facility, integrated with the statistical information management environment, will be established for the automated

production of statistical publications. Standards are being defined to facilitate the production of publications in a variety of paper-based and electronic media.

Broadening use of electronic media for dissemination of statistical information. Existing online services will be extended to provide for query and retrieval of OECD statistics; operating through OWN/d, this will increase the accessibility of OECD statistics for external users. Will adhere to international standards for the electronic exchange of statistical information, as these emerge (e.g., EDIFACT).

**Activities of Eurostat** (Themes 12, 53: New EDP methods, Business Statistics and telematic networks): Design and co-ordination of activities in the field of standardisation of electronic data interchange (EDIFACT) and the setting-up of a telematic network to back up the European statistical system.

In statistical EDIFACT standardisation emphasis is moving towards the promotion of implementing the developed messages into both the statistics exchange environments and commercial software products. World Wide Web sites and services will be developed for dissemination purposes of statistical products and methodological issues as well as stand-alone statistical multimedia products.

Improvement of the statistical information system on enterprises aimed at lightening the burden of response.

**Activities of other organizations:**

**UN Statistical Division (UNSD):** The first phase of the implementation of the United Nations Economic and Social Information System (UNESIS). This involves the preparation of draft standards and technical guidelines for the UNESIS development and the re-engineering of the UNSD National Accounts Database including the review of related estimation procedures.

**Interstate Statistical Committee of the Commonwealth of the Independent States:** Publications in 1996 include statistical and information bulletins, "Short-term indicators of the economies of countries of the Commonwealth of Independent States", the statistical yearbook "Commonwealth of Independent States" and handbooks "Economies of the Commonwealth of Independent States", "National accounts of countries of the Commonwealth of Independent States", "Finance and prices of the Commonwealth States", "Labour market in the Commonwealth countries in figures and diagrams", "Foreign economic activities of the Commonwealth States", "World in figures", "Transport and communications of the Commonwealth States" and "Environment in the Commonwealth States". All compendia are available on diskette.

Round-the-clock access is provided to the "Statistics" database, which contains monthly, quarterly and annual data for CIS countries in the following subject areas: population, labour, macroeconomic indicators, finance, foreign economic activities, industry, construction, agriculture, transport and communications, trade and marketed services, prices, income and expenditure of the population and social statistics. The "Statistics" database is also available on diskette.

As regards electronic dissemination of data, statistical materials will be more widely available on CD-ROM. In 1996 it is planned to issue two CD-

ROMs: "Main socio-economic indicators for CIS countries" and "The 1989 population census of the former USSR".

**The World Bank:** Data processed and stored in the data bases/or published re disseminated to the member countries and international organizations.

#### **2.4 INDUSTRY, COMMODITY AND OCCUPATION CLASSIFICATIONS**

**Objectives over the next several years:** To help ensure that by the end of the decade, member countries use either the same or a convertible classification of activities (latest vintages of ISIC, NACE or other classifications which can be well converted into either); and that member countries use the same commodity classification (CPC services, HS or equivalent).

**Expected collective output in the next two years:** A schedule showing when member countries plan to implement the latest vintages of international classifications; an inventory of current deviations from international classifications annotated with measures of the relative importance of such deviations; a list of deviations from the major classifications which are suggested for adoption by countries in transition; consideration of ISCO-88 and whether it needs to be revised. (To be redrafted by the Rapporteur - see ECE/CES/50, para. 44).

#### **Attention of the Conference was drawn to the following:**

- The Bureau amended the objectives to refer to (i) European Union's use of NACE Rev. 1 and methods of reconciling NACE Rev. 1 and classifications adopted by other countries and (ii) and work being undertaken by the Voorburg Group.
- The expected outputs were amended to refer to the consideration of ISCO-88 and its possible revision.

#### **Decisions taken by the Conference at the 1996 plenary session:**

- To ask Eurostat to serve as the rapporteur for this programme element.

#### **Meetings in the next two years:**

EUROSTAT: Committee: Customs code - tariff and statistical nomenclature section (15-18 July 1996)

EUROSTAT: SPC: NACE Committee (30 September - 2 October 1996)

EUROSTAT: Working party: Statistical and accounting co-ordination (17-18 October 1996)

EUROSTAT: Committee: Customs code - tariff and statistical nomenclature section (29-30 October 1996)

UNSD: UNSD/ECE/OECD/Eurostat Meeting of the Expert group on International Classifications (24-26 June 1996).

**Rapporteur:** Eurostat

#### **Activities and means in the next two years:**

**Intersecretariat Task Force:** An Intersecretariat Task Force called the Task Force on Industrial and construction Statistics has been established in this field by the UN Statistical Commission's Working Group on International Statistical Programmes and Coordination. Its two main objectives concerned the improvement of international comparability of industry statistics and the reduction of duplication of work by international organisations. Given the difficulties associated with a rapid implementation of ISIC Rev.3 in a number of countries, the Task Force has made recommendations to the UN Statistical Commission to improve or at least maintain international comparability in industrial statistics in the transition period. It has also presented options aiming at facilitating the general implementation of ISIC Rev.3. Regarding the reduction of duplication, the Task Force has fostered the cooperation between the OECD and UNIDO which have already started a joint programme of cooperation. The Task Force has been asked by the Commission to continue its work on the users and uses of industrial statistics and monitoring the implementation of ISIC Rev.3. The Task Force also plans to conduct a small scale survey designed to ascertain the variation in definition of statistical "units" to be classified to ISIC.

**Activities of ECE: (CES Priority C)**

**Activities of OECD:** (See work of the Task Force on Industrial and Constructions Statistics above)

**Activities of Eurostat** (Themes 26, 28, 42: Classifications, Statistical and accounting co-ordination and Management of external trade classifications): The main activity is the continued implementation of NACE Rev. 1 and CPA and the publications of various nomenclatures in all official languages.

Eurostat will continue to participate in the work of the United Nations Expert Group on International Classifications.

Eurostat's will also be responsible for the European co-ordination of the revisions of COICOP and COFOG (see also sub-programme element 3.1 - National Accounts)

Development of classification servers (see sub-programme element 2.1).

Participation in revision of the nomenclatures of economic activities of the USA and Canada.

Co-operation with the countries in transition to a market economy as regards statistics of businesses (see also sub-programme element 1.3).

Concerning Statistical and accounting co-ordination, it is the aim to continue improving the coherence of the statistical information system by the co-ordination of general statistical concepts and by better integration of micro- and macro-economic concepts.

**Activities of other organizations:**

**UN Statistics Division (UNSD):**

a) The cooperation with the ECE, OECD and Eurostat on the work undertaken by the Expert Group on International Classifications (E/CN.3/1995/16). The next meeting (24-26 June 1996) will consider inter-alia (i) Framework and

criteria for integrating classifications (UNSD and Eurostat); and (ii) Possible creation of a coordinating body for classification systems (World Customs Organization).

b) Promotion of common approaches for the conversion from the national and other classifications to the International Standard Classification of All Economic Activities (Series M, No.4, Rev.3); Publication of the draft correspondence tables between ISIS Rev.3 and ISIC Rev.2; and revised explanatory notes to classes of ISIC Rev.3.

c) Establishment of the Classification Hot Line (HCL) to provide assistance to ISIC user providing inter-alia information on the draft correspondence tables (see b) above). HCL is accessible through Internet electronic mail, fax, telephone or mail. An explanatory handout is available from UNSD.

d) Final preparation of the revised Classification of Individual Consumption by Purpose (COICOP) in the framework of the Intersecretariat Working Group of National Accounts (see also programme element 3.1 -- **see CES/1996/R.30/Add.3**).

**Interstate Statistical Committee of the Commonwealth of Independent States :**

Attention will be focused on making recommendations for a review of national classification systems and their harmonization with international systems. Priority will be given to recommendations for the classification of all types of economic activity, goods and services and a commodity nomenclature.

To improve the comparability of statistical data on employment by type of occupation, work has been actively under way in Commonwealth countries since 1995 to develop national classifications of occupations on the basis of ISCO 88.

A CIS STAT/ILO joint seminar (held on 21-23 November 1995 in Moscow) recognized the usefulness of developing a common classification of occupations for Commonwealth countries on the basis of the above international standard classification.

**The ILO:** The ILO will continue to provide direct short-term advisory services to countries developing or revising a national classification of occupations on the basis of the International Standard Classification of Occupation (ISCO-88) or on a similar basis. It will follow national developments in this area with a view to starting work to update ISCO-88. National experiences with the use of classifications of status in employment will be reviewed to establish whether modifications are needed to the Resolution concerning the International Classification of Status in Employment (ICSE), adopted by the International Conference of Labour Statisticians (ICLS) in 1993. Two STAT Working Papers have been issued, providing guidance on the development of national classifications of occupations and their use in statistical surveys and censuses.

**2.5 STATISTICAL RESEARCH AND DEVELOPMENT**

**Objectives over the next several years:** To promote an active program of research and development within the region on statistical and methodological issues that cut across other P.E.s in the Work programme (e.g. seasonal adjustment; data quality measurement; non-sampling error; sampling and

estimating; questionnaire design; confidentiality protection; longitudinal surveys); to ensure that the results of this work are accessible to statistical offices throughout the region; to develop guidelines for statistical agencies on policies and practices for managing data quality in statistical programs, including the definition, control, measurement, and description of data quality, and its implications for data release.

**Expected collective output in the next two years:** (i) an active network of information exchange between interested member countries, (ii) guidelines on data quality issues for statistical agencies.

**Attention of the Conference was drawn to the following:**

- The Bureau reamed at this programme element and reformulated its objectives and expected outputs.

**Decisions taken by the Conference at the 1996 plenary session:**

- To ask Statistics Canada to serve as the rapporteur for this programme element.
- To approve the activities to be undertaken by the Conference in this programme element (see the list for the ECE/CES in the "Activities and Means" section below)

**Meetings in the next two years:**

EUROSTAT: Seminar: NTTTS-98 (New Technologies and Techniques for Statistics),  
(September 1998)

**Rapporteur:** Statistics Canada.

**Activities and means in the next two years:**

**Activities of ECE: (CES Priority C)**

**Activities of OECD:**

**Activities of Eurostat** (Theme 66: Research and development in the field of statistics (part of)): Activities in Eurostat on this topic started end of 1995 and will last between 1.5 and 3 years. They will cover statistical data processing, statistical data confidentiality (see sub-programme element 2.1), knowledge extraction, EDI for data collection (sub-programme element 2.2), transport statistics methodology.

The projects funded by the European Commission will be co-ordinated with the work realised in the EU member countries and other international organisations.

Launch of a project on the methods and techniques for the processing of time-series.

Launch of statistical research projects under the fourth R&D framework programme of the European Union.

**Activities of other organizations:**

## 2.6 GEOGRAPHICAL AND REGIONAL DATA

**Objectives over the next several years:** To promote the development and integration of statistics for sub-national and supra-national regions. To improve the efficiency, quality and comparability of the demographic dimension of official statistics. To facilitate the measurement and reinforcement of economic and social cohesion of the European Union using high-quality statistical information on the European regions. To put at the disposal of users the necessary regional data for the definition, follow-up and evaluation of regional policies (both national and European Union) and the evaluation of the socio-economic situation and evolution of the region of Europe. To design and developed concepts and standards, new tools and technology (GIS), dissemination of geographical products and spacial analysis.

**Expected collective output in the next two years:** For ECE, two GIS work sessions (Ottawa 1993 and Voorburg 1994) have identified areas for future international cooperation. The following results have been achieved so far: (i) the setting-up of the mechanisms for cooperation with ISO on the development of international standards in geomatics: and (ii) the establishment of a pool for the exchange of information on GIS software).

For Eurostat, statistical yearbook "REGIONS", complete classification of regions for the new member states, publication of methodology for regional household accounts, and first results of the screening exercise. For OECD, report on rural employment indicators.

**Attention of the Conference was drawn to the following:**

- The Bureau merged former programme elements 2.6 (Geography) and 2.7 (Regional Statistics).

**Decisions taken by the Conference at the 1996 plenary session:**

- To ask Eurostat to serve as the rapporteur for this programme element.
- To approve the activities to be undertaken by the Conference in this programme element (see the list for the ECE/CES in the "Activities and Means" section below)

**Meetings in the next two years:**

ECE: Work session on GIS (February 1998).

EUROSTAT: Working party: Regional accounts and indicators - urban statistics (14 November 1996)(to be confirmed)

EUROSTAT: Working party: Local data (March each year)

EUROSTAT: Working party: Regional accounts (May each year)

OECD: Steering Group on Rural Indicators (1996)

**Rapporteur:** Eurostat.

**Activities and means in the next two years:**

**Activities of ECE: (CES Priority A)**

Work session on GIS (1997/98) to consider: The Work Session on Geographical Information systems in 1997/98 to consider: (i) national reports

on progress in the implementation of GIS; (ii) use of GIS for statistical analysis and regional statistics; (iii) evaluation of experiences acquired in implementing GIS; and (iv) use of GIS for dissemination of statistical data.

**Activities of OECD:** An activity on rural indicators is carried out; a territorial scheme was developed to collect data for comparable sub-national geographical units. The scheme covers the entire territory of 26 Member countries and uses two hierarchical levels: regions (about 2 000 units) and local communities (about 50 000 units). A common definition of rural/urban areas uses population density as a classification criterion. Based on this scheme, a database that contains variables on demographic, economic, social and environmental issues is maintained.

**Activities of Eurostat** (Themes 19 77, 78, 85: Management of existing products (part of), Regional statistics and accounts, Infra-regional data and Crop production (part of)): The GISCO (Geographic Information System of the Community) activity continues to demand increasing attention from services both inside and outside the Commission. The next steps involve securing the supplies of the various geographic data layers and bringing Commission services progressively up to production status with GIS systems.

**Remote sensing:** The work on determining the appropriate place of remote sensing as a data source for official statisticians will be continued. Administratively this involves: contributing (with the Directorate-General for Agriculture) to the user service management component of the large development programme MARS (Monitoring Agriculture by remote Sensing) of the Joint Research Centre's Institute for Remote Sensing applications; and directly managing part of the research budget relating to earth observation.

**Regional statistics:** Integration of the new Member States in the Community's regional information system, improvement of the comparability of data and extension of the economic field covered, publication of the methodology of regional accounts in conformity with ESA-95, putting into place a statistical information system on urban areas, development of the collection and dissemination of information at local level, preparation for the next census campaign, integration of regional and local databases in GISCO, first collection of regional data in Eastern and Central European countries.

#### **Activities of other organizations:**

**The Council of Europe:** A new programme was initiated in 1996 under the heading "Internal migration and regional population dynamics". It is aimed at gathering and processing statistical information at Eurostat NUTS 4 and NUTS 5 levels with production of maps) on rural depopulation, urbanisation, suburbanisation and counter-urbanisation and to study the new patterns of internal migration. It will cover about 25 European States and results are expected by the end of 1997.

## **2.7 HUMAN RESOURCE DEVELOPMENT**

**Objectives over the next several years:** To increase participation in training. In order to promote this, to make available systematically to

countries the information relating to training policies and programmes in both Member countries and in Eurostat; to help coordinate international training seminars and workshops and ensure that subjects addressed are in line with statistical priorities as defined by CES and Eurostat; to assist member countries in developing staff exchange policies where comparative advantages make such exchanges effective, to facilitate countries making wise choices for training.

**Expected collective output in the next two years:** Consolidated catalogue of training courses in statistics offered by EU and EFTA Member countries and in the framework of Training for European Statisticians (TES); bulletin with notices of openings for training in statistical agencies abroad; and an annual review of training gaps and suggestions on how to address them.

**Attention of the Conference was drawn to the following:**

- The Bureau renamed this programme element and reformulated its objectives and expected outputs.

**Decisions taken by the Conference at the 1996 plenary session:**

- To ask Eurostat to serve as the rapporteur for this programme element.

**Meetings in the next two years:**

**Rapporteur:** Eurostat.

**Activities and means in the next two years:**

**Activities of ECE:** (CES Priority C)

**Activities of OECD:**

**Activities of Eurostat:** Training of European Statisticians (TES): The 1996-1997 TES Programme, which is currently in preparation, has been restructured on the basis of four "streams", i.e. interrelated courses offering an increasing degree of specialisation: "Data Collection and Survey Methodology", "Economic Statistics", "Social Statistics" and "Publication, Dissemination and Use of Statistics". In order to guarantee a curriculum development of a high quality and promote a more direct involvement of the National Statistical Institutes, small working groups of experts, the "Stream Committees", will be set up. The stream programme contains clear instructions with regard to which courses are prerequisites for other courses. Participants can take the courses of interest during various years or in the same year, whenever the programme allows for it. In the future the possibility will be considered that, after the successful completion of these variants, participants will award a "Certificate of official statistician" with different options (streams and variants within a stream). Another major innovation has been the introduction of the concept of a training cycle. Starting from this year TES will implement a "moving three-year plan", which schedules around 60 training modules (courses and seminars) over the period 1996-1999. Each year the plan will be reviewed with respect to its

feasibility for the remaining two years and a third planning year will be added.

CESD Network: The training sector has formed the common core of CESD operations for more than 30 years starting with CESD Paris. The CESD Communautaire implements technical assistance and/or training activities in the statistical field within the framework of European Union co-operation projects with developing countries and countries in transition. One of the main sources of financing of the training activities of CESD Network in developing countries is the COMSTAT project (Community Support Programme for Statistical Training). The geographical area of interest covers not only the ACP countries, but also Asian, Latin-America and Mediterranean countries. Over the years, the CESD has gained widely acknowledged expertise in this area. The CESD-Communautaire is currently preparing and implementing institutional support programmes and activities to train statistics producers and users in the following English-speaking regions: Southern and Eastern Africa (Kampala, Uganda and Dar es Salaam, Tanzania), Caribbean and Pacific regions, South East Asia. With regard to statistical training in the French-speaking countries, it has to be mentioned the support to the regional training centres of ENSEA in Abidjan and ENEA in Dakar. Through co-ordination by CESD-Communautaire, CESD-Lisbon, CESD-Madrid, CESD-Paris provide various support activities to training in their language domain and Carl-Duisberg-Gesellschaft in Munich provides training mainly to members of Statistical Systems in developing countries. Obviously there are also training parts in statistical projects of CEEC or NIS project financed by PHARE or TACIS such as in the Remote Sensing & Statistics module of CESD-Communautaire.

**Activities of other organizations:**

UN Statistics Division (UNSD): Financial support for training of statisticians from developing countries in the form of fellowships will be available on a limited basis

The ILO: A regular activity of training programmes on labour statistics has been established by the ILO over the past few years and this will continue. Training courses in labour statistics in English and French will be conducted with the Bureau of Statistics' staff providing the training and designing the course material. A compendium of training material from these courses will be prepared. A training seminar on wages statistics for the countries of the Caribbean area, originally planned for 1995, has been postponed for budgetary reasons.

The International Monetary Fund (IMF): Annual training courses of six weeks in either English, French or Spanish in balance of payments, government finance, and money and banking statistics are offered at the IMF Institute in Washington. Three-week courses are provided annually in English and in Russian at the Joint Vienna Institute. Beginning in November/December 1995, the IMF introduced an annual course in National Accounts at the IMF Institute (in English). Regional training courses in these subjects are also conducted on an ad hoc basis. In the period 1995/96, regional courses will have been held in Australia, Fiji, Malaysia, Thailand, St. Kitts and Nevis, and the United Arab Emirates.

**The World Bank**: Financial support for training of statisticians from developing countries by allocating funds in loans and grants where appropriate.

**Annex I. Priority menu of the CES for 1997/98 and 1997/98  
in subprogramme 2 (Technical infrastructure and other cross-cutting issues)**

**a) 1997/98**

WORK PROGRAMME OF THE CONFERENCE OF EUROPEAN STATISTICIANS PRIORITY MENU FOR 1997/98			
Programme element	Substantive action required of the ECE secretariat	Major coordination required	Output for the plenary session 1997
2.1 Management of statistical information technology 2.2 Statistical data collection and processing 2.3 Dissemination of statistical information	<ul style="list-style-type: none"> <li>- Organization of 25th session of the Working Party on EDP (WP.9)</li> <li>- Preparation of methodological materials on statistical data editing</li> <li>- Preparation of the work session on statistical data editing</li> <li>- Preparation of methodological materials on statistical metadata</li> <li>- Preparation of the work session on statistical output and dissemination to information media</li> <li>- Participation in the development of EDISTAT (Western European EDIFACT Board - group MD6)</li> <li>- Coordination of EDISTAT implementation with transition countries</li> </ul>	- EUROSTAT	<ul style="list-style-type: none"> <li>- Report</li> <li>- Methodological materials on statistical data editing</li> <li>- Conclusions of the work session on statistical data editing</li> <li>- methodological materials</li> <li>- Conclusions of the work session</li> <li>- Progress report</li> <li>- Trial EDI applications</li> </ul>

**b) 1997/98**

WORK PROGRAMME OF THE CONFERENCE OF EUROPEAN STATISTICIANS PRIORITY MENU FOR 1997/98			
Programme element	Substantive action required of the ECE secretariat	Major coordination required	Output for the plenary session 1998
2.1 Management of information technology infrastructure 2.2 Statistical data collection and processing 2.3 Dissemination and interchange of statistical information	<ul style="list-style-type: none"> <li>- Organization of ISIS'98</li> <li>- Preparation of methodological materials and publication on statistical data editing</li> <li>- Preparation of the work session on statistical data editing</li> <li>- Preparation of the work session on statistical metadata</li> <li>- Participation in the development of EDISTAT (Western European EDIFACT Board - group MD6)</li> <li>- Coordination of EDISTAT implementation with transition countries</li> </ul>	- EUROSTAT	<ul style="list-style-type: none"> <li>- Report</li> <li>- Methodological materials and publication</li> <li>- Conclusions of the work session</li> <li>- Conclusions of the work session</li> <li>- Progress report</li> <li>- Trial EDI applications</li> </ul>

**Annex II. Consolidated list of international meetings  
in subprogramme 2 (Technical infrastructure and other cross-cutting issues)**

	Principal Sponsoring Organization			
	ECE	Eurostat	OECD	Other organizations
2.1 Management of information technology infrastructure	- 25th session of Working Party on EDP (Feb. 97) - ISIS'96 (May 98)	- Committee on statistical confidentiality (Oct. 96)		
2.2 Statistical data collection and processing	- Work Session on data editing (Nov. 95)	Task Force: Progress with EDI (Oct 96)		
2.3 Dissemination and interchange of statistical information	- Work session on dissemination of statistical data to information media (97) - Work session on statistical metadata (Oct. 96) - Work session on statistical metadata (Oct. 97)	Working Party: DOSIS (Sept. 96) - Telematic networks and EDI working group (Oct. 96) - Dissemination of Statistical Information (96/97)		
2.4 Industry, commodity and occupation classifications		- Customs code -- tariff and stat. nomenclature section (July 96) - SPC - NACE committee (Sept. 96) - Statistical and accounting coordination (Oct. 96) - Customs code -- tariff and stat. nomenclature section (Oct 96)		UNDS: UNSD/ECE/OECD/ Eurostat Meeting of the Expert Group on International Classifications (June 96)
2.5 Statistical research and development		Seminar on new technologies and techniques for Statistics (Sept. 96)		
2.6 Geographical and regional data	- Work Session on GIS (Feb. 98)	- Regional accounts and economic indicators - urban statistics (Nov. 96) - Local data (March 96, March 97) - Regional accounts (May 97, May 98)	Steering Group on Rural Indicators (96)	
2.7 Human resource development				