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### Economic Commission for Europe

#### Conference of European Statisticians

##### **Fifty-ninth plenary session**

Geneva, 14-16 June 2011

Item 7a of the provisional agenda

##### **Outcome of the in-depth reviews of selected statistical areas by the Bureau of the Conference of European Statisticians**

### **Inventory of groups working in the area of statistics on information society, science, technology and innovation**

**Note by the Australian Bureau of Statistics, the International Telecommunications Union and the secretariat**

#### *Summary*

The paper gives an overview of international groups working in the area of measuring information society and statistics on science, technology and innovation. It has been prepared at the request of the CES Bureau to provide basis for discussing proposals for further work in this area (see paragraph 9 of the report of the CES Bureau meeting on 3-4 November 2010, ECE/CES/2011/13).

## **I. Eurostat Working Group on Statistics on Science, Technology and Innovation**

1. The working group usually meets once a year and there are 3-5 Task Force meetings per year under the mandate of the working group. It is planned that the working group will have one meeting in 2011 and the Research and Development (R&D) Task Force, the Community Innovation Survey (CIS) Task Force and the Careers of Doctorate Holders (CDH) Task Force will each meet once during the year. The main EU legislation on science, technology and innovation includes the following:

(a) Decision No 1608/2003/EC of the European Parliament and of the Council concerning the production and development of Community statistics on science and technology. (Amendments are under preparation);

(b) Commission Regulation No 753/2004 on statistics on science and technology;

(c) Commission Regulation No 1450/2004, implementing Decision No 1608/2003/EC of the European Parliament and of the Council concerning the production and development of Community statistics on innovation;

(d) Report COM (2007) 801 from the Commission to the Council and the European Parliament on the implementation of Decision No 1608/2003/EC of the European Parliament and of the Council.

2. The legislation is available from the website:

[http://epp.eurostat.ec.europa.eu/portal/page/portal/science\\_technology\\_innovation/introduction](http://epp.eurostat.ec.europa.eu/portal/page/portal/science_technology_innovation/introduction)

## **II. Eurostat Working Group on Statistics on the Information Society**

3. The working group on statistics on the information society meets bi-annually and also establishes ad-hoc task forces. A European parliament and council regulation establishes the common framework for the systematic production of EU statistics on the information society. Annual implementing commission regulations spell out in detail what subject areas should be covered in the statistics for a given year under the headlines ICT systems and their usage in enterprises; use of Internet by enterprises; Enterprises and e-government; E-business processes; E-commerce; The impact of ICT on the environment (Green ITC); and a number of issues related to ICT and the households/individuals, such as e.g. access to Internet, the use of Internet and ITC competence and skills). The main legislation on statistics on the information society is available from: [http://epp.eurostat.ec.europa.eu/portal/page/portal/information\\_society/introduction](http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/introduction)

4. A 'network group' of 13 European statistics offices have been working from 2006 to 2008 on a project to develop new approaches to assessing the impact of ICT on business and the economy, to make recommendation on future measurement needs, and to establish new methods for producing indicators. A project report is available from [http://epp.eurostat.ec.europa.eu/portal/page/portal/information\\_society/methodology](http://epp.eurostat.ec.europa.eu/portal/page/portal/information_society/methodology). Since 2010 Eurostat has been repeating this exercise with an enlarged number of countries and

datasets (including innovation statistics) and with the objective of producing new statistical data. Information on this new project can be found at [www.esslimit.eu](http://www.esslimit.eu).

### **III. The Organisation for Economic Co-operation and Development Working Party of National Experts on Science and Technology Indicators**

5. Under the auspices of the working party ad hoc groups and meetings are formed. For example six ad hoc meetings on biotechnology statistics have been held to date with the aim to achieve an internationally agreed definition of biotechnology, a model survey for data collection, and an inventory of biotechnology data in member and selected non-member countries. The Organisation for Economic Co-operation and Development (OECD) Working Party of National Experts on Science and Technology Indicators (NESTI) is currently developing a framework for measuring public sector innovation and contributing to the OECD project on measuring intangible assets. The NESTI, in coordination with Eurostat, is also undertaking a major project to review data collection, definitions and overall content of R&D and a second major project on collection of innovation data. The projects are being supported by a grant from the US National Center for Science and Engineering Statistics. It is likely that both projects will result in changes to the *Frascati* and *Oslo Manuals* on R&D and Innovation, respectively.

### **IV. The Organisation for Economic Co-operation and Development Working Party on Indicators for the Information Society**

6. The Working Party on Indicators for the Information Society (WPIIS) meets regularly once a year; in 2011 the meeting will take place in Paris 7-8 June 2011. The working party also forms expert groups on selected topics (e.g. for the development of ICT classifications).

### **V. The Organisation for Economic Co-operation and Development/United Nations Educational, Scientific and Cultural Organization Institute for Statistics/Eurostat Careers of Doctorate Holders Project**

7. The OECD in 2004 launched a collaborative project with the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics and Eurostat aimed at developing internationally comparable indicators on the careers and mobility of doctorate holders. An expert group with representatives from national statistical bodies was formed to develop the technical components of the project and start compiling data at national level. Draft guidelines for Statistics on the Careers of Doctorate Holders (CDH) were issued in 2010, while the project work has not been continued beyond the 2009 data collection due to unsatisfactory coverage. More information is available from the OECD website:

[http://www.oecd.org/document/63/0,3746,en\\_2649\\_34225\\_39945471\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/63/0,3746,en_2649_34225_39945471_1_1_1_1,00.html)

and from Eurostat's website:

[http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Careers\\_of\\_doctorate\\_holders](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Careers_of_doctorate_holders)

## **VI. Workshops on patent statistics**

8. Regular workshops on patent statistics are jointly organised by OECD, the European Patent Office (EPO), the World Intellectual Property Organization (WIPO) and Eurostat. Extensive information is available from e.g. Eurostat:

[http://epp.eurostat.ec.europa.eu/cache/ITY\\_SDDS/EN/pat\\_esms.htm](http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/pat_esms.htm), and from OECD

[http://www.oecd.org/document/10/0,3746,en\\_2649\\_34451\\_1901066\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/10/0,3746,en_2649_34451_1901066_1_1_1_1,00.html)

## **VII. World Summit on the Information Society Forum**

9. The World Summit on the Information Society (WSIS) Forum is organized every year in May. The Forum is organized by the International Telecommunication Union (ITU), UNESCO, the United Nations Conference on Trade and Development (UNCTAD) and the United Nations Development Programme (UNDP). ITU provides the Executive Secretariat to the WSIS Forum. The WSIS Forum addresses a very broad range of issues related to the information society such as e.g. broadband development and access, social networking, e-learning, e-business, e-health (World Health Organization (WHO)), ethical and legal dimensions, information and communications technology (ICT) and gender, citizen engagement etc. Each year a session concerned with statistical aspects of the information society is organized by the Partnership on Measuring ICT for Development.

10. More information: [www.itu.int/wsisis/index.html](http://www.itu.int/wsisis/index.html)

## **VIII. Partnership on Measuring Information and Communications Technology for Development**

11. The Partnership on Measuring ICT for Development is an international, multi-stakeholder initiative launched in 2004 to improve the availability and quality of ICT data and indicators, particularly in developing countries. The Partnership helps measure the information society by providing a core list of ICT indicators and methods to collect these indicators. The core list, which has been approved by the UN Statistical Commission in 2007, includes 50 indicators on basic infrastructure and ICT in households, enterprises and education. The list is being revised and extended regularly. The latest extension includes a core set of indicators to measure e-government which is currently being finalized and expected to be presented for adoption to the UNSC in 2012.

12. The Partnership also helps developing countries in collecting ICT statistics through capacity-building and training for national statistical offices.

13. Members: ITU, OECD, UNCTAD, UNESCO Institute for Statistics, the World Bank, four United Nations Regional Commissions (Economic Commission for Africa (ECA), Economic Commission for Latin America and the Caribbean (ECLAC), Economic and Social Commission for Asia and the Pacific (ESCAP), Economic and Social Commission for Western Asia (ESCWA)), United Nations Department of Economic and Social Affairs (UN-DESA) and Eurostat. Steering Committee of the Partnership: UNCTAD, ITU and ECLAC.

13. The Partnership organizes regional and global events to discuss progress on measuring the information society. It has created several task groups to advance the work on specific measurement topics, such as measuring ICT in education, ICT impact and e-government. The task group on Measuring the WSIS Targets (TGWSIS) was launched during the WSIS Forum 2010. The overall objective of the task group is to develop a

framework for monitoring the WSIS goals and targets based on internationally defined indicators and standards, drawing on the Partnership core list of indicators.

14. More information: <http://www.itu.int/ITU-D/ict/partnership/>

## **IX. International Telecommunication Union**

15. ITU carries out methodological work to define indicators and statistical standards for the information society, in particular the telecommunication/ICT sector, in close cooperation with members of the Partnership on Measuring ICT for Development. The work is discussed in Expert Groups and the annual ITU World Telecommunication/ICT Indicators Meeting (WTIM), which addresses a wide range of topics on the collection and use of ICT statistics, specifically aimed at providing guidance for developing nations. The next WTIM will take place in December 2011 in Mauritius.

16. Two key methodological documents are the ITU *Handbook for the collection of administrative data on telecommunication/ICT* (revised edition forthcoming in 2011) and the ITU *Manual for Measuring ICT Access and Use by Households and Individuals* (last edition 2009).

17. ITU is the lead agency responsible for defining and monitoring ICT indicators for the UN Millennium Development Goals project. ITU provides three specific indicators for measuring access to ICTs (fixed telephone lines, mobile cellular subscriptions and Internet use), on an on-going basis.

18. ITU publishes annually its ICT Development Index (IDI), a benchmarking tool for countries, and a tool for tracking developments of the global digital divide.

19. The ITU offers key statistics, analysis and publications on the information society on its website [www.itu.int/ITU-D/ict/](http://www.itu.int/ITU-D/ict/).

## **X. United Nations Conference on Trade and Development**

20. The UNCTAD website on ICT measurement <http://measuring-ict.unctad.org> includes information and materials on the organisation's activities, indicators, metadata and methodology. UNCTAD provides assistance to developing countries on ICT measurement and has developed the *UNCTAD Manual for the Production of Statistics on the Information Economy* (Revised 2009 edition).

## **XI. World Intellectual Property Organization**

21. WIPO cooperates with intellectual property (IP) offices from around the world to provide its stakeholders with up-to-date IP statistics. The Organization also publishes statistical reports on worldwide IP activity and on the use of WIPO-administered treaties in the protection of IP rights internationally. WIPO updates the *International Patent Classification* (IPC). More information is available on <http://www.wipo.int/portal/index.html.en>

## **XII. United Nations Educational, Scientific and Cultural Organization Institute for Statistics**

22. The UNESCO Institute for Statistics (UIS) is responsible for collecting and disseminating science statistics across the United Nations system. It gathers data from more than 200 countries and territories through its biennial survey and partnerships with key organizations. The aim is to build a global database, covering a range of indicators, such as R&D expenditure and gender disparities in diverse fields of science. The Institute works closely with developing countries to reinforce their national capacities. At the same time, these national statisticians and policy experts play a critical role in helping the Institute to adapt methodologies and develop new S&T indicators.

23. This input is essential because many of the standard instruments used in S&T surveys were specifically designed for the world's most industrialized nations. With the guidance of national partners, the UIS is adapting these instruments to better reflect the research structures of developing countries. More information is available from:

[http://www.uis.unesco.org/ev\\_en.php?ID=3754\\_201&ID2=DO\\_TOPIC](http://www.uis.unesco.org/ev_en.php?ID=3754_201&ID2=DO_TOPIC)

## **XIII. Some international guidelines and methods on research and development and information society statistics**

Eurostat (2007). Field of science and technology classification (FOS 2007).

Eurostat (2010). *Methodological Manual for Statistics on the Information Society*,

[http://circa.europa.eu/Public/irc/dsis/emisannexes/library?l=/data\\_-\\_database/theme\\_3\\_-\\_popul/isoc/methodological\\_informati&vm=detailed&sb=Title](http://circa.europa.eu/Public/irc/dsis/emisannexes/library?l=/data_-_database/theme_3_-_popul/isoc/methodological_informati&vm=detailed&sb=Title)

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Partnership on Measuring ICT for Development (2010). *Core ICT Indicators 2010*, Geneva, [http://www.itu.int/pub/D-IND-ICT\\_CORE-2010/en](http://www.itu.int/pub/D-IND-ICT_CORE-2010/en)

UNCTAD (2009). *Manual for the Production of Statistics on the Information Economy*. [http://www.unctad.org/en/docs/sdteecb20072rev1\\_en.pdf](http://www.unctad.org/en/docs/sdteecb20072rev1_en.pdf)