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## National Accounts and Economic Statistics - International Trade Statistics

### 3 (b): Meeting user needs - specific analytical extensions of ITCS

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Salle des Nations  
Tour Europe

*This document has been prepared by Florian Eberth, OECD, for information and discussion under item 3b of the agenda.*

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## MEETING USER NEEDS - SPECIFIC ANALYTICAL EXTENSIONS OF ITCS

### Introduction

1. The ITCS database of the OECD is a comprehensive and detailed statistical source for merchandise trade statistics. To enhance the usefulness of this rich database for specific analytical needs, some new extensions of the ITCS database have been installed.

2. First, the *ICT sector* (information, communication technology) is gaining more and more importance within total merchandise trade and within the general global restructuring of ICT production activities<sup>1</sup> in the context of globalisation trends. OECD's exports and imports of ICT goods more than doubled within the past 10 years. Therefore, a dedicated sub-dataset of the ITCS has been added to the OECD.STAT data warehouse to enable a more convenient access to these figures, taking into account the five OECD-defined ICT Groups.

3. Second, trade statistics by *ISIC*<sup>2</sup> sectors allow information about the primary economic sectors of the traders. OECD's ITCS database includes merchandise trade data categorized by ISIC rev. 2 and rev. 3 classifications. This dataset has been created by allocating the products to their typical sectors.

4. Third, further analytical extensions of the ITCS (e.g. with focus on energy) can be imagined and – resources permitting and in co-operation with the respective OECD database manager - may be added one-by-one.

### Going beyond traditional statistical standard classifications

#### a) *ICT - Information and communication technology*

5. Between 1996 and 2005, the value of OECD's total exports of ICT<sup>3</sup> goods has more than doubled (2.2 times higher in 2005 than in 1995) while the value of OECD's imports of ICT goods has almost tripled (2.6 times higher in 2005 than in 1996) [see Chart 1]. The share of ICT goods in OECD's total exports has increased from 11.6% in 1996 to 13.5% in 2005, for imports from 12.3% to 13.4%.

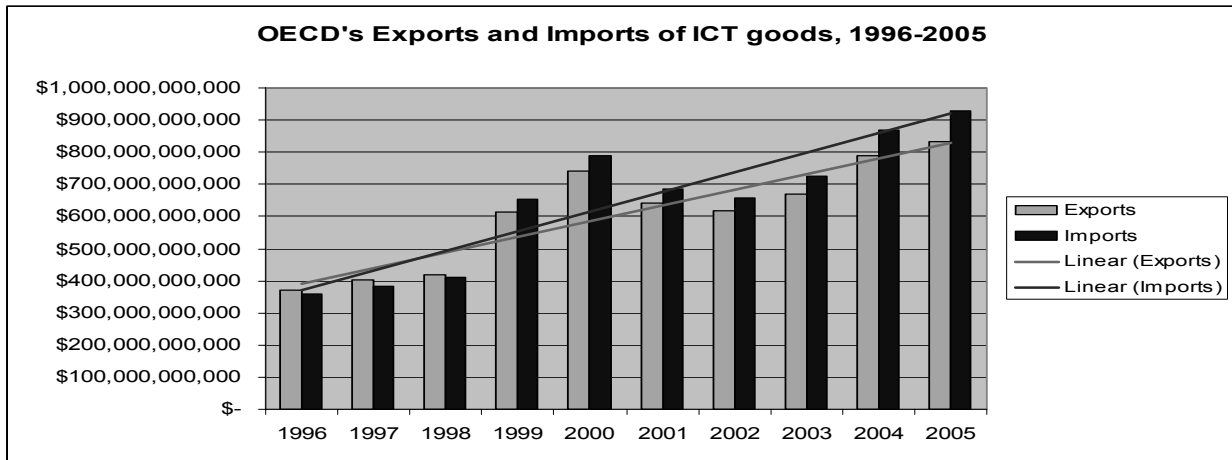
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<sup>1</sup> See 'Information Technology Outlook 2006: Chapter 2: ICT Trade and Globalisation of the ICT Sector' (OECD): DSTI/ICCP/IE(2005)12/CHAP2/REV1.

<sup>2</sup> ISIC = International Standard Industry Classification.

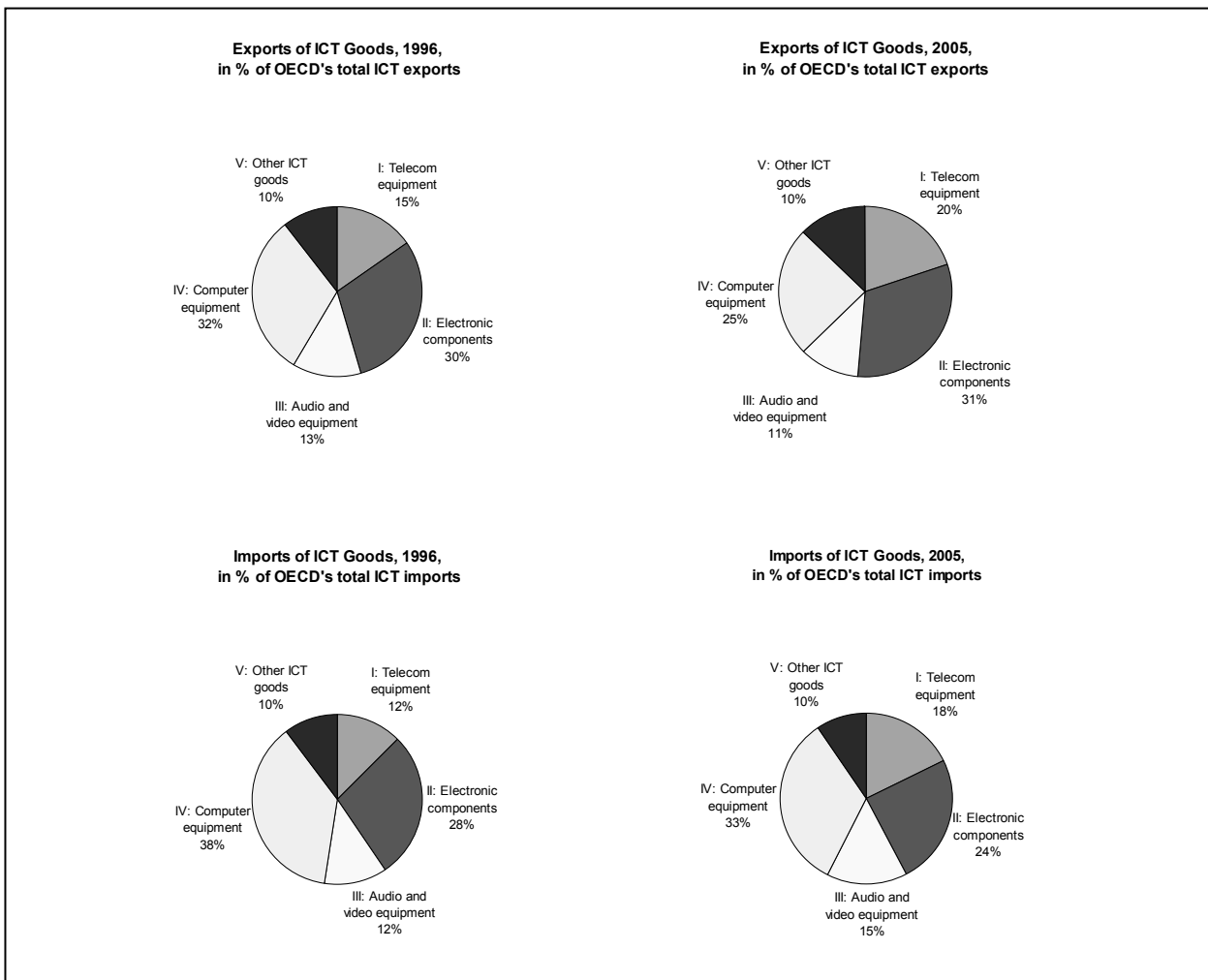
<sup>3</sup> See Annex 1 for the OECD definition of ICT goods.

Chart 1. Exports and imports of ICT goods



Source: OECD.STAT, ICT Goods

Chart 2. ICT Exports/Imports by ICT Groups, 1996 versus 2005



Source: OECD.STAT, ICT Goods

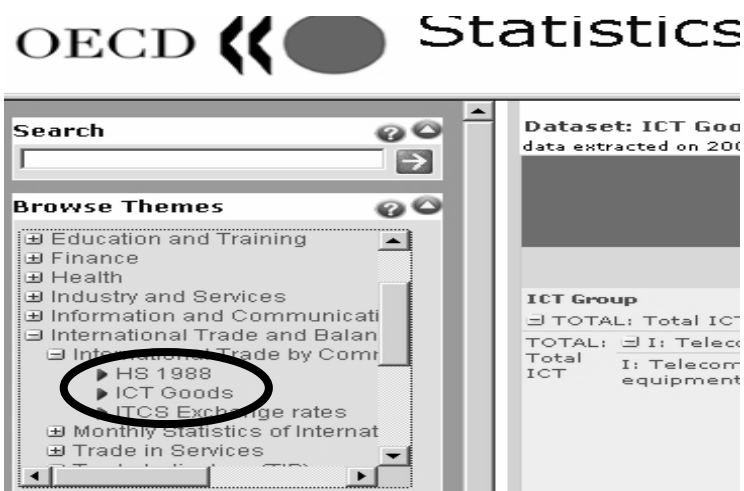
6. In 1996, Computer Equipment was the ICT Group with the highest export value within the OECD (32% of all ICT exports), followed by Electronic Components (30%). In 2005, the ICT groups structure for exports had remained quite similar to the situation of 1996, just that the exports of Electronic Components had surpassed the exports of computer equipment (in terms of value) [see Chart 2]. The situation for imports changed somewhat more markedly than for exports between 1996 and 2005: in 1996, Computer Equipment represented a share of 38% of all OECD's ICT imports, followed by Electronic Components (share of 28%). In 2006, these two categories were still the most important ones in terms of value, but both their shares decreased, while the share of imports of telecom equipment increased from 12% (1996) to 18% (2005) [see Chart 2].

7. Taking into account the growing importance of these types of goods, a dedicated dataset for the trade of ICT goods has been installed within OECD's central data warehouse, OECD.STAT. The dataset 'ICT goods' is an analytical dataset, derived from OECD's ITCS database. The classification used is the Harmonized System in the 1996 version to allow longer time series.

*There are two distinct access routes: OECD.STAT and WBC*

8. The ICT Groups dataset is freely available for external access within the Internet version of OECD's central data warehouse, **OECD.STAT**<sup>4</sup> (see Figure 1).

**Figure 1. OECD.STAT access for trade data by ICT goods**



9. For the time being, trade data on ICT goods are available by ICT Groups and its composites (4-6 digits level of the HS, [see Annex 2 for the complete list]) and by reporter country (OECD countries). ICT data by selected partner countries / groups of countries will be added in the near future to this dedicated data set.

10. Alternatively, trade data by ICT groups (HS2002) can be accessed – as “Pre-Defined Commodity Groups” - via the **Web Browser Client** (WBC) of the OECD ICTS database (UN/OECD Joint Trade Data Collection and Processing System) [see Figure 2]. The WBC is accessible on the Intranet site of the OECD<sup>5</sup> as well as on the OECD's secure extranet for Government officials OLISnet<sup>6</sup>. The WBC provides

<sup>4</sup> <http://stats.oecd.org/WBOS/Default.aspx?DatasetCode=ICTGRP>

<sup>5</sup> For OECD internal users, see [http://intraweb1/oecd\\_unsd/trade/default.aspx](http://intraweb1/oecd_unsd/trade/default.aspx)

detailed annual export and import data on commodities and partner countries (up to 336 countries and areas) in terms of value (at current prices: thousands of USD) and quantity.

**Figure 2. WBC access for trade data by ICT Groups**

The screenshot displays the OECD ITCS Database interface. At the top, it features the OECD logo and the text 'OECD ITCS Database' and 'UN/OECD Joint Trade Data Collection and Processing System'. Below this, there is a navigation menu with 'Database' selected. A 'Quick Search' box is present, along with a 'My Database' section containing links like 'Account Info', 'Favorites', and 'Download History'. The main content area is titled 'Pre-Defined Commodity Groups' and includes tabs for 'Commodities', 'Countries', 'Years', 'Country Groups', and 'Commodity Groups'. Under 'Commodity Groups', there are sub-tabs for 'List View' and 'Detail View', and options for 'No Paging' and 'With Paging'. A table lists five commodity groups with their respective HS 2002 codes and a 'Copy to favorite' link for each.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	All	
Total Commodity Groups defined: 5																											
Commodity Groups																											
Audio and video equipment HS 2002																								<a href="#">Copy to favorite</a>			
Computer and related equipment HS 2002																								<a href="#">Copy to favorite</a>			
Electronic components HS 2002																								<a href="#">Copy to favorite</a>			
Other ICT goods HS 2002																								<a href="#">Copy to favorite</a>			
Telecommunication equipments HS 2002																								<a href="#">Copy to favorite</a>			

**Questions to delegates:**

- How useful do delegates see this special extension by ICT goods?
- Are specific ICT classifications (OECD's one or any other one) used on national level, too? If yes, which one? Do delegates see a growing demand for ICT statistics, also in conjunction with other classifications?

**b) Merchandise trade statistics by ISIC classification**

11. The ISIC is the United Nations International Standard Industrial Classification of All Economic Activities. This classification is the international standard for the classification of productive economic activities. The main purpose is to provide a standard set of economic activities so that entities can be classified according to the activity they carry out. Statistics by ISIC classification are by example needed for specific studies on the labour market, economic growth analysis, OECD/DSTI's Bilateral Trade Database<sup>7</sup> etc.

The hierarchical structure of the classification comprises: - Tabulation Categories – one letter alpha code A to Q; - Divisions – two-digit codes; - Groups – three-digit codes; - Classes – four-digit codes.

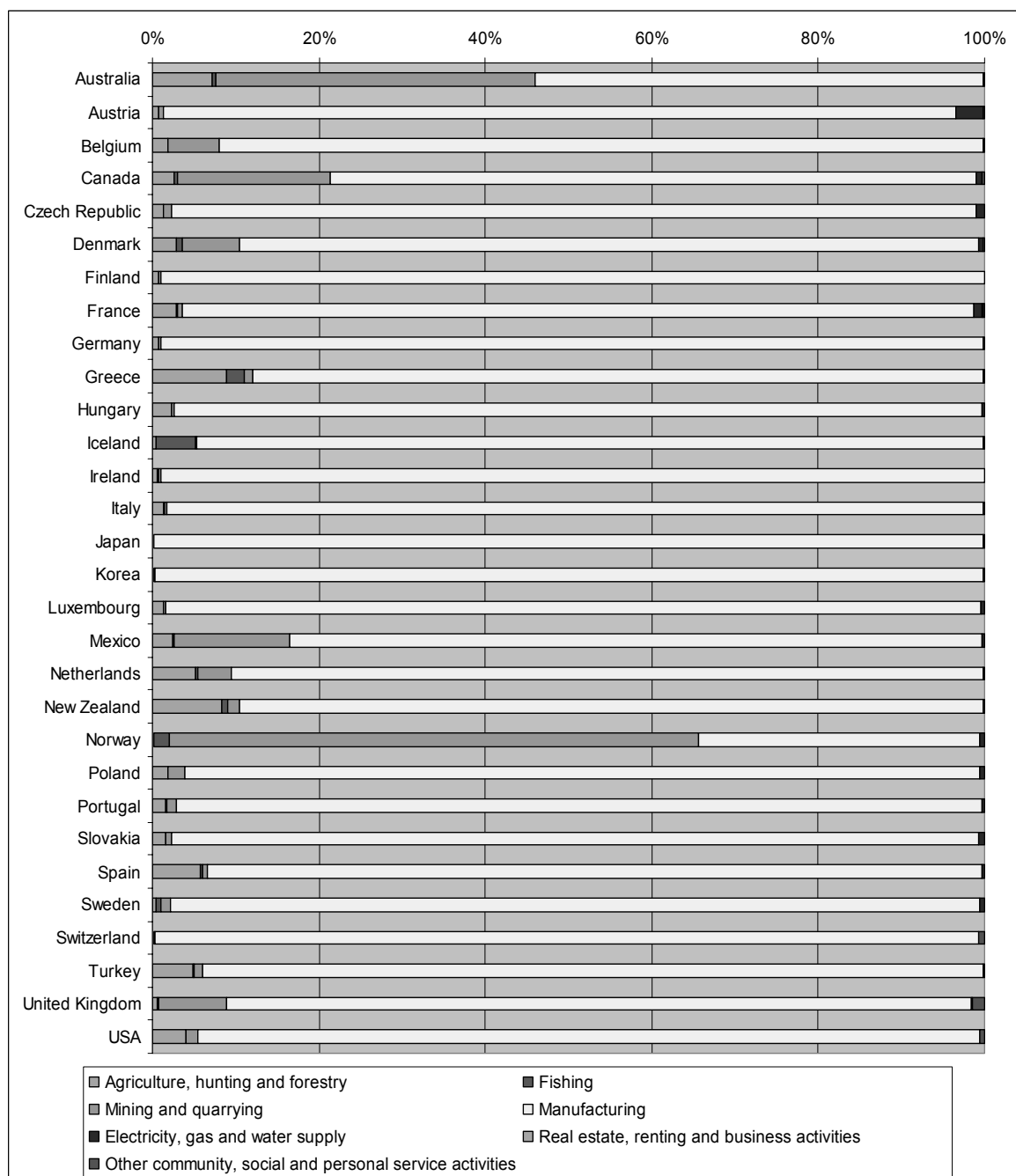
<sup>6</sup> For government officials outside the OECD, see [http://www.oecd.org/document/19/0,2340,en\\_2649\\_201185\\_1914579\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/19/0,2340,en_2649_201185_1914579_1_1_1_1,00.html)

<sup>7</sup> See [http://www.oecd.org/document/52/0,3343,en\\_2649\\_34445\\_36274100\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/52/0,3343,en_2649_34445_36274100_1_1_1_1,00.html)

12. Merchandise trade statistics by ISIC are compiled by allocating HS product codes to the corresponding sectors of their usual producers.

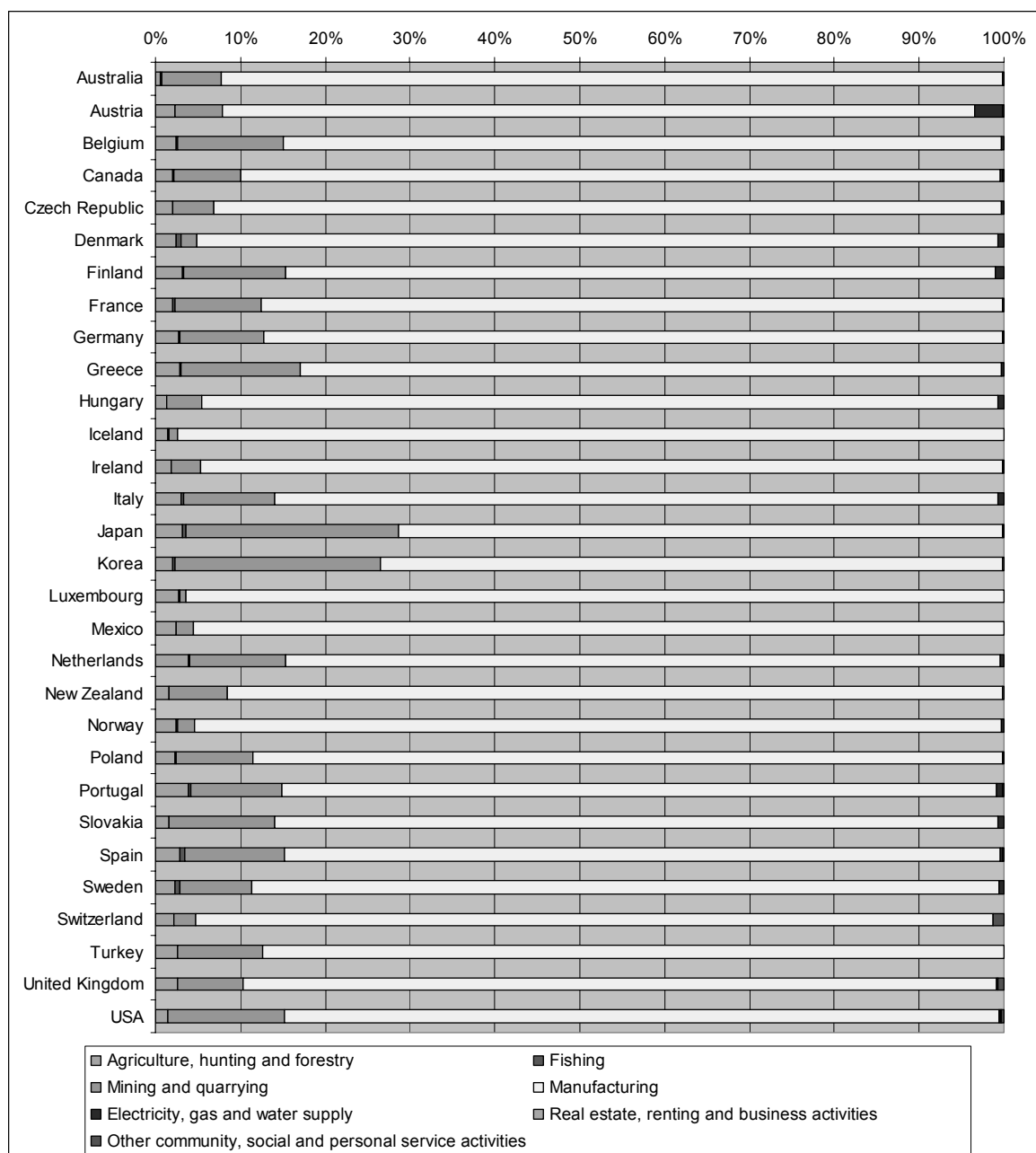
13. For most OECD countries, the manufacturing sector usually covers the largest part of the exports and imports of goods (see charts 3 and 4). For the exports of Australia, the United Kingdom, Canada, Denmark, Mexico and especially Norway, the mining and quarrying sector plays an important (for Norway: dominating) role, too.

**Exports of OECD member countries by ISIC sectors, 2005**



Source: OECD ITCS database (WBC)

Chart 3. Imports of OECD member countries by ISIC sectors, 2005



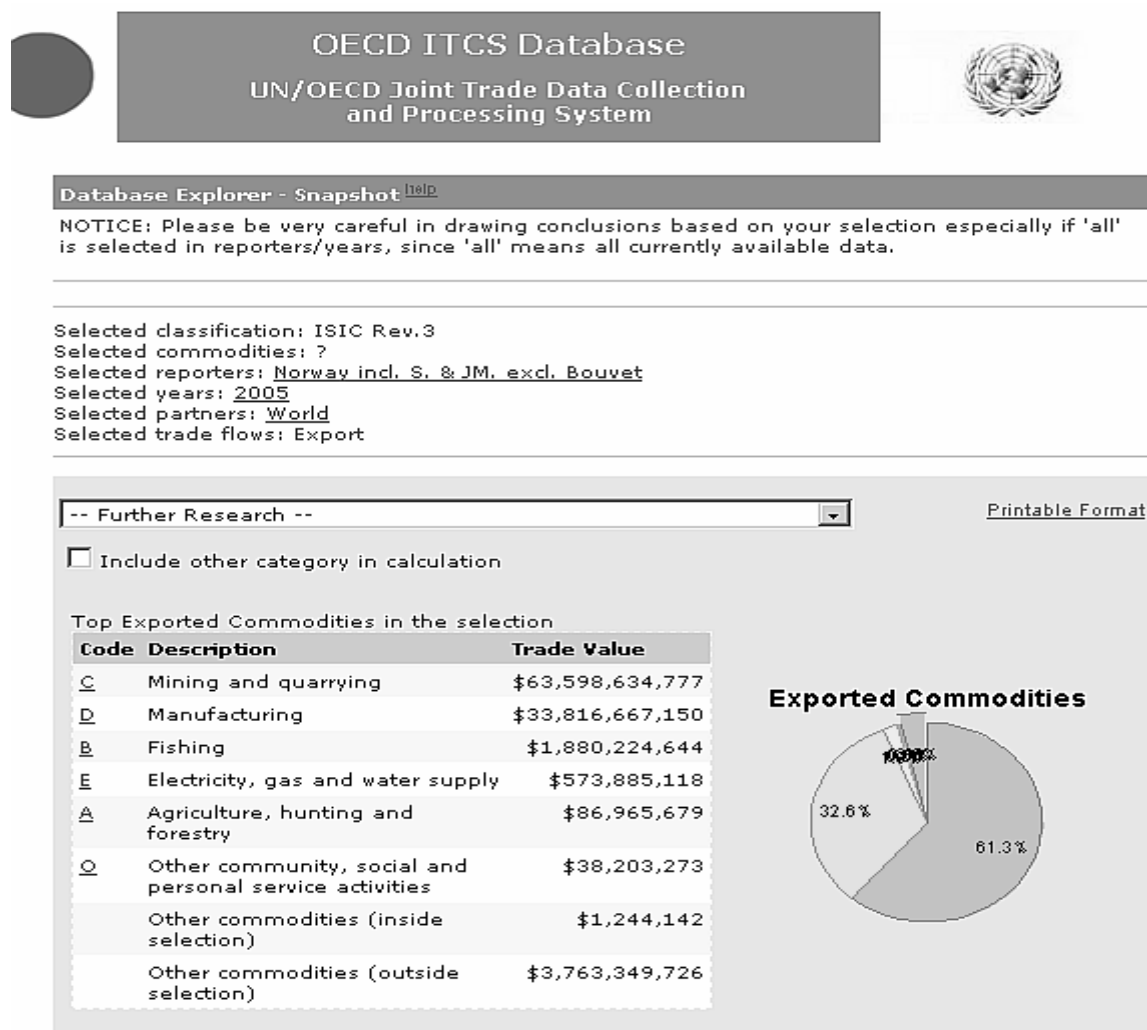
Source: OECD ITCS database (WBC)

14. In 2005, products of the mining and quarrying sector covered almost 30% of all imports of Korea and Japan. For all other OECD countries, this sector did not reach more than 20% of the value of all imports.

15. OECD's merchandise trade statistics by ISIC classifications are available both in revisions 2 and 3, and can be accessed via the ITCS data base (Web Browser Client (WBC)-version via OLISnet<sup>8</sup>), see figure 3.

<sup>8</sup> [http://www.oecd.org/document/19/0,3343,en\\_2649\\_201185\\_1914579\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/19/0,3343,en_2649_201185_1914579_1_1_1_1,00.html)

Figure 3. Web browser client (WBC) - OECD ITCS database



16. The ISIC classification will also be used for the compilation of sectoral trade statistics, generated from a linkage of business and trade registers<sup>9</sup>.

**Question to delegates:**

- How useful do delegates see the extension of trade statistics by ISIC classification?
- With which other data do delegates use ISIC-based trade statistics?

<sup>9</sup> See room document STD/NAES/TASS/ITS(2007)13, *Linkages of Trade and Structural Business Statistics: OECD Progress Report*.

***b) Other possibly useful analytical extensions***

17. Analytical statistical extensions like the ones shown before (ICT and ISIC) are possible and depend mainly on the user's demand.

18. Following previous exchanges of views of the secretariat, specific extensions for **agricultural products** (in cooperation with OECD's Trade and Agriculture Directorate) and for **energy statistics** (trade of petroleum, gas, electricity etc.) could be imagined as next steps for the future.

***Question to delegates:***

- Do delegates agree with the demand for specific analytical extensions?
- Which might be possible prospective analytical extensions, where international organisations could play a major role?
- Are there examples for needs and provisions of similar (or the same) analytical extensions on national levels?
- How helpful would delegates see BEC and/or CPC/CPA classifications in this context?

## ANNEX 1

### Box 1. OECD Definition of ICT Goods:

ICT goods are those that are either intended to fulfil the function of information processing and communication by electronic means, including transmission and display, OR which use electronic processing to detect, measure and/or record physical phenomena, or to control a physical process.

ICT goods are defined by the OECD in terms of the Harmonised System.

### Box 2. Context:

The guiding principle for the delineation of ICT goods is that such goods must either be intended to fulfil the function of information processing and communication by electronic means, including transmission and display, OR use electronic processing to detect, measure and/or record physical phenomena, or to control a physical process.

Another guiding principle was to use existing classification systems in order to take advantage of existing data sets and therefore ensure the immediate use of the proposed standard. In this case, the underlying system is the Harmonized System (HS). The HS is the only commodity classification system used on a sufficiently wide basis to support international data comparison. A large number of countries use it to classify export and import of goods, and many countries use it (or a classification derived from or linked to it) to categorise domestic outputs.

The application of the ICT product definition to selection of in-scope HS categories is a somewhat subjective exercise. The fact that the HS is not built on the basis of the functionality of products makes it much more difficult. The distinction between products which fulfil those functions and products that simply embody electronics but fundamentally fulfil other functions is not always obvious.

It is possible to adopt a narrow or broad interpretation of the guideline, though the OECD chose a broader interpretation, an approach which is consistent with that adopted to develop the ICT sector definition.

Source: OECD Glossary

## ANNEX 2

Table 1. List of ICT products, by HS1996 classification

I: Telecom equipment	8517: Electric app for line telephony/line telegraphy, incl curr line syste
	852020: Telephone answering machines
	852510: Transmission apparatus for radio-teleph radio-broadcastg or televisio
	852520: Transmission apparatus, for radioteleph incorporatg reception apparat
	852530: Television cameras
	852610: Radar aparatus
	852790: Radio reception apparatus nes
	852910: Aerials & aerial reflectors of all kinds; parts suitable f use therew
	853110: Burglar or fire alarms and similar apparatus
	854420: Co-axial cable and other co-axial electric conductors
	854470: optical fibre cables, made up of individually sheathed fibres
II: Electronic components	850450: Inductors, electric
	850490: Parts of electrical transformers, static converters and inductors
	852330: Cards Incorporating An Unrecorded Magnetic Stripe
	852460: Cards Incorporating A Recorded Magnetic Stripe
	852990: Parts suitable f use solely/princ w the app of headings 85.25 to 85.2
	853221: Electrical capacitors, fixed, tantalum, nes
	853224: Electrical capacitors, fixed, ceramic dielectric, multilayer, nes
	853230: Electrical capacitors, variable or adjustable (pre-set)
8533: Electrical resistor (incl rheostats & potentiometers), o/t heatg resi	

	8534: Printed circuits
	8540: Thermionic, cold cathode valves & tube (ex vac/ga filld, tv camera tu
	8541: Diodes/transistors & sim semiconductor devices; light emitting diodes
	8542: Electronic integrated circuits and microassemblies
	850431: Transformers electric power handling capacity not exceeding 1 KVA, ne
III: Audio and video equipment	8518: Microphones & stand; loudspeaker; headphone/earphone; sound amplifier
	8519: Turntable (record-decks), record-player, & o sound reproducing appara
	852010: Dictatg mach not capable of operatg wtho an external source of power
	852032: Magnetic Tape Recorders, Digital Audio Type
	852033: Cassette Recorders Incorporating Sound Reproducing Apparatus
	852039: Magnetic tape recorders incorporating sound reproducing apparatus, ne
	852090: Magnetic tape recorders and other sound recording apparatus, nes
	8521: Video recording or reproducing apparatus
	8522: Parts and accessories of apparatus of heading nos 85.19 to 85.21
	852311: Unrecorded magnetic tapes, of a width not exceeding 4 mm
	852312: Unrecordd magnetic tapes, of a width exceedg 4 mm but nt exceedg 6.5
	852313: Unrecorded magnetic tapes, of a width exceeding 6.5 mm
	852320: Unrecorded magnetic discs
	852390: Prepared unrecorded media for sound recording or other phenomena nes
	852540: Still-Image Video Cameras and other Video Camera Recorders
	852712: Pocket-Size Radio/Cassette-Players [Dimensions <=170 Mm X 100 Mm X 45 Mm],
	852713: Radio-Broadcast Receivers operating Without An External Source of Power,
	852719: Radio broad rece capable of op w/o an external source of power, nes
	852721: Radio rece nt capabl of op w/o ext source of power f motor veh, combi
	852729: Radio rece nt capable of op w/o ext source of power f motor vehicl, n
852731: Radio broad rece combin with sound recordg or reproducg apparatus ne	

	852732: Radio broad rece not combi w sound recordg but combind w a clock, nes
	852739: Radio-broadcast receivers nes
	8528: Television receivers (incl video monitors & video projectors)
IV: Computer equipment	8471: Automatic data proces mach; optical reader, mach for transcribg data,
	847330: Parts & accessories of automatic data processg machines & units there
V: Other ITC goods	846911: Word-Processing Machines
	847010: Electronic calculators capable of oper w/o an external source of powe
	847021: Electronic calculating machines, incorporating a printing device, nes
	847029: Electronic calculating machines, nes
	847040: Accounting machines
	847050: Cash registers
	847310: Parts & accessories of typewriters & word-processg machines, o/t case
	847321: Parts & accessories of electronic calculatg mach of headg No 84.70 ne
	847350: Parts and Accessories Equally Suitable with >2 Typewriters,..
	852691: Radio navigational aid apparatus
	852692: Radio remote control apparatus
	901041: Direct Write-on Wafer Apparatus
	901042: Step And Repeat Aligners
	901049: Other Appar. for Projection or Drawing on Sensitized Semiconductor Materials
	9014: Direction finding compasses; other navigational instruments & applian
	901540: Photogrammetrical surveying instruments and appliances
	901580: Surveyg, hydrographic, oceanographic, meteorologic/geophysical inst n
	901811: Electro-cardiographs
	901812: Ultrasonic Scanning Apparatus
	901813: Magnetic Resonance Imaging Apparatus
	901814: Scintigraphic Apparatus

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901819: Electro-diagnostic apparatus, nes
902212: Computer Tomography Apparatus
902213: Apparatus Based on The Use of X-Rays For Dental Uses
902214: Apparatus Based on Use of X-Rays, For Medical, Surgical or Veterinary Uses
902219: Apparatus based on the use of X-rays for other uses
9024: Machines & appl for testg the hardnes /strength/o mech propertie of m
902620: Instruments and apparatus for measuring or checking pressure
902710: Gas or smoke analysis apparatus
902730: Spectrometers, spectrophotometers & spectrographs usg optical radiati
902740: Exposure meters
902750: Instruments and apparatus using optical radiations (UV, visible, IR),
902780: Instruments and apparatus for physical or chemical analysis, nes
9028: Gas/liquid/electricity supply/production meter, incl calibrating meter
9029: Revolution counters/taximeters & the like; speed indicators/tachomete
903010: Instruments & apparatus for measuring or detecting ionising radiation
903020: Cathode-ray oscilloscopes and cathoderay oscillographs
903031: Multimeters
903039: Inst & app, for measurg or checkg voltage, current, etc w/o a record
903040: Instruments & apparatus, specially designed for telecommunications ne
903082: Instruments and Apparatus For Measuring or Checking Semiconductor Wafers
903083: Instruments and Appliances For Measuring or Checking Electrical Quantities,
903110: Machines for balancing mechanical parts, nes
903120: Test benches for measurg or checkg instruments, appliances & machines
903130: Profile projectors, nes
903141: Other Optical Instruments, For Inspecting Semiconductor Wafers or Devices
903180: Measuring or checking instruments, appliances and machines, nes

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903190: Parts & accessories for measuring or checking inst, appl & machines,

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903210: Thermostats

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903220: Manostats

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903289: Automatic regulating or controlling instruments and apparatus, nes

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903290: Parts & access for automatic regulatg or controllg instruments & app,

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