SIZE OF THE ICT SECTOR

Information and communication technologies (ICT) have been at the heart of economic changes for more than a decade. ICT-producing sectors and ICT employment contribute to technological progress and productivity growth.

Definition

The industry-based definition of the ICT sector is based on Revision 3 of the International Standard Industrial Classification (ISIC Rev. 3).

The principles underlying this definition are the following. For manufacturing industries, an ICT product must fulfil the function of information processing and communication, including transmission and display; and they must use electronic processing to detect, measure and/or record physical phenomena or control a physical process. For services industries, ICT products must enable information processing and communication by electronic means. These two measures of ICT production are expressed as a share of the total value added in the manufacturing and business services.

Two measures of ICT employment are shown here: a narrow measure, comprising ICT specialists whose job is directly focused on ICT such as software engineers; and a broader measure including jobs that regularly use ICT but are not focused on ICT per se (these occupations include scientists and engineers, as well as office workers, but exclude teachers and medical specialists for whom the use of ICT is not essential for their tasks). These two measures of ICT employment are expressed as a share of total employment.

Comparability

The existence of a widely accepted definition of the ICT sector is the first step towards making comparisons across time and countries possible. However, this definition is not yet consistently applied. Data provided by OECD countries have been combined with different data sources to estimate ICT aggregates compatible with national accounts totals. For this reason, statistics presented here may differ from figures contained in national reports and in previous OECD publications.

Data for EU countries are based on the International Standard Classification of Occupations (ISCO 88) while data for non-EU countries are based on national classification systems. The classification and the selection of occupations are not harmonised internationally. This implies that the level of the indicators is not directly comparable across countries. Furthermore, there may be differences in ICT usage in occupations, both within and between countries, even when they are based on the same classification.

Overview

In 2006, the ICT manufacturing sector represented between 2.3% and 21% of total manufacturing value added in OECD countries with available data. The average share for the 23 OECD countries for which data are available was 7.2%. The share of ICT services was generally smaller than for manufacturing, being largest in Greece, Hungary, Korea, Portugal and the Czech Republic, and smallest in Ireland, Sweden, France and Austria.

In 2007, the narrow definition of ICT employment (ICT specialists) accounted for between 3 and 4% of total employment in most OECD countries. This share has risen in recent years in most countries, despite the stagnation in the share of ICT sector employment in business sector employment. The broader grouping of ICT-using occupations (including specialists) accounts for over 20% of total employment in most countries.

Sources

- OECD (2009), *OECD Science, Technology and Industry Scoreboard 2009*, OECD, Paris.
- OECD (2008), *OECD Information Technology Outlook 2008*, OECD, Paris.

Further information

Analytical publications

- OECD (2003), *ICT and Economic Growth: Evidence from OECD countries, industries and firms*, OECD, Paris.
- OECD (2005), *Guide to Measuring the Information Society*, OECD, Paris.
- OECD (2006), *OECD Reviews of Risk Management Policies – Norway: Information Security*, OECD, Paris.
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Statistical publications

- OECD (2004), *Understanding Economic Growth A Macro-level, Industry-level, and Firm-level Perspective*, OECD, Paris.

Web sites

- OECD Key ICT indicators, *www.oecd.org/sti/ictindicators*.
- OECD Science, Technology and Industry, *www.oecd.org/sti*.
- OECD Telecommunications and Internet Policy, *www.oecd.org/sti/telecom*.

Share of ICT in value added and in employment

Percentage

	Share of ICT in value added					Share of ICT-related occupations in total employment			
	ICT manufacturing As a percentage of total manufacturing value added		ICT services As a percentage of total business services value added			ICT specialists As a percentage of total employment		ICT specialists, advanced and basic users As a percentage of total employment	
	2006	Percentage point change 1995-2006	Telecommunication services, 2006	Other ICT services, 2006	Percentage point change 1995-2006	2007	Percentage point change 1995-2007	2007	Percentage point change 1995-2007
Australia	2.8	–0.3	4.1	3.9	–1.0	3.6	0.3	20.8	–0.2
Austria	5.6	–1.6	2.9	4.4	0.4	3.0	0.4	20.5	5.5
Belgium	3.5	–0.6	4.0	5.0	2.3	2.9	0.8	21.7	3.0
Canada	4.6	–1.6	4.1	4.6	1.3	4.2	1.2	20.5	–0.1
Czech Republic	5.0	2.2	5.3	3.8	3.2	4.5	..	22.4	..
Denmark	4.8	0.4	2.9	6.0	1.5	4.0	1.1	27.2	6.8
Finland	20.1	11.4	5.0	6.8	4.1	4.4	1.7	24.9	4.9
France	5.2	–1.1	2.8	5.8	0.3	2.6	–0.3	20.1	1.4
Germany	5.6	1.0	3.0	4.5	–0.6	3.1	0.9	21.6	1.2
Greece	3.0	1.2	6.0	0.6	0.8	2.2	0.0	14.9	4.6
Hungary	12.6	7.8	5.8	4.3	2.8	2.7	..	22.6	..
Iceland	..	..	..	..	..	3.1	..	22.5	..
Ireland	11.5	–2.7	2.6	9.9	4.1	2.4	–0.3	20.9	6.4
Italy	4.2	–	3.5	5.2	2.2	2.8	0.4	22.2	1.3
Japan	12.8	0.2	3.3	2.4	1.1	..	..	..	..
Korea	21.1	5.1	5.6	2.7	1.6	..	..	..	..
Luxembourg	..	..	..	..	..	3.2	0.3	30.6	7.6
Mexico	5.6	0.4	3.6	1.2	0.7	..	..	..	..
Netherlands	3.8	–2.4	3.7	7.0	3.2	3.9	0.6	23.4	0.4
Norway	4.6	0.2	3.5	6.0	2.5	4.8	..	23.8	..
Poland	..	..	..	..	..	2.8	..	17.9	..
Portugal	2.8	–1.0	5.5	3.0	0.7	2.8	–0.1	14.3	–2.1
Slovak Republic	..	..	..	..	..	3.5	..	19.1	..
Spain	2.3	–1.5	4.3	4.0	1.1	2.9	0.7	18.6	2.8
Sweden	9.3	1.7	2.7	8.8	2.7	4.9	1.1	24.6	4.2
Switzerland	..	..	..	..	..	5.2	..	23.0	..
Turkey	..	..	..	..	..	1.7	..	11.8	..
United Kingdom	6.0	–2.3	3.9	7.9	2.1	3.2	0.2	28.0	0.3
United States	7.7	–2.6	4.7	4.2	0.3	3.7	0.4	20.2	–1.0
OECD average	7.2	0.3	4.0	4.9	1.6	..	..	..	..
Estonia	5.7	..	5.4	3.2	..	2.6	..	21.8	..
Israel	20.9	..	6.2	13.4	..	..	..	..	..
Slovenia	3.6	..	7.1	4.9	..	3.1	0.3	23.9	4.0

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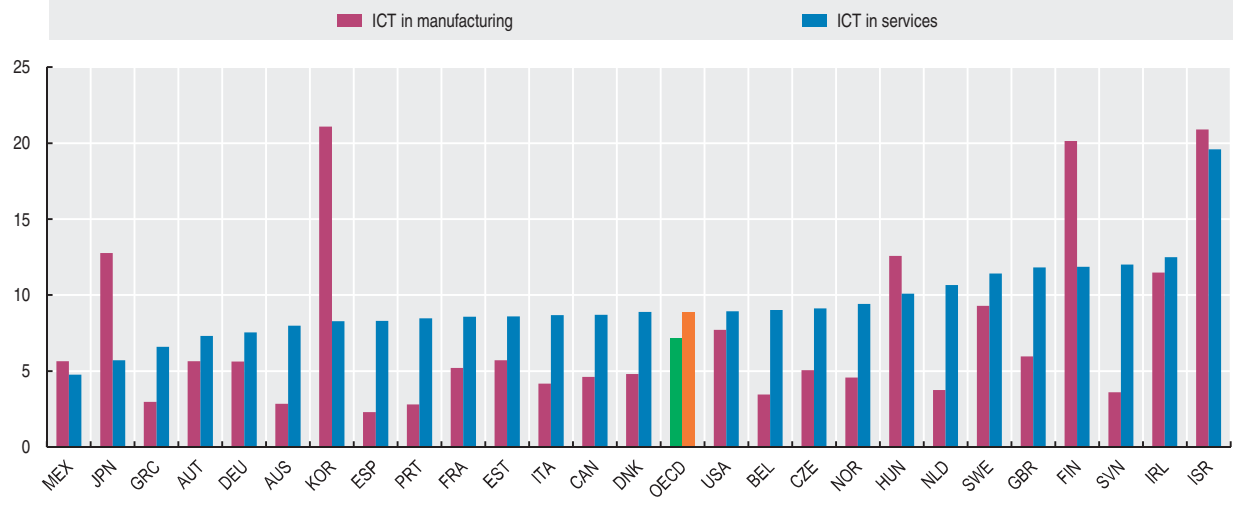
Share of ICT in value added

Share of ICT manufacturing and ICT services value added, 2006



StatLink http://dx.doi.org/10.1787/821048646754