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OECD Methodology for Measuring the Information Society

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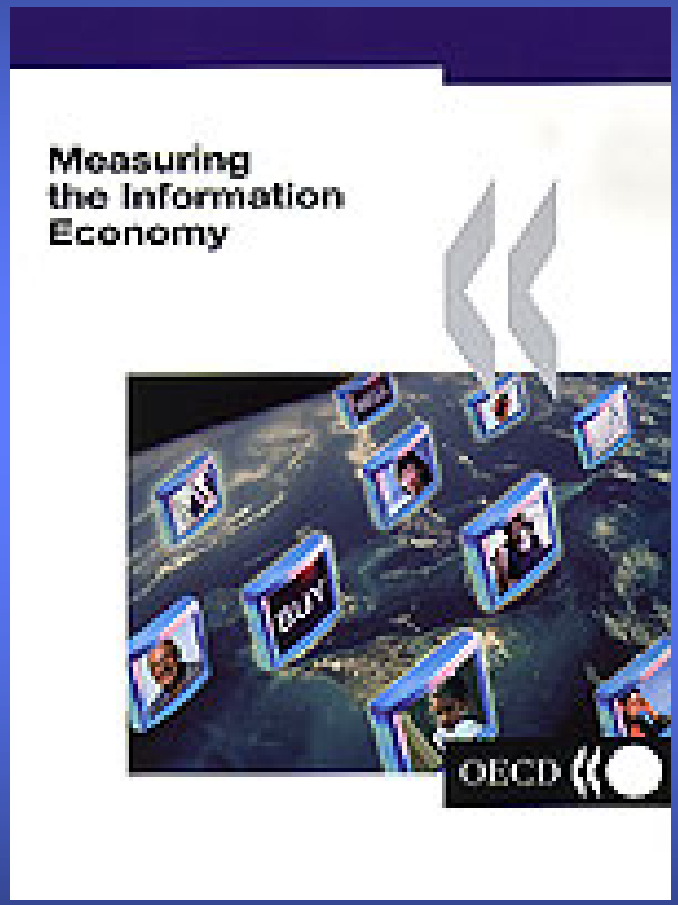

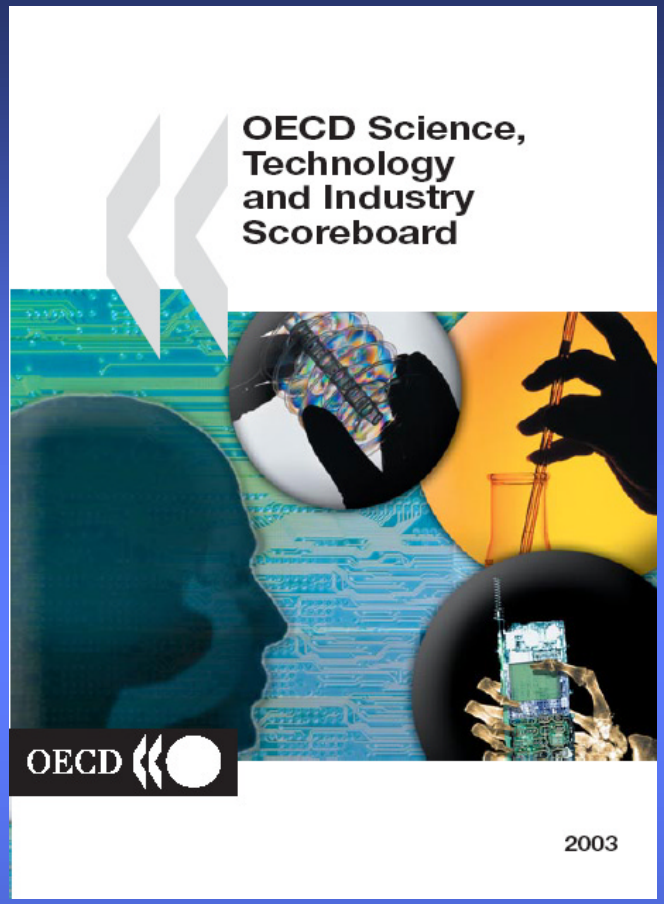

http://www.oecd.org/sti/scoreboard

http://www.oecd.org/sti/measuring-infoeconomy

Measuring ICT

IMPACTS

Value added, employment, R&D and patents in ICT industries, trade in ICT goods, cross-border mergers, acquisitions and alliances

USE

Internet subscribers, PC in households, Internet use by households and individuals, Internet use by enterprise size and industry, Internet transactions

READINESS

ICT investment, ICT spending, ICT occupations, telecommunication access paths, broadband penetration rates, Internet hosts, number of Websites, Internet access prices

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The ICT sector principles

- For *manufacturing* industries, the products of a candidate industry:
  - Must be intended to fulfil the function of information processing and communication including transmission and display.
  - Must use electronic processing to detect, measure and/or record physical phenomena or control a physical process.
- For *services* industries, the products of a candidate industry:
  - Must be intended to enable the function of information processing and communication by electronic means.

ICT sector definition – based on ISIC Rev 3.1

Manufacturing	
3000	Office, accounting and computing machinery
3130	Insulated wire and cable
3210	Electronic valves and tubes and other electronic components
3220	Television and radio transmitters and apparatus for line telephony and line telegraphy
3230	Television and radio receivers, sound or video recording or reproducing apparatus, and associated goods
3312	Instruments and appliances for measuring, checking, testing, navigating and other purposes except industrial process equipment
3313	Industrial process equipment

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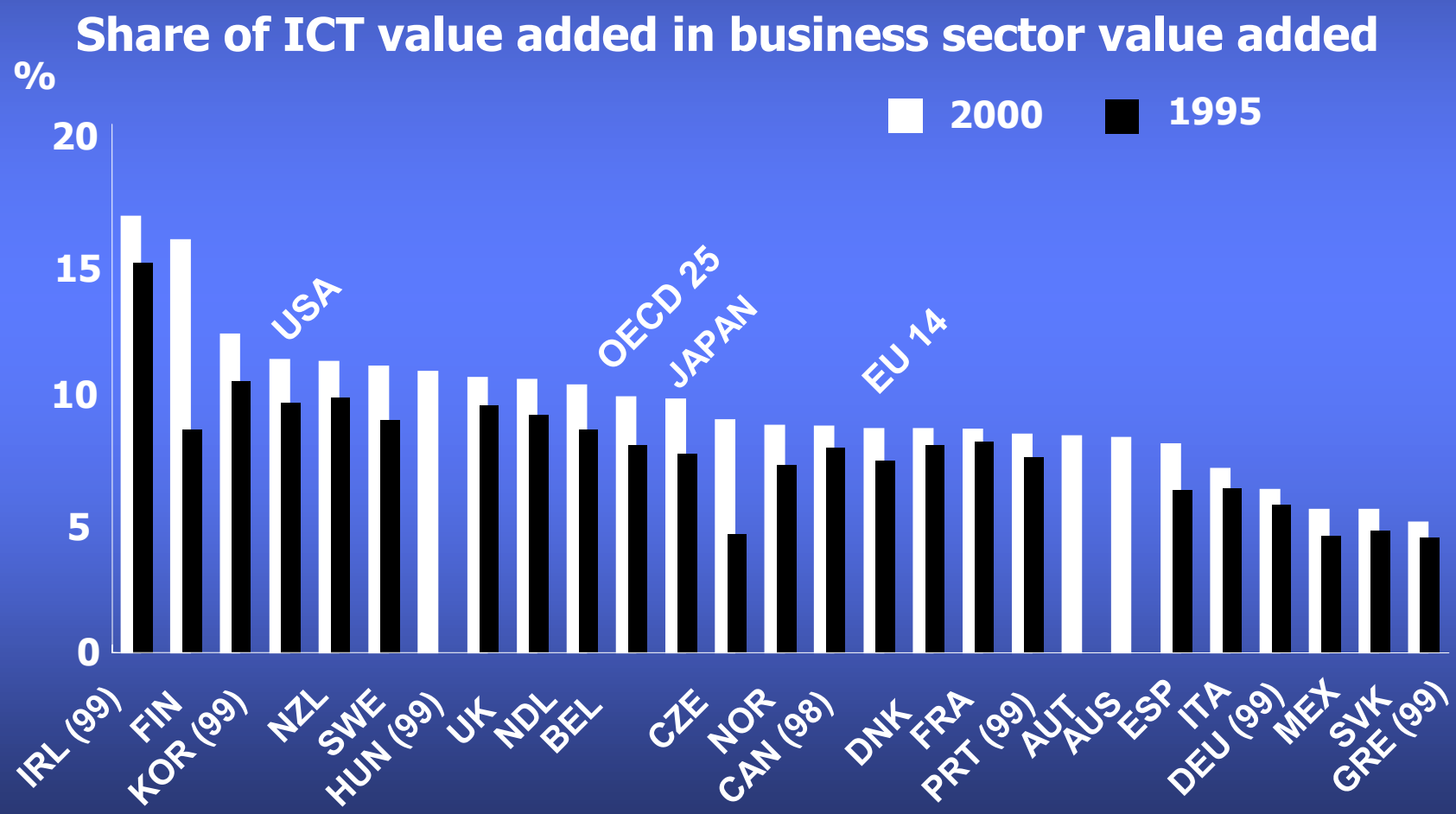
ICT sector definition – based on ISIC Rev 3.1

Services	
5151	Wholesale of computers, computer peripheral equipment and software
5152	Wholesale of electronic and telecommunications parts and equipment
6420	Telecommunications
7123	Renting of office machinery and equipment (including computers)
72	Computer and related activities

ICT contribution to economic activity, still small but growing



ICT goods guiding principle

- ICT 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

ICT goods broad categories

- Based on six-digit HS categories
  - telecommunications equipment
  - computer and related equipment
  - electronic components
  - audio and video equipment
  - other ICT goods

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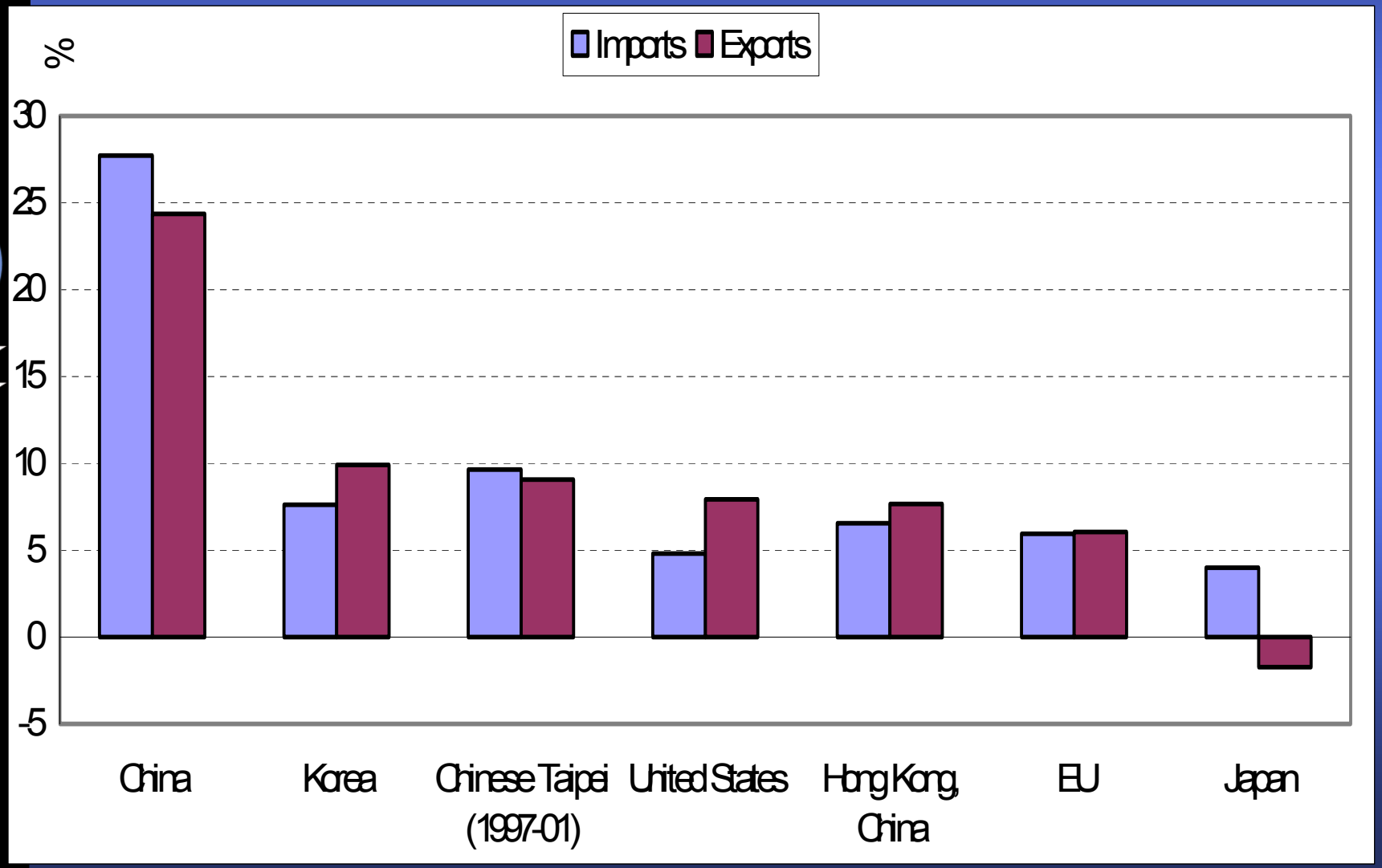
Trade in ICT goods, annual average growth rate 1996-2001 (constant 1995 USD)



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ICT services guiding principle

- For service industries, the products of a candidate industry must be intended to enable the function of information processing and communication by electronic means

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ICT services proposal

- IT technical consulting services
- IT design and development services
- Hosting and IT infrastructure provisioning services
- IT infrastructure and network management services
- IT technical support services
- Information and document transformation services
- Internet access and backbone services
- Internet telecommunication services
- Software publishing
- Re-sale of computer hardware and software
- Rental and leasing of computer hardware
- IT-related training services

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Measuring ICT use in businesses

"Old" - model questionnaire core modules

A. General information

B. Use of Internet

C. E-commerce via Internet

D. E-commerce via EDI or other computer-mediated network (other than Internet)

E. Barriers to ICT, Internet and e-commerce

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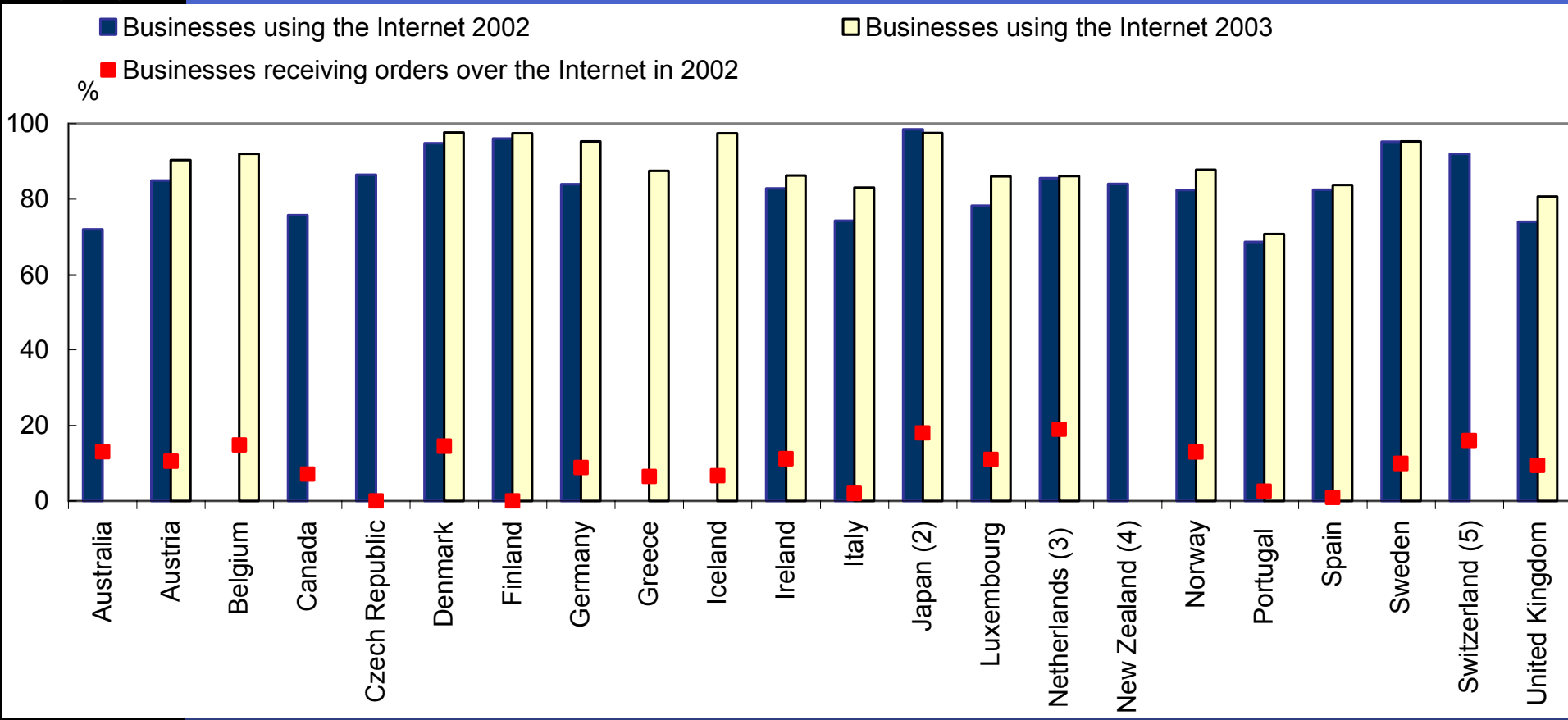
Businesses use of the Internet is widespread

Businesses using the Internet for purchasing and selling, percentage of businesses with ten or more employees, 2002 and 2003 or latest available year



Source: OECD, ICT database and Eurostat, Community Survey on ICT usage in enterprises 2002 and 2003, August 2004.

Measuring ICT use in businesses

Probable core modules after revision:

A. General information about use of ICT

B. IT security

C. E-business

D. Other information

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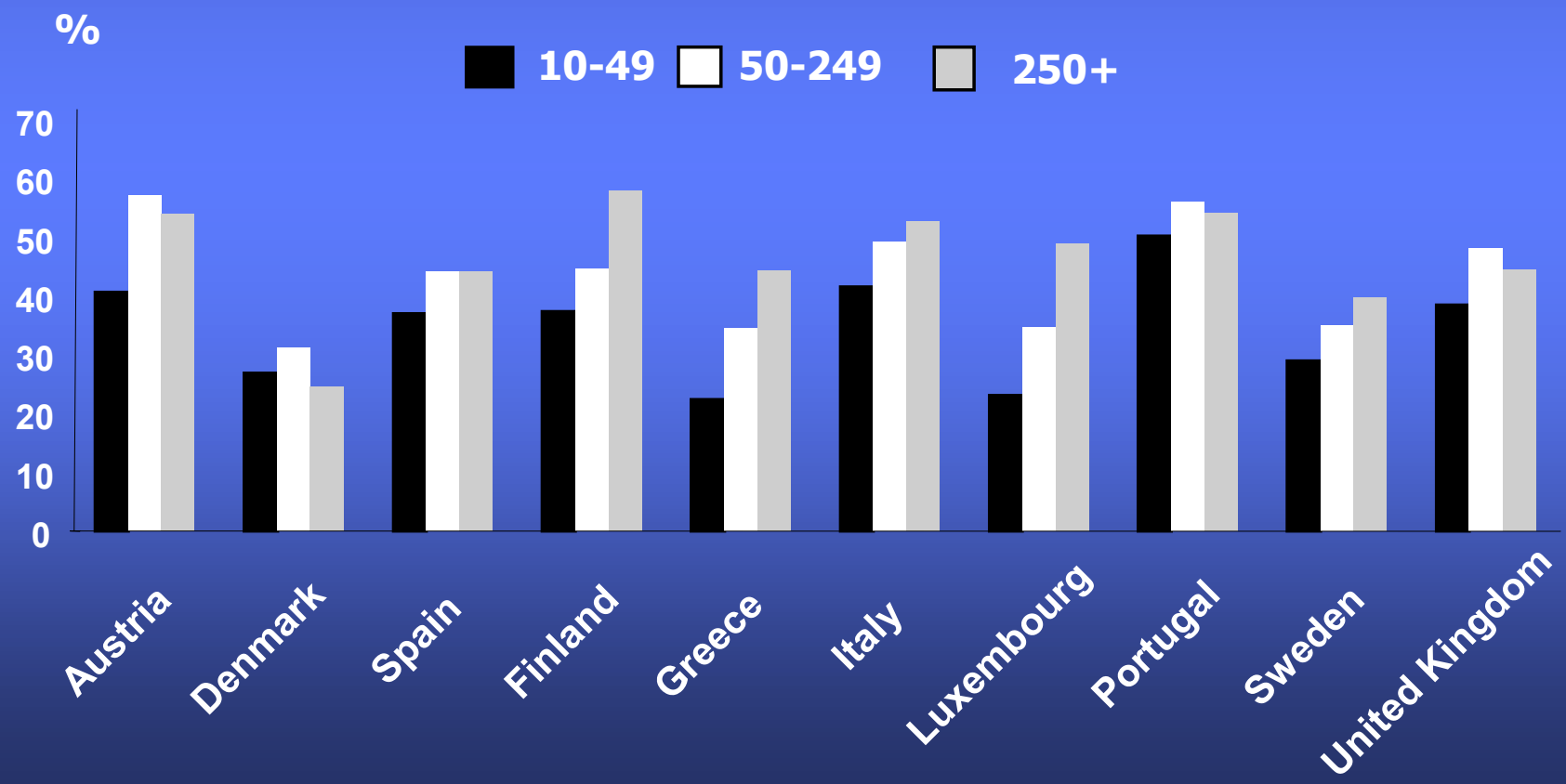
Businesses facing security issues by firm size

Percentage of computer users, 2000



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Measuring ICT use in households/by individuals

"Old" Model questionnaire core modules:

1. Household access to computers and the Internet
2. Household barriers to adoption of the Internet
3. Use of computers and the Internet: location and frequency of use
4. Purpose and nature of activities on the Internet
5. Internet-commerce details

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Measuring ICT use in households

Probable core modules after revision:

A. Household access to IT

B. Household use of IT

C. Internet Security

D. Purpose and nature of IT activities

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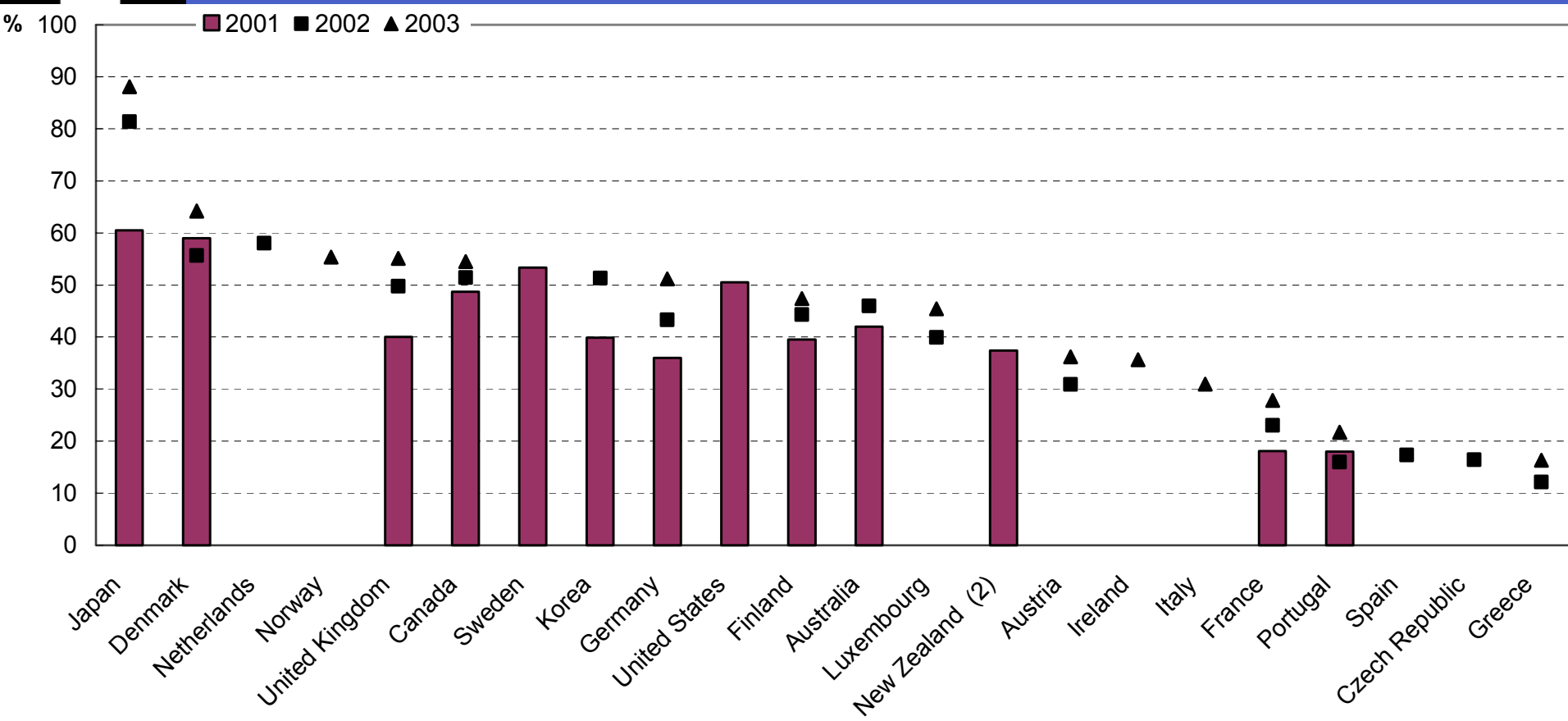
Household access to computers continues to grow …

Percentage of all households



Source: OECD, ICT database and Eurostat, Community Survey on ICT usage in enterprises 2002 and 2003, August 2004.

Electronic commerce definitions

E-commerce transactions	OECD definitions	Guidelines for the Interpretation of the Definitions (WPIIS proposal April 2001)
BROAD definition	An **electronic transaction** is the sale or purchase of goods or services, whether between businesses, households, individuals, governments, and other public or private organisations, conducted over **computer-mediated networks**. The goods and services are ordered over those networks, but the payment and the ultimate delivery of the good or service may be conducted on or off-line.	**Include**: orders received or placed on any online application used in automated transactions such as Internet applications, EDI, Minitel or interactive telephone systems.
NARROW definition	An **Internet transaction** is the sale or purchase of goods or services, whether between businesses, households, individuals, governments, and other public or private organisations, conducted over the **Internet**. The goods and services are ordered over the Internet, but the payment and the ultimate delivery of the good or service may be conducted on or off-line.	**Include**:orders received or placed on any Internet application used in automated transactions such as Web pages, Extranets and other applications that run over the Internet, such as EDI over the Internet, Minitel over the Internet, or over any other Web enabled application regardless of how the Web is accessed (e.g. through a mobile or a TV set, etc.) **Exclude**: orders received or placed by telephone, facsimile, or conventional e-mail.

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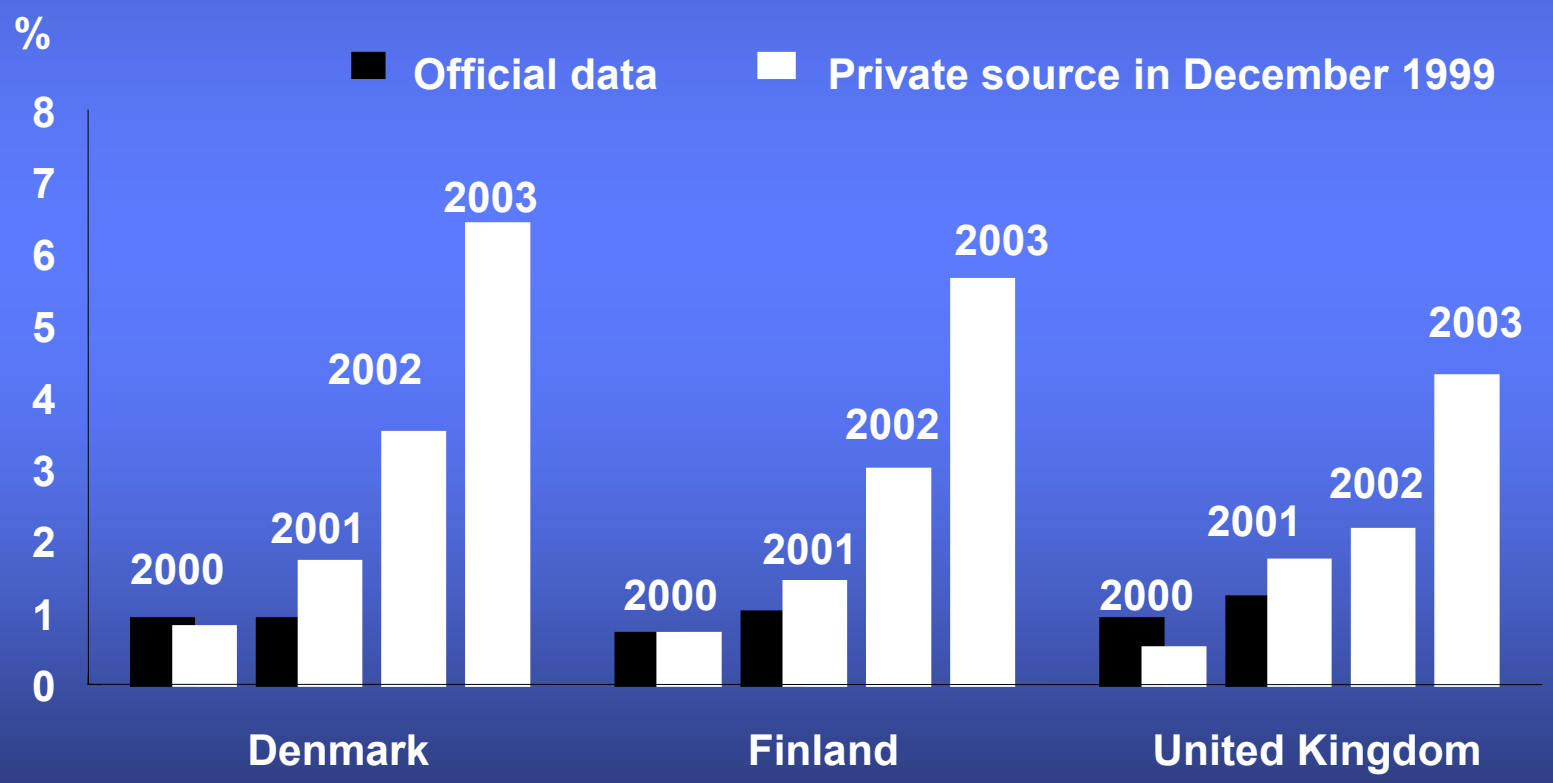
A reality check: Internet commerce: 0.3-2% of total sales



Looking forward

- Measurement challenges:
  - Trust, security, privacy
  - E-business
  - E-government
  - ICT investment
  - Content and digital delivery
  - Spam
  - ICT skills
  - Impacts
- OECD Guide to Information Society Measurement

The partnership for measuring the Information Society – 2003 WSIS

- The Partnership has the following broad objectives:
  - to achieve a common set of core ICT indicators
  - to enhance the capacities of NSOs in developing countries in the area of Information Society statistics
  - to develop a global database on ICT indicators.
- OECD is one of the partners, with the others being the ITU, UNCTAD, the UNESCO Institute for Statistics, the UN Regional Commissions, the UN ICT Task Force and the World Bank.

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A partnership for measuring the Information Society – OECD contributions

- to provide ICT metadata information for OECD countries as part of a global stocktaking exercise
- to assist in the development of a common list of core ICT indicators
  - Infrastructure
  - Trade
  - Qualifications
  - The ICT sector
  - Use of ICT
  - Patents

A partnership for measuring the Information Society – OECD contributions

- to provide assistance with ICT statistical work through preparation of a guide to Information Society measurement
- to participate in the development of a global database of ICT indicators, mainly by providing data for OECD countries and for some non-OECD countries.

- OECD is drafting a *Guide to Information Society Measurement.*
  - The main aim is to consolidate WPIIS knowledge for the benefit of official ICT statisticians in member and non-member countries.
- The Guide will include information on:
  - existing standards – definitions, classifications, outstanding issues
  - other areas e.g. electronic content – conceptual issues, future work
  - metadata on OECD countries' survey work
  - the experiences of non-member countries.
- A near-final draft will be ready for approval by WPIIS 2005 (April 28-29) and will be finished for the WSIS in November 2005.

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www.oecd.org/sti/measuring-infoeconomy

THANK YOU!

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