



2016 MINISTERIAL MEETING

THE DIGITAL ECONOMY: INNOVATION, GROWTH AND SOCIAL PROSPERITY

DIGITAL ECONOMY DATA HIGHLIGHTS



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THE ICT SECTOR: VALUE ADDED, EMPLOYMENT, EXPORTS AND RESEARCH

Figure 1. Value added of ICT sector and sub-sectors, 2013

As a percentage of total value added at currents

Computer, electronic and optical products Software publishing Telecommunications IT and other information services % 12 10 8 6 4 2 United States upic Jennen Anter and 5048 Republic 0 United Kingdon E AUSTIQ Instituterand Slovenia Dennalt iceland Mexico Sweden Pur Germany Canada . Greece reland France "Spain Belgium portugal poland NOWAY toles Japan 'Hall of testoria

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Notes: The ICT sector is defined here as the sum of industries ISIC rev.4 26, 582, 61 and 62-63. For Germany, Iceland, Ireland, Japan, Mexico, Poland, Spain, Sweden, Switzerland and the United Kingdom, data refer to 2012. For Canada and Portugal, data refer to 2011. For Ireland and the United Kingdom, data refer to SNA 93 and were extracted in October 2014. For the rest of countries, data refer to SNA 2008. For Canada, Iceland, Ireland, Japan and Mexico, data for Software publishing are not available, and are therefore not included in the definition. The figure for Switzerland shows the ICT sector share as defined by the OECD (2011). In this particular case, the share is not totally comparable with the rest of the countries.





Figure 2. Employment in the ICT sector and sub-sectors, 2013

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Notes: The ICT sector is defined here as the sum of industries ISIC rev.4 26, 582, 61 and 62-63. For France, Germany, Ireland, Japan, Spain and Switzerland, data refer to 2012. For Mexico, Portugal and Sweden, data refer to 2011. For Ireland, Mexico, Portugal and Sweden, data refer to SNA 93 and were extracted in October 2014. For Canada, Ireland, Japan, Mexico, the Netherlands, Portugal and Sweden, data for Software publishing are not available, and are therefore not included in the definition. The figure for Switzerland shows the ICT sector share as defined by the OECD (2011a). In this particular case, the share is not totally comparable with the rest of the countries.





Figure 3. Labour productivity in information industries, 2001 and 2013

Notes: Apparent labour productivity is defined as current price value added per person employed. The business sector is defined according to ISIC Rev.4 Divisions 05 to 66 and 69 to 82 i.e. total economy excluding Agriculture, forestry and fishing (Divisions 01 to 03); Real estate activities (68); Public administration (84); Education (85); Health (86 to 88) and Other service activities (90 to 98). Information industries are defined according to ISIC Rev.4 Divisions 26 (Manufacture of computer, electronic and optical products) and Divisions 58 to 63 (Information and communication service activities). For Mexico, data refer to 2003. For Canada, Luxembourg, Portugal, Switzerland, data refer to 2011. For Germany, Mexico, Poland, Spain, Sweden and the United Kingdom, data refer to 2012.

Source: OECD (2015b), OECD Science, Technology and Industry Scoreboard 2015: Innovation for Growth and Society, http://dx.doi.org/10.1787/sti_scoreboard-2015-en.



StatLink and http://dx.doi.org/10.1787/888933272994



Figure 4. Top ten exporters of ICT goods, 2013

StatLink and http://dx.doi.org/10.1787/888933224128

Notes: World is estimated based on the 103 BTDIxE declaring countries which reported ICT exports in all three years. World excludes re-imports for China and re-exports for Hong Kong China. China's ICT exports are adjusted for re-imports.

Source: OECD (2015a), OECD Digital Economy Outlook 2015, http://dx.doi.org/10.1787/9789264232440-en.



Percentage shares of total world services exports and in USD billion

Figure 5. Exporters of ICT services, 2013

StatLink and http://dx.doi.org/10.1787/888933224139

Notes: For Chile, Iceland and Israel, data refer to 2012. For Mexico and Switzerland, ICT services only include communications services. Information on data for Israel: http://oe.cd/israel-disclaimer.



Figure 6. Business expenditure in R&D, 2013



StatLink and http://dx.doi.org/10.1787/888933224145

Notes: For the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Israel, Italy, the Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Spain Switzerland and the United Kingdom, data refer to 2012. For Australia, Austria, Belgium, Greece, Iceland, Ireland, Mexico, New Zealand, Singapore and the United States, data refer to 2011. The ICT sector is defined according to the OECD ICT sector definition based on ISIC Rev.4. Information on data for Israel: http://oe.cd/israel-disclaimer.

Source: OECD (2015a), OECD Digital Economy Outlook 2015, http://dx.doi.org/10.1787/9789264232440-en.



As percentage of total PCT patent applications

Figure 7. ICT-related patents, 2010-12

StatLink and http://dx.doi.org/10.1787/888933224151

Notes: Data relate to patent applications filed under the Patent Co-operation Treaty (PCT). Patent counts are based on the priority date, the inventor's residence and fractional counts. ICT-related patents are defined using a selection of International Patent Classification (IPC) classes. Only economies that applied for more than 250 patents in 2010-12 are included. BRIICS refers to Brazil, the Russian Federation, India, Indonesia, China and South Africa. Information on data for Israel: http://oe.cd/israel-disclaimer.



Whole counts of internationally co-authored documents Malaysia O Belgium Chinese Taipei Hungary • Turkey Norwa Poland o Greece O Switzerland Hong Kong, China .Iran China • Portugal Saudi Arabia . Pakistan Canada Sweden OJapan ltaly Russian Federation United Kingdom United States . Ireland Austral O Netherlands Romania Germany o Singapore + Chile • Finland France O Austria Spain Olsrael Brazil o Korea +Luxembourg • Denmar New Zealand Argentina o India Czech Republic . Slovak Republic South Africa Mexico . Slovenia

Figure 8. International cooperation networks in ICT-related science fields, 2011-12

Notes: Data extraction is based on Elsevier's All Science and Journal Classification codes 17 (all subjects), 1903, 2614 and 2718. Bubble sizes are proportional to the number of scientific collaborations in a given year. The thickness of the lines (edges) between countries represents the intensity of collaboration (number of co-authored documents between each pair). The result has been visualised using the Kamada-Kawai (Kamada and Kawai, 1989) force algorithm, and implemented using the Sci2 tool (Sci2 Team, 2009). The data refers to counts of patent applications filed under the Patent Co-operation Treaty (PCT) to protect ICT-related inventions, with at least one co-inventor located in a different country, by priority date, using whole counts. ICT-related patents are defined using a selection of International Patent Classification (IPC) classes.



BROADBAND



Figure 9. OECD Fixed broadband subscriptions per 100 inhabitants, by technology, June 2015

Notes: Canada: Fixed wireless includes Satellite. France: Cable includes VDSL2 THD. Germany: DSL includes VDSL (FTTC); Cable excludes cable infrastructure based on FTTB/FTTH; FTTB/FTTH includes fibre lines provided by cable operators; fixed wireless includes the number of BWA subscribers; Other includes leased lines and Powerline. Israel and United States: Data for June 2015 are estimates. Mexico: Fixed broadband subscriptions data include only the country's bigger operators. United Kingdom: DSL includes FTTH, FTTP, FTTB and FTTC as the breakdown between these technologies is not available yet. Colombia is in the process of accession to the OECD, and so was Latvia at the time of data collection. Information on data for Israel: http://oe.cd/israel-disclaimer.

Source: OECD (2016), Broadband Portal, www.oecd.org/sti/broadband/oecdbroadbandportal.htm.



Figure 10. OECD Mobile broadband subscriptions per 100 inhabitants, by technology, June 2015

Notes: Israel: Data are estimates. Colombia is in the process of accession to the OECD, and so was Latvia at the time of data collection.Information on data for Israel: http://oe.cd/israel-disclaimer.

Source: OECD (2016), Broadband Portal, www.oecd.org/sti/broadband/oecdbroadbandportal.htm.



ICT USAGE BY INDIVIDUALS AND FIRMS



Figure 11. Broadband connectivity, by size, 2010 and 2014

Percentage of enterprises in each employment size class

StatLink and http://dx.doi.org/10.1787/888933224829

Notes: Broadband connections include both fixed and mobile Internet connections with an advertised download speed of at least 256 kbit/s and include connections based on the following technologies: xDSL, cable modem, optical fibre (e.g. FTTx), leased lines, Ethernet, PLC, BPL, public-WIFI, satellite and terrestrial fixed wireless such as fixed WiMAX, LMDS and MMDS, 3G/LTE/4G, UMTS and CDMA2000. For Japan, broadband connections include only optical fibre (FTTH), Cable modem, DSL and terrestrial fixed wireless (FWA and BWA). For Australia, Canada, Japan, Korea and Colombia, data refer to 2013. For Australia and New Zealand, data refer to the fiscal year ending 30 June 2013 instead of 2014. For Australia, the total includes Agriculture, forestry and fishing. For Canada, data refer to 2007 instead of 2010; medium-sized enterprises have 50 to 299 employees and large enterprises have 300 or more employees. For Japan, data refer to businesses with 100 or more persons employed instead of 10 or more; medium-sized enterprises have 300 or more persons employed. For Mexico, data refer to 2008 and 2012, instead of 2010 and 2014. In 2008, data refer to businesses with 20 or more persons employed instead of 10 or more. For Switzerland, data refer to 2008 and 2011. For Colombia, data refer to enterprises with 75 or more persons employed in the manufacturing sector (excluding ISIC Rev.4 divisions 49-51, 58, 75 and 77). In addition, the scope population excludes enterprises with less than 20 persons employed for wholesale and retail trade industries and enterprises with less than 40 persons employed for the transportation and storage, accommodation and food service activities and information and communication industries.



Figure 12. Enterprises with a website or home page by size, 2009 and 2014



As a percentage of enterprises in each employment size class

StatLink and http://dx.doi.org/10.1787/888933224836

Notes: Except otherwise stated, the sector coverage consists of all activities in manufacturing and non-financial market services. Only enterprises with ten or more persons employed are considered. Size classes are defined as: small (from 10 to 49 persons employed), medium (50 to 249) and large (250 and more). For Australia, Canada, Japan, Korea and Colombia, data refer to 2013 instead of 2014. For Australia, data refer to the fiscal years 2008/09 and 2012/13, ending on 30 June, instead of 2009 and 2014. Data for the fiscal year 2012/13 include Agriculture, forestry and fishing. For Canada, data refer to 2007 instead of 2009. Medium-sized enterprises have 50-299 employees. Large enterprises have 300 or more employees. For Japan, data refer to businesses with 100 or more employees. Medium-sized enterprises have 100-299 employees. Large enterprises have 300 or more employees. For Mexico, data refer to 2012. Small-sized enterprises have 10-50 persons employed, medium-sized enterprises have 51-250 persons employed, and large enterprises have 251 or more persons employed. For New Zealand, data refer to the fiscal years 2007/08 and 2011/12, ending on 31 March, instead of 2009 and 2014. For Switzerland, data refer to 2011. For Colombia, data refer to enterprises with 10 or more persons employed in the manufacturing sector (excluding ISIC Rev.4 divisions 12-14, 17, 21 and 33) and enterprises with 75 or more persons employed in the non-financial market services sector (excluding ISIC Rev.4 divisions 49-51, 58, 75 and 77). In addition, the scope population excludes enterprises with less than 20 persons employed for wholesale and retail trade industries and, enterprises with less than 40 persons employed for the transportation and storage, accommodation and food service activities and information and communication industries.



Figure 13. Enterprises engaged in sales via e-commerce, by size, 2013



As a percentage of enterprises in each employment size class

StatLink ms http://dx.doi.org/10.1787/888933274434

Notes: Unless otherwise stated, only enterprises with ten or more persons employed are considered. Size classes are defined as: small (from 10 to 49 persons employed), medium (50 to 249), SMEs (10 to 249) and large (250 and more). For countries in the European Statistical System, sector coverage consists of all activities in manufacturing and non-financial market services.

For Australia, data refer to any transaction where the commitment to purchase was made via the Internet, including via email, for the fiscal years 2008/09 and 2013/14, ending 30 June. Data for the fiscal year 2013/14 include agriculture, forestry and fishing activities. For Canada, data refer to 2007 and 2013 and to small businesses instead of SMEs. In 2013, data refer to sales online over the Internet. Medium-sized enterprises have 50-299 employees. Large enterprises have 300 or more employees. For Colombia, data refer to enterprises with ten or more persons employed in the manufacturing sector (excluding ISIC Rev.4 Divisions12-14, 17, 21 and 33) and enterprises with 75 or more persons employed in the non-financial market services (excluding Divisions 49-51, 58, 75 and 77). For industry G - Wholesale and retail trade, data refer to enterprises with 20 or more persons employed; for industries H - Transportation and storage (Divisions 52 and 53), I - Accommodation and food service activities and J - Information and communication (Divisions 59-61), data refer to enterprises have 100-299 employees. Large enterprises have 300 or more employees. For Mexico, data refer to 2008 and 2012 and to orders received via the Internet. For 2008, data refer to businesses with 20 or more persons employed. For 2012, data refer to establishments with ten or more persons employed. Size categories received via the Internet for the fiscal years 2007/08 and 2013/14, ending 31 March. For Switzerland, data refer to 2008 and 2011. For 2008, data refer to 2008 and 2011. For 2008, data refer to 300 or more persons device with the fiscal years 2007/08 and 2013/14, ending 31 March. For Switzerland, data refer to 2008 and 2011. For 2008, data refer to sumal businesses instead of SMEs.

Source: OECD (2015b), OECD Science, Technology and Industry Scoreboard 2015: Innovation for Growth and Society, http://dx.doi.org/10.1787/sti_scoreboard-2015-en.



As a percentage of 15 year-old students



StatLink and http://dx.doi.org/10.1787/888933274753

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Note: Information on data for Israel: http://oe.cd/israel-disclaimer.

Source: OECD (2015b), OECD Science, Technology and Industry Scoreboard 2015: Innovation for Growth and Society, http://dx.doi.org/10.1787/sti_scoreboard-2015-en.

Figure 15. Gaps in Internet usage by age, 2014



As a percentage of population in each age group

StatLink and http://dx.doi.org/10.1787/888933224237

Notes: Except otherwise stated, Internet users are defined for a recall period of 12 months. For Switzerland, the recall period is 6 months. For the United States, no time period is specified. For the United States, data refer to individuals aged 18 and above living in a house with Internet access, and to age intervals 18-34 instead of 16-24 and 65 and above instead of 65-74. Data are sourced from the US Census Bureau. For Australia, data refer to 2012/13 (fiscal year ending in June 2013) instead of 2013, and to individuals aged 65+ instead of 65-74. For Canada, Japan and New Zealand, data refer to 2012 instead of 2014. For Chile, Israel, the United States and Colombia, data refer to 2013 instead of 2014. For Israel, data refer to individuals aged 20-24 instead of 16-24. For Colombia, data refer to 12-24 year-olds instead of 16-24, and 55 year-olds and above instead of 65-74. For Japan, data refer to 15-28 year-olds instead of 16-24 and 60-69 year-olds instead of 65-74. Information on data for Israel. http://oe.cd/israel-disclaimer.



Figure 16. Internet users by age, 16-24 and 65-74 year-olds, 2014



As a percentage of population in each age group

Notes: Unless otherwise stated, Internet users are defined for a recall period of 12 months. For Switzerland, the recall period is 6 months. For the United States, no time period is specified. For the United States, data refer to individuals aged 18 and over living in a house with Internet access, and to age intervals of 18-34 (instead of 16-24) and 65 and over, (instead of 65-74). Data are sourced from the US Census Bureau. For Australia, data refer to 2012/13 (fiscal year ending in June 2013) instead of 2013, and to individuals aged 65+ instead of 65-74. For Canada, Japan and New Zealand, data refer to 2012 instead of 2014. For Chile, Israel, the United States and Colombia, data refer to 2013 instead of 2014. For Israel, data refer to individuals aged 20 and over (instead of 16-74) and 20-24 (instead of 16-24). For Colombia, data refer to individuals aged 12 years and above (instead of 16-74) 12-24 year-olds (instead of 16-24), and 55 year-olds and over (instead of 65-74). For Japan, data refer to 15-69 year-olds (instead of 16-74), 15-28 year-olds (instead of 16-24) and 60-69 year-olds (instead of 65-74). Information on data for Israel: http://oe.cd/israel-disclaimer.

Source: OECD (2015a), OECD Digital Economy Outlook 2015, http://dx.doi.org/10.1787/9789264232440-en.

Diffusion of online purchases including via handheld devices, 2007 and 2014 Figure 17.



Individuals having ordered goods or services online as a percentage of all individuals

StatLink as http://dx.doi.org/10.1787/888933224913

Notes: For Australia, data refer to 2012/13 (fiscal year ending in June 2013) instead of 2013. For 2007, data refer to 2006/07 (fiscal year ending in June 2007), and to individuals aged 15 and over instead of 16-74 year-olds. For Canada, data refer to 2012 and relate to individuals who ordered goods or services over the Internet from any location (for personal or household use). For Chile, data refer to 2009 and 2013. For Israel, data refer to all individuals aged 20 and over who used the Internet for purchasing all types of goods or services. For Japan, data refer to 2013 and to individuals aged 15-69 instead of 16-74 year-olds. For Korea, data refer to 2013 instead of 2014. For online purchases via handheld devices, data refer to the population aged 12 and over. This data point is an OECD estimation based on data sourced from the Survey on Internet Usage 2012. In 2013, the share of individuals buying via handheld devices reached 35.5%. For New Zealand, data refer to 2006 and 2012 and relate to individuals who made a purchase through the Internet for personal use, which required an online payment. For Switzerland, data refer to 2005 instead of 2007. For the United States, data originate from May 2011 and September 2007 PEW Internet Surveys and cover individuals aged 18 or more. For Colombia, data refer to individuals of 12 year-olds and above instead of 16-74. Information on data for Israel: http://oe.cd/israel-disclaimer.



StatLink and http://dx.doi.org/10.1787/888933224896

TRUST



Figure 18. Number of full-time employees in privacy enforcement authorities worldwide, March 2014

StatLink ms http://dx.doi.org/10.1787/888933225238

Notes:

1. Footnote by Turkey

The information in this document with reference to « Cyprus » relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue. 2. Footnote by all the European Union Member States of the OECD and the European Union

The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Information on data for Israel: http://oe.cd/israel-disclaimer.

Source: OECD (2015a), OECD Digital Economy Outlook 2015, http://dx.doi.org/10.1787/9789264232440-en.

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OECD (2015b), OECD Science, Technology and Industry Scoreboard 2015: Innovation for Growth and Society, OECD Publishing, Paris, <u>http://dx.doi.org/10.1787/sti_scoreboard-2015-en</u>.

OECD (2011), OECD Guide to Measuring the Information Society 2011, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264113541-en.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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