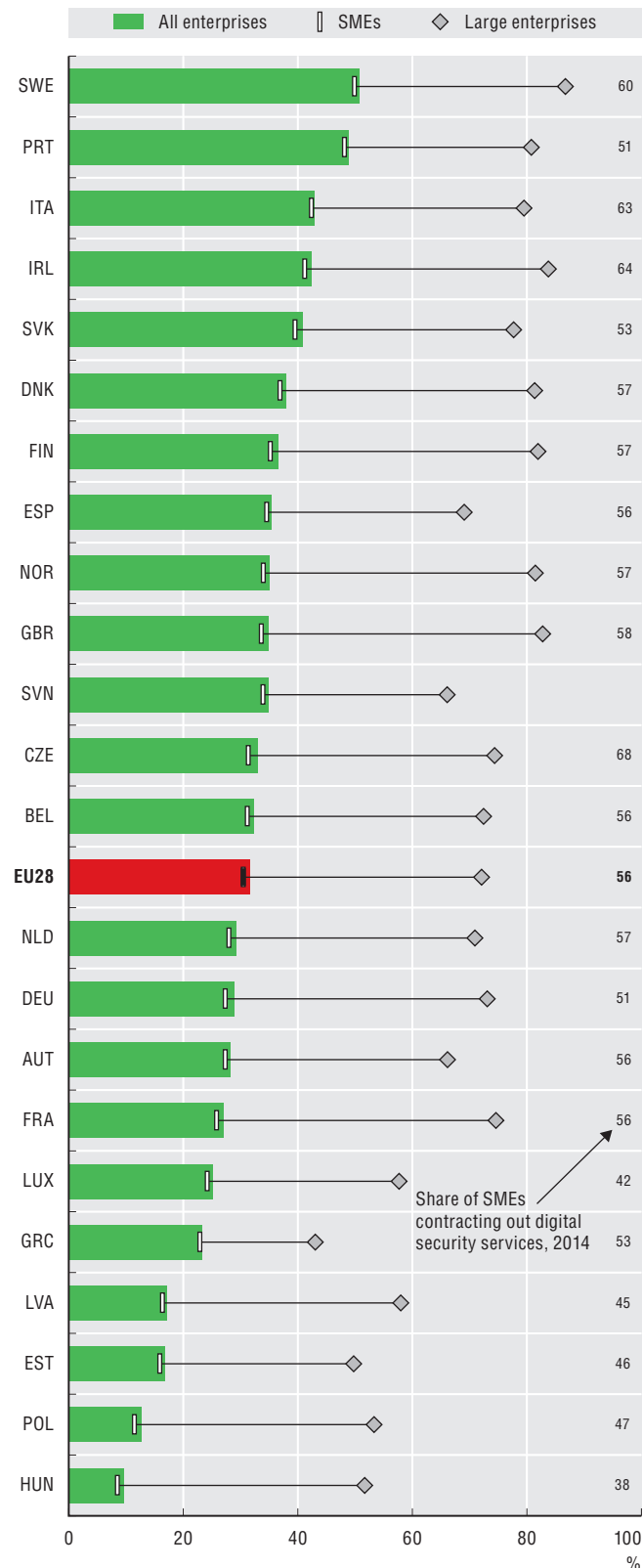


## 6. SOCIETY AND THE DIGITAL TRANSFORMATION

### 7. Trust

#### Enterprises having a formally defined security policy, by size, 2015

As percentage of enterprises in each employment size class



Source: OECD, based on Eurostat, Digital Economy and Society Statistics, Comprehensive Database, July 2017. See chapter notes.

StatLink <http://dx.doi.org/10.1787/888933620265>

#### Did you know?

In 2015, 70% of large enterprises in Europe had a formal security policy but only 30% of SMEs.

The digitisation of information and network connectivity are creating new challenges for the protection of sensitive data and network communications. Having a formal ICT security policy is a sign that an enterprise has experienced or is aware of digital risks.

In 2015, about 32% of European enterprises had a formally defined ICT security policy. However, this proportion varied widely across countries and by firm size. While 30% of European SMEs had a formal ICT security policy in 2015, in the United States this proportion was 23% (US National Cyber Security Alliance and Symantec, 2011).

SMEs also tend to rely more on external workers to ensure their digital security and data protection, probably due to limited access to financial resources and specialised skills. In 2015, digital security and data protection was performed internally in over 64% of large enterprises as opposed to 14% in SMEs.

In 2016, more than 70% of Internet users in Europe provided some kind of personal information online, with many performing actions to control access to this data on the Internet. 46% of all Internet users in Europe refused to allow the use of personal information for advertising and 40% limited access to their profile or content on social networking sites. More than one-third of Internet users read privacy policy statements before providing personal information and restricted access to their geographical location.

Young people show a higher propensity to share personal information online, but also undertake actions to control access to the information more often. Men tend to be more willing to share private information online than women in over two-thirds of the countries surveyed.

#### Definitions

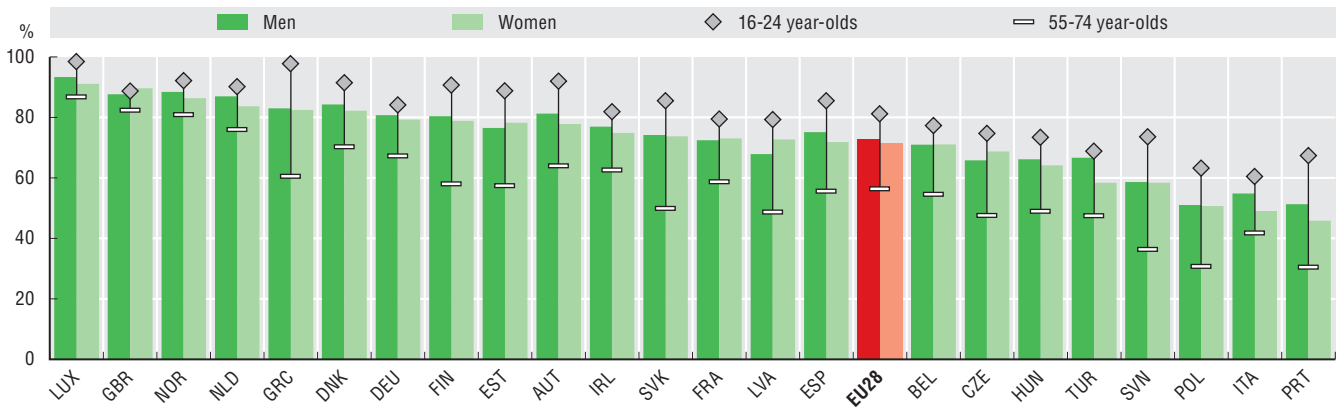
ICT security policies include measures, controls and procedures applied to ICT systems to ensure the integrity, authenticity, availability and confidentiality of data and systems. In particular, such policies are designed to address the following security risks: destruction or corruption of data due to hardware or software failures; unavailability of ICT services due to outside attacks; and disclosure of confidential data due to intrusion, phishing or phishing attacks.

Size classes are defined as SMEs (10 to 249 person employed) and large (250 and more).

Personal information refers to information that the user considers private and would not necessarily disclose to the public, such as personal, contact and payment details or other personal information.

**Individuals who provided personal information over the Internet in the last 12 months, by gender and age, 2016**

As a percentage of Internet users in each group

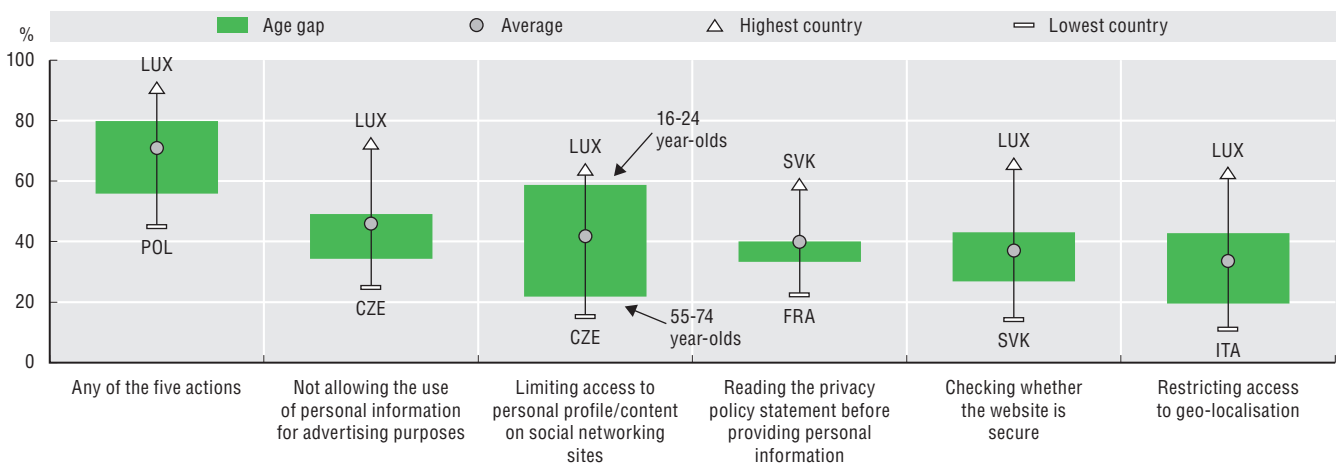


Source: OECD, based on Eurostat, Digital Economy and Society Statistics, Comprehensive Database, July 2017. StatLink contains more data.

StatLink <http://dx.doi.org/10.1787/888933620284>

**Individuals who managed access to their personal information on the Internet, by age, 2016**

As a percentage of Internet users in each group



Source: OECD, based on Eurostat, Digital Economy and Society Statistics, Comprehensive Database, July 2017. StatLink contains more data.

StatLink <http://dx.doi.org/10.1787/888933620303>

**Measurability**

Information on ICT security policies is collected through the Eurostat's Survey on ICT usage and e-commerce in enterprises. Information on disclosure and protection of personal information online is collected through the ICT usage surveys in households and by individuals.

Both the European and OECD model surveys on ICT usage ask direct questions about security and privacy, including on the use of protection from IT threats, the frequency of security updates and security incidents.

The 2014 revision of the OECD Model Survey on ICT Access and Usage by Households and Individuals includes a specific module on security and privacy, based on policy-relevant indications from the OECD Working Party on Security and Privacy in the Digital Economy.

It is a matter of debate among statisticians whether respondents are able to answer technical questions about IT security. To minimise this problem, coverage of the OECD security module is limited to home use, as this is the ICT environment about which users are more likely to have information, as opposed to ICT use at work or school.

#### Cyprus

The following note is included at the request of 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 recognizes 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.’”

The following note is included at the request of all of the European Union Member States of the OECD and the European Union:

“The Republic of Cyprus is recognized 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.”

#### Israel

“The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities or third party. 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.

“It should be noted that statistical data on Israeli patents and trademarks are supplied by the patent and trademark offices of the relevant countries.”

### 6.1. Connectivity

#### Mobile broadband penetration, by technology, December 2016

For Brazil, China, India, Indonesia, the Russian Federation, Saudi Arabia and South Africa, the data source is ITU World Telecommunication/ICT Indicators Database, July 2017.

For Israel, the data source is GSMA Intelligence.

For Switzerland and the United States, data for December 2016 are estimates.

#### Households with broadband connections, urban and rural, 2010 and 2016

For Brazil and the United States, data refer to 2015 instead of 2016.

For Chile, data refer to 2012 and 2015.

For Iceland, data refer to 2010 and 2014.

For Switzerland, data refer to 2012 and 2014.

For the United Kingdom, data refer to 2009 instead of 2010.

For Brazil, areas are defined as urban or rural according to local legislation, as compiled by the NSO. Reported data refer to urban (densely populated) and rural (thinly populated).

For Chile, for the year 2012, large urban areas refer to a contiguous set of local areas, each of which has a density superior to 500 inhabitants per square kilometre, where the total population for the set is at least 50 000 inhabitants. Rural areas refer to a contiguous set of local areas belonging neither to a densely populated nor to an intermediate area. An intermediate area refers to a contiguous set of local areas, not belonging to a densely populated area, each of which has a density superior to 100 inhabitants per square kilometre, and either with a total population for the set of at least 50 000 inhabitants or adjacent to a densely populated area.

For France, Latvia, the Netherlands and Sweden, there is a break in series with previous years in 2016 for rural and urban data.

For the United States, population density categories are approximated based on a household’s location in a principal city, the balance of a metropolitan statistical area (MSA), or neither. To protect respondent confidentiality, the information has been redacted from some observations in the public use datasets.

#### Small and medium enterprises with broadband access, fixed or mobile, 2016

Only enterprises with ten or more employees are considered. Unless otherwise stated, size classes are defined as: small (10-49 employees) and medium (50-249 employees).

For Australia, data refer to the fiscal year 2014/15 ending on 30 June.

For Brazil, broadband is defined by type of connection rather than download speed, and includes DSL, cable modem, fibre, radio, satellite and 3G/4G. Data refer to 2015.

For Canada, data include all connection groups except dial-up connection. Responses of 'don't know' were removed from the numerator and the denominator. Data refer to 2013 and medium-sized enterprises have 50-299 employees.

For Japan, data refer to 2015 and to businesses with 100 or more employees instead of ten or more; medium-sized enterprises have 100-299 employees. Data include leased lines and mobile broadband.

For Korea, data refer to 2015.

For Mexico, data refer to 2012.

For New Zealand, data refer to the fiscal year 2015/16 ending on 30 June.

For Switzerland, data refer to 2015. Small firms have 5-49 employees instead of 10-49.

### 6.3. Internet users

#### Total, daily and mobile Internet users, 2016

Unless otherwise stated, Internet users are defined for a recall period of 3 months. For Australia, Canada and Japan, the recall period is 12 months. For the United States, the recall period is 6 months for 2015, and no time period is specified in 2006. For Korea and New Zealand, the recall period is 12 months in 2006. For Chile in 2009, China, India, Indonesia, the Russian Federation and South Africa, no time period is specified.

For Australia, data refer to the fiscal years 2006/07 ending on 30 June and 2014/15.

For Brazil, data refer to 2008 and 2015.

For Canada, data refer to 2007 and 2012. In 2007, data refer to individuals aged 16 and over instead of 16-74.

For Iceland and Switzerland, data refer to 2014 instead of 2016.

For Israel, data refer to 2015 instead of 2016 and to individuals aged 20 and more instead of 16-74.

For Japan, data refer to 2015 instead of 2016 and to individuals aged 15-69.

For Korea, data refer to 2015 instead of 2016.

Notes for all users:

For Chile, data refer to 2009 and 2015.

For China, India, Indonesia, the Russian Federation and South Africa, data originate from ITU, ITU World Telecommunication/ICT Indicators Database, and refer to 2015 instead of 2016.

For Indonesia, data relates to individuals aged 5 or more.

For New Zealand, data refer to 2012 instead of 2016.

For Turkey, data refer to 2007 instead of 2006.

For the United States, data refer to 2007 and 2015.

Notes for daily users:

For the Russian Federation, data originate from ITU, ITU World Telecommunication/ICT Indicators (WTI) Database, and refer to 2014 instead of 2016.

Notes for mobile users:

For Israel, data refer to individuals who use the Internet through a mobile phone, from any location.

For New Zealand, data originate from Statistics New Zealand. Data refer to 2012 and to individuals aged 15-74. Data include individuals using cellular and wireless or both.

For Switzerland, data refer to Internet users who have personal use of a mobile device to access the Internet outside home or work.

For the United States, data originate from the NTIA and relate to 2015. Data refer to the proportion of individuals aged 15 or more who use the Internet while travelling between places, as a proportion of individuals aged 15 or more who use the Internet at any location.

#### Gap in Internet use by educational attainment, 2016

Unless otherwise stated, Internet users are defined for a recall period of 3 months. For Australia, the recall period is 12 months. For the Russian Federation, no time period is specified. For the United States, the recall period is 6 months for 2015.

For Australia, data refer to the fiscal year 2014/15 ending on 30 June.

For Brazil, Chile, Israel, Korea and the United States, data refer to 2015.

For Iceland and Switzerland, data refer to 2014.

## 6. SOCIETY AND THE DIGITAL TRANSFORMATION

### Notes and references

For Israel, data refer to individuals aged 20 and more instead of 16-74.

For New Zealand, data refer to 2012.

For the Russian Federation, data originate from ITU, ITU World Telecommunication/ICT Indicators Database. Data refer to 2015 for all Internet users and to 2014 by educational attainment.

#### **Women Internet users, by age, 2016**

Unless otherwise stated, Internet users are defined for a recall period of 3 months. For Canada and Japan, the recall period is 12 months. For the United States, the recall period is 6 months.

For Australia, data refer to the fiscal year 2014/15 ending on 30 June.

For Brazil, Chile, Israel, Japan, Korea and the United States, data refer to 2015.

For Canada and New Zealand, data refer to 2012.

For Iceland and Switzerland, data refer to 2014.

For Israel, data refer to women aged 20 and over instead of 16-74, and to 20-24 instead of 16-24.

For Japan, data refer to women aged 15-69 instead of 16-74, and to 15-29 instead of 16-24.

### 6.4 User sophistication

#### **Diffusion of selected online activities among Internet users in OECD countries, by age and educational attainment, 2016**

For a given activity:

(i) Data are computed on the basis of the same group of OECD countries for both age categories.

(ii) For both age categories, data relate to the average of all individuals ("Average"), the average of all individuals with low or no formal education, and the average of all individuals with tertiary educational attainment.

For all activities, the average for all individuals relates to a number of OECD countries ranging from 20 to 24, according to data availability for both age categories. Therefore, the OECD average for a given activity in this figure may differ from values provided in other figures.

Tertiary education refers to ISCED levels 5 or 6 and above. Low or no formal education refers to ISCED levels 0 to 2.

#### **Individuals who purchased online in the last 12 months, by age, 2016**

Unless otherwise stated, Internet users are defined for a recall period of 3 months. For Australia, Canada and Japan, the recall period is 12 months. For Chile and the Russian Federation, no time period is specified. For the United States, the recall period is 6 months.

For Australia, data refer to the fiscal year 2014/15 ending on 30 June. The information provided is from a question wording that differs slightly from other countries: "In the last 3 months, did you personally access the Internet for any of the following reasons: Purchasing goods or services?".

For Brazil, data refer to 2015.

For Canada, data refer to 2012.

For Chile, data refer to 2015.

For Iceland, data refer to 2014.

For Israel, data refer to 2015 and to individuals aged 20 and over instead of 16-74, and 20-24 instead of 16-24. Data relate to individuals who used the Internet for purchasing goods or services in the last 3 months, and include all types of goods and services.

For Japan, data refer to 2015 and to individuals aged 15-69.

For Korea, data refer to 2015.

For New Zealand, data refer to 2012.

For the Russian Federation, data originate from ITU, ITU World Telecommunication/B17ICT Indicators Database, refer to 2014 and to individuals aged 15-72.

For Switzerland, data refer to 2014.

For the United States, data refer to 2015. The age gap in lighter blue is reversed. Individuals aged 55-74 have a slightly higher propensity to purchase online than individuals aged 16-24.

**Individuals aged 16-24 who attended an online course, 2009 and 2016**

For Austria, data refer to 2011 instead of 2009.

For Brazil and Denmark, data refer to 2015 instead of 2016.

For Canada, data refer to 2010 and 2012.

For Chile, data refer to 2012 and 2015.

For Iceland, data refer to 2013 instead of 2016.

For Korea, data refer to 2015.

For Mexico, data refer to 2014 instead of 2016. 2009 data include the category “to support efforts related to education and learning” and 2014 data are integrated into the category “to support education/training”.

For the United States, data refer to 2015 with a reference period of 6 months.

**6.5 E-consumers across borders****Enterprises having undertaken cross-border e-commerce sales, 2014**

E-commerce sales refer to web sales (orders received via websites).

For Iceland, data refer to 2012.

**Individuals purchasing online from domestic and foreign markets, 2016**

Partner countries refer to other EU countries for countries in the European Statistical System and to the United States for Canada.

For Canada, data refer to 2012.

**Business to consumer transactions (B2C), 2009 and 2015**

For Iceland, data refer to 2011 instead of 2015.

For Latvia, data refer to 2013 instead of 2015.

For Portugal, data refer to 2014 instead of 2015.

For the United States, data originate from the US Bureau of the Census, Quarterly Retail E-commerce sales, 1st Quarter 2017 ([https://www.census.gov/retail/mrts/www/data/pdf/ec\\_current.pdf](https://www.census.gov/retail/mrts/www/data/pdf/ec_current.pdf)). The ratios have been calculated using the quarterly values of the respective years of the adjusted values, as provided in Table 1.

**6.6. E-government****Individuals using the Internet to interact with public authorities, by age, 2016**

Unless otherwise stated, data refer to the respective online activities in the last 12 months.

For Australia, data refer to the fiscal years 2010/11 ending on 30 June and 2012/13. Data refer to “Individuals who have used the Internet for downloading official forms from government organisations’ websites, in the last 12 months” and “Individuals who have used the Internet for completing/lodging filled in forms from government organisations’ websites, in the last 12 months”.

For Brazil and Chile, data refer to 2015.

For Canada, data refer to 2012.

For Iceland and Switzerland, data refer to 2014.

For Israel, data refer to 2015 and to individuals aged 20 and more instead of 16-74. Data relate to the Internet use for obtaining services online from government offices, including downloading or filling in official forms in the last 3 months.

For New Zealand, data refer to 2012 and to individuals using the Internet for obtaining information from public authorities in the last 12 months.

For Japan, data refer to 2015 and to individuals aged 15-69 instead of 16-74 using the Internet for sending filled forms via public authority websites in the last 12 months.

For Mexico, using e-government services includes the following categories: “communicating with the government”, “consulting government information”, “downloading government forms”, “filling out or submitting government forms”, “carrying out government procedures” and “participating in government consultations”. For “sending forms”, data correspond to the use of the Internet in the last 3 months.

## 6. SOCIETY AND THE DIGITAL TRANSFORMATION

### Notes and references

For Switzerland, e-government refers only to public administrations at local, regional or country level referred as “public administration or authorities”. Data exclude health or education institutions.

#### **Individuals not submitting official forms online due to privacy and security concerns, 2016**

For Iceland, data refer to 2014.

For the United Kingdom, data refer to 2014 instead of 2013.

### 6.7. Trust

#### **Enterprises having a formally defined security policy, by size, 2015**

Data for SMEs contracting out digital security services refer to the share of SMEs who have a formal ICT security policy where the security and data protection are mainly performed by external suppliers.

## References

Brezzi, M., L. Dijkstra and V. Ruiz (2011), “OECD extended regional typology: The economic performance of remote rural regions”, *OECD Regional Development Working Papers*, 2011/06, OECD Publishing, <http://dx.doi.org/10.1787/5kg6z83tw7f4-en>.

Kaiser, M. (2011), Prepared testimony of the National Cyber Security Alliance on the State of Cybersecurity and Small Business before the Committee on House Small Business Subcommittee on Healthcare and Technology, United States House of Representatives, 1 December, [http://smallbusiness.house.gov/uploadedfiles/kaiser\\_testimony.pdf](http://smallbusiness.house.gov/uploadedfiles/kaiser_testimony.pdf).

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

OECD (2015a), *OECD Digital Economy Outlook 2015*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264232440-en>.

OECD (2015b), *The OECD Model Survey on ICT Access and Usage by Households and Individuals, 2nd Revision*, Working Party on Measurement and Analysis of the Digital Economy, OECD, Paris, <https://www.oecd.org/sti/ieconomy/ICT-Model-Survey-Access-Usage-Households-Individuals.pdf>.

OECD (2015c), *The OECD Model Survey on ICT Access and Usage by Businesses, 2nd Revision*, Working Party on Measurement and Analysis of the Digital Economy, OECD, Paris, <https://www.oecd.org/sti/ieconomy/ICT-Model-Survey-Usage-Businesses.pdf>.



**From:**  
**OECD Science, Technology and Industry  
Scoreboard 2017**  
The digital transformation

**Access the complete publication at:**  
<https://doi.org/10.1787/9789264268821-en>

**Please cite this chapter as:**

OECD (2017), "Trust", in *OECD Science, Technology and Industry Scoreboard 2017: The digital transformation*, OECD Publishing, Paris.

DOI: [https://doi.org/10.1787/sti\\_scoreboard-2017-41-en](https://doi.org/10.1787/sti_scoreboard-2017-41-en)

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to [rights@oecd.org](mailto:rights@oecd.org). Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at [info@copyright.com](mailto:info@copyright.com) or the Centre français d'exploitation du droit de copie (CFC) at [contact@cfcopies.com](mailto:contact@cfcopies.com).