

Highlights from the OECD Science, Technology and Industry Scoreboard 2017 - The Digital Transformation: The Netherlands

Science, innovation and the digital revolution

- The **Netherlands** had the second highest share of domestic scientific documents with a high citation impact in the OECD, just behind Switzerland. 14.8% of its scientific publications were amongst the world's top-10 cited publications [[Scoreboard fig. 3.1.1 - see below](#)].
- The **Netherlands** accounted for just over 2% of the world's top 10% of most-cited scientific publications in 2016 [[fig. 1.11](#)].
- The development of AI technologies is fairly concentrated. R&D corporations based in Japan, Korea, Chinese Taipei and China account for about 70% of all AI-related inventions belonging to the world's 2 000 top corporate R&D investors and their affiliates, and US-based companies for 18%. Firms headquartered in the **Netherlands** accounted for 1.6% of all AI-related inventions from 2012 to 2014 [[fig. 1.25](#)].

Growth, jobs and the digital transformation

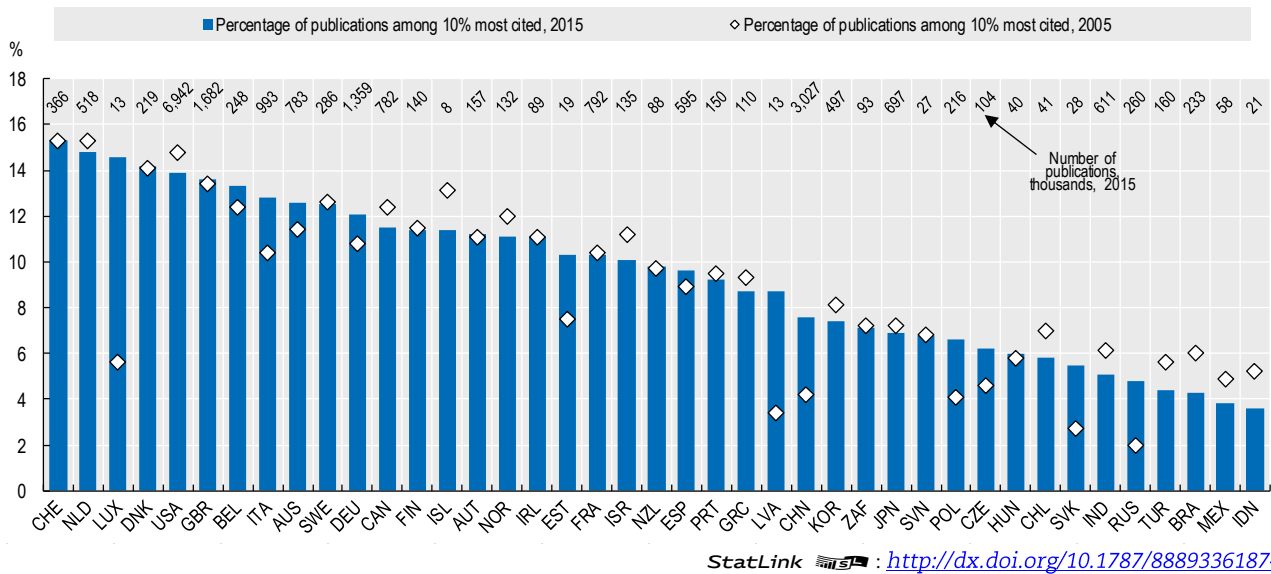
- Over 75% of workers in the **Netherlands** receive firm-level training, among the highest in the OECD, and similar to shares in Finland, Denmark and New Zealand [[fig. 1.40 - see below](#)].
- In 2014, 44% of jobs in the **Netherlands'** business sector were sustained by foreign demand, up from 37% in 2004 [[fig. 1.38](#)].
- In the **Netherlands**, women earn, on average, about 14% less than men, even after individual and job-related characteristics are taken into consideration, and about 10% less when skills differences are also taken into account [[fig. 1.41](#)].
- More than 93% persons aged 16-74 in the **Netherlands** were Internet users in 2016, up from 81% in 2006 [[fig. 1.57](#)]. 96% of 16-24 year olds used the Internet compared to 87% in the 55-74 year age group [[fig. 1.58](#)].
- In 2016, firms in the **Netherlands** had the highest uptake of big data analytics among OECD countries, at over 19% of all firms [[fig. 5.2.1 - see below](#)].
- In 2015, the **Netherlands** invested 3.3% of GDP in ICT, the fourth-highest share in the OECD, up from 2.8% in 2005 [[fig. 2.1.3](#)].

Innovation today - Taking action

- The **Netherlands** had the highest share of tax support for business R&D in 2015, at 88.1% of all support for business R&D, and its reliance on such support has grown since 2006. In 2006, R&D tax incentives accounted for 69.4% of overall support for business R&D [[fig. 4.6.2 - see below](#)].
- Experimental indicators of international mobility of scientific authors (based on bibliometric data) reveal that during the period 2011-2016, the **Netherlands** experienced a net outflow of scientific authors, reversing the trend of the previous decade during which there was a modest net inflow [[fig. 1.69](#)].

Figure 3.1.1 Quantity and quality of scientific production, 2005 and 2015

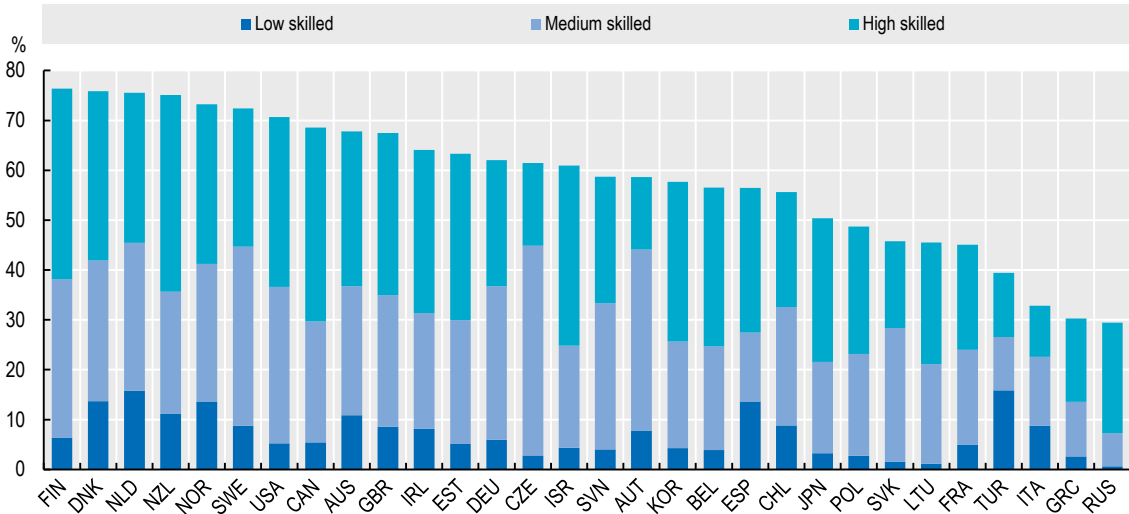
Number of documents and percentage among the world's 10% most cited publications, fractional counts



Source: OECD Science, Technology and Industry Scoreboard 2017: The Digital Transformation, OECD Publishing, Paris, http://dx.doi.org/10.1787/sti_scoreboard-2017-en.

Figure 1.40 Workers receiving firm-based training, by skill level, 2012 or 2015

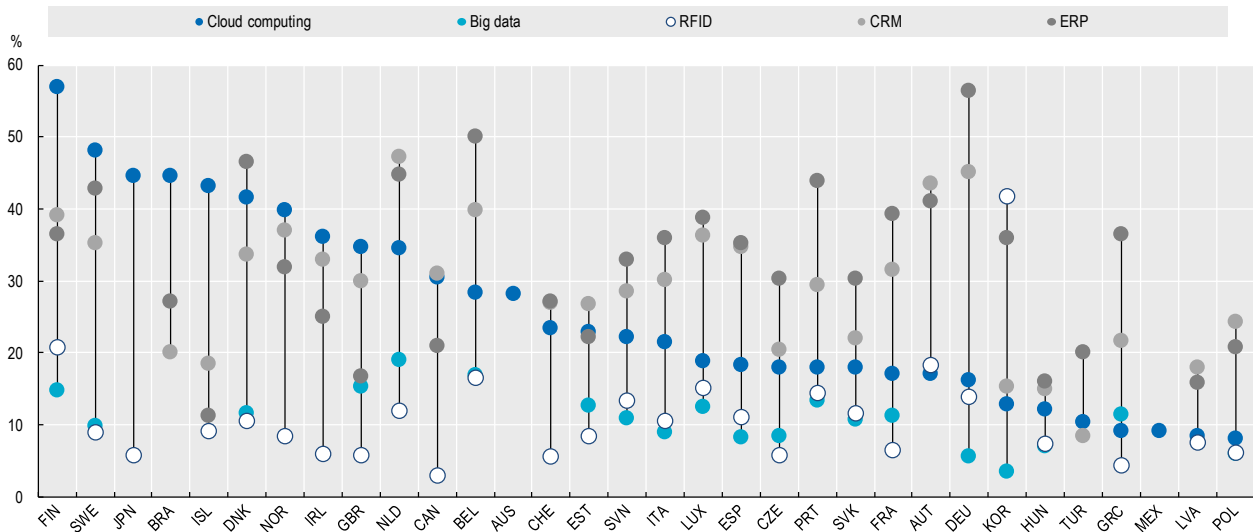
As a percentage of total employed persons



Source: OECD Science, Technology and Industry Scoreboard 2017: The Digital Transformation, OECD Publishing, Paris, http://dx.doi.org/10.1787/sti_scoreboard-2017-en.

Figure 5.2.1 Diffusion of selected ICT tools and activities in enterprises, by technology, 2016

As a percentage of enterprises with ten or more persons employed

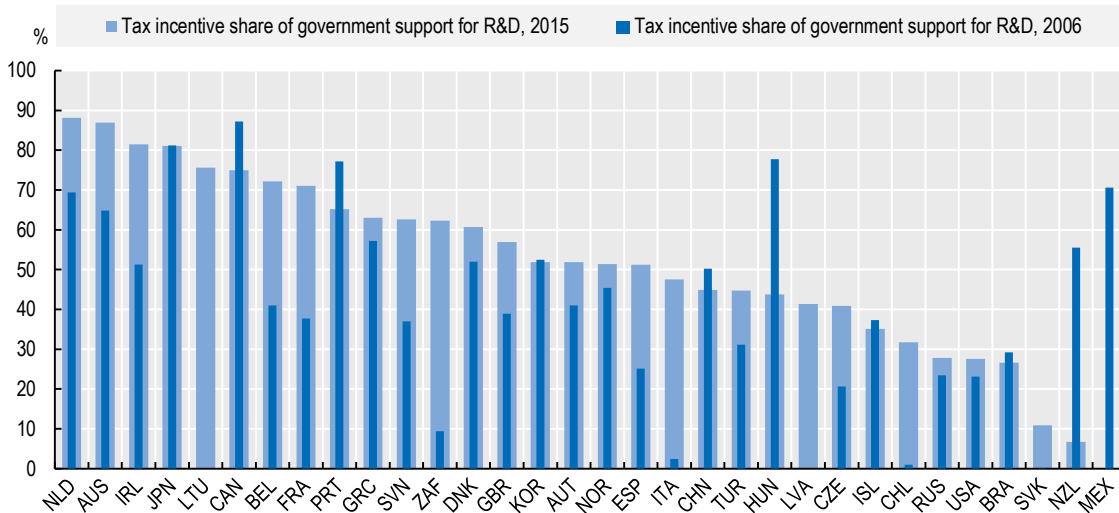


StatLink : <http://dx.doi.org/10.1787/888933619581>

Source: OECD Science, Technology and Industry Scoreboard 2017: The Digital Transformation, OECD Publishing, Paris, http://dx.doi.org/10.1787/sti_scoreboard-2017-en.

Figure 4.6.2 Change in government support for business R&D through direct funding and tax incentives

As a percentage of total support, 2006 and 2015



StatLink : <http://dx.doi.org/10.1787/888933619429>

Source: OECD Science, Technology and Industry Scoreboard 2017: The Digital Transformation, OECD Publishing, Paris, http://dx.doi.org/10.1787/sti_scoreboard-2017-en.

The OECD Science, Technology and Industry Scoreboard 2017: The Digital Transformation



The 2017 edition of the Scoreboard contains over 200 indicators showing how the digital transformation affects science, innovation, the economy, and the way people work and live.

The aim of the STI Scoreboard is not to “rank” countries or develop composite indicators. Instead, its objective is to provide policy makers and analysts with the means to compare economies with others of a similar size or with a similar structure, and monitor progress towards desired national or supranational policy goals.

It draws on OECD efforts to build data infrastructure to link actors, outcomes and impacts, and highlights the potential and limits of certain metrics, as well as indicating directions for further work.

The charts and underlying data in the STI Scoreboard 2017 are available for download and selected indicators contain additional data expanding the time and country coverage of the print edition. For more resources, including online tools to visualise indicators, see the OECD STI Scoreboard webpage (<http://www.oecd.org/sti/scoreboard.htm>).

The OECD Directorate for Science, Technology and Innovation

It is part of the DNA of the Directorate for Science, Technology and Innovation (DSTI) to constantly look for ways of better understanding where our economies and societies are today, and where they are going tomorrow. We pride ourselves on tackling topics at the boundaries of our scientific and technological understanding, such as using biotechnology and nanotechnology to alter modes of production, and how digital shifts like “big data,” earth observation and digital platforms are changing our world.

Discover DSTI at www.oecd.org/sti and the OECD's Going Digital project at www.oecd.org/going-digital.



Further reading

OECD (2017), *OECD Digital Economy Outlook 2017*, OECD Publishing, Paris.
<http://dx.doi.org/10.1787/9789264276284-en>

OECD (2016), *OECD Science, Technology and Innovation Outlook 2016*, OECD Publishing, Paris.
http://dx.doi.org/10.1787/sti_in_outlook-2016-en

This document, as well as any data 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. Information on data for Israel: <http://oe.cd/israel-disclaimer>

www.oecd.org/going-digital – goingdigital@oecd.org –  @OECDInnovation – #GoingDigital – <http://oe.cd/stinews>