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

Science, innovation and the digital revolution

- **Chile** was amongst the OECD countries with the most rapid adoption of mobile broadband subscriptions per inhabitant between 2010 and 2016: an 8-fold increase - only Brazil, the People's Republic of China, the Czech Republic, and Mexico saw greater increases [Scoreboard fig. 6.1.1].
- 75% of urban households in **Chile** have a broadband connection and, while rural coverage is lower at 56%, it increased by 20% between 2012 and 2015; nevertheless Chile has one of the greatest urban-rural divides in broadband access[fig. 6.1.2 – see below].
- The proportion of people in **Chile** using the internet almost doubled between 2009 and 2017, reaching 78% amongst those aged 16-74 [fig. 1.57]; the digital divide between old and young is high: almost all aged 16-24 (98%) use the internet, but only 41% of 55-74 year olds do so (OECD average 63%) [fig. 1.58].

Growth, jobs and the digital transformation

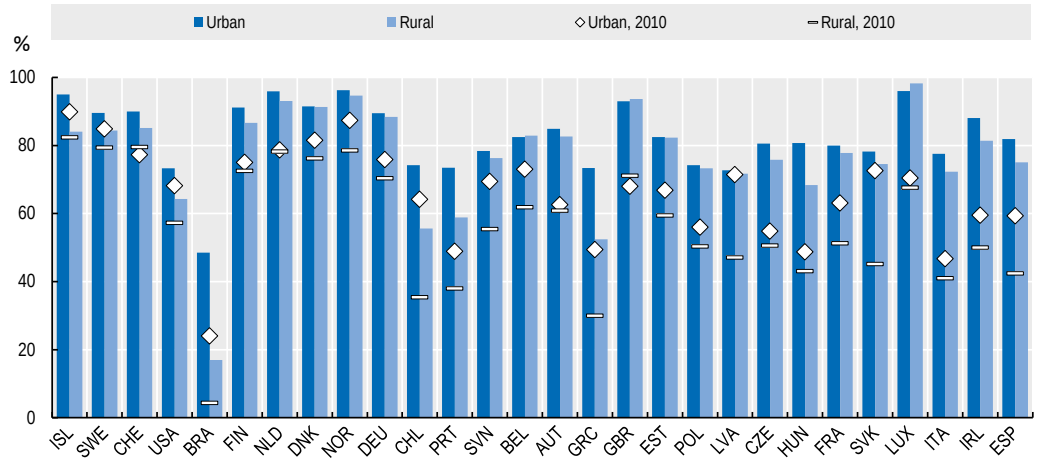
- From 2010 to 2016, **Chile** experienced net employment gains of almost 1 million jobs, a 14% increase; all sections of the economy contributed to employment growth [fig. 1.34].
- Domestic manufacturing activities in 2014 were a major source of value added in total exports (about 30%) for **Chile**, similar to China, Germany, Japan, and Korea [fig. 5.6.3].
- **Chile's** tertiary education spending accounted for 2% of GDP in 2015, the fourth highest proportion among OECD countries; vocational education spending of 0.3% of GDP is, however, lower than the OECD average (0.5%) [fig. 2.1.1].
- In 2015, around 20% of tertiary graduates in **Chile** specialised in natural sciences, engineering and ICTs; women represented 18% of the graduates in these fields (OECD average 31%) [fig. 2.3.1 – see below].
- The median job in **Chile** had relatively low ICT task intensity in 2015, less than half the intensity of an average job in Norway [fig. 2.6.1].

Innovation today - Taking action

- Experimental indicators on the international mobility of scientific authors, based on bibliometric data, show that **Chile** has become increasingly attractive to international scientific authors, resulting in a net inflow of around 1 330 authors between 2002 and 2016 [fig. 1.69 – see below].
- In **Chile**, around 1 of every thousand persons in employment is a researcher, up from 2005 (0.9) but below the OECD average of 8 researchers per thousand workers [fig. 2.4.1]; Gross Domestic Expenditure on R&D is the lowest in the OECD, at 0.38% of GDP (OECD average 2.4%) [fig. 2.1.2].
- Although government funding and tax support for R&D remains relatively low, at 0.02% of GDP in 2015 [fig. 4.6.1], the tax support that firms can receive for each additional currency unit spent on R&D in 2017 is significantly higher in **Chile** than most other OECD countries [fig. 4.6.3 – see below]; from 2008 to 2015, the proportion of R&D support in the form of tax incentives grew from 1% to 31% [fig. 4.6.2].

Figure 6.1.2 Households with broadband connections, urban and rural, 2010 and 2016

As percentage of households in each category

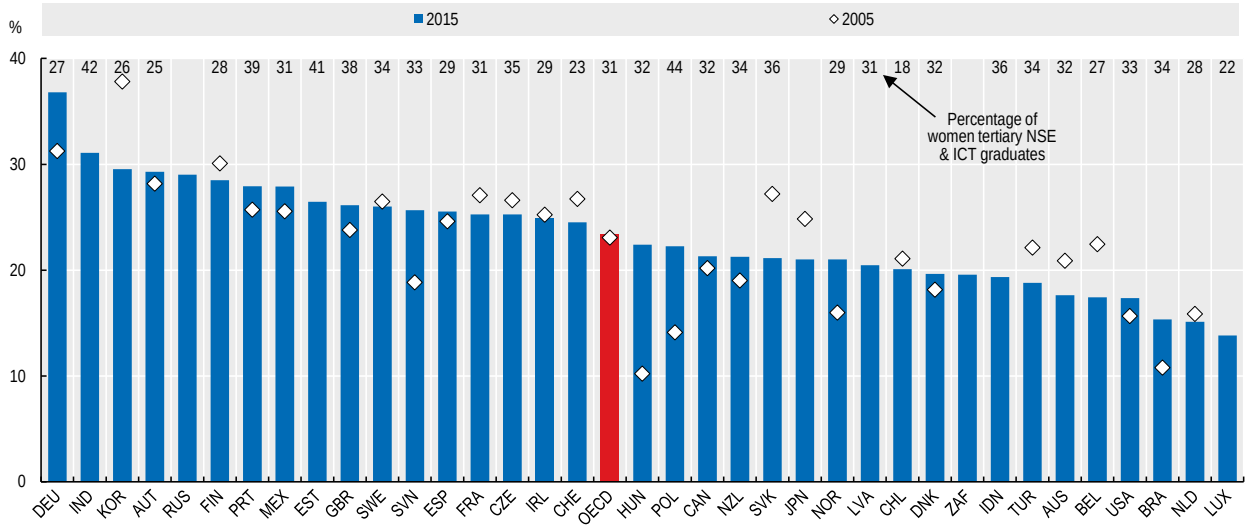


StatLink http://dx.doi.org/10.1787/888933619942

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 2.3.1 Tertiary graduates in natural sciences, engineering and ICTs (NSE & ICT), 2005 and 2015

As a percentage of all tertiary graduates



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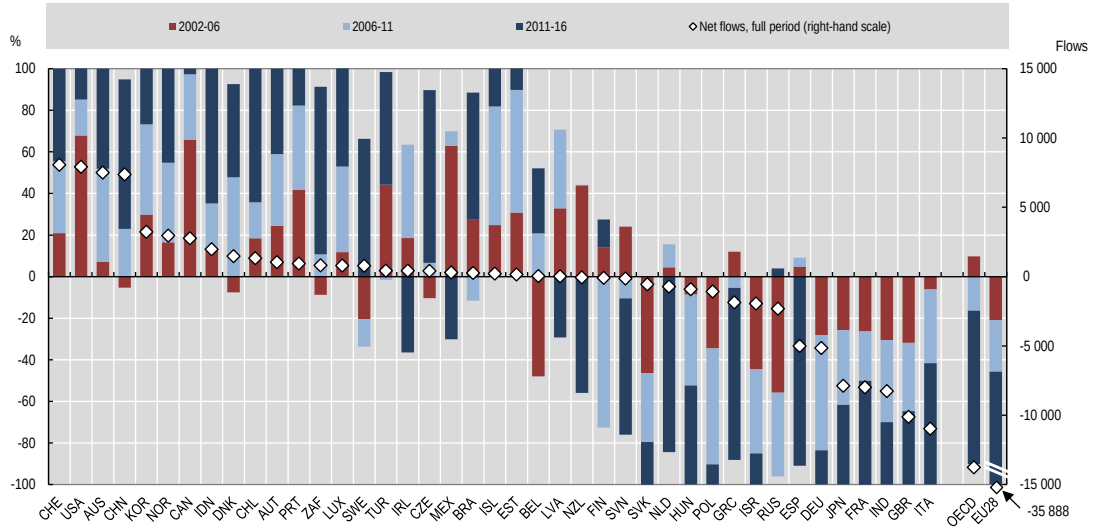
Source: OECD Science, Technology and Industry Scoreboard 2017: The Digital Transformation, OECD Publishing, Paris, http://dx.doi.org/10.1787/sti_scoreboard-2017-en.

Figure 1.69 International net flows of scientific authors, selected economies, 2002-16

Difference between annual fractional inflows and outflows, as a percentage of total flows



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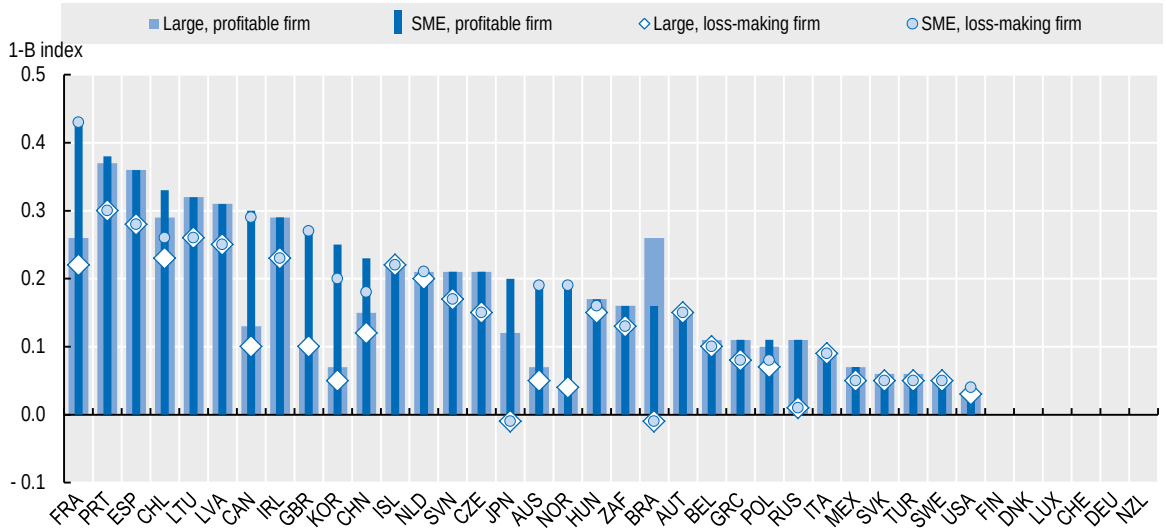
Source: OECD Science, Technology and Industry Scoreboard 2017: The Digital Transformation, OECD Publishing, Paris, http://dx.doi.org/10.1787/sti_scoreboard-2017-en.

Figure 4.6.3 Tax subsidy rates on R&D expenditures, 2017

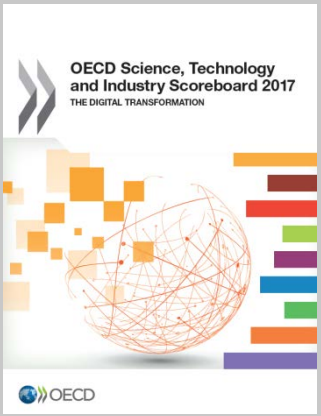
1-B-Index, by firm size and profit scenario



StatLink http://dx.doi.org/10.1787/888933619448

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