

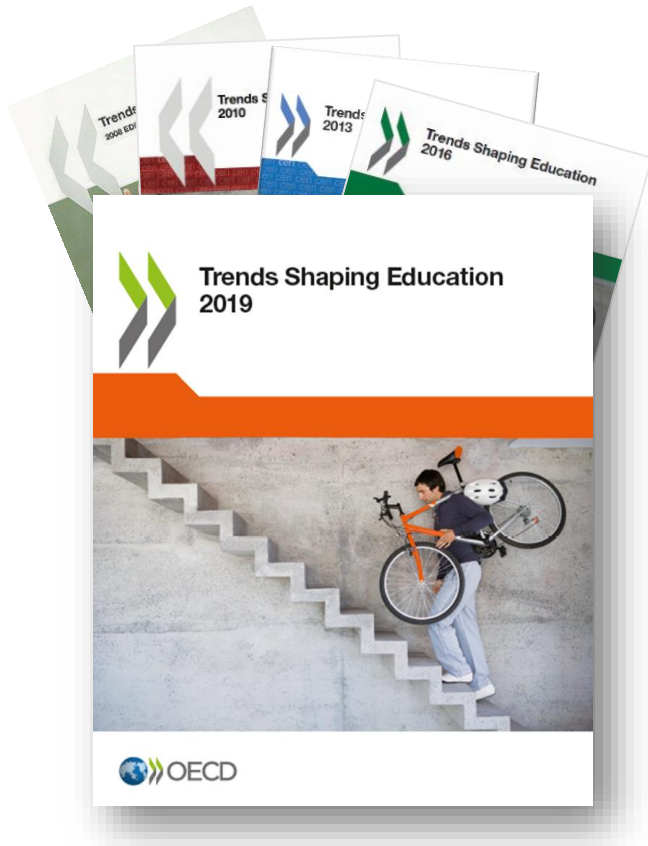


# CHALLENGES FACING THE FUTURE OF EDUCATION

Tracey Burns  
17 March 2020  
Edinburgh



# Trends Shaping Education



## Intention and purpose

Inform strategic thinking

Stimulate reflection about the future of education

NOT a statistical compendium or prescription of policy



### Policy makers

- Ministry retreats, strategic thinking workshops



### Researchers/teacher educators

- Inclusion in teacher education curriculums, education futures



### Educational practitioners

- Futures thinking, global mega-trends



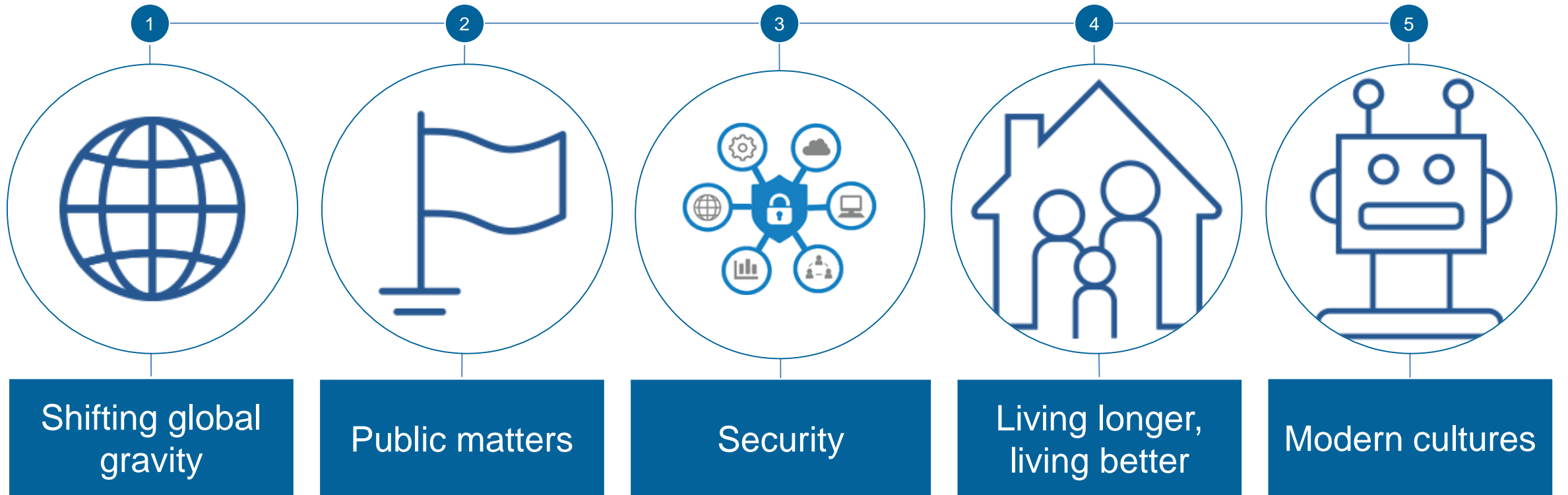
### Students

- Tool in classrooms, strategic thinking for associations



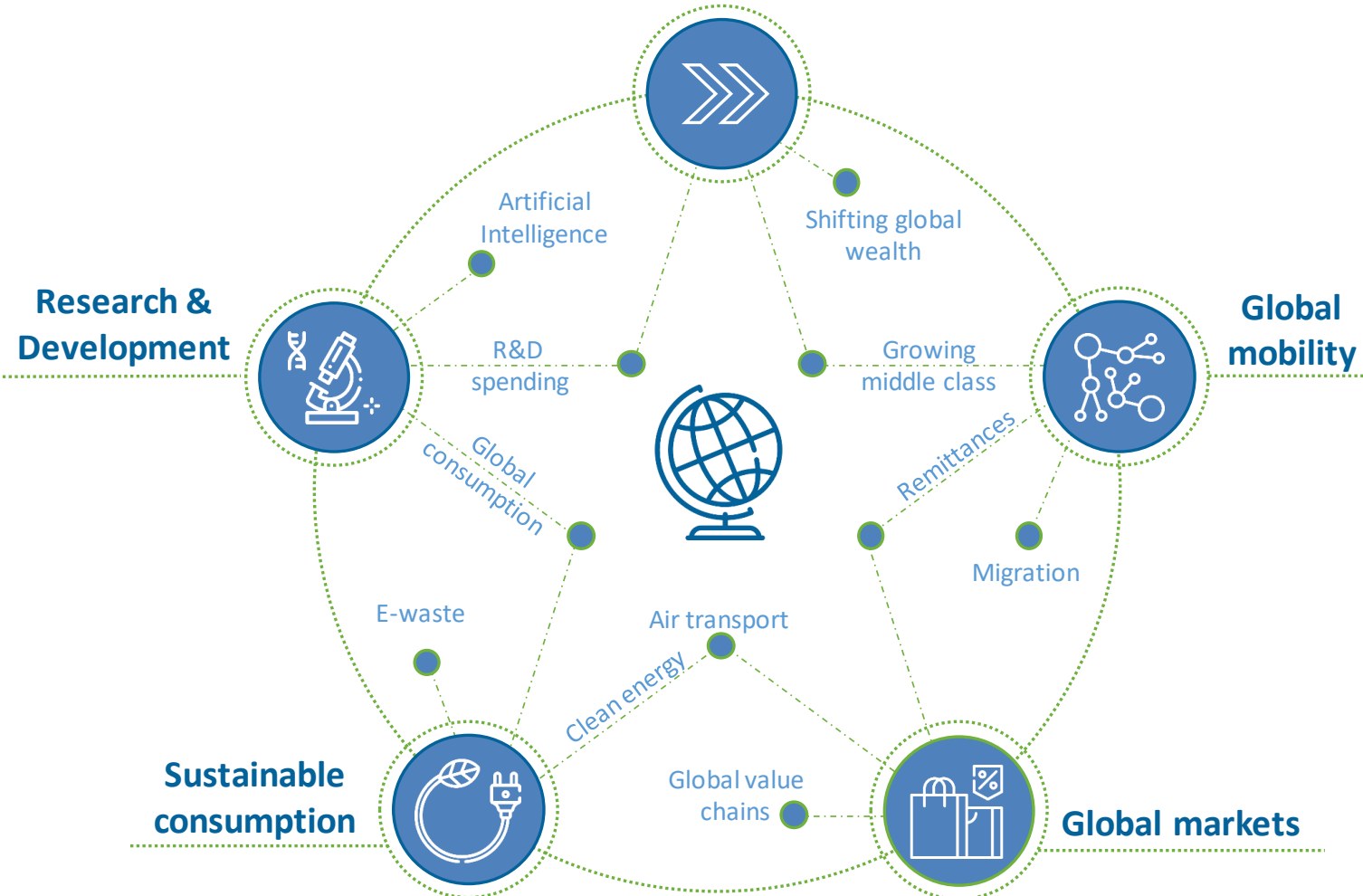
# Trends Shaping Education 2019

## Five thematic chapters:





Wealth & Inequality





## Shifting global gravity

---

**Economic power is shifting east. Of the next 1 billion entrants to the middle class, what percentage will come from Asia?**

- 30
- 60
- 75
- 90



## Shifting global gravity

---

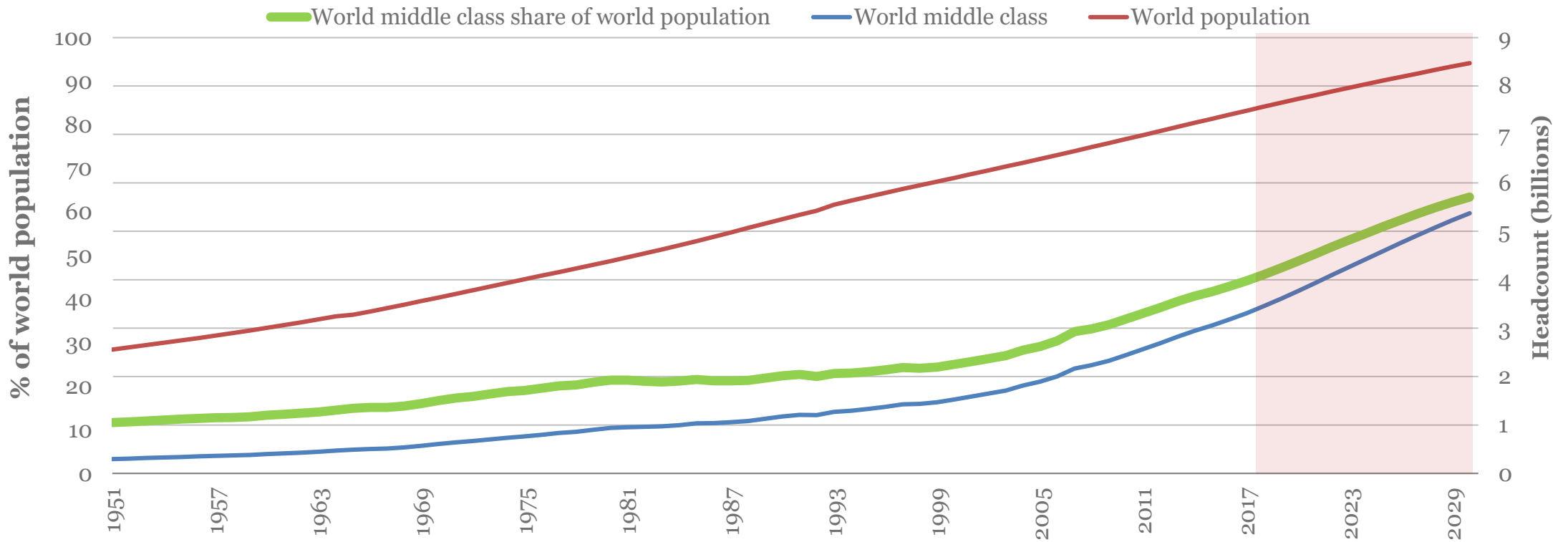
**Economic power is shifting east. Of the next 1 billion entrants to the middle class, what percentage will come from Asia?**

- 30
- 60
- 75
- **90**



# The rise of the global middle class

Estimates of the size of the global middle class, percentage of the world population (left axis) and headcount (right axis), 1950-2030

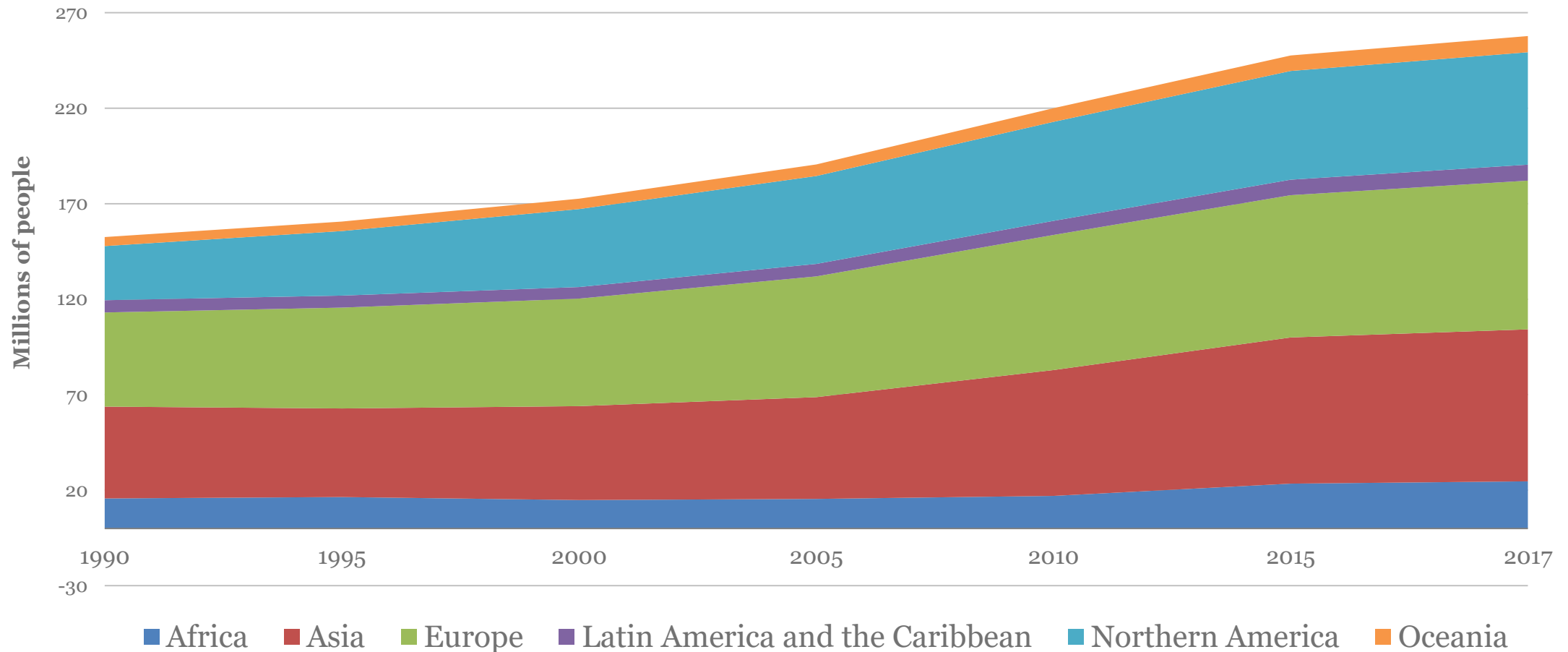


Source: Kharas, H. (2017), The unprecedented expansion of the global middle class, an update, [https://www.brookings.edu/wp-content/uploads/2017/02/global\\_20170228\\_global-middle-class.pdf](https://www.brookings.edu/wp-content/uploads/2017/02/global_20170228_global-middle-class.pdf). Kharas, H. (2010), The emerging middle class in developing countries, <https://www.oecd.org/dev/44457738.pdf>.



# More people on the move

Estimates of international migrant stock by region of destination, 1990-2017



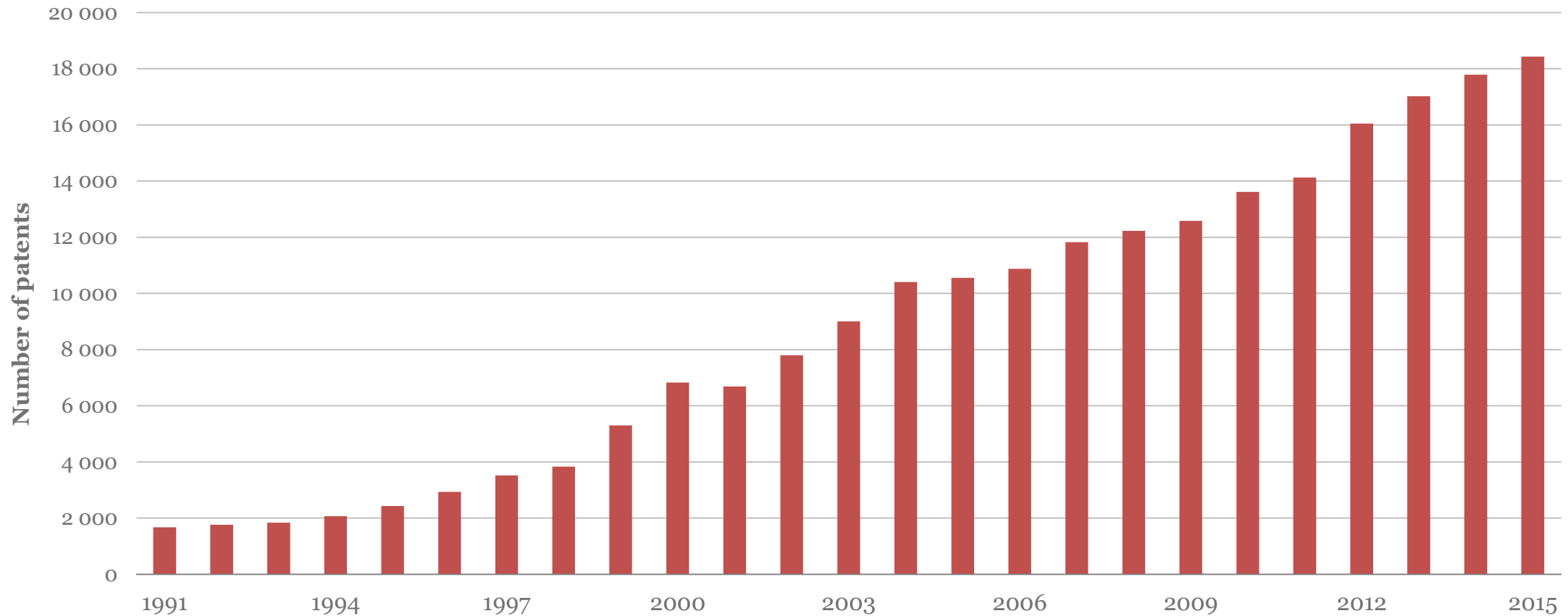
Source: United Nations (2017), "International migrant stock: The 2017 revision" (database), [www.un.org/en/development/desa/population/migration/data/](http://www.un.org/en/development/desa/population/migration/data/).



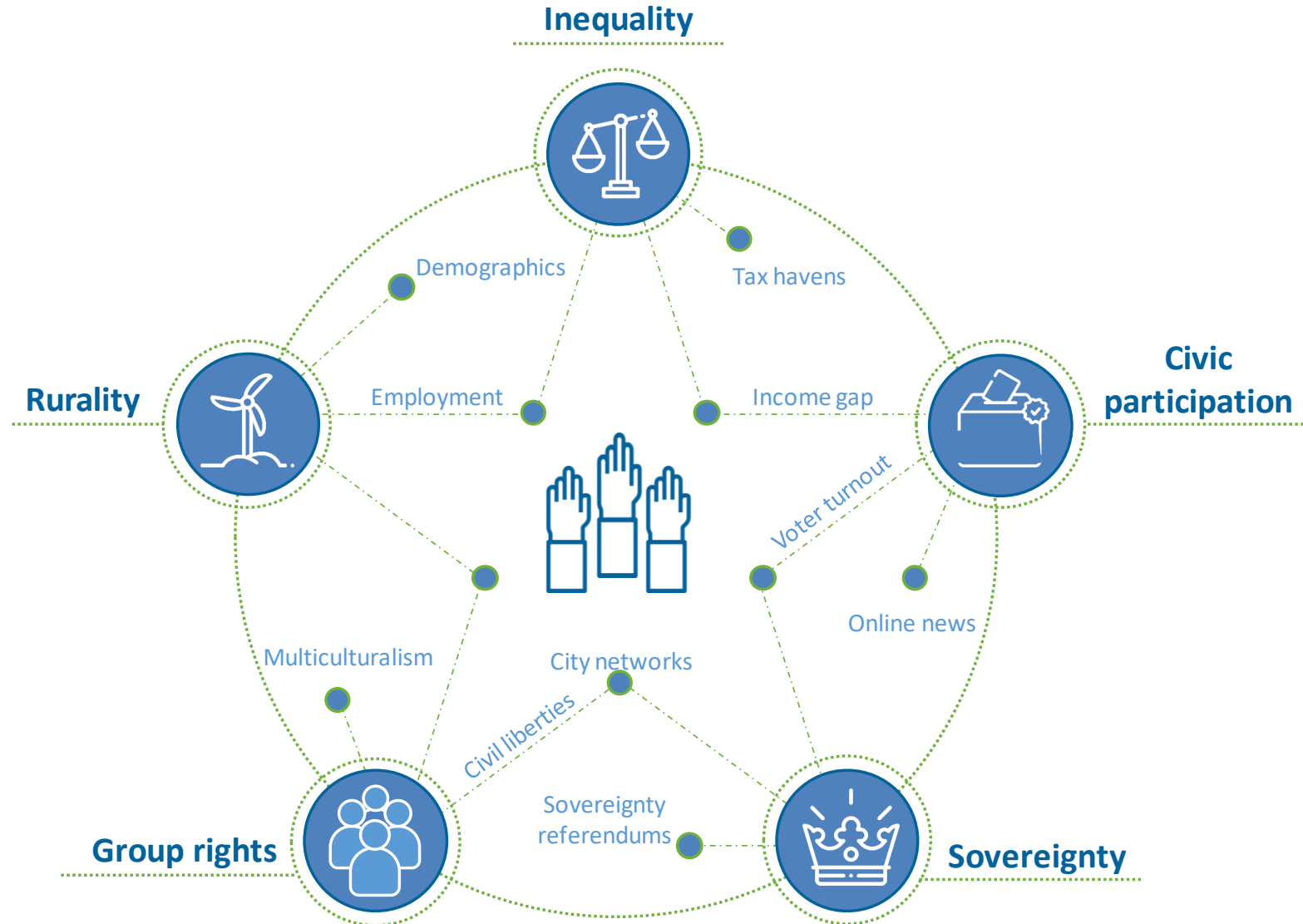


# The growth in AI technologies

Number of patents in artificial intelligence technologies, 1991-2015



Source: OECD (2017), *OECD Science, Technology and Industry Scoreboard 2017: The digital transformation*, <http://dx.doi.org/10.1787/9789264268821-en>.





**Traditional measures of civic participation are declining across the OECD. In the last 20 years, which OECD country has seen the largest decline in voter turnout?**

- Chile
- France
- Greece
- Australia



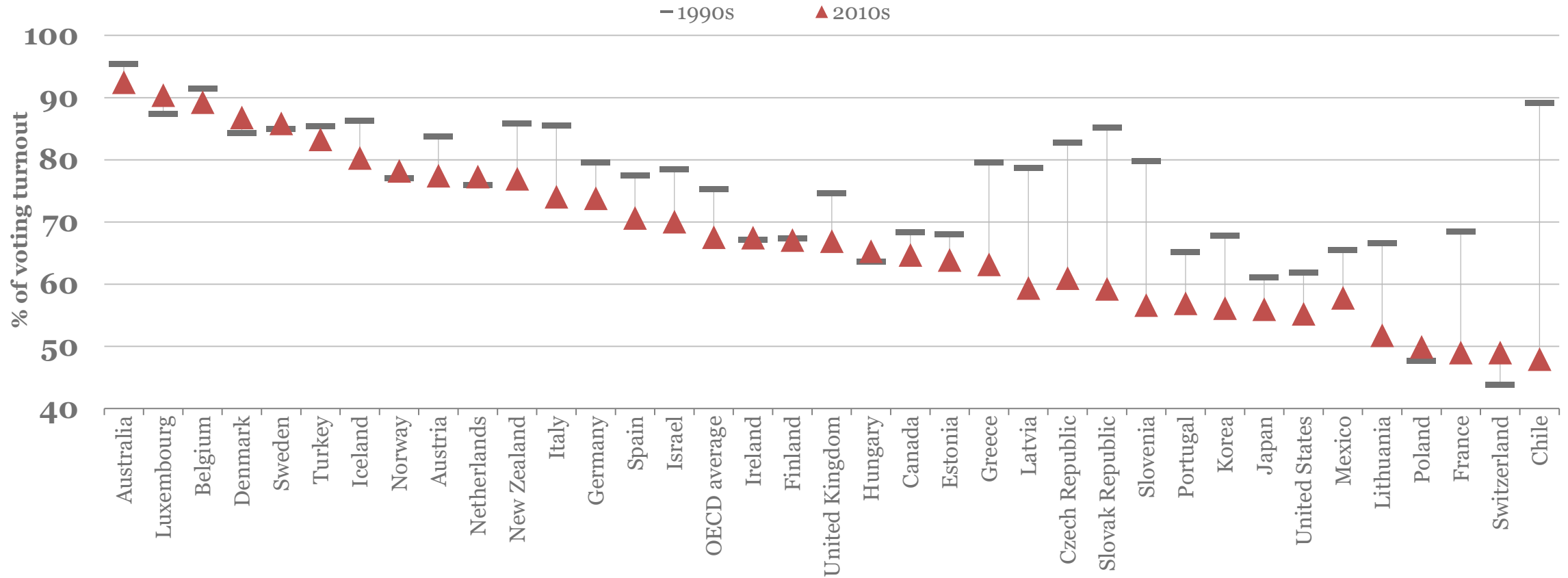
**Traditional measures of civic participation are declining across the OECD. In the last 20 years, which OECD country has seen the largest decline in voter turnout?**

- **Chile**
- France
- Greece
- Australia



# Declining voter turnout

Change in average voting rates per decade in OECD countries, 1990s and 2010s

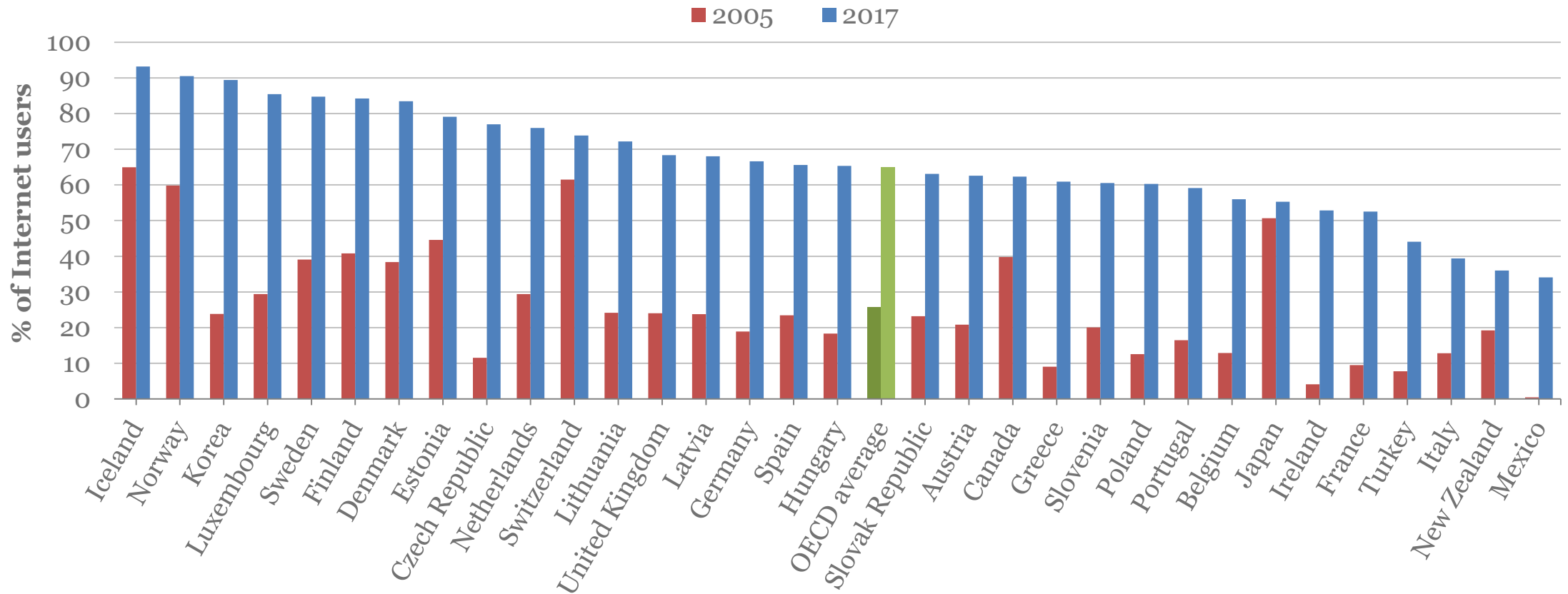


Source: International IDEA (2018), *International Voter Turnout Database*, [www.idea.int](http://www.idea.int).



# Increasing online information

Individuals using the Internet (last 3 months) for reading/downloading the news online, 2005 and 2017

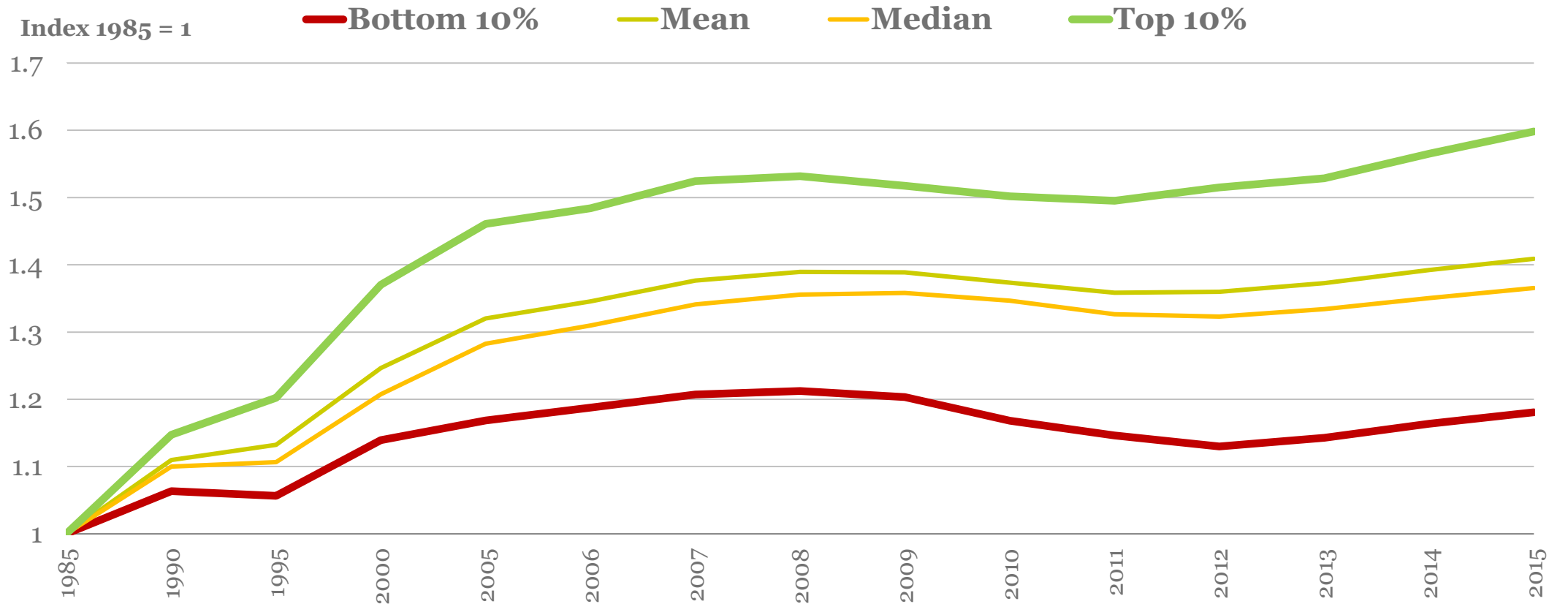


Source: OECD (2018), *ICT Access and Usage by Households and Individuals* (database). <https://stats.oecd.org/>.



# Growing inequality

Trends in real household incomes by percentile, OECD average, 1985-2015



Source: OECD (2018), *A Broken Social Elevator? How to Promote Social Mobility*, <https://doi.org/10.1787/9789264301085-en>.



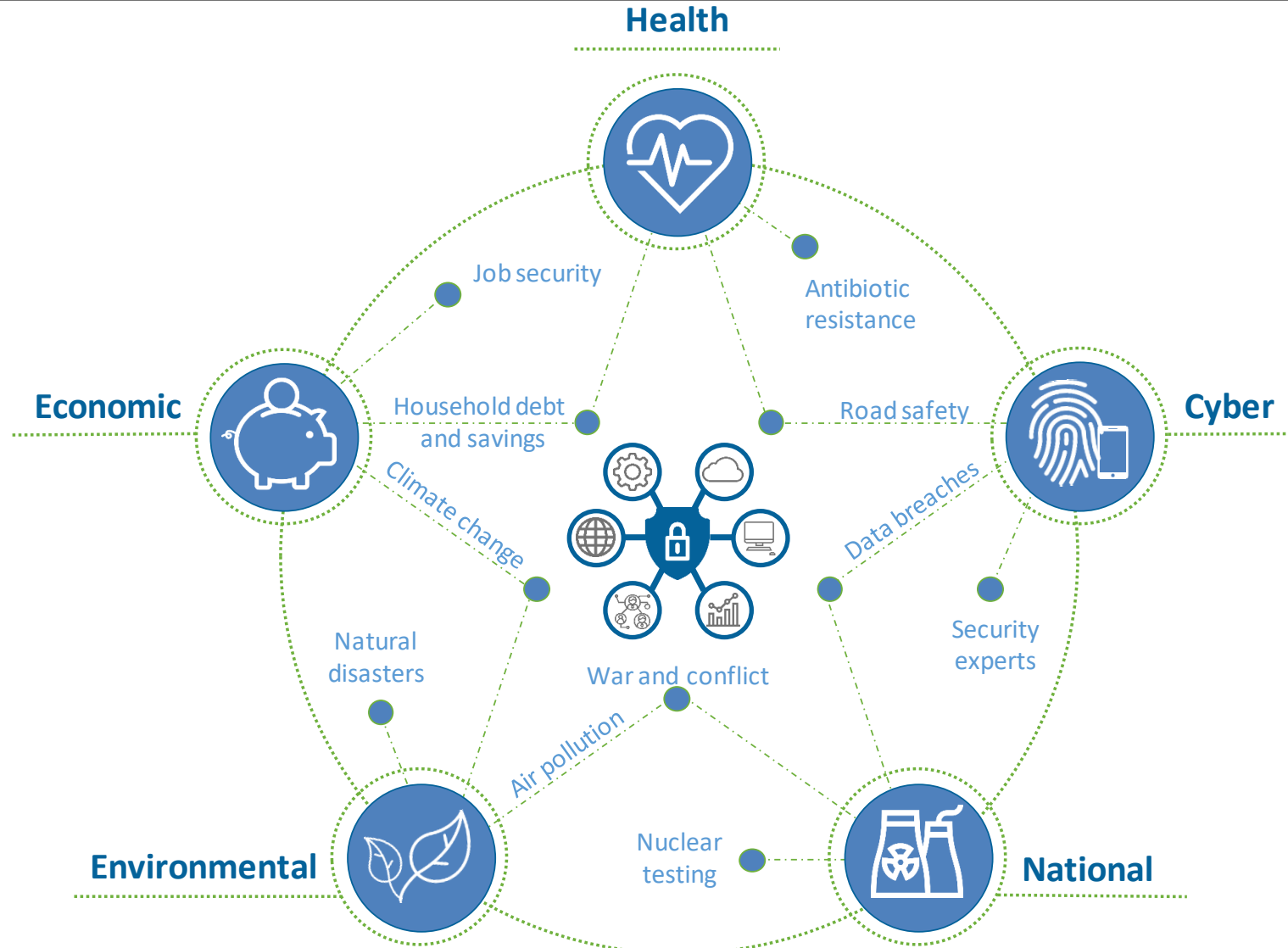
GLOBALISATION

DEMOCRACY

**SECURITY**

AGEING

MODERN CULTURES







## Security in a Risky World

---

### **In 2018, what was the most common reason for data records lost in cyber breaches?**

- Accidentally published
- Inside job
- Poor security
- Lost/stolen device



## Security in a Risky World

---

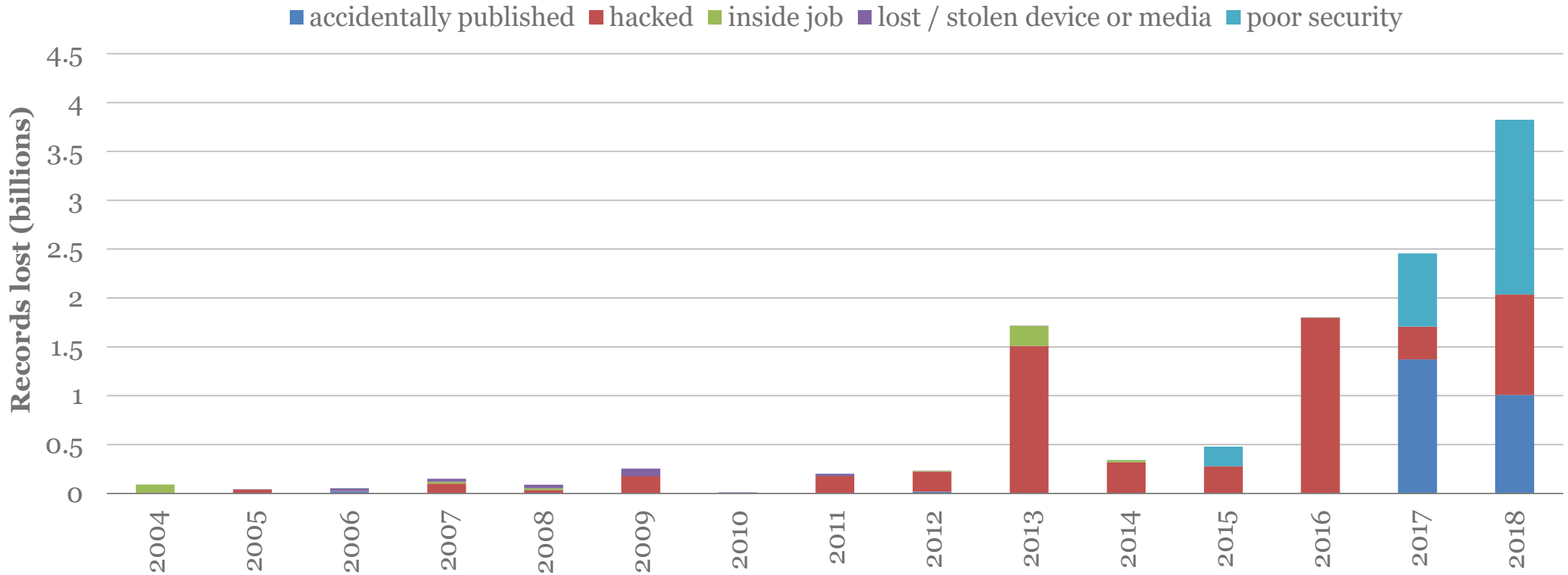
### In 2018, what was the most common reason for data records lost in cyber breaches?

- Accidentally published
- Inside job
- **Poor security**
- Lost/stolen device



# Growing cyber risk

World's biggest data breaches by method of leak (billions of records lost), 2004-2018

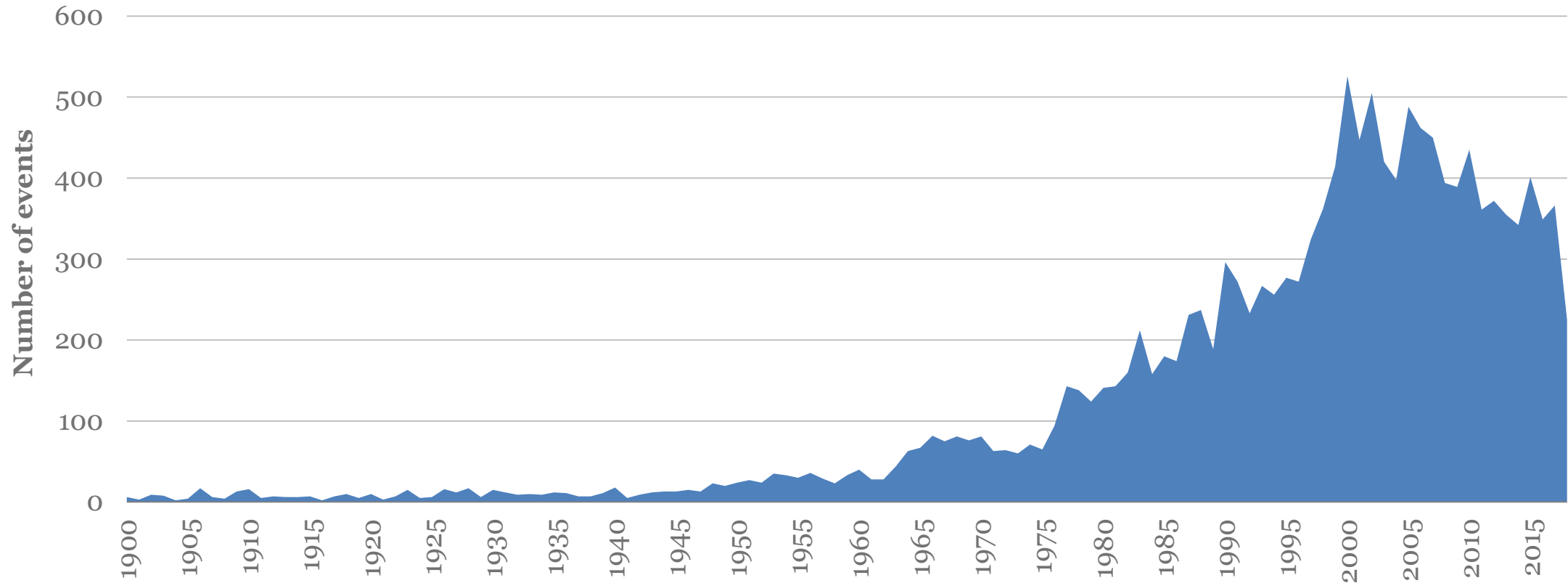


Source: Information is Beautiful (2018), "World's biggest data breaches: Selected loses bigger than 30.000 records", <https://informationisbeautiful.net/visualizations/worlds-biggest-data-breaches-static/>.



# Natural disasters increasing worldwide

Number of recorded events, 1900-2018

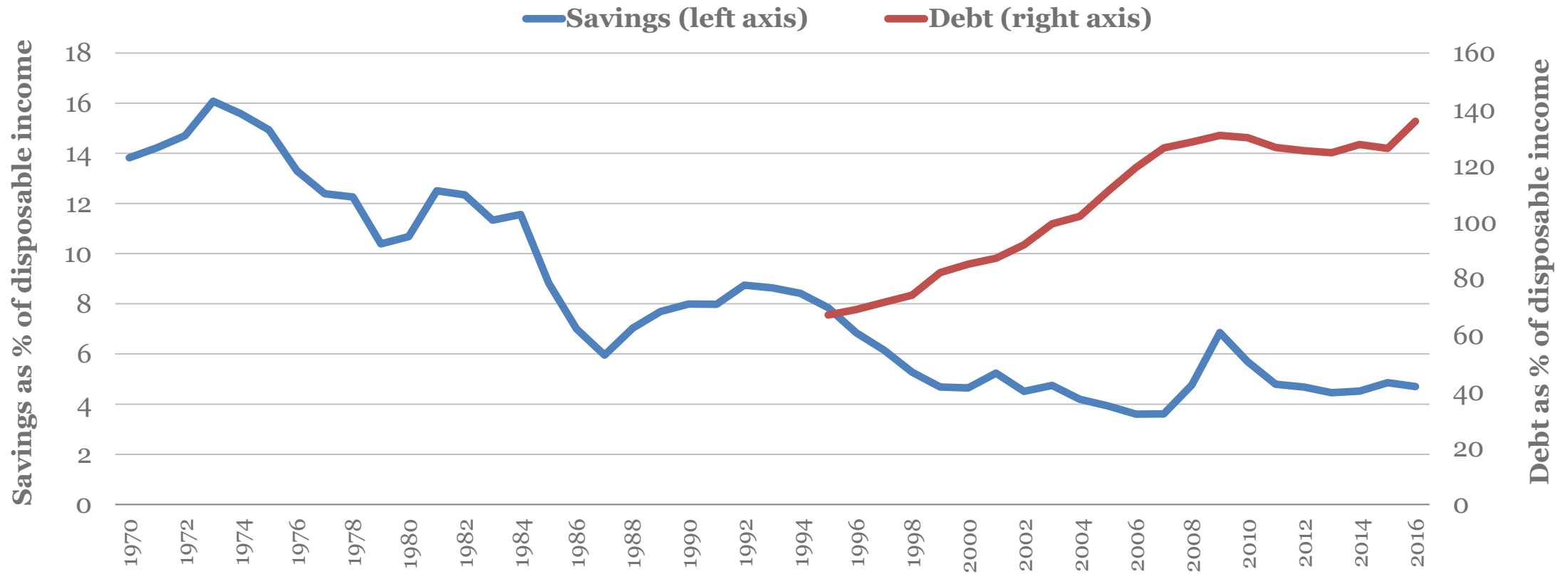


Source: EM-DAT (2018), *The Emergency Events Database* - Université catholique de Louvain (UCL) - CRED, [www.emdat.be](http://www.emdat.be).



# Rising debt

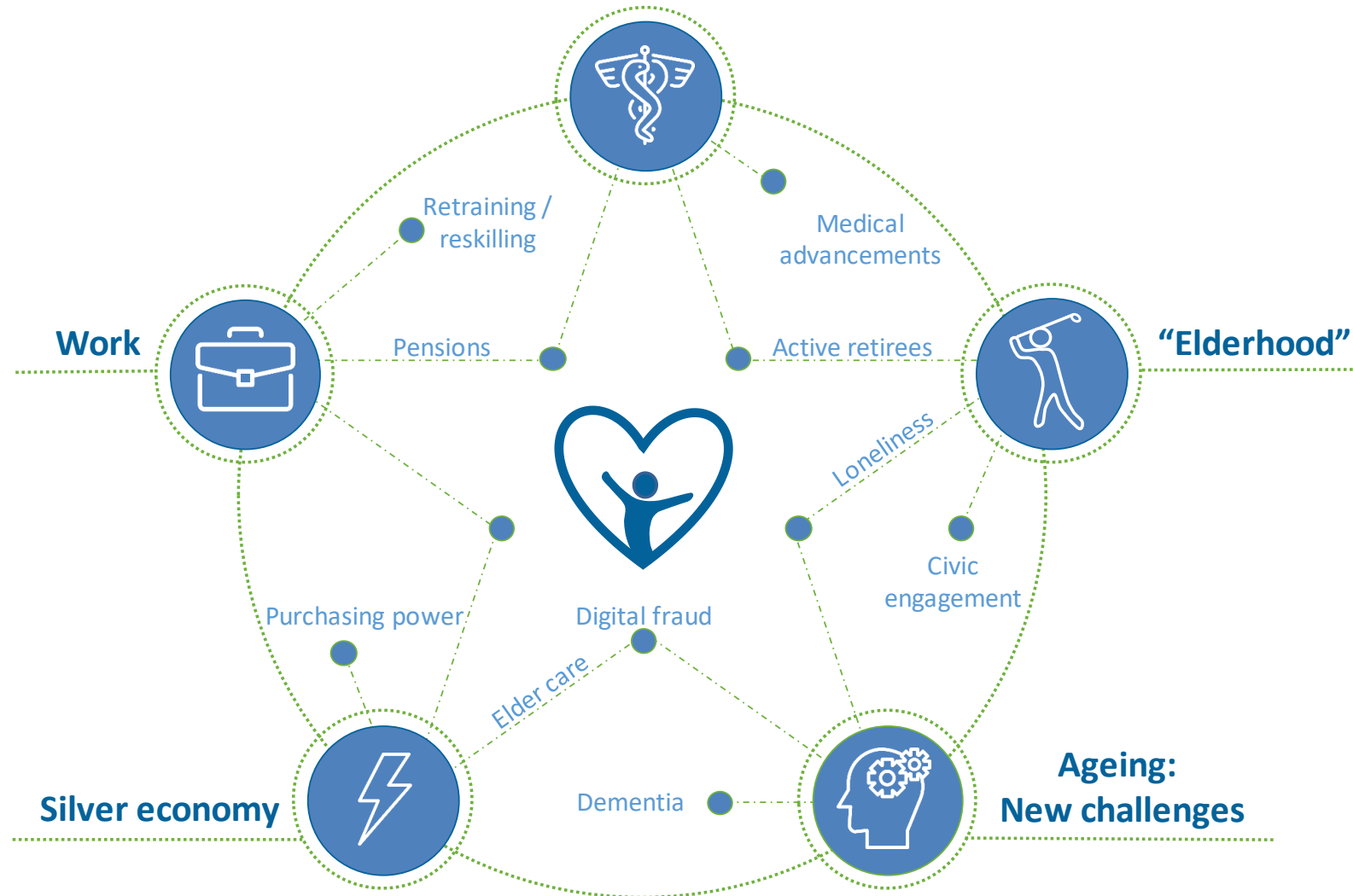
Household savings (% of disposable income, left axis) and household debt (% of disposable income, right axis), OECD average, 1970-2016



Source: OECD (2018), *OECD National Accounts Statistics* (database), <https://stats.oecd.org/>.



**Healthy ageing**





**Between 1970 and 2017, the average number of years people spent in retirement increased by how much?**

- 5 years
- 7 years
- 10 years
- 13 years



**Between 1970 and 2017, the average number of years people spent in retirement increased by how much?**

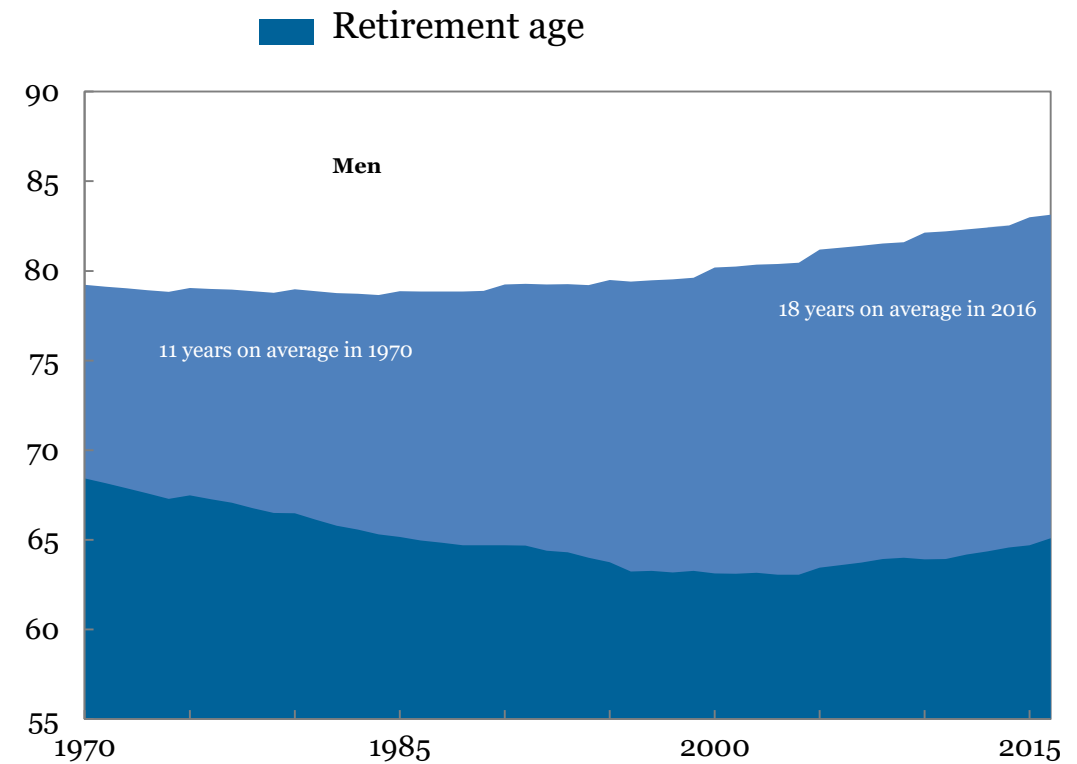
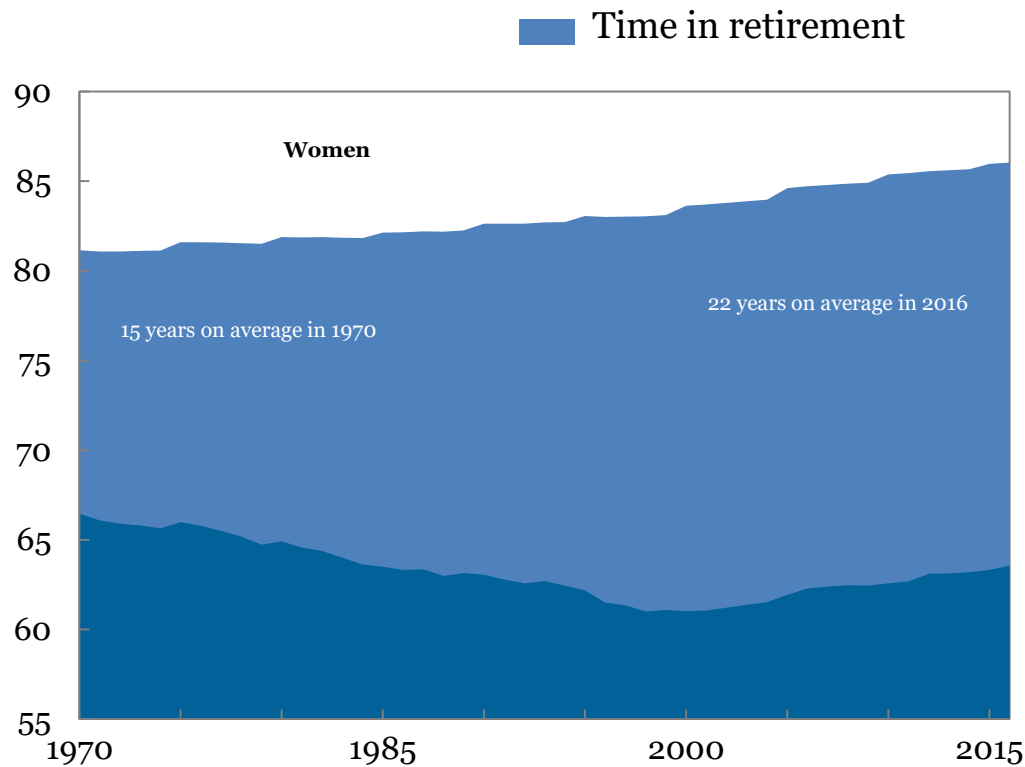
- 5 years
- **7 years**
- 10 years
- 13 years





# Years in retirement increasing

Average across all OECD countries, 1970-2016

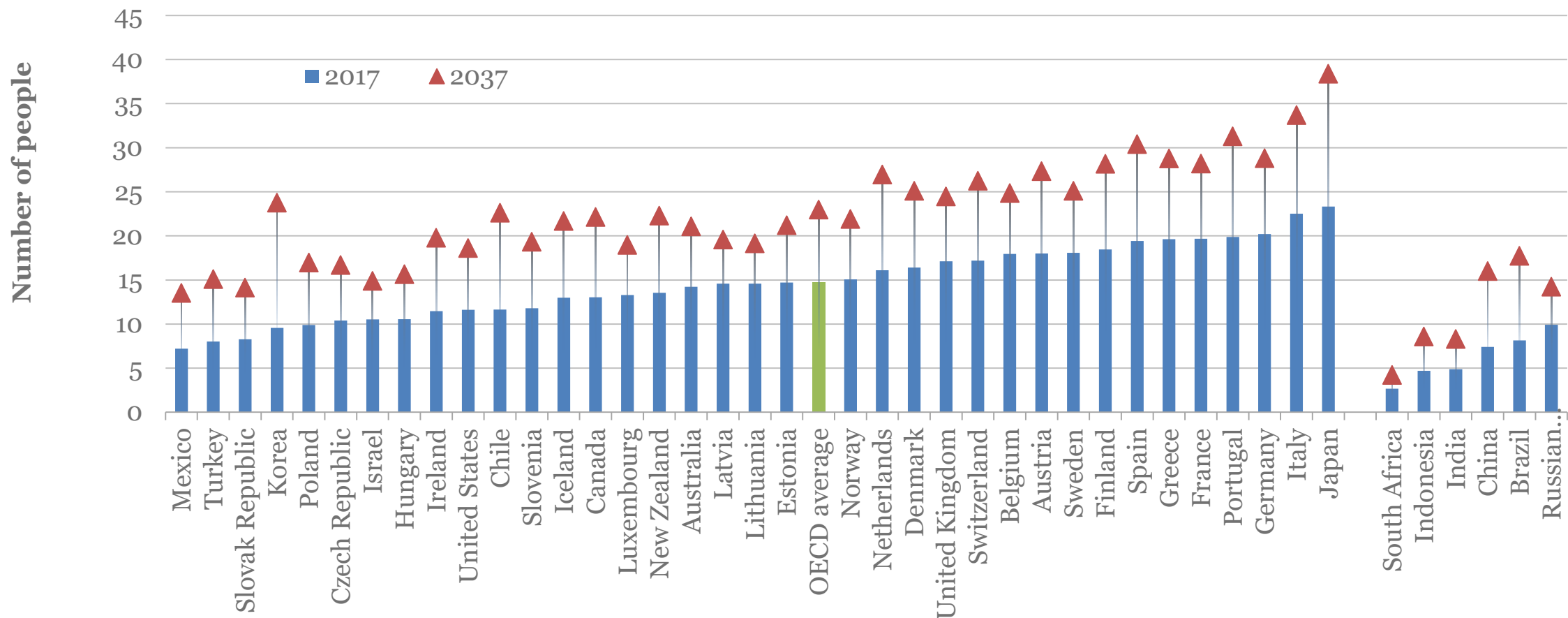


Source: OECD (2017), *Pensions at a Glance 2017: OECD and G20 Indicators*, [https://doi.org/10.1787/pension\\_glance-2017-en](https://doi.org/10.1787/pension_glance-2017-en).



# Dementia rates growing

People with dementia per 1 000 population (all ages), 2017 and estimates for 2037

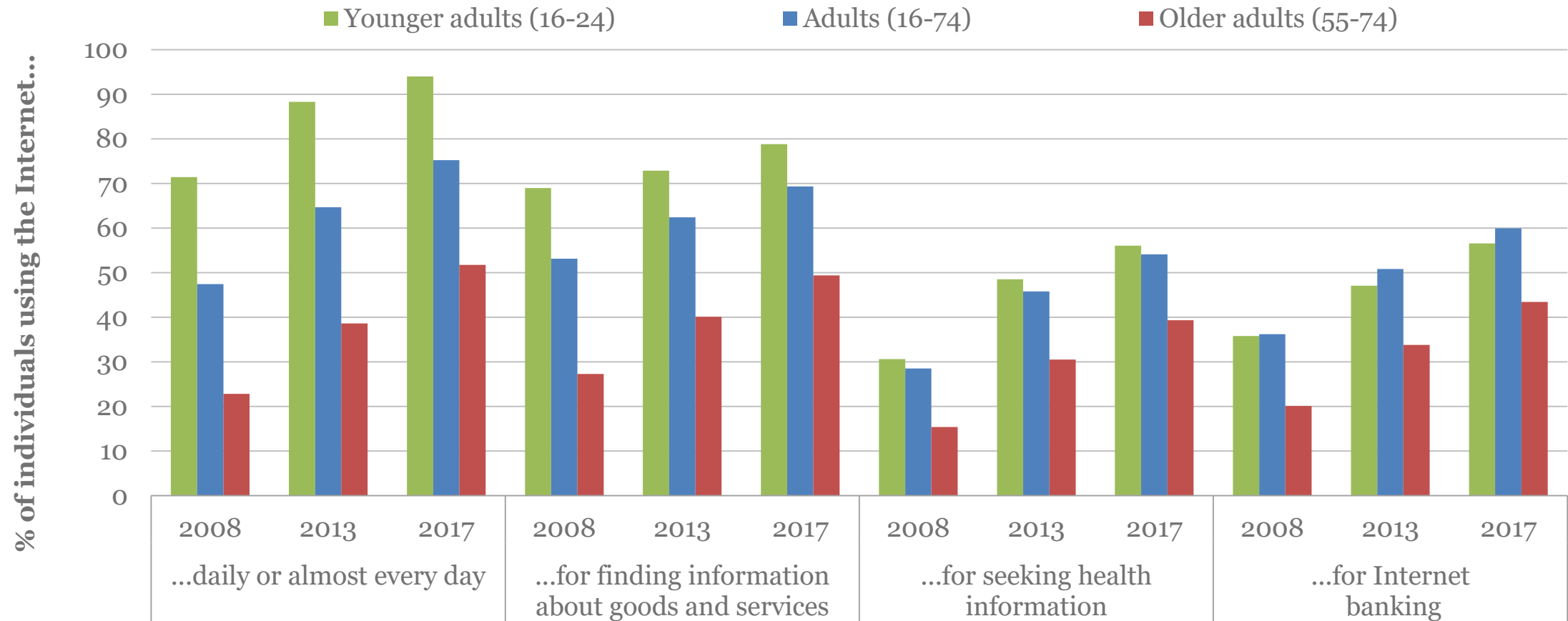


Source: OECD (2018), *Care Needed: Improving the Lives of People with Dementia*, <https://doi.org/10.1787/9789264085107-en>



# Increasingly digital

Different Internet uses by age group (last 3 months), OECD average, 2008, 2013 and 2017



Source: OECD (2018), *ICT Access and Usage by Households and Individuals* (database), <https://stats.oecd.org/>.



GLOBALISATION

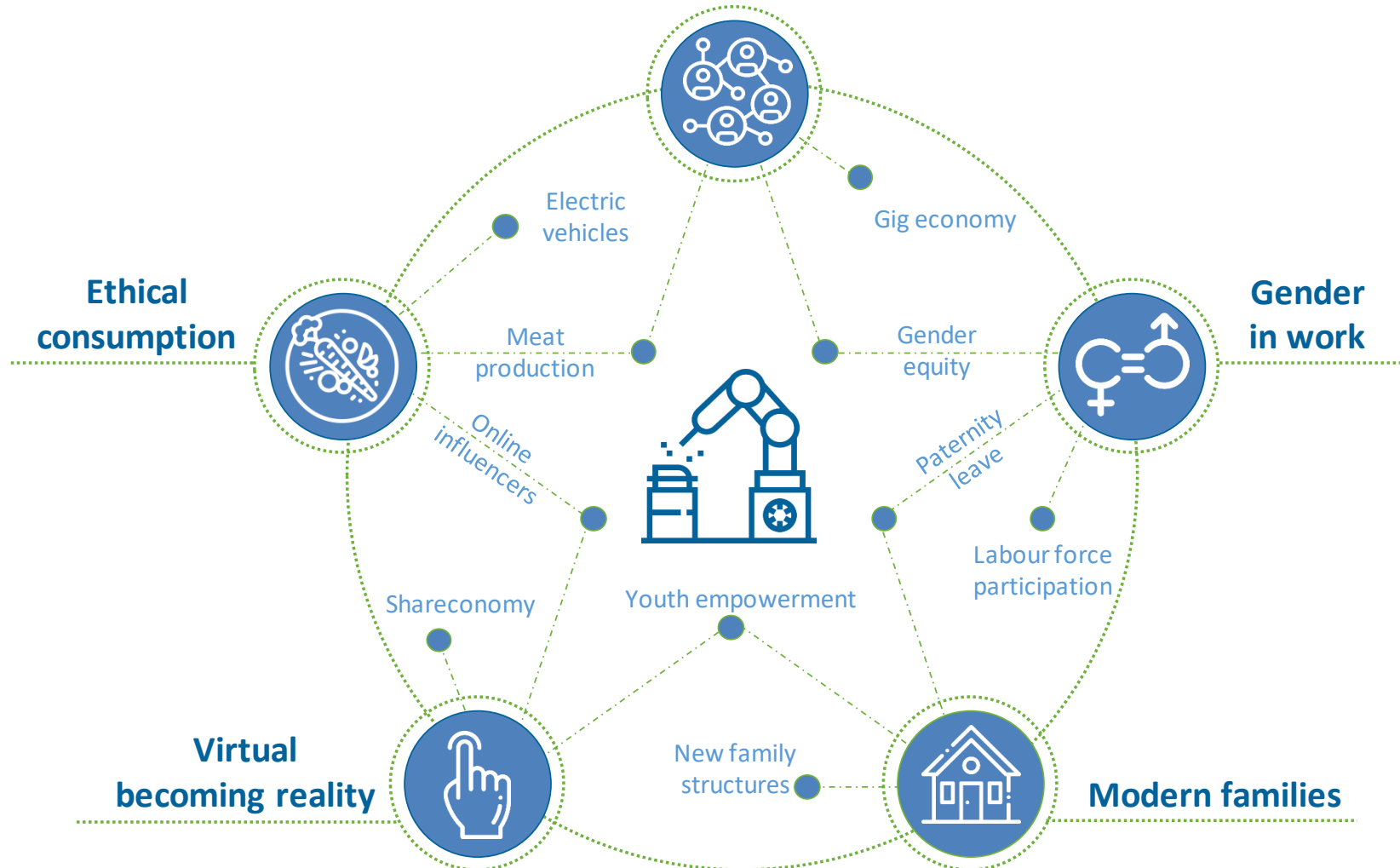
DEMOCRACY

SECURITY

AGEING

MODERN CULTURES

### The connected economy





**The marketplace for those demanding and supplying freelance work is now digitised. In 2005, the online platforms Upwork and Freelancer had 2.6 million users. Approximately how many were registered in 2016?**

- 10 million
- 20 million
- 35 million
- 50 million

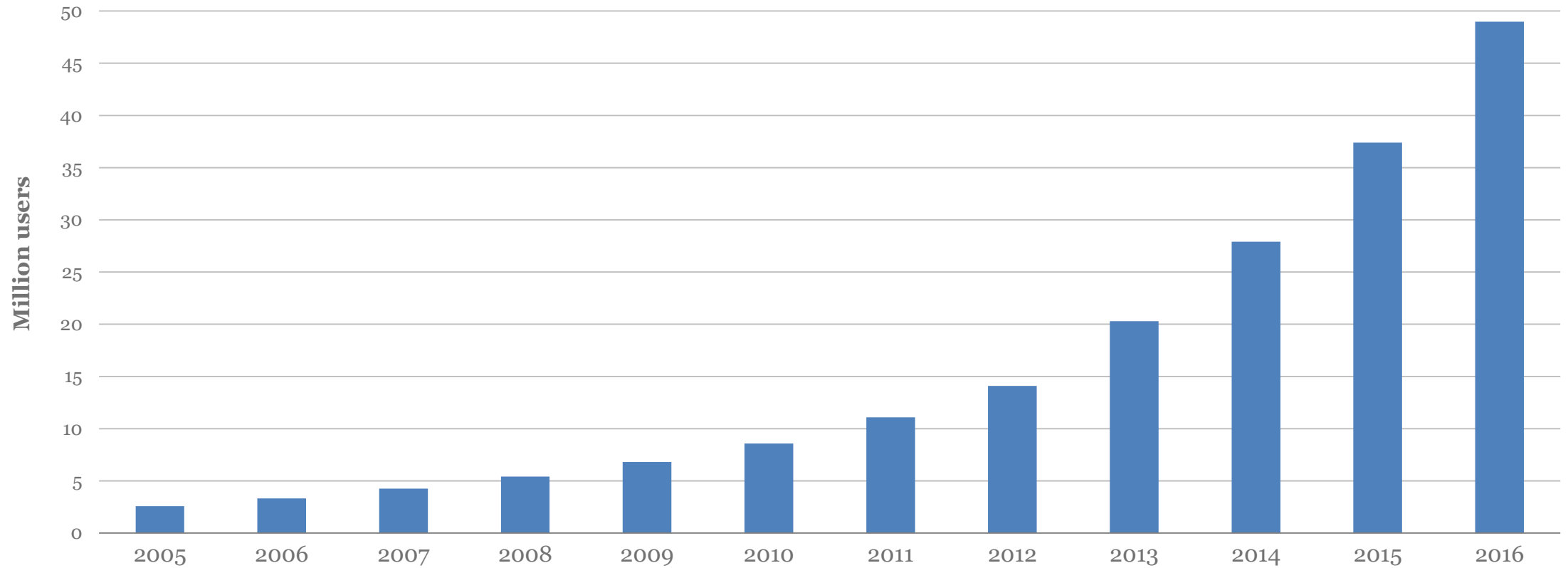


**The marketplace for those demanding and supplying freelance work is now digitised. In 2005, the online platforms Upwork and Freelancer had 2.6 million users. Approximately how many were registered in 2016?**

- 10 million
- 20 million
- 35 million
- **50 million**



# Growing virtual freelancing

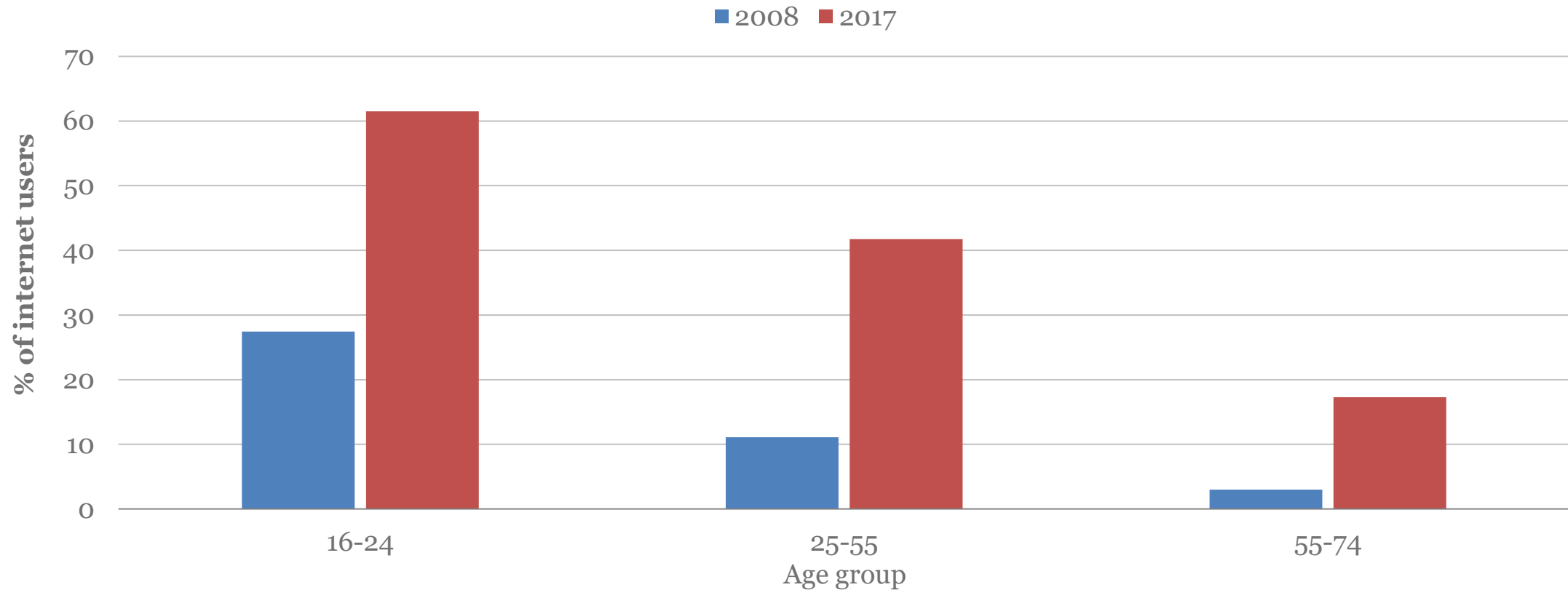


Sources: OECD (2017), *OECD Employment Outlook 2017*, [https://doi.org/10.1787/empl\\_outlook-2017-en](https://doi.org/10.1787/empl_outlook-2017-en).



# Mass self-communication and creative expression

Individuals using the Internet (last 3 months) for uploading self-created content on sharing websites, 2008 and 2017



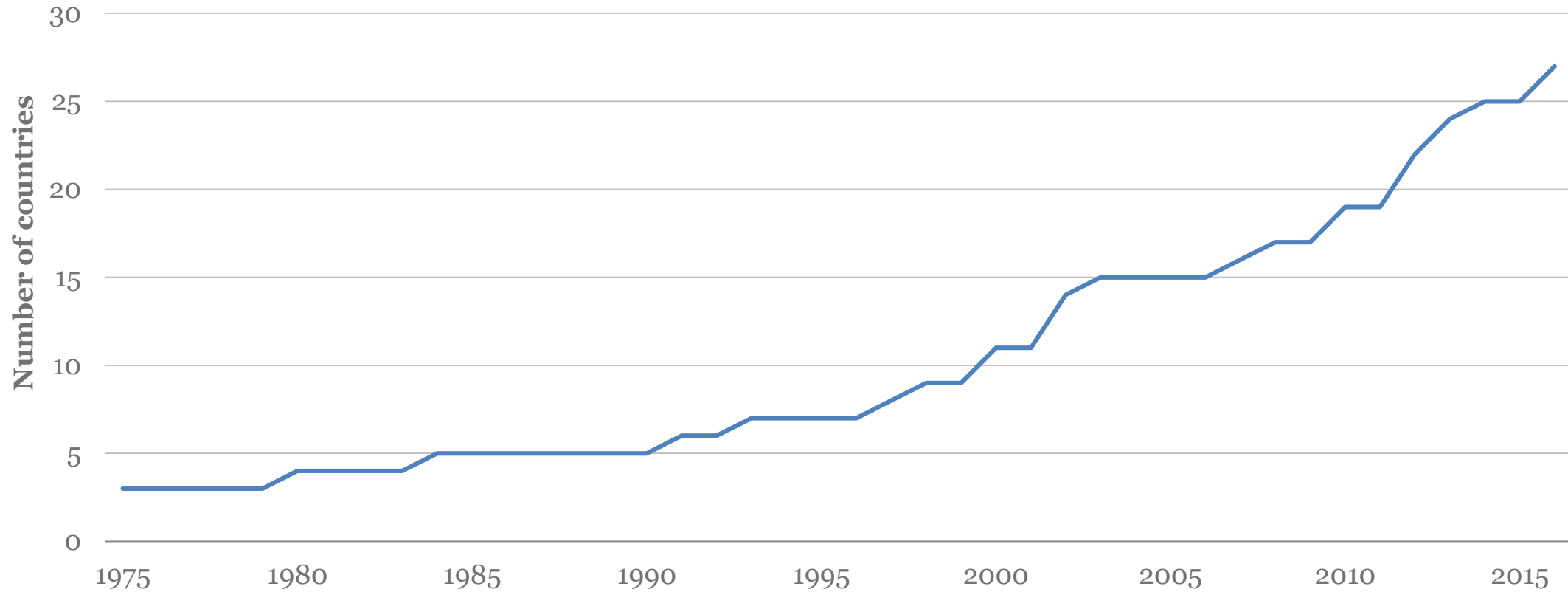
Source: OECD (2018), *ICT Access and Usage by Households and Individuals* (database), <https://stats.oecd.org/>.





# Fathers becoming more involved

Number of OECD countries granting paid paternity leave, 1975-2016



Source: OECD (2018), "Length of paid father-specific leave (indicator)", OECD Gender Data Portal, <http://www.oecd.org/gender/data/>.



Thank you!

---

For more information:

[www.oecd.org/education/ceri/trends-shaping-education](http://www.oecd.org/education/ceri/trends-shaping-education)

[Tracey.Burns@oecd.org](mailto:Tracey.Burns@oecd.org)