EDUCATION & SKILLS

Re-imagining future schools

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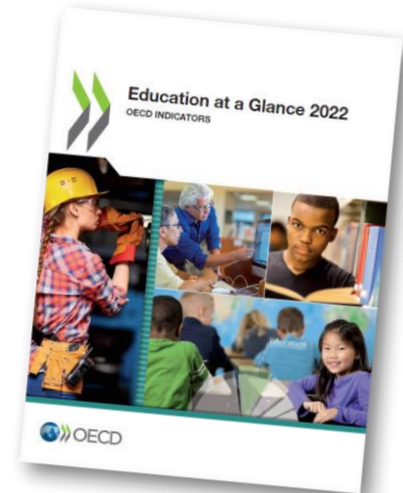02/11/2022

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OECD BETTER POLICIES FOR BETTER LIVES

Backdrop

- Centre for Educational Research and Innovation (CERI)
- Tasked to
    - Examine the status of education
    - Do foresight, innovation and research
- Drawing on selected projects
    - Education at a Glance
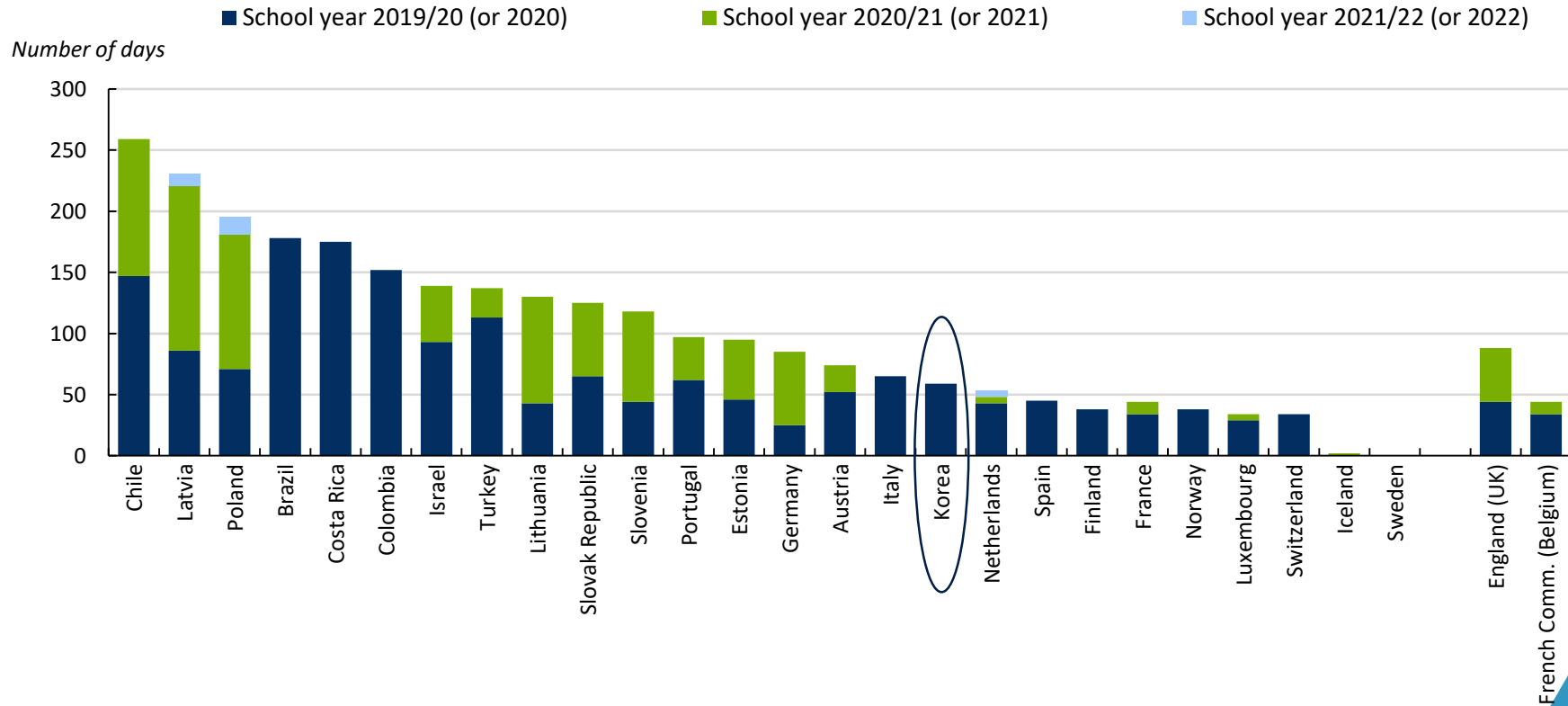   - Trends Shaping Education
        - School scenario work

School closures were rare in the school year 2021/22

Figure 1.

School closures due to COVID-19 (2020, 2021 and the first quarter of 2022)

■ School year 2019/20 (or 2020)   ■ School year 2020/21 (or 2021)   ■ School year 2021/22 (or 2022)
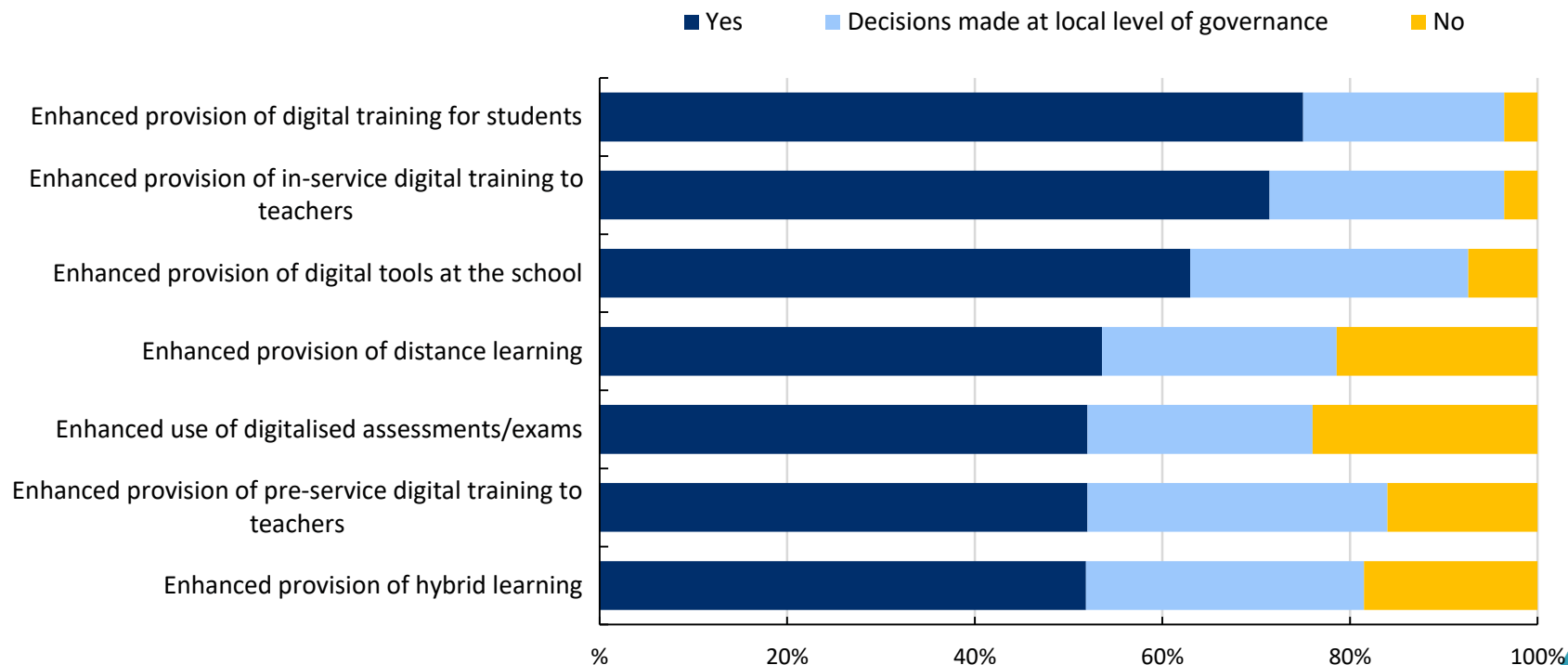
Number of days

Increased use of digital tools is an important legacy of the pandemic

Figure 4.

Share of countries planning to maintain or develop digitalisation measures implemented due to COVID-19

Legend: ■ Yes ■ Decisions made at local level of governance ■ No

- Enhanced provision of digital training for students
- Enhanced provision of in-service digital training to teachers
- Enhanced provision of digital tools at the school
- Enhanced provision of distance learning
- Enhanced use of digitalised assessments/exams
- Enhanced provision of pre-service digital training to teachers
- Enhanced provision of hybrid learning

% 20% 40% 60% 80% 100%

Trends Shaping Education 2022

Five thematic chapters:

1	2	3	4	5
Growth	Knowledge & power	Living & working	Identity & belonging	Our changing nature
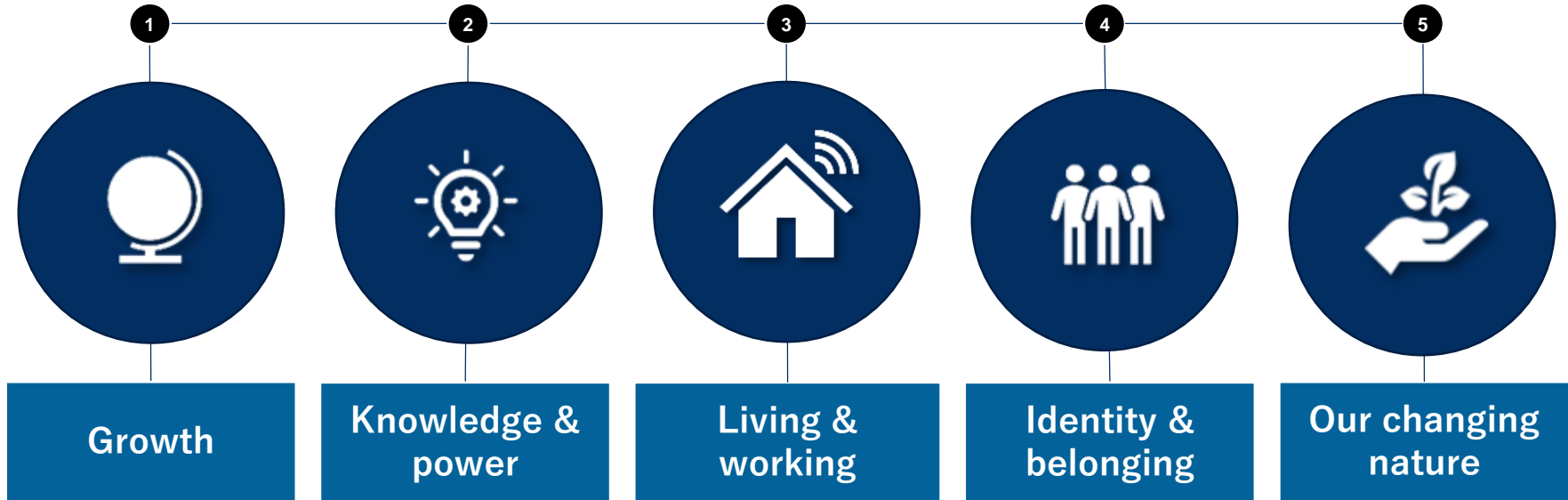
Growing prosperity
How does increasing affluence affect inequalities?

A new source of growth
In which ways are intangible assets driving innovation and productivity?

Demographic pressures
What are the impacts of population ageing on growth and living standards?

A growth revolution?
Can we reconcile shared prosperity and environmental sustainability?
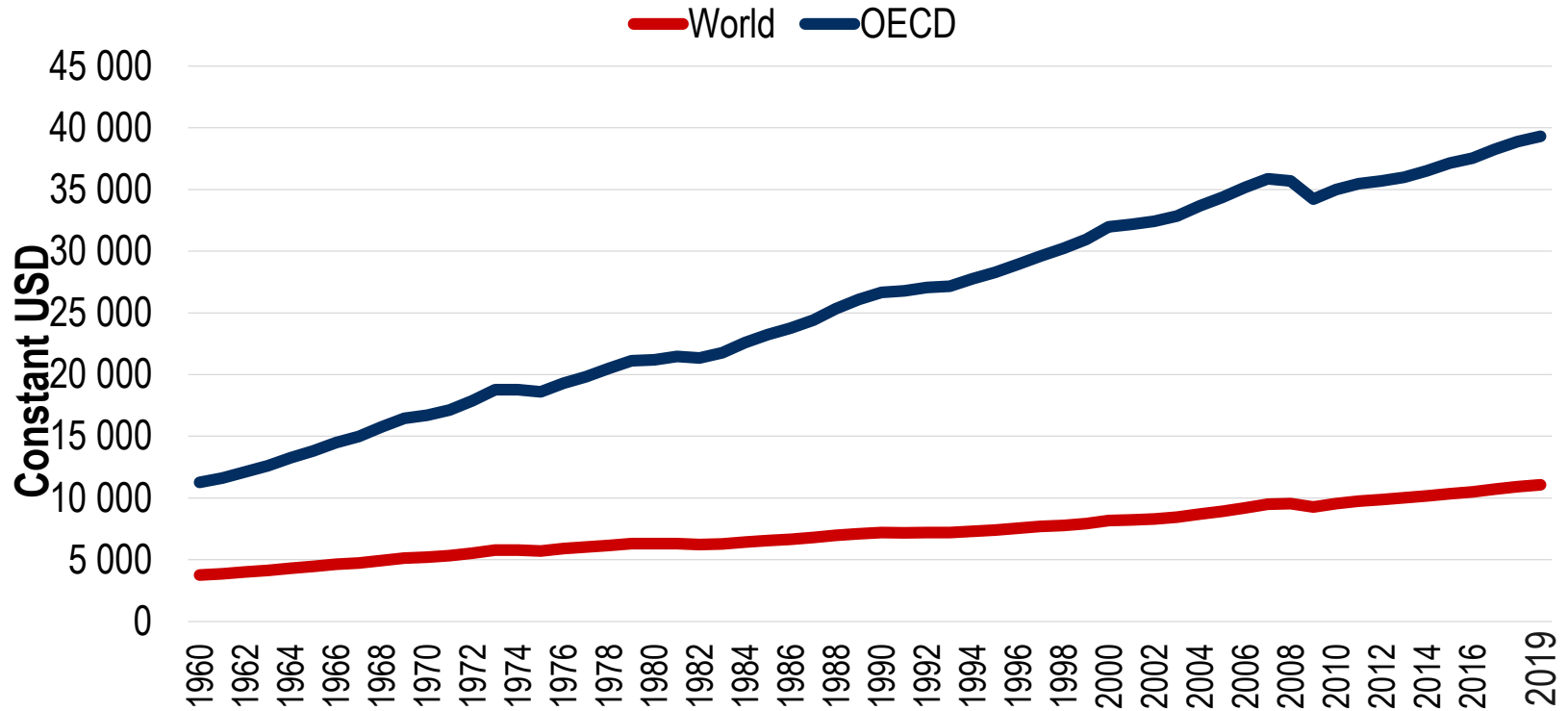
To infinity and beyond
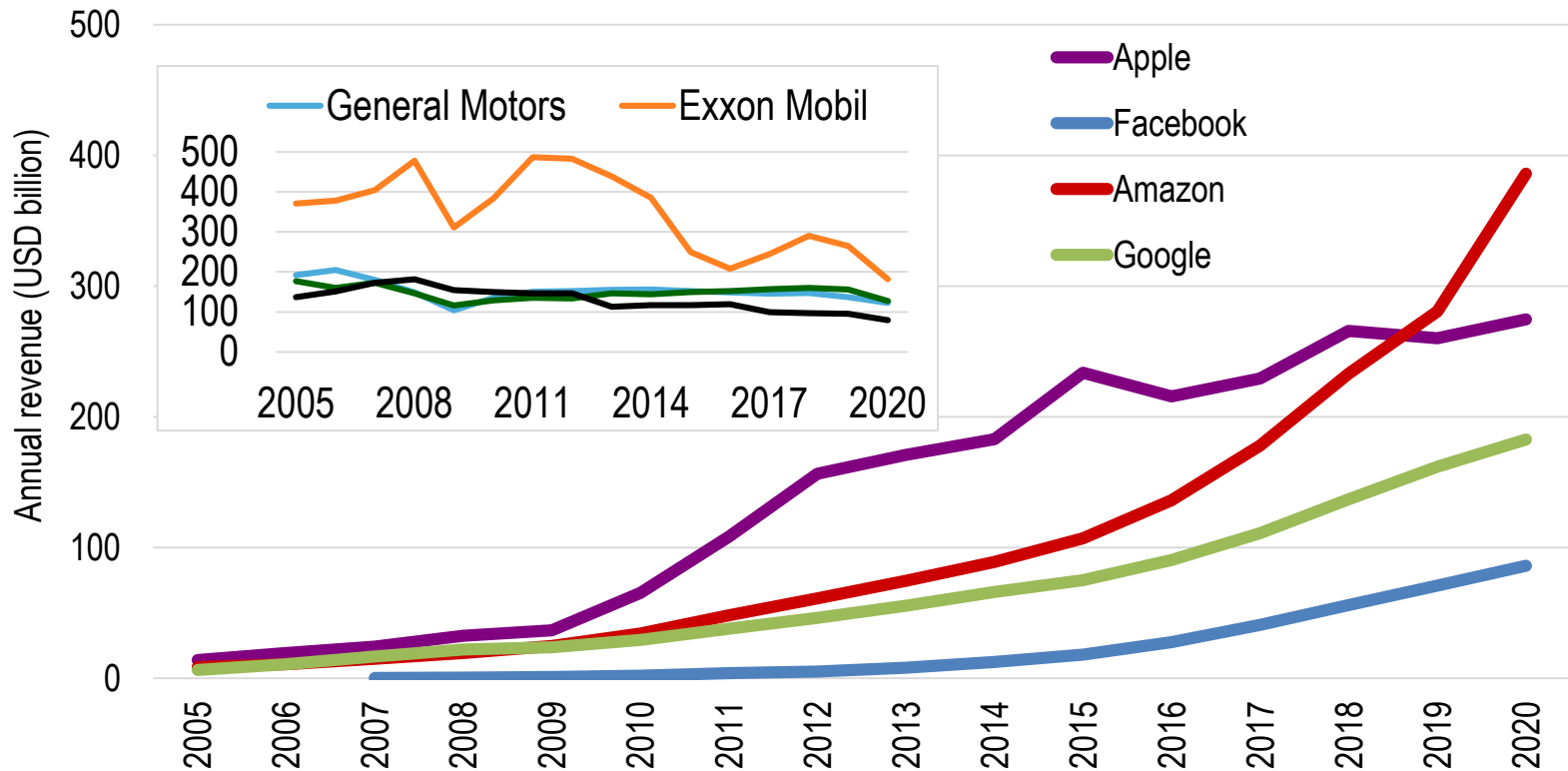What opportunities and challenges do new economies bring?

Increasing affluence

Gross domestic product (GDP) per capita, constant 2015 USD, 1960-2019

Source: World Bank (2021), "GDP per capita (constant 2015 US$)", (indicator), https://data.worldbank.org/.

Figure 1.1

The rise of Big Tech

Source: OECD(2019), *An Introduction to Online Platforms and Their Role in the Digital Transformation*, https://doi.org/10.1787/53e5f593-en; companies' annual reports; and https://macrotrends.net

Figure 1.4

Knowledge societies
How do we get to know what we know?

Are the data too big to fail?
In what ways are AI and "big data" affecting our decision making?

Opening up science
How are digital technologies changing scientific practices?

Knowledge governance
What impacts does knowledge production have on society?
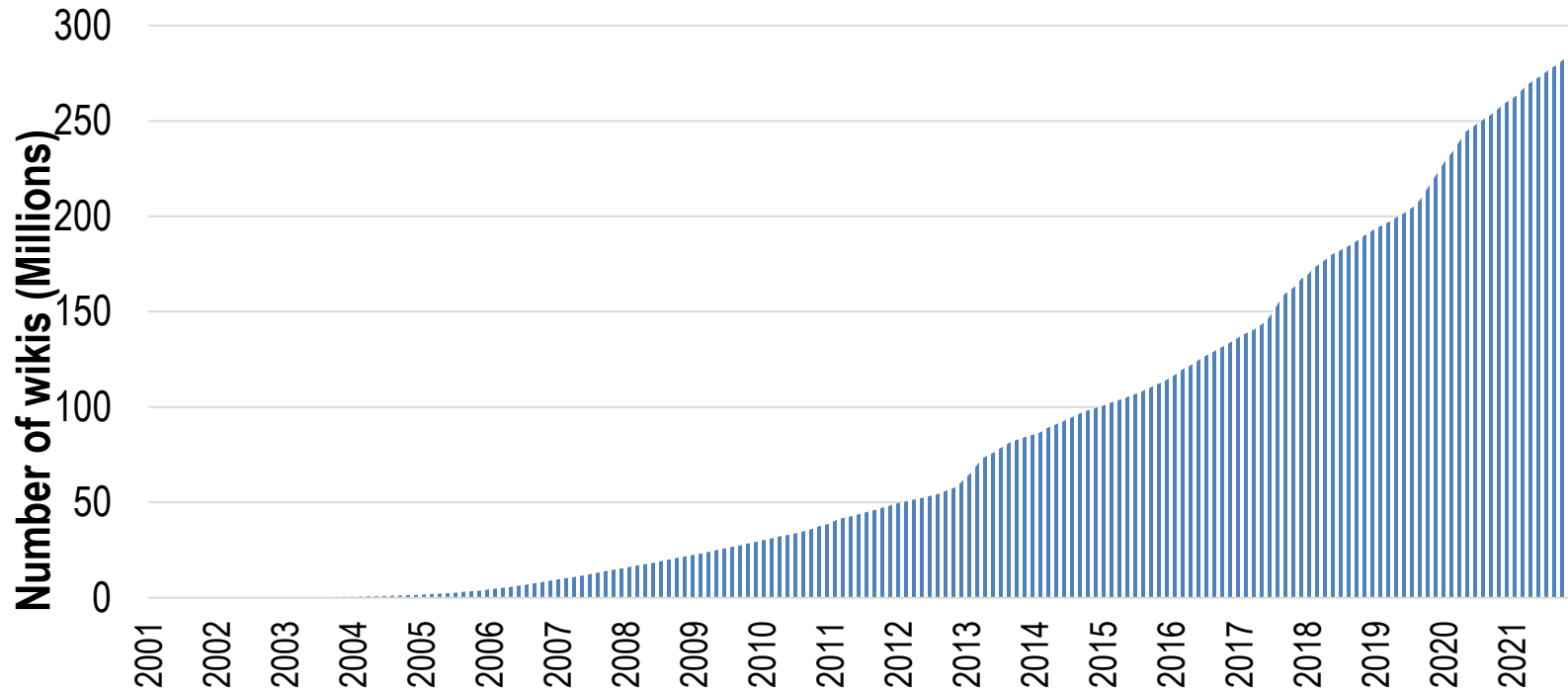
Speaking truth to power
What roles do expert and lay knowledge play in our democracies?

The wisdom of crowds
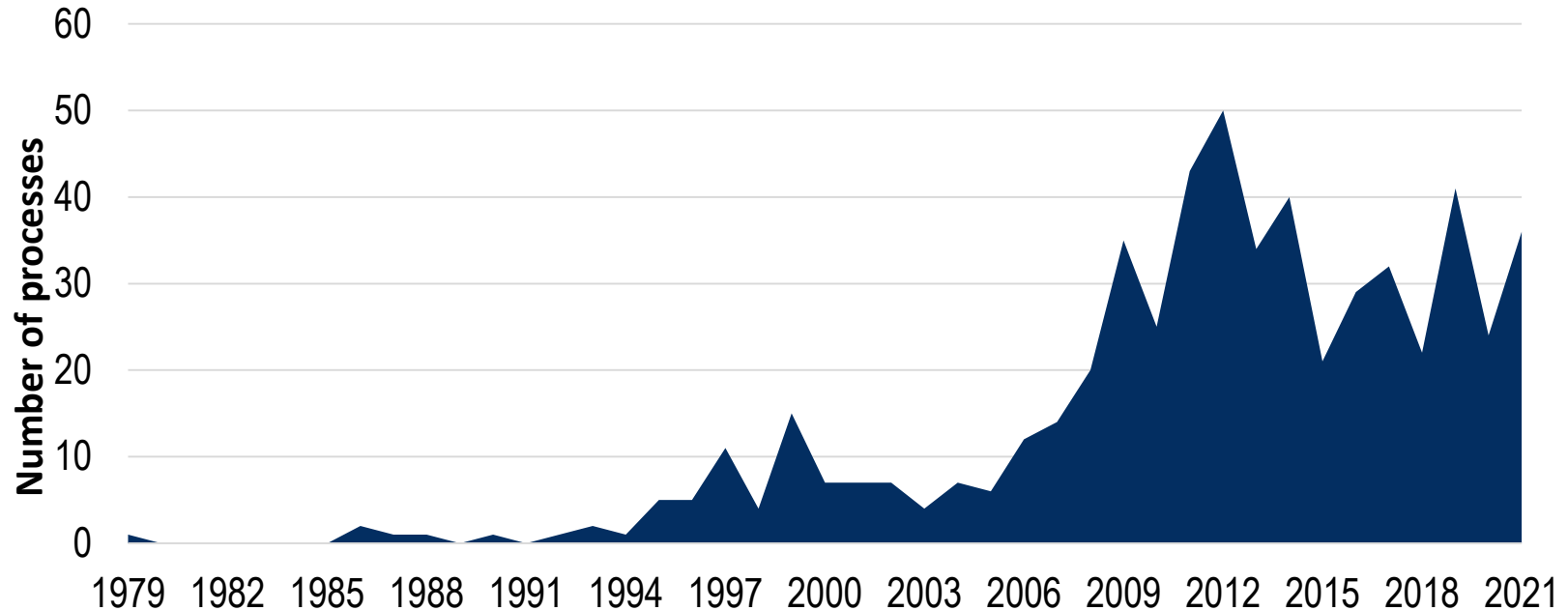
Number of pages in all wikis, 2001-2021

Source: Wikimedia (2021), Pages to Date, All Wikis, https://stats.wikimedia.org/

Figure 3.2

A wave of deliberative politics

Number of representative deliberative processes over time, OECD countries, 1979-2021

Figure 3.10

Work to live or live to work?
How is our work-life balance evolving?

New employment for a new age?
What are the impacts of new working arrangements on our well-being?

The quantification of life
To what extent is digital tracking affecting our lives and relationships?

21st century families
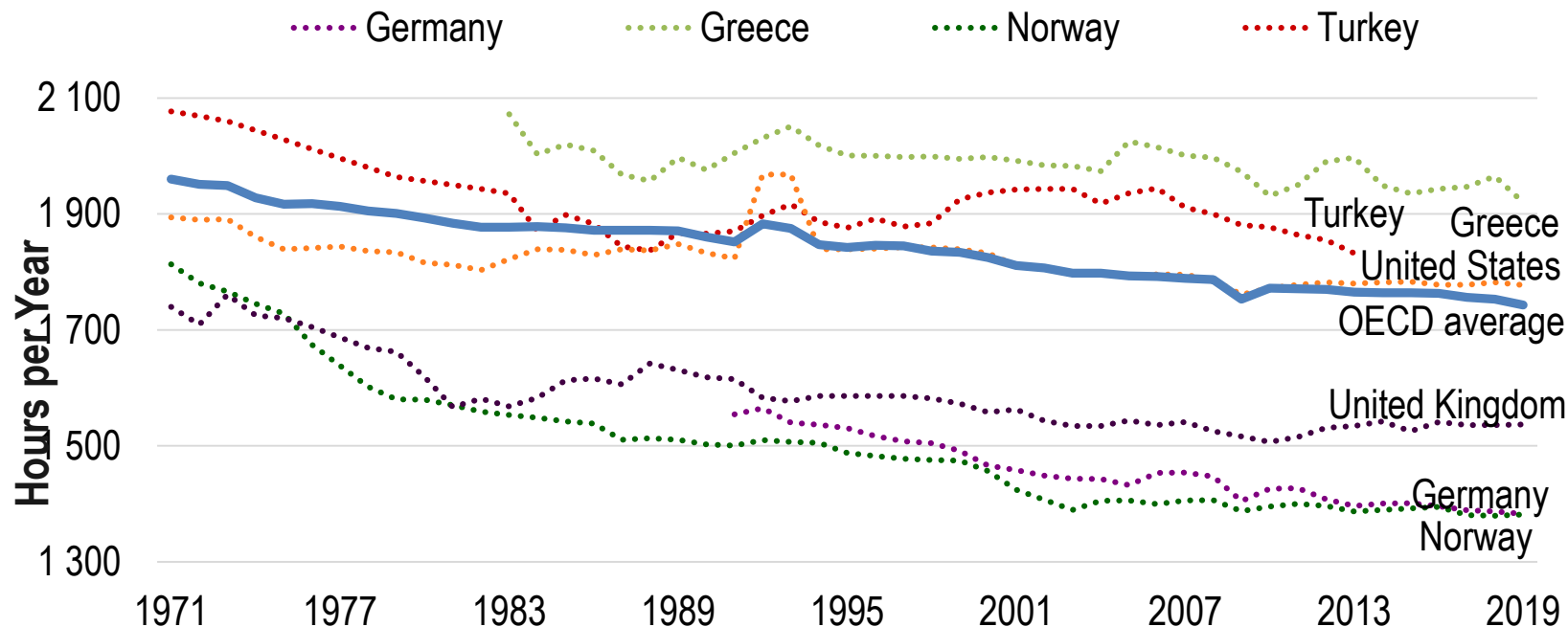How are family structures and roles within the family evolving?

Quality of life
How are personal safety and housing trends changing?

In pursuit of a work−life balance

Average annual hours actually worked per worker, 1971-2019

Legend: Germany ...... Greece ...... Norway ...... Turkey

Y-axis: Hours per Year — 2 100, 1 900, 700, 500, 1 300

X-axis: 1971, 1977, 1983, 1989, 1995, 2001, 2007, 2013, 2019

Labels: Turkey, Greece, United States, OECD average, United Kingdom, Germany, Norway

Source: OECD (2021), *OECD Labour Force Statistics* (database), https://stats.oecd.org/

Figure 2.1

An app a day keeps the doctor away?

Fitbit active users (2014-2020) and Apple wearables, home & accessories net sales (2015-2020)

■ Fitbit (left axis) ——— Apple (right axis)
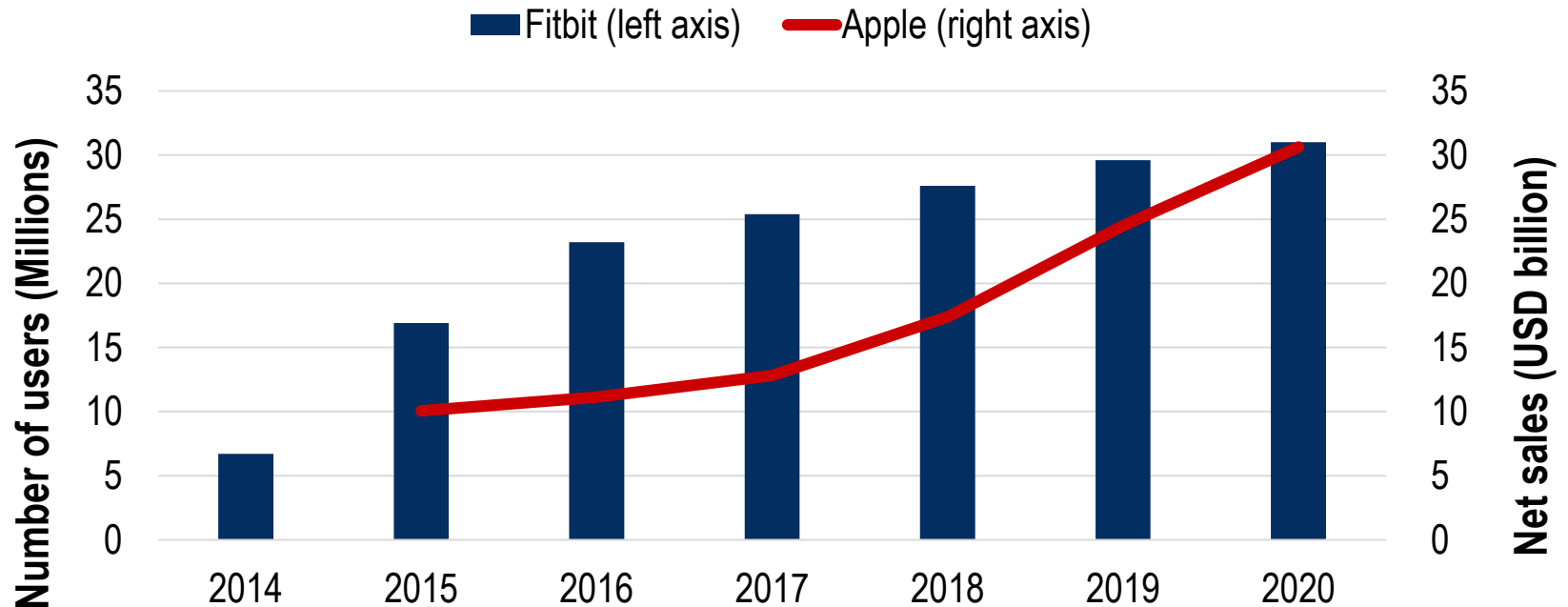
Source: OECD calculations from Fitbit full year results (2014–2020), https://investor.fitbit.com/, and Apple annual reports on Form 10–K (2015–2020), https://investor.apple.com/.

Figure 2.5

Identity and belonging

You can go your own way
What role do social institutions play in our individualising world?

It's a small world after all
How are we diversifying, nationally and in our multilateral systems?

Speak your mind
How are the interests, behaviours and demands of citizens changing?

All for one, one for all
Where are we in the fight against discrimination and social exclusion?
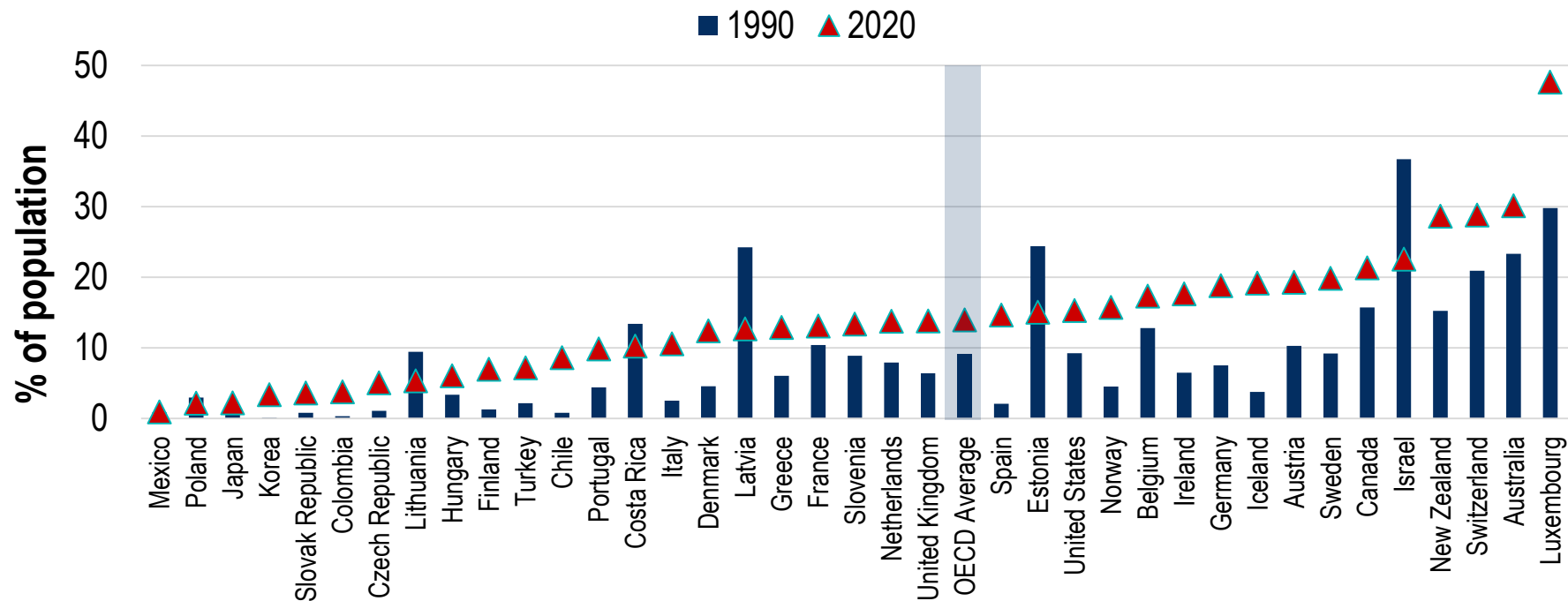
The many profiles of us
How is the digital world changing identity exploration and development?

Increasing migration

International migrant stock by country of destination, OECD countries, 1990-2020
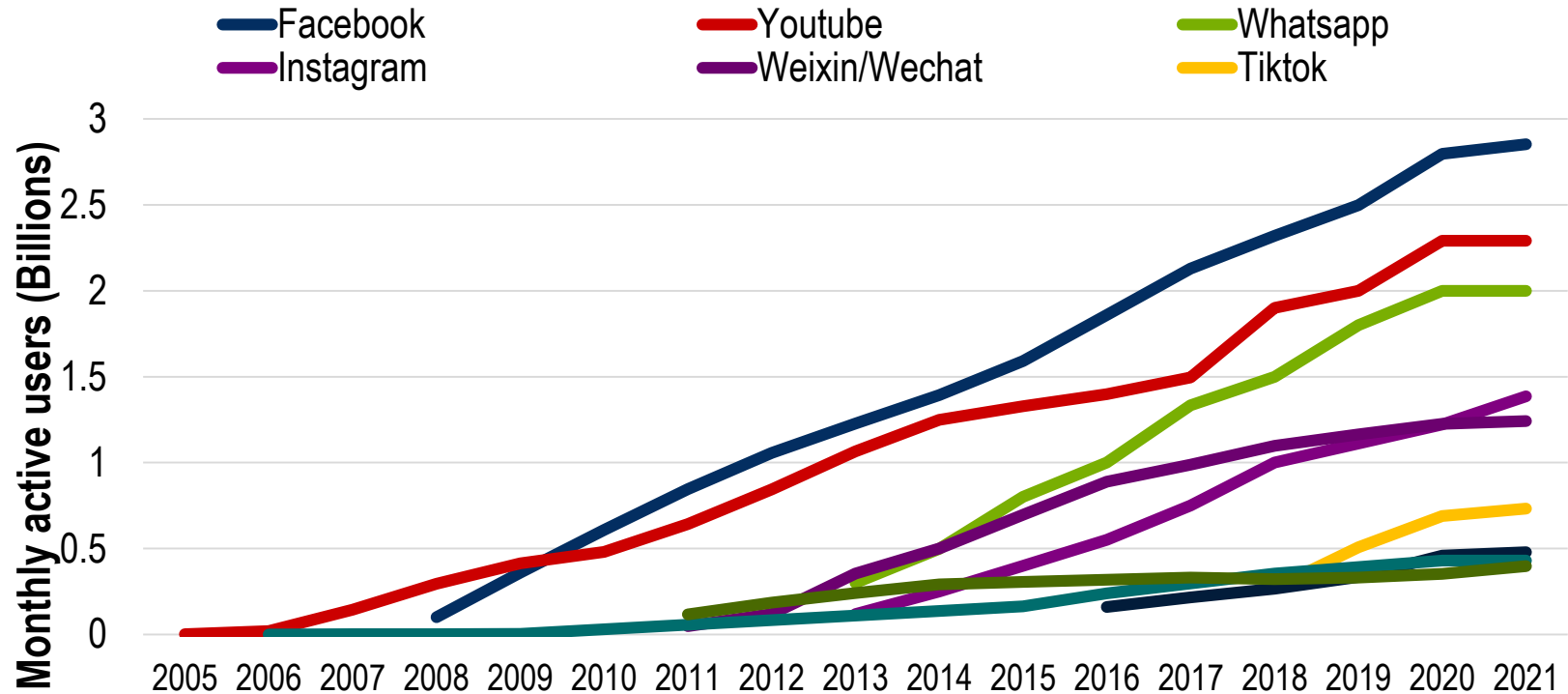
■ 1990 ▲ 2020

Source: UNDESA (2021), International Migrant Stock 2020, https://www.un.org/.

Figure 4.3

Multiple identities

Number of monthly active users on social media platforms, 2004-2021

Figure 4.9

There is no Planet B
Is the pace at which we are using our planet's resources sustainable?

The natural world
How is our relationship with the natural world evolving?

Food for thought
How is food production and consumption affecting our well-being?

Our human body
Are we moving towards a new paradigm of human enhancement?

No one lives in cyberspace
How is digitalisation changing communication and social interactions?

An outsized ecological footprint

Humanity's ecological footprint by land type against Earth's biocapacity, global hectares (gha), 1961-2021

- Carbon footprint
- Cropland footprint
- Built-up Land footprint
- Fishing Grounds footprint
- Forest Products footprint
- Grazing Land footprint
- World Biocapacity
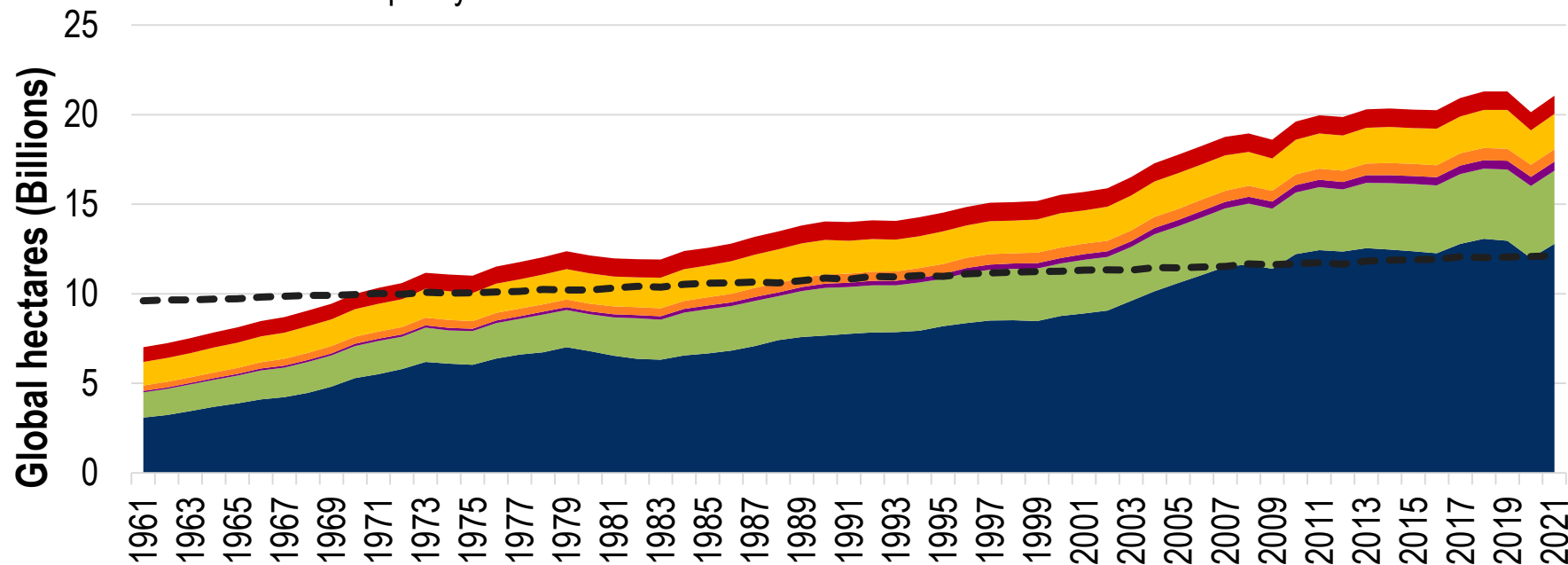
Source: Global Footprint Network (2021), *National Footprint and Biocapacity Accounts*, https://data.footprintnetwork.org; Lin, Wambersie and Wackernagel (2021), "Estimating the Date of Earth Overshoot Day 2021", https://www.overshootday.org

Figure 5.1

Where the (virtual) wild things are

Global number of new patents/applications related to AR/VR in gaming, 2000–2020
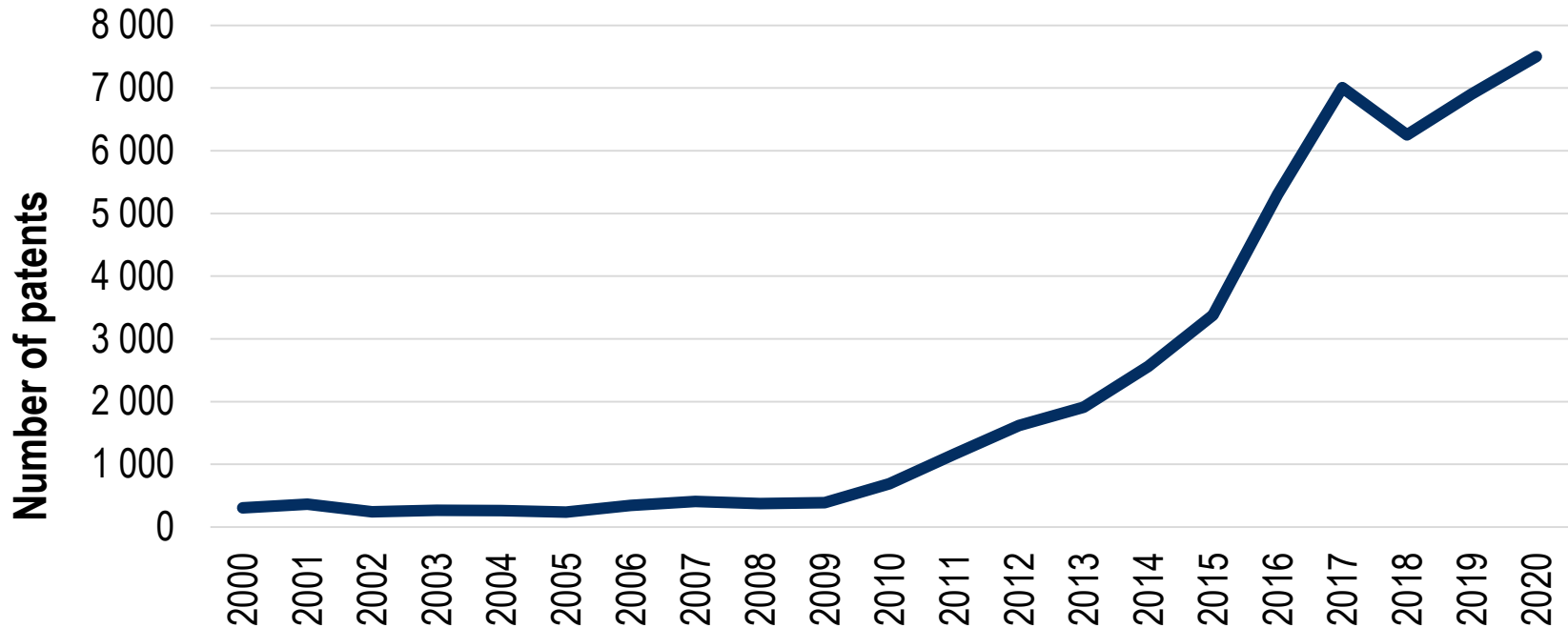
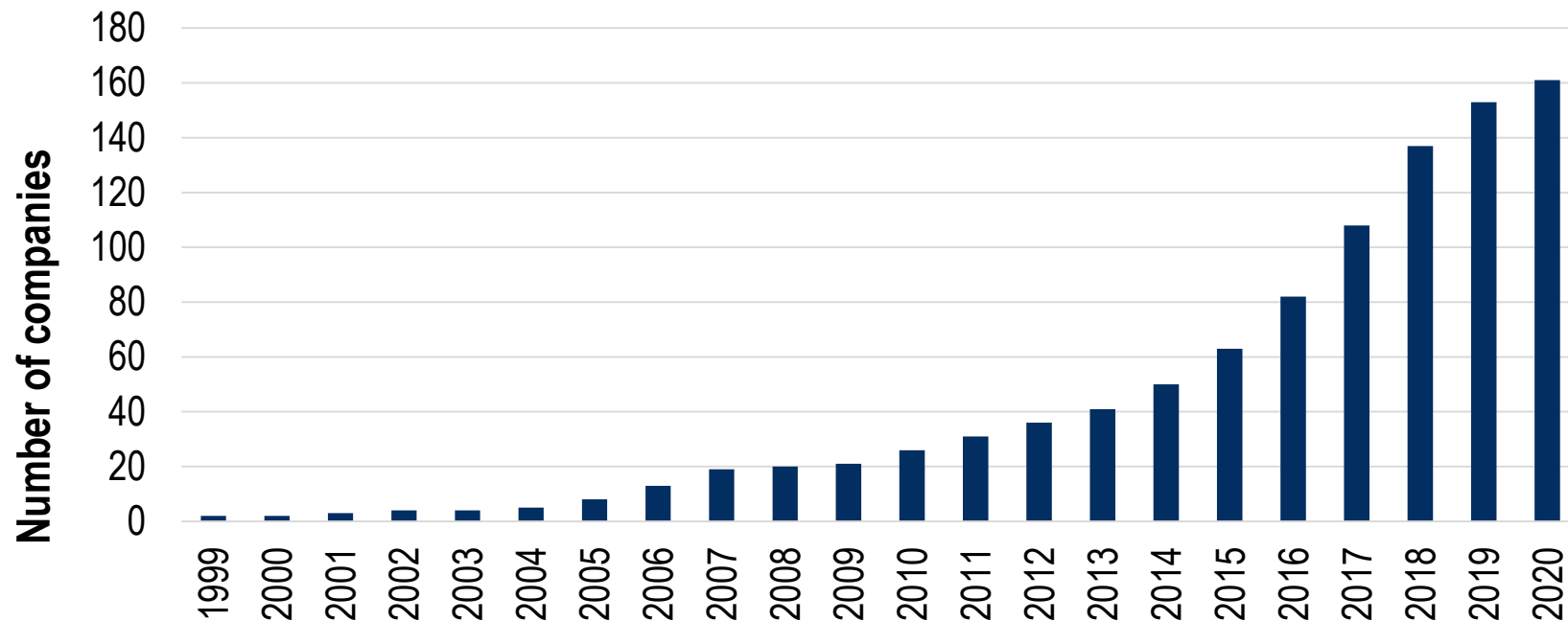Figure 5.9

Forever young: Augmented humanity

Cumulative number of ageing biotech companies, 1999-2020

Source: AgingBiotech (2021), *Aging companies dataset*, https://agingbiotech.info/companies/.

Figure 5.8

And the future?

Not all trends are created equal

Will the pandemic further accelerate open science trends?

ACCELERATE

Increased funding, open access and data, and fast-track publication accelerated COVID-19-related scientific production. Over three in four of all COVID-19 publications are open access.

COVID-19 biomedical and life sciences research publications, 2020
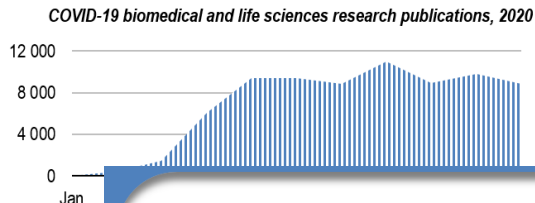
Crises disproportionately affect the most vulnerable. Will we be more resilient for the next one?

BEND

The pandemic interrupted more than two decades of continuous progress in poverty reduction. While extreme poverty is once again declining, almost 100 million more people were pushed into poverty in 2020.

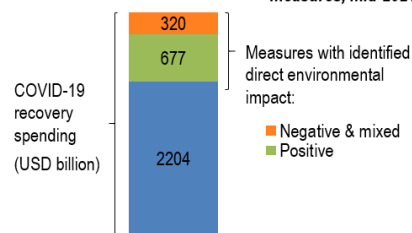*Global extreme poverty, millions of people, 2015-2021*

Historical

Pre-COVID-19 projection

COVID-19 projection
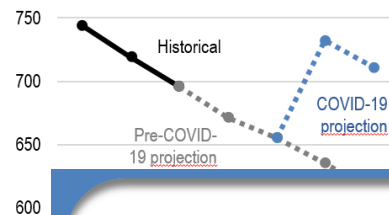
As the economy recovers, will it break with an unsustainable model?

BREAK

OECD and key partner countries deployed unprecedented economic recovery packages. Despite the urgency of action on climate, about one in three measures with direct environmental impact are expected to have negative or mixed effects.

Estimated environmental impact of COVID-19 recovery measures, mid-2021

COVID-19 recovery spending (USD billion)

Measures with identified direct environmental impact:

Negative & mixed
Positive

OECD (2021), https://www.oecd.org/coronavirus/

Future scenarios for schools by Trends Shaping Education

Schooling extended

Participation in formal education continues to expand. International collaboration and technological advances support more individualised learning. The structures and processes of schooling remain.

Education outsourced

Traditional schooling systems break down as society becomes more directly involved in educating its citizens. Learning takes place through more diverse, privatised and flexible arrangements, with digital technology a key driver.

Schools as learning hubs

Schools remain, but diversity and experimentation have become the norm. Opening the "school walls" connects schools to their communities, favoring ever-changing forms of learning, civic engagement and social innovation.

Learn-as-you-go

Education takes place everywhere, anytime. Distinctions between formal and informal learning are no longer valid as society turns itself entirely to the power of the machine.

The future will suprise us

- Education needs to respond to the needs of changing societies
  - ♦ Lifelong learning
  - ♦ Equity
  - ♦ Digitalisation
- How do we ensure that the education systems remain relevant for the society?
  - ♦ Going beyond academic learning
  - ♦ Informal and non formal learning

EDUCATION & SKILLS

Thank you