EDUCATION & SKILLS

« Trends Shaping Education » and scenarios for future schools

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OECD
BETTER POLICIES FOR BETTER LIVES

The future will surprise us – but we should still prepare for it

- Centre for Educational Research and Innovation (CERI)
- Tasked to do foresight, innovation and research
- Drawing on selected projects
  - Trends Shaping Education
    - School scenario work
  - New Professionalism and Future of Teaching

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

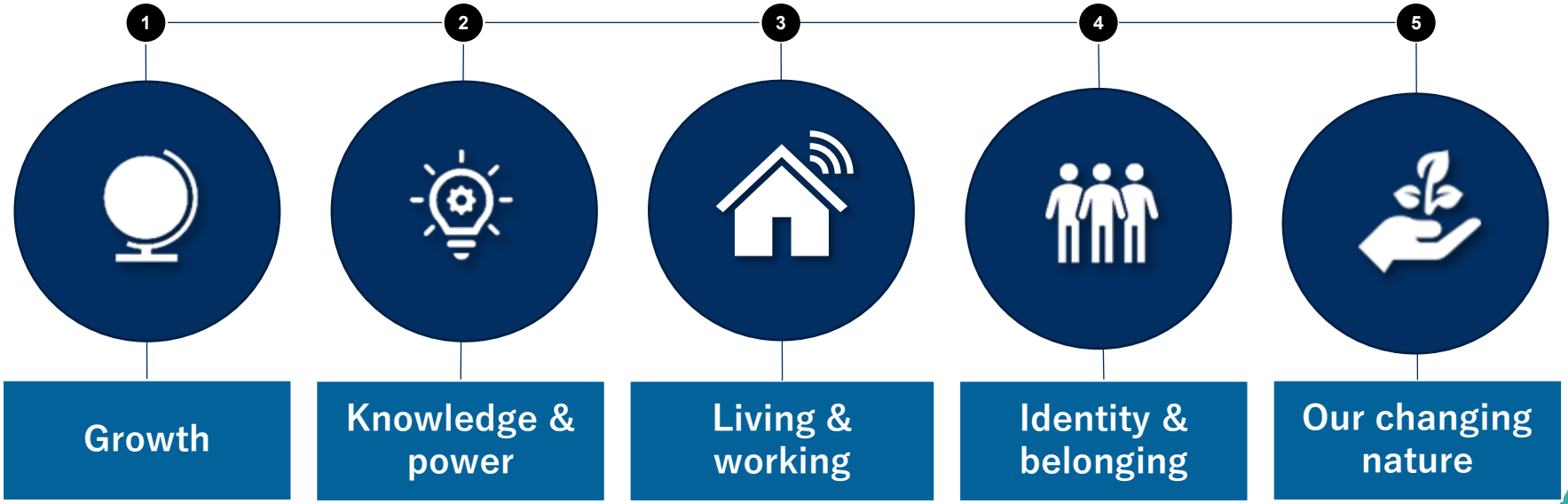
Educational practitioners

- Futures thinking, global mega-trends

Students

- Tool in classrooms, strategic thinking for associations

Five thematic chapters:



Growth

Growing prosperity
How does increasing affluence affect inequalities?

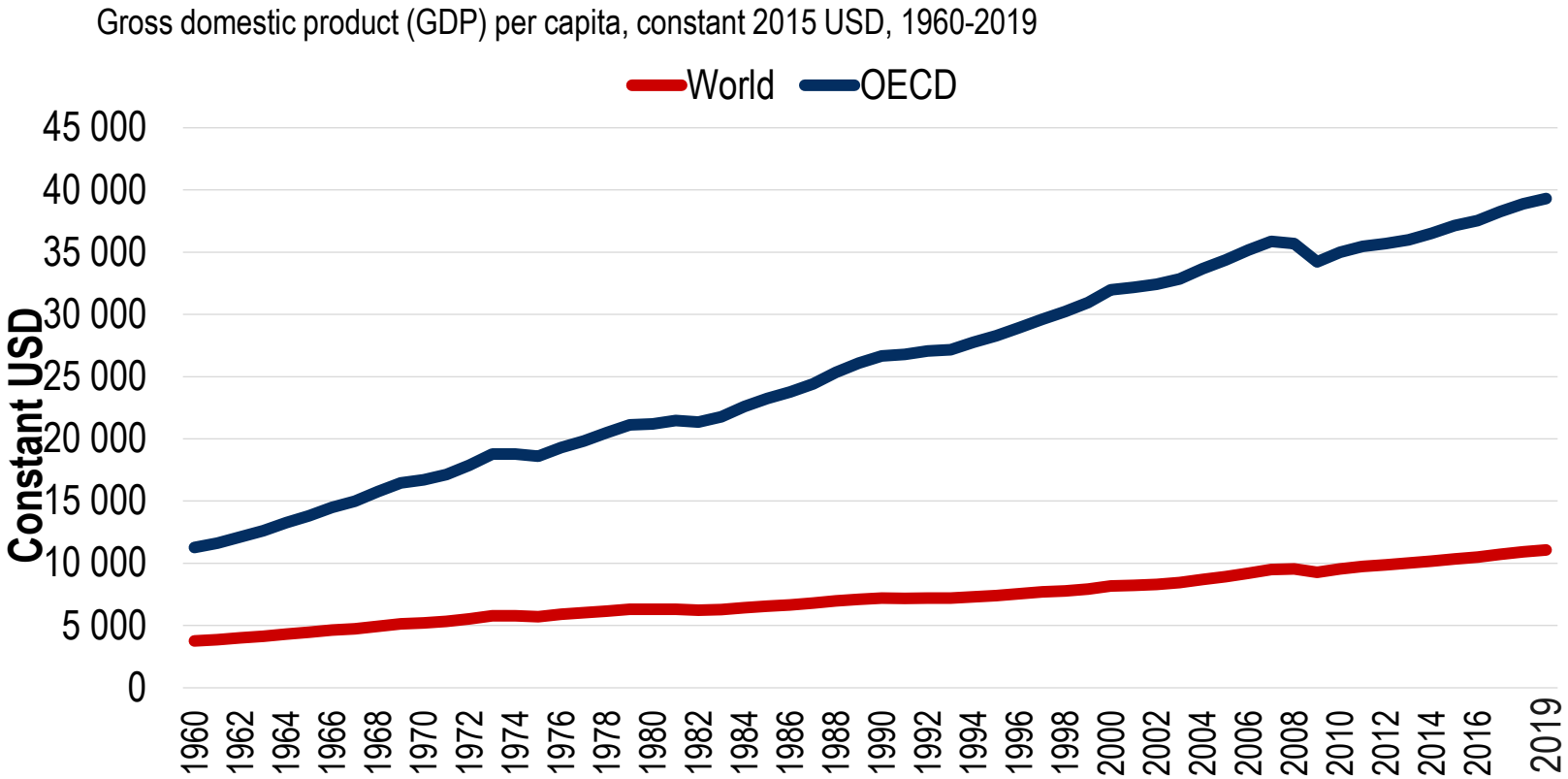
A new source of growth
In which ways are intangible assets driving innovation and productivity?

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?

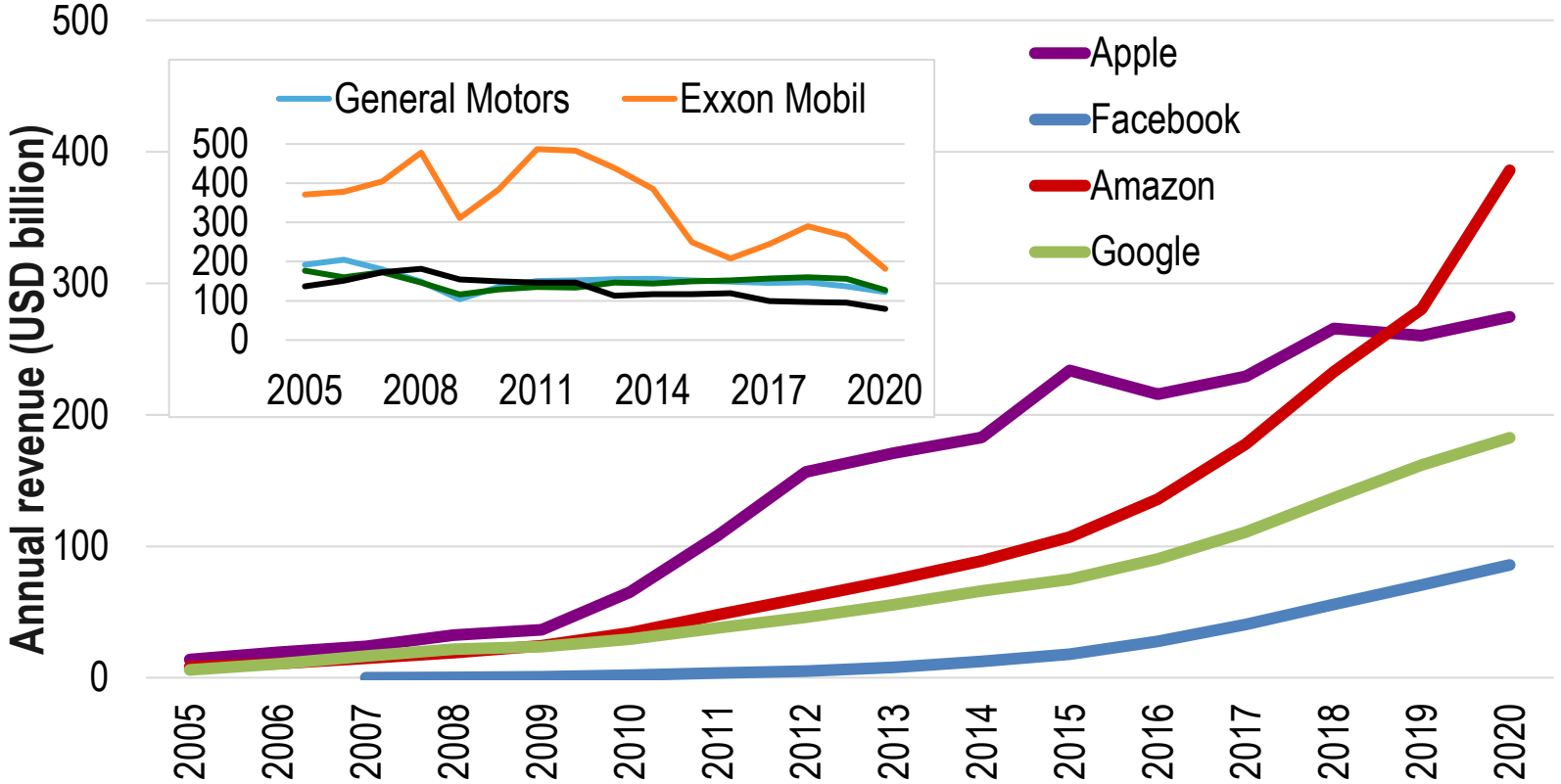
Increasing affluence



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 and power

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?

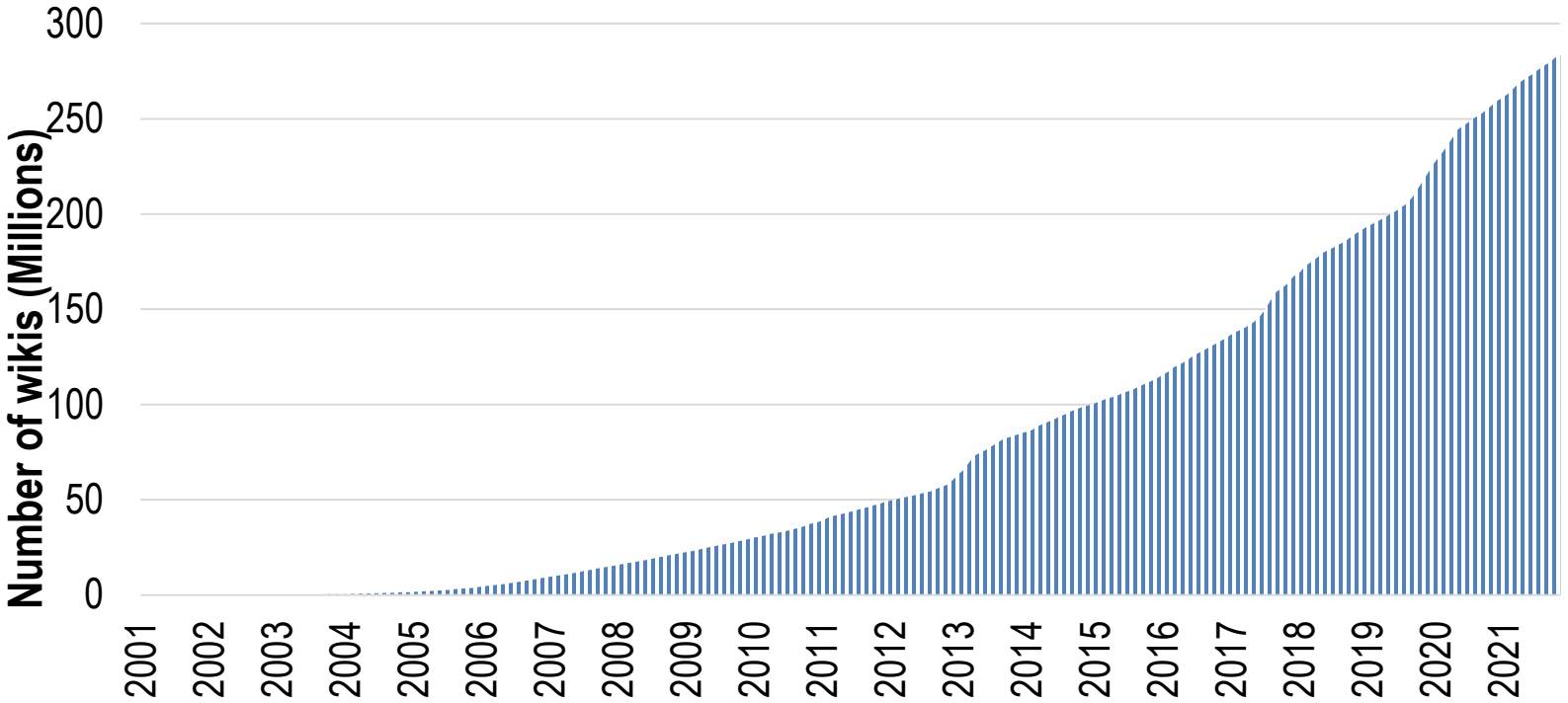
Opening up science
How are digital technologies changing scientific practices?

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

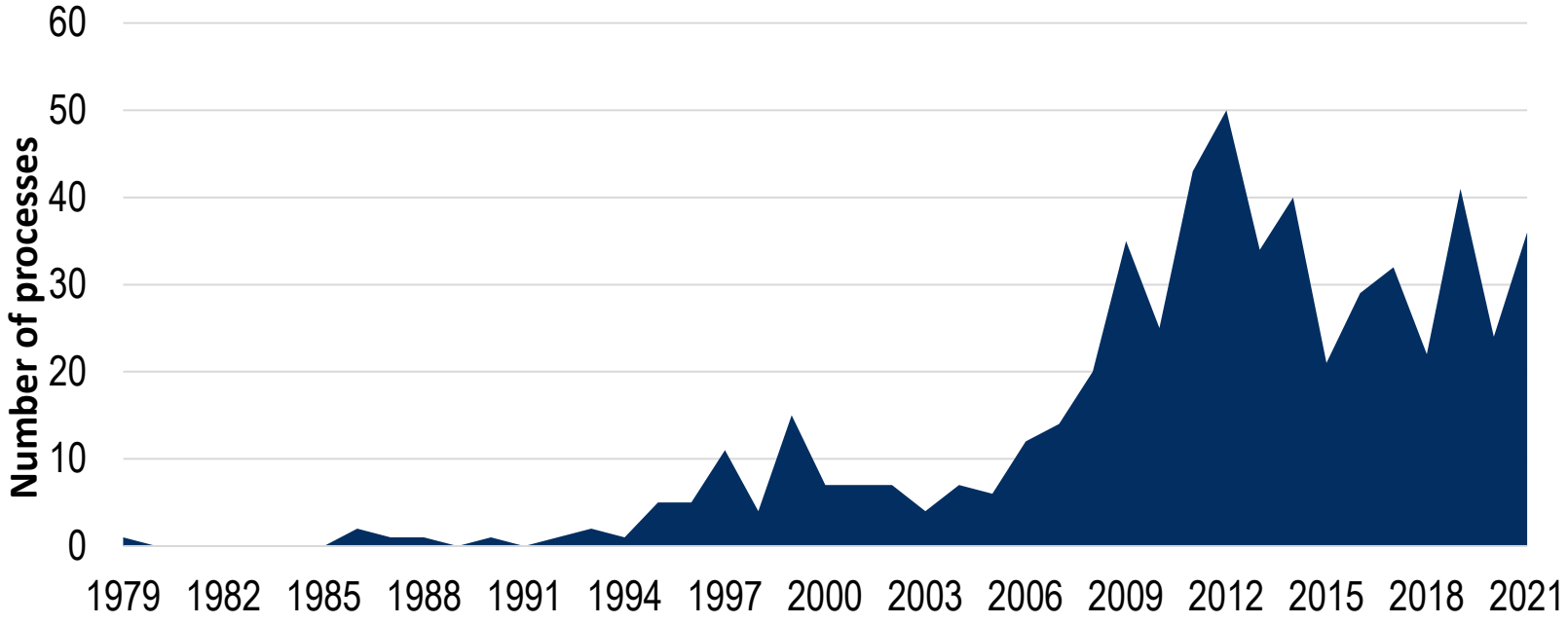


Source: Wikimedia (2021), Pages to Date, All Wikis, https://stats.wikimedia.org/

Figure 3.2

A wave of deliberative politics

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



Source: OECD (2021), OECD Database of Representative Deliberative Processes and Institutions (database), https://airtable.com/.

Figure 3.10

Living and working

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?

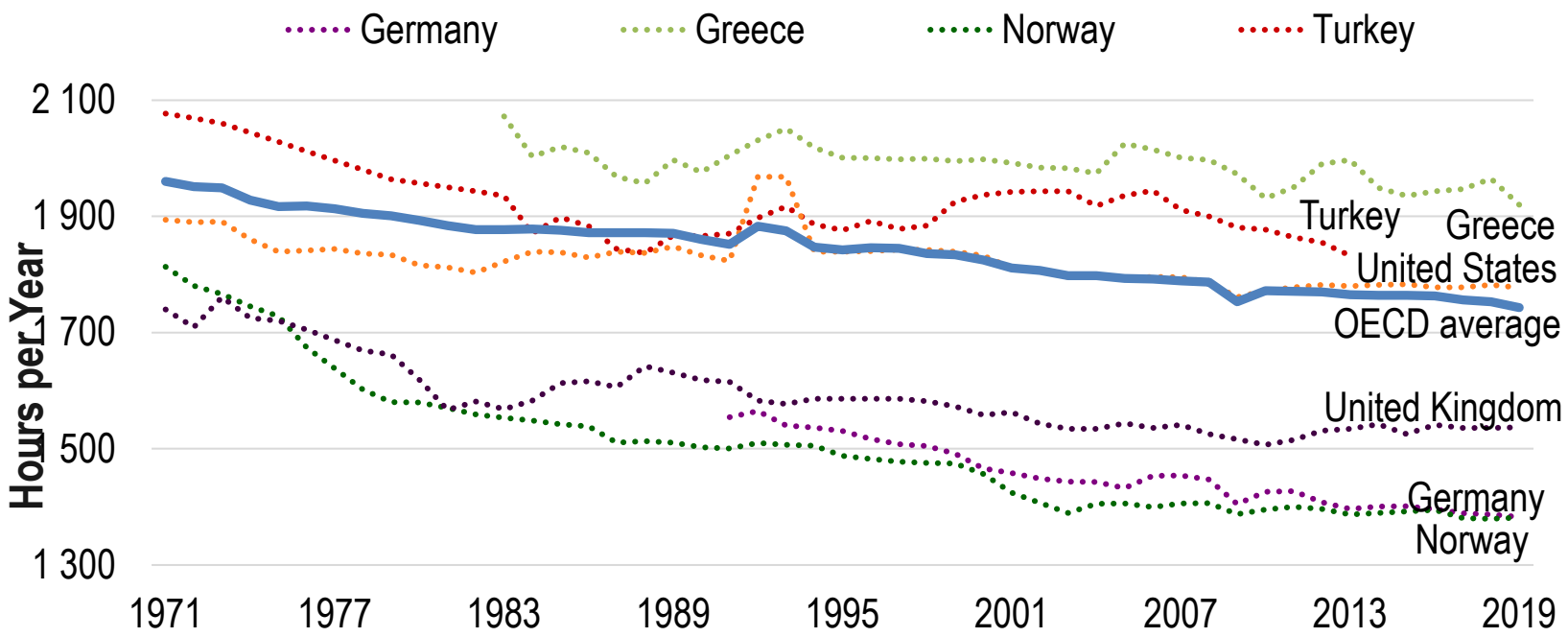
The quantification of life
To what extent is digital tracking affecting our lives and relationships?

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

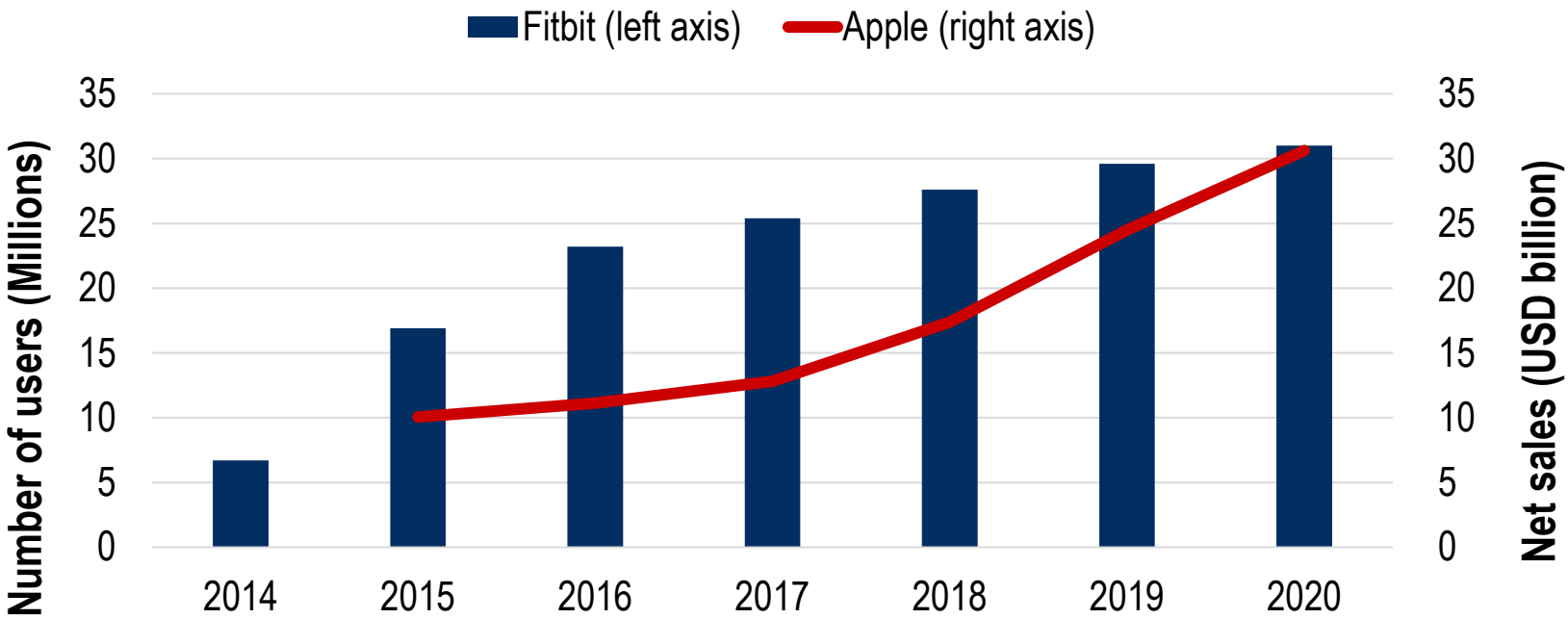


Source: OECD (2021), *OECD Labour Force Statistics* (database), https://stats.oecd.org/

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)



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?

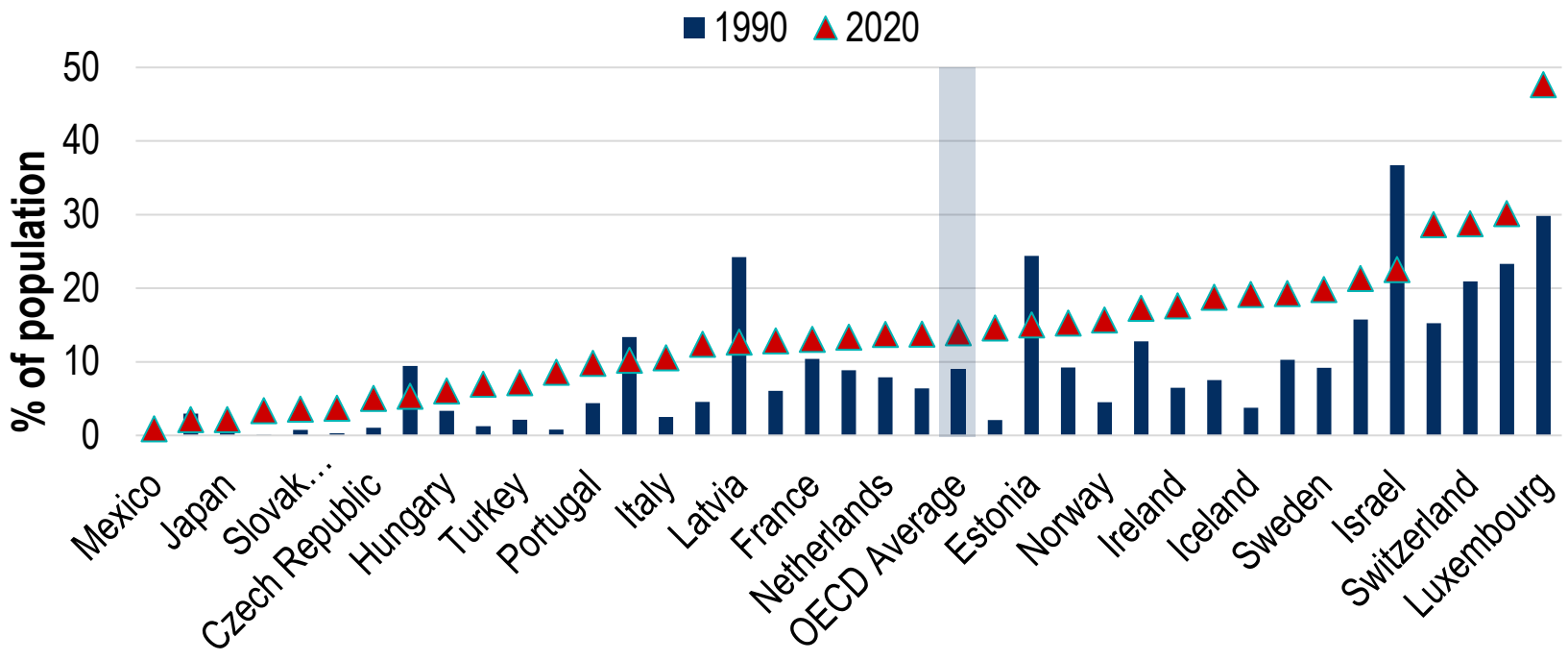
Speak your mind
How are the interests, behaviours and demands of citizens changing?

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

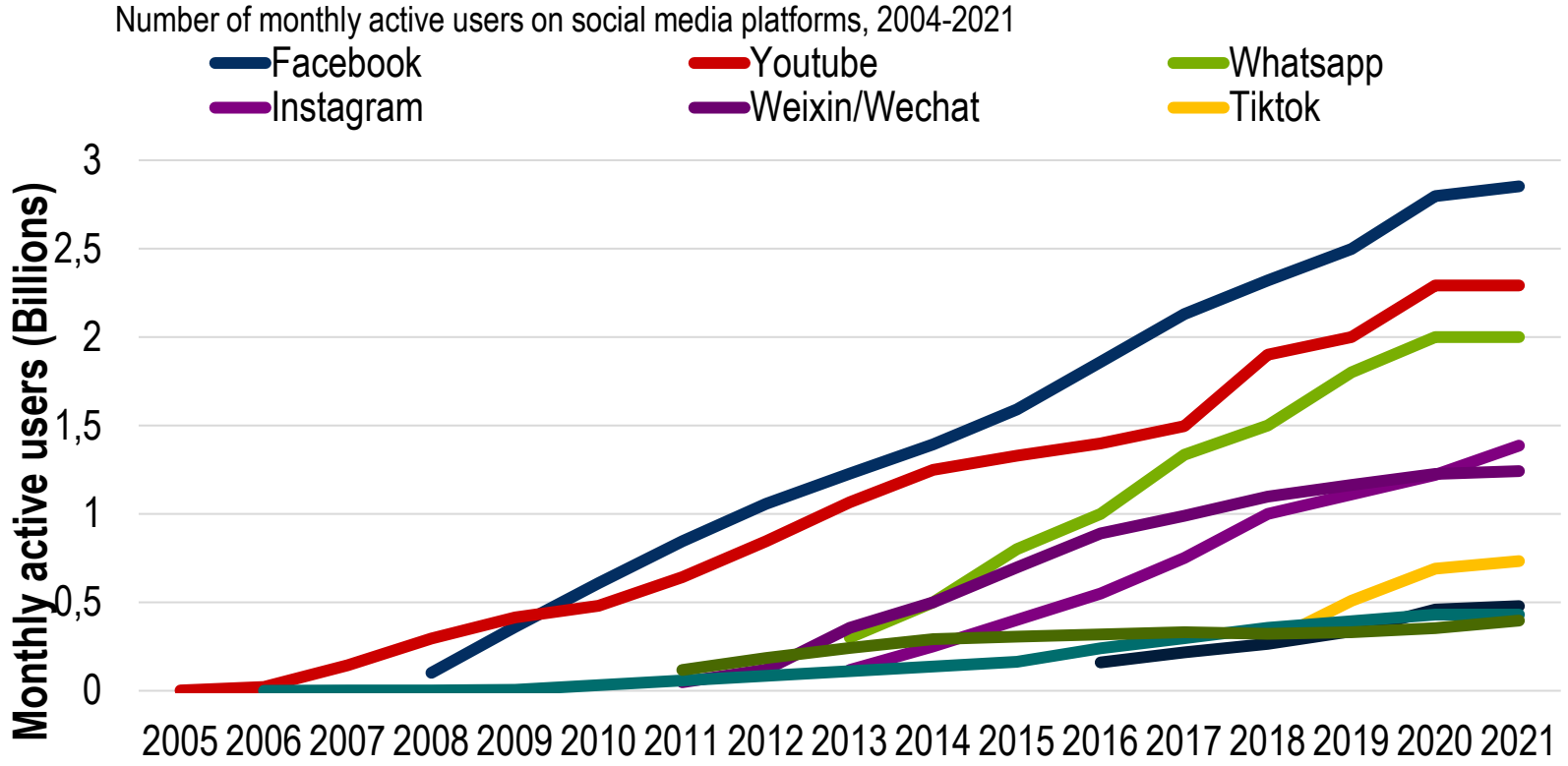
International migrant stock by country of destination, OECD countries, 1990-2020



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

Figure 4.3

Multiple identities



Source: OECD calculations from companies' annual reports; Ortiz-Espina (18 September 2019), https://ourworldindata.org//; Iqbal (13 May 2021), https://www.businessofapps.com/; Sherman (24 August 2020), https://www.cnbc.com/; Statista (2021), https://www.statista.com/.

Our changing nature

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?

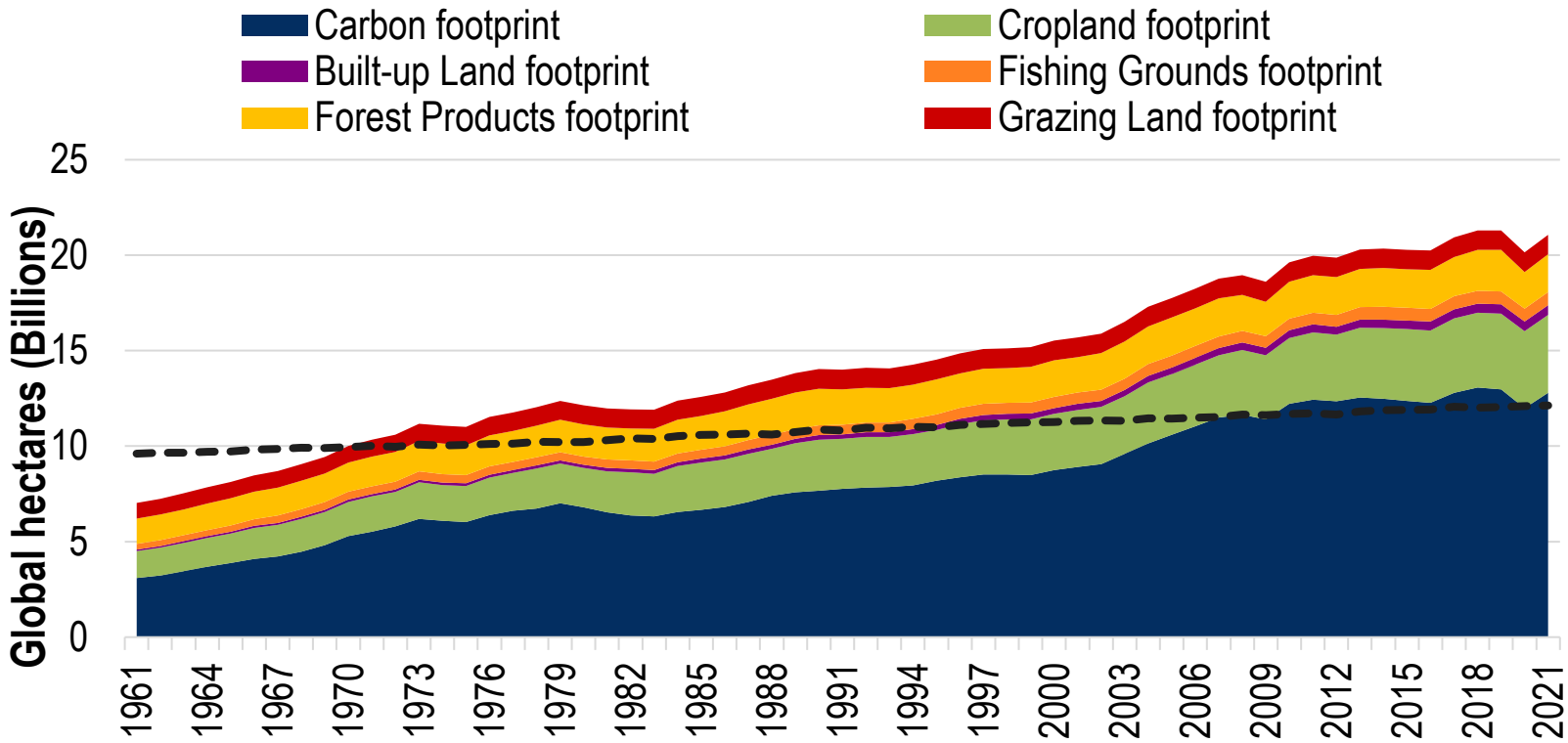
Food for thought
How is food production and consumption affecting our well-being?

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

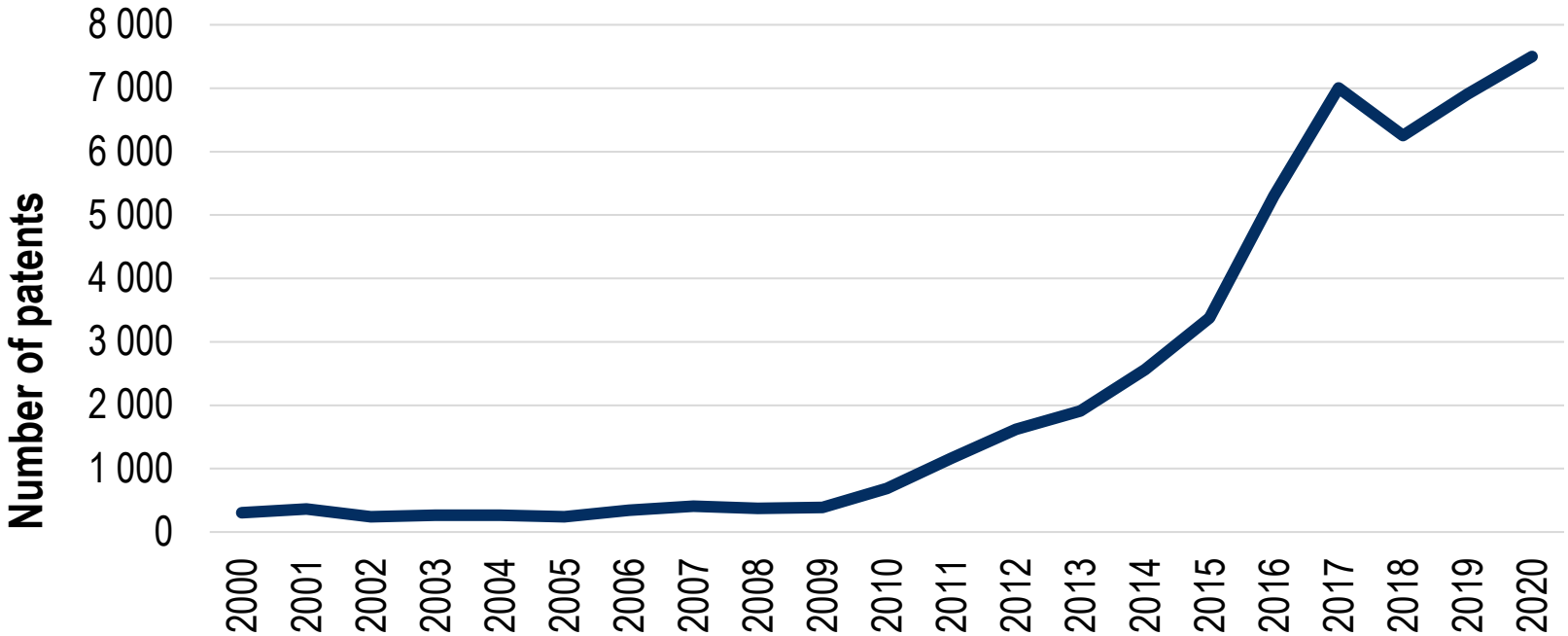


Source: Global Footprint Network (2021), *National Footprint and Biocapacity Accounts*, https://data.footprintnetwork.org; Lin, Wambersie and Wackernagel (2021), "Estimating the Date of Earth Overshoot Day 2021", https://www.overshootday.org/

Figure 5.1

Where the (virtual) wild things are

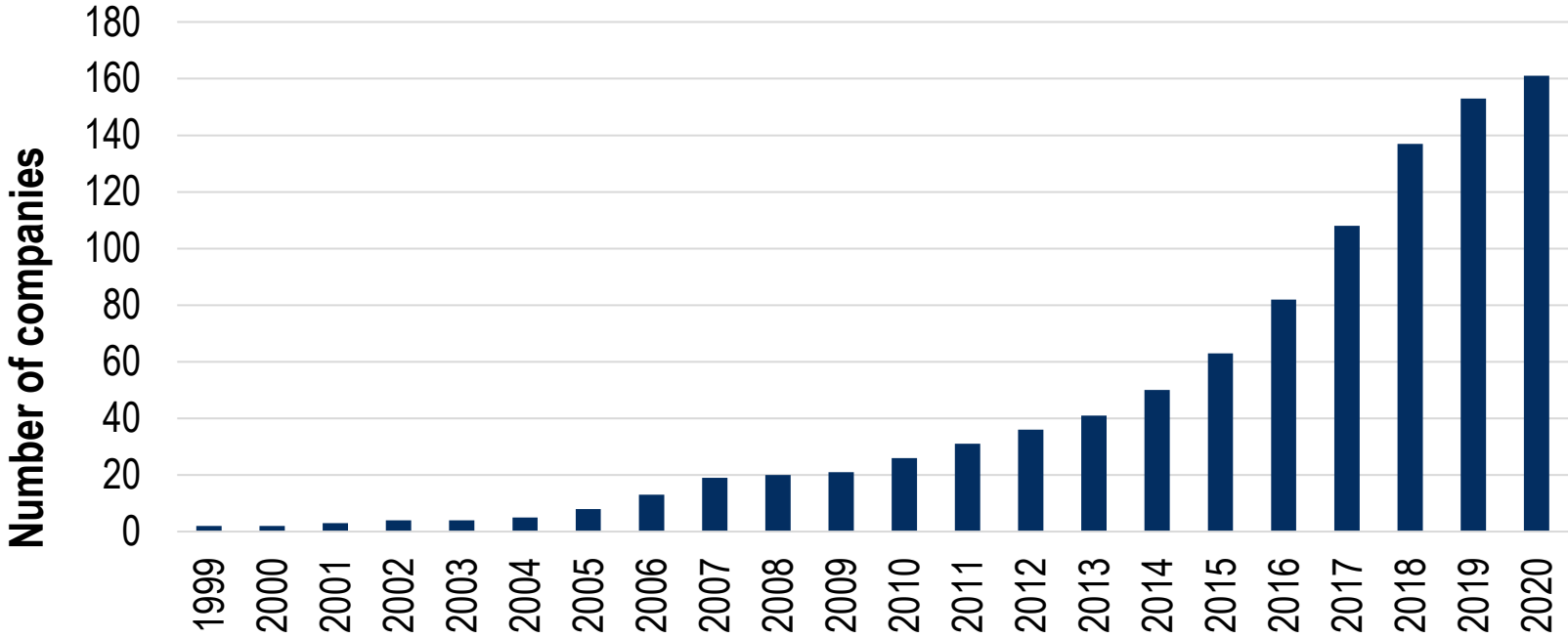
Global number of new patents/applications related to AR/VR in gaming, 2000–2020



Source: MaxVal Group, Inc. (19 August 2020), “Tracking Influential Augmented and Virtual Reality Patents In Gaming”, https://www.maxval.com/.

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?

ACCELERATE

Will the pandemic further accelerate open science trends?

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.

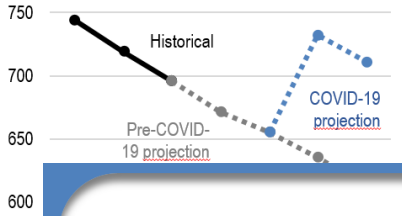
COVID-19 biomedical and life sciences research publications, 2020

BEND

Crises disproportionately affect the most vulnerable. Will we be more resilient for the next one?

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

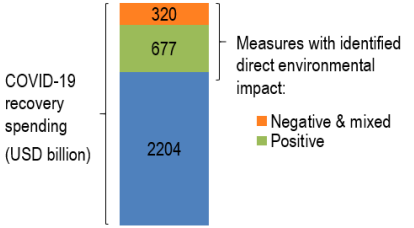


BREAK

As the economy recovers, will it break with an unsustainable model?

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.

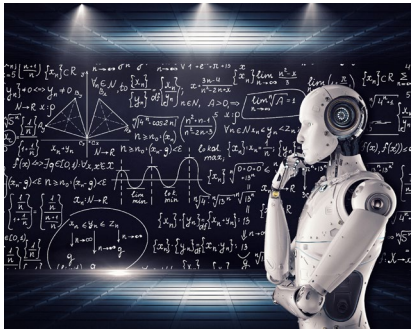
Estimated environmental impact of COVID-19 recovery measures, mid-2021



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

Not all trends are created equal

Examples of Covid-19 crisis impact on trends in education



- Huge digital leap made
  - Important to « not go **back** to normal »
  - Case of Ukraine
- Going beyond academic learning
  - Re-defining student experience
  - Ensuring equity & inclusion
- Teacher shortages more common

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

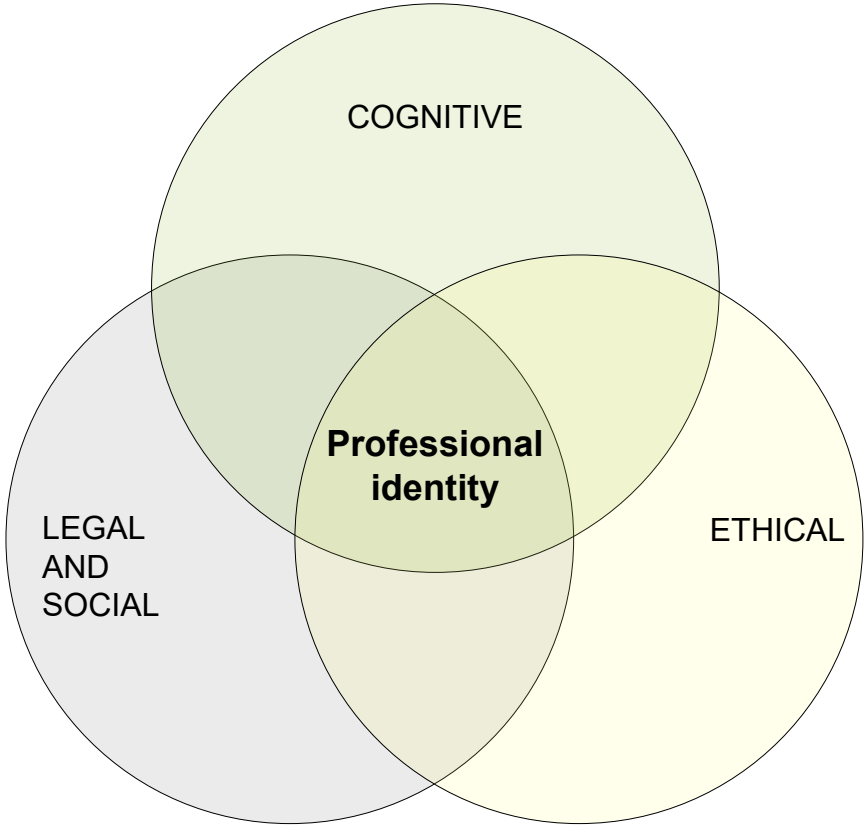
Schools remain, but diversity and experimentation have become the norm. Opening the "school walls" connects schools to their communities, favoring ever-changing forms of learning, civic engagement and social innovation.

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.

OECD Scenarios for the Future of Schooling	Goals and functions	Organisation and structures	The teaching workforce	Governance and geopolitics	Challenges for public authorities
Scenario 1  **Schooling extended**	Schools are key actors in socialisation, qualification, care and credentialing.	Educational monopolies retain all traditional functions of schooling systems.	Teachers in monopolies, with potential new economies of scale and division of tasks.	Strong role for traditional administration and emphasis on international collaboration.	Accommodating diversity and ensuring quality across a common system. Potential trade-off between consensus and innovation.
Scenario 2  **Education outsourced**	Fragmentation of demand with self-reliant “clients” looking for flexible services.	Diversification of structures: multiple organisational forms available to individuals.	Diversity of roles and status operating within and outside of schools.	Schooling systems as players in a wider (local, national, global) education market.	Supporting access and quality, fixing “market failures”. Competing with other providers and ensuring information flows.
Scenario 3  **Schools as learning hubs**	Flexible schooling arrangements permit greater personalisation and community involvement.	Schools as hubs function to organise multiple configurations of local-global resources.	Professional teachers as nodes of wider networks of flexible expertise.	Strong focus on local decisions. Self-organising units in diverse partnerships.	Diverse interests and power dynamics; potential conflict between local and systemic goals. Large variation in local capacity.
Scenario 4  **Learn-as-you-go**	Traditional goals and functions of schooling are overwritten by technology.	Dismantling of schooling as a social institution.	Open market of “prosumers” with a central role for communities of practice (local, national, global).	(Global) governance of data and digital technologies becomes key.	Potential for high interventionism (state, corporate) impacts democratic control and individual rights. Risk of high social fragmentation.

Professional identity is at the heart of new teacher professionalism

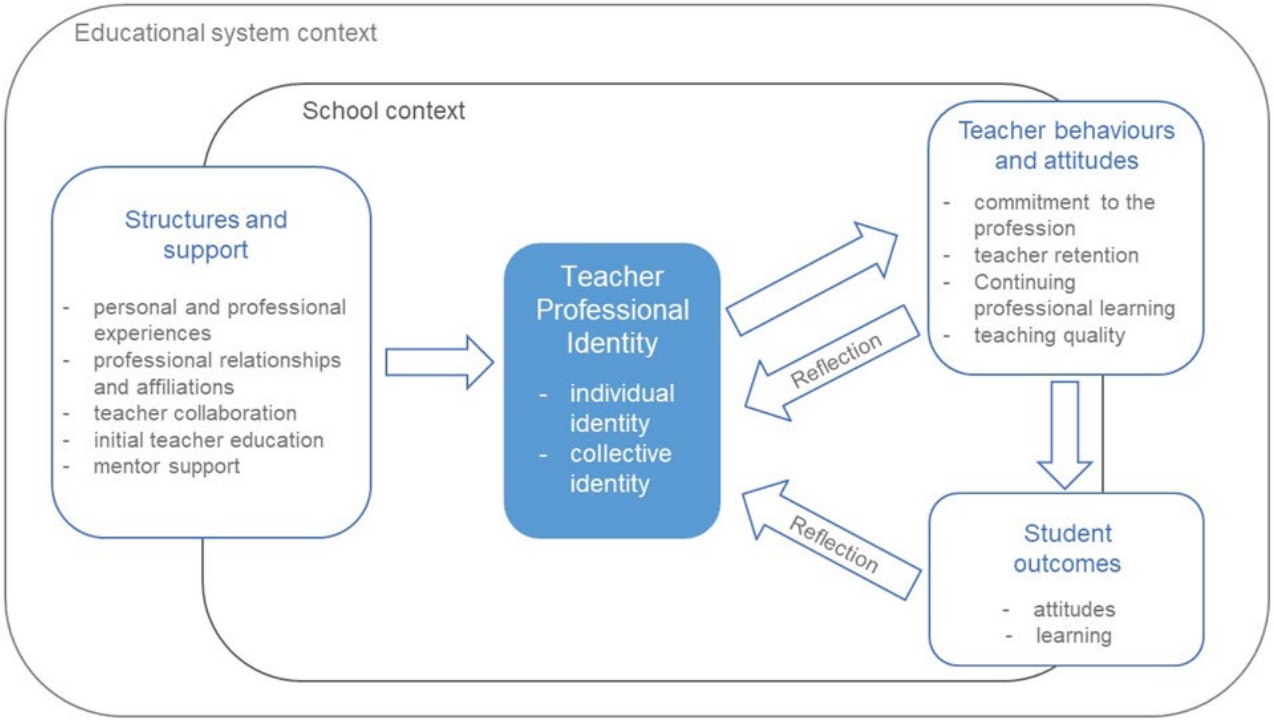


Developing a strong understanding of Teacher Professional Identity can empower teacher practice and has the potential to play a fundamental role for:

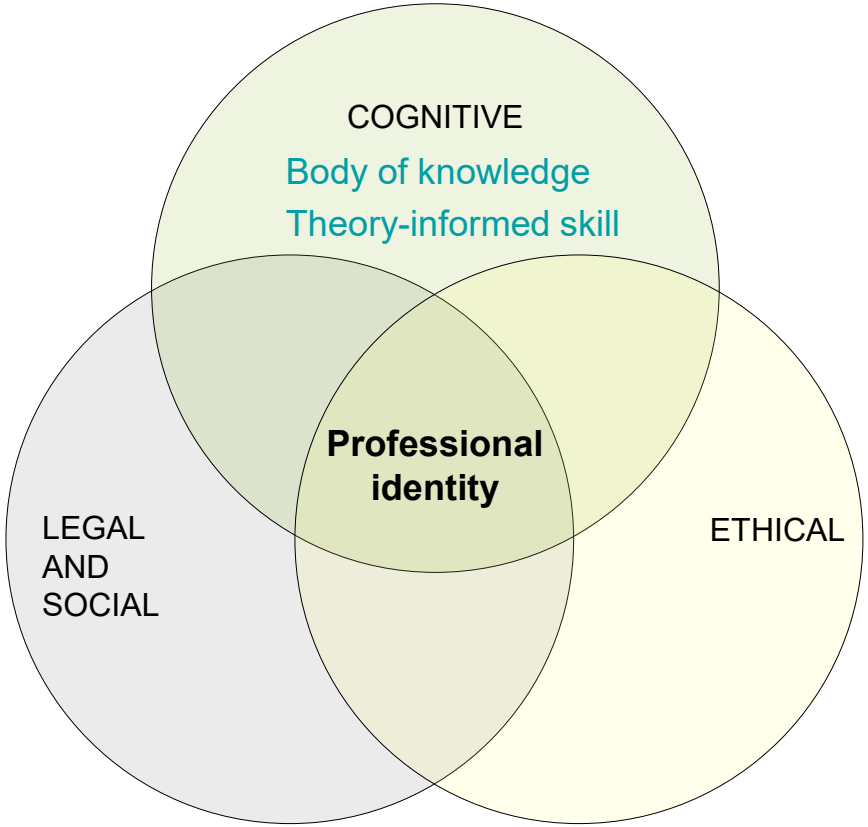
- quality of teaching
- influence on students' performance and attitudes
- professional development
- a successful long-term career
- alignment between policy change ideas and practice

Individual and collective professional identity are influenced by school and system factors

Based on a scan and examination of the research and OECD data, the **Teacher professional identity development and outcome model** illustrates implications for practice, policy and research



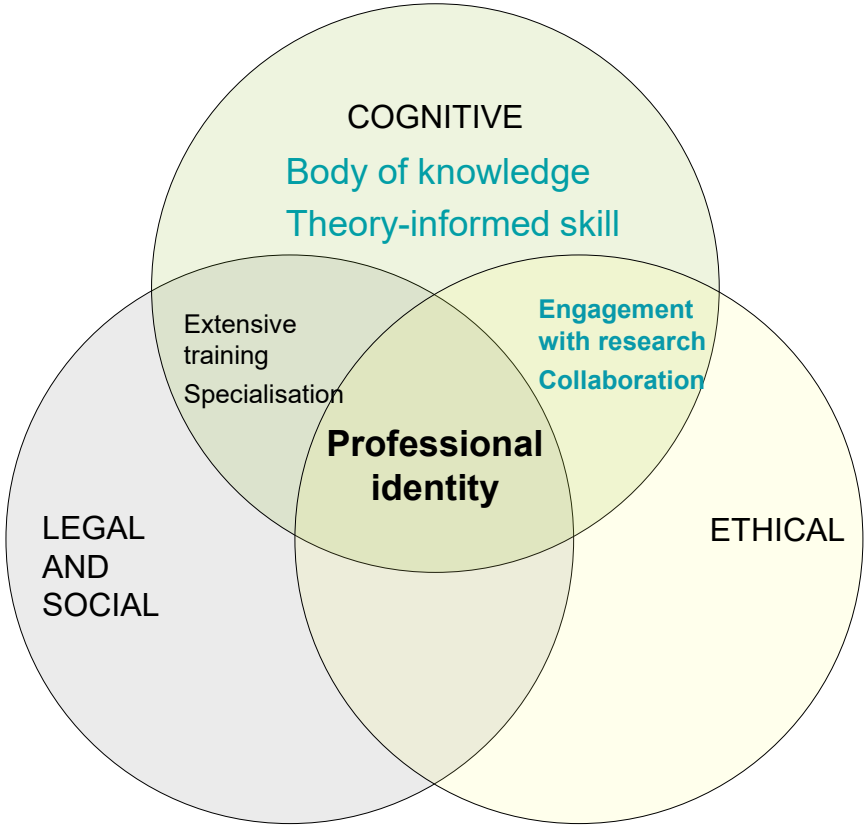
Pedagogical knowledge is a pillar of professionalism



The profession needs a solid and updated knowledge base, among other, to ensure:

- Innovative teaching methods and pedagogies
- Effective use of digital technologies
- An inclusive and equitable learning experience

Updating pedagogical knowledge, through research, practice and participation in professional communities, is a crucial aspect of professionalism



In turn, teachers integrate this knowledge into everyday practice.

- As new knowledge emerges professionals update their practice.
- Collaborating in professional communities is an effective way to share and update knowledge.

Practice-based knowledge can help overcome the theory-practice gap and is a driver of **'connective professionalism'**

To conclude

- Education needs to respond to the needs of changing society
- The future of schools?
- The future of teacher identity and professionalism?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Thank you