



OECD WORK ON

# EDUCATION & SKILLS





### *Message from the Secretary-General*

The challenges faced by 21st-century economies and societies are daunting: addressing the human and social consequences of an international financial crisis, meeting development goals, encouraging green growth, and responding to climate change, ageing societies and the knowledge economy.

Education is a critical part of any response.

Knowledge increases both wealth and well-being: university graduates in most countries earn more.

Our research shows that people who complete upper secondary education are much more likely to report good health than those who do not. Yet education systems need to do a much better job in providing equitable education opportunities – starting in early childhood, and continuing throughout life. They need to equip people with knowledge, skills and tools to stay competitive and engaged.

Education is an investment in the future. Our work on education aims to make that investment strong, effective and fair.

Angel Gurría  
*OECD Secretary-General*



# Foreword

The OECD Directorate for Education and Skills helps individuals and nations identify and develop the knowledge and skills that drive better lives and better jobs, generate prosperity and promote social inclusion. We encourage countries to compare their experiences and learn from each other, and we accompany them in the difficult process of policy implementation.

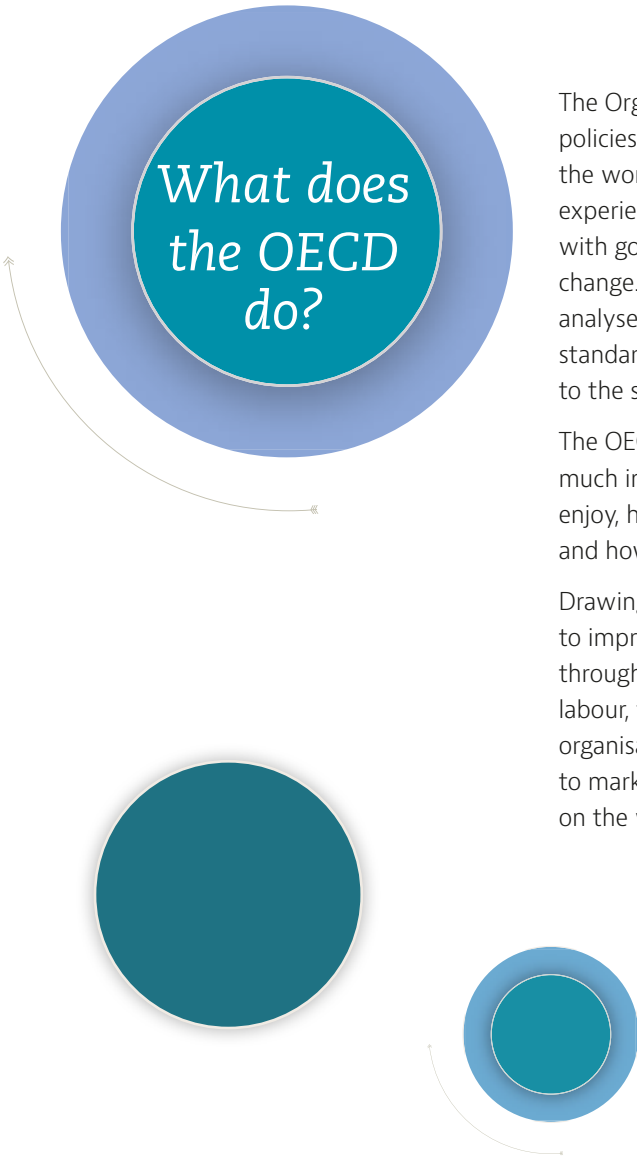
Our global metrics help countries see what is possible in education and set meaningful aspirations in terms of measurable goals achieved by the world's education leaders. Our PISA surveys show how much school systems vary in their progress towards equipping learners with the critical thinking and creative problem-solving skills that are so crucial at a time when the kinds of things that are easy to teach and easy to test are also easiest to digitise, automate and outsource. Through TALIS, we seek to strengthen the teaching profession and to devise more innovative learning environments with the 21st-century pedagogies that will shape 21st-century learners. Our Survey of Adult Skills (PIAAC) shows how the skills of adults match what life and work expect from them.

Our aspiration is to help every learner, every parent, every teacher and every policy maker see that only the sky is the limit to improving education – and that improving education is the key to a better and fairer society.

*Andreas Schleicher*

**Andreas Schleicher**

*Director for Education and Skills, and Special Advisor  
on Education Policy to the Secretary-General*



## What does the OECD do?

The Organisation for Economic Co-operation and Development (OECD) promotes policies to improve the economic and social well-being of people around the world. It provides a forum in which governments can work together to share experiences and seek solutions to common problems. The organisation works with governments to understand what drives economic, social and environmental change. It measures productivity and global flows of trade and investment, analyses and compares data to predict future trends, and sets international standards on a wide range of activities and products, from agriculture and tax to the safety of chemicals.

The OECD also looks at issues that directly affect people's daily lives, like how much individuals pay in taxes and social security, how much leisure time they enjoy, how well school systems are preparing their young people for modern life, and how pension systems will look after citizens in their old age.

Drawing on facts and real-life experience, the OECD recommends policies designed to improve the quality of people's lives. The organisation works with business, through the Business and Industry Advisory Committee to the OECD, with labour, through the Trade Union Advisory Committee, and with other civil society organisations. The common thread of the OECD's work is a shared commitment to market economies that are backed by democratic institutions and focused on the well-being of all citizens.



Who  
are our  
partners?

The OECD develops analysis and best practices together with its 36 member countries and with over 50 partner countries and economies. The Directorate for Education and Skills helps countries answer important questions facing education policy makers and practitioners alike: how to identify and develop the right skills and turn them into better jobs and better lives; how best to allocate resources in education to support social and economic development; and how to offer everyone the chance to make the most of their abilities at every age and stage of life.

We also work with other international organisations, such as the European Commission, UNESCO, the World Bank, UNICEF, leading NGOs, social entrepreneurs and the private sector.



How  
are we  
governed?

The work of the Directorate for Education and Skills is overseen by four bodies, each with its own mandate, membership, and programme of work and budget, to help deliver work under the overall governance of the OECD Council: the Education Policy Committee, which also provides strategic oversight of our work; the Centre for Educational Research and Innovation Governing Board (CERI); the Programme for International Student Assessment Governing Board (PISA); and the Programme for Teaching and Learning International Survey Governing Board (TALIS). The Board of Participating Countries for the Programme for the International Assessment of Adult Competencies (PIAAC) is overseen by both the Education Policy Committee and the Employment, Labour and Social Affairs Committee.

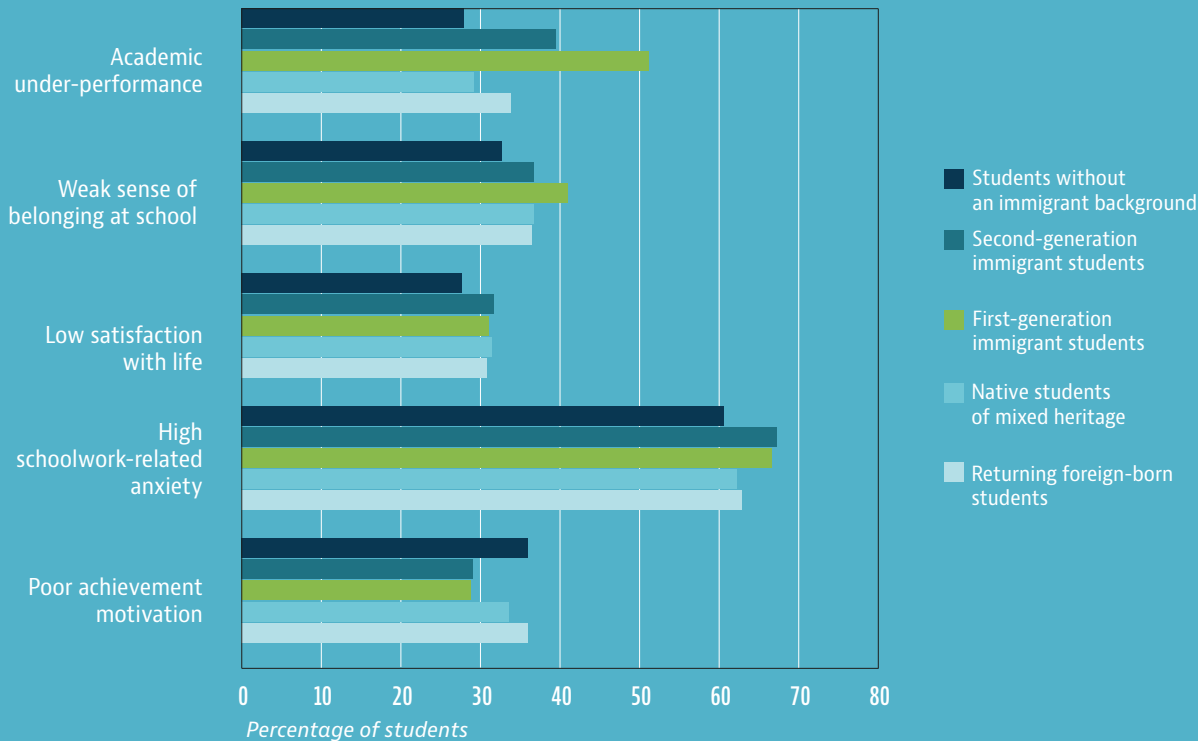
# Education and Skills at the OECD

Building on the priorities formulated by the Secretary-General of the OECD, the Directorate for Education and Skills focuses on three main objectives:

- Assist OECD and partner economies in planning and managing their education systems, and in implementing reforms, so that their citizens can develop the knowledge, skills, attitudes and values they need throughout life
- Ensure that learners understand their own learning needs, and have the opportunity and means to choose paths that help them develop
- Ensure that educators have the knowledge and skills to improve their practices and have a positive impact on learning



# Academic and well-being outcomes, by immigrant background



**Academic under-performance** implies that a student failed to attain at least proficiency Level 2 in all three core PISA subjects: science, reading and mathematics.

**Weak sense of belonging** implies that a student reported that he or she "disagrees" or "strongly disagrees" with the statement "I feel like I belong at school" and "agrees" or "strongly agrees" with the statement "I feel like an outsider at school".

**Low satisfaction with life** implies that a student reported a life satisfaction of 6 or less on a 0-10 scale.

**High schoolwork-related anxiety** implies that a student reported that he or she "agrees" or "strongly agrees" with the statements "I often worry that it will be difficult for me taking a test" and "Even if I am well prepared for a test, I feel very anxious".

**Poor achievement motivation** implies that a student "disagrees" or "strongly disagrees" with the statement "I want to be the best, whatever I do".

**Source:** OECD (2018), *The Resilience of Students with an Immigrant Background*, Figure 1.1.



# Measuring education and skills opportunities and outcomes

## Decisions about education policy should always be based on the best evidence possible.

The triennial **Programme for International Student Assessment (PISA)** studies the extent to which 15-year-old students nearing the end of compulsory education have acquired the key knowledge and skills that are essential for full participation in modern societies. PISA tests students' creative and critical thinking skills and their capacity to apply what they have learned in reading, mathematics, science and 21st-century real-world skills. It gathers information about students' social and emotional skills, their attitudes towards learning and their well-being. It also measures how equitably countries offer education opportunities to their young citizens. The assessment allows countries to compare their education policies and practices with those of the highest-performing and rapidly improving systems in the world, and to learn from the comparisons.

The **Survey of Adult Skills**, a product of the OECD **Programme for the International Assessment of Adult Competencies (PIAAC)**, measures adults' proficiency in the key foundation skills – literacy, numeracy and the ability to solve problems in technology-rich environments – that adults use

in the workplace, at home and in their communities. It also gathers information on the degree to which these skills, as well as socio-emotional skills and interpersonal skills, like communicating and working with others, are actually used, and their relationship with social and economic outcomes. Analysis of data from the Survey of Adult Skills gives participating countries a good indication of the strengths and weaknesses in their workforce – and where their education and training systems have room for improvement.

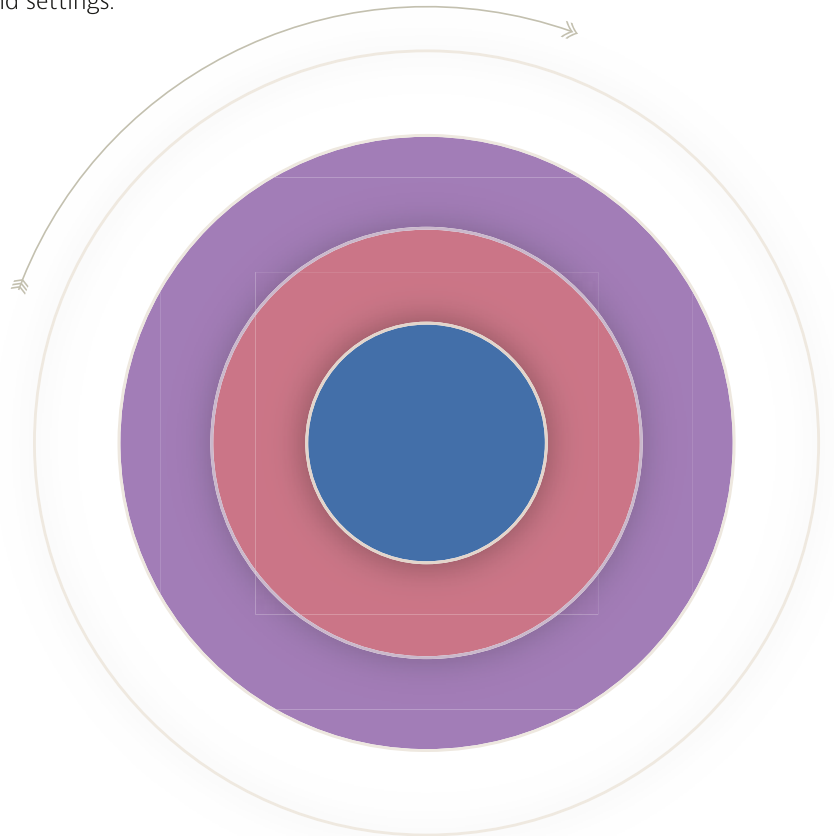
**Education at a Glance: OECD Indicators** offers a snapshot of the state of education in more than 40 countries. This annual compendium of statistics covers the structure, finances and performance of education systems, describes who participates in and benefits from education, and examines the school environment.

Data from **PISA**, **PISA for Development** (see page 21), **PIAAC** and **Education at a Glance** are also used to monitor progress towards achieving some of the targets of the United Nations Sustainable Development Goal for education.

The **International Early Learning and Child Well-Being Study** will provide, for the first time, comparative information on the social, emotional and cognitive development of five-year-olds to assist countries in improving children's well-being and learning.

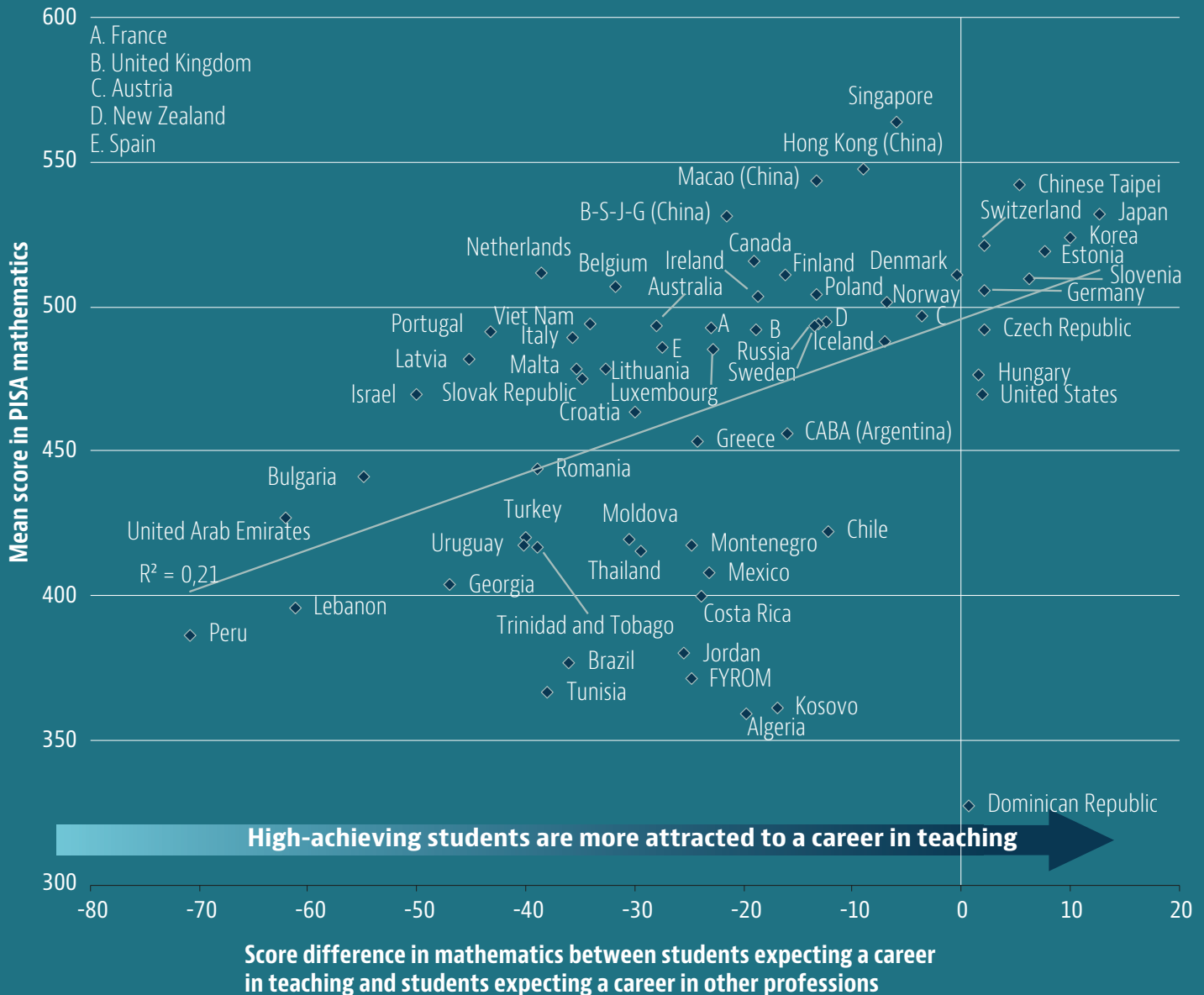
The study will also collect information on the contextual factors, including the child's home background and learning environment, that affect the child's development.

The OECD **Study on Social and Emotional Skills** is a new international survey that assesses 10- and 15-year-old students in a number of cities and countries around the world to identify the conditions and practices that nurture or hinder the development of these critical competencies. The study aims to demonstrate that valid, reliable and comparable information on social and emotional skills can be gathered across diverse populations and settings.





# In which countries are high-achieving students attracted to teaching?



**Notes:** B-S-J-G (China) refers to Beijing-Shanghai-Jiangsu-Guangdong (China); CABA refers to Ciudad Autónoma de Buenos Aires (Argentina); FYROM refers to the Former Yugoslav Republic of Macedonia.

**Source:** OECD (2015), PISA 2015 database; OECD (2015), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, Table I.5.3; Table 4.3.

# Opening the “black box” of learning processes

## An understanding of how students learn and teachers teach is at the core of education policy.

The youngest of our citizens deserve the best possible start in life. Over the past decades, the focus of public spending has shifted from expanding access to affordable early childhood education and care to improving its quality. The policy review, **Quality beyond Regulations in Early Childhood Education and Care (Starting Strong VI)**, aims to help countries better understand how policy can affect the quality of education and care to enhance child development, learning and well-being. This ongoing work will give countries and economies the opportunity to participate in the first international comparative review of process quality and engage in peer-learning activities. In addition, the **Starting Strong Teaching and Learning International Survey** aims to identify the strengths of and opportunities for early childhood learning. It collects data that could be used to re-think the work organisation in early childhood education and care, and improve the quality of the early childhood workforce.

Since the quality of an education system depends largely on the quality of its teaching, the OECD gathers information about today’s teachers with the aim of

helping countries build a high-quality teaching force. The **Teaching and Learning International Survey (TALIS)** examines teachers’ work and attitudes, the learning environment, and the roles of school leaders. TALIS is also examining initial teacher preparation across countries. It is producing a **video study** that aims to go beyond teachers’ self-reports by recording what teaching looks like and measuring its impact on student outcomes. Ultimately, these videos will be compiled into a video library for teachers.

The study **Supporting Teachers’ Professional Learning**, like its precursor, the **Initial Teacher Preparation (ITP)** study, examines the policy environments that support the professional growth of teachers by exploring common challenges, strengths and innovations in participating countries/economies. The study scrutinises policies, research and practice related to initial teacher education, first years in teaching and the continuous professional development of teachers through review visits and a SWOT policy-diagnosis approach.

The new **Teacher Well-being and Quality Teaching Project** explores teachers’ well-being and its links to the quality of education. The project will deliver two complimentary products: a quantitative study exploring the association of school factors with teachers’ well-being, and how well-being is related to student

outcomes; and a qualitative study reviewing national education policy reforms that affect teachers' working conditions.

The **Innovative Teaching for Effective Learning Teacher Knowledge Survey** assesses the strengths and weaknesses of the pedagogical knowledge base and links this to opportunities to learn in initial teacher education and professional development. It also reveals whether teachers are sufficiently prepared for 21st-century teaching, for example, teaching diverse classrooms or using modern pedagogical approaches, including digital skills. It aims to help improve teacher quality and support policies for attracting and retaining a high-quality teaching workforce.

Every year since 2011, OECD and partner countries, and Education International, with the support of the OECD Secretariat, convene an **International Summit on the Teaching Profession** where education ministers, union leaders and other teacher leaders gather to discuss the kinds of policy responses required to improve teaching and learning. Much of the discussion is informed by data and analysis from TALIS and PISA.

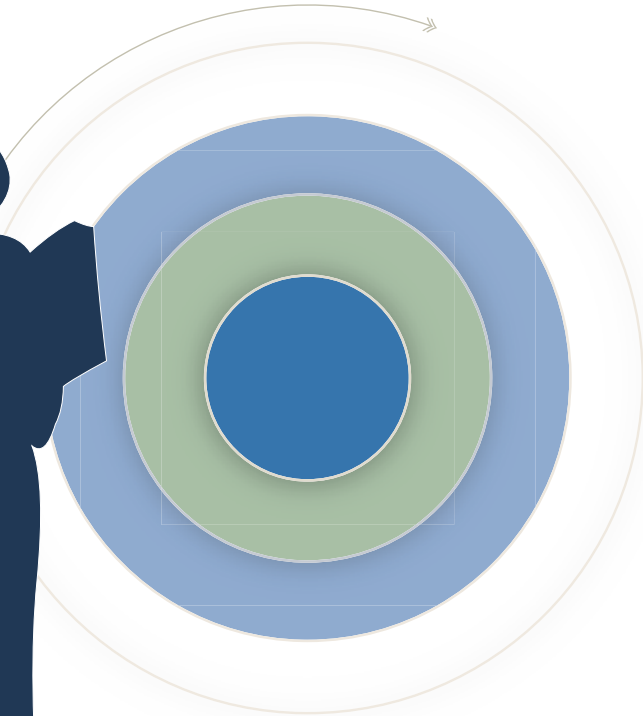
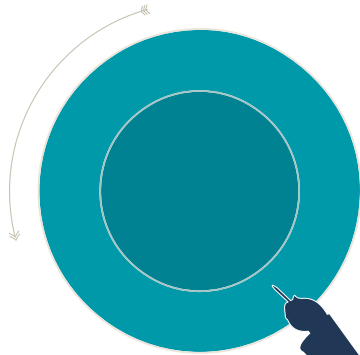
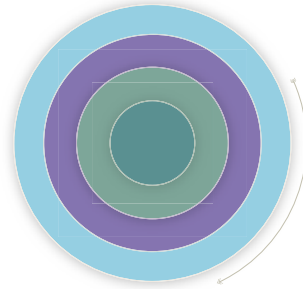
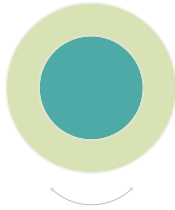
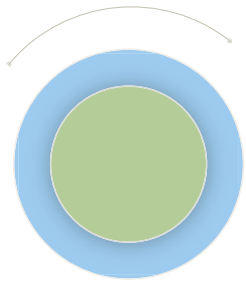
The **PISA-based Test for Schools** is a voluntary assessment that aims to improve student learning opportunities and well-being at school by offering international benchmarking based on a common scale provided by PISA. Like PISA, it measures 15-year-old

students' abilities to think critically, solve problems and communicate effectively in reading, mathematics and science. It also provides information on students' attitudes towards learning, their socio-economic background and their school's learning environment.

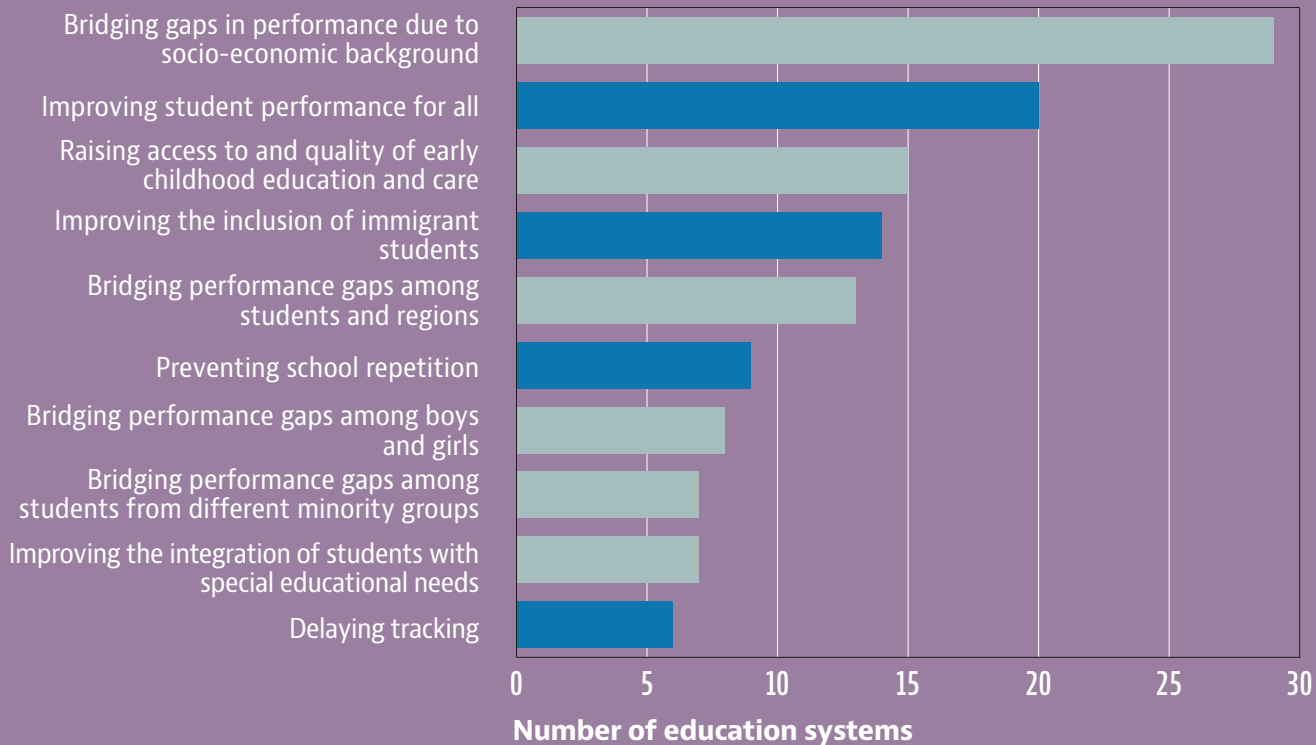
To measure progress towards a core OECD objective, the **Strength through Diversity: Schooling for Inclusive Societies** project aims to provide evidence on how education systems address equity, inclusion and student diversity. The project examines how immigrant, cultural and language background, gender, learning impairments and socio-economic disadvantage interact, and identifies their combined effects on the academic, emotional and social well-being of students.

The **Effective Learning Environments** project produces instruments and analyses that inform school leaders, researchers, policy makers and others about how investments in the learning environment, including the physical learning environment and technologies, translate into better education, health and social outcomes.

The OECD **Centre for Educational Research and Innovation (CERI)** project on "smart data" explores how digitalisation transforms the education sector and the learning process through the use of data, whether based on learning analytics and artificial intelligence, or on research and reflection groups.



## Key trends in the evolution of policy priorities



**Blue bars** represent emerging policy priorities and **grey bars** represent persisting policy priorities, according to education systems' self-reports and previous OECD country-based work. Priorities are ranked in decreasing order of the number of education systems where the policy priority was identified.

Priorities identified by education systems in self-reports are drawn from responses to the *EPO Survey 2016-17*. Priorities identified in country profiles are based on the *EPO Country Profiles* published in 2017.

**Source:** OECD (2018), *Education Policy Outlook: Putting Student Learning at the Centre*



# Assisting countries with policy development and implementation

**A well-formulated, responsive education policy will not deliver results if it is not designed and implemented effectively.**

OECD and partner countries look to the directorate's expertise to review their education and skills systems, and assist them in developing and implementing policies to improve those systems.

The Directorate for Education and Skills conducts **Reviews of National Policies for Education** that provide individual countries with tailor-made, in-depth analysis and advice that draws on OECD data resources, national policy documents and research, and field-based interviewing by OECD review teams. Countries may choose to review their entire education system, one level of education, or one aspect of policy; national reviews may be conducted for non-member countries that wish to draw on the benchmarks and global expertise of the OECD. Countries may also participate in a **Peer Analysis Review** – an ad-hoc study undertaken with a carefully chosen set of peer countries, the focus of which is an agreed theme, such as education for Indigenous children.

These same methods are available to a group of countries that wish to collaborate in **comparative reviews of education policy**. These reviews offer deep,

cumulative and shared learning on a key dimension of education policy, such as reviews on evaluation and assessment in education, and on school resources. The **School Resources Review** provides analysis and policy advice on how to distribute, manage and use school resources to help governments achieve efficiency and equity objectives in education. A comparative review is based on a common conceptual framework and methodology, with advice from a group of national experts, and summarises the experience of participating countries in a final synthesis report.

The **Education Policy Outlook** provides systematic comparative analysis on education policies and reforms across OECD and partner countries. In combination with national country profiles, this analytical survey of education policy gives an overview of how different countries have responded to the challenges facing their education systems. By creating a learning network of senior education officials, the annual **Education Policy Reform Dialogues** aim to promote collective sharing and building of experience on issues around the political economy of reform, based on the OECD's work on education policy.

The directorate **compares and analyses higher education systems** with a view to helping countries enhance their performance and learn from each other. We benchmark the performance of higher education

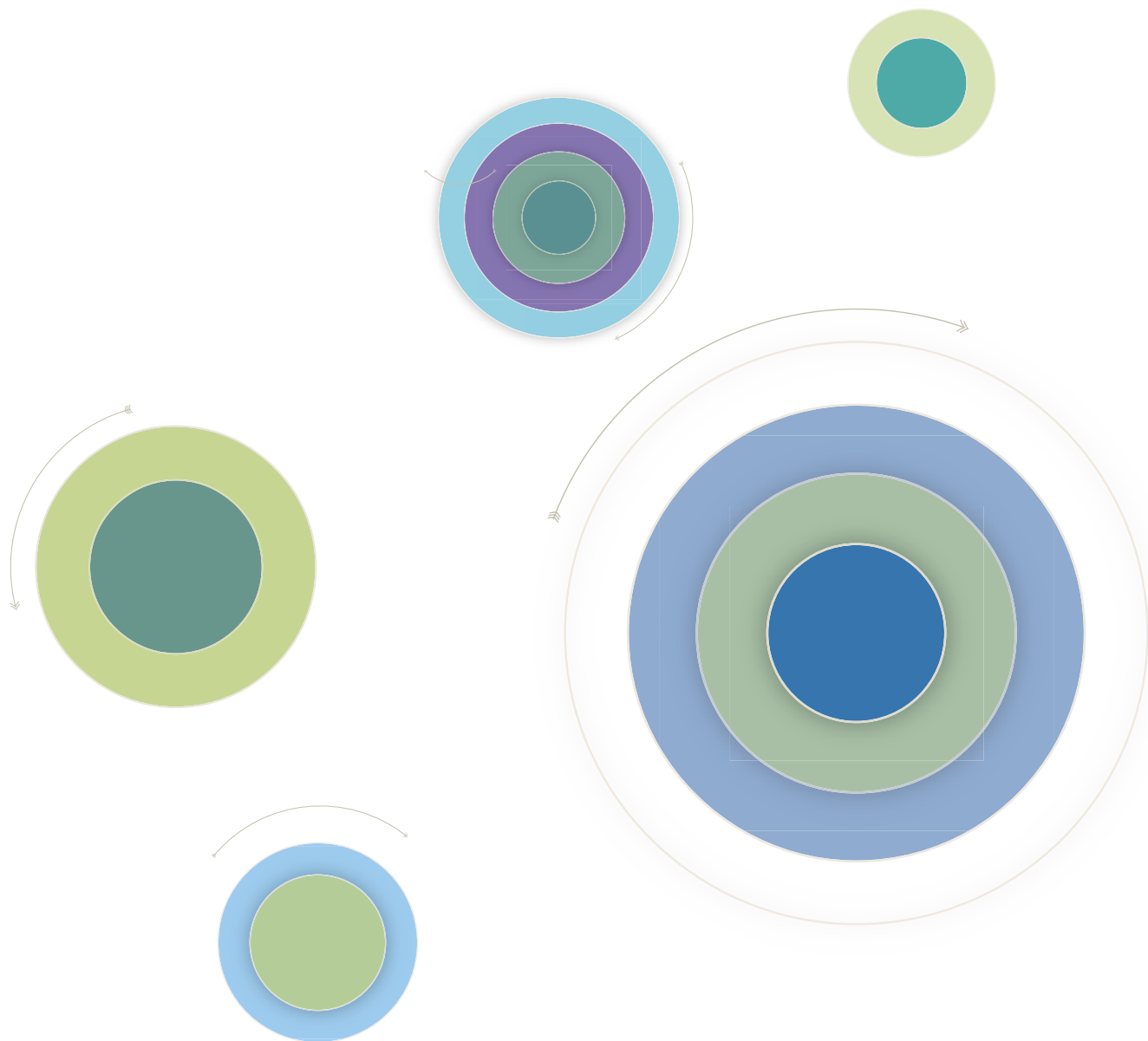
systems, analysing internationally comparable data, and the policies and practices countries use to fulfil their education, research and engagement missions. We conduct comparative reviews of higher education based on a shared analytical framework and methodology, developed in collaboration with the OECD Informal Working Group on Higher Education. These reviews examine the labour market relevance and outcomes of higher education systems, and how financial and human resources are allocated in those systems. The directorate also provides individual countries with customised, in-depth analysis of high-priority topics in the field of higher education.

After completing OECD analyses and reports, the directorate assists policy makers in putting these ideas to work by organising tailored **peer learning events and policy dialogues** in specific countries. These events bring national stakeholders together in OECD-moderated meetings and workshops, and can be used to assist OECD and partner countries in developing new policy options, building understanding and support for newly adopted reforms, and promoting dialogue among countries.

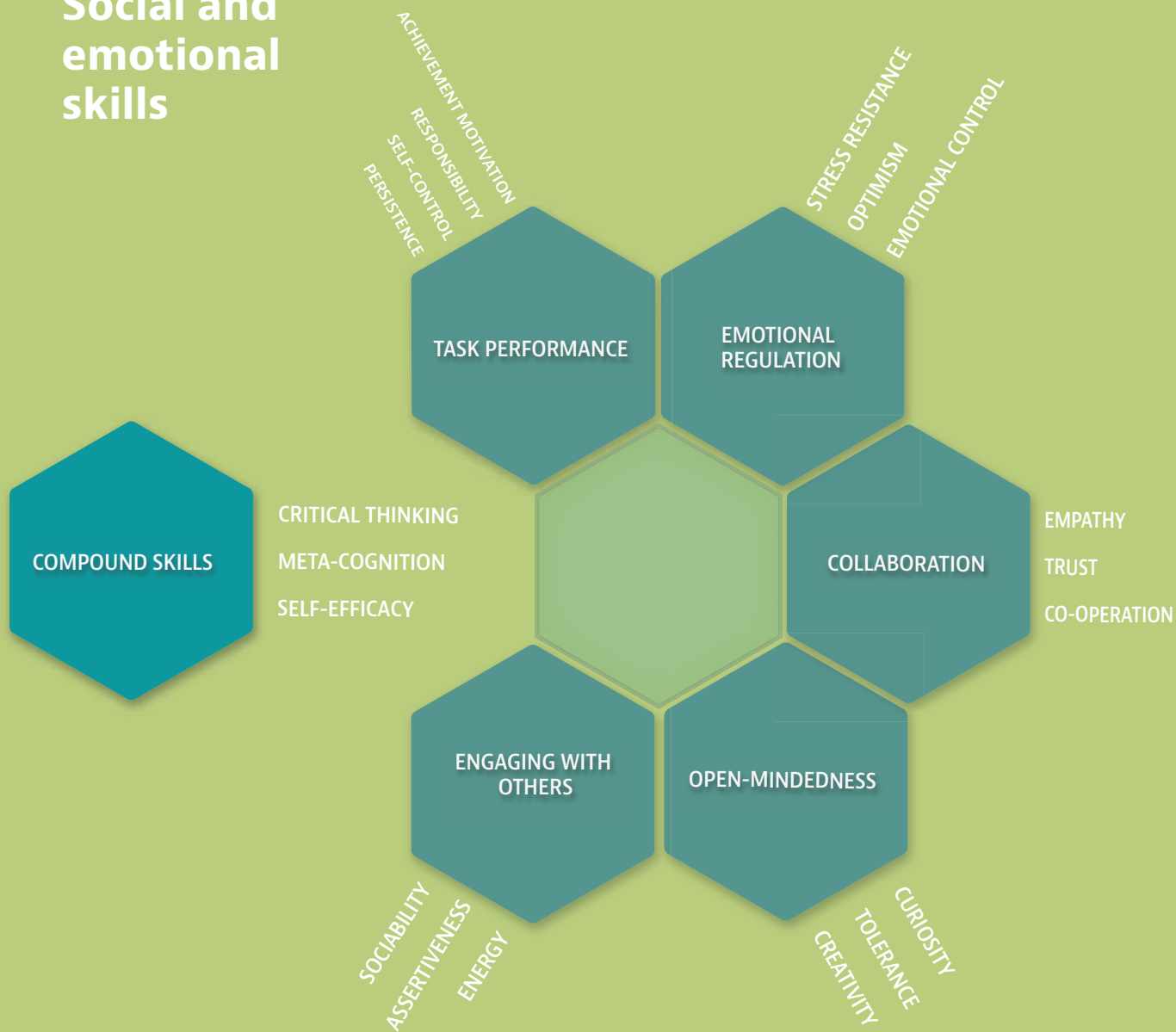
The Directorate for Education and Skills also helps countries tackle the challenge of change management and move from policy design to successful implementation. The **Strategic Education Governance**

project works to reinforce trust and improve policy steering and implementation across national, regional and local levels. With a focus on the use of knowledge and stakeholder engagement, it explores the key themes of accountability, capacity building and strategic thinking, and how they can work together to improve the open and flexible governance required in complex education systems. Through **tailored implementation support** we offer countries assistance in implementing policy, from curriculum reform to helping schools become effective learning organisations. Such support may consist of an assessment of policy implementation, strategic advice about how to implement a policy or strategy, or seminars to engage relevant stakeholders.

Our web-based, data-rich **Education GPS** gives policy makers, researchers and the general public easy access to OECD statistics and education policy work at the click of a mouse.



# Social and emotional skills



**Source:** OECD (2018), *Social and Emotional Skills for Student Success and Well-being: Conceptual Framework for the OECD Study on Social and Emotional Skills*, OECD, Paris.

# Exploring new frontiers and approaches

To reap the gains of innovation, policy makers need to understand how the way we innovate is changing, and what this implies for education and training policies.

The Directorate for Education and Skills, like the OECD itself, tries to be at the leading edge of thinking on current – and soon-to-be-current – issues. The directorate’s **Education 2030** initiative aims to identify future knowledge, skills, attitudes and values that today’s students will need to acquire to succeed in the 21st century. In the first phase of the project, countries will use evidence-based research to address curriculum issues, such as curriculum overload. In the second phase, countries will identify the types of teachers who can best support the development of these skills, and the best ways to manage change in pedagogies, assessments and learning environments.

Our **Centre for Educational Research and Innovation (CERI)** helps countries move towards the frontiers of education by exploring forward-looking and innovative approaches to education and learning, based on the international comparisons and experience the OECD offers. For example, the publication **Trends Shaping Education** provides an overview of key economic, social, demographic and technological trends, and raises questions about their potential impact on education. It aims to inform strategic thinking, and stimulate reflection and discussion on the challenges facing education, whether in schools,

universities or programmes for older adults. **Measuring Innovation in Education** provides countries with a framework to assess their progress in developing an innovation ecosystem for education, including educational research and development, a regulatory framework, school and institutional organisation, and the use of technology to improve education outcomes.

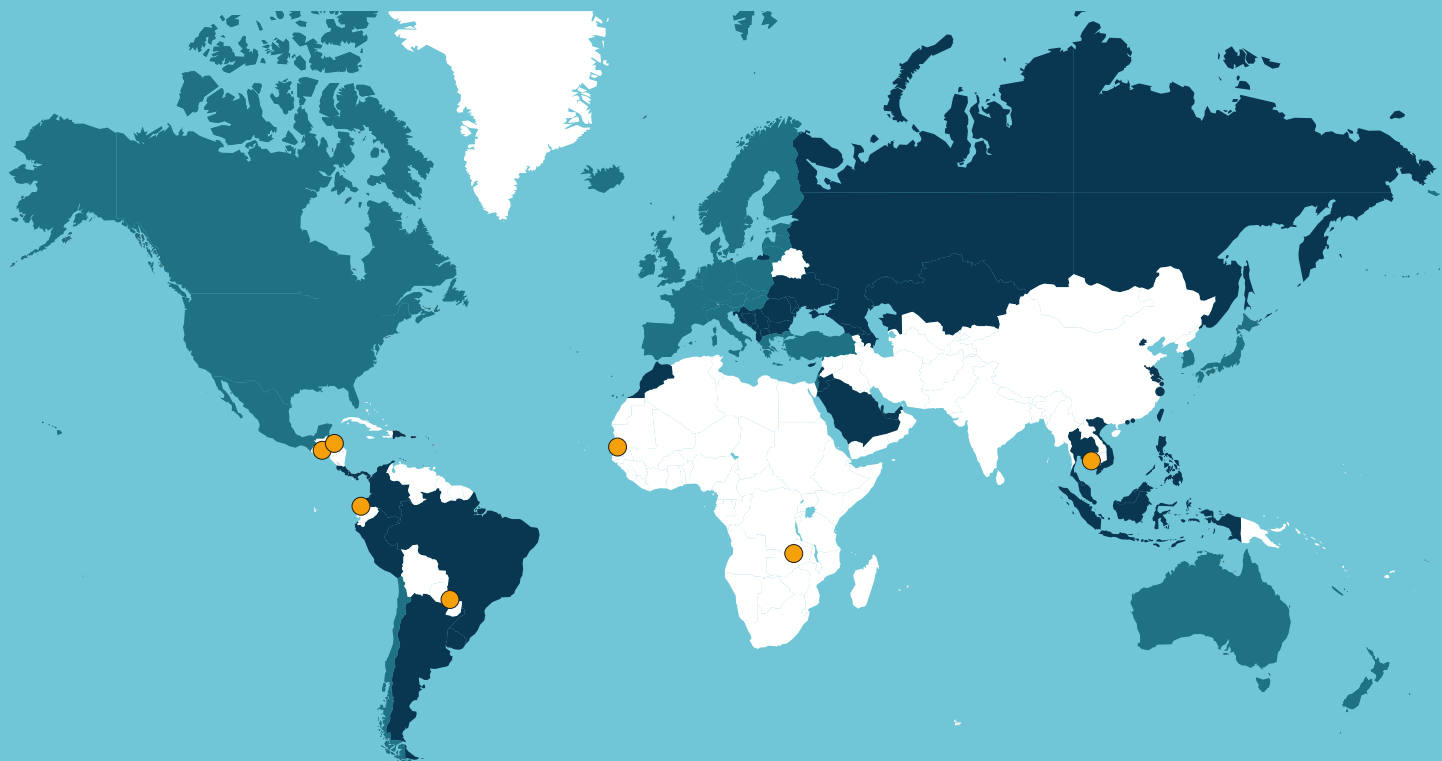
CERI’s work on skills and education for innovation has identified the skills used by employees holding highly innovative jobs; it also provides education policy makers and practitioners with evidence of the effects of different types of curricula, pedagogies and assessments on the development of skills for innovation. It now focuses on **teaching, learning, and assessing creativity and critical thinking** among students at all levels of education, from primary through tertiary. The work provides teachers and institutions with field-tested tools that can be used to redesign education to improve learners’ employability and well-being in innovative societies.

**The Future of Skills: Understanding the Educational Implications of AI and Robotics** assesses the way computers will transform skills demand and educational requirements in the labour market in the coming decades.

The **21st-Century Children** project aims to collect evidence on how the nature of childhood has been transformed over the past few decades and link that evidence to education research and policy. A key question for this work is: How can schools work together with parents and communities to protect and guide children while still allowing them the flexibility to make their own mistakes?

# Map of PISA countries and economies

- OECD countries
- Partner countries and economies
- Partner countries participating in PISA for Development



# Building new partnerships

## Involving partner countries in OECD work is mutually beneficial and essential for keeping the OECD inclusive and relevant.

The Directorate for Education and Skills is exploring new frontiers geographically too. The OECD engages with a large number of economies outside its membership, which it refers to as partner countries. Many are actively involved in core OECD activities, for example as participants or associates in OECD committees, working groups or expert groups. Several key partners, namely Brazil, China, India, Indonesia and South Africa, have comprehensive relations with the OECD. The directorate conducts periodic surveys of the education systems of partner countries as well as member countries.

In addition, **PISA for Development** aims to increase participation in the triennial assessment of 15-year-olds among a wider range of countries. To do so, the OECD uses enhanced PISA survey instruments that are more relevant to low- and middle-income countries, but that produce scores that can be compared on the same scales as the main PISA assessment. The pilot, which involves nine countries from the developing world, several development partners (members of the OECD Development Assistance Committee, the World Bank, UNESCO, UNICEF and other UN bodies and regional organisations) and the OECD, has also developed a way to include 15-year-olds who are not enrolled in school.

The directorate is also contributing its education policy tools, instruments, evidence and dialogue platforms to help achieve and measure progress towards the United Nations Sustainable Development Goal for inclusive, equitable and quality education by 2030.

## Our staff



**Andreas Schleicher**

*Director for Education  
and Skills, and Special Advisor  
on Education Policy  
to the Secretary-General*



**Dirk Van Damme**

*Senior Counsellor*

The Senior Counsellor supports the Director of Education and Skills by contributing to the development of Directorate-wide strategies, policies, practices and management, fostering interdisciplinary collaboration within the Directorate, and assisting the Director with the planning, orientation, oversight and control of the Directorate's activities, and advising him on issues of substance and management.

*The OECD Directorate  
for Education and Skills  
delivers its work through  
three divisions guided by  
a common set of strategic  
objectives.*





## Yuri Belfali

*Head of Division*

### **Early Childhood and Schools**

The division aims to enrich the international evidence base on schools and early childhood settings in order to support education systems in improving the quality, equity and efficiency of learning for young people.

The division develops and conducts large-scale international surveys, including the Programme for International Student Assessment (PISA) and the Teaching and Learning International Survey (TALIS). It also offers comparative policy analysis in the area of early childhood, curriculum and the learning environment.



## Deborah Roseveare

*Head of Division*

### **Innovation and Measuring Progress**

Bringing together the work on measuring progress, research and innovation – mainly organised through the INES (Indicators of Educational Systems) and CERI (Centre for Educational Research and Innovation) – the division reviews the current state of education, measures progress and innovative developments in education, and provides indicators and research data upon which other activities can be built.



## Paulo Santiago

*Head of Division*

### **Policy Advice and Implementation**

Drawing on the data, evidence and analysis developed by the Directorate for Education and Skills, the division co-ordinates guidance on education policy provided to OECD and partner countries, both collectively and individually.

The division supports the development of system-level education indicators and manages knowledge generated by the Directorate, making it accessible to policy makers and the general public through its Education GPS.

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