



## 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 to identify and develop the knowledge and skills that drive better jobs and better lives, 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 to see what is possible in education and to 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 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.

Andrean Schleicher

#### **Andreas Schleicher**

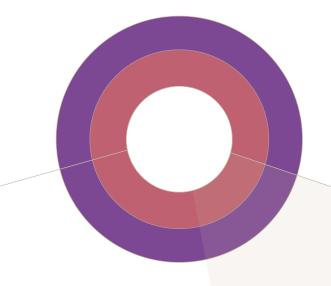
Director for Education and Skills, and Special Advisor on Education Policy to the Secretary-General

## 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.



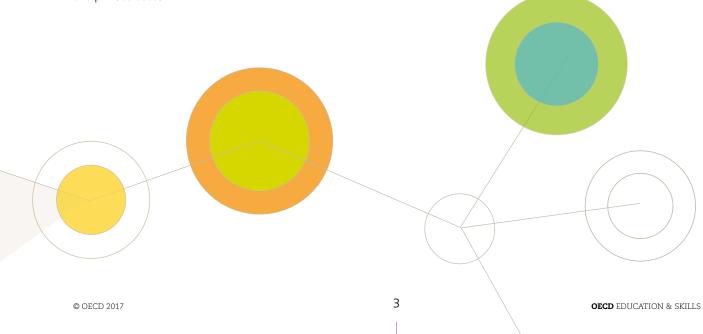
## Who we work with

The OECD develops analysis and best practices together with its 35 OECD member countries and with over 50 non-member countries and economies. The Directorate for Education and Skills helps countries to 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.

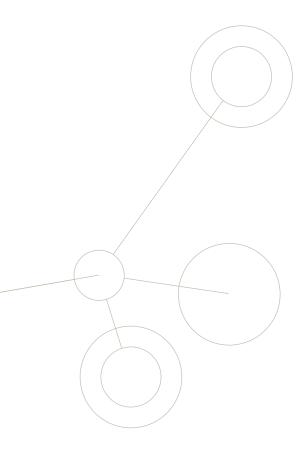
We also work with other international organisations, such as the European Commission, UNESCO, the World Bank, UNICEF, leading NGOs, social entrepreneurs, and the private sector.

## How we are governed

The work of the Directorate for Education and Skills is overseen by the Education Policy Committee (EDPC), which provides strategic oversight. Four other bodies, each with its own mandate, membership, programme of work and budget help deliver work under the overall governance of the OECD Council: the Board of Participating Countries for the Programme for the International Assessment of Adult Competencies (PIAAC); 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).



## Education and Skills at the OECD



Building on the priorities formulated by the Secretary-General of the OECD, the Education and Skills directorate focuses on two main objectives:

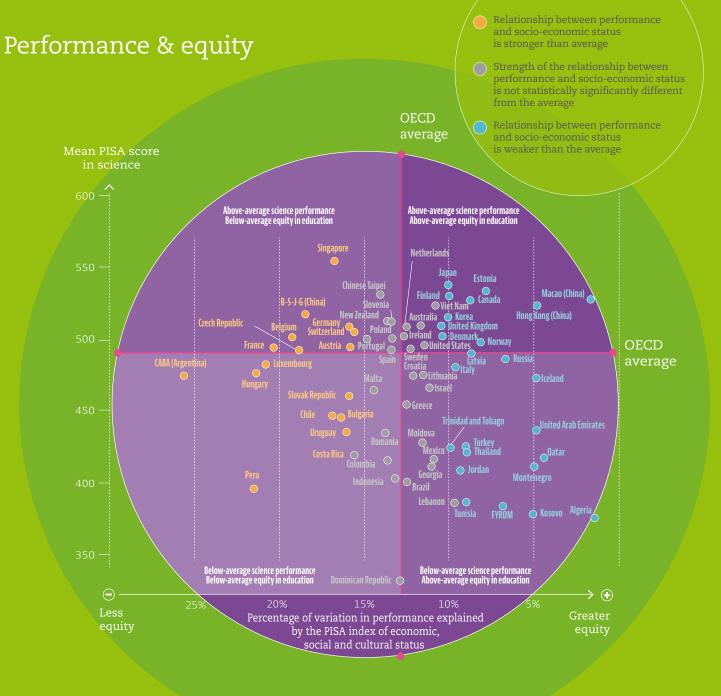
### • Empowering people by developing their skills

The directorate works with governments to develop policies that provide access to high-quality education opportunities so that all people – including women, older adults, people from disadvantaged backgrounds, and first-generation immigrants and their children – can succeed

## • Strengthening education systems through peer learning and policy dialogue

The directorate works with governments to find more effective approaches to policy design and implementation.





# Measuring education and skills opportunities and outcomes

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

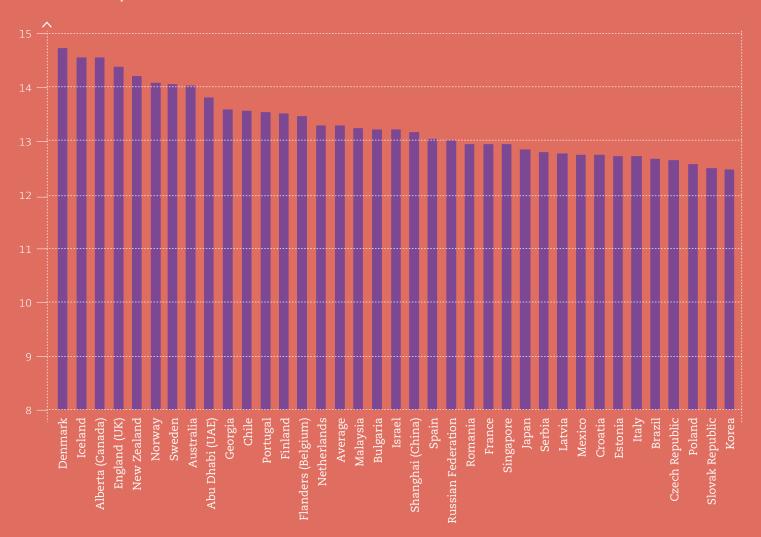
The triennial **Programme for International Student Assessment (PISA)** studies the extent to which 15-year-old students nearing the end of compulsory education have acquired the key knowledge and skills that are essential for full participation in modern societies. PISA tests students' creative and critical thinking skills and their capacity to apply what they have learned in reading, mathematics, science and 21stcentury 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 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.

## Positive teacher-student relations in lower secondary education

Average country/economy score on the learning climate scale "positive teacher-student relationships"



# 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 enhancing its quality. The **Policy Review on Quality** in Early Childhood Education and Care will compile evidence-based policy lessons from international data, research and analysis. It will also provide tailored policy advice to individual countries based on both data from around the world and the evidence gathered by experts during country visits. The International Early Learning and Child Well-Being Study will provide 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. 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 teaching force.

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, and is developing a video study –ultimately a global video library – that aims to go beyond teachers' self-reports to record teaching practices in the classroom and identify good practices.

The Innovative Teaching for Effective Learning initiative focuses on knowing what teachers know about teaching. It aims to determine whether teachers are taught the latest research on the science of learning, and whether the current base of pedagogical knowledge is sufficient to meet the expectations for teaching and learning in the 21st century.

Every year since 2011, the OECD, Education International, and OECD and partner countries 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.

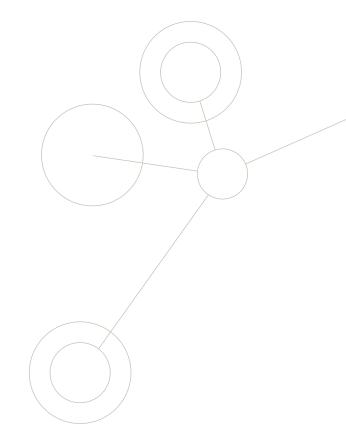
The PISA-based Test for Schools is a studentassessment tool that allows schools to compare themselves with other schools operating in similar socioeconomic environments in their country and with schools in other education systems. Like the main PISA test, it assesses the skills of 15-year-old students in reading, mathematics and science, and their ability to apply those skills. It also provides information on students' background, their attitudes towards learning and the learning environment in their schools.

The Learning Environments Evaluation Programme (LEEP) 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, and lead to more efficient use of education resources.

With the aim of Enhancing higher education system performance, the OECD compares higher education systems to identify their strengths and weaknesses, and determine what works. The directorate also provides an in-depth analysis of the labour market relevance and outcomes of higher education systems to help countries improve graduate outcomes. An on-going dialogue

with higher education stakeholders enriches the quality and relevance of the work, and ensures that the OECD remains on top of developments and emerging challenges in the sector.

The OECD **Centre for Educational Research and Innovation (CERI)** is studying the transformative role of technology in higher education by examining trends related to open-education resources and participation in open universities through the **Open Higher Education** initiative.



## Effect on wages of education, literacy proficiency and use of reading at work



## Building and using skills for better jobs and better lives

Skills are central to achieving sustainable, innovation-driven economic growth and social inclusion.

The OECD Centre for Skills works with governments to develop analytical tools, promote peer-learning and carry out national skills strategy reviews tailored to their specific needs. Using the OECD Skills Strategy framework as a guide, and data from the Survey of Adult Skills (PIAAC) as evidence, the Centre collaborates with countries to build a "whole-of-government" approach to their national skills strategies, formulating and adopting skills policies at national, regional and local levels.

The Directorate for Education and Skills also coordinates the **OECD Skills Outlook**, a biennial publication that gathers the organisation's collective insights into how skills are developed, made available to the labour market, and used in the workplace. The 2017 edition of the Outlook focuses on global value chains; the 2019 edition will examine how digitalisation has transformed the supply of and demand for skills.

Vocational education and training (VET) systems, which prepare people for professional, managerial and technical jobs in expanding fields, such as technology, health care and design, as well as in more traditional trades, like plumbing and sanitation, are now being scrutinised to determine how they can better adapt to the fast-changing demands of the labour market. The OECD has examined initial, largely upper secondary VET through its Learning for Jobs initiative, and post-secondary VET systems through its Skills beyond School project. A synthesis report, published in 2017, on work-based learning and training, includes key policy messages.

The Directorate is carrying out in-depth analyses on the skills that students in higher education need to be successful in the labour market and what governments can do to help ensure those skills are developed. A series of country reviews, carried out in 2017-18, will be followed by a synthesis report in 2019 that compares the performance of participating countries. The factors that affect performance will be analysed in order to determine what works in different national or system contexts. This analysis will provide countries with policy advice and recommendations for improving the relevance of higher education systems for the labour market.



# Assisting countries with policy development and implementation

A well-formulated, responsive education policy will not deliver results if it is not 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, indepth analysis and advice that draws upon 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, and national reviews may be conducted for non-member countries that wish to draw upon the benchmarks and global expertise of the OECD.

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

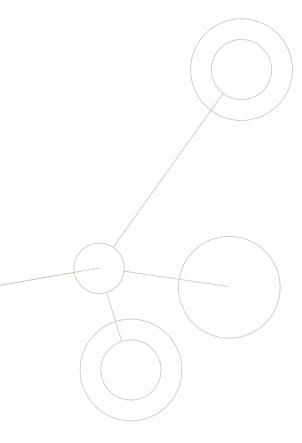
evaluation and assessment in education, and on school resources. A comparative review is based upon a common conceptual framework and methodology, with advice from a group of national experts, and summarises the experience of participating countries in a final synthesis report.

The **Education Policy Outlook** provides systematic comparative analysis on education policies and reforms across OECD countries. In combination with national country profiles, it shows how different countries respond to the challenges facing their education systems.

Countries may need a summary of international evidence they can use to inform a national policy debate or choice. **Education Policy Briefs** deliver swift, internationally comparable evidence about the policy approaches, practices and performance of comparator countries in policy areas that countries themselves identify. They may also participate in a **policy study** – an ad-hoc study undertaken with one or a few countries, the focus of which is an agreed theme, such as indigenous education.

After the completion of OECD analyses and reports, the Directorate assists policy makers in putting these ideas to work by organising tailored **peer learning events** 

### Assisting countries with policy development and implementation



and policy dialogues. 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 or in building understanding and support for newly adopted reforms.

The Directorate for Education and Skills also helps countries tackle the challenge of change management and move from policy design to successful implementation. The **Governing Complex Education Systems** programme works to reinforce trust and improve policy steering and implementation across national, regional and local levels. 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 our increasingly complex systems. **Rapid policy assessments** offer countries assistance in implementing policy, from curriculum reform to helping schools become effective learning organisations.

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

A selection of OECD education country-specific policy work





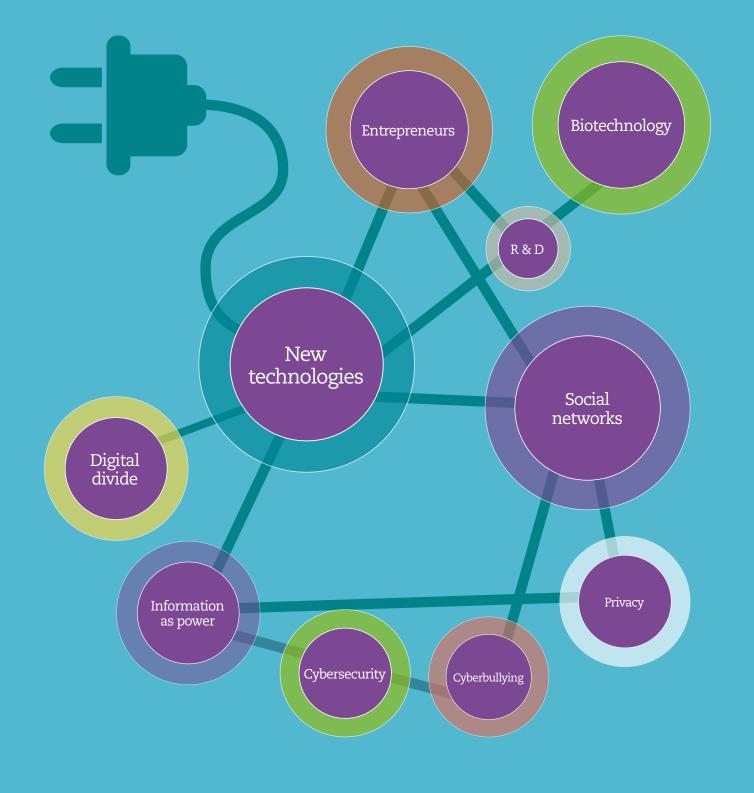












# Exploring new frontiers and approaches

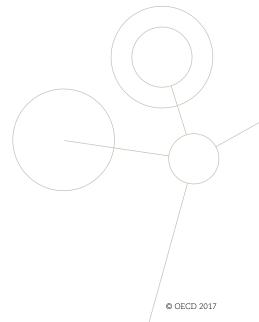
To reap the gains of innovation, policy makers need to understand how the way we innovate is changing, and what this implies for education and training policies.

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. Its Centre for Educational Research and Innovation (CERI) hosts a number of initiatives with an eye on the future. For example, the publication, Trends Shaping Education, offers 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 in programmes for older adults. While **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 and 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 fostering and assessing creativity and critical thinking among primary and secondary students. Similar work targeting students in higher education is also planned. And the 21st-Century **Children** initiative aims to collect evidence on how the nature of childhood has been transformed over the past few decades and to link that evidence to education research and policy.

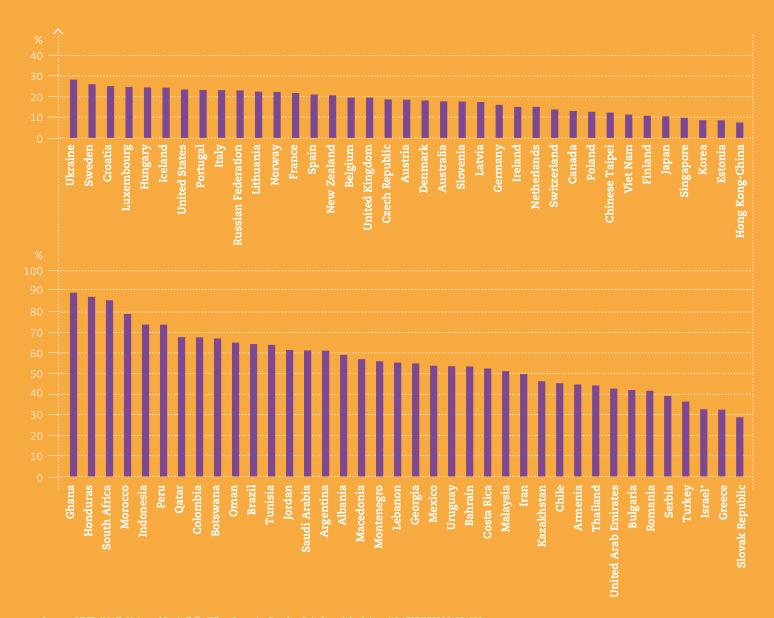
The directorate's **Education 2030** initiative aims to identify future knowledge, skills, attitudes and values that today's students will need to learn, using a combination of theoretical research and foresight methodology that takes into account the opportunities and challenges students will face in a rapidly changing world. In the first phase of the project, countries will use evidence-based research to design and develop their curriculum. In the second phase, countries will examine the pedagogies, assessments and learning environments that best support the development of 21st-century skills. This work both draws on and contributes to other initiatives in the directorate. For example, it will link closely to innovative domains in PISA and new approaches to summative assessment.

The Longitudinal Study of Children's Social and Emotional Skills in Cities has been launched as part of the directorate's Education and Social Progress project. The study will follow the lives of a large number of children from grades 1 and grade 7 until early adulthood, collecting information on skills, learning contexts and outcomes. It aims to identify the social and emotional skills that may affect children's educational attainment and, later on, their participation in the labour market, their health, relationships and civic engagement. It also aims to discover how families, schools and communities influence the development of these skills.





## Share of students not acquiring basic skills



# 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 Education and Skills 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 will use 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 for Education and Skills 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

## **Montserrat Gomendio**

Deputy Director for Education and Skills

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

### Yuri Belfali

Division Head

### **Early Childhood and Schools**

The division aims to enrich the international evidence base on schools and early childhood settings in order to develop targeted policy advice to countries for improving the quality, equity and efficiency of learning opportunities. Key resources are the Programme for International Student Assessment (PISA) and the Teaching and Learning International Survey (TALIS).







## Dirk Van Damme

## Division Head 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

## Division Head Policy Advice and Implementation

Drawing on the data, evidence and analysis developed by the Directorate for Education and Skills, the division offers guidance on education policy provided to OECD and partner countries, both collectively and individually. The division's work covers the entire policy process, from the diagnosis of education policy challenges to the implementation of policy reforms, and offers a range of policy products and services. It 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.

### Deborah Roseveare

## Division Head **Skills Beyond School**

With skills now at the forefront of the OECD policy agenda, the division's work spans measuring adult skills, policy-relevant analyses of the development and use of skills among youth and adults, and advice to countries on building more effective skills systems at the national, regional and local levels. The division also offers analysis and policy advice on building skills through more effective vocational education and training and higher education.

#### Write to us

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