# Multistakeholder high-level Dialogue Session on Skills and Capabilities for Transitions – 23 April 2024

# Related publications from across the OECD

#### **EDUCATION AND SKILLS POLICIES**

#### Flagship publications





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#### OECD Skills Outlook 2023: Skills for a Resilient Green and Digital Transition

Skills are vital for building resilient economies and societies. By helping individuals develop a diverse range of skills and empowering them to apply these skills effectively, skills policies play a crucial role in responding to emerging threats, such as environmental degradation and harmful applications of technologies used to collect, generate, and exchange information. This edition of the Skills Outlook highlights the importance of supporting individuals in acquiring a wide range of skills, at varying levels of proficiency, to promote economic and social resilience.

Find the report: https://www.oecd.org/education/oecd-skills-outlook-e11c1c2d-en.htm





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#### Education Policy Outlook 2023: Empowering All Learners to Go Green

In 2024, education and training systems have a 'unique potential' to build the foundations of equitable, sustainable societies. In the OECD National Survey for Comparative Policy Analysis 2023: Empowering Learners to go Green, 90% of participating systems identified environmental sustainability as a key priority for 2024. There is no trade-off between addressing the biggest challenge facing people and the planet and responding to other external shocks and long-term evolutions, especially since these will only become increasingly interdependent. This implies empowering lifelong learners, institutions and education systems with the agency required to act, today. Building on the OECD's Framework of Responsiveness and Resilience in Education Policy, survey responses from 36 education systems and international policy analysis, this report explores how education systems can: 1) translate learners' awareness into environmental action; 2) provide learners with experiences to shape the green economy; and 3) position education as a strategic sector for the green transition. By exploring these areas, the report aims to support countries to follow up on the goals established by the 2022 OECD Declaration on Building Equitable Societies Through Education. The report is part of the Education Policy Outlook series—the OECD's analytical observatory of education policy.

Find the report: <a href="https://www.oecd-ilibrary.org/education/education-policy-outlook-2023">https://www.oecd-ilibrary.org/education/education-policy-outlook-2023</a> f5063653-en

### Publications on the future of education and skills

# Educational Research and Innovation Al and the Future of Skills, Volume 1 CAPABILITIES AND ASSESSMENTS



#### Al and the Future of Skills, Volume 1: Capabilities and Assessments

Artificial intelligence (AI) and robotics are major breakthrough technologies that are transforming the economy and society. The OECD's Artificial Intelligence and the Future of Skills (AIFS) project is developing a programme to assess the capabilities of AI and robotics, and their impact on education and work.

Find the report: <a href="https://www.oecd-ilibrary.org/education/ai-and-the-future-of-skills-volume-1">https://www.oecd-ilibrary.org/education/ai-and-the-future-of-skills-volume-1</a> 5ee71f34-en



Educational Research and Innovation

All and the Future of Skills,

Volume 2



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#### Al and the Future of Skills, Volume 2: Methods for Evaluating Al Capabilities

As artificial intelligence (AI) expands its scope of applications across society, understanding its impact becomes increasingly critical. The OECD's AI and the Future of Skills (AIFS) project is developing a comprehensive framework for regularly measuring AI capabilities and comparing them to human skills. The resulting AI indicators should help policymakers anticipate AI's impacts on education and work.

Find the report: <a href="https://www.oecd-ilibrary.org/education/ai-and-the-future-of-skills-volume-2">https://www.oecd-ilibrary.org/education/ai-and-the-future-of-skills-volume-2</a> a9fe53cb-en





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# Is Education Losing the Race with Technology? Al's Progress in Maths and Reading

Advances in artificial intelligence (AI) are ushering in a large and rapid technological transformation. Understanding how AI capabilities relate to human skills and how they develop over time is crucial for understanding this process.

Find the report: <a href="https://www.oecd-ilibrary.org/education/is-education-losing-the-race-with-technology">https://www.oecd-ilibrary.org/education/is-education-losing-the-race-with-technology</a> 73105f99-en



Education and innovation for the digital and green transitions: How higher education can support teachers and school leaders

This analytical report was prepared by the OECD Higher Education Policy Team as part of the Education and Innovation Practice Community (EIPC), an action of the European Union's New European Innovation Agenda, flagship 4 on "Fostering, attracting and retaining deep tech talent". EIPC seeks to bring together peers from policy and practice to advance understanding of the competencies that can trigger and shape innovation for the digital and green transitions, and the mechanisms through which higher education can contribute to their development in secondary education (Strand 1), higher education (Strand 2), and adult upskilling and reskilling (Strand 3). This report for EIPC Strand 1 examines how higher education institutions (HEIs) can support teachers and school leaders in secondary schools to help their students develop competencies for innovation. Drawing on research evidence, practical examples and insights from the EIPC network and a wide range of OECD and EU education systems, it offers five options for consideration by education policy makers on how to strengthen HEIs' role in supporting secondary education to develop human capacity for innovation.

Find the report: <a href="https://www.oecd.org/fr/publications/education-and-innovation-for-the-digital-and-green-transitions-how-higher-education-can-support-teachers-and-school-leaders-6407e9f4-en.htm">https://www.oecd.org/fr/publications/education-and-innovation-for-the-digital-and-green-transitions-how-higher-education-can-support-teachers-and-school-leaders-6407e9f4-en.htm</a>

#### How's Life in the Digital Age?

Opportunities and Risks of the Digital Transformation for People's Well-being This report documents how the ongoing digital transformation is affecting people's lives across the 11 key dimensions that make up the How's Life? Well-being Framework (Income and wealth, Jobs and earnings, Housing, Health status, Education and skills, Work-life balance, Civic engagement and governance, Social connections, Environmental quality, Personal security, and Subjective well-being). A summary of existing studies highlights 39 key impacts of the digital transformation on people's well-being. The review shows that these impacts can be positive as digital technologies expand the boundaries of information availability and enhance human productivity, but can also imply risks for people's well-being, ranging from cyber-bullying to the emergence of disinformation or cyber-hacking. In sum, making digitalisation work for people's well-being would require building equal digital opportunities, widespread digital literacy and strong digital security. Continued research and efforts in improving statistical frameworks will be needed to expand our knowledge on the many topics covered in this report.

Find the report: <a href="https://www.oecd-ilibrary.org/science-and-technology/how-s-life-in-the-digital-age">https://www.oecd-ilibrary.org/science-and-technology/how-s-life-in-the-digital-age</a> 9789264311800-en



### Digital transition and skills

- Not lost in translation: The implications of machine translation technologies for language professionals and for broader society
- The demand for language skills in the European labour market: Evidence from online job vacancies
- Emerging trends in Al skill demand across 14 OECD countries
- Putting AI to the test: How does the performance of GPT and 15-year-old students in PISA compare?

#### Green transition and skills

- <u>Understanding how economic conditions and natural disasters shape environmental attitudes: A cross-country comparison to inform policy making</u>
- The environmental sustainability competence toolbox: From leaving a better planet for our children to leaving better children for our planet

- Young people's environmental sustainability competence: Emotional, cognitive, behavioural, and attitudinal dimensions in EU and OECD countries
- The effects of the EU Fit for 55 package on labour markets and the demand for skills
- Global warming, pollution and cognitive developments: The effects of high pollution and temperature levels on cognitive ability throughout the life course
- COP28 Virtual Pavilion (joint with ELS/DEV/CFE and ENV) <a href="https://www.oecd-events.org/cop28/session/d1542eaf-1b6f-ee11-a532-6045bd8ead8a/jobs-and-skills-for-a-just-green-transition">https://www.oecd-events.org/cop28/session/d1542eaf-1b6f-ee11-a532-6045bd8ead8a/jobs-and-skills-for-a-just-green-transition</a>

#### Vocational education and training





# Publication PISA Vocational Education and Training (VET) Assessment and analytical framework \*\*\*DECD

#### **Building Future-Ready Vocational Education and Training Systems**

A changing world of work brings the importance of Vocational Education and Training (VET) to the forefront, as it has the ability to develop the skills that are needed in today's labour markets and societies. At the same time, structural changes highlight the need to reengineer certain parts of VET systems in some countries to make them more resilient and ensure they can make the most of the opportunities ongoing changes present. This report zooms in on four key dimensions of future-ready VET systems: i) responsiveness to changing skill needs; ii) the flexibility to make VET work for all; iii) the ability to support transitions into a changing labour market and further learning; iv) the potential of digital technology to innovate VET design and delivery. For each of these dimensions, the report presents a set of key questions that policymakers and other VET stakeholders should consider when re-engineering VET to make it more future-ready, as well as insights from data and international examples of policies and practices.

Find the report: <a href="https://www.oecd.org/publications/building-future-ready-vocational-education-and-training-systems-28551a79-en.htm">https://www.oecd.org/publications/building-future-ready-vocational-education-and-training-systems-28551a79-en.htm</a>

# PISA Vocational Education and Training (VET): Assessment and Analytical Framework

This report presents the conceptual foundations of the OECD Programme for International Student Assessment (PISA) Vocational Education and Training (VET), currently in the Development Phase of implementation which aims to provide a comprehensive and rigorous international survey of student knowledge and skills that are essential for success in selected occupational areas. The PISA-VET assessment covers professional knowledge and skills in five occupational areas (automotive technician, business and administration, electrician, nursing/healthcare assistant and hotel receptionist), plus an evaluation of learners' employability skills, including literacy, problem solving, task performance (conscientiousness) and collaboration with others.

Find the report: <a href="https://www.oecd-ilibrary.org/education/pisa-vocational-education-and-training-vet\_b0d5aaf9-en">https://www.oecd-ilibrary.org/education/pisa-vocational-education-and-training-vet\_b0d5aaf9-en</a>

# **Blogs:**

- Digital dreaming, the role of technology in expanding education access
- Empowering youth for a greener future: the significance of education and training

#### Podcasts:

- How to empower students to help stop climate change
- What should the teaching profession look like in the future?
- Why skills like empathy are so important in education

#### **Events:**

- 2023 joint Cedefop/OECD symposium on 'Apprenticeships and the digital transition'
- 2021 joint Cedefop/OECD symposium on Apprenticeships for greener economies and societies

#### LABOUR MARKET POLICIES

# OECD Employment Outlook 2023 ARTIFICIAL INTELLIGENCE AND THE LABOUR MARKET

#### OECD Employment Outlook 2023: Artificial Intelligence and the Labour Market

The 2023 edition of the OECD Employment Outlook examines the latest labour market developments in OECD countries. It focuses, in particular, on the evolution of labour demand and widespread shortages, as well as on wage developments in times of high inflation and related policies. It also takes stock of the current evidence on the impact of artificial intelligence (AI) on the labour market. Progress in AI has been such that, in many areas, its outputs have become almost indistinguishable from that of humans, and the landscape continues to change quickly, as recent developments in large language models have shown. This, combined with the falling costs of developing and adopting AI systems, suggests that OECD countries may be on the verge of a technological revolution that could fundamentally change the workplace. While there are many potential benefits from AI, there are also significant risks that need to be urgently addressed, despite the uncertainty about the shortomedium-term evolution of AI. This edition investigates how to get the balance right in addressing the possible negative effects of AI on labour market outcomes while not stifling its benefits.

Find the report: https://www.oecd-ilibrary.org/employment/oecd-employment-outlook\_19991266

# Assessing and Anticipating Skills for the Green Transition: Unlocking Talent for a Sustainable Future

Policies aimed at reducing the environmental impact of human activities have important consequences for labour markets, jobs, and skills. As employment is shifting towards more sustainable activities, workers are increasingly expected to have skills that support the transition to a greener economy. Assessing and anticipating emerging skill needs is crucial to avoid bottlenecks and sustain the green transition. This report sheds light on existing methods to measure changes in skill demand and supply related to the green transition through an in-depth review of practices in five OECD countries (Australia, Austria, France, Norway and Sweden). It also identifies best practice on how to feed information on changing skill needs into policies, notably in the areas of employment, career guidance, education and adult learning

Find the report: <a href="https://www.oecd-ilibrary.org/employment/assessing-and-anticipating-skills-for-the-green-transition\_28fa0bb5-en">https://www.oecd-ilibrary.org/employment/assessing-and-anticipating-skills-for-the-green-transition\_28fa0bb5-en</a>



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#### Skills for the Digital Transition: Assessing Recent Trends Using Big Data

This report presents the most recent trends in the labour market demand for digital professionals and skills, highlighting where bottlenecks are emerging and policy action is – and will be – needed to support individuals who aim to thrive in the digital transition. The report analyses a wide range of digital occupations and the associated skill and technology demands using a unique set of data collected from millions of job postings published online in Belgium, Canada, France, Germany, Italy, the Netherlands, the United Kingdom, the United States, Singapore and Spain. The evidence contained in this report is key for governments to design targeted retraining and upskilling policies, and for workers to fully benefit from the digital transition.

Find the report: <a href="https://www.oecd.org/employment/skills-for-the-digital-transition-38c36777-en.htm">https://www.oecd.org/employment/skills-for-the-digital-transition-38c36777-en.htm</a>



# **Working papers**

- What skills and abilities can automation technologies replicate and what does it mean for workers? New evidence
- Developing skills for digital government A review of good practices across OECD governments
- Six questions about the demand for artificial intelligence skills in labour markets
- Skills for the Digital Transition: Assessing Recent Trends Using Big Data

# **Blogs**

• Charting the Path in an Al-Powered Workforce: Balancing Skills and Ethics