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Ensure high-quality and inclusiveness of the education/training system that provides labour market-relevant knowledge and skills

In view of rapid technological transformations that impact the demand for skills and knowledge, it is critical to increase responsiveness of education/training system (from pre-school education to higher education and vocational training for the current labour force). Based on current evidence, adoption of automation technologies increased the demand for technical, social and meta skills. The latter refers to a capability to swiftly adapt to changing work requirements. Continuous learning, upskilling, and reskilling are a pre-requisite for employability on the labour market. The accessibility/inclusiveness, quality, and suitability of the education/training system to labour market needs determines labour market mismatch, career options, employment rates and wages of current and future graduates, potential for the development of a knowledge-based economy, and opportunities for upskilling or reskilling for the labour force.

Ensure high-quality, labour market-relevance of educational courses, materials and tools/technologies
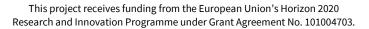
The curriculum and learning materials/tools should be up-to-date and relevant for the labour market. To achieve this, latest research results should be integrated in the education courses, students should be offered individual learning tracks and take short courses that respond to the needs of their current or future employer (e.g., microcredentials), while the educational process must be supported by technologies that enhance the quality of learning experience.[1] Educational materials/tools should provide clear instructions and be user-friendly. To deliver high-quality education courses and materials/tools, a significant investment and an analysis of labour market needs are needed.

Ensure high-quality of teaching methods and support for teachers

Teachers play a crucial role in shaping student learning. Given changing skills demand and new scientific findings, teachers need to receive continuous training to keep their knowledge up to date. In other words, teachers must become lifelong learners and inquisitive professionals.[2] In addition to trainings, teachers should be motivated through financial incentives, awards for good performance that encourage them to expend more effort in their work. Sharing good practices and common challenges among teachers should be encouraged

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[1] OECD. (2022a). HEInnovate. HEInnovate Self-assessment . Retrieved December 20, 2022, from https://heinnovate.eu/en

[2] OECD. (2018a). Effective teacher policies: Insights from PISA. Retrieved December 20, 2022, from https://read.oecd-ilibrary.org/education/effective-teacher-policies_9789264301603-en#page33

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and supported through dedicated teachers' networks/groups. Identified challenges should be addressed by policymakers.

Strengthen collaboration between education/training institutions and employers

The education/training institutions should be aware of the needs of employers to deliver knowledge/skills that will facilitate integration of students in a workplace and reduce the labour market mismatch. Thus, collaboration between education institutions and employers is essential. Overall, such academia-industry collaboration would improve quality of education and of research. Collaboration can take different forms, such as periodic consultation, combined learning in a classroom and at a workplace, joint projects and networks.

Ensure inclusiveness of education/training to all

Many studies show that access to education is limited for some groups (e.g., students with disabilities, migrants that do not possess sufficient skills to understand a language of instruction, students in distant/rural areas, students that are engaged in caretaking activities). To best eliminate barriers to education, it is important to consider the following options: provide an individualistic tailored learning approach, facilitate access to technologies that support access to education materials and training, consider learning needs of different students, re-examine inclusivity in institutional structures and policies, educate teachers about inclusion, and monitoring and evaluating progress towards inclusivity.[3]
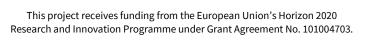
Embrace a continuous assessment of the education/training system

It is important for education/training institutions at all levels to devote significant attention and resources to reviewing their quality, accessibility/inclusiveness, innovativeness/entrepreneurship, and relevance to the labour market needs.[4] The assessment should be built on student educational performance and labour market outcomes (e.g., time to (re)enter the labour market, salary/wage, career prospects, demand for skills/knowledge of students).[5] Key aspects to consider in the assessment of education/training systems include educational content and materials, quality of teaching and educational methods, facilities/tools that support the education process. Besides the above, the education/training institutions should assess to what extent they support the personal development of students and provide career counselling services to help them better

[3] 6 ways to promote inclusivity in higher education. Kognito. (2022, May 18). Retrieved December 20, 2022, from https://kognito.com/blog/6-ways-to-promote-inclusivity-in-higher-education/

[4] Muskin, J. A. (2017). Continuous Assessment for Improved Teaching and Learning: A Critical Review to Inform Policy and Practice. Unesdoc.unesco.org. Retrieved December 20, 2022, from https://unesdoc.unesco.org/ark:/48223/pf0000255511

[5] OECD. (2019, December 11). OECD Skills Strategy Poland: Assessment and recommendations. OECD. Retrieved December 20, 2022, from https://www.oecd.org/education/oecd-skills-strategy-poland-b377fbcc-en.htm

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navigate the labour market. Based on this assessment, each education/training institution should develop an action plan.

Consider the following PILLARS and external resources to ensure high-quality and inclusiveness of the education/training system that provides labour market-relevant knowledge and skills:

Title and weblink	Authors and year	Description
Non-State Actors in Education	UNESCO, 2021	The UNESCO Global Education Monitoring Report 2021/2 poses critical questions about the relationships between policymakers and non-state actors. Its overarching theme, "Who chooses? Who loses?" prompts policymakers to consider fundamental choices between equity and freedom of choice, encouraging initiative versus setting standards, addressing varying group needs, meeting immediate commitments under SDG 4, and balancing education with other societal sectors. Additionally, supporting this report are two online tools: PEER, a policy dialogue resource detailing global non-state activity in education systems, and VIEW, a new website offering comprehensive sources and updated completion rate estimates.
The 2030 Skills Scorecard: Bridging business, education, and the future of work	Global Business Coalition for Education	The 2030 Skills Scorecard's projections gauge the percentage of students in various global regions likely to achieve a basic level of secondary education, serving as an indicator of workforce preparedness. This tool seeks to underscore the global deficit in youth skills, urging a comprehensive understanding and intervention strategies. The business sector is urged to recognize the substantial skills crisis and channel support and investment into public education, offering an opportunity to significantly reshape the skills landscape for upcoming generations.
Speed and Direction of Changes of Skills Demand, within Occupations, across European Countries	Emilio Colombo, Anna Giabelli, Fabio Mercorio, Mario Mezzanzanica and Francesco Trentini, 2022 (PILLARS REPORT)	This report investigates how occupations in various European regions evolved in skill composition using AI techniques like word embeddings and machine learning. It assesses changes in skill sets based on online job ads across countries, focusing on occupation-specific shifts. The study analyzes skill demand in France, Germany, Italy, the Netherlands, and the UK from 2019 to 2021, examining the relevance of existing skills and the emergence of new skills, employing both traditional econometric methods and innovative AI approaches.
The Value of Early-Career Skills	Christina Langer and Simon Wiederhold, 2023	The authors have developed innovative metrics for early-career skills that outstrip current proxies by providing deeper, more comprehensive, and occupationally relevant insights. By utilizing

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		Germany's detailed, standardized apprenticeship plans containing over 13,000 specific skills and their learning durations, the authors track workers' progressions using administrative data. Their research findings demonstrate the substantial rewards associated with cognitive, social, and digital skills acquired during apprenticeships, albeit with differing levels of emphasis. Moreover, the authors observe an increasing trend in returns for social and digital skills since the 1990s, whereas the ascent in returns for cognitive skills has been more moderate.
Recommendation Concerning the Status of Teachers And The UNESCO Recommendation Concerning the Status of Higher-Education Teaching Personnel With A User's Guide	UNESCO, 2008	The ILO/UNESCO Recommendation on the Status of Teachers was established during a special UNESCO-led intergovernmental conference in Paris in collaboration with the ILO on October 5, 1966. It delineates the rights and duties of educators, establishing global benchmarks for their training, recruitment, work conditions, and involvement in educational decisions. Recognized as a pivotal set of directives, it has been pivotal in advancing the position of teachers and fostering quality education initiatives since its inception.
Erasmus+ Training Opportunities for Staff	European Commission	Erasmus+ provides educational staff, encompassing teaching and non-teaching roles, with training prospects. These include job shadowing, observations, professional development courses, and specialized skill-building events abroad. The program extends support for training in educational institutions and relevant organizations beyond the sector, catering to staff across all educational levels. Here is a list of all possible trainings.
Improving academia-private sector interactions: lessons learned from the COVID-19 pandemic	OECD, 2021	The workshop was jointly organized by the OECD working party on Technology and Innovation Policy (TIP) and the Global Science Forum (GSF), building upon TIP's extensive work on industry-science links and recent studies on knowledge transfer and co-creation. While the primary focus was academia-industry interaction, the workshop also considered the roles of other research partners when relevant, aiming to draw insights from COVID-19 experiences and actors involved in co-design and TDR projects. The goal was to explore the convergence of science and innovation policies to enhance science-industry collaboration for societal benefit in the future. The workshop findings and conclusion are available here.
Inclusive Education: A European Pillar Of Social Rights	European Commission	Website explained what the European pillars of social rights has to say about inclusive education and how it is defined. At the bottom, it lists several

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		toolkits that have been developed to support schools and teacher meet this common goal.
Evaluation And Assessment Frameworks for Improving School Outcomes	OECD	International evaluations like PISA offer valuable external benchmarks, complementing existing information. Some nations employ inspection services to assess educators and schools, with teacher evaluation gaining broader traction. Across countries, the consensus underscores the pivotal role of evaluation and assessment frameworks in fortifying equitable and robust educational systems, recognizing these tools as means to enhance student achievements. While acknowledging diverse national contexts, the OECD's Review identifies five principal policy challenges emerging from these evaluations.
HEInnovate	European Commission, in partnership with the OECD	HEInnovate is a self-reflection tool for Higher Education Institutions who wish to explore their innovative potential. It guides you through a process of identification, prioritisation and action planning in eight key areas. The self-assessment is available in all EU languages.