

OECD Skills Studies

# OECD Skills Strategy Slovak Republic

ASSESSMENT AND RECOMMENDATIONS





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# Foreword

Developing and using people's skills effectively is crucial for Slovakia's ability to thrive in an increasingly interconnected and rapidly changing world.

Slovakia is particularly exposed to the effects of globalisation, digitalisation and demographic change, and should build on its current strengths and use them as a foundation to introduce new policies that better equip society to respond to a constantly changing environment. All members of society will need a stronger and more well-rounded set of skills, including cognitive, social and emotional, and job-specific skills that are aligned with labour market needs and effectively used in individual workplaces.

Slovakia has already achieved relatively strong skills performance in various areas. In terms of developing people's skills, the tertiary attainment rate has improved substantially and the foundational skills of adults are comparatively strong. With respect to using people's skills, the unemployment rate in Slovakia is at record low levels and wages are on the rise.

However, Slovakia still faces a number of complex skills challenges. The skills of youth are lagging behind the OECD average in reading and science, and declining. Skills imbalances are high, with skills shortages particularly prevalent in knowledge and technology-intensive sectors. Adult learning culture is underdeveloped, participation in adult learning is low, and those most in need of continuous education participate the least. In the workplace, skills are not currently used to their full potential.

In recent years, Slovakia has enacted wide-ranging skills policy reforms spanning all levels of education and training, as well as many areas of labour market policy. In this respect, continued stakeholder engagement and impact monitoring will remain essential for implementing Slovakia's skills reforms.

Slovakia has developed the National Programme for the Development of Education (NPRVaV 2018-2027) to set the country's priorities for skills development and activation. To provide input on the implementation of this programme, and to further support Slovakia in its reform agenda, the OECD has conducted a collaborative and tailored National Skills Strategy project. This has involved detailed analysis and widespread engagement with stakeholders, leading to several tailored recommendations outlined in this report.

The OECD stands ready to support the Slovak Republic as it seeks to implement effective skills policies and continue its transition to a knowledge-based economy and society.

# Acknowledgements

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While the report draws on data and analysis from the OECD, Slovak authorities and other published sources, any errors or misinterpretations remain the responsibility of the OECD team.

Ricardo Espinoza (OECD Centre for Skills) was the project leader responsible for co-ordinating the National Skills Strategy project in Slovakia. The authors of this report from the OECD Centre for Skills were: Chapter 1. Key insights and recommendations (Bart Staats); Chapter 2. Strengthening the skills of youth (Ricardo Espinoza, Laura Reznikova); Chapter 3. Reducing skills imbalances (Stefano Piano); Chapter 4. Fostering greater participation in adult learning (Ricardo Espinoza, Laura Reznikova); and Chapter 5. Strengthening the use of skills in the workplace (Bart Staats). Cuauhtémoc Rebolledo-Gómez and Serli Abrahamoglu (OECD Centre for Skills) provided statistical support. As Head of the OECD National Skills Strategy projects, Andrew Bell (OECD Centre for Skills) provided analytical guidance, comments on chapters and supervision. Montserrat Gomendio, Head of the OECD Centre for Skills provided guidance, oversight and comments, while Stefano Scarpetta, Director of the OECD Directorate for Employment, Labour and Social Affairs, provided strategic oversight for the project, as well as comments.

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## Note

<sup>1</sup> A full list of participating organisations and stakeholders is included in Annex A.

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# Abbreviations and acronyms

The main abbreviations and acronyms used in the report are listed below. The Slovak acronyms are featured in the brackets.

ADMA	Association of Digital Marketing Agencies (Asociácia digitálnych marketingových agentúr)
ALMP	Active labour market policy
AmCham	American Chamber of Commerce
APZ	Association of Industrial Unions (Asociácia priemyselných zväzov)
AZZZ	Federation of Employers' Associations (Asociácia zamestnávateľských zväzov a združení)
CoG	Centre of government
CPPPaP	Centre of pedagogical and psychological counselling and prevention (Centrum pedagogicko-psychologického poradenstva a prevencie)
CŠPP	Centre of special pedagogical counselling (Centrum špeciálno-pedagogického poradenstva)
CVTI	Centre of Scientific and Technical Information (Centrum vedecko technických informácií)
EC	European Commission
ECVET	European Credit System for Vocational Education and Training
EBRD	European Bank for Reconstruction and Development
EEA	European Economic Area
EEPA	European Enterprise Promotion Award
EIB	European Investment Bank
ESCS	Economic, social and cultural status
ESF	European Social Fund
ESIF	European Structural and Investment Funds
ESL	Early school leaving
ESO	Effective, reliable and open state administration (Efektívna, spoľahlivá a otvorená verejná správa)
EPALE	Electronic Platform for Adult Learning in Europe
EQAVET	European Quality Assurance in Vocational Education and Training
EQF	European Qualifications Framework
EU	European Union
EUWIN	European Workplace Innovation Network
EWS	Early warning systems
EWIS	Early Warning Indicator System
FDI	Foreign direct investment
GDP	Gross domestic product
HEI	Higher education institution
HPWP	High-performance workplace practices
HR	Human resources
HRM	Human resource management
HSR	Economic and Social Council (Hospodárska a sociálna rada)

ICT	Information and Communication Technology
ILA	Individual Learning Account
iREG	Indicators of Regulatory Policy and Governance
ISCED	International Standard Classification of Education
ISTP	Labour market internet guide (Internetový sprievodca trhom práce)
ITAS	IT Association of Slovakia (IT Asociácia Slovenska)
JRA	Job requirements approach
KOZ	Confederation of Trade Unions (Konfederácia odborových zväzov)
LLL	Lifelong learning
MF	Ministry of Finance (Ministerstvo financií SR)
MPC	Methodology and Pedagogy Centre (Metodicko-pedagogické centrum)
MPSVR	Ministry of Labour, Social Affairs and Family (Ministerstvo práce, sociálnych vecí a rodiny SR)
MŠVVŠ	Ministry of Education, Science, Research and Sport (Ministerstvo školstva, vedy, výskumu a športu SR)
MV	Ministry of the Interior (Ministerstvo vnútra SR)
MZVEZ	Ministry of Foreign and European Affairs (Ministerstvo zahraničných vecí a európskych záležitostí SR)
NEET	Not in Education, Employment, or Training
NGO	Non-governmental organisation
NKR	National Qualifications Framework (Národný kvalifikačný rámec)
NPC	National Business Centre (Národné podnikateľské centrum)
NP MRK	National Project: Inclusive Model of Early Childhood Education (Národného project: Inkluzívny model vzdelávania na predprimárnom stupni školskej sústavy)
NP PRIM	National Project of Inclusion in Kindergartens (Národný projekt Inklúzie v materských školách),
NP PRINED	National Project of Inclusive Education (Národný projekt inkluzívnej edukácie)
NP PVTP	National Project: Forecasting of Developments of Labour Market Needs (Národný projekt: Prognózy vývoja na trhu práce)
NSK	National Qualifications System (Národná sústava kvalifikácií)
NÚCEM	National Institute for Certified Educational Measurements (Národný ústav certifikovaných meraní vzdelávania)
NÚCŽV	National Lifelong Learning Institute (Národný ústav celoživotného vzdelávania)
PD	Professional Development
PES	Public Employment Service
PIAAC	Programme for the International Assessment of Adult Competencies
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
QA	Quality Assurance
RIS	Resort Information System (Rezortný informačný systém)
RÚZ	National Union of Employers (Republiková únia zamestnávateľov)
R&D	Research and Development
SAA	Skills Assessment and Anticipation
SARIO	Slovak Investment and Trade Development Agency (Slovenská agentúra pre rozvoj investícií a obchodu)
SBA	Slovak Business Agency (Slovenská podnikateľská agentúra)
SFA	Slovak Franchise Association (Slovenská franchisingová asociácia)
SGIs	Sustainable Governance Indicators
SIEA	Slovak Innovation and Energy Agency (Slovenská inovačná a energetická agentúra)
SKKR	Slovak Qualifications Framework (Slovenský kvalifikačný rámec)
SMEs	Small and Medium-sized Enterprises
SOPK	Slovak Chamber of Commerce and Industry (Slovenská obchodná a priemyselná komora)
STEM	Science, Technology, Engineering and Mathematics

ŠIOV	State Institute for Vocational Education (Štátny inštitút odborného vzdelávania)
ŠIS	School Information Systems (Školský informačný systém)
ŠPÚ	National Institute of Education (Štátny pedagogický ústav)
ŠVP	National Education Programmes (Štátny vzdelávací program)
ŠŠI	State School Inspection (Štátna školská inšpekcia)
TALIS	Teaching and Learning International Survey
TIMSS	Trends in International Mathematics and Science Study
UNDP	United Nations Development Programme
ÚPSVaR	Central Office of Labour, Social Affairs and Family (Ústredie práce, sociálnych vecí a rodiny)
ÚPVII	Office of the Deputy Prime Minister for Investments and Informatization (Úrad podpredsedu vlády SR pre investície a informatizáciu)
ÚSŽZ	Office for Slovaks Living Abroad (Úrad pre Slovákov žijúcich v zahraničí)
VET	Vocational Education and Training
VÚDPaP	Research Institute for Child Psychology and Pathopsychology (Výskumný ústav detskej psychológie a patopsychológie)
WBL	Work-based learning
ZMOS	Association of Towns and Municipalities of Slovakia (Združenie miest a obcí Slovenska)
ZPS	Entrepreneurs Association of Slovakia (Združenie podnikateľov Slovenska)

# Executive summary

## OECD-Slovak Republic collaboration on the OECD National Skills Strategy project

This National Skills Strategy project provides Slovakia with tailored findings and recommendations on its skills performance from an international perspective. It was launched at the Skills Strategy Seminar in Bratislava in January 2019, with senior representatives from the Ministry of Education, Science, Research and Sport; the Ministry of Labour, Social Affairs and Family; the Ministry of Finance; the Ministry of Economy; and the Office of the Deputy Prime Minister of the Slovak Republic for Investments and Informatization. Also present were representatives of the European Commission. During two further missions to the Slovak Republic in April and June 2019, the OECD engaged with a range of ministries and government agencies and over 100 stakeholders in interactive workshops, group discussions and bilateral meetings (see Annex A). This process provided invaluable input that shaped the findings and recommendations in this report.

## Key findings and opportunities for improving the Slovak Republic's skills performance

Three important themes emerged from the National Skills Strategy project for Slovakia:

- **Equipping younger and older generations with the right skills for the future:** In the context of low (and declining) performance in the Programme for International Student Assessment (PISA), as well as the fact that many adults do not have the skills needed to succeed in an interconnected and digital world, Slovakia should invest in the skills of its people by raising the performance of schools, improving teacher quality and remuneration, strengthening the responsiveness of the education system, promoting adult learning, and developing entrepreneurial skills.
- **Ensuring inclusiveness in the development of skills:** There are significant equity concerns in the Slovak education and training system, including the strong impact of socio-economic background on skills performance. Slovak Roma students in particular face difficulties in progressing through the Slovak education system, and low-skilled adults insufficiently participate in adult learning.
- **Strengthening the governance of skills policies:** For Slovakia, many of today's skills challenges are rooted in inefficient governance arrangements, with ample room to improve collaboration between ministries and levels of government, and opportunities to strengthen the implementation of policies and reforms.

The OECD and the Government of Slovakia identified four priority areas for improving Slovakia's skills performance, which are the focus of this report. The key findings and opportunities for improvement in each of the areas are summarised below and elaborated in subsequent chapters, which also have detailed policy recommendations.

### ***Priority 1: Strengthening the skills of youth (Chapter 2)***

Ensuring that youth leave school with strong skills is key to ensuring that Slovakia has the skills it needs to achieve its economic and social ambitions.

In Slovakia, the skills of 15-year-olds (as measured by PISA) lag behind their peers in other OECD countries in reading and science, and are declining over time. Performance in school is uneven across different groups of youth, especially between Roma and non-Roma students.

Slovakia has opportunities to strengthen the skills of its youth by:

- Increasing enrolment in pre-primary education, especially among vulnerable groups.
- Supporting schools and teachers in their work with vulnerable students.
- Building a strong teaching workforce.

### ***Priority 2: Reducing skills imbalances (Chapter 3)***

Skills imbalances are costly for individuals, firms and the economy as a whole as they lead to lower investment and lower overall productivity.

Slovakia experiences shortages both among higher- and lower-skilled occupations. There are also strong skills mismatches among younger workers and tertiary educated workers. The low responsiveness of the secondary vocational education and training (VET) and tertiary education system have contributed to skills shortages and skills mismatches, whereas emigration and brain drain have been major drivers behind shortages.

Slovakia has opportunities to reduce skills imbalances by:

- Improving the dissemination of information on labour market and skills needs.
- Strengthening the responsiveness of students and their families to labour market needs.
- Strengthening the responsiveness of secondary VET and tertiary education institutions to labour market needs.
- Moving from “brain drain” to “brain gain”.

### ***Priority 3: Fostering greater participation in adult learning (Chapter 4)***

Adult learning is particularly important for Slovakia. The Slovak economy is strong and catching up with higher-income countries. Employment and wages are growing and the unemployment rate is historically low. Nonetheless, Slovak production and exports are concentrated in a small number of manufacturing industries and the risk of job automation is particularly high.

In this context, adult learning is, and will continue being, essential for boosting the skills of adults, and can generate a range of personal, economic and social benefits. More effective adult education and training will be needed to maintain or increase the level of skills to keep pace with these rapidly changing conditions.

Slovakia has opportunities to foster greater participation in adult learning by:

- Improving the governance of adult learning.
- Increasing participation among adults out of work.
- Supporting the capacity of employees and firms to engage in adult learning.

**Priority 4: Strengthening the use of skills in the workplace (Chapter 5)**

There has recently been growing awareness that how well employers use skills in the workplace may be just as important as the skills their workers possess.

The skills of adults are not used to their full potential in Slovakia, and the use of most types of employees' information processing, job-specific and generic skills could be intensified. The use of reading skills at work in Slovakia is below the OECD average, while the average literacy proficiency of adults is above average, and the use of ICT (Information and Communication Technology) skills could be strengthened. Despite the strong link found between the intensive use of skills and the adoption of high performance workplace practices (HPWP), such as flexibility in the workplace or teamwork, Slovak firms are adopting HPWP at a lower rate than their counterparts in most other countries.

Slovakia has opportunities to strengthen the use of skills in the workplace by:

- Creating the conditions to facilitate the adoption of HPWP in Slovak firms.
- Providing incentives and support to Slovak firms for the adoption of HPWP.
- Enhancing the governance of policies and strategies that affect skills use.

# 1 Key insights and recommendations

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This chapter applies the OECD Skills Strategy Framework to examine the characteristics and performance of the Slovak skills system. The findings are the basis for identifying, in consultation with the National Project Team, the four priority areas for action on skills use in Slovakia. This chapter introduces the priority areas and summarises the key findings and recommendations. It provides an overview of the policy context of the Slovak skills system, including descriptions of strategies and recent and new reforms related to skills and education. Subsequent chapters on each priority area provide an in-depth analysis of opportunities, present good practices and make policy recommendations.

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## Skills are key to responding to the challenges and opportunities associated with demographic change, digitalisation, and globalisation

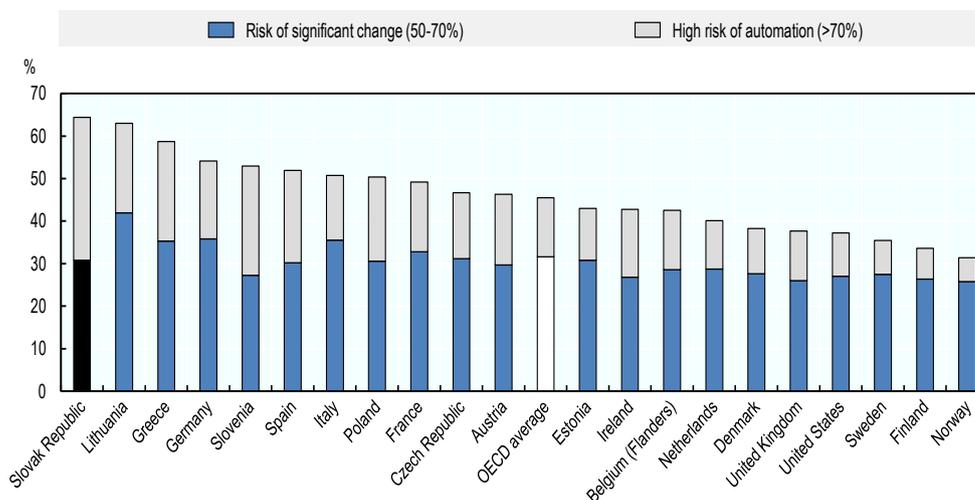
In recent years, economic growth in Slovakia has been solid, and international competitiveness has been strong. The economy is supported by a strong manufacturing sector – machinery, transport equipment and manufactured goods account for over 76% of total merchandise exports, and these sectors also provide work to a quarter of all Slovak employees (OECD, 2019<sup>[1]</sup>). However, in a constantly changing world, several developments could undermine this positive trajectory. Slovakia is particularly exposed to the effects of various megatrends, such as technological change, globalisation and demographic change, resulting in great challenges for the country and its policy makers. To ensure continued success, Slovakia should build on its current strengths and use them as a foundation to introduce new policies and practices that will benefit the environment, economy and society.

### ***The possible automation of jobs is a serious challenge for the Slovak Republic***

Digital innovations such as machine learning, big data and artificial intelligence (AI) will change the nature of many jobs and reshape how certain tasks are performed. OECD work building on the Survey of Adult Skills, a product of the Programme for the International Assessment of Adult Competencies (PIAAC), suggests that in the Slovak Republic, about 34% of workers face a high risk of seeing their jobs automated, and another 31% face significant changes in their job tasks due to automation (Nedelkoska and Quintini, 2018<sup>[2]</sup>). Driven by the large manufacturing sector in Slovakia, the share of jobs at risk of being automated is the highest among OECD-PIAAC countries (see Figure 1.1).

**Figure 1.1. Cross-country variation in job automatability and percentage of jobs at risk of significant change**

High risk – more than 70% probability of automation; risk of significant change –50-70% probability



Source: Nedelkoska, L. and G. Quintini (2018<sup>[2]</sup>), “Automation, skills use and training”, *OECD Social, Employment and Migration Working Papers*, No. 202, <http://dx.doi.org/10.1787/2e2f4eea-en>.

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## ***Demographic change and globalisation deepen the challenges***

Another challenge facing Slovakia is the shrinking share of the working-age population (OECD, 2018<sup>[3]</sup>). For every ten adults of working age in Slovakia, there are currently approximately two adults aged 65 and over. This ratio is low compared to most OECD countries, but will increase drastically and surpass the European Union (EU) average in 2050. In 2060, it is projected that there will be six adults aged 65 and over for every ten adults of working age. This trend poses a significant challenge to the Slovak economy. For instance, employment could decrease by one-fifth, and the catch-up rate of per capita income with the average for OECD countries might slow down, and even be reversed in the long term. This drop in the contribution of labour utilisation to economic growth will make productivity growth an even more important driver of economic growth in the future (OECD, 2018<sup>[3]</sup>).

Contributing further to the uncertainties associated with technological change is the continuing expansion of international trade and global value chains. Facilitated by new technologies and trade liberalisation, a more globalised world has arisen, characterised by the expansion of global supply chains and the outsourcing of certain forms of work. For the Slovak Republic, as in all OECD countries, this has strongly affected the competitiveness and success of different economic sectors, as well as the supply of jobs and demand for skills in the labour market (OECD, 2017<sup>[4]</sup>; 2017<sup>[5]</sup>). The growing awareness and knowledge of the impact of climate and environmental change on future growth and well-being in the Slovak Republic deepen these various challenges (Lubyová and Filčák, 2016<sup>[6]</sup>).

## ***Skills are key to building an adaptable and resilient economy and society***

Technological change, demographic change, and globalisation among other developments, demonstrate that skills are key to the capacity of countries and people to thrive in an interconnected and rapidly changing world. People will increasingly need to upgrade their skills to perform new tasks in their existing jobs or acquire new skills for new jobs. Strong foundational skills<sup>1</sup> will make people more adaptable and resilient to the changing skills demand; and digital, transversal, social and emotional, and job-specific skills will become increasingly essential for adults to succeed in both work and life. As stressed by the first principle of the European Pillar of Social Rights, everyone should be able to access high-quality and inclusive education, training and lifelong learning to enable full participation in society and to successfully manage transitions in the labour market.

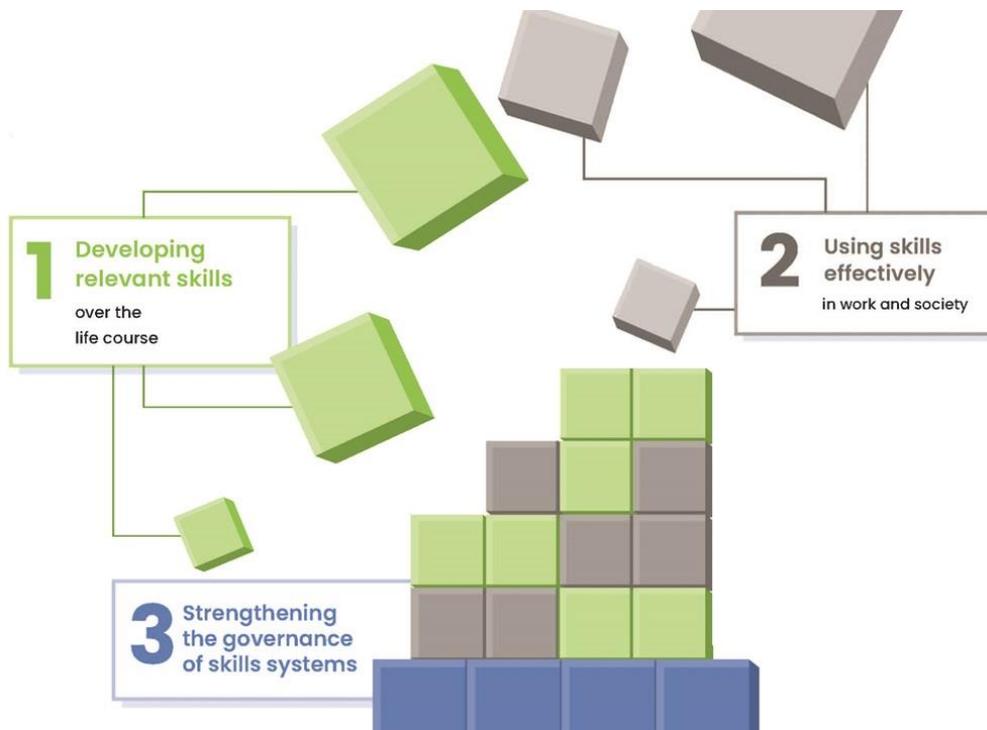
## **The OECD Skills Strategy project in the Slovak Republic**

OECD Skills Strategy projects provide a strategic and comprehensive approach to assess countries' skills challenges and opportunities and to build more effective skills systems. The OECD works collaboratively with countries to develop policy responses tailored to each country's specific skills challenges and needs. The foundation of this approach is the OECD Skills Strategy Framework (see Figure 1.2), the components of which are:

- **Developing relevant skills over the life course:** To ensure that countries are able to adapt and thrive in a rapidly changing world, all people need access to opportunities to develop and maintain strong proficiency in a broad set of skills. This process is lifelong, starting in childhood and youth and continuing throughout adulthood. It is also “life-wide”, occurring formally in schools and higher education, as well as non-formally and informally in the home, community and workplaces.
- **Using skills effectively in work and society:** To ensure that countries and people gain the full economic and social value from investments in developing skills, people need opportunities, encouragement and incentives to use their skills fully and effectively at work and in society.
- **Strengthening the governance of skills systems:** Success in developing and using relevant skills requires strong governance arrangements to promote co-ordination, co-operation and collaboration across the whole-of-government; engage stakeholders throughout the policy cycle; build integrated information systems; and align and co-ordinate financing arrangements.

The OECD Skills Strategy project for the Slovak Republic supports this approach by forming an inter-ministerial National Project Team to support the whole-of-government approach to skills policies, and by engaging a large number of stakeholders in two workshops (assessment and recommendations workshops) and in focus group meetings.

**Figure 1.2. The OECD Skills Strategy Framework**



Source: OECD (2019<sup>[7]</sup>), *OECD Skills Strategy 2019: Skills to Shape a Better Future*, <https://dx.doi.org/10.1787/9789264313835-en>.

### Key themes for the Slovak Republic's skills system

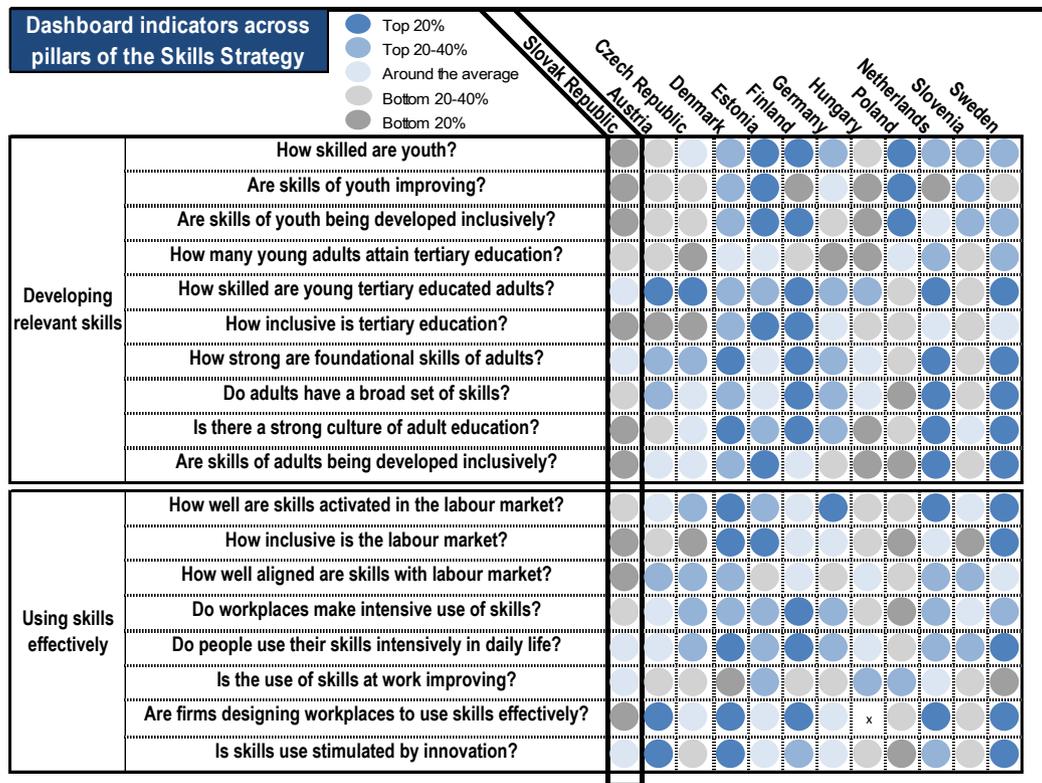
Three important themes for Slovakia emerged from the widespread engagement and analysis undertaken in relation to the three components of the OECD Skills Strategy:

- **Equipping younger and older generations with the right skills for the future:** In the context of demographic and technological change, and driven by low (and declining) performance in the Programme for International Student Assessment (PISA), as well as the fact that many adults do not have the skills to succeed in an interconnected and digital world (e.g. digital and problem-solving skills), Slovakia should invest in strengthening the skills of its people by raising the performance of schools, improving teacher quality and remuneration, strengthening the responsiveness of the education system, promoting adult learning, and developing entrepreneurial skills.
- **Ensuring inclusiveness in the development of skills:** There are significant equity concerns in the Slovak education and training system, including the strong impact of socio-economic background on skills performance for younger and older generations. In particular Slovak Roma students face difficulties in progressing through the Slovak education system, and low-skilled adults insufficiently participate in adult learning.
- **Strengthening the governance of skills policies:** For Slovakia, many of today's skills challenges are rooted in inefficient governance arrangements, with ample room to improve collaboration between ministries and levels of government, and opportunities to strengthen the implementation of policies, reforms and strategies.

## Performance of the Slovak skills system

The OECD Skills Strategy Dashboard provides an overview of the relative performance of countries across the dimensions of the OECD Skills Strategy (as presented in Figure 1.3) (OECD, 2019<sup>[1]</sup>). For each dimension of the strategy there are a number of indicators, many of which are composite indicators made up of a number of other indicators. These provide a snapshot of each country's performance (see Annex 1.A for indicators and method).

Figure 1.3. Skills Strategy Dashboard, the Slovak Republic and selected European countries



Note: These summary indicators are calculated as a simple average of a range of underlying indicators (see Annex 1.A for indicators). All underlying indicators have been normalised in a way that implies that a higher value and being among the “top 20%” reflects better performance. The “x” indicates insufficient or no available data, and dotted circles indicate missing data for at least one underlying indicator.

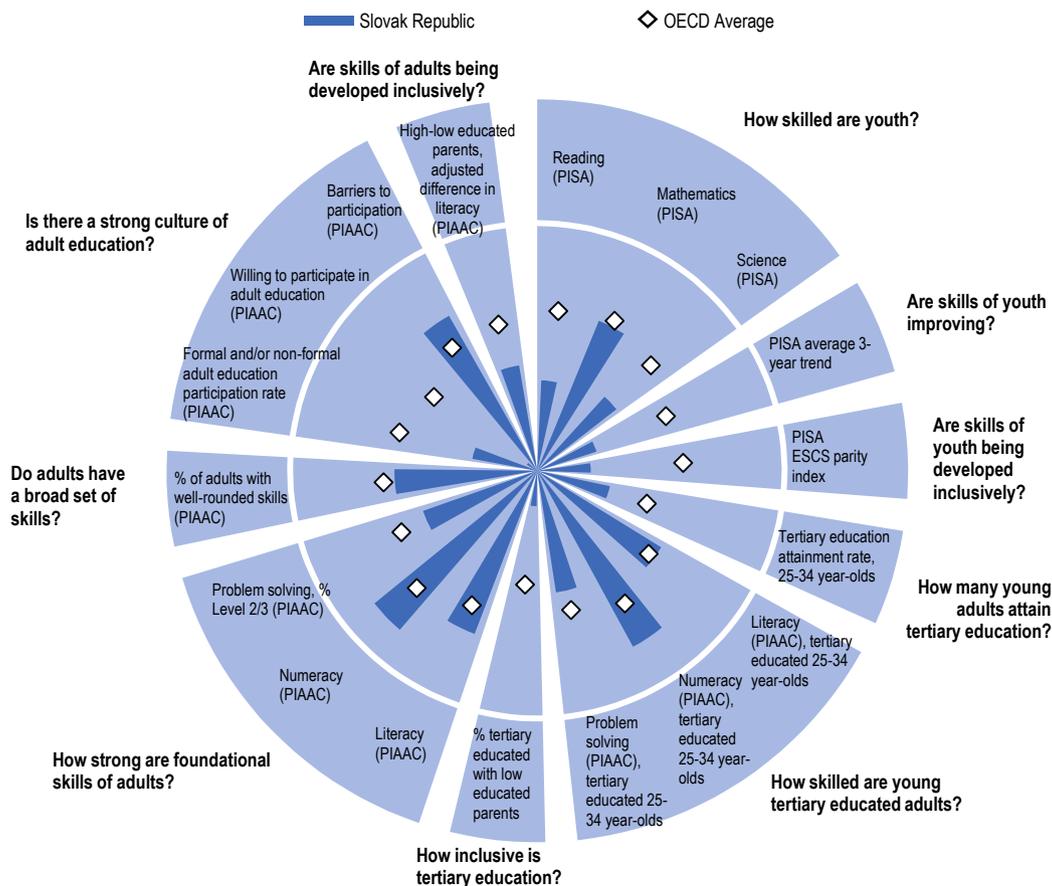
### Developing relevant skills

*The performance of young people and the inclusiveness of the education system could be improved*

There are significant opportunities to improve the skills of young people in Slovakia (see Figure 1.4). According to 2018 PISA scores, the performance of 15 year-olds lags behind those of their peers in other OECD countries in reading and science, while it is roughly at the level of the OECD average in mathematics (OECD, 2019<sup>[8]</sup>). In the latest PISA round, a trend of declining performance appears to have come to an end, with improvements on all PISA domains between 2015 and 2018, but the long term trend of PISA scores for reading, science and mathematics is still negative.

## Figure 1.4. Key indicators for developing relevant skills

Relative position in country ranking (based on normalised scores), where higher value reflects better performance



How to read this chart: The scores indicate relative performance across OECD countries: being further away from the core of the chart indicates better performance. For example, “PISA ESCS parity index” has a low score, which indicates large inequalities in PISA performance compared to other OECD countries.

Note: The OECD average (when using PIAAC data) is based on the sample of OECD countries/regions assessed in the Survey of Adult Skills. (See Annex 1.A for an explanation of sources and methodology).

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Student background has a strong influence on student achievement in Slovakia. For instance, with respect to reading scores, the difference between Slovak 15-year-olds in the top and bottom quarter of the PISA index of economic, social and cultural status (ESCS) equals 106 points, compared to an OECD average of 89 points (OECD, 2019<sub>[9]</sub>). Among disadvantaged groups, Roma students achieve especially low results – average PISA scores among Roma students<sup>2</sup> are significantly worse than non-Roma students in Slovakia (OECD, 2019<sub>[11]</sub>). Bearing in mind the crucial role played by student background, education policy in Slovakia should provide special support for students from disadvantaged backgrounds.

### *Tertiary education has expanded rapidly, but challenges remain*

The Slovak Republic has expanded tertiary education in recent years, with the tertiary attainment rate of 25-34 year-olds doubling between 2005 and 2015. However, the country still has a relatively small share of those who have attained tertiary education. In 2018, 37% of 25-34 year-olds attained tertiary education, compared with almost 45% in the OECD on average (OECD, 2019<sub>[10]</sub>). Moreover, the performance of tertiary education in terms of skills outcomes is mixed – while the numeracy skills of young adults with

tertiary education are high, problem-solving skills are below OECD averages. There is also substantial scope to raise the quality of university research (OECD, 2019<sup>[1]</sup>). Academic research produces a large number of publications, but the quality is comparatively low, as shown by the small share of publications among the most cited scientific publications internationally. These outcomes can partly be explained by the resources devoted to tertiary education, which are low by OECD standards and spread too thinly.

*The comparatively strong foundational skills of adults could be supported by a stronger culture of adult learning*

The foundational skills of adults in Slovakia, especially numeracy skills, are comparatively strong, which reflect a historically large share of the population with at least upper secondary education (OECD, 2016<sup>[11]</sup>). However, the skills most relevant to succeed in an interconnected and digital world, for instance problem-solving skills and digital skills, are not very well developed. For problem-solving skills, only 1 in 4 adults in Slovakia has a score reflecting high skills in this area.

A culture of lifelong learning is important for ensuring that adults keep their skills up-to-date and can adjust to changing skills needs, as well as to reduce inequities in skills performance. However, Slovakia has among the lowest participation rates in adult education in the OECD: only 32% of adults in Slovakia participated in formal and/or non-formal education in the last year in 2012, compared with 50% for OECD-PIAAC countries as a whole (OECD, 2017<sup>[12]</sup>). Moreover, participation in adult education particularly lags behind for those who need it most (older generations; low skilled; adults with low digital skills; and women, mainly those from the most disadvantaged populations). While participation rates do differ somewhat across surveys, most provide comparable results, including the Labour Force Survey, which shows a participation rate in the last four weeks of 3.9% in 2018 in Slovakia compared with 11.1% in the EU (Eurostat, 2018<sup>[13]</sup>).

*Many adults are not motivated to learn, and barriers to participation are high*

Many adults in Slovakia lack the motivation to participate in education and training, only Turkey has a higher share of adults not wanting to participate – 64% of adults in Slovakia did not participate and did not want to participate in adult learning in 2012, compared with 43% in OECD-PIAAC countries. In addition, adults in Slovakia face slightly more barriers to participation in adult education and training than in the OECD on average. According to OECD data, adults in Slovakia identify being too busy at work and lacking adequate employer support as the main obstacles to their participation.

## **Using skills effectively**

*Labour market performance has improved, but there are significant imbalances*

Labour market performance has improved considerably in recent years (see Figure 1.5), with unemployment rates at record low levels and wages on the rise in Slovakia (OECD, 2019<sup>[1]</sup>). This has led to skills shortages in many sectors. Shortages are especially large in higher-level cognitive skills, such as system skills (judgement and decision making, systems analysis and evaluation), basic skills (reading, writing and critical thinking) and complex problem-solving skills, as well as in a range of higher-level abilities (such as verbal and quantitative abilities). In contrast, there are surpluses in lower-level abilities such as endurance and physical strength (OECD, 2018<sup>[14]</sup>). Skills imbalances in Slovakia are further exacerbated by the emigration of young and well-educated Slovaks. According to employers, the negative impact of “brain drain” on the economic competitiveness of companies in Slovakia is among the highest in Europe – scoring a 1.7 on a scale of 0 (most negative effect) to 10 (least negative effect), compared with 4.2 in Poland, 5.0 in the Czech Republic, and 5.7 in Austria (IMD World Competitiveness Center, 2018<sup>[15]</sup>).

*Skills could be used more effectively in workplaces, especially to raise productivity*

Putting skills to better use in the workplace is important for workers, employers and the broader economy. Studies using data from the OECD Survey of Adult Skills (PIAAC) demonstrate the positive effects of using skills effectively on performance in both the economy and society, including employment, wages, health, trust and political efficacy (OECD, 2016<sup>[11]</sup>). In the light of automation and the rapid ageing of the Slovak population, it will become increasingly important to raise output by enhancing the use of skills in the workplace.

The skills of adults are not used to their full potential in the workplace. The use of most types of information processing skills by employees in Slovakia could be intensified – performance is generally close to the OECD average and far below that of top performers such as Scandinavian countries, New Zealand and Australia (OECD, 2016<sup>[11]</sup>). The use of reading skills at work, for instance, is well below the OECD average, while the average literacy proficiency of adults in Slovakia is above the average. This indicates a large waste of initial investment in skills. Furthermore, the use of information and communications technology (ICT) skills could be improved. To some extent, however, the low use of ICT skills is related to the overall low levels of digital skills of adults in Slovakia (Eurostat, 2019<sup>[16]</sup>).

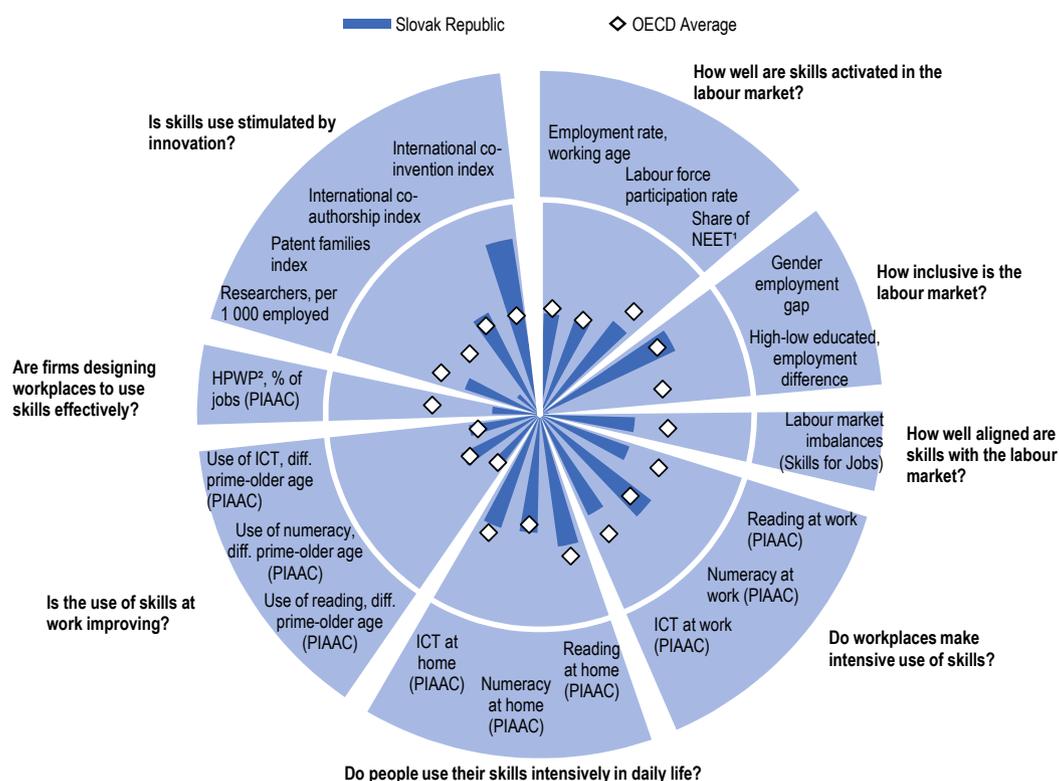
*Innovations in workplaces and the broader economy could support effective skills use*

Practices that are known to positively affect the performance of employees and firms are often referred to as high-performance workplace practices (HPWP). While there is no consensus on an exact definition of HPWP (Posthuma et al., 2013<sup>[17]</sup>; UKCES, 2009<sup>[18]</sup>) – there is, for instance, no universal list of practices that should be applied to any organisation – HPWP are considered to cover both organisational and management practices. This includes a wide range of workplace practices, including work flexibility and autonomy; teamwork and information sharing; training and development; and benefits, career progression and performance management (see Chapter 5). The adoption of HPWP is associated with more effective skills use; however, only 17% of all Slovak jobs adopted HPWP in 2012, compared with 26% among OECD-PIAAC countries (OECD, 2016<sup>[11]</sup>).

Increased business investment in a range of intangible assets – such as organisational capital, computerised information, design, and research and development (R&D) – is also positively associated with the effective use of skills, productivity and competitiveness. However, expenditure on R&D in the Slovak Republic was only 0.9% of gross domestic product (GDP) in 2017, which is one of the lowest rates in the OECD (OECD, 2018<sup>[31]</sup>), and the share of researchers in the workforce is comparatively low. Overall innovation activity is weak and not very international, for instance, a small share of patents is developed with foreign co-inventors (OECD, 2017<sup>[19]</sup>).

**Figure 1.5. Key indicators for using skills effectively**

Relative position in country ranking (based on normalised scores), where higher value reflects better performance



1. Youth not in employment education or training (NEET).

2. High-performance workplace practices (HPWP).

How to read this chart: The normalised scores indicate the relative performance across OECD countries: being further away from the core of the chart indicates better performance. For example, indicator "Use of reading, difference young-old (PIAAC)" indicates performance above OECD average, i.e. a comparatively large difference in the use of reading skills between younger and older generations, which demonstrates relatively strong improvements in the use of these skills.

Note: The OECD average (when using PIAAC data) is based on the sample of OECD countries/regions assessed in the Survey of Adult Skills. (See Annex 1.A for an explanation of sources and methodology).

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### **Strengthening the governance of skills systems**

Implementing reforms is challenging for governments, especially when policies involve a wide range of actors and entities, such as different levels of government and stakeholders, and cut across multiple policy sectors. Across the spectrum of policy sectors, policies aimed at improving skills outcomes – of both the development and use of skills – are a prominent example of complexity. Many of today's skills challenges are rooted in poor governance arrangements across policy areas and levels of government, as well as with stakeholders; inadequate information on skills and learning outcomes; and inefficient financing mechanisms.

*The effectiveness of strategies, policies and reforms is often compromised by weak implementation*

In Slovakia, strategies, policies and reforms tend to be well developed and comprehensive, but their implementation is often comparatively weak. This finding is supported by 2018 data from the Sustainable Governance Indicators (SGI), which found that overall “implementation” as a category of executive capacity scored 5.3 (on a scale of 10), compared with 6.8 on average across OECD countries (Bertelsmann Stiftung, 2019<sup>[20]</sup>). Drivers behind this weak implementation are the limited evaluation and monitoring of policies, as well as the lack of continuity and consistency of strategies.

*The whole-of-government approach to skills policies could be strengthened*

Despite attempts to strengthen the whole-of-government approach in Slovakia, there are indications that there is still limited co-operation between the various ministries and government organisations on innovation, labour market and education topics (OECD, 2014<sup>[21]</sup>). The SGI score for Slovakia on inter-ministerial co-ordination is 5.3, compared with 7.2 on average in the OECD (Bertelsmann Stiftung, 2019<sup>[20]</sup>). These findings are supported by the European Commission, which sees fragmentation of policy design and rigid departmentalism in Slovakia’s public administration as a major barrier to the implementation of policies and collaboration between ministries (European Commission, 2018<sup>[22]</sup>).

Slovakia appears to perform much better in terms of co-operation and co-ordination with stakeholders. This is reflected in the fact that it scored among the highest in the 2015 OECD Indicators of Regulatory Policy and Governance (iREG) on stakeholder engagement (OECD, 2017<sup>[23]</sup>).

## **Policy context in the Slovak Republic**

The Slovak government has already taken steps to address many of the challenges identified in this chapter. These efforts go in the right direction and have the potential to generate the policy outcomes the country needs to strengthen adult education and training, and to more effectively use skills at work and in society.

A number of long-term visions related to skills and education have been developed in recent years (see Table 1.B.1 in Annex 1.B for a complete list). For example, the Strategy of the Digital Transformation of Slovakia 2030 defines policy priorities for the period 2019-2030 in the context of the challenges linked to digitalisation. As an inter-departmental strategy, it will be the basis for the development of specific measures, such as the Action Plan of the Digital Transformation of Slovakia 2019-2022.

For the long term, the Slovak government has developed the Economic Policy Strategy of the Slovak Republic until 2030. This comprehensive document proposes a broad range of measures in areas such as human capital development, technological change and business environment development to ensure the competitiveness and sustainability of economic growth. In 2019, the Slovak Republic also adopted the Strategy of the Environmental Policy until 2030, which defines the vision, sets objectives, proposes a framework for measures, and lists indicators to achieve better environmental quality and sustainable circulation of the economy. This strategy lists environmental education and education for sustainable development as one of its major priorities.

For education specifically, the National Programme for the Development of Education (“Learning Slovakia”) was developed in 2018. This document identifies the direction of Slovak education for the next ten years (2018-2027) and includes 12 objectives and 106 measures. It is supported by an implementation plan consisting of five action plans, each of which cover a two-year period.

Strategies adopted by the Slovak government for periods ending in 2020 include the National Employment Strategy of the Slovak Republic until 2020 (identifying macroeconomic determinants of employment

development). In 2016, the Slovak government launched a Government Manifesto that defined priorities and interventions in education for 2016-2020. This manifesto has both qualitative and quantitative targets.

For policies related to adult learning, the Lifelong Learning Strategy, adopted in 2011, formulates the key priorities in lifelong learning and includes implemented and evaluated action plans. A new strategy for lifelong learning is currently being developed. The National Programme of Active Ageing 2014-2020 identifies goals to activate the adult population, with several linked to adult learning. Slovakia has also developed strategies on other specific topics, for instance migration policies (the 2018 Strategy for the Mobility of Foreigners in the Labour Market in the Slovak Republic) and innovation (the 2018 Action Plan for Smart Industry).

Recently introduced reforms and policies in the field of skills and education (see Table 1.B.2 in Annex 1.B for a complete list) include the 2018 Act on Quality Assurance in Higher Education, which includes new specific legislation to assure quality in higher education, including by involving stakeholders (employers, graduates, research institutions) in reviewing the content of study programmes. In 2015, the Slovak government introduced the Act on Vocational Education and Training, which covers a broad range of topics including vocational education and training (VET) in secondary education, practical training, dual education, and co-ordination of VET for the labour market. In the same year, the Slovak Qualifications Framework (SKKR) was adopted. The SKKR is a tool that allows for common understanding and the fine-tuning of learning outcomes, taking into account different learning pathways. It builds on the involvement and participation of stakeholders in the development of qualifications, and offers opportunities for the adaptation of qualifications to the needs of the labour market and society.

The above-mentioned reforms and long-term visions and strategies provide only a sample of the most recent initiatives directly related to improving the development, activation and use of skills. Nonetheless, they indicate how actively the Slovak government has worked to address skills challenges. The following section provides more detailed information on how these policies, reforms and strategies are related to the priority areas.

## Priority areas and recommendations

Based on the assessment of the overall performance of the Slovak skills system and the feedback from the Slovak government, four priority areas have been identified as part of the Skills Strategy project in the Slovak Republic:

1. Strengthening the skills of youth (Chapter 2).
2. Reducing skills imbalances (Chapter 3).
3. Fostering greater participation in adult learning (Chapter 4).
4. Strengthening the use of skills in workplaces (Chapter 5).

Based on in-depth desktop analysis, stakeholder workshops and discussion groups, the OECD has selected opportunities and developed recommendations for the Slovak Republic in each of the priority areas. The summaries below highlight the key findings and recommendations for each priority area, and the specific chapters that follow present the complete findings and describe the recommendations in more detail.

### ***Priority 1: Strengthening the skills of youth***

Ensuring that youth leave school with strong skills is key to ensuring that Slovakia has the skills it needs to achieve its economic and social ambitions. The development of strong skills in young people not only paves the way to success in higher education and the labour market, but also helps to foster a culture of lifelong learning that will play a part in building an adaptable and resilient society. Providing youth with

a strong set of skills also helps to foster strong self-esteem and provides young people with the aptitude to contribute towards the building of a sustainable society for future generations. Building up an adequately skilled generation that is able to eventually easily join and strengthen the labour force also has wider positive effects on the social cohesion and general well-being of the country.

In Slovakia, the skills of 15 year-olds (as measured by the PISA) lag behind their peers in other OECD countries in reading and science and are declining over time on all three domains measured by PISA (reading, science, mathematics). In addition, the performance in school is uneven across different groups of youth, especially between Roma and non-Roma students.

*Opportunity 1: Increasing enrolment in pre-primary education, especially among vulnerable groups*

Data from PISA 2015 show a strong, positive relationship between the number of years that 15-year-old students spend in early childhood education and their scores on the PISA science assessment, even when comparing students from similar backgrounds (OECD, 2019<sup>[8]</sup>). In Slovakia, the score-point difference in science performance between 15-year-old students who attended early childhood education (ISCED 0) for two years or more and those who attended pre-primary educational facilities for less than two years is roughly 25.7 points (almost one year of schooling), after accounting for student and school socio-economic profile. Similarly, data from PISA show that Slovak students who spend three or more years in early childhood education are four times less likely to be low performers in the PISA assessment. Therefore, Slovakia should take advantage of the benefits of high-quality pre-primary education and continue its efforts to increase enrolment, especially among vulnerable groups, by ensuring the availability of pre-primary schools in disadvantaged regions and by building the trust of disadvantaged groups in the school system.

*Opportunity 2: Supporting schools and teachers in their work with vulnerable students*

PISA 2018 scores indicate that the general skills of 15 year-olds in the Slovak Republic lag behind those of their peers in other OECD countries in reading and science, and match the OECD average in mathematics (OECD, 2019<sup>[8]</sup>). However, the average scores obscure considerable variation in school performance across different groups of Slovak youth. Socio-economic status (including parental education and occupation, wealth and educational resources) has a large impact on school performance of Slovak students. In fact, 17.5 % of the variance in students' reading performance in Slovakia is accounted for by differences in students' socio-economic status which is above the OECD average of 12% (OECD, 2019<sup>[9]</sup>). Therefore, focusing on vulnerable students and supporting schools and teachers in better catering to their needs has significant potential to improve the student performance of these groups, and therefore boost the overall level of skills of youth. More specifically, Slovakia should do so by providing targeted support to vulnerable students and identifying schools and students at risk.

*Opportunity 3: Building a strong teaching workforce*

Building up a strong teaching workforce is critical for improving the skills of youth. Research shows that teacher quality has a significant impact on student learning outcomes and academic achievement (Schacter and Thum, 2004<sup>[24]</sup>; Hanushek, Piopiunik and Wiederhold, 2018<sup>[25]</sup>), and that those effects can be persistent (Konstantopoulos and Chung, 2011<sup>[26]</sup>). Unfortunately, a number of factors hinder Slovakia's capacity to attract and retain high-quality teachers in the education system, the most relevant being teachers' salaries. However, higher salaries will provide neither an automatic nor a comprehensive solution to the low levels of attractiveness of the teaching profession, and there are other aspects that need to be improved in parallel. Slovakia should thus focus on enhancing the practical aspects of curricula in initial teacher training, improving the professional development of teachers and enhancing teacher career advancement.

## Overview of recommendations

<b>Opportunity 1: Increasing enrolment in pre-primary education, especially among vulnerable groups</b>	
Improving the availability of pre-primary schools in disadvantaged regions	<ul style="list-style-type: none"> <li>Gradually introduce a legal entitlement for 3 and 4 year-olds to attend pre-primary education.</li> <li>Increase the number of public kindergartens to accommodate the new demand, while also giving private providers the opportunity to complement the supply.</li> </ul>
Lowering the perceptual and financial barriers that prevent disadvantaged groups from enrolling in pre-primary education	<ul style="list-style-type: none"> <li>Strengthen the capacities and reach of on-the-ground work with vulnerable families.</li> <li>Adjust the criteria for receiving financial assistance in order to better cover the population of socially disadvantaged children.</li> </ul>
<b>Opportunity 2: Supporting schools and teachers in their work with vulnerable students</b>	
Providing targeted support to vulnerable students	<ul style="list-style-type: none"> <li>Provide school teachers working with vulnerable students easily implementable international best practice examples of teaching these students.</li> <li>Strengthen co-operation and communication between schools, vulnerable students' families and social services.</li> <li>Simplify the administrative complexity of setting-up individual educational programmes.</li> </ul>
Identifying schools and students at risk	<ul style="list-style-type: none"> <li>Transform the Resort Informational System (RIS) into a fully-fledged early warning system (EWS) by redesigning it to collect data on pupil attendance and grades.</li> <li>Embed the EWS within a wider, flexible and personalised system of response to prevent early school leaving.</li> </ul>
<b>Opportunity 3: Building a strong teaching workforce</b>	
Enhancing the practical aspects of curricula in initial teacher training	<ul style="list-style-type: none"> <li>Legislate a minimum share of practical training for student teachers at universities.</li> <li>Facilitate the establishment of partnerships between pedagogical faculties and schools.</li> </ul>
Improving the professional development of teachers	<ul style="list-style-type: none"> <li>Strengthen the quality and relevance of professional development.</li> <li>Expand the diversity of teacher professional development.</li> </ul>
Supporting teacher career advancement	<ul style="list-style-type: none"> <li>Establish clear guidelines for the creation of portfolios.</li> <li>Support teachers in the transition towards the portfolio system.</li> <li>Unify teaching standards across the system.</li> <li>Make mentoring activities a key component of career advancement.</li> </ul>

## Priority 2: Reducing skills imbalances

Skills imbalances are comprised of shortages and skills mismatches. Skills imbalances are costly for individuals, firms and the economy as a whole as they lead to lower investment and lower overall productivity. The existing evidence suggests that Slovakia experiences shortages both among higher-skilled occupations (such as engineers) and lower-skilled occupations (such as assemblers). There are also strong skills mismatches among younger workers and tertiary educated workers. The low responsiveness of the secondary VET and tertiary education system have contributed to skills shortages and skills mismatches, whereas emigration and brain drain have been major drivers behind shortages.

### *Opportunity 1: Improving the dissemination of information on labour market and skills needs*

Effectively disseminating information on current and future labour market and skills needs is crucial to address shortages and skills mismatches. Skills assessment and anticipation (SAA) exercises are the main tools to generate and disseminate information on labour market and skills needs. To minimise shortages and skills mismatches, the results from SAA tools should be tailored and disseminated to different users, including policy makers, education and training institutions, students, adult learners, career guidance services, and employers. The evidence suggests that the dissemination of information from SAA tools in Slovakia is fragmented and not always tailored to the needs of different users.

*Opportunity 2: Strengthening the responsiveness of students and their families to labour market needs*

To minimise skills imbalances, students and their families need to become more responsive to labour market needs and make choices that are aligned with current and future labour market dynamics. This typically requires improving the direct dissemination of information from SAA tools to students and their families, and providing effective career guidance services. In the Slovak context, the direct dissemination of information and effective career guidance could help reduce skills mismatches among younger workers and tertiary graduates, as well as reduce shortages among both medium-skilled and high-skilled occupations. So far, Slovakia has struggled to directly disseminate information on labour market and skills needs to students and their families, and the available evidence shows that performance in terms of career guidance has not been stronger. However, Slovakia has recently introduced some reforms in schools, which will need to be adequately supported and complemented.

*Opportunity 3: Strengthening the responsiveness of secondary VET and tertiary education institutions to labour market needs*

Students making choices aligned with labour market needs is insufficient to ensure a responsive education system; education institutions also need to supply programmes that align with labour market needs. This depends on the incentives designed by the government and effective collaboration between education institutions and employers. In Slovakia, improving the alignment of the secondary VET offering to labour market needs is important to close shortages in medium-skilled occupations. Improving the alignment of the tertiary offering would help minimise shortages among higher-level occupations and contribute to reducing skills mismatches among tertiary graduates. The available evidence suggests that Slovakia has struggled to develop effective financing and regulatory arrangements, as well as strong collaboration between education institutions and employers, both in secondary VET and tertiary education. However, some reforms have recently been introduced to improve the performance of secondary VET institutions and the quality assurance regime in tertiary education. These reforms will need to be carefully supported going forward.

*Opportunity 4: Moving from “brain drain” to “brain gain”*

Since joining the EU in 2004, emigration and brain drain have been a major concern for Slovakia. However, the emigration of Slovaks has slowed down in the last few years, and improved economic conditions have led to positive net migration. Going forward, Slovakia could increase its efforts to attract and retain workers from abroad. This could help address skills shortages, especially in the short term. However, Slovakia has struggled to develop a coherent policy response to attract Slovak and foreign workers from abroad. It does not have a single body responsible for overseeing engagement with the diaspora and has not developed a comprehensive diaspora engagement policy. Slovakia has recently simplified the procedures to hire non-EU/EEA (European Economic Area) workers, but it can further improve policies for the relocation and integration of foreign workers.

## Overview of recommendations

<b>Opportunity 1: Improving the dissemination of information on labour market and skills needs</b>	
Strengthening the dissemination of information from SAA tools to all users	<ul style="list-style-type: none"> <li>Develop a comprehensive strategy to consolidate results from multiple SAA exercises, and tailor dissemination to different users.</li> </ul>
<b>Opportunity 2: Strengthening the responsiveness of students and their families to labour market needs</b>	
Improving the direct dissemination of information to students and their families	<ul style="list-style-type: none"> <li>Introduce a one-stop-shop portal that allows students and their families to access information on labour market and skills needs and study opportunities.</li> <li>Consider launching a publicity campaign targeted at students and their families that advertises the importance of using labour market information.</li> </ul>
Expanding career guidance in schools and universities	<ul style="list-style-type: none"> <li>Complement reforms to career guidance in schools by implementing clear standards for the compensation of school counsellors, as well as the range of services offered.</li> <li>Provide targeted funding and tighten regulatory requirements for career guidance centres in universities.</li> </ul>
<b>Opportunity 3: Strengthening the responsiveness of secondary VET and tertiary education institutions to labour market needs</b>	
Supporting recent reforms in secondary VET institutions	<ul style="list-style-type: none"> <li>Support recent reforms on the allocation of funding and study places in secondary institutions by making full use of the results from SAA tools.</li> <li>Support the recently introduced dual system by financing employer-led training associations.</li> <li>Further strengthen the role and capacity of sectoral assignees in curriculum development, quality assurance and the provision of information.</li> </ul>
Strengthening incentives to align tertiary education with labour market needs	<ul style="list-style-type: none"> <li>Introduce more targeted incentives to monitor the employability of graduates in the funding structure.</li> <li>Consider introducing separate governance and funding arrangements for professionally oriented institutions to encourage the uptake of professional bachelor programmes.</li> </ul>
<b>Opportunity 4: Moving from “brain drain” to “brain gain”</b>	
Attracting Slovak workers from abroad	<ul style="list-style-type: none"> <li>Identify or introduce a government body responsible for the implementation of a diaspora engagement programme.</li> <li>Develop a comprehensive strategy for engagement with the diaspora that builds on data on the skills and motivation of Slovaks abroad.</li> </ul>
Attracting foreign workers from abroad	<ul style="list-style-type: none"> <li>Streamline and improve the recently introduced hiring procedures for non-EU/EEA workers.</li> <li>Introduce a one-stop-shop portal for foreign workers that advertises employment opportunities in Slovakia and supports the relocation process.</li> <li>Strengthen the provision of services that can support the integration of foreign workers.</li> </ul>

### **Priority 3: Fostering greater participation in adult learning**

Across the OECD, adults with lower literacy and numeracy levels are far more likely than those with higher levels of skills to have lower earnings and employment rates, report poor health, feel excluded from political processes and report not having trust in others. There is also a growing need to upgrade and reskill regularly in adulthood in the context of technological change, more frequent transitions between jobs, the growth of non-standard forms of work (and by extension less access to employer-sponsored training) and the lengthening of working lives.

The Slovak economy is strong and catching up with higher-income countries. Employment and wages are growing and the unemployment rate is historically low, dipping below 7%. Nonetheless, Slovak production and exports are concentrated in a small number of manufacturing industries. The high degree of specialisation and agglomeration has allowed for the development of clusters, which have been relevant in attracting foreign direct investments (FDI). However, this is also a source of vulnerability, especially as the risk of automation is particularly high in Slovakia. In this context, adult learning is, and will continue being, essential for boosting the skills of adults, and can generate a range of personal, economic and social benefits. More effective adult education and training will be needed to maintain or increase the level of skills to keep pace with these rapidly changing conditions.

### *Opportunity 1: Improving the governance of adult learning*

Increasing participation in adult learning requires a policy framework that is well co-ordinated. In order to encourage adults to participate in learning and education over their life course, the importance of adult learning, as well as a clear definition of what it is, needs to be acknowledged across all levels of government and society. A clear connection between government goals and policies, as well as a consensual, coherent, long-term vision supported by an unambiguous division of responsibilities is necessary for the functioning of an adult learning system that is capable of easily attracting and retaining participants. Slovakia should therefore focus its efforts on improving the governance of its adult learning system by further improving its long-term adult learning strategy, as well as by improving co-ordination across ministries, levels of government and stakeholders.

### *Opportunity 2: Increasing the participation among adults out of work*

Unemployed and long-term unemployed adults have among the lowest participation levels in adult learning not only in Slovakia, but also across the OECD. A similar situation can be observed with respect to the gaps between their participation in adult learning and that of employed Slovaks. The participation of unemployed Slovaks is thus integral for increasing the overall participation level in adult learning. The continued education and training of unemployed adults as a way of re/upskilling presents important gains, not only at an individual level by increasing the employment prospects and related economic and mental well-being of individuals, but at a government level through a better qualified workforce, lower unemployment rate, stronger and more resilient economy, and reduced pressure on the welfare state. As a result, Slovakia should concentrate its efforts on increasing participation in adult learning among unemployed adults by providing high-quality and accessible training, and strengthening the outreach of labour offices.

### *Opportunity 3: Supporting the capacity of employees and firms to engage in adult learning*

Although the participation of employed adults in adult learning is higher than unemployed adults in Slovakia, it is unequal, with workers most in need of continuous education and training participating considerably less than those without as much need. For instance, adults working in small and medium-sized enterprises (SMEs) participate less in adult learning than employees of large firms, both within Slovakia and when compared internationally. Only five other OECD countries report having lower participation of SME employees in adult learning. Also, the training provided to adults in large companies tends to be firm specific, thus failing to develop the general human capital and basic, transferable skills of Slovak workers. Various barriers to inclusive participation in adult learning in Slovakia have been identified. An important step forward will depend on removing the financial barriers that both individuals and firms face through the provision of financial incentives. In the context of the ongoing analysis of the new financial instruments, Slovakia should seek to maximise its potential to increase inclusive participation in adult learning by designing targeted individual learning accounts that reflect labour market needs, and target tax exemptions at SMEs.

## Overview of recommendations

<b>Opportunity 1: Improving the governance of adult learning</b>	
Further improving Slovakia's long-term adult learning strategy	<ul style="list-style-type: none"> <li>• Unify the existing strategies and initiatives into one coherent lifelong learning strategy.</li> <li>• Emphasise the governance, financing and equity aspects of adult learning in the new lifelong learning strategy.</li> <li>• Explicitly acknowledge in the new lifelong learning strategy that the need for adult learning is greater in certain Slovak regions.</li> </ul>
Improving co-ordination across ministries, levels of government and stakeholders	<ul style="list-style-type: none"> <li>• Introduce cross-sectoral co-ordination during the implementation and monitoring stages of policy/programme cycles.</li> <li>• Reinforce co-ordination with regions and districts.</li> </ul>
<b>Opportunity 2: Increasing the participation among adults out of work</b>	
Providing high-quality and accessible training	<ul style="list-style-type: none"> <li>• Direct a greater share of ALMP spending to labour market relevant training and education.</li> <li>• Increase resources for the Central Office of Labour, Social Affairs and Family (Ústredie práce, sociálnych vecí a rodiny, UPSVR) counselling services to expand access to training for unemployed adults, especially those long-term unemployed and with low skills.</li> </ul>
Strengthening the outreach of labour offices	<ul style="list-style-type: none"> <li>• Integrate municipalities into the employment registration process to expand access to training opportunities for hard-to-reach groups of unemployed adults.</li> <li>• Consider the use of data driven processes and tools to increase the capacity and efficiency of labour offices.</li> </ul>
<b>Opportunity 3: Supporting the capacity of employees and firms to engage in adult learning</b>	
Designing targeted incentives that reflect labour market needs	<ul style="list-style-type: none"> <li>• When piloting an ILA scheme, consider the different enabling conditions that are prerequisites for successful implementation.</li> <li>• Training subsidies should be spent on approved training courses only.</li> </ul>
Targeting tax exemptions at SMEs	<ul style="list-style-type: none"> <li>• Consider differentiated tax exemptions for SMEs.</li> <li>• Limit tax deductions to non-wage costs only.</li> <li>• Tax deductions should only apply to approved training courses.</li> </ul>

### **Priority 4: Strengthening the use of skills in workplaces**

There has recently been a growing awareness that how well employers use skills in the workplace may be just as important as the skills their workers possess. To not waste the initial investment in skills development, and to limit the depreciation and obsolescence of unused skills, countries should strive to use skills as intensively as possible in the economy, workplaces and society (Guest, 2006<sup>[27]</sup>). Putting skills to better use in the workplace is important for workers, employers and the broader economy, with benefits for both the economy and society (OECD, 2019<sup>[7]</sup>). In the context of megatrends, there is an even stronger need to improve the effective use of skills in the workplace to ensure the long-term sustainability of Slovakia's economy.

The skills of adults are not used to their full potential in the Slovak workplace, and the use of most types of employees' information processing, job-specific and generic skills could be intensified. As one of the few countries in the OECD, the use of reading skills at work in Slovakia is well below the OECD average, while the average literacy proficiency of adults in Slovakia is above the average (OECD, 2016<sup>[11]</sup>), and also the use of ICT skills could also be strengthened. There is a strong link between the intensive use of skills and the adoption of HPWP, including 1) flexibility and autonomy in the workplace; 2) teamwork and information sharing; 3) training and development; and 4) benefits, career planning and performance management (OECD, 2016<sup>[28]</sup>). However, Slovak firms are adopting HPWP at a lower rate than their counterparts in most other countries: about 17% of jobs adopted these practices, compared with 26% in the OECD; only Italy, Turkey and Greece have a lower share across the OECD.

*Opportunity 1: Creating the conditions to facilitate the adoption of HPWP in Slovak firms*

Skills use can be improved by creating a culture in firms where innovation and entrepreneurship flourish. To develop such a culture, it is essential that employees, management staff, employers and entrepreneurs have the skills and motivation to make changes in organisation and management practices. In Slovakia, there are indications that such a working culture, as well as the required skills and motivations, can be strengthened. The low adoption of HPWP in Slovakia, despite various programmes and measures, indicates that for many firms, there are other factors contributing to the limited adoption. It is likely that systemic barriers within the firms play a role. For Slovakia, it would be important to develop a working environment and working culture that strengthens the engagement and job satisfaction of employees to support changes in workplaces. Furthermore, the adoption of HPWP would be facilitated by strengthening the skills and motivation of management staff, as well as improved attitudes towards entrepreneurship.

*Opportunity 2: Providing incentives and support to Slovak firms for the adoption of HPWP*

The strong productivity growth and success of the Slovak economy in recent years has largely been driven by joining global value chains supported by large foreign investment inflows, which has created a competitive export-led manufacturing industry. However, the overall strong average economic performance hides large disparities, with in particular, predominantly domestically owned SMEs increasingly falling behind. Strengthening the adoption of HPWP in SMEs and local firms could help to counter the trend of divergence and would support broader, more sustainable economic growth in Slovakia. In addition to raising the awareness of skills use and HPWP, targeted measures and initiatives that directly support Slovak firms should be introduced, and current support measures should be strengthened and expanded. A decentralised approach, supported by employer groups, business clusters and sectoral associations could contribute to more knowledge spillovers to the local SMEs.

*Opportunity 3: Enhancing the governance of policies and strategies that affect skills use*

Implementing reforms is challenging for governments, especially when policies involve a wide range of actors and entities and cut across multiple policy sectors. The inherent difficulties in co-ordinating and aligning different policy sectors and actors is one of the main challenges impeding a more effective and efficient implementation of skills policies. For Slovakia, there are indications that these governance arrangements can be strengthened. A long-term vision for skills use and HPWP could help to raise Slovakia's performance. The topics should be included more explicitly in existing visions, strategies and action plans, and Slovakia should ensure the continuity, consistency and actual implementation of these initiatives. A whole-of-government approach and active engagement of stakeholders are crucial for optimal outcomes of the government's actions to raise skills and the adoption of HPWP, and the role of the public sector, especially its effectiveness and efficiency should be taken into account.

## Overview of recommendations

<b>Opportunity 1: Creating the conditions to facilitate the adoption of HPWP in Slovak firms</b>	
Creating a supportive working environment for employees	<ul style="list-style-type: none"> <li>• Raise the job satisfaction of Slovak workers by promoting a working environment where workers' contributions are recognised, valued and rewarded.</li> <li>• Raise employee engagement by strengthening employee representative structures in Slovak firms.</li> </ul>
Strengthening the skills and motivation of management staff	<ul style="list-style-type: none"> <li>• Raise awareness of the need to improve the quality of management staff and share knowledge and examples of strong management practices.</li> <li>• Raise the participation of management staff in education and training by improving and expanding the overall training offer that is relevant for management.</li> </ul>
Developing entrepreneurial attitudes from early on in the education system	<ul style="list-style-type: none"> <li>• Improve attitudes towards entrepreneurship by expanding and strengthening public and private programmes in the education system that develop entrepreneurial skills.</li> </ul>
<b>Opportunity 2: Providing incentives and support to Slovak firms for the adoption of HPWP</b>	
Raising awareness of skills use, workplace practices and support measures	<ul style="list-style-type: none"> <li>• Promote the benefits of skills use and workplace innovations through campaigns and by introducing a centralised portal with relevant information.</li> <li>• Expand awareness of existing support measures for firms, especially among SMEs.</li> </ul>
Strengthening and expanding support measures to firms	<ul style="list-style-type: none"> <li>• Improve the accessibility of support programmes for SMEs by reducing the administrative burden.</li> <li>• Strengthen support to firms by consolidating and aligning support measures and by offering programmes to all firms.</li> </ul>
Leveraging employer groups, clusters and sectoral associations for the adoption of HPWP and to facilitate knowledge spillovers	<ul style="list-style-type: none"> <li>• Strengthen current employer networks, clusters and associations, including by stimulating the participation of local SMEs.</li> <li>• Introduce programmes that facilitate and promote the exchange of knowledge between large international firms and local SMEs.</li> </ul>
<b>Opportunity 3: Enhancing the governance of policies and strategies that affect skills use</b>	
Strengthening visions, strategies and action plans for the growth and innovation of firms and workplaces	<ul style="list-style-type: none"> <li>• Develop a long-term vision for skills use and HPWP by including them more explicitly in existing visions, strategies and action plans, and ensure their continuity, consistency and implementation.</li> </ul>
Applying a whole-of-government approach and engaging stakeholders in policies that affect skills use	<ul style="list-style-type: none"> <li>• Strengthen co-operation and co-ordination between all ministries, government organisations and stakeholders in the development of policies that affect skills use and workplace practices.</li> </ul>
Enhancing the adoption of HPWP in the public sector to raise effectiveness and efficiency	<ul style="list-style-type: none"> <li>• Strengthen the adoption of HPWP in the public sector by setting government-wide standards and requirements.</li> <li>• Ensure that civil servants have the right skills for their work by improving learning opportunities and strengthening the recruitment system.</li> </ul>

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# Annex 1.A. OECD Skills Strategy Dashboard: Slovak Republic

This annex addresses the OECD Skills Strategy Dashboard for the Slovak Republic. The objective of this Dashboard is to present an overview of the performance of skills systems in OECD countries. It is the starting point for analysis in the diagnostic phase of national Skills Strategy projects and allows the OECD and the National Project Team to identify the priority skills policy themes to be covered in greater detail in the report. Presenting the relative position of countries on key skills outcomes, the Dashboard provides a general overview of the Slovak skills system's strengths and weaknesses. This annex describes the characteristics, presents the indicators and describes the underlying methods for calculating indicators.

## Characteristics

The Dashboard is the result of internal consultation and analysis of core indicators used in OECD Skills Strategy projects. It presents a simple, intuitive overview of the outcomes of skills systems that is easy to interpret, and gives a quick impression of a country's skills performance across the pillars of the OECD skills strategy ("developing relevant skills" and "putting skills to effective use"). The Dashboard applies a broad definition of skills by presenting foundational skills, problem-solving skills and broadness of skill sets, and considers both economic and social outcomes. A total of 38 key outcome indicators were selected and grouped into 18 aggregated indicators.

## Indicator selection

The selection of indicators followed a process whereby a longlist of the most commonly used indicators in OECD Skills Strategy reports was gradually reduced to a shortlist of core indicators. This process built on the principle that the indicators describe the core outcomes of the different pillars of the skills system. In addition, these indicators express outcomes in terms of level, trend, distribution and equity. The indicators need to be comparatively easy to interpret and based on OECD sources, with data as recent as possible.

## Method for the calculation of aggregate indicators

To develop aggregate indicators that represent the relative position of countries on key outcomes of the skills system, a number of calculations were made on the collected data. To describe the relative position across countries, a score for each indicator was calculated ranging from 0 to 10, with 0 for the weakest performance and 10 for the strongest performance. This resulted in an indicator that allows comparisons between different types of indicators (e.g. averaging performance of literacy scores and educational attainment rates). The resulting scores were normalised in such a way that better performance results in a higher score. Subsequently, an unweighted average of the indicators was calculated for each of the aggregates, and these scores were then ranked. The final ranking was separated into five groups of equal size, ranging from top 20% performer to bottom 20% performer. Aggregate indicators are only presented in the Dashboard when more than half of the underlying indicators have data available.

**Annex Table 1.A.1. Pillars, aggregates and underlying indicators**

Dimension and aggregates	Indicator	Source
<b>Developing relevant skills</b>		
How skilled are youth?	Reading (PISA <sup>1</sup> ), mean score, 2018	OECD (2019), PISA 2018, <a href="https://doi.org/10.1787/5f07c754-en">https://doi.org/10.1787/5f07c754-en</a> .
	Mathematics (PISA <sup>1</sup> ), mean score, 2018	OECD (2019), PISA 2018, <a href="https://doi.org/10.1787/5f07c754-en">https://doi.org/10.1787/5f07c754-en</a> .
	Science (PISA <sup>1</sup> ), mean score, 2018	OECD (2019), PISA 2018, <a href="https://doi.org/10.1787/5f07c754-en">https://doi.org/10.1787/5f07c754-en</a> .
Are skills of youth improving?	PISA <sup>1</sup> average three year trend (reading, mathematics, science) <sup>2</sup>	OECD (2019), PISA 2018, <a href="https://doi.org/10.1787/5f07c754-en">https://doi.org/10.1787/5f07c754-en</a> .
Are skills of youth being developed inclusively?	PISA <sup>1</sup> economic, social and cultural status (ESCS) parity index, science performance, 2018	OECD (2019), PISA 2018, <a href="https://doi.org/10.1787/5f07c754-en">https://doi.org/10.1787/5f07c754-en</a> .
How many young adults attain tertiary education?	Tertiary education attainment rate, 25-34 year-olds, 2017 <sup>3</sup>	OECD (2018), Population with tertiary education (indicator), <a href="https://doi.org/10.1787/0b8f90e9-en">https://doi.org/10.1787/0b8f90e9-en</a> .
How skilled are young tertiary educated adults?	Literacy (PIAAC <sup>4</sup> ), mean score, tertiary educated 25-34 year-olds, 2012/15	OECD (2019), Survey of Adult Skills (PIAAC), <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
	Numeracy (PIAAC <sup>4</sup> ), mean score, tertiary educated 25-34 year-olds, 2012/15	OECD (2019), Survey of Adult Skills (PIAAC), <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
	Problem solving (PIAAC <sup>4</sup> ), % level 2/3, tertiary educated 25-34 year-olds, 2012/15	OECD (2019), Survey of Adult Skills (PIAAC), <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
How inclusive is tertiary education?	Share of tertiary educated with low educated parents, 2012/15	OECD (2019), Survey of Adult Skills (PIAAC), <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
How strong are the foundational skills of adults?	Literacy (PIAAC <sup>4</sup> ), mean score, 2012/15	OECD (2019), Survey of Adult Skills (PIAAC), <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
	Numeracy (PIAAC <sup>4</sup> ), mean score, 2012/15	OECD (2019), Survey of Adult Skills (PIAAC), <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
	Problem solving (PIAAC <sup>4</sup> ), % level 2/3, 2012/15	OECD (2019), Survey of Adult Skills (PIAAC), <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
Do adults have a broad set of skills?	Percentage of adults with a broad set of skills (PIAAC <sup>4</sup> ) (level 3-5 in literacy and numeracy and level 2 or 3 in problem solving), 2012/15	OECD (2019), Survey of Adult Skills (PIAAC), <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
Is there a strong culture of adult education?	Formal and/or non-formal adult education participation rate (PIAAC <sup>4</sup> ), last 12 months, 2012/15	OECD (2019), Survey of Adult Skills (PIAAC), <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
	Willing to participate in adult education (PIAAC <sup>4</sup> ), percentage of population, 2012/15	OECD (2019), Survey of Adult Skills (PIAAC), <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
	Low barriers to participation (PIAAC <sup>4</sup> ), low % adults wanting to participate but who didn't, 2012/15	OECD (2019), Survey of Adult Skills (PIAAC), <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
Are skills of adults being developed inclusively?	High-low educated parents, adjusted literacy difference (PIAAC <sup>4</sup> ), 2012/15	OECD (2019), Survey of Adult Skills (PIAAC), <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
<b>Putting skills to effective use</b>		
How well are skills activated in the labour market?	Employment rate, working age, 2018	OECD (2018), Employment rate (indicator), <a href="https://doi.org/10.1787/1de68a9b-en">https://doi.org/10.1787/1de68a9b-en</a> .
	Labour force participation rate, 2018	OECD (2018), Labour force participation rate (indicator), <a href="https://doi.org/10.1787/a452d2eb-en">https://doi.org/10.1787/a452d2eb-en</a> .
	Low share of youth not in employment education or training (NEET), 15-29 year-olds, 2017	OECD (2018), Youth not in employment, education or training (NEET) (indicator), <a href="https://doi.org/10.1787/72d1033a-en">https://doi.org/10.1787/72d1033a-en</a> .
How inclusive is the labour market?	Gender (male-female), employment rate difference, 2018	OECD (2018), Employment rate (indicator), <a href="https://doi.org/10.1787/1de68a9b-en">https://doi.org/10.1787/1de68a9b-en</a> .
	High-low educated, employment rate difference, 2017	OECD (2018), Employment by education level (indicator), <a href="https://doi.org/10.1787/26f676c7-en">https://doi.org/10.1787/26f676c7-en</a> .
How well aligned are skills with the labour market?	Labour market imbalances indicator <sup>3</sup> , 2015/2017 (Skills for Jobs)	OECD (2018), Skills for Jobs Database, <a href="http://www.oecdskillsforjobsdatabase.org/index.php#FR/">www.oecdskillsforjobsdatabase.org/index.php#FR/</a> .

Dimension and aggregates	Indicator	Source
Do workplaces make intensive use of skills?	Reading at work (PIAAC <sup>4</sup> ), score, 2012/15	OECD (2019), <i>Survey of Adult Skills (PIAAC)</i> , <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
	Numeracy at work (PIAAC <sup>4</sup> ), score, 2012/15	OECD (2019), <i>Survey of Adult Skills (PIAAC)</i> , <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
	Information and communication technology (ICT) at work (PIAAC <sup>4</sup> ), score, 2012/15	OECD (2019), <i>Survey of Adult Skills (PIAAC)</i> , <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
Do people use their skills intensively in daily life?	Reading at home (PIAAC <sup>4</sup> ), score, 2012/15	OECD (2019), <i>Survey of Adult Skills (PIAAC)</i> , <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
	Numeracy at home (PIAAC <sup>4</sup> ), score, 2012/15	OECD (2019), <i>Survey of Adult Skills (PIAAC)</i> , <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
	ICT at home (PIAAC <sup>4</sup> ), score, 2012/15	OECD (2019), <i>Survey of Adult Skills (PIAAC)</i> , <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
Is the use of skills at work improving?	Reading skills use at work difference prime-age adults (26-54) and older (55-65) (PIAAC <sup>4</sup> ), 2012/15	OECD (2019), <i>Survey of Adult Skills (PIAAC)</i> , <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
	Numeracy skills use at work difference prime-age adults (26-54) and older (55-65) (PIAAC <sup>4</sup> ), 2012/15	OECD (2019), <i>Survey of Adult Skills (PIAAC)</i> , <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
	ICT skills use at work difference prime-age adults (26-54) and older (55-65) (PIAAC <sup>4</sup> ), 2012/15	OECD (2019), <i>Survey of Adult Skills (PIAAC)</i> , <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
Are firms designing workplaces to use skills effectively?	High-performance workplace practices, percentage of jobs, 2012/15 (PIAAC <sup>4</sup> )	OECD (2019), <i>Survey of Adult Skills (PIAAC)</i> , <a href="http://www.oecd.org/skills/piaac/">www.oecd.org/skills/piaac/</a> .
Is skills use stimulated by innovation?	Researchers, per 1 000 employed, 2016/2017	OECD (2018), Researchers (indicator), <a href="https://doi.org/10.1787/20ddf0f-en">https://doi.org/10.1787/20ddf0f-en</a> .
	Triadic patent families, performance index (STI <sup>5</sup> Outlook), 2016	OECD (2018), Triadic patent families (indicator), <a href="https://doi.org/10.1787/6a8d10f4-en">https://doi.org/10.1787/6a8d10f4-en</a> .
	International co-authorship, performance index (STI <sup>5</sup> Outlook), 2016	OECD (2018), <i>OECD Science, Technology and Innovation Outlook 2018</i> , <a href="https://doi.org/10.1787/sti_in_outlook-2018-en">https://doi.org/10.1787/sti_in_outlook-2018-en</a> .
	International co-invention, performance index (STI <sup>5</sup> Outlook), 2016	OECD (2018), <i>OECD Science, Technology and Innovation Outlook 2018</i> , <a href="https://doi.org/10.1787/sti_in_outlook-2018-en">https://doi.org/10.1787/sti_in_outlook-2018-en</a> .

1. Programme for International Student Assessment (PISA).
2. The average trend is reported for the longest available period since PISA 2006 for science, PISA 2009 for reading, and PISA 2003 for mathematics.
3. Labour market imbalances, average standard deviation across occupations in wages, employment, hours worked, unemployment and under-qualifications, 2015/2017.
4. Survey of Adult Skills (PIAAC).
5. Science, Technology and Innovation (STI).

# Annex 1.B. Strategies and recent reforms in the Slovak Republic related to skills and education

Annex Table 1.B.1. Long-term skills and education policy goals

Name	Year	Description
The Strategy of the Digital Transformation of Slovakia 2030	2019	The Strategy of the Digital Transformation of Slovakia 2030 is an inter-departmental, long-term vision that defines policy priorities for Slovakia. It was created by the Office of Deputy Prime Minister of the Slovak Republic for Investments and Informatisation (ÚPVII). The strategy covers the period from 2019 to 2030 and was created in the framework of the ongoing and partially managed digitisation processes and the Digital Single Market agenda of the European Union, as well as in the context of global digital transformation priorities. It will be the basis for the development of specific measures, for instance in the Action Plan of the Digital Transformation of Slovakia 2019-2022, and puts emphasis on the business sector and the transformation to Industry 4.0.
Strategy of the Environmental Policy until 2030	2019	The Strategy of the Environmental Policy until 2030 defines the vision, sets objectives, proposes a framework for measures, and lists indicators to achieve better environmental quality and sustainable circulation of the economy. It lists environmental education and education for sustainable development as major priorities.
National Programme for the Development of Education (“Learning Slovakia”) ( <i>Národný program rozvoja výchovy a vzdelávania – NPRVaV</i> )	2018	This strategic document identifies the direction of Slovak education for the next ten years (2018-2027). It consists of 12 partial objectives (six for regional education and six for higher education) and 106 measures. The measures are elaborated in an implementation plan, which consists of five two-year follow-up action plans. The first action plan for the period 2018-2019 and the second action plan for 2020-2021 also include measures included in the government’s programme statement.
Strategy for Mobility of Foreigners on the Labour Market in Slovak Republic	2018	Adopted in September 2018, and prepared by the Slovak Ministry of Labour, Social Affairs and Family, this strategy introduces measures aimed at resolving labour market shortages in certain areas through the employment of third-country nationals, preferably those who are high skilled, but not exclusively. A number of short-term measures are proposed, including a quarterly update of the list of sectors with labour shortages (instead of yearly updates), review of the conditions and documents necessary for temporary residence permits, shortening the legal period to review temporary residence permit applications from 90 days to 30 days, and diverse measures to decrease bureaucratic burden (e.g. making the recognition of education credentials easier).
Action Plan for Smart Industry	2018	This action plan was approved by the Slovak government, following consultation and the participation of various ministries and stakeholders. The action plan targets five areas; 1) research and innovation; 2) labour market and education; 3) security of cross-linked systems; 4) reference architecture, standardisation and normative formation, framework legal conditions; and 5) information and promotion.
RIA2020-Strategy for Better Regulation	2018	This strategy will implement advanced methodologies and tools for better regulation, including the use of available digital solutions (e.g. e-consultations).
Economic Policy Strategy of the Slovak Republic until 2030	2018	Prepared by the Ministry of Economy of the Slovak Republic, and approved by the government on 27 June 2018, this strategy is a comprehensive document that analyses and summarises the current outcomes of the Slovak economy, and proposes measures to ensure the competitiveness and sustainability of economic growth. Key areas of the strategy are human capital development, technological change and support for Slovakia’s innovative potential, ecological efficiency of the economy, business environment development, and regional development together with the agricultural sector.
Government manifesto	2016	This manifesto defines the priority areas and general interventions in education for 2016-2020. It includes qualitative targets for the quality of dual education, career guidance and counselling, as well as institutional reform of the accreditation agency for higher education and reform of the accreditation process in line with international standards. It also includes quantitative targets for the participation rate of 4-5 year-old children in pre-primary education (100%), and the annual increase of teachers’ salaries (6%).

Name	Year	Description
National Programme of Active Ageing 2014-2020	2014	This programme includes several goals to aid policies in active ageing, with several aims for adult learning.
National Youth Strategy 2014-2020	2014	This strategy aims to contribute to improving the quality of life of young people in the Slovak Republic, particularly through their personal development as cultured personalities who are prepared to work in a constantly changing democratic environment and utilise their creative potential in practice and active participation in society.
National Employment Strategy of the Slovak Republic until 2020	2014	This strategy is a comprehensive strategic document for employment and its development in Slovakia, presenting comprehensive interdepartmental solutions and a strategy of changes linked to the creation of jobs in various sectors of the economy. The strategy covers various policy areas, ranging from promoting jobs creation and using innovation as a tool for promoting employment, to stimulating flexibility of labour relations, working conditions, labour protection and working culture.
Lifelong Learning Strategy	2011	This strategy formulates five main priorities in lifelong learning (LLL): 1) motivation towards LLL; 2) approach of learning outcomes to employer's needs; 3) counselling; 4) development in competencies; and 5) financing mechanisms for LLL. The strategy was implemented in co-operation with an action plan, which had tasks up until 2015 and was evaluated in 2016.

### Annex Table 1.B.2. Recent reforms related to skills and education

Name	Year	Description
Act on Quality Assurance in Higher Education	2018	Specific legislation for quality assurance in higher education. Stakeholders (including employers, graduates, and research institutions) are involved in reviews of the content of study programmes.
National Programme to Increase the Innovation Performance of Slovak Economy	2016	To increase the innovation performance of the Slovak economy, this programme introduced a media campaign, various events, innovation workshops, a hackathon, and seminars in universities. In addition to increasing innovation performance, the programme aimed to increase the amount of pending patents, the longevity of SMEs, innovation culture in SMEs, the awareness of innovation culture's importance, and to raise the interest of students in sciences and entrepreneurship.
Act on Vocational Education and Training no. 61/2015	2015	This act covers VET offered to pupils attending secondary VET schools; secondary vocational schools; practical training; the system of dual education; verification of employer eligibility for the provision of practical training in the system of dual education; mutual relations governing the rights and duties of secondary vocational school pupils and the employer in the course of practical training; material and financial support provided to the pupils; and co-ordination of VET for the labour market.
National Qualifications Framework – SKKR, National Qualifications System	2015	The Slovak Qualifications Framework (SKKR) aims to pave the way for the creation of an open, transparent and flexible qualifications system in Slovakia. The driving forces for its implementation were the increasing effort for the internationalisation of education and removing barriers to European mobility. SKKR is a tool that allows for common understanding and the fine-tuning of learning outcomes, taking into account different learning pathways. It builds on the involvement and participation of stakeholders in the development of qualifications, and offers opportunities for the adaptation of qualifications to the needs of the labour market and society. In the international context, it supports recognition and transparency of qualifications.

### Notes

<sup>1</sup> The OECD Skills Strategy (OECD, 2019<sup>[7]</sup>) applies a broad definition of skills, including: 1) foundational skills, including literacy, numeracy and digital literacy; 2) transversal cognitive and meta-cognitive skills such as critical thinking, complex problem solving, creative thinking, learning to learn and self-regulation; 3) social and emotional skills such as conscientiousness, responsibility, empathy, self-efficacy and collaboration; 4) professional, technical and specialised knowledge and skills needed to meet the demands of specific occupations.

<sup>2</sup> In the PISA survey, Roma students are self-identified based on the language they speak at home.

## 2 Strengthening the skills of youth

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To ensure that countries are able to adapt and thrive in a rapidly changing world, all people need access to opportunities to develop and maintain strong proficiency in a broad set of skills. This process is lifelong, but the foundations are laid during childhood and youth. Providing young people with the necessary skills not only benefits their own prospects and self-esteem, but also builds strong foundations for economic growth, social cohesion and well-being. This chapter explains the importance of strengthening the skills of youth for the Slovak Republic and provides an overview of current practices and performance. Three opportunities to strengthen the skills of youth in the Slovak Republic are discussed, specifically: increasing enrolment in pre-primary education, especially among vulnerable groups; supporting schools and teachers in their work with vulnerable students; and building a strong teaching workforce.

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## Introduction: The importance of strengthening the skills of young people in the Slovak Republic

Equipping youth with strong skills upon leaving schools is key to ensuring that Slovakia has the skills it needs to achieve its economic and social ambitions. Developing strong skills of young people not only paves the way to success in higher education and the labour market, but also helps foster a culture of lifelong learning that will help build an adaptable and resilient society. Providing youth with a strong set of skills equally helps to foster strong self-esteem and provides them with an aptitude to contribute towards the building of a sustainable society for future generations. Building an adequately skilled generation able to eventually easily join and strengthen the labour force has wider positive effects on the social cohesion and general well-being of the country.

In Slovakia, the skills of 15 year-olds (as measured by the Programme for International Student Assessment, PISA) in science and reading lag behind their peers in other OECD countries, while their performance in mathematics is roughly at the level of the OECD average (OECD, 2019<sup>[1]</sup>). However, the scores are also declining over time, with the average three-year trend negative for science, reading and mathematics since the earliest available PISA measurement (OECD, 2019<sup>[1]</sup>). However, performance in school is uneven across different groups of youth. For instance, Slovak Roma speaking students scored on average 320 points in the 2015 PISA testing (average score in mathematics and reading), compared to roughly 476 for Slovak students and an OECD average of 491 (OECD, 2017<sup>[2]</sup>). To put this figure into context, previous PISA analysis has shown that learning gains during one year of schooling are equivalent to approximately 30 score points (OECD, 2016<sup>[3]</sup>).

Although spending on education does influence student performance, beyond a certain threshold other factors become more relevant, and the Slovak Republic is currently spending at this threshold (OECD, 2016<sup>[3]</sup>). Crucial factors that affect student performance beyond spending include teacher practices, training and working conditions, and curriculum development.

This chapter is structured as follows: The following section provides an overview of the Slovak education system. The next section describes how it is organised, identifies the key actors and their responsibilities, and assesses the main trends in student performance. The last section conducts a detailed assessment of the identified opportunities and provides tailor-made policy recommendations in these areas.

## Overview and performance of the education system in the Slovak Republic

### *Overview of the Slovak education system*

The Slovak school system is organised into three sequential levels: pre-primary education (ISCED 02), basic education (ISCED 1 and 2) and upper secondary education (ISCED 3). Attendance in pre-primary education institutions is not compulsory, and there is currently no legal entitlement or obligation (OECD, 2019<sup>[4]</sup>). However, this is set to change from 2021 with the introduction of a new legislation mandating compulsory pre-primary education for all 5-year-olds (see Opportunity 1). Basic education consists of two stages: primary education (ISCED 1) and lower secondary education (ISCED 2). There are three types of upper secondary education: general upper secondary education with a school leaving examination, vocational upper secondary education with a school leaving examination, and vocational upper secondary education with an apprenticeship certificate (Santiago et al., 2016<sup>[5]</sup>). School attendance is mandatory for students aged 6 to 16 years.

The governance of the education system is formally fairly decentralised, with competencies shared largely between three levels of administration: central government, regions and municipalities (Santiago et al., 2016<sup>[5]</sup>). Together with the state, private entities and the church act as founders of schools and school facilities. State schools, however, are only founded by municipalities, self-governing regions or regional state authorities (Santiago et al., 2016<sup>[5]</sup>). The Ministry of Education, Science, Research and Sports of

the Slovak Republic (MŠVVŠ) acts as the main regulator and is responsible for the development of national education programmes, which are operationalised through programmes developed by schools.

**Table 2.1. Main actors in the education system and their responsibilities (ISCED 1 to 3)**

Level of management	Actor	Main responsibilities
Central	The Government of the Slovak Republic	Allocation of funds in the budget chapter of the Ministry of Education, Science, Research, and Sport, and in the budget chapter of the Ministry of the Interior. Setting principles, terms and organisation of education through government bills.
Central	The Ministry of Education, Science, Research, and Sport	Issuance of generally binding legal regulations, management of the funding process of secondary schools, management of the funding of basic schools and special schools in co-operation with the Ministry of the Interior. Assisted in its work by a range of budgetary and contributory organisations, including: 1) the Slovak Centre of Scientific and Technical Information (Centrum vedecko-technických informácií, CVTI); 2) the National Institute for Certified Educational Measurements; 3) the National Institute of Vocational Education (ŠIOV); 4) the National Institute of Education (ŠPÚ); 5) the State School Inspectorate (ŠŠI); and 6) the Methodology and Pedagogy Centre (MPC). The Research Institute for Child Psychology and Pathopsychology also co-operates with MŠVVŠ and its agencies.
Middle	School founders (e.g. municipalities, self-governing regions, regional state authorities)	Issuance of organisational instructions for school leaders, co-operation with school leaders in staffing, negotiation with school self-governing authorities and school leaders about the school development plan, distribution of funds from the MŠVVŠ to individual schools and reallocation of certain amount among schools.
Middle	School departments of regional state authorities	Obligation to perform the duties of school founders, especially in special education; co-operation with other founders and school self-governing authorities; provision of guidelines on funding issues and organisation of schooling; approving the status of municipalities as school authorities; provision of methodological guidance to all types of founders regarding normative financing, budgeting and reporting.
Middle	School authorities (municipalities, which are founders of schools with at least 1 000 students)	Performance of state administration activities when the education and care of children is endangered, and when students' compulsory school attendance is neglected; carrying out school administration in matters which had been decided by school leaders on the first instance at basic schools.
School	School leaders	Oversight of compliance with state education programmes, development and implementation of school education programmes and curricula, responsibility for school budget and effective use of financial resources, possibility to establish advisory bodies (e.g. pedagogical board) to assist them.
School	School board and student school board	Performance of an advisory role in school management; promotion of interests of students, parents, employees and the public in education.

Source: Education Policy Institute, (2015<sup>[6]</sup>), *OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools: Country Background Report for the Slovak Republic*. <http://www.oecd.org/education/school-resources-review/>.

Table 2.1 summarises the distribution of responsibilities of the main actors within the Slovak school system across three levels of management: central, middle and school.

Public pre-primary education is funded by municipalities. Private pre-primary schools charge fees and receive a contribution from municipalities (Education Policy Institute, 2015<sup>[6]</sup>). However, pre-primary schools tend to have fairly large funding differences per child. Public pre-primary education is free of charge for all children one year before the start of compulsory school attendance, and always free of charge for children from socially disadvantaged backgrounds. Public and private primary and secondary education is funded directly from the state budget, mainly by the Ministry of Interior and MŠVVŠ.

Teacher qualification requirements are defined in the Act on Pedagogical Employees and Specialist Employees. Primary and secondary teachers are required to obtain a teaching qualification from a university, or a qualification in a different field of study and supplementary pedagogical studies. In contrast, Slovakia is the only OECD country where the minimum qualification level for pre-primary teachers corresponds to upper secondary level education (Santiago et al., 2016<sup>[5]</sup>).

MŠVVŠ runs several agencies and institutes to support its activities, with those mentioned below not forming an exhaustive list. The Methodology and Pedagogy Centre (MPC) is an institute for in-service teacher education and training that works under the auspices of MŠVVŠ (see also Opportunity 3). Primarily responsible for the professional and career development of teachers, the MPC also offers

a number of continuing educational programmes, provides for exam attestations, and publishes teaching materials and research activities related to the professional development of teachers. In line with regional education needs, the MPC also organises expert seminars, conferences and workshops, and is involved in expert guidance and consulting. The Centre implements EU-funded projects at national and international levels (MPC, 2019<sub>[7]</sub>) (Scientix, 2019<sub>[8]</sub>).

The State Institute for Vocational Education (ŠIOV) is responsible for a broad range of activities connected to vocational education (methodological, pedagogical guidance and co-ordination tasks) (European Basic Skills Network, 2019<sub>[9]</sub>). Its activities are primarily concerned with pupils, pedagogical employees and the needs of the labour market and employers. ŠIOV mainly works on the pedagogical and organisational provision of training and education in secondary vocational schools, apprenticeships, practical training centres and teaching workplaces. It also follows current trends and best practices within the field of secondary vocational education and training (VET), especially at the European level. Established within ŠIOV, the Slovak National Observatory collects and analyses information on vocational training in Slovakia (Skills Panorama, 2019<sub>[10]</sub>).

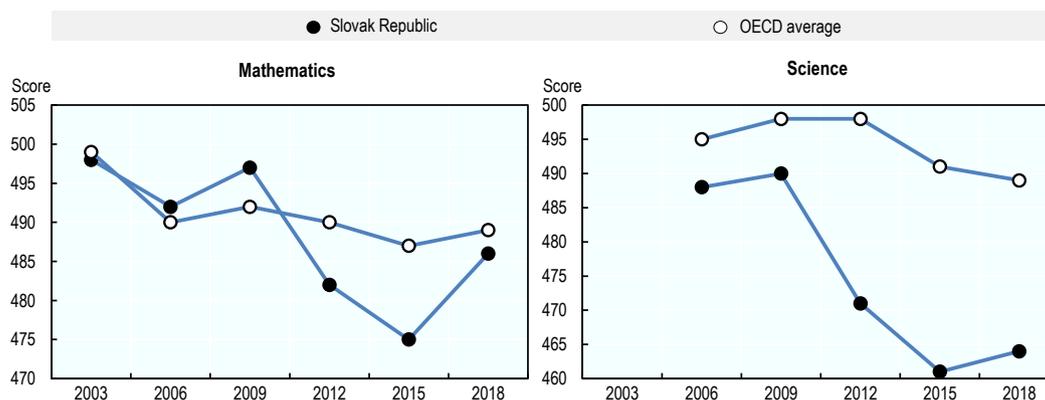
Also directly managed by MŠVVŠ, the National Institute of Education is responsible for conducting applied pedagogical research, as well as the provision of monitoring, evaluation and advisory support related to general education in Slovakia. It also prepares, develops and implements the national curriculum and provides guidelines, assistance and counselling to schools and school facilities (National Institute for Education, 2019<sub>[11]</sub>). The National Institute for Certified Educational Measurements (NÚCEM), conducts national student assessments in years 5 and 9, as well as a school leaving assessment (*Maturita*), and co-ordinates international student assessments. The State School Inspection (ŠŠI) is independent in its work, but its head is appointed by the Minister of Education. ŠŠI observes and supervises the overall level of quality of education in Slovakia. Its supervision activities also cover school management and the learning and teaching processes, together with the material and technical conditions in educational facilities in the Slovak Republic. Financed from the budget of MŠVVŠ, ŠŠI operates eight regional executive branches across Slovakia (State School Inspection, 2019<sub>[12]</sub>).

### ***The performance of the Slovak Republic***

The skills of 15-year-old Slovaks, as measured by PISA, lag behind those of their peers in other OECD countries in reading and science literacy. The proficiency scores in reading fall behind the OECD average by 29 points and in science literacy by 25 points. The skills of Slovak students in mathematics do not significantly differ from the OECD average (lagging behind the OECD average by 3 points) (OECD, 2019<sub>[11]</sub>). Compared to the 2015 PISA measurement, Slovak students have achieved a statistically significant improvement in mathematics. While an increase since 2015 can be equally be observed with respect to reading and science, it has not been not statistically significant (OECD, 2019<sub>[11]</sub>).

Over time, the performance of Slovak students in science, and to a lesser extent in reading and mathematics, has shown a steadily declining trend. While the their scores have deteriorated on all three dimensions since the earliest available measurement in PISA the long term drop in science mean performance among Slovak 15-year-olds is one of the most pronounced among OECD countries (OECD, 2016<sub>[3]</sub>). Figure 2.1 shows that until 2009, Slovakia and the OECD average in general followed the same trend. However, between 2009 and 2012 there was a sharp decline in the scores of Slovak students, and the performance gap between Slovakia and the OECD average widened significantly.

**Figure 2.1. Slovak performance in PISA is decreasing, and the gap with the OECD average is widening**



Note: The average three-year trend between the earliest available measurement in PISA and PISA 2018 is negative and statistically significant for all subjects.

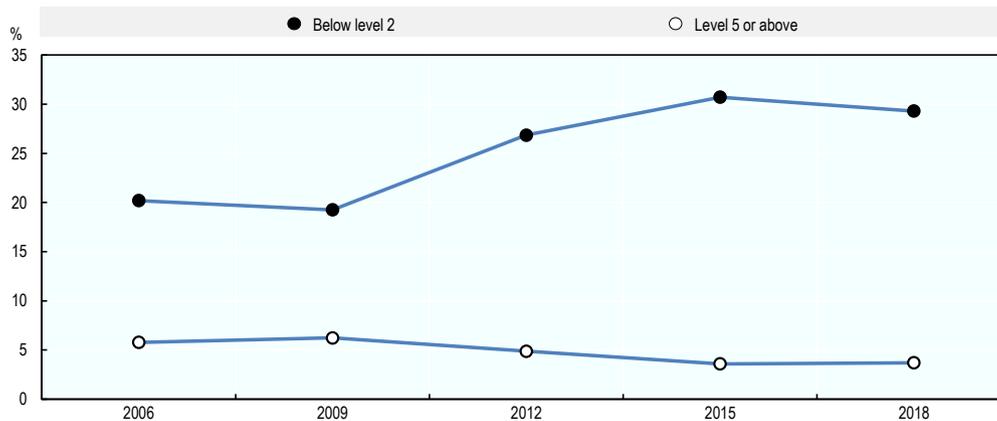
Source: OECD (2019<sub>[1]</sub>), *PISA 2018 Results (Volume I): What Students Know and Can Do*, <https://dx.doi.org/10.1787/5f07c754-en>.

StatLink  <https://doi.org/10.1787/888934075127>

In 2018, Slovakia's share of top-performing students (those scoring above level 5 in PISA) in reading was 4.6%, falling behind the OECD average of 8.8%. Conversely, the share of low-performing students (students scoring below level 2 in PISA) in reading was 31.4%, which is larger than the OECD average of around 23% (OECD, 2019<sub>[1]</sub>). Moreover, the decline in PISA scores since 2009 coincides with a substantial increase in the share of low-achieving students (and a decrease in the share of high performers in the science exam). While in 2009, 19.3% of Slovak students were low achievers in science, in 2018 this increased to almost 30% (see Figure 2.2). The Trends in International Mathematics and Science Study (TIMSS) scores of Slovak students also point to a deteriorating trend. Between 2011 and 2015, mathematics scores of students in the fourth grade worsened from 507 to 498, thus moving closer to an international benchmark of 475 and indicating that students can only apply basic mathematical knowledge in simple situations. The science scores of Slovak fourth graders worsened from 532 to 520 in the same period, remaining below the benchmark score of 550 (IEA, 2019<sub>[13]</sub>). The 2016 Progress in International Reading Literacy (PIRLS) score of Slovakia was 535, showing no improvement since 2011 and remaining below the international benchmark of 550 (IEA, 2019<sub>[14]</sub>).

## Figure 2.2. The share of low achievers in the Slovak Republic is on the rise

Share of students performing below level 2 and above level 5 in science in PISA



Note: The change between PISA 2006 and PISA 2018 in the share of students performing below level 2 (low achievers) and above level 5 (high achievers) in science is statistically significant.

Source: OECD (2019<sub>[11]</sub>), *PISA 2018 Results (Volume I): What Students Know and Can Do*, <https://dx.doi.org/10.1787/5f07c754-en>.

StatLink  <https://doi.org/10.1787/888934075146>

There are significant equity concerns in the Slovak school system and socio-economic background is an important driver of student performance. Disadvantaged students score lower in all three subject areas tested by PISA. For instance, with respect to reading scores, the difference between Slovak 15-year-olds in the top and bottom quarter of the PISA index of economic, social and cultural status (ESCS) equals 106 points, compared with an OECD average of roughly 89 points (OECD, 2019<sub>[15]</sub>). The difference between the 2015 PISA scores of Slovak Roma and non-Roma speaking students in mathematics and reading equals almost 160 points. According to the OECD (2019<sub>[41]</sub>), this may reflect a gap equivalent of almost five years of schooling between Slovak Roma and the general student population in Slovakia.

There are also concerns about the increasing rate of grade repetition. According to PISA data, disadvantaged students are roughly five times more likely to repeat a grade than their more advantaged peers (see Opportunity 2). This figure is the second highest among OECD countries (OECD, 2016<sub>[3]</sub>).

The share of students placed in the special education track is also on the rise (see Opportunity 2). Since 2011, Slovakia has had the highest share of children enrolled in special education within the European Union (EU), and this status is especially prevalent among children from marginalised Roma communities (European Union Agency for Fundamental Rights, 2018<sub>[16]</sub>). In 2016, 18% of Slovak Roma 6-15 year-olds attended special schools catering to the needs of children with learning, development, behavioural or physical issues (European Union Agency for Fundamental Rights, 2018<sub>[16]</sub>).

Students in Slovakia spend less time learning in school and more time learning outside of school than the OECD average: 24.5 hours per week at school compared to an OECD average of 26.9 hours, and 18.5 hours learning outside of school compared to an OECD average of 17.1 hours (OECD, 2016<sub>[17]</sub>). For every hour of learning time, the score point gain in both science and reading is also comparatively low. For example, whereas an hour of schooling is associated with a gain of 11.2 score points in both science and reading in the OECD on average, it is associated with a gain of only 10.7 and 10.5 points, respectively, among Slovak students (OECD, 2016<sub>[17]</sub>).

Public expenditure on education is about 4% of gross domestic product (GDP) (EUR 3.4 billion, approximately 10% of total public expenditure). This is roughly 1% of GDP less than the average

educational expenditure within the EU. However, the difference has been shrinking in recent years. More than half of public expenditure on education is channelled to regional education (pre-primary, primary and secondary level). Public resources spent on education make up roughly 85% of the total resources devoted to education, while the other 15% comes from private resources. Overall, this ratio is similar to the average OECD ratio (Ministry of Finance et al., 2017<sup>[18]</sup>). If compared across the levels of education, the ratio of public and private resources spent on primary and secondary education is almost identical in Slovakia and in the OECD on average, while the share of private resources channelled towards tertiary education is relatively lower in Slovakia than in the OECD (Ministry of Finance et al., 2017<sup>[18]</sup>).

## Opportunities to strengthen the skills of youth in the Slovak Republic

Based on the desk research of the OECD team, consultation with MŠVVŠ and stakeholder interviews, the following opportunities to strengthen the skills of youth in Slovakia have been identified:

1. Increasing enrolment in pre-primary education, especially among vulnerable groups.
2. Supporting schools and teachers in their work with vulnerable students.
3. Building a strong teaching workforce.

### ***Opportunity 1: Increasing enrolment in pre-primary education, especially among vulnerable groups***

High-quality pre-primary education is crucial for developing children's skills (Chetty et al., 2011<sup>[19]</sup>; Gertler et al., 2014<sup>[20]</sup>; Berlinski, Galiani and Gertler, 2009<sup>[21]</sup>). During the first years of life, children require high-quality care, attention and stimulation. Poor learning environments at this stage can have a negative effect on the development of the cognitive and non-cognitive skills important for success during adulthood.

Children from advantaged socio-economic backgrounds often have the opportunity to develop such skills in their home environments. Therefore, disadvantaged children usually receive the greatest benefit from attending high-quality early childhood education, and interventions targeted at them will have the highest returns (OECD, 2018<sup>[22]</sup>; Currie, 2001<sup>[23]</sup>). Bennett, Kaga and Moss (2010<sup>[24]</sup>) show that early education programmes with strong community-based components may be especially beneficial for the most marginalised groups, such Roma children, and are key for increasing social inclusion. In this context, educational interventions during the early years are also more cost effective than interventions in later stages of life (Heckman and Carneiro, 2003<sup>[25]</sup>). Later compensatory measures do not take advantage of the full brain sensitivity peaks and therefore tend to have lower returns, and at a higher cost.

Data from PISA 2015 show a strong, positive relationship between the number of years that 15-year-old students spent in early childhood education and their scores on the PISA science assessment, even when comparing students from similar backgrounds (OECD, 2016<sup>[17]</sup>). In Slovakia, the score-point difference in science performance between 15-year-old students who attended early childhood education (ISCED 0) for two years or more and those who attended pre-primary educational facilities for less than two years is roughly 25.7 points, after accounting for students' and schools' socio-economic profile. Similarly, data from PISA show that Slovak students who spent three or more years in early childhood education are four times less likely to be low performers in the PISA assessment.

Slovakia should take advantage of the benefits of high-quality pre-primary education and continue its efforts to increase enrolment, especially among vulnerable groups, by:

- Improving the availability of pre-primary schools in disadvantaged regions.
- Lowering the perceptual and financial barriers that prevent disadvantaged groups from enrolling in pre-primary education.

### *Improving the availability of pre-primary schools in disadvantaged regions*

Pre-primary education (ISCED 02) takes place in kindergartens (*materské školy*), which typically enrol children from age 3 to 6, although may enrol 2 year-olds if there is sufficient school capacity. Pre-primary education is provided by municipalities, churches or religious communities, or other private providers. The main providers of pre-primary education are municipalities, which are responsible for the financing and operation of kindergartens across the country. There are also kindergartens for children with special educational needs founded mainly by state district authorities (special public kindergartens), private providers, and churches or religious societies registered by the state (Eurydice, 2019<sup>[26]</sup>).

According to the Statistical Office of the Slovak Republic, in 2018 there were 2 748 kindergartens run by municipalities, which accounted for 92.6% of total enrolment (more than 150 000 children). The remaining children were enrolled in kindergartens run by churches (5 055 children representing 3.1% of total) and other private providers, such as non-governmental organisations (NGOs) (6 947 children representing 4.3% of total) (see Table 2.2). There are also private providers not officially registered that do not appear in national statistics. For this reason, it is difficult to estimate the number of these kindergartens and how many children are enrolled within them.

**Table 2.2. Kindergartens and enrolment in pre-primary education by type of provider (2018)**

	Kindergartens pre-schools	Share of total kindergartens	Enrolment	Share of total enrolment
Public	2 748	91.60%	150 340	92.60%
Church	89	3.00%	5 055	3.10%
Private	164	5.50%	6 947	4.30%
Total	3 001	100%	162 342	100%

Source: CVTI (2019<sup>[27]</sup>) *Statistical Report - Pre-primary Schools*, [https://cvtisr.sk/cvti-sr-vedecka-kniznica/informacie-0-skolstve/statistiky/statisticka-rocenka-publikacia/statisticka-rocenka-materske-skoly.html?page\\_id=9602](https://cvtisr.sk/cvti-sr-vedecka-kniznica/informacie-0-skolstve/statistiky/statisticka-rocenka-publikacia/statisticka-rocenka-materske-skoly.html?page_id=9602).

Public kindergartens are free of charge for all children one year before the start of compulsory school attendance (typically age five). Municipalities can charge fees to any child not in his or her last year before compulsory education, for example to those aged three or four. However, for socially disadvantaged children, publicly provided pre-primary education is free irrespective of age. In contrast, church and private kindergartens are allowed to charge fees with no ceiling to students of any age.

Pre-primary education is not yet mandatory in Slovakia; however, an amendment made to the Slovak Education Act (no. 245/2008 Coll. on education and training) passed in June 2019 established that pre-primary education will become mandatory for 5-year-olds from 1 September 2021. This new law is a step in the right direction and will facilitate an increase in Slovakia's pre-primary enrolment rate closer to the levels of most OECD countries.

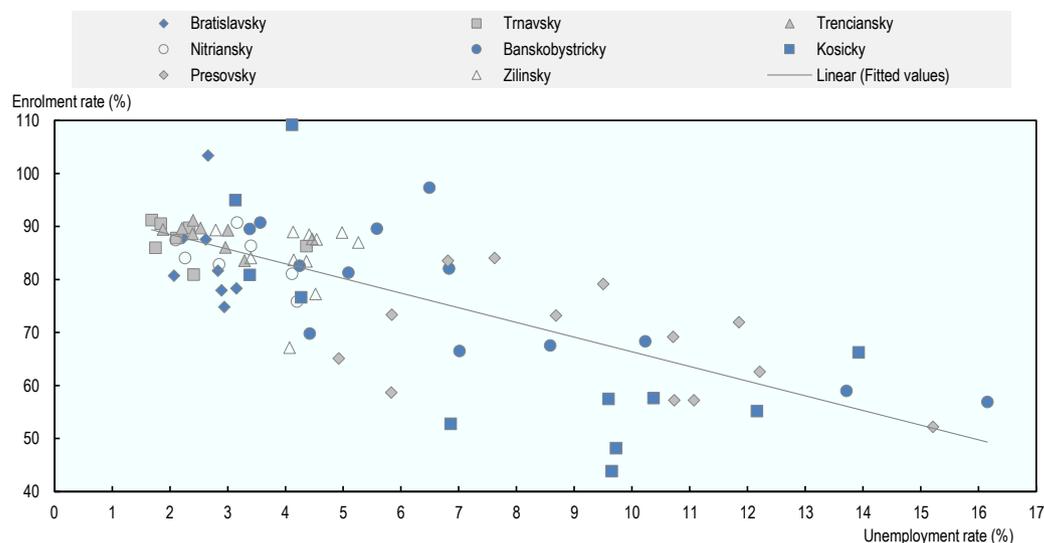
In general, enrolment in pre-primary education in Slovakia is comparatively low. While the share of 3-5 year-olds enrolled in pre-primary education increased by 11% between 2005 and 2017 on average across OECD countries, in Slovakia it remained essentially unchanged, increasing by just 1% from 74% to 75% (OECD, 2019<sup>[28]</sup>). This is below the EU-2020 target of 95% for children aged 4 and above (European Union Agency for Fundamental Rights, 2018<sup>[16]</sup>).

Enrolment in pre-primary education is also highly heterogeneous: regional differences are substantial and the enrolment rate is as low as 40% or 50% in certain districts. Low participation of socio-economically disadvantaged groups in pre-primary education remains an issue, especially for Roma children: only about 34% of Roma girls and boys attend pre-primary education facilities (European Union Agency for Fundamental Rights, 2018<sup>[16]</sup>). Despite the ongoing expansion of Slovak pre-school capacity supported by the EU, many municipalities still lack capacity in kindergartens, especially those with a higher concentration of Roma children in Eastern Slovakia (OECD, 2019<sup>[4]</sup>).

Figure 2.3 shows how the enrolment rate differs by districts and regions and that there is a negative correlation between the pre-primary enrolment rate and the district-level unemployment rate. This means that districts with higher unemployment rates – a strong predictor of vulnerability and poverty – exhibit significantly lower pre-primary enrolment rates. This is consistent with the fact that municipalities without a kindergarten tend to be in districts with higher concentrations of vulnerable populations, most notably Roma (OECD, 2019<sup>[4]</sup>).

### Figure 2.3. Enrolment rate is lower in districts facing higher unemployment rates

Districts by regions, 2018



Note: The enrolment rate is calculated as the ratio between the total enrolment of children aged 3 to 5 and the total number of children in that age range in each district. The enrolment rate is calculated for each of the 79 districts in Slovakia. Enrolment rates can take values greater than 100 in certain districts due to children enrolled in schools in different districts.

Source: OECD calculations based on data from the Statistical Office of the Slovak Republic (2019<sup>[29]</sup>), Datacube, <http://datacube.statistics.sk/> and CVTI (2019<sup>[30]</sup>), *Štatistická ročenka (Annual Statistical Report)*, [https://www.cvtisr.sk/cvti-sr-vedecka-kniznica/informacie-o-skolstve/statistiky/statisticka-rocenka-publikacia.html?page\\_id=9580](https://www.cvtisr.sk/cvti-sr-vedecka-kniznica/informacie-o-skolstve/statistiky/statisticka-rocenka-publikacia.html?page_id=9580).

StatLink  <https://doi.org/10.1787/888934075165>

Mandatory pre-primary education for children aged 5 has the potential to curb the trend shown in Figure 2.3. However, the implementation of this new policy is not without its challenges, such as capacity. Roughly one-third of kindergartens face capacity constraints, which are reflected in the fact that many applications received each year have to be rejected (12 502 rejected applications in the 2018/19 school year). Without an increase in capacity, many kindergartens will not be able to admit all the future demand from 5-year-old children, as agreed by most of the experts and stakeholders who participated in workshops, interviews and focus groups. The Association of Towns and Communities of Slovakia (ZMOS) has also publicly shared its concerns about the lack of capacity (ZMOS, 2019<sup>[31]</sup>). Another challenge is to ensure that the new capacity is of high quality. The importance of ensuring quality while expanding capacity is underscored in Box 2.1, where the Colombian experience shows that an expansion of pre-primary education did not produce the expected learning gains among students when physical investments were not accompanied with quality improvements in other dimensions.

### Box 2.1. Relevant international example: Expansion of pre-primary education in Colombia - Evidence from a randomised controlled trial

In Colombia, enrolment rates in pre-primary education increased from 13% in 1990 to 84% in 2015, while in 2011 the government committed to triple expenditure in early childhood education.

A recent study by (Andrew et al., 2019<sup>[32]</sup>) analyses the “*Hogares Infantiles*” (children’s homes) programme, which provides pre-primary education to children from disadvantaged backgrounds aged five and younger. Using an experimental design, the authors show that investment in what is often called “structural quality” (e.g. physical infrastructure, staff resources, pedagogical material) alone does not produce the expected learning gains in students. The authors found that when greater resources are given to schools, teachers tend to substitute their efforts and involvement with children and delegate some responsibilities to less experienced and less qualified teaching assistants. The study shows that these children saw no improvements in their cognitive and social-emotional development on average, and that for some children the effect was even negative.

In contrast, when structural quality was paired with pedagogical training for teachers, children’s cognition, language and school readiness increased by around 0.15 of a Standard Deviation (SD). Larger gains (0.3 SD) were observed among the most disadvantaged children, off-setting the negative effect on teacher behaviour.

Source: Andrew, A. et al. (2019<sup>[32]</sup>), *Preschool Quality and Child Development*, [www.nber.org/papers/w26191](http://www.nber.org/papers/w26191).

The main challenge with making pre-primary education mandatory for children aged 5 is that at current capacity levels, the expansion could crowd out some children aged 3 and 4. Therefore, if there is no increase in capacity, the expansion for 5 year-olds might come at the expense of younger groups, at least in the short term.

OECD estimates show that if all 5 year-olds are enrolled in pre-primary education, in addition to the 3 and 4 year-olds already in the system, Slovakia would need to expand its current capacity by around 13 200 seats (see Table 2.3).

This estimate, however, does not take into account better use of existing capacities, spaces under construction or to be constructed using EU funding or the possibility of inter-municipality/town migration. According to MŠVVŠ, the capacity shortage would be reduced to between 1 828 and 3 172 seats taking these factors into account (Varsik, 2019<sup>[33]</sup>). It is worth noting that capacity shortages are not equally distributed across regions, being larger in Košický and Prešovský regions.

**Table 2.3. Mandatory pre-primary education will put pressure on current capacity**

	Students
Current enrolment (all ages)	162 342
Current enrolment age 5 and above	69 429
Enrolment age 5 and above under new policy	82 676
Capacity shortage without capacity expansion	13 247
Capacity shortage with capacity expansion and efficient use of current capacity*	[1 828, 3 172]

Note: Calculations assume that the number of students aged 3 and 4 enrolled in kindergarten remains unchanged. The extra demand comes from 5 year-olds who should, under the new policy, start attending pre-primary education. The row “enrolment age 5 and above under new policy” includes 6 year-olds who are still not in primary school. It is assumed that the share of 6-year-olds in each cohort before primary school remains unchanged (47%). The estimation assumes that in each district, the teacher-child ratio and the average school size remains unchanged after the policy. All calculations are performed at the district level and aggregated by regions and nationally. Number in rows with an asterisk (\*) are estimates of MŠVVŠ.

Source: OECD calculations based on data from CVTI (2019<sub>[30]</sub>), *Štatistická ročenka (Annual Statistical Report)*, [https://www.cvtisr.sk/cvti-sr-vedecka-kniznica/informacie-o-skolstve/statistiky/statisticka-rocenka-publikacia.html?page\\_id=9580](https://www.cvtisr.sk/cvti-sr-vedecka-kniznica/informacie-o-skolstve/statistiky/statisticka-rocenka-publikacia.html?page_id=9580) and Ministry of Finance et al. (2019<sub>[34]</sub>), *Revision of Expenditures on Groups at Risk of Poverty or Social Exclusion: Interim Report*, [www.minedu.sk/data/att/14208.pdf](http://www.minedu.sk/data/att/14208.pdf); Varsik (2019<sub>[33]</sub>), *I am Holding you a Spot*, [www.minedu.sk/data/att/15248.pdf](http://www.minedu.sk/data/att/15248.pdf).

### **Recommendations for improving availability of pre-primary schools in disadvantaged regions**

- **Gradually introduce a legal entitlement for 3 and 4 year-olds to attend pre-primary education.** The current law can be strengthened by providing families with the legal entitlement to send their 3 and 4 year-old children to kindergartens. MŠVVŠ should ensure that mandatory pre-primary education for children aged 5 and above does not undermine enrolment rates at lower ages for two reasons: 1) the impact of a high-quality education can be larger at earlier stages of life; and 2) the employment rate of women aged 25-34 is roughly 20% lower than of men the same age (Eurostat, 2019<sub>[35]</sub>). A decrease in enrolment at lower ages could thus further reduce the employment rate of woman with young children, something that Slovakia needs to avoid.
- **Increase the number of public kindergartens to accommodate the new demand, while also giving private providers the opportunity to complement supply.** Slovakia will need to increase pre-primary school capacity. This can be achieved by increasing the capacity of current kindergartens or by building new facilities. At present, most new facilities are built with EU funds through special operational programmes. However, Slovakia should broaden its sources of funding to ensure stability in the long term. During the transition period, public supply could be complemented by low-investment private provision. For example, the government could temporarily license home-based kindergartens for younger children to meet the new demand.

#### *Lowering the perceptual and financial barriers that prevent disadvantaged groups from enrolling in pre-primary education*

Building sufficient pre-primary school capacity is a necessary pre-condition for increasing enrolment among vulnerable groups in Slovakia; however, other factors are important.

Higher pre-primary school enrolment among children from vulnerable backgrounds can be hindered by barriers at the social and cultural level, often reflected in the convictions held by parents regarding pre-primary enrolment. For instance, according to the World Bank (2012<sub>[36]</sub>), 37% of Roma parents in Slovakia are of the opinion that there is no need for pre-school education, with home care being identified as sufficient. Moreover, 23% judge that their child is too young to start attending pre-school facilities. UNDP (2012<sub>[37]</sub>) has identified the unwillingness of Roma parents to send their children to kindergarten as the primary parent-level barrier to enrolment, followed by considering their children not old enough

to attend, as echoed by the OECD (2019<sup>[4]</sup>). However, as Vančíková et al. (2017<sup>[38]</sup>) note, the convictions of Roma parents are often propelled by justified distrust towards the majority population given their previous experiences of prejudice or stereotyping at both individual and collective levels. Roma parents have been found to encounter discriminatory and dissuasive reactions regarding enrolling their children in kindergartens or supporting their attendance, with petitions against opening Roma-majority kindergartens reported as an example (Vančíková et al., 2017<sup>[38]</sup>; OECD, 2019<sup>[4]</sup>).

Roma parents do not always possess the necessary information or skills required to enrol their children in pre-primary education, and may be unaware of the formal requirements of the enrolment process (OECD, 2019<sup>[4]</sup>). For instance, the initial steps of (correctly) completing a pre-printed form to be downloaded from a website of the relevant authority, or submitting a hand-written application, can pose significant problems if the parents' (digital) literacy skills are insufficiently developed (Vančíková et al., 2017<sup>[38]</sup>). This also applies to submitting a medical statement from a paediatrician, which is required to confirm the medical state of the child. Evidence also indicates that Roma parents are not always aware of the administrative deadline for the process, usually falling sometime in March or April, which often leads them to miss it, especially in the absence of professionals, field social workers or community workers to provide reminders (Vančíková et al., 2017<sup>[38]</sup>). Closer co-operation efforts at the parent level could help improve this issue (Box 2.2).

### **Box 2.2. Relevant national example: The Omama project in the Slovak Republic**

The Omama project is run by a Slovak NGO Cesta von (Way out), which, in co-operation with field social workers and experts working with socially disadvantaged communities, selects one mother in each Roma community, a so-called “Omama”. This person is usually considered responsible and reliable, has a strong work ethic and is generally respected in the community. In co-operation with experts on early care, Omamas are trained in early age child development methods and in creating satisfactory conditions for the child’s growth and development. Omamas who successfully complete the training are subsequently hired by the NGO.

In the next stage, Omamas, in co-operation and aided by the mentoring, supervision and practical preparation of experts, help develop the competencies of children aged 0-3. They provide counselling and guidance for parents in the field of early care living in their community, as well as to pregnant women. They visit the households of families with the youngest children on a weekly basis and help run joint parent clubs. During these individual and groups sessions, and in the presence of Roma mothers, Omamas play carefully chosen games and activities with children to stimulate their development, while providing opportunities for the improvement of parenting skills. Although the Omama project targets primarily children who do not yet attend a kindergarten, there is potential for this best practice to be successfully replicated for children aged 3-5, especially during the crucial period when parents need to make well-informed decisions regarding the enrolment of their child in pre-primary education for the first time. The work of Omamas could thus be expanded to include raising awareness about the importance of pre-primary education, as well as the administrative requirements necessary to fulfil for enrolment. In this way it would complement the work of field and community social workers.

Source: Cesta von (2019<sup>[39]</sup>), *Omama Project*, <https://cestavon.sk/projekt-omama/index>.

Several national projects implemented by the Slovak government have sought to reduce the factors negatively impacting upon the enrolment of Roma children in pre-primary education facilities, while stimulating inclusive and informed environments. For instance, a co-ordinator role has been established within the ongoing National Project of Inclusion in Kindergartens (NP PRIM). However, systematic measures are yet to be introduced (Vančíková et al., 2017<sup>[38]</sup>). Most often, interventions at the local level targeting family and community support are funded through

the European Social Fund for social/community work or inclusive education projects. These have been translated into a number of concrete national projects over the years, such as the Inclusive Model of Early Childhood Education (MRC2) (2013-2015) or the Project of Inclusive Education (PRINED) (2014-2015) (Vančíková et al., 2017<sup>[38]</sup>), co-ordinated and periodically evaluated by the MPC (MPC, 2015<sup>[40]</sup>; MPC, 2015<sup>[41]</sup>). However, the impact of such national projects is limited; for instance, NP PRINED covered 50 kindergartens and 130 primary schools, meaning that support was not available as broadly as needed. Moreover, given the time constraints, especially with EU-funded projects, they are not a sustainable and continually available solution for the future.

Financial barriers remain a real obstacle to placing a child in a kindergarten, and impact all vulnerable families, not just those from a Roma background. Given that municipalities are the founders of pre-schools, there are no limits set for tuition fees (see section above), which can vary significantly depending on the municipality, from EUR 7 up to EUR 300 a month (OECD, 2019<sup>[4]</sup>). Fees for transport, extracurricular or other activities also have to be factored in, which leads to a situation where out-of-pocket childcare costs relative to income for children aged 2-3 are among the highest in the OECD (OECD, 2019<sup>[4]</sup>). The Slovak government has put in place tools that have the potential to increase and facilitate enrolment. These target primarily children who live in households receiving material needs assistance and to children living in households whose income is below the subsistence minimum. The support tools, and their different combinations applied according to the specific material situation of the family, include the cancellation of pre-primary school tuition fees, and meal and school supply subsidies for children in kindergartens about to transition to primary school (Ministry of Finance et al., 2019<sup>[34]</sup>). However, as highlighted by the Ministry of Finance et al. (2019<sup>[34]</sup>), the criteria used to award this support are too narrow and therefore do not cover all socially disadvantaged children. For instance, in 2017 only 37% of kindergarten children at risk of poverty or social exclusion received a meal subsidy. The sufficiency of these tools in terms of their absolute value can also be questioned (Vančíková et al., 2017<sup>[38]</sup>). Therefore financial barriers, combined with rather complex administrative requirements of applying for allowances, remain a real obstacle preventing placement of children in kindergartens, not least among the Roma community.

### **Recommendations for lowering the perceptual and financial barriers that prevent disadvantaged groups from enrolling in pre-primary education**

- **Strengthen the capacities and reach of on-the-ground work with vulnerable families.** Priority should be placed on raising awareness, especially among Roma parents, of the importance and positive long-term effects of pre-primary education, while forming a closer relationship with parents in order to reassure and help address the potential feelings of distrust towards the majority education system. Such work also needs to help improve parenting skills and ensure that, especially regarding administrative requirements for enrolment in pre-primary education, parents remain aware and supported. The service could be provided by designated contact persons who are trained and equipped with necessary language skills, while supported by “bridge” expert workers (Box 2.2). In this respect, the introduction of a co-ordinator role for work with parents, introduced under NP PRIM, is a step in the right direction. The importance of introducing systematic solutions, whereby these services are provided more broadly and continually, should be placed at the top of the agenda.
- **Adjust the criteria for receiving financial assistance in order to better cover the population of socially disadvantaged children.** Given that financial barriers remain an obstacle for pre-primary enrolment, more attention should be given to defining the eligibility conditions of children and their families in terms of the financial tools currently put in place by the government. Within the budget constraints, increasing the amount provided through these tools in absolute terms would be a significant positive step.

## ***Opportunity 2: Supporting schools and teachers in their work with vulnerable students***

PISA 2018 scores indicate that the general skills of 15-year-olds in the Slovak Republic lag behind those of their peers in other OECD countries in reading and science, with a recent statistically significant improvement in mathematics (see section above). However, the average score obscures considerable variation in school performance across different groups of Slovak youth.

Socio-economic status (including parental education and occupation, wealth, and educational resources) has a large impact on the school performance of Slovak students: 17.5% of the variance in student reading performance in Slovakia is accounted for by differences in socio-economic status, which is above the OECD average of 12% (OECD, 2019<sup>[15]</sup>). Furthermore, fewer disadvantaged students from Slovakia succeed in PISA testing than in other OECD countries, on average, making fewer Slovak disadvantaged students “academically resilient”. While 11% of disadvantaged students are academically resilient in the OECD on average, the figure stands at 9% in Slovakia (OECD, 2019<sup>[15]</sup>). In 2015, only 15.7% of students from the bottom quarter of the PISA ESCS index in Slovakia performed at or above level 3 (out of 6 levels of proficiency) in reading, mathematics and science (OECD, 2018<sup>[42]</sup>), which is below the OECD average of 25.2%. There has also been a negative trend between 2006 and 2015 (OECD, 2018<sup>[42]</sup>). The outcomes of Slovak Roma students in particular are significantly worse than those of the non-Roma population, with the difference in performance in terms of PISA scores between 15-year-old Roma and non-Roma pupils approximately 160 points (OECD, 2019<sup>[4]</sup>).

Focusing on vulnerable students and supporting schools and teachers to better cater to their needs has significant potential to improve the student performance of these groups, thus boosting the overall skills level of youth in Slovakia. Although it is important to address the needs of vulnerable children and pupils in the broadest sense of the definition (e.g. special needs students), this report will primarily equate vulnerable students with those from a socio-economically disadvantaged background. Given that the definition of a socio-economically disadvantaged background used in the Slovak education system might not cover all children or pupils at risk of poverty or social exclusion, the report will rely instead on the PISA ESCS index (OECD, 2016<sup>[3]</sup>), which is derived from several variables related to students’ family background: parents’ education, parents’ occupations, a number of home possessions that can be taken as proxies for material wealth, and the number of books and other educational resources available in the home. Students will thus be classified here as socio-economically disadvantaged if their values on the ESCS index are among the bottom 25% within their country or economy (OECD, 2016<sup>[3]</sup>).

This opportunity and the corresponding policy recommendations will focus on the following topics:

- Providing targeted support to vulnerable students.
- Identifying schools and students at risk.

### *Providing targeted support to vulnerable students*

Slovak teachers often lack the specific skills, capacity or motivation to provide targeted support to vulnerable students (OECD, 2019<sup>[43]</sup>), which poses a significant challenge. While it is well documented that the impact of high-quality teachers on student performance is generally significant (OECD, 2005<sup>[44]</sup>), these effects are particularly magnified for vulnerable students from disadvantaged backgrounds (The Sutton Trust, 2011<sup>[45]</sup>).

Although there are various tracks that administer education in Slovakia, depending on whether the pupil comes from a materially disadvantaged background or is physically or mentally disabled, students from disadvantaged backgrounds have to pursue their studies in regular classrooms. In fact, placing a socially disadvantaged child into special education would count as discrimination based on social background. Socially disadvantaged students in regular classrooms can study certain or all subjects within the framework of individual educational programmes (Ministry of Education, Science, Research and Sport, 2019<sup>[46]</sup>).

Individual educational programmes form an integral part of the documentation of a student individually integrated in a regular class. They are developed by the head teacher in co-operation with a special pedagogue, teaching assistant or other expert worker, and aim to plan a pupil's educational path that caters to their specific needs (Ministry of Education, Science, Research and Sport, 2019<sup>[46]</sup>). However, more than 30% of Slovak primary school teachers and 28% of secondary school teachers report compiling these programmes on their own (To Da Rozum, 2019<sup>[47]</sup>). Although the Slovak law allows for developing individual educational programmes for both disabled and socio-economically disadvantaged students in theory, it is much less common for the latter category (Farenzenová, Kubánová and Salner, 2013<sup>[48]</sup>). In practice, developing these programmes is a highly demanding bureaucratic process, with the form itself of considerable length and containing unnecessary repetition (Farenzenová, Kubánová and Salner, 2013<sup>[48]</sup>). Furthermore, current legislation does not permit developing an individual educational programme if students are not fluent in the Slovak language, despite potentially benefiting from the programme's individual approach (Farenzenová, Kubánová and Salner, 2013<sup>[48]</sup>). The language barrier is especially important for Roma students, who represent over half of all socially disadvantaged students in Slovakia (Ministry of Finance et al., 2019<sup>[34]</sup>). There are also discrepancies between the theoretical development and practical implementation of individual educational programmes. Slovak teachers must self-study relevant psychological literature in order to be able to choose the best teaching method for the student with particular educational needs, which is a time-consuming exercise.

Large numbers of pupils from socio-economically disadvantaged backgrounds are enrolled in special education institutions, which, as underscored above, constitutes discriminatory practice. This is further exacerbated by the absence of effective control mechanisms. Overall, the number of pupils in special education in Slovakia is nearly four times higher than the EU average. At the same time, more than half of these students (55%) come from families provided with material needs assistance or from marginalised Roma communities. Stakeholder interviews revealed a widespread practice whereby such students are often channelled into special schools based on prefabricated psychological appraisals purely for capacity reasons, with most pupils placed in the special education system due to having been diagnosed with a mild mental/intellectual disability. For instance, up to 16.1% of pupils from the marginalised Roma communities with this diagnosis attend special schools or classes in Slovakia, which is five times more than the overall population (3.2%) (Ministry of Finance et al., 2019<sup>[34]</sup>). However, it should be re-emphasised that purposefully transferring Roma children into special education institutions amounts to discrimination on the grounds of racial or ethnic origin, which is prohibited by the EU Racial Equality Directive (European Commission, 2019<sup>[49]</sup>).

Even if enrolled in a regular school, vulnerable students are not always adequately supported due to the relative unpreparedness of their teachers. According to evidence gathered through workshops and stakeholder interviews, this trend partially reflects the lack of theoretical focus on vulnerable students in the university curricula of future teachers, which is further compounded by the absence of practical teaching experience regarding vulnerable and other pupils (see Opportunity 3). Teacher interviews as part of this project revealed that Slovak teachers working with vulnerable students often struggle with designing classes that cater to their needs, with devoting adequate attention to them in undertaking or finalising their tasks, or with keeping control of the class. In order to complement the necessary long-term solutions introduced in Opportunity 3, other immediate response mechanisms could be considered (Box 2.3).

Data gathered in international surveys further highlight the need to support teachers in interacting with vulnerable students. Slovak teachers who do not have any students from socio-economically disadvantaged homes in their classes spend on average almost 84% of their time on actual teaching and learning, compared with 68% for teachers with more than one-third of such students in their classes (Figure 2.4). Similarly, more than 37% of Slovak teachers in classes with more than 60% of students from socio-economically disadvantaged homes say that they have to wait a relatively long time for students to quieten down when lessons begin, compared with 13% for those teaching in classes with no socio-economically disadvantaged students.

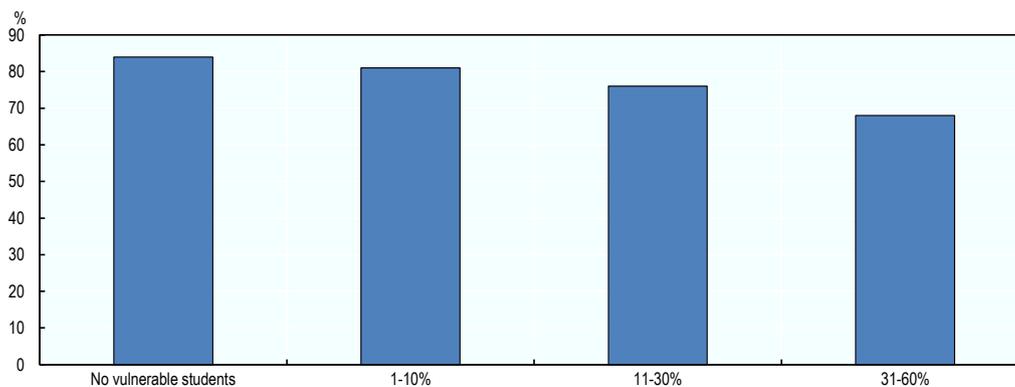
### Box 2.3. Relevant international example: Building teacher capacity for diverse educational environments in Alberta (Canada)

For its educators, the government of Alberta prioritises awareness, understanding and the need to support students from diverse ethnic and cultural backgrounds. This issue is highlighted in the preamble to the Ministerial Order on Student Learning and aligned to professional development tools for teachers. Alberta Education offers a series of resources to in-service teachers so that they can learn about the Indigenous communities of Canada (First Nation, Métis and Inuit) and understand the contemporary issues affecting students from these communities. It further supports teachers by providing a curriculum development tool, *Guiding Voices*, for the inclusion of Indigenous perspectives throughout the school curriculum. Teachers are guided to incorporate the history and contemporary realities of Indigenous peoples in programmes of study, assessments, and teaching and learning resources. For example, the toolkit includes examples of narratives and images of First Nation, Métis, Inuit and other Indigenous groups that could be included when teaching certain subjects in the classroom. It also provides guidelines on how teachers, through their classroom practices, can prevent social exclusion among students. This support mechanism stands out as it focuses on building a strong foundation of knowledge and awareness among teachers, followed by concrete teaching strategies and resources for reference, to encourage informed implementation of the recommended practices.

Source: OECD (2019<sup>[43]</sup>), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, <https://dx.doi.org/10.1787/1d0bc92a-en>; Alberta Education (2015<sup>[50]</sup>), *Guiding Voices*, <http://learnalberta.ca/content/fnmiqv/index.html>.

### Figure 2.4. Slovak teachers devote less time to teaching in classes with vulnerable students

Time spent teaching by share of vulnerable students in class, % of class time



Source: OECD (2019<sup>[43]</sup>), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, <https://dx.doi.org/10.1787/1d0bc92a-en>.

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Teachers are often faced with a language barrier, especially in the case of Roma pupils. Given that only one-third of the Roma community consider the Slovak language to be their mother tongue, it is to be expected that a certain share of Roma pupils will join primary school without any prior knowledge of Slovak, especially if they had not attended pre-primary education institutions beforehand. The task of teachers is thus made even more difficult given that there is no language support system in place to teach Slovak as a second language (Ministry of Finance et al., 2019<sup>[34]</sup>).

Slovak teachers struggling to provide adequate support to vulnerable students do not reap the full advantages potentially stemming from closer co-operation with students' families or social services. However, Čerešňíková (2006<sup>[51]</sup>) highlights that teacher-parent communication can allow teachers to effectively gather more information about the pupil while building trust with the students' family (See Box 2.4). Such co-operation becomes even more important with respect to vulnerable students and their families (Turzák and Turzákóvá, 2013<sup>[52]</sup>).

#### **Box 2.4. Relevant international example: Fostering communication between schools, families and additional services in France**

France has a number of initiatives in place to facilitate co-operation and communication between schools, families and additional stakeholders.

The Programme for Educational Success (*Programmes de réussite éducative*) aims to complement the efforts of the school and focuses on children most at risk in urban areas. Based on the identification of pupils with learning difficulties aged 2 to 16, the programme provides tailored support, with the agreement of parents, developed according to the specific needs of the individual. Often entailing a cross-sectoral approach involving teachers, social workers and psychologists, pupils are followed by a primary contact person who is also in liaison with the families. National funds are available for schools engaging in this programme.

Following the law of 8 July 2013, French schools are required to set up a parents' meeting centre (*Lieu Accueil Parents*). At a Lyon primary school, Les Géraniums, this room is used by parents as a meeting point to discuss and share experiences and support, as well as to engage with external specialists such as teaching assistants, social workers or medical staff. The centre can also serve as a place to organise talks on school issues and engage with teaching staff. Municipal funding was provided to the school to facilitate the provision of this centre.

The nationwide scheme, Open School to Parents (*Ouvrir l'École aux parents pour la réussite des enfants*), is aimed at parents with a migrant background that have recently settled in France and are not well integrated into society. Supported via a collaboration between the Ministry of Education and the Ministry of Home Affairs, the purpose is to involve migrant parents in the schooling of their children. Participation is voluntary, free of charge and involves a language course for parents, as well as training and familiarisation with the French schooling system and the values of the French Republic. Training is mainly delivered by teachers, including language teachers, and other professionals, with courses delivered on school premises after hours to encourage participation.

Source: European Commission (2015<sup>[53]</sup>), *Working Group Schools Policy: Early School Leaving. Country Focus Workshop: France*, [https://ec.europa.eu/assets/eac/education/experts-groups/2014-2015/school/france-parental-involvement\\_en.pdf](https://ec.europa.eu/assets/eac/education/experts-groups/2014-2015/school/france-parental-involvement_en.pdf).

According to testimonies from teachers working in vulnerable schools, parent-teacher co-operation is significantly underdeveloped in Slovakia, which poses a particular problem in the case of Roma students. In this respect, the integration of Roma-speaking teaching assistants to help with the learning of vulnerable pupils could surmount the language barrier between teachers and Roma parents whose knowledge of the Slovak language is often inadequate, as well as build parent-teacher trust and lessen misunderstandings.

The state provides a contribution to schools in support of each pupil from a socially disadvantaged background, which was set at EUR 150 per year in 2018 (Ministry of Education, Science, Research and Sport, 2019<sup>[54]</sup>). The contribution is meant to cover the costs of a teaching assistant or a special pedagogue, the provision of didactical and learning tools, or the prevention of a spread of contagious diseases. However, the contribution per child is not enough to cover all foreseen expenses (Ministry of Education, Science, Research and Sport, 2019<sup>[55]</sup>).

### Recommendations for providing targeted support to vulnerable students

- **Provide school teachers working with vulnerable students easily implementable international best practice examples of teaching these students.** Best practice teaching advice should be targeted specifically at teachers working with vulnerable students. A responsible team, comprised, for instance, by staff from the MPC, should regularly convene representative teachers from schools with high proportions of disadvantaged students for international best-practice, topic-specific learning incubators (see Box 2.3), organised in Slovak language. These learning experiences should be supported by electronically disseminating and following up with information on simple best practice steps, while requesting teachers' feedback on the effectiveness of implemented practices. Following the completion of the first cycle of best practice learning, time for intra-school discussions (one to two hours a week) of the teachers' experiences with implementing the new techniques should be institutionalised within their professional obligations, and enabled by decreasing their administrative workload. Gradually, support should be given to facilitate the progression from intra-school discussions to an inter-school forum, where a network of Slovak schools with high proportions of disadvantaged students could support each other in effective peer learning. Provided that such measures are seen as having the potential to help with the teaching of vulnerable students in the short term, the focus on teaching pupils from socially disadvantaged backgrounds and in linguistically mixed environments should also be more extensively reflected in teachers' professional development as a more long-term solution (see Opportunity 3).
- **Strengthen co-operation and communication between schools, vulnerable students' families and social services.** Roma teaching assistants should be given priority if further support for expanding the number of teaching assistants is to be included in the government's long-term strategy. One-to-one interactions, informal communication and personalised engagement should be emphasised in their work, while the roles of local volunteers and NGOs should also be explored (Sime, Fassetta and McClung, 2014<sup>[56]</sup>). Social workers, and their role in the process of effectively communicating with the families of vulnerable students, should be supported through regular information sharing and meetings with teachers and teaching assistants to ensure effective collaboration (see Box 2.4). In the long-term, support for further educating Roma parents primarily with the view of increasing their basic literacy rates, would further enhance the ease of communication between teachers, parents and social services (Turzák and Turzáková, 2013<sup>[52]</sup>).
- **Simplify the administrative complexity of setting up individual educational programmes.** Although providing a universal model of an individual educational programme is not advisable given that it is meant to cater to each pupil's specific needs, reducing administrative complexity should be encouraged. This could create more time for teachers to develop the programmes and might therefore encourage the practice to become more widespread, even with regards to pupils from socially disadvantaged backgrounds. In this way, the more intensive integration of socially disadvantaged pupils into regular classes will be aided, which might help dissuade the still widespread practice of assigning vulnerable students to special schools. To prevent common errors, teachers could be made aware of errors committed when designing individual programmes, such as paying inadequate attention to the conclusions of a pupil's diagnosis by pedagogical-psychological guidance experts (Krčahová and Šestáková, 2012<sup>[57]</sup>). At the same time, the development of methodological materials that advise teachers on the relevant teaching methods appropriate for students with different individual educational needs could be considered.

### *Identifying schools and students at risk*

Early school leaving has been associated with significant fiscal, social and private consequences. These include higher dependence on government transfers, reduced tax revenues, fewer productivity externalities, increased risk of poverty, unemployment and social exclusion (Brunello and Paola, 2014<sup>[58]</sup>). In 2012, more than 40% of early school leavers in the EU were out of work, even though roughly 70% expressed an interest in working (European Commission, 2013<sup>[59]</sup>). Existing studies have also shown that low educational attainment levels can reduce lifetime earnings. Although complicated to estimate, research suggests that depending on circumstances, an additional year of schooling can raise the lifetime earnings of an individual by between 4% and 10% (Brunello and Paola, 2014<sup>[58]</sup>). Within academic literature, early school leaving has long been perceived as a sudden phenomenon. Recently, however, an extensive body of evidence has indicated that many pupils who drop out of education have been exhibiting “distress signs” for months, even years (European Commission and ICF GHK, 2013<sup>[60]</sup>). Research has shown that the earlier a pupil sends the first distress signal, the greater the risk of early school leaving later on (European Commission and ICF GHK, 2013<sup>[60]</sup>).

Distress signs, also known as “early warning signals”, can be displayed inside or outside of school. Through these signs, students indicate that they might be struggling with school workload and motivation, or that they are faced with personal challenges requiring support. A growing consensus has emerged amongst policy makers around the importance of early warning systems (EWS), developed to aid teachers and other pedagogical and expert staff decipher and act upon various distress factors exhibited by pupils (European Commission and ICF GHK, 2013<sup>[60]</sup>). Based on diagnostic tools, EWS are able to statistically identify at-risk students by predicting the likelihood of a pupil dropping out of school, and thus allow for appropriate intervention in advance in order to prevent the individual’s early school leaving (Chung and Lee, 2019<sup>[61]</sup>; Knowles, 2015<sup>[62]</sup>). EWS have been shown to produce satisfactory results when accompanied by a clear system of follow-up and intervention. This is especially important in Slovakia, where teachers might often have an idea of who the at-risk students are, but might not have the resources or time to react and prevent dropping out. Equally, their attitudes to, and perceptions of, low-performing and disadvantaged students (State School Inspection, 2019<sup>[63]</sup>) (To Da Rozum, 2019<sup>[47]</sup>) indicate that their motivation or readiness to intervene should not be taken for granted. However, with a streamlined and simplified system of identifying students at risk, embedded within a broader accountability system and able to signal the level risk and intervention needed (Box 2.5), the efforts of teachers could be stimulated and better channelled to where they are needed the most.

In Slovakia, the share of early school leavers, defined as 18-24 year-olds with only or less than lower secondary education and no longer in education or training (European Commission, 2011<sup>[64]</sup>), varies among different groups of the population. Although the current share of 8.6% leaving school early across the population is below the EU-2020 target of less than 10% (Eurostat, 2019<sup>[65]</sup>), the OECD (2019<sup>[4]</sup>) notes that the ratio is as high as 61% for Roma men and 54% for Roma women (see Figure 2.5), indicating their much larger drop-out rates from secondary education. The European Agency for Special Needs and Inclusive Education (2017<sup>[66]</sup>) also notes that learners with special needs are among those groups at particular risk of early school leaving. At the same time, the likelihood of grade repetition for disadvantaged students in Slovakia is the highest among OECD countries, and almost three times as high as the OECD average of 4% (OECD, 2019<sup>[4]</sup>). This trend thus also increases the likelihood of early school leaving, given that in Slovakia, repeated grades are counted towards the ten year compulsory school attendance. In theory, students can therefore leave educational institutions before obtaining lower secondary education.

### Box 2.5. Relevant international example: The Massachusetts Early Warning Indicator System (EWIS)

EWIS is an early warning system that identifies students at risk of missing key academic milestones.

A student's EWIS risk level predicts the likelihood of them meeting (or not) a relevant academic milestone for his/her particular age group. The student risk is organised by four grade level groupings in the American context: early elementary, late elementary, middle grades and high school. The academic milestones, which need to be developmentally appropriate, have been identified for each age group based on available state data. Based on EWIS experience, the milestones should be set up so that they are important to the success of students, and meaningful and actionable for teachers who work with the students in each grade grouping.

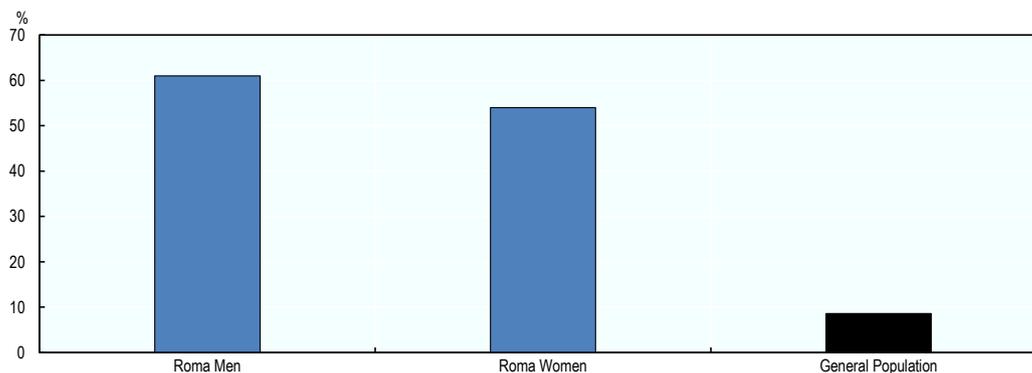
EWIS identifies three risk levels, which are computed annually at the end of each summer: low, moderate and high. The computed risk level provides immediately available information to teachers or relevant expert workers about the likelihood that an individual student will or will not achieve the set academic milestone. For example, a student assigned a low risk level is classified as likely to meet the academic milestone.

The risk levels identified by EWIS are determined on the basis of data from the previous academic year. A risk level is thus assigned to every Massachusetts public school student for whom there are state-level data from the prior year, showing the importance of accurate, timely and consistent data input by schools. The risk levels are determined on an individual student basis, and not based on a student's relative likelihood of reaching an academic milestone when compared with other students. Consequently, there are no set amounts of students at each risk level.

Source: Massachusetts Department of Elementary and Secondary Education (2019<sup>[67]</sup>), *Early Warning Indicator System (EWIS)*, [www.doe.mass.edu/ccte/ccr/ewis/](http://www.doe.mass.edu/ccte/ccr/ewis/); OECD (forthcoming<sup>[68]</sup>), *Strengthening the Governance of Skills Systems*.

### Figure 2.5. Early school leaving rate is significantly higher among the Roma population

Early school leavers, % of population aged 15-24



Source: OECD (2019<sup>[4]</sup>), *OECD Economic Surveys: Slovak Republic 2019*, [https://dx.doi.org/10.1787/eco\\_surveys-svk-2019-en](https://dx.doi.org/10.1787/eco_surveys-svk-2019-en); Eurostat (2019<sup>[65]</sup>), *Early leavers from education and training*, [https://ec.europa.eu/eurostat/statistics-explained/index.php/Early\\_leavers\\_from\\_education\\_and\\_training](https://ec.europa.eu/eurostat/statistics-explained/index.php/Early_leavers_from_education_and_training).

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In Slovakia, schools discuss the students at risk of dropping out every quarter when teachers are convened at school “pedagogical councils”. It is also mandatory that parents are contacted several times prior to a significant change in subject specific or behaviour grade, rebuke from the class teacher or from the principal, or in case of a large number of unattended lessons. However, there is yet to be developed a centrally operated early warning system able to simplify and streamline the identification of Slovak students beginning to show early warning signals, before they drop-out, while also indicating the urgency and appropriate level of intervention. There are, nonetheless, systems in place on which authorities could further build with the view to develop a functional EWS system, or potentially a much broader multi-faceted education information system in the long run, such as in the case of Estonia (Box 2.6).

### **Box 2.6. Relevant international example: Estonia’s Education Information System (EHIS)**

The Estonian Education Information System is a state register of educational information that consolidates, in real time and periodically, information about all educational institutions, students, teachers and academic staff, graduation documents, textbooks, and curricula in Estonia. In this context, EHIS is one of the most important instruments of knowledge-based educational policy, and one of the few databases of its kind in the world.

EHIS co-operates with more than 20 information systems, while approximately 45 services are related to the register. The register is also used and completed by 2 000 institutions related to education. Such co-operation is made possible via X-Road solutions, which allows for the provision of services without the applicant having to acquire a certificate from the educational institution to confirm their data. Access to the database is ID-card based. Data are entered into EHIS mainly by educational institutions, as well as being obtained from publishing companies and other registers.

The data entered into EHIS allow an instant overview of current developments in the Estonian education system and can identify and monitor important trends. For instance, the data entered into EHIS by schools indicate that one of the biggest challenges facing the country is ensuring sufficient workload for teachers in situations where the number of students is falling, or that Estonia’s established aim – a larger share of students in vocational secondary education – is a clearly regional issue. Thanks to EHIS, it can be observed that the proportion of basic school graduates continuing their studies at the upper secondary level is two to three times larger in bigger cities than in some rural regions.

Source: OECD (forthcoming<sup>[68]</sup>), *Strengthening the Governance of Skills Systems*.

In Slovakia, the Resort Information System (RIS) is a centrally governed information system that gathers information data on individual pupils from individual schools. Through their own school information systems, schools input the relevant data into RIS, which facilitates the administration of the central register (Ministry of Education, Science, Research and Sport, 2019<sup>[69]</sup>). Data collected include information on the number of pupils and teachers, together with the start and finish date of studies and the year/grade of study. However, no data on pupils’ grades are collected, partly due to the fact that grading is not standardised across Slovak schools, and only limited attendance data are gathered. Schools have an obligation to input data into the system regardless of whose competence the school falls under (regions, municipalities, churches or religious communities, or other private providers), and regardless of their legal status. In the 2018/2019 academic year, kindergartens, primary schools, secondary schools and special schools had an obligation to provide relevant data on a monthly basis, while primary art and language schools were excluded (Ministry of Education, Science, Research and Sport, 2019<sup>[70]</sup>). MŠVVŠ publishes methodological guidance on how to correctly upload and update data (Ministry of Education, Science, Research and Sport, 2019<sup>[71]</sup>). However, stakeholder consultations revealed that schools only rarely provide all the necessary and required information, and that there are issues with the quality of data collected.

In the long term, the goal of RIS in Slovakia is to gradually fully replace the current, more static system of statistical reporting through which data is being collected into the central resort system run by the Slovak Centre of Scientific and Technical Information (CVTI). The introduction of RIS is meant to ensure a more flexible consolidation of obtained data, as well as summarise and make data more accessible to user organisations. The end goal is therefore to reduce the current administrative burden of teachers and school managers, while speeding up the process of data gathering and updating (Ministry of Education, Science, Research and Sport, 2019<sup>[72]</sup>). To a limited extent, the CVTI system of data collection has already been integrated into RIS, given that certain types of CVTI data are already being processed through RIS (CVTI, 2019<sup>[73]</sup>).

### **Recommendations for identifying schools and students at risk**

- **Transform RIS into a fully-fledged EWS by redesigning it to collect data on pupil attendance and grades** (see Box 2.5). To facilitate this, CVTI's partially independent system should be fully integrated into RIS. Gradually, the system should be expanded to also collect data on other academic and behavioural risk indicators of students, such as grade repetition or pupil behaviour. Given that grading is not standardised across Slovakia, schools could be asked to input data on grades according to a standardised grading matrix developed by MŠVVŠ. Within the initial stages of transforming RIS into an EWS, legal issues related to personal data collection should be given additional attention and thoroughly analysed. Furthermore, given the existing issues of incomplete data input into RIS, diligent and systematic data provision should be encouraged. It is important that in the final stages, RIS will not only become a powerful, evidence-based predictive tool, but also easily accessible to teachers and schools through user-friendly aggregated outputs. In the data review and analysis stage, particular attention should be paid to students who send an early warning signal in primary school and the first year of secondary school.
- **Embed the EWS within a wider, flexible and personalised system of response to prevent early school leaving.** Implementing an EWS system would not only provide teachers with tangible evidence to support the fact that a student's performance merits intervention, but would also allow them to refocus their time on devising adequate reaction strategies. EWS should be embedded into a broader accountability system with incentives and resources to intervene. With such a set-up in place, support should be provided to teachers to facilitate their involvement in specialised support teams that also involve a social worker or other expert pedagogical staff. Support teams need to not only direct heightened efforts towards the at-risk pupil, but also initiate a closer collaboration process with the student's parents than exists at present. Parents need to first be alerted of the distress signs and related risks that their child is exhibiting. At a later stage, the possibility of benefit withdrawal in case of continually low attendance should be clearly communicated. Within the framework of specialised support teams, providing personalised counselling services to parents and pupils should be a priority. The EWS could serve as a complementary tool that indicates the urgency level and appropriate stage of intervention in each case. Given that EWS work best in conjugation with the educators' professional judgement, early school leaving, and the associated risk factors, should form part of initial teacher training (see Opportunity 3).

### ***Opportunity 3: Building a strong teaching workforce***

Teachers are one of the most important components of the school-based learning process. Effective teachers create fertile learning environments, inspire and motivate students, and bring out the best in their pupils. Access to high-quality teachers is even more relevant for students from disadvantaged backgrounds or with special learning needs. A good teacher can play a key role in compensating for unfavourable socio-economic environments by providing learning opportunities for those who otherwise would have been left behind.

Building a strong teaching workforce is critical for improving the skills of youth. Research shows that teacher performance has a significant impact on student learning outcomes and academic achievement (Schacter and Thum, 2004<sup>[74]</sup>; Hanushek, Piopiunik and Wiederhold, 2018<sup>[75]</sup>), and that those effects can be persistent (Konstantopoulos and Chung, 2011<sup>[76]</sup>). A study in the United States of America (USA) showed that children who have access to high-quality teachers have a higher probability of attending university and go to higher quality universities than those who do not. Moreover, the study identified the significant impact of teachers on labour market outcomes, as measured by annual earnings (Chetty, Friedman and Rockoff, 2014<sup>[77]</sup>).

Unfortunately, a number of factors hinder Slovakia's capacity to attract and retain high-quality teachers in the education system. Despite a relatively high level of self-reported satisfaction with their jobs (85% according to the Teaching and Learning International Survey, TALIS), teachers report that their profession suffers from low social recognition. Only 4% of teachers believe that teaching is a valued profession by society, the lowest among TALIS participating countries (TALIS average 30.9%). Slovakia has not progressed from last place among OECD countries on this dimension since 2013 (OECD, 2019<sup>[43]</sup>). Some 2% of teachers believe that the advantages of being a teacher do not outweigh the disadvantages (TALIS average 22.6%), and one in seven regret having decided to become a teacher (one out of ten in TALIS participating countries).

A recent study shows that, on average, students pursuing university teaching degrees do as well in secondary school standardised tests as students pursuing other university degrees, despite a common perception otherwise (Varsik, 2019<sup>[78]</sup>). However, and as mentioned by workshop participants, teaching degrees are still often seen as a relatively easy way to earn a university degree, and a number of students pursue teaching degrees solely to obtain a bachelor's degree that will allow them to apply for a master's degree or to a job requiring a university qualification.

As agreed by most teachers interviewed, as well as workshop participants, the most relevant factor in terms of the relatively low attractiveness of the teaching profession are salaries. Teacher salaries in Slovakia have been increasing in recent years, but remain very low by international comparison. OECD (2019<sup>[28]</sup>) shows that Slovak lower secondary teachers earn 65% of the wage of a tertiary educated worker, including all bonuses, compared with 88% among OECD countries on average, and just above American and Czech teachers. Slovak teachers at the beginning of their career lag behind the salaries of tertiary educated workers the most: lower secondary teachers aged 25-34 in Slovakia earn 61% of the wage of a tertiary educated worker, compared with an OECD average of 97%. The age cohort of lower secondary Slovak teachers closest to the OECD average in terms of salary are those aged 56-64, who earn 66% of the wage of a tertiary educated worker, compared with an OECD average of 79% (Ministry of Finance et al., 2017<sup>[18]</sup>).

Teachers have seen their salaries increase significantly in recent years: by 6% in 2017 and 10% in 2019. A further increase of 10% is planned in 2020. Further raises were implemented in September 2019 for teachers at the beginning of their career. However, higher salaries will provide neither an automatic nor a comprehensive solution to the low levels of attractiveness of the teaching profession, and there are other aspects that need to be improved in parallel. This opportunity elaborates on and provides policy recommendations for three aspects of the teaching profession:

- Enhancing the practical aspects of curricula in initial teacher training.
- Improving the professional development of teachers.
- Supporting teacher career advancement.

*Enhancing the practical aspects of curricula in initial teacher training*

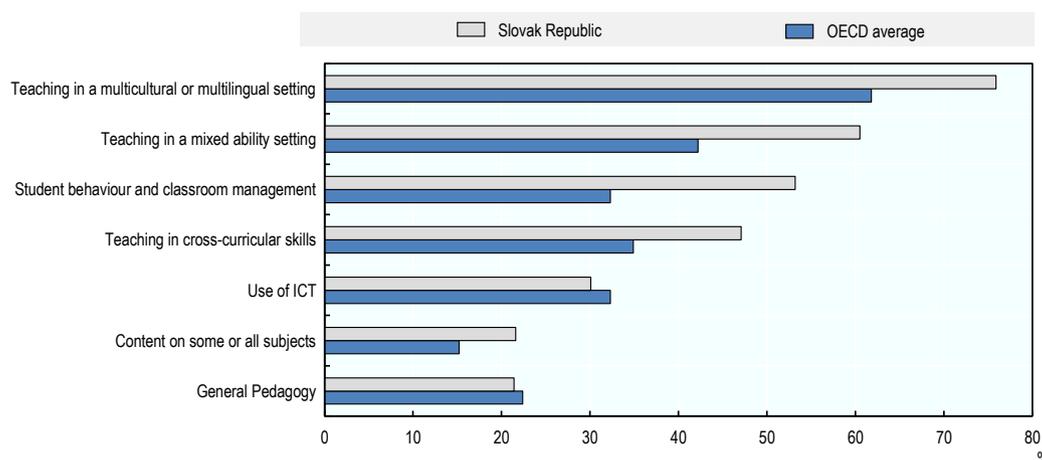
Initial teacher education for primary and secondary school teachers in Slovakia takes place in universities (Shewbridge et al., 2014<sup>[79]</sup>). After finishing secondary school, students may enrol in any of the faculties offering pedagogical degrees, which typically offer two-level study programmes to become a teacher. The first level is completed after passing a state examination, at which point a bachelor's degree is granted. This degree allows graduates from pre-primary and elementary pedagogical programmes to work as teachers in kindergartens, tutors in school clubs or as instructors of vocational training. After completing the first level, students can enrol in a master's degree, which provides the qualification required to teach at the primary and secondary level in usually two specialised subjects. The total length of this two-level study is five years. Alternatively, students may pursue their studies in a non-pedagogical faculty and complete supplementary pedagogical studies concurrently or after having completed a master's degree in another field of study.

Initial teacher education in Slovakia has a strong focus on theory and much less emphasis on the practical aspects of everyday teaching. During the five-year programme, students receive academic training in pedagogy and psychology, and in subject areas such as mathematics, biology and languages. Roughly 80% of young teachers surveyed in TALIS 2019 felt well or very well prepared in terms of general pedagogy and subject content knowledge, figures that are comparable to the OECD average.

The curriculum also has a practical component that allows students to gain practical experience before becoming teachers. Students are trained in didactics and participate in practical activities such as observations, demonstrations, mentoring and teaching practice. However, the average practical component of teaching programmes in Slovakia makes up only a 5-8% share within the total duration of their studies, compared to 20-40% internationally (Ministry of Finance et al., 2017<sup>[18]</sup>). At the same time, there is no compulsory minimum share of practical experience in the curriculum for future teachers defined by MŠVVŠ. Similarly, evidence gathered through workshops, interviews and data analysis shows that recent graduates from pedagogical faculties and other teaching programmes lack preparedness in some key aspects of teaching, and have had little exposure to real classroom settings and limited field experience. Slovakia faces the challenge of increasing the quantity and strengthening the quality of the practical component of curricula in initial teacher education in order to better integrate subject knowledge with practice. The benefits of enhancing the practical aspects of curricula in initial teacher education are well documented in the literature. These include increasing teachers' confidence in their knowledge and readiness to teach and providing more authentic learning experiences (Darling-Hammond, 2010<sup>[80]</sup>; Edwards, Tsu and Stimpson, 2009<sup>[81]</sup>). It can also smooth the transition from university to the classroom and reduce the stress and burden that many new teachers feel when they start teaching (Worthy, 2005<sup>[82]</sup>). As a result, enhanced practical experience during initial teacher education has the potential to decrease teacher turnover and increase retention rates in initial years.

Because of focus on theory rather than practice, new teachers in Slovakia lack the preparedness to teach and often face a difficult adaptation period, which is characterised by a learning-by-doing process and by strong reliance on peers to respond to daily challenges in the classroom. This lack of preparation becomes even more noticeable among those teaching in more complex environments, such as in schools in economically disadvantaged regions or schools with a high share of Roma students, who often do not master the Slovak language and live in vulnerable environments (see Opportunity 2). Results from TALIS 2019 showed that young Slovak teachers report lower levels of preparedness in key areas than teachers in other OECD countries. As shown in Figure 2.6, three out of four teachers aged 30 or less (76%) report that they are either not prepared at all or only somewhat prepared to teach in a multicultural or multilingual setting. This figure is 14% higher than the OECD average (62%). Recent university graduates also lack the readiness to interact with students with learning disorders or disabilities and to control student behaviour. TALIS results indicate that a large share of teachers aged 30 or less does not feel prepared to teach in a mixed ability setting (61%) or to control student behaviour and manage the classroom (53%). These figures are significantly higher than the OECD average (42% and 32%, respectively).

**Figure 2.6. Young Slovak teachers lack preparedness in key areas of teaching**



Note: Only teachers aged less than 30 years are included in the sample. OECD average is the arithmetic average based on ISCED 2 teacher data across 28 OECD countries in TALIS. The report refers to the average teacher “across the OECD” as an equivalent shorthand for the average teacher “across the 28 OECD countries and participating in TALIS”. Belgium is referred to as the Flemish Community of Belgium.

Source: OECD (2019<sup>[43]</sup>), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, <https://dx.doi.org/10.1787/1d0bc92a-en>.

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Acquiring practical experience during university studies is difficult, and most pedagogical faculties and teaching programmes face significant challenges in providing students with this type of experience. Most relevant field experience can only be learned in schools by shadowing an experienced teacher, observing other teachers, creating lesson plans, or co-teaching certain lessons in order to experience first-hand what it actually is to teach. In the international context, acquiring practical experience is facilitated through the establishment of different kinds of partnerships between schools and teaching faculties (see Box 2.7).

### Box 2.7. Relevant international example: The University of Minnesota Laboratory School

The Shirley G. Moore Laboratory School, opened in 1925, is one of the oldest laboratory schools in the United States. It is part of the University of Minnesota’s Institute of Child Development. The school serves as a living laboratory, where the institute’s research is put into practice. It is also a training site for the institute’s early childhood education students.

One major function of the school is training teachers of young children. Teacher candidates are undergraduate or graduate students who are studying early childhood education. For a full semester, candidates work with a lead teacher to develop their teaching competencies.

As part of their experience, teacher candidates plan, implement and evaluate individual, small group and large group activities. They are also expected to assume the responsibilities of the lead teacher for a number of weeks.

There are approximately 30 teacher candidates who work in the school each year. Each classroom is staffed by one lead teacher and two to three teacher candidates. The lead teacher remains with the children through the entire school year, and the teacher candidates rotate every 15 weeks. The adult-child ratio is generally 1:6. All lead teachers have master’s degrees, are highly knowledgeable of child development and are experienced in working with young children in classroom settings.

Source: University of Minnesota (2019<sup>[83]</sup>), *Teacher training – Lab School*, <https://lab-school.umn.edu/about-us/teacher-training/>.

In Slovakia, school-led training that needs to be supervised by a tutor is a time consuming activity that requires the tutor spending quality time with the trainee. Given that most of the time the trainee cannot substitute their mentor, tutoring a student requires extra work that needs to be somehow compensated. Unfortunately, the economic compensation that pedagogical faculties must provide to tutors in schools is minimal, which drives away potentially high-quality tutors. Anecdotal evidence suggests that professors in pedagogical faculties rely on their networks – mostly friends and alumni working in schools – to find tutors for their students. As a consequence, both the quality and quantity of training that students receive during their studies is low, and the amount of practical knowledge they acquire before becoming teachers is limited. The perceived lack of preparedness of recent graduates is compounded by the fact that traditional teaching methods prevail over more “progressive” approaches in pedagogical faculties (Lojova, 2016<sup>[84]</sup>). According to a number of interviewed teachers and workshop participants, pedagogy students are trained in traditional teacher-centred methods, with emphasis put on progressive teaching practices that place students at the centre of the learning process; promote a more holistic skills development process; and, as a consequence, emphasise hands-on activities, student-led discovery learning and group activities. For instance, more than 88% of first and second level students of teaching at Slovak universities, and almost 60% of professors, report that basic “lecturing” (*výklad*) constitutes the most widely used teaching method (To Da Rozum, 2019<sup>[85]</sup>). Fewer than 32% of student teachers report applying theoretical knowledge to practical examples as a prevalent teaching method, and fewer than 26% report using problem solving (To Da Rozum, 2019<sup>[85]</sup>). Pedagogical faculties have also been slow to incorporate modern teaching methods. For instance, fewer than 38% of professors of teaching at Slovak universities report most often using interactive teaching methods, and around 17% most often using e-learning (To Da Rozum, 2019<sup>[85]</sup>). This can be seen as further contributing to the struggle of university teacher training to keep up with modern day teaching requirements, build a professional teaching identity and reflect the basic components of teacher professionalism (Ministry of Education, Science, Research and Sport, 2012<sup>[86]</sup>). In Slovakia, a high share of students therefore do not feel prepared to face many of the current teaching challenges that await them in the classroom (Figure 2.6).

### **Recommendations for enhancing the practical aspects of curricula in initial teacher training**

- **Legislate a minimum share of practical training for student teachers at universities.** Pedagogical faculties and other faculties offering initial teacher education should be required to include a minimum number of credits or hours of field experience in their curricula. This would aid prospective teachers to connect theory and practice with the ultimate goal of improving the level of preparedness with respect to critical teaching competences. The high level of autonomy of Slovak universities could hinder the implementation of this recommendation; however, Slovakia could explore the possibility of linking the current funding scheme of universities to compliance with this regulation. Alternatively, it could be enforced by requesting faculties to comply in the context of their accreditation.
- **Facilitate the establishment of partnerships between pedagogical faculties and schools.** Faculties offering initial teacher education programmes should establish formal partnerships with schools across the country to ensure that pre-service teachers have access to sufficient and high-quality field experience. Partnerships could take different forms, ranging from simple agreements to more complex co-managing schemes such as “laboratory schools”, where schools are operated in association with a university or a pedagogical faculty to train pre-service teachers (Box 2.7). Slovakia should explore the possibility of piloting one or more laboratory schools across the country and evaluate their effectiveness. Partnerships should ensure that students interact with more experienced teachers through observation and collaboration, while being exposed to teaching related activities from early stages. In addition, partnerships should enhance the role of tutors and guarantee that trainees receive systematic and quality feedback. Tutors should be rigorously selected and properly compensated for their work. There are alternative mechanisms to

traditional monetary compensation; for example, school principals could free up tutors' time to mentor students by decreasing their administrative or teaching workload. In addition, MŠVVŠ could recognise the tutorship of pre-service teachers as a valuable part of a teachers' future portfolio (see section below).

### *Improving the professional development of teachers*

Schools, classrooms, and the role that people expect them to play in societies are always changing and evolving. In Slovakia, as well as in a number of other OECD countries, teachers are facing increasingly multicultural classrooms, and new information and communication technologies are constantly shaping and moving the frontiers of pedagogical practice. Furthermore, increased globalisation and technological change are modifying the set of skills that students will be required to possess in labour markets and society. In this context, initial teacher education (see section above) will never fully prepare teachers to effectively face the numerous and diverse challenges they will encounter throughout their careers. As a consequence, the Professional Development (PD) of teachers does and will continue to play a decisive role in countries' education systems.

In Slovakia, PD is provided by a large number of institutions including universities, private organisations, and the Methodology and Pedagogy Centre (MPC) of MŠVVŠ. These institutions serve approximately 80 000 education professionals across the country. The MPC is the largest provider with about 150 employees. It provides free in-service PD to teachers and school staff primarily through courses and workshops in its nine regional offices. MPC professional development is commonly delivered by in-house trainers (75 continuing education teachers as of 2019), who are typically former school teachers. However, some courses are outsourced and delivered by external trainers such as university professors and experienced school teachers.

Until August 2019, the PD system was structured around credits, which were replaced by “hours of professional development” in the new law – Act no. 138/2019 on pedagogical employees and professional employees and on the change and supplement to some acts. Under the credit system, participation in accredited PD programmes gave teachers credits that could be used to apply for salary allowances. They were also one of the main vehicles for career progression (see section below). Teacher PD credit bonuses allowed Slovak teachers to receive a 6% salary bonus for every 30 credits, with a ceiling of 12% for 60 credits for a period of seven years. Almost 64% of all Slovak teachers were receiving credit bonuses in 2016, of which one-third qualified for the lower and two-thirds for the higher credit bonus (Ministry of Finance et al., 2017<sup>[18]</sup>). The new law, which will be fully implemented by 2026 (in place since September 2019 for new teachers), does not change the fundamental mechanisms and incentives for teachers to undertake professional training, but introduces changes in the allowance scale.

The teacher and principal in-service PD rate is high. According to TALIS 2018, 92% of lower secondary teachers and 99% of principals attended at least one PD activity in the year prior to the survey (OECD average 94% and 99%, respectively). Slovak teachers report feeling satisfied with the PD they have received: about 80% report that PD had a positive impact on their teaching practice, a share that is similar to the average of OECD countries and economies participating in TALIS (82%) (OECD, 2019<sup>[87]</sup>). However, a number of challenges remain.

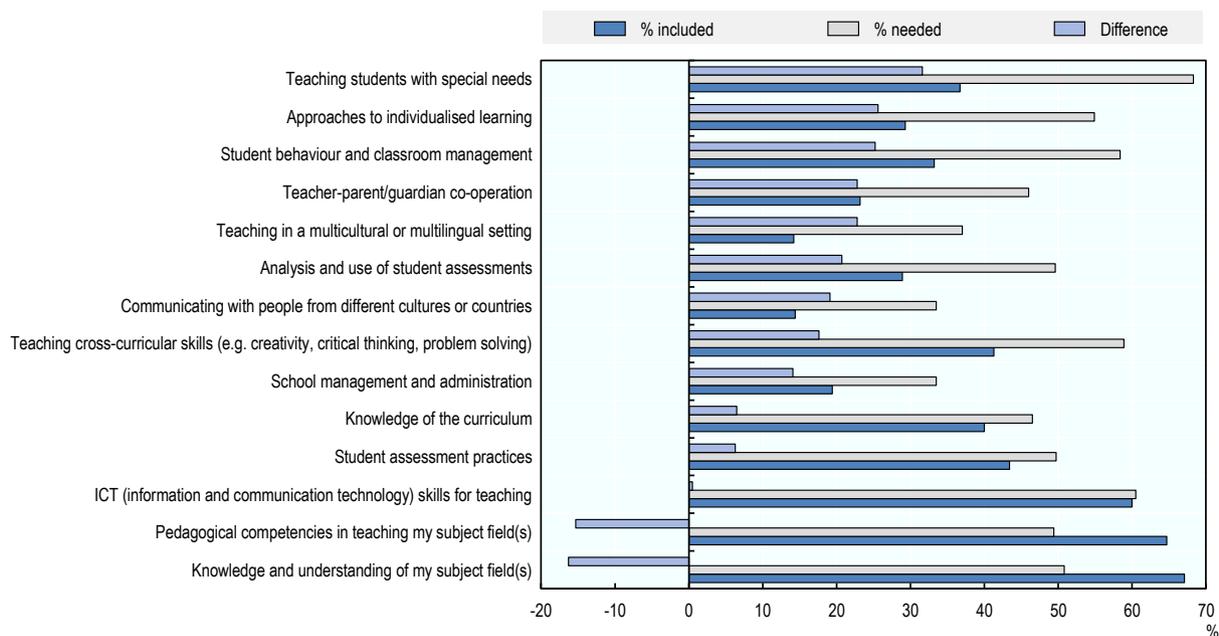
First, the alignment and quality of teacher PD can be further improved. A survey conducted by the Slovak Chamber of Teachers in 2014 revealed that over half of surveyed teachers do not feel attracted by the offering of PD programmes (Slovak Chamber of Teachers, 2014<sup>[88]</sup>). Data from TALIS 2018 show similar results, with four out of ten teachers agreeing or strongly agreeing that the lack of relevant PD programmes offered constitutes a barrier to participation (OECD, 2019<sup>[43]</sup>). The reported lack of alignment between the supply and demand of PD was widely agreed to be a challenge among interviewed teachers and participants in workshops and focus groups held by the OECD.

A better alignment of PD with teachers' needs can be achieved through better feedback from participants and by engaging teachers and school principals in its design. The MPC has started administering satisfaction surveys for teachers who undertake PD, the main results of which are analysed and published in MPC activity reports every six months. The MPC should ensure that this information is used to improve programme quality.

TALIS 2018 allows for the identification of areas in which these imbalances are larger. For example, according to teachers who participated in PD activities during the 12 months prior the survey, 63.3% of teachers reported not having received any PD on teaching students with special needs, and 70.7% reported not having received any PD on approaches to individualised learning. However, 68.3% and 54.9% of teachers reported a high or moderate need for PD in these topics, respectively shows the gaps (in percentage points) between the percentage of teachers reporting a moderate or high need of PD in different areas and the percentage of teachers reporting having received this PD. Courses in these areas are usually offered by the MPC and other training providers. However, they are usually not chosen by teachers and school principals as part of their professional development plan.

### Figure 2.7. Professional development of teachers should be more aligned with teacher needs

Percentage of teachers reporting need of training in each topic vs. percentage reporting that the topic was included in the professional development they participated in during the last 12 months



Note: The difference is calculated by subtracting the percentage of teachers reporting need of training from the percentage of teachers reporting that the topic was included in the professional development activities they participated in during the last 12 months.

Source: OECD (2019<sup>[43]</sup>), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, <https://dx.doi.org/10.1787/1d0bc92a-en>.

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As shown in Figure 2.7, large gaps are found in topics such as student behaviour and classroom management, teacher-parent/guardian co-operation, and teaching in a multicultural or multilingual setting. These findings are in line with Ministry of Finance et al. (forthcoming<sup>[89]</sup>) underlining that programmes aimed at improving teachers' skills regarding teaching in linguistically mixed environments and educating pupils from socially disadvantaged backgrounds could be more extensively added to the offer (see Box 2.8), as there are only a few courses or programmes focused on this issue at present in Slovakia. This poses a significant obstacle with respect to catering to the needs of vulnerable students in teaching, as well as in relation to identifying students at risk of dropping-out, as discussed in Opportunity 2.

### **Box 2.8. Relevant international example: Professional development for teachers working in diverse environments in Sweden**

In Sweden, the capacity of teachers to teach in diverse environments is developed as a continuum from pre-service training to in-service professional development opportunities. Teachers have opportunities to practice and learn about strategies to manage diversity once they start teaching. The National Agency in Sweden offers courses in the area of newly arrived and multilingual children with the objective of supporting teachers in vocational guidance for newly arrived students, subject-specific instruction and acquisition of Swedish as a second language. These content areas are important features in the professional development of Swedish teachers to teach in multicultural and multilingual environments.

Source: OECD (2019<sup>[43]</sup>), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, Cerna et al. (2019<sup>[90]</sup>) *Strength through diversity's Spotlight Report for Sweden*, <https://doi.org/10.1787/059ce467-en>.

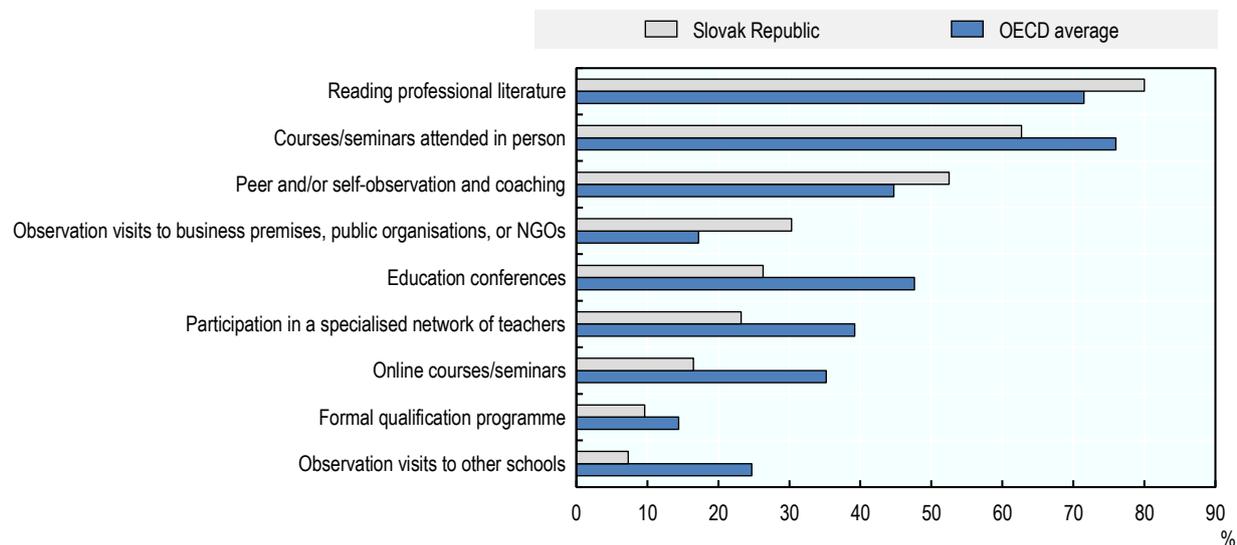
For topics such as knowledge of the curriculum, student assessment practices and ICT skills for teaching, the gaps between demand and provision are small. The most recurrent topics in teacher PD activities are knowledge and understanding of subject fields, and pedagogical competencies in teaching subject fields. PD programmes in these areas, however, are comparatively less needed, and their supply exceeds the percentage of teachers reporting high or moderate need for them.

The second challenge relates to the variety of PD, which tends to be biased towards courses and seminars in Slovakia. Figure 2.8 shows that more than 60% of teachers in Slovakia reported having attended courses and seminars during the 12 months prior to the TALIS survey. In contrast, Slovak teachers are 50% less likely to participate in online courses and seminars compared to other teachers in the OECD.

Teachers across the OECD report that one of the most impactful types of PD is that which provides opportunities to practice or apply new ideas and knowledge in their classrooms. In Slovakia, the participation rate in activities with this potential is among the lowest across the OECD. For instance, participation in observation visits to other schools (7.3%), in education conferences where teachers and/or researchers present their research or discuss educational issues (26.3%), and in networks of teachers (23.2%) is significantly lower than in other OECD countries (OECD averages of 24.7%, 39.2% and 47.6%, respectively).

## Figure 2.8. Slovak teachers need a greater diversity of professional development opportunities

Professional development activities that teachers have participated in during the last 12 months



Source: OECD (2019<sup>[43]</sup>), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners*, <https://dx.doi.org/10.1787/1d0bc92a-en>.

StatLink  <https://doi.org/10.1787/888934075260>

The market structure of PD explains most of its shortcomings in Slovakia. The link between PD and teacher salaries through the earning of credits –now hours of professional development– is particularly problematic (Santiago et al., 2016<sup>[5]</sup>). A survey by the Slovak Chamber of Teachers (Slovak Chamber of Teachers, 2014<sup>[88]</sup>) revealed that teachers' main motivation for pursuing PD was the salary allowance, rather than the aim to increase the quality of their professional activity. This has been backed up by later research, where 71.3% of Slovak teachers identified the need to acquire credits as the primary motivation behind their participation in educational programmes (Ministry of Finance et al., 2017<sup>[18]</sup>). Similarly, To Da Rozum (2019<sup>[47]</sup>) shows that more than 41% of Slovak secondary school teachers report acquiring a salary, and almost 26% the need of credits for their attestation, as the main driver of their decision to participate in PD (accredited or non-accredited) over the past 12 months (more than 41% and 28% for primary school teachers, respectively). This incentive structure triggers a credit-seeking behaviour that subordinates quality and relevance as the main drivers of PD choice to features such as quantity, affordability and simplicity. The lack of competition in the PD system exacerbates this situation. MPC courses are offered free of charge, whereas private providers, in most cases, charge fees. This puts private providers in a disadvantaged competition position regarding the MPC, and hampers their potential to become key players in the professional development system. Unfortunately, the newly passed law on PD -Act no. 138/2019– does not address this issue. However, it does introduce valuable changes in terms of teacher career advancement (see section on Supporting teacher career advancement).

### Recommendations for improving the professional development of teachers

- Strengthen the quality and relevance of professional development.** Slovakia needs a stronger quality assurance mechanism to regulate the quality of professional development. The MPC, with support from the State School Inspectorate and with appropriate funding and resources from MŠVVŠ, should regularly assess teachers' PD needs through a comprehensive consultation process with teachers and school principals with the aim of determining the most urgent and

recurring development areas. The consultation should consider quantitative methods, such as surveys, and qualitative methods, such as interviews, focus groups and workshops. As a result of this process, the MPC should create a "critical list" of PD areas and build a plan to deliver high-quality PD in these areas (Box 2.8). The accreditation of private providers should consider the alignment of programmes with the MPC's list. The government, in turn, should provide financial support – e.g. through vouchers – to teachers and schools for relevant privately supplied PD (e.g. by universities). The quality of all PD should be systemically monitored, for example through surveys of teachers, principals and students.

- **Expand the diversity of teacher professional development.** Most continuous learning is achieved through participation initiatives often designed to be “one-size-fits-all” training courses. However, PD is more than training, and it should be more balanced and thus include new approaches. The MPC should take the lead and diversify its supply of PD. School principals, in turn, should encourage teachers to enrol in PD courses that are more adapted to their actual pedagogical needs. For example, the MPC could pilot in-site PD such as one-on-one or remote coaching, class observations and workshops.

### *Supporting teacher career advancement*

The teacher career in Slovakia has a well-defined structure, with four career grades (Santiago et al., 2016<sup>[5]</sup>; Rehúš, 2017<sup>[91]</sup>) that have to be obtained sequentially. After entry into the profession, teachers are categorised as “beginner teachers”. They must complete an adaptation programme of a maximum of two years and are assigned a mentor teacher at school who provides them with guidance within a framework established by MŠVVŠ. After the successful completion of a school-level evaluation, teachers may be promoted to “independent teachers”. At this level, they perform teaching activities independently and are allowed to perform specialised duties such as education advisor or co-ordinator. They are not able to mentor beginner teachers. Workshop and focus groups participants signalled that the mentoring programme can be of varying quality. Most interviewed teachers highlighted that it is a mere formality and that most teacher mentors do not devote enough attention and efforts to their mentees. Against this background, the induction and Structured Mentoring Programme in Singapore (Box 2.9) could serve as a useful international best practice example.

#### **Box 2.9. Relevant international example: Targeted professional development for beginner teachers in Singapore**

Upon completion of preservice teacher education, beginning teachers in Singapore undergo induction at both the national and school levels. At the national level, they attend a three-day induction programme, called the Beginning Teachers' Orientation Programme, conducted by the Singapore Ministry of Education. This programme emphasises the importance of the role of teachers in nurturing the whole child and enables beginning teachers to consolidate their learning at the teacher institute. By presenting the roles and expectations of teachers, this programme also inducts new teachers into Singapore's teaching fraternity in the areas of professional beliefs, values and behaviours.

During the first two years of teaching, further guidance is provided to beginner teachers via the Structured Mentoring Programme. This programme enables teachers to learn practical knowledge and skills from assigned mentors, who are experienced or senior teachers at the school. The school has the autonomy to customise the programme according to the learning needs of the new teachers. Besides practical skills, the programme helps to deepen the understanding of new teachers about the values and ethos of the teaching profession.

Source: OECD (2014<sup>[92]</sup>), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, <https://dx.doi.org/10.1787/9789264196261-en>.

The third and fourth grades of the teaching career in Slovakia correspond to teachers with first and second certification, respectively. Teachers wanting to acquire the second certification need to already hold the first. Slovak teachers with the first certification can become, for example, mentor teachers or trainers of professional development courses. Teachers with the second certification can become, for example, members of national expert committees or sponsors of a professional development programme.

Until 2019, when the government passed Act no. 138/2019 introducing changes to the certification process, teachers either had to pass a certification examination or hold a doctorate degree in a field of study related to their pedagogical activities in order to obtain the first and second certification (Santiago et al., 2016<sup>[5]</sup>). Teacher career advancement was closely linked to the accumulation of professional development credits – now hours of professional development – and teachers could pass the first and second certifications after accumulating professional development credits (60 credits, or 30 credits and 60 hours of pre-attestation training) and defending a thesis. These requirements for obtaining first and second certifications were not connected with teaching practice and were strongly academically oriented, failing to sufficiently judge the level of teachers' professional competencies. Certifications were granted for life, and once teachers had passed the first or second certification, there was no need for revalidation. This reduced the incentive to engage in lifelong learning activities aimed at improving professional competences (Santiago et al., 2016<sup>[5]</sup>).

The certification process focused on the acquisition of qualifications, such as professional development credits or doctoral degree and failed to sufficiently judge the level of teachers' professional competencies. Insufficient quality of institutions providing attestations is another important issue. Universities with the right to provide attestations often exhibit varying levels of quality, and the MPC lacks any quality assurance and evaluation mechanisms regarding its activities (Ministry of Finance et al., 2017<sup>[18]</sup>). Finally, the certification was granted for life. Once teachers passed the first or second certification, there was no need to re-validate it, which certainly reduces the incentives to engage in lifelong learning activities aiming at improving their professional competences (Santiago et al., 2016<sup>[5]</sup>).

Acknowledging these challenges, the government passed Act no. 138/2019, which introduced changes to the certification process, and therefore to the career advancement of teachers. The main changes relate to the introduction of teacher attestation portfolios that will replace the current career advancement mechanism. Teacher portfolios are generally understood as a collection of information about key aspects of teachers' teaching (OECD, 2009<sup>[93]</sup>), and have been implemented in a variety of other countries (see Box 2.10). They should document professional achievements in teaching and could include a range of information such as lesson plans, student assignments, written descriptions and videotapes of instruction, formal evaluations by supervisors or colleagues, and letters of recommendation (Wolf, 1996<sup>[94]</sup>).

### **Box 2.10. Relevant international example: Portfolios and the teacher performance evaluation system in Chile**

The teacher performance evaluation system (*DocenteMÁS*) in Chile consists of a formal system of external teacher evaluation in the public school sector, and is aimed at improving teachers' practice and promoting their continuing professional development to improve student learning. It is run by the Centre for Pedagogical Training, Experimentation and Research (CPEIP) within the Ministry of Education (equivalent to the MPC in Slovakia). The CPEIP co-ordinates the whole teacher performance evaluation system, including the definition of objectives, validation of instruments and dissemination of results.

The assessment of teacher performance consists of four instruments: 1) self-evaluation; 2) peer evaluator interview; 3) third-party reference report; and 4) teacher performance portfolio. Teachers are evaluated against previously established standards, and each assessment is rated and weighted. The portfolio is the assessment instrument with the most weight, ranging from 60% in the regular evaluation cycle to 80% when previous performance was considered poor. Teachers are assessed every four years, unless their previous evaluation identified poor performance (in which case they are evaluated more often). Since 2017, teacher portfolios have also been used to define progression in teachers' professional careers.

The portfolio is designed for teachers to provide evidence of their best pedagogical practices. It is prepared for a given educational level and area of teaching expertise. A dedicated website has been established to provide teachers with guidance on how to complete their portfolios and information about the teaching standards associated with each component of the portfolio.

The portfolio must be completed online and consists of three separate modules. First is a set of pedagogical materials, where the teacher is required to plan and implement an eight-hour teaching unit (providing related materials in writing), design an end of term assessment for the teaching unit, and respond to a set of questions about teaching practices (including a reflection on achievements). The second module is a 40-minute video recording of a class and the completion of a questionnaire about the class. This seeks to assess a range of aspects of the teacher's work, such as capacity to develop a lesson with a good start, development and closure; the quality of interaction promoted among the students (questions asked, activities proposed and feedback); capacity to keep a proper working environment; and quality of explanations and didactic strategies. In the third module, teachers must describe a collaborative work experience in which they have had the opportunity to dialogue and reflect with other colleagues or members of the educational community.

Source: Santiago et al. (2013<sup>[95]</sup>), *OECD Reviews of Evaluation and Assessment in Education: Teacher Evaluation in Chile 2013*, <https://doi.org/10.1787/9789264172616-en>; CPEIP (2019<sup>[96]</sup>), *DocenteMAS*, [www.docentemas.cl/](http://www.docentemas.cl/).

According to the new law in Slovakia, teachers willing to obtain the first and second certification will have to prepare a portfolio. The portfolio consists of evidence of the acquisition of professional competences in accordance with the professional standards of the corresponding career category the teacher is applying to (e.g. first certification teacher, second certification teachers). The applicant then needs to pass an oral "certification examination" and defend their portfolio in front of an attestation commission composed of three members, with the chair appointed by MŠVVŠ.

The new law has the potential to improve the teacher career progression system. The use of portfolios to evaluate teacher performance and to determine career promotions can be an effective mechanism to move away from the academically oriented focus of the current system. However, the new law does not specify the contents required to be included in the foreseen portfolios. As mentioned above, the new law will be gradually implemented and fully operational by 2026 (for new teachers it has been in place since September 2019). This gives the government time to revise teacher standards for each grade and establish guidelines for the development and evaluation of teacher portfolios.

### **Recommendations for supporting teacher career advancement**

- **Establish clear guidelines for the creation of portfolios.** Slovakia can benefit from existing international experience in using portfolios to evaluate teachers. It is important to ensure that portfolios are not just a list of professional activities, but an opportunity for teachers to self-reflect on their teaching practices and approaches to improve student learning. For this reason, portfolios should contain a reflective teaching statement explaining the teacher's education philosophy, and allow both the teacher and examiners to compare goals with the reality of practice (Kaplan, 1998<sup>[97]</sup>).

- **Support teachers in the transition towards the portfolio system.** The implementation of portfolios should be accompanied by strong support to teachers. MŠVVŠ, for example through the MPC, should provide guidance to teachers on how to build a high-quality and thorough portfolio, as is done in Chile (Box 2.10).
- **Unify teaching standards across the system.** As previously recommended by the OECD, “the current co-existence of the MPC’s national standards, the ministry’s appraisal forms and the inspectorate’s criteria for classroom observation would benefit from being consolidated into a single set of standards so that there is a clear understanding of what is considered accomplished teaching” (Santiago et al., 2016<sup>[5]</sup>; Shewbridge et al., 2014<sup>[79]</sup>). The introduction of teacher portfolios makes this recommendation even more urgent. When preparing portfolios, teachers need a good understanding of the requirements necessary to advance to the next career stage, which should be measured with a high degree of objectivity and transparency.
- **Make mentoring activities a key component of career advancement.** The mentoring programme for beginner teachers needs to be improved. The Structured Mentoring Programme in Singapore (Box 2.9) provides a good example in this regard. Students in initial teacher education programmes do not have enough opportunities to practice their teaching skills before university graduation. Therefore, portfolio attestation commissions should pay special attention to participation in mentoring activities with respect to prospective and beginner teachers. It should also be clear to teachers that effective mentoring –supported by evidence– is an integral component of career advancement.

### Overview of recommendations

<b>Opportunity 1: Increasing enrolment in pre-primary education, especially among vulnerable groups</b>	
Improving the availability of pre-primary schools in disadvantaged regions	<ul style="list-style-type: none"> <li>• Gradually introduce a legal entitlement for 3 and 4 year-olds to attend pre-primary education.</li> <li>• Increase the number of public kindergartens to accommodate the new demand, while also giving private providers the opportunity to complement the supply.</li> </ul>
Lowering the perceptual and financial barriers that prevent disadvantaged groups from enrolling in pre-primary education	<ul style="list-style-type: none"> <li>• Strengthen the capacities and reach of on-the-ground work with vulnerable families.</li> <li>• Adjust the criteria for receiving financial assistance in order to better cover the population of socially disadvantaged children.</li> </ul>
<b>Opportunity 2: Supporting schools and teachers in their work with vulnerable students</b>	
Providing targeted support to vulnerable students	<ul style="list-style-type: none"> <li>• Provide school teachers working with vulnerable students easily implementable international best practice examples of teaching these students.</li> <li>• Strengthen co-operation and communication between schools, vulnerable students’ families and social services.</li> <li>• Simplify the administrative complexity of setting-up individual educational programmes.</li> </ul>
Identifying schools and students at risk	<ul style="list-style-type: none"> <li>• Transform the Resort Informational System (RIS) into a fully-fledged early warning system (EWS) by redesigning it to collect data on pupil attendance and grades.</li> <li>• Embed the EWS within a wider, flexible and personalised system of response to prevent early school leaving.</li> </ul>
<b>Opportunity 3: Building a strong teaching workforce</b>	
Enhancing the practical aspects of curricula in initial teacher training	<ul style="list-style-type: none"> <li>• Legislate a minimum share of practical training for student teachers at universities.</li> <li>• Facilitate the establishment of partnerships between pedagogical faculties and schools.</li> </ul>
Improving the professional development of teachers	<ul style="list-style-type: none"> <li>• Strengthen the quality and relevance of professional development.</li> <li>• Expand the diversity of teacher professional development.</li> </ul>
Supporting teacher career advancement	<ul style="list-style-type: none"> <li>• Establish clear guidelines for the creation of portfolios.</li> <li>• Support teachers in the transition towards the portfolio system.</li> <li>• Unify teaching standards across the system.</li> <li>• Make mentoring activities a key component of career advancement.</li> </ul>

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# 3 Reducing skills imbalances

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Skills imbalances are costly for individuals, firms and the economy as a whole, leading to lower investment and lower overall productivity. Attracting skilled workers from abroad can contribute to reducing skills imbalances in the short term. In the longer term, a wider set of policies can help reduce skills imbalances. These range from framework policies to improve resource allocation to strengthening the responsiveness of the education system. This chapter explores the importance of reducing skills imbalances for the Slovak Republic and provides an overview of current practices and performance. Subsequently, it presents four opportunities to reduce skills imbalances: improving the dissemination of information on labour market and skills needs; strengthening the responsiveness of students and their families to labour market needs; strengthening the responsiveness of secondary vocational education and training (VET) and tertiary education institutions to labour market needs; and moving from “brain drain” to “brain gain”.

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## The importance of reducing skills imbalances

Skills imbalances are misalignments between the demand and supply of skills in the economy, and comprise skills mismatches, skills shortages and skills surpluses (Box 3.1). They can exert a negative impact on overall economic growth, on firms and on individuals. Skill mismatches and shortages can negatively affect economic growth through their effects on increased labour costs, lower labour productivity growth, slower adoption of new technologies and lost production associated with vacancies remaining unfilled (OECD, 2016<sup>[1]</sup>). Firms experiencing skills shortages may be constrained in their ability to innovate and adopt new technologies, and might face larger hiring costs (OECD, 2016<sup>[1]</sup>). Skills mismatches can cause individuals to experience a higher risk of unemployment, lower wages and lower job satisfaction (OECD, 2016<sup>[1]</sup>).

### Box 3.1. Definitions: Different types of skills imbalance

Skills shortages refer to a disequilibrium condition in which the demand for a specific type of skill exceeds its supply in the labour market at the prevailing market wage rate (Junankar, 2009<sup>[2]</sup>). Skills surpluses arise when the supply of a specific type of skill exceeds its demand in the labour market.

Skills mismatches describe situations when a workers' skills exceed or fall short of those required for the job under current market conditions (Shah and Burke, 2005<sup>[3]</sup>; OECD, 2017<sup>[4]</sup>). They can be measured along different dimensions:

- Skills mismatch: when workers have higher or lower skills proficiency than what is required by their job. If their skills proficiency is higher, workers are classified as over-skilled; if lower, they are classified as under-skilled.
- Qualifications mismatch: when workers have an educational attainment that is higher or lower than what is required by their job. If their qualification level is higher, workers are classified as over-qualified; if lower, they are classified as under-qualified.
- Field-of-study mismatch: when workers are employed in a different field from that in which they have specialised.

Source: OECD (2016<sup>[5]</sup>), *Skills Matter: Further Results from the Survey of Adult Skills*, <http://dx.doi.org/10.1787/9789264258051-en>.

The available evidence suggests that skills imbalances have a strong impact in the Slovak Republic. A study from the OECD found that reducing skills mismatch could be associated with an increase in productivity by approximately 5% (Adalet McGowan and Andrews, 2015<sup>[6]</sup>). Over-qualified workers in the Slovak Republic earn on average 20% less than well-matched workers (Montt, 2015<sup>[7]</sup>).

Megatrends such as automation and demographic change are increasing the urgency to implement policies to reduce skills imbalances in Slovakia. As identified in Chapter 1, Slovakia has the largest exposure to automation among OECD countries (OECD, 2019<sup>[8]</sup>). It also has the second largest expected decline in working population among OECD countries (OECD, 2019<sup>[8]</sup>). Automation will lead to significant changes in the patterns of job creation, making it increasingly important to have adequate mechanisms to better match the supply and demand for skills. The shrinking working population implies that Slovakia will need to more effectively match the skills of its workforce to jobs to satisfy labour market demand.

A wide range of policies can help address skills imbalances, including framework policies to improve the allocation of resources, such as product market regulations and bankruptcy legislation, and wage setting institutions (Adalet McGowan and Andrews, 2015<sup>[6]</sup>; OECD, 2016<sup>[1]</sup>). This chapter focuses on three skills-related policy areas: 1) generating and disseminating information on labour market and skills needs; 2) strengthening the responsiveness of the education system (both students and their families and

education institutions) to labour market needs; and 3) attracting workers (both Slovak and foreign) from abroad. Improving the generation and dissemination of information and the responsiveness of the education system will likely help reduce skills imbalances in the longer term, whereas attracting workers from abroad could have a more immediate impact.

These three policy areas were selected based on insights from stakeholder representatives consulted during the two workshops, as well as an examination of relevant literature. The stakeholders identified reducing brain drain and improving alignment between the education system and labour markets as the key priorities to reduce skills imbalances. They also expressed concerns regarding the availability and dissemination of information on labour market and skills needs. The literature confirmed that these three policy areas were useful avenues to explore and allowed the OECD team to further refine the scope of the analysis.

The provision of adult learning (see Chapter 4) and policies supporting the adoption of better management and working practices (see Chapter 5) also have an important role in addressing skills imbalances. Adult learning can help ensure that the existing stock of workers can better match skills demand, whereas better management and working practices help firms to achieve more effective labour allocation (Adalet McGowan and Andrews, 2015<sup>[6]</sup>; OECD, 2016<sup>[1]</sup>).

This chapter begins with an overview of current arrangements and performance indicators for reducing skills imbalances in Slovakia. It then articulates four opportunities for reducing skills imbalances across the three policy areas described above:

1. Improving the dissemination of information on labour market and skills needs.
2. Strengthening the responsiveness of students and their families to labour market needs.
3. Strengthening the responsiveness of secondary vocational education and training (VET) and tertiary education institutions to labour market needs.
4. Moving from “brain drain” to “brain gain”.

## Overview and performance for reducing skills imbalances in the Slovak Republic

### *Overview of the current arrangements for reducing skills imbalances*

In Slovakia, several government and non-government actors are involved in 1) generating and disseminating information on labour market and skills needs; 2) building a responsive education system; and 3) attracting workers from abroad. The main actor involved in generating, managing and disseminating information on labour market and skills needs is the Ministry of Labour, Social Affairs and Family (MPSVR). However, some private actors, such as Trexima Ltd. and the web portal Profesia, also play an important role. The Ministry of Education, Science, Research and Sports (MŠVVŠ) is responsible for building a responsive education system, in co-operation with the MPSVR and self-governing regions (in the case of the VET system). The MPSVR, the Ministry of Foreign and European Affairs (MZVEZ) and the Ministry of the Interior are responsible for international labour mobility policies.

#### *Generating and disseminating information on labour market and skills needs*

Skills assessment and anticipation (SAA) exercises are the main tools to generate and disseminate information on labour market and skills needs. Countries rely on different types of SAA exercises, such as labour market information systems (including vacancies and other labour market data); quantitative forecasting models; and more qualitative methods such as employer surveys, panels and roundtables (OECD, 2016<sup>[1]</sup>). The main SAA tools available for Slovakia are described in Table 3.1.

There are two main tools available from international institutions to assess current skills imbalances, although these are not commonly used in Slovakia, according to information gathered during the bilateral meetings, workshops and focus groups conducted during the project. OECD Skills for Jobs provides an overview of relative shortages and surpluses for skills and abilities, and measures skills mismatches through qualification mismatch and field-of-study mismatch indicators (OECD, 2017<sup>[4]</sup>). As for other European countries (EU), Cedefop publishes a high-level list of mismatch priority occupations based on desk research and stakeholder interviews on the Skills Panorama portal (Cedefop, 2016<sup>[9]</sup>).

**Table 3.1. Main skills assessment and anticipation tools available in the Slovak Republic**

SAA tool	Focus	Type of SAA
OECD Skills for Jobs	Current shortages and current skills mismatches	Occupational shortage index for shortages (based on relative labour market demand), qualification mismatch and field-of-study mismatch.
High Priority Mismatch Occupations by Skills Panorama	Current shortages and surpluses	Qualitative exercise based on labour market indicators, stakeholder interviews and desk research.
Vacancy data from the Statistical Office of the Slovak Republic	Current shortages	Unemployment rates by duration, age and sex. Eurostat-compliant vacancy data based on an employer survey and registered vacancies.
Central Office of Labour, Social Affairs and Family (Ústredie práce, sociálnych vecí a rodiny, ÚPSVR) portal	Current shortages	Unemployment rates by level of study, field of study and region. Data on vacancies reported by employers, either through the Labour Market Integrated System ( <i>Internetový sprievodca trhom práce</i> , ISTP) portal or directly to labour offices.
National Project Forecasting Labour Market Developments	Future labour market demand and supply	Forward-looking quantitative forecast model up to 2024.
Cedefop-Slovak Academy of Science quantitative model	Future labour market demand and supply	Forward-looking quantitative forecast model up to 2030.

Source: Vantuch, J. and D. Jelinkova (2019<sup>[10]</sup>), *Cedefop ReferNet VET in Europe reports 2018: VET in Slovakia*, [https://cumulus.cedefop.europa.eu/files/vetelib/2019/Vocational\\_Education\\_Training\\_Europe\\_Slovakia\\_2018\\_Cedefop\\_ReferNet.pdf](https://cumulus.cedefop.europa.eu/files/vetelib/2019/Vocational_Education_Training_Europe_Slovakia_2018_Cedefop_ReferNet.pdf); Cedefop (2016<sup>[9]</sup>), *Slovakia: Mismatch priority occupations*, <https://skillspanorama.cedefop.europa.eu/en>.

Two main SAA tools to assess current skills shortages are used in the Slovak Republic. First, the Statistical Office of the Slovak Republic publishes data on unemployment rates by duration, age and sex, as well as Eurostat-compliant (i.e. consistent with EU-wide regulations) data on vacancies, through the DATAcube portal (<http://datacube.statistics.sk>). These Eurostat-compliant vacancy data consolidate information from an employer survey and registered vacancies from labour offices. Second, the MPSVR disseminates administrative data on vacancies and data on unemployment rates by education and region through the Central Office of Labour, Social Affairs and Family (Ústredie práce, sociálnych vecí a rodiny, ÚPSVR) portal ([www.upsvr.gov.sk/](http://www.upsvr.gov.sk/)). The vacancy data here reflect vacancies reported by employers either directly to labour offices or through the Labour Market Integrated System (*Internetový sprievodca trhom práce*) (ISTP) portal, run by the MPSVR ([www.istp.sk/](http://www.istp.sk/)). Another online job portal is operated by Profesia ([www.profesia.sk/](http://www.profesia.sk/)).

There are two main models that forecast future needs across different occupations (Vantuch and Jelinkova, 2019<sup>[10]</sup>). According to stakeholders consulted during the project, the first model has been developed by the Institute of Economic Research of the Slovak Academy of Sciences, in semi-formalised co-operation with Cedefop. The second model has been delivered by the National Project Forecasting Labour Market Developments (Národný projekt: Prognózy vývoja na trhu práce, NPPVTP). According to stakeholders consulted during the project, the NPPVTP is overseen by the MPSVR and relies on European Social Fund (ESF) funding. It is delivered by the private agency Trexima Ltd and relies on internal data collection. The MPSVR disseminates key results from NPPVTP forecasts on a public portal ([www.trendyprace.sk/sk](http://www.trendyprace.sk/sk)).

### *Building a responsive education system*

The structure of the Slovak education system (for ISCED levels 1 to 3) was described in Chapter 2; this section will focus on arrangements in the education system that are relevant to the responsiveness of students and their families (Opportunity 2) and the responsiveness of secondary VET and tertiary institutions (Opportunity 3).

The education system contributes to the responsiveness of students and their families through the provision of career guidance services. The MŠVVŠ is responsible for providing guidelines for career guidance activities to primary and secondary schools. Career guidance in schools is delivered by education counsellors, who have to follow the guidelines set by the MŠVVŠ. Higher education institutions (HEIs) are autonomous in terms of organising career guidance activities for their students (Beková et al., 2014<sup>[11]</sup>).

The MŠVVŠ and self-governing regions are responsible for secondary VET (ISCED level 3), whereas the MŠVVŠ provides funding and oversees the external quality assurance process for tertiary institutions (ISCED level 5-8).

In the case of secondary VET, the MŠVVŠ is responsible for setting regulations for the content of the curriculum and the guidelines for work-based learning (WBL). It is also responsible for providing funding and regulating the allocation of study places across different VET programmes and schools, in collaboration with the MPSVR and self-governing regions (see Opportunity 2 for a more detailed description). The main responsibilities of VET schools are to adapt the curriculum to local needs and co-operate with employers to organise work-based learning.

In tertiary education, HEIs have full autonomy (with the exception of three state HEIs). The MŠVVŠ provides funding through a formula and, from 2020, will oversee an external quality assurance process through the Slovak Accreditation Agency, an independent body that will become operational in 2020 (see Opportunity 3 for a more detailed description). HEIs are responsible for developing the curriculum, collaborating with employers and allocating study places across different courses.

Secondary VET institutions in Slovakia have a relatively large share of learners, but most VET students attend a school-based programme with a focus on theory (Table 3.2). Students in VET programmes account for more than 60 % of all secondary school students. This is one of the highest rates across the OECD and significantly above the OECD average, which is approximately 40% (OECD, 2019<sup>[8]</sup>). However, fewer than half of VET students complete programmes with a significant work-based learning component.

**Table 3.2. Overview of the secondary education system in the Slovak Republic**

Type of programme	Description	Percentage of secondary school students in 2017
General secondary school programme (ISCED 3440)	Programme with an academic focus. Awards the <i>maturita</i> certificate that allows access to university.	29%
School-based four-year VET with a focus on theory (ISCED 354)	VET programme with a lower share of WBL. Awards the <i>maturita</i> certificate that allows access to university.	37%
School-based four-year VET with a minimum of 36.4% WBL (ISCED 354)	VET programme awarding the <i>maturita</i> certificate that allows access to university, as well as a certificate of apprenticeship. WBL can be delivered through school-based workshops or practical training.	18%
Three-year programmes with a minimum of 50.5% WBL (ISCED 353)	VET programme awarding a certificate of apprenticeship only. WBL can be delivered through school-based workshops or practical training	16%

Note: WBL stands for work-based learning. In this instance, it includes apprenticeships and short-term internships in firms, as well as school-based activities, such as training in workshops and labs.

Source: Vantuch, J. and D. Jelinkova (2019<sup>[10]</sup>), *Cedefop ReferNet VET in Europe reports 2018: Vocational Education and Training in Slovakia*, [https://cumulus.cedefop.europa.eu/files/vetelib/2019/Vocational\\_Education\\_Training\\_Europe\\_Slovakia\\_2018\\_Cedefop\\_ReferNet.pdf](https://cumulus.cedefop.europa.eu/files/vetelib/2019/Vocational_Education_Training_Europe_Slovakia_2018_Cedefop_ReferNet.pdf).

Despite the relatively high share of VET graduates, Slovakia only has a marginal offer of professional bachelor studies (OECD, 2017<sub>[12]</sub>). Most Slovak tertiary students attend public universities, which offer bachelor's, master's and PhD programmes (Table 3.3). A high share of students in Slovakia complete university education with a master's degree, and students usually pursue their master's programme at the same university (OECD, 2016<sub>[1]</sub>; Vantuch and Jelinkova, 2019<sub>[10]</sub>).

**Table 3.3. Overview of the tertiary education system in the Slovak Republic**

Type of institution	Number of institutions	Percentage of tertiary graduates
Public (ISCED 6-8)	20	84%
State (ISCED 6-8)	3	2%
Private (ISCED 6-8)	12	14%

Note: ISCED refers to International Standard Classification of Education.

Source: CVTI (2019<sub>[13]</sub>), *Statistical Yearbook – Universities*, [www.cvtisr.sk/skolstvo/regionalne-skolstvo.html?page\\_id=10267](http://www.cvtisr.sk/skolstvo/regionalne-skolstvo.html?page_id=10267).

### *Attracting workers from abroad*

Two Slovak ministries play an important role in attracting skilled workers from abroad. The MI is responsible for regulations on permit conditions for foreign workers, whereas the MPSVR is responsible for co-ordinating policies concerning the relocation and integration of foreign workers, including disseminating relevant information (e.g. on how to organise the relocation process) and overseeing local-level integration strategies.

Several government and non-government entities have also implemented initiatives to engage with the Slovak diaspora abroad. The Government Office for Slovaks Abroad (Úrad pre Slovákov žijúcich v zahraničí, ÚSZZ) within the MZVEZ organises cultural activities for Slovak expatriate communities. Several government and non-government bodies have organised some ad hoc initiatives to encourage Slovaks abroad to relocate to Slovakia, including the Slovak Investment and Trade Development Agency (Slovenská agentúra pre rozvoj investícií a obchodu, SARIO), IT Association of Slovakia, and the non-governmental organisation (NGO), LEAF.

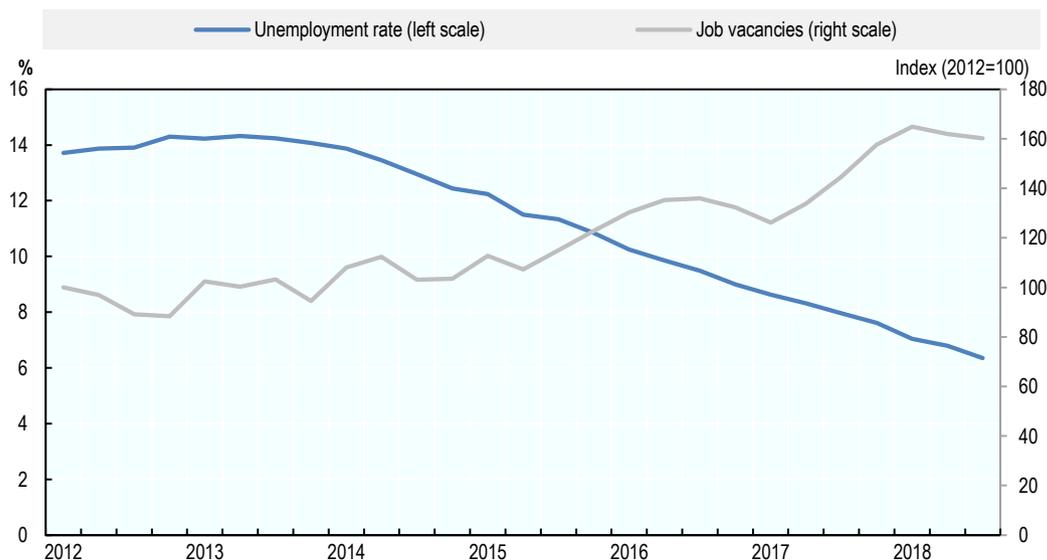
### **Performance of the Slovak Republic**

The existing evidence suggests that Slovakia experiences labour shortages both among higher-skilled occupations (such as engineers and ICT professionals) and lower-skilled occupations (such as assemblers). It also shows that Slovakia experiences high levels of over qualification among tertiary graduates, and high levels of field-of study mismatch across younger workers. The responsiveness of the secondary VET and tertiary education system has contributed to skills shortages and skills mismatches, whereas emigration and brain drain have been major drivers behind shortages (OECD, 2017<sub>[12]</sub>; Štefánik et al., 2018<sub>[14]</sub>; OECD, 2019<sub>[15]</sub>). Improving the adult learning system (see Chapter 4) and working and management practices in firms (see Chapter 5) could help address shortages and skills mismatches going forward.

### *Overview of skills imbalances in the Slovak Republic*

Strong economic performance in Slovakia in recent years has led to a progressive tightening of the labour market (OECD, 2019<sub>[15]</sub>). Employment growth has been strong and unemployment has been falling fast (Figure 3.1), although long-term unemployment has remained high (see Chapter 4). The vacancy rate is at its highest level for many years and continues to rise (Figure 3.1). The increasing tightness of the labour market has been accompanied by labour shortages across different areas (OECD, 2019<sub>[15]</sub>).

**Figure 3.1. Recent evolution in vacancies and unemployment in the Slovak Republic**



Source: Eurostat (2019<sup>[16]</sup>), Eurostat Database, <https://ec.europa.eu/eurostat/data/database>.

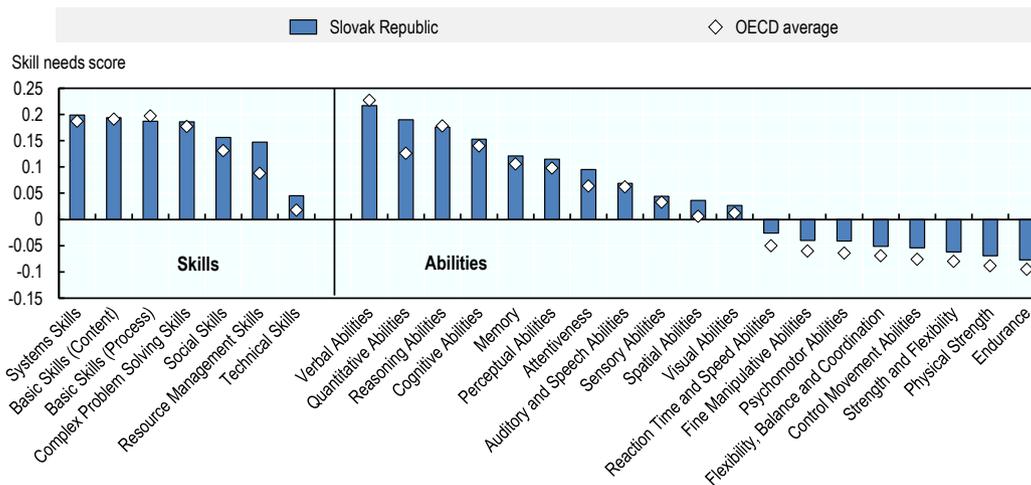
StatLink  <https://doi.org/10.1787/888934075279>

The OECD skills for Jobs database, the high-priority mismatch occupations identified by Cedefop's Skills Panorama and domestic vacancy data suggest that Slovakia is likely to be experiencing shortages both across high-skilled (International System of Classifications on Occupations, ISCO 1-3) and medium-skilled (ISCO 4-8) occupations.

The OECD Skills for Jobs database (Figure 3.2) shows significant shortages in higher-level cognitive skills, such as system skills (judgement and decision making, systems analysis and evaluation), basic skills (reading, writing and critical thinking) and complex problem solving (problem-solving skills), as well as in a range of higher-level abilities (such as verbal and quantitative abilities). These higher-level cognitive skills and abilities are most frequently supplied by tertiary educated graduates (OECD, 2017<sup>[4]</sup>).

The mismatch priority occupation review by Skills Panorama and the available vacancy data from Slovakia provide a more composite picture (Table 3.4).

The review by Skills Panorama shows that "ICT specialists", "science and engineering professionals" and "health professionals" (requiring university level education) face significant shortages (Cedefop, 2016<sup>[9]</sup>). However, it also points out that there are significant shortages among qualified manual workers and craftsmen, such as customer care specialists and supply-chain operators, especially in the automotive industry (Cedefop, 2016<sup>[9]</sup>).

**Figure 3.2. Shortages across skills and abilities from the OECD Skills for Jobs database**

Note: Positive values indicate shortages, while negative values indicate surpluses. An indicator value of +1 represents the maximum value across countries in the database, while a value of -1 represents the lowest value. The index is constructed in two steps. First, an occupational shortage index is calculated for each occupation based on five sub-components: wage growth, unemployment growth, hours worked growth, unemployment rate and change in under-qualification. Second, the values of the occupational shortage indexes are used to weight the importance of the skill requirements associated with each occupational group. Information on skill requirements in each occupation are extracted from the O\*NET database ([www.onetonline.org/help/onet/](http://www.onetonline.org/help/onet/)).

Source: OECD (2018<sub>[17]</sub>), Skills for Jobs database, [www.oecdskillsforjobsdatabase.org](http://www.oecdskillsforjobsdatabase.org).

StatLink  <https://doi.org/10.1787/888934075298>

The available vacancy data from Slovakia confirm that medium-skilled occupations are likely to be a significant area of shortage, especially in manufacturing and transport, and show that Western Slovakia has a higher level of vacancies than other regions. To reach this conclusion, it is necessary to combine data from ÚPSVR, the Statistical Office of the Slovak Republic, and publicly available data on the Profesia and ISTP portals (Table 3.4). These data sources have different levels of granularity and employ a different methodology, making it difficult to build a more coherent picture (see Opportunity 1 for a more detailed description).

**Table 3.4. Overview of current shortages in the Slovak Republic**

Data source	Main results
High-priority mismatch occupations by Skills Panorama	Key shortage occupations nationwide are: ICT specialists, science and engineering professionals, health professionals, and medium-skilled occupations (ISCO 4-8) in the automotive industry (e.g. qualified manual workers and specialists).
Vacancy data from the Statistical Office of the Slovak Republic	Higher level of vacancies in Western Slovakia. Higher level of vacancies in manufacturing, wholesale and retail trade and public administration.
ÚPSVR portal	Higher level of vacancies in Western Slovakia. Higher level of vacancies for medium-skilled occupations (ISCO 4-8) across the country.
Publicly available data from the ISTP portal	Higher demand for manufacturing across the country (e.g. assemblers) and for transport in Western Slovakia only (e.g. truck drivers).
Publicly available data from the Profesia portal	Higher level of vacancies in production/industry, services and transport (using classification developed internally).

Note: ISCO refers to the International System of Classifications on Occupations.

Source: Vantuch, J. and D. Jelinkova (2019<sub>[10]</sub>), *Cedefop ReferNet VET in Europe reports 2018: Vocational Education and Training in Slovakia*, [https://cumulus.cedefop.europa.eu/files/vetelib/2019/Vocational\\_Education\\_Training\\_Europe\\_Slovakia\\_2018\\_Cedefop\\_ReferNet.pdf](https://cumulus.cedefop.europa.eu/files/vetelib/2019/Vocational_Education_Training_Europe_Slovakia_2018_Cedefop_ReferNet.pdf); Cedefop (2016<sub>[9]</sub>), *Slovakia: Mismatch priority occupations, Skills Panorama*, [https://skillspanorama.cedefop.europa.eu/en/analytical\\_highlights/slovakia-mismatch-priority-occupations](https://skillspanorama.cedefop.europa.eu/en/analytical_highlights/slovakia-mismatch-priority-occupations); Statistical Office of the Slovak Republic (2019<sub>[18]</sub>), DATAcube website <http://datacube.statistics.sk/>.

Forecasts on future labour market demand from Cedefop and the NPPVTP suggest that the strong labour market demand across both high-skilled and medium-skilled occupations will extend into the future. In line with other OECD countries, both forecasts suggest that most overall employment growth will occur in medium-skilled occupations (ISCO 4-8), followed by high-skilled occupations (Table 3.5).

Employment growth in medium-skilled occupations will be driven by replacement demand (i.e. the replacement of workers facing retirement), whereas employment growth in high-skilled occupations will be driven by expansion demand (i.e. new jobs being created). As a result, the overall share of high-skilled jobs in the labour force will increase, whereas the share of medium-skilled jobs will shrink, consistent with job polarisation dynamics.

The NPPVTP provides more granular information on the patterns of future shortages and surpluses (Table 3.5). It identifies substantial future labour shortages in mechanical engineering for machine operators, machine fitters and equipment fitters, as well as skilled workers and craftsmen (ISCO 7-8). There will also be a lack of IT, accounting, business and finance specialists (ISCO 2-3), although mainly in the Košice and Bratislava regions. On the other hand, there are several areas that will have a surplus of workforce, such as hotel and tourism (in both secondary and university level positions), as well as specialists in journalism, mass media and psychology (ISCO 2-3).

**Table 3.5. Overview of future labour market demand**

SAA tool	Focus	Main results
National Project Forecasting Labour Market Developments (NPPVTP)	Future labour market demand and supply (up to 2024)	Medium-skilled occupations (ISCO 4-8) will account for 52% of total demand, and high-skilled occupations (ISCO 1-3) for 37% of total demand. There will be significant shortages among IT, accounting, business and finance specialists, mainly in Košice and Bratislava regions (ISCO 2-3); machine operators, machine and equipment fitters, as well as skilled workers and craftsmen (ISCO 7-8). There will be surpluses among the hotel and tourism industry, as well as specialists in journalism, mass-media and psychologists.
Cedefop-Slovak Academy of Science quantitative model	Future labour market demand and supply (up to 2030)	Medium-skilled occupations (ISCO 4-8) will account for 54% of total demand, and high-skilled occupations (ISCO 1-3) for 42% of total demand.

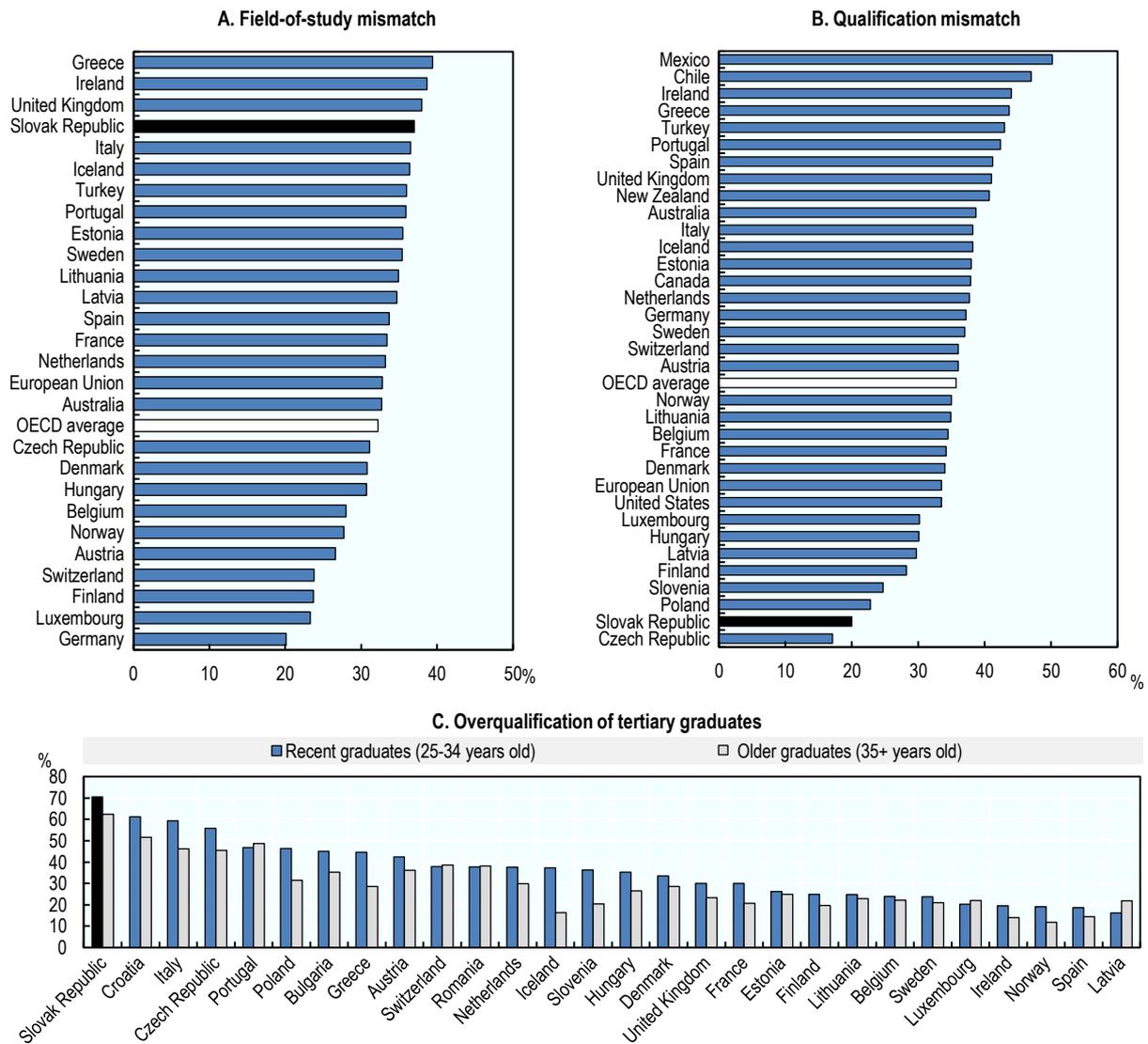
Note: ISCO refers to the International System of Classifications on Occupations.

Source: Cedefop (2018<sup>[19]</sup>), *Slovakia: making dual VET more attractive*, [www.cedefop.europa.eu/en/news-and-press/news/slovakia-making-dual-vet-more-attractive](http://www.cedefop.europa.eu/en/news-and-press/news/slovakia-making-dual-vet-more-attractive); Trexima (2019<sup>[20]</sup>), *Trendy Prace*, [www.trendyprace.sk/sk](http://www.trendyprace.sk/sk).

Shortages across medium-skilled and high-skilled occupations have been accompanied by a high incidence of skills mismatches, especially among younger workers and tertiary graduates (Figure 3.3).

Within the OECD Skills for Jobs database (Figure 3.3), Slovakia shows relatively low levels of overall qualification mismatch (both in terms of under qualification and over qualification). However, it has the highest rate of over qualification for tertiary educated workers across EU/European Economic Area (EEA) countries, and the fourth highest rate of field-of-study mismatch (for workers aged 15 to 34). In line with other EU/EEA countries, younger tertiary graduates (aged 25 to 34) are more likely to be over-qualified than older tertiary graduates (aged 35 and above), reflecting that it might take some time for them to find a good match in the job market (OECD, 2017<sup>[41]</sup>).

**Figure 3.3. Skills mismatches in the Slovak Republic, from the OECD Skills for Jobs database**



Note: The countries considered across the difference indicators change due to availability of data. The field of study indicator can only be calculated for workers aged 15 to 34. The qualification mismatch index calculates the share of under- or over-qualified workers by computing the modal (i.e. most common) educational attainment level for each occupation and using this as a benchmark to measure whether individual workers' qualifications match the "normal" education requirement of the occupation. This approach has the advantage of being comparable across countries. However, occupational averages will tend to be driven by the majority of older workers with longer tenure. This means that the index might tend to reflect historical rather than current entry requirement. This could lead to over-estimated rates of over qualification for countries that have seen an increase in tertiary attainment such as the Slovak Republic, the Czech Republic and Poland.

Source: OECD (2018<sub>[17]</sub>), Skills for Jobs database, [www.oecdskillsforjobsdatabase.org](http://www.oecdskillsforjobsdatabase.org).

StatLink  <https://doi.org/10.1787/888934075317>

*Explaining the underlying dynamics in skills shortages and skills mismatches*

The mix of shortages and high levels of over qualification among tertiary workers are explained by a combination of different factors, including the effectiveness of the adult learning system, working and management practices in firms, the responsiveness of the education system, and emigration (OECD, 2019<sub>[15]</sub>; Štefánik et al., 2018<sub>[14]</sub>).

A more effective adult learning system could contribute to address skills shortages, especially among middle-skilled occupations, by facilitating the reskilling of workers who have already joined the labour force and the activation of long-term unemployed adults (see Chapter 4). Improving working and management practices in firms could help reduce over-qualification rates among tertiary graduates, as well as shortages among both medium- and high-skilled occupations, by enabling a better use of skills in the workplace (see Chapter 5). This chapter focuses on the responsiveness of the education system and emigration.

The existing evidence suggests that the education system in Slovakia has played an important role in driving shortages and skills mismatches, both in terms of the responsiveness of students (see Opportunity 2) and institutions (see Opportunity 3).

Prospective secondary VET and tertiary students have frequently enrolled in programmes not aligned with labour market needs. Secondary VET programmes with a significant work-based learning component have provided skills and knowledge relevant to occupations in high demand in the labour market (Vantuch and Jelinkova, 2019<sup>[10]</sup>). Examples of these occupations may include assemblers and operators. However, as seen in the overview of current arrangements, most secondary VET students are enrolled in four-year VET programmes with a focus on theory. This has likely contributed to shortages among medium-skilled occupations, as well as field-of-study mismatch among younger workers. In the case of prospective tertiary students, econometric evidence from the 2017 OECD Economic Survey suggests that graduates with tertiary education qualifications in “social sciences, business and law”, “humanities, languages and arts” and “health and welfare” were substantially more likely to be over-qualified (OECD, 2017<sup>[12]</sup>).

Shortages and skills mismatches have also been impacted by the decision making of secondary VET and tertiary education institutions. Existing VET programmes with a significant work-based learning component have failed to provide valuable opportunities for practical training, and suffered from low reputation (Fazekas and Kurekova, 2016<sup>[21]</sup>). This might help explain why most prospective secondary VET students have enrolled in the more theoretical VET track (Fazekas and Kurekova, 2016<sup>[21]</sup>). Tertiary education institutions have not been successful in developing an educational offering aligned with labour market needs (OECD, 2017<sup>[12]</sup>). The curricula of tertiary education courses generally prepare students in theoretical rather than practical ways, and do not reflect the mix of technical and transversal competencies demanded in the labour market (Cedefop, 2016<sup>[9]</sup>; OECD, 2017<sup>[12]</sup>). There are some examples of problem-based approaches (e.g. in ICT courses) and practical training in agriculture, forestry and veterinary medicine, but these are not widespread. As anticipated in the overview of current arrangements, Slovakia has a limited offering of professional bachelor programmes (see Opportunity 3 for a more detailed description). These programmes could have been helpful to prepare graduates in more technical fields that are experiencing strong labour market demand, such as ICT and engineering.

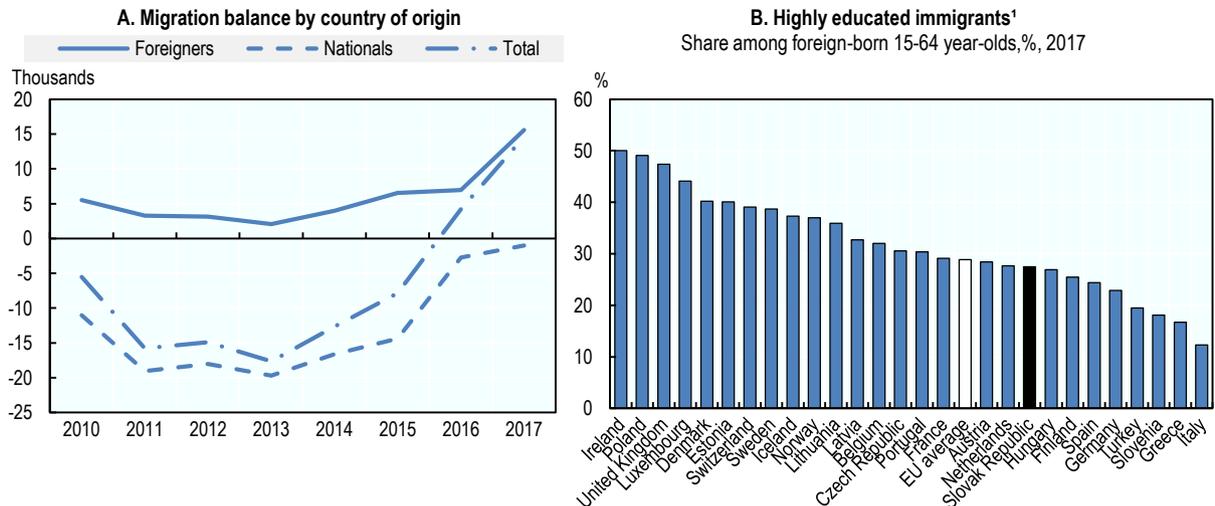
Emigration and brain drain have also played a crucial role in exacerbating skills shortages (Štefánik et al., 2018<sup>[14]</sup>; OECD, 2019<sup>[15]</sup>). Since Slovakia joined the EU in 2004, many Slovaks have emigrated abroad, attracted by higher salaries and better study and job opportunities (Kureková and Žilinčíková, 2019<sup>[22]</sup>). This trend has particularly affected highly educated young Slovaks (Haluš et al., 2017<sup>[23]</sup>). It has been estimated that 5% of the population left the country between 2000 and 2015, with more than half under 30-years-old (Haluš et al., 2017<sup>[23]</sup>). Return migration has not been substantial, with only around half of those who left after 2000 having returned by 2015 (Haluš et al., 2017<sup>[23]</sup>).

Young Slovaks frequently leave the country after secondary school to attend university abroad. Approximately 17% of Slovak university students were enrolled abroad in 2016, the second highest proportion across OECD countries (OECD, 2019<sup>[15]</sup>). Even if they attend university in Slovakia, young Slovaks often leave the country at the end of their studies. In the years prior to 2015, approximately 10% of university graduates left the country after having studied in publicly funded institutions in Slovakia (Haluš et al., 2017<sup>[23]</sup>).

However, the importance of emigration in driving shortages has decreased over time (Figure 3.4). Net migration turned positive in 2016, driven by increasing return migration and an increased inflow of

foreign workers. The foreign workers have mostly been lower skilled so far and have mainly contributed to closing shortages in the automotive industry (OECD, 2019<sup>[15]</sup>).

**Figure 3.4. Migration balance in the Slovak Republic**



1. Highly educated immigrants include individuals with a tertiary qualification (ISCED 6-8).

Source: OECD (2019<sup>[15]</sup>), *OECD Economic Surveys: Slovak Republic 2019*, [https://doi.org/10.1787/eco\\_surveys-svk-2019-en](https://doi.org/10.1787/eco_surveys-svk-2019-en).

StatLink  <https://doi.org/10.1787/888933902776>

## Opportunities to reduce skills imbalances

This chapter describes four opportunities to reduce skills imbalances. The opportunities were selected based on input from the literature, discussions with the National Project Team, and feedback from government and stakeholder representatives consulted during the two workshops, bilateral meetings and focus groups. As a result, the following four opportunities are considered to be the most relevant for the specific Slovak context:

1. Improving the dissemination of information on labour market and skills needs.
2. Strengthening the responsiveness of students and their families to labour market needs.
3. Strengthening the responsiveness of secondary VET and tertiary education institutions to labour market needs.
4. Moving from “brain drain” to “brain gain”.

### **Opportunity 1: Improving the dissemination of information on labour market and skills needs**

Effectively disseminating information on current and future labour market and skills needs is crucial to address shortages and skills mismatches (OECD, 2017<sup>[4]</sup>; OECD, 2019<sup>[8]</sup>).

As mentioned in the performance section, skills assessment and anticipation (SAA) exercises are the main tools to generate and disseminate information on labour market and skills needs. To minimise shortages and skills mismatches, the results from SAA tools should be tailored and disseminated to different users, including policy makers, education and training institutions, students, adult learners, career guidance services, and employers (OECD, 2019<sup>[8]</sup>). Policy makers can use these results to design and evaluate

policies, and education and training institutions can use them to better align their programme and degree offers. Students, adult learners and career guidance services should use the information to ensure that choices about learning and careers are aligned with labour market demand (OECD, 2019<sup>[8]</sup>).

The existing evidence suggests that the dissemination of information from SAA tools in Slovakia is fragmented and not always tailored to the needs of different users. Going forward, Slovakia could improve the consolidation and tailoring of information from SAA tools by setting up a working group with representatives from different ministries and stakeholders.

### *Strengthening the dissemination of information from SAA tools to all users*

In Slovakia, users need to access two platforms to construct a coherent picture of current vacancies. Even combined, these two platforms do not provide the full set of information required by different users. The general results of the NPPVTP are disseminated effectively, but the dissemination could better satisfy the requirements of different users.

Vacancy data are disseminated in two separate portals, ÚPSVR and DATAcube, making it difficult for users to compare results and methodology. The ÚPSVR portal reports breakdowns by region and first digit level ISCO occupations (e.g. managers, professionals, associate professionals). Conversely, the DATAcube portal from the Statistical Office of the Slovak Republic only breaks down vacancies by sector and region, but not by occupation. This means that even when policy makers and education institutions combine the two sources they are unable to form an idea of specific occupational needs across different sectors, both at the national and regional level.

The portal recently developed by the MPSVR ([www.trendyprace.sk/sk](http://www.trendyprace.sk/sk)) is effective in disseminating the key results from the NPPVTP and has been presented in press conferences and presentations across the regions. The main interface is intuitive, and it is easy to analyse labour market trends nationally, regionally and by subject. The portal also has a “private zone” dedicated to users from the “decision-making sphere”, such as policy makers ([www.trendyprace.sk/sk/prihlasit-sa](http://www.trendyprace.sk/sk/prihlasit-sa)). This area contains more detailed breakdowns of the forecasts and data, with more detailed sectorial and regional reports.

However, the portal could be improved to better cater to the needs of different users. Participants in the workshops, focus groups and bilateral meetings during the project highlighted that several education institutions and policy makers were unaware of the existence of the private zone, which means that they might not have access to detailed data that could support their decision making. Students and young people are currently unable to visualise the content of university courses or career paths that match different occupations. This information is frequently available in comparable portals in OECD countries (see Opportunity 2).

The fragmentation and limited tailoring of results from SAA tools were confirmed by a recent review of the governance of skills anticipation and matching in Slovakia (van Loo and Kvetan, forthcoming<sup>[24]</sup>), which undertook an online opinion survey among employers and education institutions to assess the use, strengths and weaknesses of information on labour market needs (van Loo and Kvetan, forthcoming<sup>[24]</sup>). The review found that many stakeholders viewed the processes of linking labour market information with end users, and using it to develop policy relevant and actionable skills intelligence, as weak (van Loo and Kvetan, forthcoming<sup>[24]</sup>).

Virtually all education institutions (95%) thought that using information on current and future skill needs was important, but only 45% of education institutions used information regularly. There were two main barriers to accessing information: 50% of institutions making no or little use of labour market information felt that it was too general, and approximately 30% of these institutions felt that the results were too difficult to understand (van Loo and Kvetan, forthcoming<sup>[24]</sup>).

In the case of employers (mostly medium-sized or large enterprises), approximately 50% conducted in-house analysis and discussion on current and future labour market needs, with roughly one-third doing

this through informal contacts. However, approximately 60% of employers thought that finding business relevant information was difficult, and approximately 90% felt that more information on local/sectoral labour market needs was needed (van Loo and Kvetan, forthcoming<sup>[24]</sup>). The limited availability of relevant information is likely to be an even more serious bottleneck in small and micro enterprises, which tend to lack capacity for in-house analysis (van Loo and Kvetan, forthcoming<sup>[24]</sup>).

The workshops, bilateral meetings and focus groups undertaken during the OECD project confirmed this picture. Several participants were not aware of the existence of the different portals and expressed doubts about their advantages and disadvantages.

Some participants of workshops, bilateral meetings and focus groups thought that establishing a working group to consolidate the results from different SAA exercises could improve dissemination efforts going forward. A similar solution has been adopted across a number of OECD countries, which have set-up a specific body to oversee the consolidation and dissemination of information (OECD, 2019<sup>[8]</sup>). These platforms typically involve multiple ministries, external experts and social partners, such as researchers, employers and trade unions. This helps ensure that the working group better tailors the dissemination of SAA results to the needs of different users, such as students, families, education institutions, employers and adult learners (OECD, 2019<sup>[8]</sup>).

In the Slovak context, the Alliance of Sectoral Skills Councils might constitute a good base to form a working group. Sectoral skills councils (*Sektorové rady*) provide expertise to policy makers on labour market needs in terms of knowledge, skills and competences, and support the creation of a national occupations system (Vantuch and Jelinkova, 2019<sup>[10]</sup>). However, it would be important to involve other stakeholders in the working group beside sectoral skills councils, such as academic experts and representatives from other ministries (e.g. the Ministry of Finance and the MŠVVŠ), in line with the experiences of other OECD countries (OECD, 2019<sup>[8]</sup>). Slovakia could also use the experiences of Norway and Estonia (Box 3.2) to consolidate and disseminate information on labour market and skills needs.

Going forward, Slovakia could also consider facilitating and expanding secure access to the research data underlying the SAA tools. Improving access to research data for policy makers and researchers can strengthen the breadth and quality of available information and research on labour market and skills needs by reinforcing open scientific enquiry. This encourages diversity of analysis and opinion, and enables the exploration of topics not envisioned by the initial investigators (OECD, 2007<sup>[25]</sup>).

Current legislative arrangements mean that research data on vacancies and other statistical surveys (e.g. the Labour Force Survey) gathered by the Statistical Office are available to policy makers and external researchers upon request. Policy makers and external users can receive the data in electronic format or access them in a “safe centre” within the Statistical Office. However, microdata from the ISTP portal and NPPVTP are currently more difficult to access. Stakeholders in workshops, focus groups and bilateral meetings reported that policy makers and external researchers are only able to receive some aggregate results upon request. Expanding access to microdata from the ISTP portal and the NPPVTP might pose some problems from a security and confidentiality perspective; however, the Statistical Office has already managed similar challenges in granting access to statistical surveys, either remotely or through the secure research facility. Other OECD countries, such as the Netherlands and the United Kingdom, have made further progress in making research data available through secure facilities (Box 3.2).

The secure procedure for accessing microdata could also be applied to the graduate tracking database that is currently being developed by the MPSVR and the MŠVVŠ. A graduate tracking database contains information on an individual’s educational history and employment outcomes. The implementation of graduate tracking in Slovakia was identified as a recommendation in the 2019 OECD Economic Survey and was part of the action plan of the Spending Review of Regional Schools and Universities approved by the Slovak government (OECD, 2019<sup>[15]</sup>). As well as ensuring that the graduate tracking database is successfully implemented and that the main findings are effectively distributed to education institutions and students (see Opportunity 2), the MPSVR and the MŠVVŠ should consider making the underlying microdata securely available to policy makers and external researchers.

### Box 3.2. Relevant international examples: Dissemination of SAA exercises

#### Consolidation and dissemination of SAA tools: Examples from Norway and Estonia

In **Norway**, the Committee on Skills Needs was formed in response to the need for an evidence-based understanding of Norway's future skills needs. This committee plays a key role in co-ordinating between different ministries and stakeholder bodies in the area of skills needs assessment and responses. The committee is funded by the Ministry of Education and Research, and its secretariat is within Skills Norway. The committee includes 18 members representing social partners, ministries and researchers. It is tasked with compiling evidence on Norway's future skills needs, contributing to open discussions and better utilisation of resources between stakeholders, and producing an annual report with analyses and assessment of Norway's future skills needs. Unusually, these skills needs are forecast at the national, regional and sectoral level. The Committee on Skills Needs uses a comprehensive set of methods and tools, including employer surveys, surveys of workers or graduates, quantitative forecasting models, sector studies, qualitative methods, and labour market information systems.

**Estonia** introduced two laws in 2015 to improve the governance of skills anticipation. The new arrangement established that the System of Labour Market Monitoring and Future Skills Forecasting (Oskuste Arendamise koordinatsioonisüsteem, OSKA) provides skill forecasts in five sectors every year. Based on quantitative forecasts and qualitative insights developed by sectoral expert panels, the OSKA Co-ordination Council publishes a yearly analysis of labour market trends and skill needs. Representatives from employers and trade unions are involved in the co-ordination council that oversees OSKA, alongside ministries and the Estonian unemployment insurance fund. Education providers are also involved in sectoral expert panels, while experts from universities and professional associations sit on the OSKA Panel of Advisers (a body guiding methodological discussion and reflection). The whole system is administered and developed by the Estonian Qualifications Authority (Kutsekoda) and co-funded by the European Social Fund. The OSKA council publishes the main findings by sector on a portal (<https://oska.kutsekoda.ee/>), as well as recommendations for policy makers, education institutions and employers.

Source: OECD (2016<sup>[11]</sup>), *Getting Skills Right: Assessing and Anticipating Changing Skill Needs*, <http://dx.doi.org/10.1787/9789264252073-en>; Norwegian Committee on Skills Needs (2018<sup>[26]</sup>), *Mandate of Official Norwegian Committee on Skill Needs*, <https://kompetansebehovsutvalget.no/mandate-of-official-norwegian-committee-on-skill-needs/>; OECD (2019<sup>[27]</sup>), *Getting Skills Right: Creating Responsive Adult Learning Systems*, [www.oecd.org/employment/emp/adult-learning-systems-2019.pdf](http://www.oecd.org/employment/emp/adult-learning-systems-2019.pdf).

#### Improving access to research data: Examples from the United Kingdom and the Netherlands

The **United Kingdom** has a long tradition of securing access to research data for policy makers and external researchers. The Secure Research Service is an integrated platform that allows policy makers and external researchers to work with sensitive microdata from business and worker surveys. Users gain access to the data after passing a one-day course and submitting a detailed research proposal. External researchers can access the data in a secure room within the Office for National Statistics, whereas government departments can set-up their own secure room in their building.

The **Netherlands** has similar arrangements in place. At Statistics Netherlands, external researchers from authorised institutions are able to access microdata sets at the level of individuals, companies and addresses. Institutions such as Dutch universities, organisations for policy analysis, institutes for scientific research and statistical authorities in other EU countries are able to apply for access. Access is granted to an institution for up to five years at a time, provided that they publish the results of their research, that the microdata is used solely for statistical purposes, and that the data is considered relevant to the research question.

Source: ONS (2019<sup>[28]</sup>), *Accessing secure research data as an accredited researcher*, [www.ons.gov.uk/aboutus/whatwedo/statistics/requestingstatistics/approvedresearcherscheme#becoming-an-approved-researcher-through-the-ons-approved-researcher-scheme](http://www.ons.gov.uk/aboutus/whatwedo/statistics/requestingstatistics/approvedresearcherscheme#becoming-an-approved-researcher-through-the-ons-approved-researcher-scheme); CBS (2019<sup>[29]</sup>), *Microdata: Conducting your own research*, [www.cbs.nl/en-gb/our-services/customised-services-microdata/microdata-conducting-your-own-research](http://www.cbs.nl/en-gb/our-services/customised-services-microdata/microdata-conducting-your-own-research).

### **Recommendation for strengthening the dissemination of information from SAA tools**

- Develop a comprehensive strategy to consolidate results from multiple SAA exercises, and tailor dissemination to different users.** The government should set up a working group responsible for developing a comprehensive strategy to consolidate and disseminate results from different SAA tools. It could consider using the Alliance of Sectoral Skills Councils as the basic platform to fulfil this objective. The working group should include representatives from employers, trade unions, SAA experts, self-governing regions and relevant ministries. The working group should consolidate the results from all available SAA exercises in a single set of outputs (e.g. a report as in Norway or a portal as in Estonia), highlighting their relative advantages and disadvantages. The working group could then prepare a tailored dissemination strategy, mapping what information (e.g. short-term information on labour market needs vs. longer-term trends) and channels (e.g. online portal vs. seminars) might be more relevant to different users. It could then oversee that the dissemination strategy is successful by monitoring user satisfaction with the information and channels. The sub-opportunity “Improving the direct dissemination of information to students and their families” in Opportunity 2 provides recommendations on a potential dissemination strategy for students and their families. Other users that should be targeted through an ad hoc dissemination strategy include policy makers from various ministries and regional authorities (e.g. the MŠVVŠ for the allocation of study places in secondary schools discussed in Opportunity 3), career guidance counsellors (see “Expanding career guidance in schools and universities” in Opportunity 2), education institutions (see Opportunity 3), adult learners (see Chapter 4), labour offices (see Chapter 4), and employers (see Chapter 5).

### ***Opportunity 2: Strengthening the responsiveness of students and their families to labour market needs***

To minimise skills imbalances, students and their families need to become more responsive to labour market needs and make choices that are aligned with current and future labour market dynamics. Across OECD countries, this typically requires improving the direct dissemination of information from SAA tools (see Opportunity 1), providing effective career guidance services and offering financial subsidies for specific fields of study (OECD, 2017<sup>[30]</sup>).

This opportunity focuses on the direct dissemination of information and the provision of career guidance services. In the Slovak context, the direct dissemination of information and effective career guidance could help reduce skills mismatches among secondary VET and tertiary graduates. It could also reduce shortages among medium-skilled and science, technology, engineering and mathematics (STEM)-related high-skilled occupations, such as engineers and ICT technicians. Effective career guidance in schools and the direct dissemination of information could support students in choosing tertiary education courses or VET qualifications that are in high demand in the labour market and suited to their interests and skills. Effective career guidance in universities could help tertiary students find a good match in the labour market.

However, as foreshadowed in Opportunity 1, Slovakia has struggled to directly disseminate information on labour market and skills needs to students and their families. The available evidence shows that the performance in career guidance has not been stronger, but Slovakia has recently introduced some reforms in schools, which will need to be adequately supported and complemented.

Financial subsidies for specific fields of study in tertiary education are likely to be another important area of focus for Slovakia going forward. In line with other OECD countries, Slovakia provides scholarships in STEM-related fields of study such as applied informatics, applied mathematics and various engineering courses (OECD, 2017<sup>[30]</sup>). The contribution is organised so that 15% of students can be awarded a yearly scholarship of EUR 1 000, on average, in 2019. There is no evidence on the effectiveness of these scholarships in pushing students towards STEM subjects in Slovakia. However, when compared to other OECD countries (e.g. Estonia), Slovak scholarships are smaller and target fewer learners (OECD,

2017<sup>[30]</sup>). For instance, Estonian universities offer between EUR 1 900 and EUR 3 600 per year (equivalent to EUR 1 700 and EUR 3 200 in purchasing power parity terms) to between 30% and 50% of students, depending on the course (University of Tartu, 2018<sup>[31]</sup>).

In addition to financial subsidies, legislative changes have recently introduced new types of loans for “shortage regulated professions” (e.g. nursing) in Slovakia. The loans are written off if the recipient works in the sector for a given amount of time (e.g. three years). Going forward, the MŠVVŠ should consider evaluating whether the scholarships and loans are effective and, conditional on the results, potentially further strengthen them.

### *Improving the direct dissemination of information to students and their families*

Across OECD countries, two main channels are typically used to directly disseminate information on labour market and skills needs to students and their families: online portals and information campaigns (OECD, 2017<sup>[30]</sup>). Online portals can be used to provide information on labour market demand and outcomes for different courses, as well as information on study and career opportunities. Information campaigns can be used to raise awareness about the importance of using information on labour market and skills needs when making career and education choices, or to steer graduates towards relevant fields of study (OECD, 2017<sup>[30]</sup>).

Slovakia has relied on both of these policy levers, but the existing online portals are fragmented and the publicity campaigns have not been entirely successful.

Slovakia does not currently have a one-stop-shop portal containing both information on study/career opportunities and labour market needs. Two main public portals provide information about study and career opportunities: portal VS, developed by the MŠVVŠ, and the ISTP portal developed by the MPSVR. Portal VS ([www.portalvs.sk](http://www.portalvs.sk)) has detailed information on the content of university courses, and the ISTP portal has a dedicated section for youth. The ISTP portal lists job vacancies and recommends possible study options and career paths based upon existing qualifications and interests. It also outlines minimum skill requirements for occupations to enable users to clearly see the required steps to follow a desired career. For information on labour market needs, graduates rely on the portal developed by Trexima Ltd ([www.trendyprace.sk/sk](http://www.trendyprace.sk/sk)).

In other OECD countries (e.g. Denmark or Poland) it is relatively common to have information on study opportunities and labour market trends on the same portal. This allows students and their families to easily consider the advantages and disadvantages of different study options. Slovakia could take inspiration from Denmark or Poland to design an information portal that relies on consolidated SAA exercises (see Opportunity 1), especially graduate tracking (Box 3.3). The portal could also contain information on VET courses.

In 2016, Slovakia launched a television campaign called Study Science and Technology – The Future Will Thank You to promote the study of science and technology programmes. The first part of the campaign saw six Slovak personalities in the field of science present their work and its importance (Stauder, 2016<sup>[32]</sup>). In the second part of the campaign, three young Slovak scientists presented their “messages from the future” by explaining the projects they had been working on. Some participants in workshops and focus groups reported that the campaign was highly controversial and did not have the desired impact. They highlighted that it promoted unrealistic expectations about work in the Slovak science sector, and generated an unforeseen negative reaction from the science community.

Going forward, Slovakia could consider conducting a publicity campaign to encourage students and their families to take into account labour market information (e.g. from the one-stop-shop portal) when making study choices, as in Denmark (Box 3.3).

### Box 3.3. Relevant international examples: Direct dissemination of information to students and their families

#### Online portals: Examples from Denmark and Poland

In **Denmark** students can use an online tool, *Uddannelseszoom* (education zoom), to make informed decisions about the course they choose to study at the tertiary education level. Using this tool, students can compare up to three different courses at any one time from institutions across Denmark. *Uddannelseszoom* links labour market outcomes to specific qualifications, allowing students to more actively consider career prospects when choosing where and what to study. The information provided to students includes unemployment levels, average pay, whether the qualification equipped previous graduates with the correct skills for their career, and how they got their first job after leaving education. The information is based on SAA tools to monitor graduate outcomes (see Opportunity 1). The Ministry of Education and Research has overseen the project since its launch in 2015, and the tool is continuously updated as new statistics become available. The Ministry of Higher Education and Science launched a media campaign just ahead of the deadline for higher education applications. It sought to encourage students to take labour market outcomes from *Uddannelseszoom* into consideration when making their choices.

In **Poland**, prospective tertiary graduates can use the *ELA-nauka* portal to inform their university choice. This portal is the main tool to distribute key results from the Polish graduate tracking database. It provides infographics on what graduates are doing (further study, in work, unemployed, etc.) and can be sorted by subject area. It also ranks individual courses by area, such as total salary, the risk of being unemployed and time taken to find a job. Similar to the Danish *Uddannelseszoom*, students can directly compare specific programmes. Regular summaries are published to convey key trends and findings and, in order to increase engagement, the portal can be accessed both online and by a dedicated app on the App Store and Google Play. A more detailed website – ELA Pro – provides statistical summaries, reports and the methodology behind the rankings.

Source: OECD (2017<sup>[30]</sup>), *In-Depth Analysis of the Labour Market Relevance and Outcomes of Higher Education Systems: Analytical Framework and Country Practices Report*, [www.oecd.org/education/skills-beyond-school/LMRO%20Report.pdf](http://www.oecd.org/education/skills-beyond-school/LMRO%20Report.pdf); Danish Ministry of Education and Research (2019<sup>[33]</sup>), *Uddannelseszoom Portal*, [www.ug.dk/vaerktoej/uddannelseszoom](http://www.ug.dk/vaerktoej/uddannelseszoom); Polish Ministry of Science and Higher Education (2019<sup>[34]</sup>), *ELA Portal*, <https://ela.nauka.gov.pl>.

#### Recommendations for improving the direct dissemination of information to students and their families

- **Introduce a one-stop-shop portal that allows students and their families to access information on labour market and skills needs and study opportunities.** In the short term, the MŠVVŠ and the MPSVR could consider creating a single portal that has information on study opportunities and labour market demand for related occupations/skills at the regional level (e.g. by merging information from the NPPVTP and ISTP portals). The MŠVVŠ will need to decide whether this portal includes VET qualifications and university degrees. In the longer term, the portal should rely on consolidated SAA tools, including programme level data on earnings and employment rates from the graduate tracking database, results from graduate surveys, and consolidated future growth projections for related occupations.
- **Consider launching a publicity campaign targeted at students and their families that advertises the importance of using labour market information.** The MŠVVŠ and the MPSVR could consider introducing a publicity campaign that advertises the importance of consulting labour market information when making educational choices (as in Denmark). The campaign could advertise the newly introduced one-stop-shop portal through a variety of channels (e.g. social and traditional media).

### *Expanding career guidance in schools and universities*

Providing information to students and their families is frequently insufficient to ensure that students make choices aligned with labour market needs. Effective career guidance is necessary to ensure that students and their families understand the information provided to them, and that students approaching the end of their studies (e.g. students in HEIs) have a smooth transition to the labour market.

Evidence suggests that Slovakia has struggled to give sufficient time, motivation and support to career guidance counsellors in schools.

In Slovakia, career guidance in primary, secondary and special schools is provided by educational counsellors, who are also responsible for psychological counselling (i.e. general counselling on behavioural and educational issues) (Beková et al., 2014<sub>[11]</sub>). The role is filled by an experienced pedagogical employee of the school who has at least three years of successful pedagogical practice and has completed specialised further education. The specialised further education allows educational counsellors to develop a strong knowledge of labour market trends, ICT skills and best practices to support students in their educational choices. In carrying out their role, the educational counsellor collaborates with the 79 centres for pedagogical-psychological guidance and prevention (CPPPaP) and centres for special pedagogical guidance. These centres provide methodological support through dedicated workers and are overseen by the MŠVVŠ (Beková et al., 2014<sub>[11]</sub>).

Euroguidance, a Europe-wide network of national resource and information centres for career guidance, has published a detailed review of career guidance in Slovak schools that identified some key challenges in terms of the availability and quality of services (Beková et al., 2014<sub>[11]</sub>). Educational counsellors in schools do not generally receive adequate time and incentives to fulfil their duties. Across most schools, ordinary teachers are assigned to the role and given one to two hours per week less in teaching obligations. This time allocation includes both their career guidance duties and educational counselling. This is insufficient to offer a wide range of services, such as career guidance classes, one-to-one sessions, and organising seminars and sessions with parents (Beková et al., 2014<sub>[11]</sub>).

Educational counsellors also have insufficient access to relevant information and good-quality training opportunities. They often work without adequate ICT tools and do not have access to up-to-date information on labour market needs (see Opportunity 1). This frequently means that they are not able to provide high-quality advice to students (Beková et al., 2014<sub>[11]</sub>). The training for educational counsellors is often conducted in an MPC centre; however, the quality of the training offered by the MPC is often low (see Chapter 1 for recommendations on the MPC).

The system of career guidance at primary and secondary schools will change significantly due to amended legislation that will come into effect in September 2019. From this date, the activities of career guidance will be defined as separate activities to educational counselling, and the school principal will be able to define a separate role for a career guidance counsellor. In each CPPPaP, a new position of “expert employee career guidance counsellor” will be created. These experts will take care of technical and systemic issues, such as consolidating labour market information and communicating with employers. One CPPPaP per region will supervise the quality/level of career guidance in schools, as well as participation in education and professional development. In order to fulfil these additional duties, the designated CPPPaP will be assigned an additional one-quarter career counsellor in full-time equivalent terms.

These reforms represent a step in the right direction. Provided that they are successfully implemented, they will improve the governance of career guidance activities in schools and increase the information and support available to career guidance counsellors. However, the reforms do not provide a clear indication of time/compensation for career guidance activities and the range of services that need to be offered across different schools and programmes.

Several participants in workshops and focus groups highlighted the importance of educational counsellors being allocated a fixed amount of time (e.g. one day a week) to deliver a wide range of career guidance services, including sessions with parents, one-to-one sessions and events with companies. International best practice confirms that providing these services is very important to make students more responsive to labour market needs (Musset and Mytna Kurekova, 2018<sup>[35]</sup>). Going forward, Slovakia could use international and national examples to improve the quality of career guidance services (Box 3.4). Given the shortages among engineers and ICT technicians, Slovakia should consider placing particular emphasis on specific activities to raise awareness of STEM-related subjects, as in the Netherlands (Box 3.4). To facilitate the introduction of these changes, Slovakia could implement clear standards for career guidance activities in schools, building on the experiences of Scotland (Box 3.4).

Career guidance in Higher Education institutions has not been stronger. A review of career guidance services in Slovak universities analysed information on the supply, breadth and quality of the services offered in the 2014/15 academic year (Markovič, 2015<sup>[36]</sup>). It highlighted that only 11 out of 32 HEIs in Slovakia advertise career guidance services on the Internet. This suggests that more than two-thirds of Slovak universities might not have a career guidance centre or might not be conducting systematic outreach to students (Markovič, 2015<sup>[36]</sup>). Participants in workshops and focus groups confirmed that several universities in Slovakia do not offer career guidance services.

Even among universities that do offer career guidance services, students are not aware that such services exist and do not use them extensively. A survey among university students suggests that approximately 40% of master's students were not aware that career guidance is offered in Slovak universities, and 83% of students reported never having used the career guidance services provided by their university (Markovič, 2015<sup>[36]</sup>).

The low use of career guidance services might be driven by their low quality and breadth. Services offered by universities have generally not been based on academic research or international best practice. Universities typically offer job search advice, advertise vacancies and organise career guidance fairs, but they do not provide one-to-one counselling sessions and skills development seminars, even if these are in high demand among students (Markovič, 2015<sup>[36]</sup>).

Universities in Slovakia, as in other OECD countries, are autonomous in the organisation of career guidance. However, the MŠVVŠ could improve the offering of career guidance in universities through additional funding and regulatory requirements. Slovakia could take inspiration from Denmark in this regard (Box 3.4).

### **Box 3.4. Relevant national and international examples: Strengthening career guidance in schools and universities**

#### **Offering a wide range of services: Examples from Slovakia and abroad**

The centre for pedagogical-psychological guidance and prevention in Čadca, North **Slovakia**, has developed the Čadca Model of Professional Interactive Counselling (*Čadčiansky model interaktívneho profesijného poradenstva*, CAMIP). CAMIP offers a wide variety of career guidance services, including guidance on how to select a secondary school, advice and practical tips on how to handle entry exams, and an online advisory system that lets students and parents submit their questions regarding career guidance to experts. CAMIP has also organised dedicated job days for six years, where students can learn about different study and career options. These are organised at individual schools in Čadca and are meant to help students and families select a secondary school.

In **Norway**, educational choice (*utdanningsvalg*) is a compulsory subject at lower secondary school, from eighth to tenth grade, that aims to reduce the number of students choosing the wrong educational programme, as well as the drop-out rate at the upper secondary level. A week of work placements and courses at the different educational programmes at the upper secondary schools is the most common use of the subject. An evaluation published found that the subject alone cannot help ensure that students make successful educational choices, but that it needs to be complemented by other measures, such as one-to-one sessions and close involvement with families.

In the **Austrian BiWi**, career counsellors make a conscious effort to bring parents in as partners in their practice through dedicated activities. These include parents' evenings, during which career counsellors discuss their role in their children's career choice and provide them with an overview of possible learning pathways and the current situation of the labour market; and parent-teacher conferences that target both parents and teachers of young students with a view to presenting the comprehensive career guidance and information offering.

In the **Netherlands**, the Jet-Net and TechNet initiatives aim to inspire students at both primary and secondary school to pursue STEM subjects in school and at university. They support schools and companies in developing activities such as guest lectures, company visits and workshops. STEM subject uptake among students at participating schools is significantly higher than the national average.

Source: CPPPaP Čadca (2019<sup>[37]</sup>), Camip Website, [www.camip.sk/ako-si-vybrat-strednu-skolu](http://www.camip.sk/ako-si-vybrat-strednu-skolu); EU Stem Coalition (2019<sup>[38]</sup>), *Jet-Net*, [www.stemcoalition.eu/programmes/jet-net](http://www.stemcoalition.eu/programmes/jet-net); Musset, P. and L. Mytna Kurekova (2018<sup>[35]</sup>), *Working it out: Career guidance and employer engagement*, <https://dx.doi.org/10.1787/51c9d18d-en>; Cedefop (2016<sup>[9]</sup>), *Slovakia: Mismatch priority occupations*, *Skills Panorama*, [https://skillspanorama.cedefop.europa.eu/en/analytical\\_highlights/slovakia-mismatch-priority-occupations](https://skillspanorama.cedefop.europa.eu/en/analytical_highlights/slovakia-mismatch-priority-occupations).

### **Establishing clear standards for career guidance: An example from Scotland (United Kingdom)**

Scotland has a well-developed and comprehensive system of career guidance. The Scottish government funds a national public body, Skills Development Scotland (SDS), to deliver work-based learning, engage employers in learning and deliver career information, advice and guidance (CIAG). The SDS sets clear standards in terms of the type of services received by different users and the information accessible to career guidance counsellors (see Opportunity 1). SDS takes a person-centred approach to the delivery of CIAG, and tailors the provision of support to the unique needs of each student or adult user. It is recognised that some users require more support than others to make a successful transition to work or further learning. To increase equality of opportunity for all, CIAG services target resources at those users who require the most support. A “needs matrix” is used to suggest the level of support need for each user and the corresponding service offer they might receive; this need is then validated to confirm the service offer entitlement.

Source: Musset P. and L. Mytna Kurekova (2018<sup>[35]</sup>), *Working it out: Career guidance and employer engagement*, <https://dx.doi.org/10.1787/51c9d18d-en>.

### **Strengthening career guidance in tertiary education: An example from Denmark**

In **Denmark**, the University Act specifies that universities must offer students at bachelor's and master's level guidance about their current programme, including requirements for masters and PhD programmes (completion guidance) and subsequent employment opportunities (career guidance). However, each university is free to decide how and by whom this guidance is offered. Higher educational institutions typically have their own career centres that offer a wide range of career counselling services. For example, Copenhagen Business School's career centre offers seminars, events, career fairs, networking, help with CV and cover letter writing, and job interview and career clarification.

Source: Eurydice (2019<sup>[39]</sup>), *Guidance and Counselling in Higher Education*, [https://eacea.ec.europa.eu/national-policies/eurydice/content/guidance-and-counselling-higher-education-18\\_en](https://eacea.ec.europa.eu/national-policies/eurydice/content/guidance-and-counselling-higher-education-18_en).

### Recommendations for strengthening career guidance in schools and universities

- **Complement reforms to career guidance in schools by implementing clear standards for the compensation of school counsellors, as well as the range of services offered.** The MŠVVŠ should develop some standards (e.g. as in Scotland) to ensure that education counsellors in schools have a fixed amount of time (e.g. one day a week) and clear compensation to fulfil their functions. The standards could also define the range of services offered, such as career guidance classes (e.g. in Norway), one-to-one sessions, activities with parents (e.g. in Austria), activities to promote STEM-related subjects (e.g. in the Netherlands), activities with employers (e.g. bringing people into the school to talk about their work and school visits to workplaces) and external seminars/events offered by the CPPPaP (e.g. the CPPPaP in Čadca). The range of activities should change depending on the education level. For example, career guidance classes could be more suitable to primary schools, activities with employers more relevant in VET, and promoting STEM-related subjects more important in general secondary schools. The MŠVVŠ should ensure that education institutions have sufficient funding to deliver career guidance in accordance with the standards.
- **Provide targeted funding and tighten regulatory requirements for career guidance centres in universities.** The MŠVVŠ should consider providing some specific funding (e.g. based on student to counsellor ratio) for the provision of career guidance services in universities. It should also consider making the provision of certain career guidance activities (e.g. career counselling classes and seminars) a criterion within the quality assurance system, building on the Danish experience.

### ***Opportunity 3: Strengthening the responsiveness of secondary VET and tertiary education institutions to labour market needs***

Students making choices aligned with labour market needs is insufficient to ensure a responsive education system. Education institutions need to supply programmes that align with labour market needs, both in terms of mix (the number of places offered across subjects) and quality (the curricula of these offerings). They also need to deliver effective teaching to ensure that students develop a strong mix of technical and transversal skills (OECD, 2015<sup>[40]</sup>; 2017<sup>[30]</sup>; 2019<sup>[8]</sup>).

This opportunity focuses on improving the alignment of the educational offering of secondary VET and tertiary institutions with labour market needs. This is important in Slovakia in order to close shortages in medium-skilled occupations and mismatches among younger workers (e.g. field of study mismatch). Improving the alignment of the tertiary offering would help minimise shortages among higher-level occupations (such as engineers and ICT professionals), and would help reduce skills mismatches among tertiary graduates.

Improving the alignment of the educational offering depends on the incentives designed by the government and effective collaboration between education institutions and employers (OECD, 2015<sup>[40]</sup>; 2017<sup>[30]</sup>; 2019<sup>[8]</sup>). Incentives could come in the form of regulation (e.g. setting conditions for the accreditation of university programmes) or funding arrangements (e.g. making funding conditional on performance metrics) (OECD, 2017<sup>[30]</sup>). Collaboration with employers generally involves support in the development of the educational offering (both in terms of the number places offered and curriculum content) and the delivery of work-based learning (OECD, 2019<sup>[8]</sup>).

These policy levers have different purposes. Funding arrangements and regulation can help ensure that institutions take into account labour market demand in their decision making (OECD, 2017<sup>[30]</sup>). Support by employers can provide relevant information to institutions to better align their educational offering to labour market needs (both in terms of the number of places offered and the curriculum). Work-based learning complements school or university-based learning by enabling students to develop work-relevant technical

skills using up-to-date equipment and work practices, as well as soft skills that are valuable in the workplace (OECD, 2015<sup>[40]</sup>).

The available evidence suggests that Slovakia has struggled to develop effective financing and regulatory arrangements, as well as strong collaboration between education institutions and employers, both in secondary VET and tertiary education. In the VET system, reforms have recently been introduced to improve funding arrangements, set regulations for the allocation of students across secondary schools, and increase collaboration on curriculum development and work-based learning (Vantuch and Jelinkova, 2019<sup>[10]</sup>). These reforms will need to be carefully supported going forward. In tertiary education, evidence shows that Slovakia could strengthen employability incentives in the funding formula and should ensure that the recent reforms in quality assurance enable employers to provide meaningful input on the educational offering. Slovakia could also introduce separate governance and funding arrangements for professionally oriented institutions to facilitate the development of professional bachelor programmes with a strong work-based learning component.

Two additional areas likely to be important for Slovakia going forward are the public funding allocated to VET and tertiary education institutions, and measures to support effective teaching.

Evidence suggests that Slovakia could increase the amount of funding for VET institutions, other secondary education institutions and tertiary education institutions. According to the most recent Eurostat data, public expenditure on secondary education is lower than in other EU countries: Slovakia spends 0.3% of gross domestic product (GDP) on general upper secondary education, compared to 0.7% across the EU, and 0.6% of GDP on vocational upper secondary education, compared to 1.1% across the EU (Eurostat, 2015<sup>[41]</sup>). Similarly, according to OECD Education at a Glance data for 2019, both public and overall total spending on tertiary education as a proportion of GDP (0.7% and 1.0%, respectively) are below the OECD averages (0.9% and 1.5%, respectively) (OECD, 2019<sup>[42]</sup>).

Evidence also suggests that Slovakia could take further measures to improve teaching quality across secondary VET and tertiary education (OECD, 2017<sup>[30]</sup>; OECD, 2019<sup>[15]</sup>). As discussed in Chapter 2, high teaching quality in primary and lower secondary schools is hindered by a number of factors, including low salaries, lack of professional development activities and career progression opportunities. These problems likely extend to the secondary VET teaching profession. The government could consider increasing salaries, improving professional development opportunities and career progression arrangements for secondary VET teachers. As also discussed in Chapter 2, teaching in Slovak universities is frequently dominated by traditional methods. The recently introduced reforms in quality assurance could contribute to improve teaching quality in tertiary education (OECD, 2019<sup>[15]</sup>). However, academic teachers might benefit from additional support for professional development. Strengthening professional development bodies for academic teachers (e.g. the National Forum in Ireland) could help promote more innovative teaching practices in tertiary education.

### *Supporting recent reforms in secondary VET institutions*

The available evidence suggests that Slovakia has struggled to provide adequate incentives to VET institutions and foster collaboration with employers. However, recent reforms have tried to improve the overall performance of the system.

The mix of VET provision – the number of places in different fields of study created by schools – has been mainly driven by student demand. Before the 2016/17 academic year, the funding formula developed by the MŠVVŠ was based on the number of enrolled students and offered similar funding for different study programmes, irrespective of demand in the labour market (Fazekas and Kurekova, 2016<sup>[21]</sup>).

Collaboration with employers has been generally weak and practical training in work-based environments has remained uncommon. Employers' representatives generally participated on a voluntary basis on the design of national curricula, on adjusting school curricula to local needs, and final examination of learners (Vantuch and Jelinkova, 2019<sup>[10]</sup>). In the last five to ten years, their influence VET policy has

been in gradual increase (Vantuch and Jelinkova, 2019<sub>[10]</sub>). There have been successful examples of direct collaboration between VET schools and large employers (e.g. Volkswagen), but generalising these good practices and reaching small and medium-sized enterprises (SMEs) has remained difficult (Fazekas and Kurekova, 2016<sub>[21]</sub>). As a result, most work-based learning has been provided in school workshops, often with outdated equipment and weak links to local firms (Fazekas and Kurekova, 2016<sub>[21]</sub>). According to estimates based on official data, only one-fifth of students in secondary VET programmes were offered practical training in work-type environments before the introduction of the recent reforms (Fazekas and Kurekova, 2016<sub>[21]</sub>).

The government has already introduced three important measures to improve funding arrangements and collaboration with employers. These are important steps in the right direction, but will need to be carefully supported and complemented going forward.

First, the government has introduced changes to the funding formula to better reflect labour market demand for different occupations. From the 2016/17 academic year, some subjects with relatively low labour market demand (forming a so-called “blacklist”) have received 10% less funding per student, whereas some subjects with relatively high labour market demand (forming a so-called “whitelist”) have received 10% more funding per student. Both lists are elaborated in close co-operation with all relevant stakeholders, including the MŠVVŠ, the MPSVR and self-governing regions (Vantuch and Jelinkova, 2019<sub>[10]</sub>). Another process to regulate the allocation of study places across different secondary schools has also been introduced. The process involves the MŠVVŠ, the MPSVR and regional authorities. The MPSVR uses the results from the NPPVTP to indicate the additional labour market needs that should be covered by the inflow of new entrants into secondary schools. Based on these forecasts and on an extensive consultation process, the MŠVVŠ and self-governing regions then allocate study places across school programmes and specific schools (Vantuch and Jelinkova, 2019<sub>[10]</sub>).

Stakeholders in workshops, focus groups and bilateral meetings suggested two potential improvements to these new arrangements. Some stakeholders mentioned that the incentives in the funding formula for “whitelist” programmes could become more generous (e.g. 30% as opposed to 10% more funding). The main shortcoming with the process underlying the allocation of study places was perceived to be the over reliance on NPPVTP forecasts instead of a wider breadth of SAA tools (see Opportunity 1). Going forward, the government should rely on the consolidated results from SAA tools (see Opportunity 1) both for the funding formula and the allocation of study places across secondary schools.

Second, from the 2015/16 academic year, the government introduced a dual VET model to increase WBL opportunities (Vantuch and Jelinkova, 2019<sub>[10]</sub>). Under the dual VET model, students of a school-based four-year VET programme with a WBL component (ISCED 354) or three-year programmes (ISCED 353) receive training within companies. The dual arrangement is regulated by two contracts: enterprises sign a contract with the individual learners (or their parents), and a contract is signed with schools to clarify the responsibilities of all parties (Vantuch and Jelinkova, 2019<sub>[10]</sub>).

Although the dual regime could contribute to improving work-based learning, it has so far had a slow uptake: in the 2016/17 academic year, fewer than 3% of secondary VET students started a VET programme with a dual arrangement (Vantuch and Jelinkova, 2019<sub>[10]</sub>). In order to improve the uptake of the dual model, the MŠVVŠ launched the Dual Education and Increasing the Attractiveness and Quality of VET project (Ministry of Education, Science, Research and Sport, 2019<sub>[43]</sub>), relying on EUR 34 million in funding from the European Social Fund. The project aims to increase the number of dual VET students to 12 000 by 2020, including by supporting schools in writing performance-based plans, creating sample curricula and reaching out to potential employers. The government has also strengthened financial incentives for the provision of dual VET, with all employers now receiving tax deductions (EUR 1 600 for 200 hours of practical training and EUR 3 200 for 400 hours), and SMEs receiving a subsidy of EUR 1 000 per student (Cedefop, 2018<sub>[19]</sub>).

However, feedback from stakeholders during workshops and bilateral meetings suggests that several employers, especially SMEs, have remained reluctant to offer training within the dual framework.

To make further progress, Slovakia could use the experience of other OECD countries, such as Switzerland and Austria (Box 3.5). International evidence suggests that tax incentives and subsidies can lead to substantial deadweight losses, i.e. they subsidise training places that would have been provided anyway (Kuczera, 2017<sup>[44]</sup>). Providing clear information to companies and allowing SMEs to set up training associations to share dual learners can provide alternative ways of increasing uptake of the dual model (Kuczera, 2017<sup>[44]</sup>).

Third, from the 2015/16 academic year the government introduced 18 “sectoral assignees” to improve collaboration between employers and schools on curriculum development and quality assurance. Sectoral assignees are institutions from the world of work selected from chambers and associations of employers. They are set by legislation to represent employers in different fields of study as professional counterparts to education authorities and experts (Vantuch and Jelinkova, 2019<sup>[10]</sup>). Sectoral assignees approve the curricula developed by VET schools, unless they were developed in direct co-operation with companies under a dual VET model. The sectoral assignees are also required to participate in the quality assurance process. They need to check assignments related to school leaving examinations and they need to participate in the assessment and validation of training institutions, in co-operation with the responsible body with the MŠVVŠ. Going forward, there is a need to strengthen the capacity of sectoral assignees (Vantuch and Jelinkova, 2019<sup>[10]</sup>). Although the responsibility of chambers and professional associations towards respective fields of study is precisely set by legislation, sectoral assignees are unlikely to have sufficient resources to engage in quality assurance, provide feedback on school curricula and offer information to employers (especially SMEs) intending to offer work-based learning (Vantuch and Jelinkova, 2019<sup>[10]</sup>). Slovakia could use the experiences of other OECD countries, such as Denmark and Norway, to further expand the role of sectoral assignees (Box 3.5).

### Box 3.5. Relevant international examples: Supporting recent reforms in secondary VET institutions

#### Expanding work-based learning: Training associations in Switzerland and Austria

In **Switzerland**, the government established vocational training associations (*Lehrbetriebsverbände*) through the 2004 Act on VET. These are associations of two or more training firms that share apprentices, with training organised across several firms on a rotating basis. The aim is to allow firms that lack the capacity and resources to provide the full training of an apprentice to be engaged, and to lower the financial and administrative burden on individual firms. The confederation subsidises associations with initial funding during the first three years for marketing, administrative and other costs necessary to set up the joint training programme. After this initial support, training associations are supposed to be financially independent. An evaluation (*Resultate Evaluation Lehrbetriebsverbände*, OPET, Bern) found that most firms participating in training associations would not have engaged in training otherwise.

**Austria** complements training associations with direct subsidies. Companies that cannot fulfil certain standards (e.g. because they are too small or too specialised) may form training alliances (*Ausbildungsverbände*) to share apprentices. Alliances of training firms are supervised at the state level by apprenticeship offices (*Lehrlingsstellen*), but business organisations help to find partners for firms willing to create new training alliances. An evaluation has suggested that training alliances in Austria help to improve the quality of apprenticeship provision. In Austria, tax incentives were abolished in 2008 and replaced by direct subsidies for apprenticeships. The Ministry of Economics and Labour concluded that the tax incentive scheme failed to target companies that would benefit most from additional support for apprenticeships.

Source: Kuczera, M. (2017<sup>[44]</sup>), *Incentives for apprenticeship*, <https://doi.org/10.1787/55bb556d-en>; Kuczera, M., V. Kis and G. Wurzburg (2009<sup>[45]</sup>), *OECD Reviews of Vocational Education and Training: A Learning for Jobs Review of Korea*, <https://doi.org/10.1787/9789264113879-en>.

### Involving social partners in VET: Examples from Denmark and Norway

In **Denmark**, around 50 national trade committees (*faglige udvalg*) are responsible for 106 VET upper secondary programmes. These are composed of, and funded by, employer and employee organisations. Trade committees update existing and propose new courses; define learning objectives and final examination standards; decide the duration of the programme and the ratio between college-based teaching and practical work in an enterprise; approve enterprises as qualified training establishments; rule on conflicts that may develop between apprentices and the enterprise providing practical training; and issue basic VET certificates in terms of content, assessment and the actual holding of examinations. At the local level, local training committees work closely with colleges to adapt the content of VET programmes to local needs and support colleges with the delivery of programmes, for example by securing work placements for students. The national committees can devolve responsibilities to the local trade committees if decided that they are better led at the local level.

In **Norway**, social partners sit on 19 vocational training boards, one for each county. They provide advice on quality, career guidance, regional development and the provision in the county to meet local labour market needs. County authorities are also responsible for approving enterprises that provide apprenticeship training. While counties are free to develop their approval procedure, they typically involve social partners from the relevant sector in the process.

Source: Andersen, O. D. and K. Kruse (2016<sub>[46]</sub>), *Vocational education and training in Europe: Denmark Cedefop ReferNet VET in Europe Reports*, [http://libserver.cedefop.europa.eu/vetelib/2016/2016\\_CR\\_DK.pdf](http://libserver.cedefop.europa.eu/vetelib/2016/2016_CR_DK.pdf).

### Recommendations for supporting the recent reforms in secondary VET institutions

- **Support recent reforms to the allocation of funding and study places in secondary institutions by making full use of the results from SAA tools** (see Opportunity 1). The MŠVVŠ and the MPSVR should rely on the consolidated results from SAA tools (see Opportunity 1) both for the allocation of funding and study places. With regards to funding, the MŠVVŠ and the MPSVR should integrate the consolidated results from SAA tools within the consultation process underlying the creation of the “whitelists” and “blacklists”. By relying on the consolidated results from SAA tools, the MŠVVŠ could also consider increasing the amount of extra funding for “whitelist” subjects or introduce different thresholds (e.g. 10% for some subjects and 20% for others). Within the process for allocating study places across secondary schools, the MŠVVŠ and the MPSVR should rely on the consolidated results from SAA tools, as opposed to the NPPVTP forecasts alone.
- **Support the recently introduced dual system by financing employer-led training associations.** The government should consider offering incentives to set up training associations (e.g. in Switzerland and Austria) among a group of employers (especially SMEs) to share the costs of organising work-based learning. The MŠVVŠ should evaluate whether tax incentives and subsidies have contributed to increasing uptake of the dual model. Depending on the results of the evaluation, the funding could replace some of the existing tax incentives and subsidies, or be provided in addition.
- **Further strengthen the role and capacity of sectoral assignees in curriculum development, quality assurance and the provision of information.** The government should consider setting up local trade committees (e.g. in Denmark) to provide information to local firms, help schools with curriculum development and support self-governing regions with quality assurance. Alternatively, the government could implement these measures through self-governing regions, but closely involve sectoral assignees in the decision-making process (e.g. in Norway).

### *Strengthening incentives to align tertiary education with labour market needs*

Tertiary education institutions across Slovakia have similar financing and governance arrangements. In Slovakia, funding to higher education institutions is distributed through a formula, which is structured around four funding streams (Table 3.6). Each funding stream has a number of components that jointly determine the total allocation within the stream. In line with other OECD countries (e.g. Finland), the funding formula provides a significant share of the total allocation for the delivery of study programmes (57%), and a lower share for the performance of research activity (33%).

The most important component for the responsiveness of tertiary institutions to labour market needs is the adjusted per-student funding, which accounts for 65% of the total allocation for the delivery of study programmes (and 37% of total funding). The adjusted per-student funding heavily influences the number of places offered across different subjects and programmes (by making funding conditional on the teaching staff ratios and the year of study), and the overall alignment of education with labour market demand (by making funding conditional on employability outcomes).

The funding formula applies to all HEIs. There is no differentiation, as in countries such as Finland and the Netherlands, between academic institutions and more practically oriented institutions, such as universities of applied sciences (De Boer et al., 2015<sup>[47]</sup>).

**Table 3.6. Funding formula in tertiary education**

Funding stream	Key components	Share of total funding
Delivery of accredited study programmes	Per student funding (adjusted for teaching staff ratios across subjects, year of study and unemployment rate of recent graduates). Share of total publication outputs. Specific allocations for capital and operational costs.	57%
Research or artistic activity	Results of accreditation. Share of total publications outputs. Quality of research outcomes.	33%
Social support to students	Fixed per-student amount available for scholarships.	9%
Subsidy for HEI development	Project-based.	1%

Source: Ministry of Education, Science, Research and Sport (2019<sup>[48]</sup>), *Metodika rozpisu dotácií zo štátneho rozpočtu verejným vysokým školám na rok 2019* [Methodology of Breakdown of State Budget Subsidies to Public Universities for 2019], [www.minedu.sk/data/att/14159.pdf](http://www.minedu.sk/data/att/14159.pdf).

Governance structures in HEIs are similarly homogenous. Across all public institutions, governance is shared among a number of bodies. Every institution needs to have a rector, a governing board, an academic senate, a scientific council and a disciplinary committee (Table 3.7). The academic senate is the main decision-making body, the governing board plays a supervisory role, and the scientific council has a predominantly advisory role (with the exception of internal regulations and appointment of staff). This structure is largely replicated at the faculty level.

In the current governance structure, employers can play a role in the governing board and the scientific council. However, employers are not currently in the position of contributing to the development of the educational offering. Employer representatives can share relevant information for internal quality assurance purposes (e.g. feedback on course curricula and the employability of graduates) with the scientific council. However, until recently the law did not specify how often scientific councils should meet, whether employer representatives should be members and what their role should be. This has likely affected the effectiveness of the councils. Stakeholders in workshops and focus groups reported that university councils do not frequently meet and do not exert significant influence on the choices made by universities.

**Table 3.7. Decision-making bodies in universities**

Body/position	Level of governance	Description
Rector	University	Overall responsibility for managing the university; represents the institution externally.
Governing board	University	Approves the budget for the university, gives consent for legal acts committed by the university and expresses opinions on the long-term direction of the university through annual reports.
Academic senate	University	Approves internal regulations, mergers or the creation of faculties; elects the rector and approves the long-term goals for the university, after prior discussion in the scientific council.
Scientific council	University	Provides advice on the direction of universities to the academic senate and validates internal regulations approved by the academic senate, including in relation to course curricula.
Dean	Faculty	Manages and represents the faculty.
Academic senate of the faculty	Faculty	Elects the dean, approves the draft budget for the faculty and approves the long-term goals for the faculty.
Scientific board of the faculty	Faculty	Approves internal faculty regulations, and discusses and submits proposals regarding the appointment of professors to the scientific council.

Slovakia has already undertaken some initiatives to improve university governance. In 2017-18 it carried out peer counselling on ways to simplify the governance structures of HEIs in conjunction with the European Commission (European Commission, 2018<sup>[49]</sup>).

As identified in the description of current arrangements, Slovakia has also introduced some changes to the internal quality assurance regime to increase employer involvement.

The 2018 Act on Quality Assurance (QA) in Higher Education explicitly requires every HEI to develop rules for the regular monitoring and evaluation of study programmes in co-operation with employers in the relevant economic sector and other stakeholders. Monitoring and evaluation must take into account five criteria, including how well up-to-date industry knowledge is applied in curriculum content and the employability of graduates (National Council of the Slovak Republic, 2018<sup>[50]</sup>).

HEI internal QA systems are monitored by the newly created Slovak Accreditation Agency for Higher Education (the Agency). The agency is an independent public institution that carries out external quality assurance checks on HEIs (Slovak Accreditation Agency for Higher Education, 2019<sup>[51]</sup>). It is responsible for creating overall standards that QA systems will need to meet, as well as designing the methodology that will be used to evaluate these standards.

The agency is currently in the process of designing and seeking public comment on the new standards. HEIs will be required to ask the Agency to assess their internal QA systems at least once every ten years, but the Agency will continuously monitor compliance at least every two years using data from HEI scientific boards at both the university and faculty level. It can also conduct extraordinary assessment procedures as required (National Council of the Slovak Republic, 2018<sup>[50]</sup>).

These reforms make progress towards aligning the educational offering with labour market needs. It is important to ensure that they are successfully implemented in conjunction with an overall simplification of the governance structure. To succeed in this respect, Slovakia could potentially use the experiences of Austria and Scotland (Box 3.6).

Slovakia could further strengthen incentives to align the educational offering with labour market needs in two dimensions.

First, the current funding formula does not fully incentivise institutions to offer programmes aligned with labour market demand. Per-student funding is based on the unemployment rate of recent graduates (through the so-called *KAP* coefficient). The adjustment is in line with other OECD countries (e.g. Estonia or Finland) as it contributes up to 2% of total funding (CVTI, 2015<sup>[52]</sup>), but the use of the unemployment rate as a criterion in the formula does not incentivise institutions to ensure that graduates find a good match in the labour market. Institutions do not receive a “penalty” if they continue to offer courses and/or curricula that may lead to over qualification.

Going forward, Slovakia should consider refining the funding formula to account for wider dimensions of employability (e.g. earnings or mismatch rates), or move towards contract-based funding, as in the Netherlands (Box 3.6). Evidence gathered during the OECD project suggested that some of the changes require better data and more resources, and may prove controversial. However, most stakeholders agreed that it would be important to strengthen financial incentives to improve alignment between the educational offering and labour market demand. The consolidated results from SAA tools (see Opportunity 1) will have an important role in improving data availability for the employability of graduates.

Second, despite reforms in quality assurance, current governance and funding arrangements do not strongly incentivise the development of professional bachelor programmes.

As anticipated in the performance section, Slovakia currently has a marginal offering of professional bachelor programmes with a significant work-based learning component. These programmes could be very important to close some of the observed shortages for high-skilled occupations in Slovakia, such as engineers and ICT technicians, and could contribute to reducing over-qualification rates for current workers through reskilling. A promising example of these programmes from Slovakia is represented by the professional bachelor programme jointly developed by Volkswagen and the Slovak University of Technology (Box 3.6).

In general, professional bachelor programmes combine theoretical study with practical application, include work placements and actively involve employers in curriculum design. Across Europe they are generally offered at levels 5-6 in the European Qualification Framework (EQF). Examples include the dual study programmes in Germany (offered at EQF level 6) and the Italian short-term professional bachelor programmes (offered at EQF level 5) (Auzinger, Ulicna and Messerer, 2016<sup>[53]</sup>).

Across OECD countries, professional bachelor programmes are frequently offered by separate professionally oriented institutions that have different governance and funding arrangements, such as universities of applied sciences. In these institutions, governance arrangements assign a larger role to employers in curriculum design than in the internal quality assurance process (e.g. the Italian *Istituti Tecnici Superiori* (ITS) in Box 3.6). Funding arrangements can complement the governance structure by putting a larger emphasis on the employability of graduates than on research activities. For instance, professionally oriented institutions (polytechnics) in Finland receive approximately 3% of funding based on the employability of recent graduates, whereas research oriented institutions (universities) only receive approximately 1% (De Boer et al., 2015<sup>[47]</sup>). Some stakeholders in workshops and focus groups agreed that establishing professional higher education institutions (e.g. universities of applied sciences) could be important to strengthen the offering of professional bachelor programmes. Slovakia could use the experiences of Italy and the Netherlands to make progress in this respect (Box 3.6). Besides professional bachelor programmes, some stakeholders also reported that Slovakia could strengthen the offering of a wider range of higher VET courses (e.g. professional qualifications offered at EQF level 4) in post-secondary non-tertiary education institutions. They suggested that the offering of these courses could be strengthened both within initial and continuing VET systems.

### Box 3.6. Relevant national and international examples: Aligning tertiary education with labour market needs

#### Funding arrangements in higher education: Performance-based contracts in the Netherlands

In the **Netherlands**, the higher education system has a binary structure comprised of 14 research universities and 37 universities of applied sciences (UAS). The two subsectors have different mandates and are different in size. The main task of UAS is to offer theoretical and practical training with an explicit professional orientation. The UAS sector hosts institutions varying in size and orientation, from small mono-disciplinary to large multi-disciplinary institutions. In 2012, the Dutch government introduced separate performance-based funding arrangements for research universities and UAS. The objective was to combine three goals: raise quality standards, improve access to higher education, and reduce the number of drop-outs. In preparation for the introduction of performance-based funding, universities were required to develop a performance agreement: a strategic plan to outline their ambitions over a five-year period to improve their educational achievement, analyse their current strengths and weaknesses, and formulate targets in areas such as the number of student drop-outs. The plans were assessed by an independent review committee to check that they were ambitious, feasible and aligned with national policy. The agreements were tied to 7% of future educational funding. Performance-based funding helped align national policy with institutional agendas and generated ambitious strategy plans to improve higher education in the Netherlands.

Source: European Commission (2017<sup>[54]</sup>), *Peer Review Poland's Higher Education and Science System*, [https://rio.jrc.europa.eu/sites/default/files/report/PSF-Peer\\_review\\_Poland\\_FINAL%20REPORT.pdf](https://rio.jrc.europa.eu/sites/default/files/report/PSF-Peer_review_Poland_FINAL%20REPORT.pdf).

#### Enabling employers to provide input on the educational offering: Examples from Austria and Scotland

Trade unions and employers play an important role in **Austria** within university councils. The primary purpose of university councils is consultative: they offer advice and provide recommendations on the curriculum and the direction and goals of the university, as well as draft the annual resource plan and the goal and performance plan. By law, social partners must sit on these councils. Employees can give input through representatives of the chambers of labour and trade unions who sit on the council, and employers through representatives of the Austrian Economic Chamber and the Association of Austrian Industries.

In **Scotland**, the Quality Assurance Agency (QAA) developed a guide to help universities engage with employers more effectively. The guide reviewed case studies and set out success factors to improve co-operation between employers and HEIs. Success factors include setting clear timelines and objectives, having adequate resources, agreeing on a shared set of goals, and setting evaluation mechanisms.

Source: Bottomley, A. and H. Williams (2006<sup>[55]</sup>), *A guide to international best practice in engaging employers in the curriculum*, [www.enhancementthemes.ac.uk/docs/ethemes/employability/employability---best-practice-in-engaging-employers-in-the-curriculum.pdf?sfvrsn=f340f681\\_14](http://www.enhancementthemes.ac.uk/docs/ethemes/employability/employability---best-practice-in-engaging-employers-in-the-curriculum.pdf?sfvrsn=f340f681_14).

#### Professionally oriented programmes: Examples from Slovakia and Italy

In **Slovakia**, the company Volkswagen and seven suppliers have developed an innovative four-year professional bachelor programme combining practical training with university level education at the Slovak University of Technology. Students spend three years studying at university and one year working for Volkswagen. The programme received formal accreditation from the MŠVVŠ, although the process took around a year due to its novelty. Volkswagen also reportedly struggled to find a partner university. The programme has yet to deliver graduates and is so far limited in scope: the average intake has been ten students per year.

Other OECD countries have made significant progress in offering professionally oriented courses. For instance, **Italy** has introduced EQF level 5 professional bachelor courses in 2010 within newly formed education institutions, the *Istituti Tecnici Superiori* (ITS). There are currently 75 ITS and approximately 350 activated programmes for almost 8 000 admitted students. Graduates have experienced strong employment outcomes: according to the latest monitoring report by the Italian Ministry for Education, 80% of graduates are in employment after one year (compared to 71% for individuals with a bachelor's and 74% for master's graduates). The ITS is overseen by a foundation that brings together employers, research centres and subnational authorities. Companies are deeply involved in the governance of the ITS as members of both the participation council, which takes decisions of an administrative nature, and the directive council, which defines course content.

Source: Auzinger, M., D. Ulicna and K. Messerer (2016<sup>[53]</sup>), *Study on higher Vocational Education and Training in the EU*, <https://ec.europa.eu/social/BlobServlet?docId=15572&langId=en>.

### **Recommendations for strengthening incentives to align tertiary education with labour market needs**

- **Introduce more targeted incentives to monitor the employability of graduates in the funding structure.** Once graduate tracking and the consolidated results from SAA tools become available (see Opportunity 1), the MŠVVŠ should strengthen the employability incentives in the funding regime by refining the formula (e.g. by including earnings or mismatch indicators) or moving towards a contract-based model (e.g. in the Netherlands).
- **Consider introducing separate governance and funding arrangements for professionally oriented institutions to encourage the uptake of professional bachelor programmes.** The MŠVVŠ could gradually introduce a separate funding model and governance structure to transform some existing universities into professionally oriented institutions (e.g. in Italy and the Netherlands). These professionally oriented institutions could specialise in the delivery of professional bachelor programmes and more applied research (e.g. in the Netherlands). The funding model could provide professionally oriented institutions with stronger incentives to focus on the employability of graduates (e.g. through a greater share of funding being allocated on the basis of earnings or mismatch indicators), whereas the governance structure should allow for a significant level of employment engagement (e.g. in Italy). To gradually introduce this diversification in funding and governance arrangements, the MŠVVŠ could use the research performance of institutions, quality assurance assessments conducted by the newly introduced accreditation agency, and the consolidated results from SAA tools (see Opportunity 1). The gradual diversification of funding and governance arrangements should be accompanied by effective engagement with prospective students and their families, as well as employers. Students and their families need to become familiar with the purpose and offering of professionally oriented institutions, and employers need to be motivated to contribute to the design of programmes, as well as to provide relevant work-based learning opportunities.

### **Opportunity 4: Moving from “brain drain” to “brain gain”**

As seen in the performance section, emigration and brain drain have been a major concern for Slovakia since joining the EU in 2004. Free movement within the EU means that there are no direct policy solutions that Slovakia can undertake to stop emigration and brain drain. Improving the responsiveness of the education system (see Opportunity 2 and Opportunity 3) and the intensity of skills use (see Chapter 4) could help reduce emigration and brain drain in the future by improving the availability of job opportunities in Slovakia.

However, as seen in the performance section, the emigration of Slovaks has slowed down in the last few years. The improved economic conditions have led to an increased inflow of skilled workers (both Slovak and foreign). Going forward, Slovakia could increase its efforts to attract and retain workers from abroad. This could help address skills shortages, especially in the shorter term. While improving information on labour market and skills needs and improving the responsiveness of the education system will take time to exert a significant impact on skills shortages, attracting skilled workers (both foreign and Slovak) from abroad can have a more immediate impact.

Slovakia has struggled to develop a coherent policy response to attract Slovak and foreign workers from abroad. It does not have a single body responsible for overseeing engagement with the diaspora and has not developed a comprehensive diaspora engagement policy. Slovakia has recently simplified procedures to hire non-EU/EEA workers, but it could further improve policies for the relocation and integration of foreign workers.

### *Attracting Slovak workers from abroad*

Emigration and brain drain in recent years mean that a significant share of the Slovak population live abroad: approximately 8% of Slovaks currently live in another country, which is one of the highest shares across OECD countries (OECD, 2019<sup>[15]</sup>). Encouraging Slovaks abroad to return to Slovakia could have an immediate impact on closing observed skills shortages as they have a knowledge of the local language and culture.

However, relocation to another country is generally influenced by pecuniary and non-pecuniary drivers (Tuccio, 2019<sup>[56]</sup>). Pecuniary drivers include the quality of opportunities, the tax regime and the future prospects. Non-pecuniary drivers include the family environment, the quality of life and the inclusiveness of the destination country (Tuccio, 2019<sup>[56]</sup>).

There is limited evidence on what factors push Slovaks to return home. A recent online survey among 200 returnees suggests that private and social motives were more important in driving relocation than economic reasons (Kureková and Žilinčíková, 2019<sup>[22]</sup>). A survey of approximately 800 Slovaks abroad from the NGO LEAF suggests that the likelihood of returning is positively influenced by having strong social ties with other members of the diaspora (LEAF, 2018<sup>[57]</sup>). This is consistent with evidence available on other countries. Return migrants typically attribute more importance to non-pecuniary factors. Individuals frequently return to their home countries, as a result of private and social motives rather than economic reasons alone (Barcevičius et al., 2012<sup>[58]</sup>).

Countries can encourage return migration through two broad sets of policies: pecuniary incentives and diaspora engagement policies. Countries can offer tax cuts or lump sum payments to make the prospect of returning more attractive. They can also engage with expatriate communities and individuals to reinforce their ties with the home country and provide practical information and support for relocation (Dickerson and Ozden, 2018<sup>[59]</sup>). Diaspora engagement activities can encourage networking and knowledge exchange between expatriate communities and people in the home country. These can be important to increase access to capital and more innovative technologies and work practices (Dickerson and Ozden, 2018<sup>[59]</sup>).

Slovakia has made efforts in both policy areas, but the initiatives to date have not been systematic. It has implemented a pecuniary incentives scheme (*Podporná schéma na návrat odborníkov zo zahraničia*) whereby young (under 40) university educated experts and highly qualified experts (working abroad for more than ten years) can apply to vacancies supplied on a portal by public institutions (e.g. government bodies, public and state universities, the National Bank). If hired they receive a one-off pecuniary reward (EUR 10 000 for young experts and EUR 50 000 for highly qualified experts). However, the scheme's most recent official implementation report from 2016 states that only eight positions had been filled (Ministry of Education, Science, Research and Sport, 2016<sup>[60]</sup>), and feedback from stakeholders during the project suggested that the scheme is currently on hold.

The activities on the diaspora engagement front have been fragmented to date. The government has not organised a systematic diaspora engagement strategy, but, as foreshadowed in the description of current arrangements, several government bodies and social partners have been engaging with the Slovak diaspora.

The Government Office for Slovaks Abroad (ÚSZZ) has been responsible for ensuring that Slovak expatriate communities uphold their national identity, language and culture; however, existing legislation does not allow the institution to focus on services for return migrants (Office for Slovaks Living Abroad, 2019<sup>[61]</sup>). The Slovak Investment and Trade Development Agency (Slovenská agentúra pre rozvoj investícií a obchodu, SARIO) has launched a pilot project to provide Slovaks in the United Kingdom with information about specific job positions in the area of business services centres in Bratislava and Košice (SARIO, 2019<sup>[62]</sup>). The IT Association of Slovakia has organised events in London for Slovak ICT professionals to advertise future opportunities in the Slovak ICT sector (Sita, 2018<sup>[63]</sup>). The NGO LEAF has organised an internship programme linking highly talented Slovak students abroad and 70 Slovak organisations. Under the scheme, 200 students have completed an internship and 60 have relocated permanently to Slovakia (Box 3.7).

More recently, the Complex Strategy for the Return of Slovaks Working Abroad Back to Slovakia was prepared via collaboration between six Slovak ministries. It was due to be discussed in July 2018; however, the discussion was delayed as there had not been sufficient collaboration among the different ministries (Sita, 2018<sup>[63]</sup>).

Going forward, Slovakia should aim to do more to attract Slovak workers from abroad. Participants in workshops and focus groups expressed some scepticism towards tax incentives measures. They were concerned that tax incentives might contribute to increase inequalities and make the integration of returning Slovaks more difficult, by creating a divide between them and the rest of the population.

The evidence on the impact of tax incentive mechanisms for return migrants is limited. A recent paper focusing on Malaysia's Returning Expert Programme found that tax incentives only increased the likelihood of return for individuals who held a pre-existing job offer, while it did not exert any effect on individuals who applied without a job offer. From a cost-benefit analysis perspective, the programme roughly paid for itself, but did not generate net fiscal gains (Carpio et al., 2016<sup>[64]</sup>).

Given the feedback from stakeholders, and the international evidence, fiscal incentives are unlikely to provide a solution, at least in the immediate term, to attracting Slovak workers abroad back to Slovakia. Instead, the government should design a comprehensive strategy that clearly specifies the allocation of responsibilities and objectives and combines social and cultural engagement activities with talent attraction. Evidence from LEAF suggests potential complementarities between these two areas (LEAF, 2018<sup>[57]</sup>). Feedback from workshop and focus groups highlighted that the following elements could be helpful within the strategy:

- Gathering better data about the composition and orientations of the Slovak diaspora (e.g. what would be most important factors for relocating to Slovakia).
- A clear political commitment from the government that Slovaks abroad are welcome back (e.g. through explicit support of a diaspora engagement programme).
- A one-stop-shop tool providing information to return migrants, such as job opportunities and dedicated assistance on how to access welfare services upon return.

Slovakia could take inspiration from the recent Global Lithuania engagement programme. Conversely, Estonia's Bringing Talent Home project highlights the difficulty of developing a targeted relocation programme. Based on the Estonian experience, restricting the programme to "talented" Slovaks alone could generate negative public opinion (Box 3.7).

### Box 3.7. Relevant national and international examples: Attracting Slovak workers from abroad

#### Reversing brain drain: An example from Slovakia

The Slovak Professionals Abroad Program aims to encourage Slovaks abroad to return home to Slovakia. The programme is part of LEAF, a non-profit NGO that runs a number of educational initiatives for high school students, teachers and young professionals within Slovakia. The Slovak Professionals Abroad Program provides internships and job opportunities for Slovak students currently studying in other countries. Whilst on these internships, students are also able to participate in activities such as workshops, lectures and social events organised by the programme to help build networks and connections within Slovakia. The programme also provides tailored support and job opportunities for Slovaks abroad who already have a few years of work experience. Since 2012 the programme has worked with 114 companies based in Slovakia to provide placements for both internships and full-time jobs. Out of the 165 students who have taken internships so far and finished their degree, 44% had returned to Slovakia by July 2019.

Source: Slovak Professionals Abroad Programme (2019<sup>[65]</sup>), Slovak Professionals Abroad Programme website, <https://spap.leaf.sk/>.

#### Reversing brain drain: Diaspora engagement activities in Lithuania

**Lithuania** was an early adopter of diaspora engagement strategies and has worked actively to promote return migration. The Global Lithuania diaspora programme, the website I Choose Lithuania and the NGO Global Lithuanian Leaders all work in tandem to engage the diaspora. The Ministry of Foreign Affairs' Department of Lithuanians Living Abroad manages the Global Lithuania diaspora programme, which runs various programmes encouraging youth and professionals to return and work in Lithuania. Global Lithuanian Leaders brings together an extensive community of 1 700 Lithuanian professionals based in 49 countries to network and share their acquired knowledge and expertise with companies and individuals back in Lithuania. The website I Choose Lithuania provides information to returning diaspora members and anyone else interested in living in Lithuania, to make their arrival and integration into society as easy as possible. Together, these initiatives ensure that Lithuanians abroad are able to easily connect with each other and have incentives to return.

Source: International Organization for Migration and the Government of the Republic of Lithuania (2019<sup>[66]</sup>), I Choose Lithuania website, [www.renkuosilietuva.lt/en/](http://www.renkuosilietuva.lt/en/); Global Lithuanian Leaders (2019<sup>[67]</sup>), Global Lithuanian Leaders website, <http://lithuanianleaders.org/>.

#### Estonia's Bringing Talent Home project: A policy with unforeseen consequences

The Bringing Talent Home project was implemented in 2010 to 2012 with the aim of connecting talented Estonian's living abroad and local businesses needing qualified labour (with foreign experience or multicultural knowledge and skills). The project focused on setting up a website to advertise Estonian jobs (including distance work opportunities) for Estonians abroad and providing useful information for returning talented nationals. The programme was implemented in Estonia for two years and created an unforeseen reaction in the public. It started a significant public polemic regarding the term "talent" that diverted attention from the project's goals to a discussion on who is and is not included in the talent group, and what kind of people does Estonia should have back.

Source: Birka, I. (2019<sup>[68]</sup>), *Can return migration revitalise the Baltics?* [www.migrationpolicy.org/article/can-return-migration-revitalize-baltics-estonia-latvia-and-lithuania-engage-their-diasporas](http://www.migrationpolicy.org/article/can-return-migration-revitalize-baltics-estonia-latvia-and-lithuania-engage-their-diasporas).

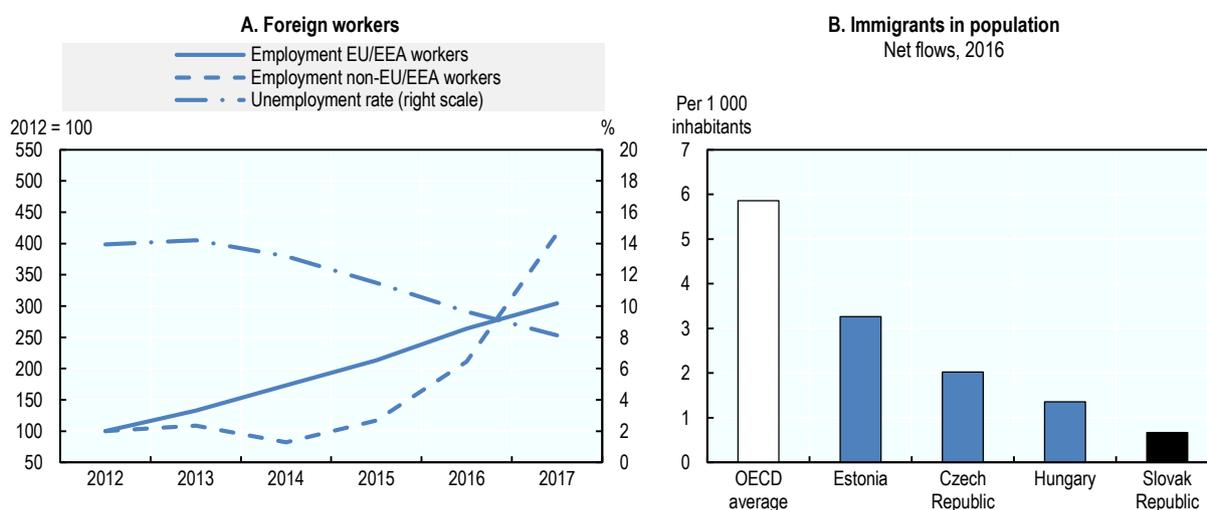
## Recommendations for attracting Slovak workers from abroad

- Identify or introduce a government body responsible for the implementation of a diaspora engagement programme.** The government should identify or introduce one body that is responsible for the diaspora engagement programme (e.g. the Ministry of Foreign and European Affairs or the Government Office for Slovaks Abroad). The body should be in charge of all activities related to diaspora engagement, from cultural engagement to return migration policy. It should closely co-operate with, and include representatives from, social partners such as business associations and NGOs.
- Develop a comprehensive strategy for engagement with the diaspora that builds on data on the skills and motivations of Slovaks abroad.** The body responsible for the diaspora engagement programme should gather more comprehensive data on Slovaks abroad (e.g. expanding on the LEAF survey), both in terms of skills profile and motivation factors (e.g. pecuniary vs. non-pecuniary drivers). Building on these data the body should clearly specify the objectives of the engagement policy, which could include return migration for some groups, as well as knowledge sharing and networking. Practical solutions could include a one-stop-shop portal for return migrants (e.g. in Lithuania), dedicated assistance in accessing welfare services in Slovakia (as suggested by stakeholders) and internships for university students enrolled abroad (e.g. in the LEAF programme). Tax incentives could be part of the strategy, but only if there is evidence that pecuniary factors are a significant barrier, and after extensive consultation with social partners.

### *Attracting foreign workers from abroad*

As seen in the performance section, Slovakia has recently experienced an increased inflow of foreign workers from abroad, particularly among workers from non-EU/EEA countries (Figure 3.5). However, the foreign population in Slovakia represents 1.2% of the total population (against 9.1% on average across OECD countries), and the average net annual inflow of foreigners remains proportionally very low compared to other OECD countries (Figure 3.5). Increasing the attractiveness of Slovakia to foreign workers could further contribute to closing skills shortages.

**Figure 3.5. Characteristics of incoming skilled workers in the Slovak Republic**



Source: OECD (2019<sub>[15]</sub>), *OECD Economic Surveys: Slovak Republic 2019*, [https://doi.org/10.1787/eco\\_surveys-svk-2019-en](https://doi.org/10.1787/eco_surveys-svk-2019-en).

StatLink  <https://doi.org/10.1787/888933902776>

As with return migrants, the relocation of foreign workers is broadly driven by a combination of pecuniary and non-pecuniary drivers. In the case of foreign workers, the inclusiveness of the destination country can play an important role as a non-pecuniary driver, both from a legal and cultural perspective (Tuccio, 2019<sup>[56]</sup>).

The inclusiveness of the destination country depends to a significant extent on cultural attitudes, but is also influenced by a range of policy decisions. Favourable permit conditions, including a short duration of the hiring procedures, the right to bring family members and the rapid acquisition of permanent residence, can encourage the relocation of foreign workers (OECD, 2019<sup>[8]</sup>).

Countries can also provide a range of services to facilitate the relocation and integration of foreign workers and their families. In terms of relocation, recent years have seen a proliferation of websites advertising employment possibilities and providing useful information to skilled foreign candidates (OECD, 2019<sup>[8]</sup>). To facilitate integration, countries can offer language courses, support for the recognition of qualifications, civic integration courses and counselling services (OECD, 2017<sup>[69]</sup>). Central governments can also support subnational authorities to develop effective local integration policies (OECD, 2018<sup>[70]</sup>). These can be particularly important for lower-skilled migrants as they are typically more likely to face discrimination (Tuccio, 2019<sup>[56]</sup>).

As for return migrants, countries can also rely on pecuniary incentives schemes. These have been adopted mostly for high-skilled migrants, who earn over a certain threshold. For example, Denmark has adopted a reduced tax rate on labour income for the first three to five years of residency (Ifo Institute, 2012<sup>[71]</sup>).

Slovakia has not made choices in these policy domains that are consistent with increasing the attractiveness of relocating for foreign workers. The 2019 OECD Economic Survey identifies that Slovakia has long procedures (between six and nine months) for hiring non-EU/EEA workers (OECD, 2019<sup>[15]</sup>). Under these procedures, non-EU/EEA workers need to provide certification of qualifications and diplomas that must be translated into Slovak, a residence permit, and a work permit issued by the employment services that must ensure that there are no Slovak workers available for the vacant post (OECD, 2019<sup>[15]</sup>).

Slovakia introduced a simplified procedure for occupations in shortage in May 2018 in districts where unemployment is below 5% and for firms with less than 30% foreign workers. The list of shortage occupations is determined using vacancy data from the MPSVR. As identified in the 2019 OECD Economic Survey, the simplified procedure is a step forward, but should be extended to all types of firm and use a more comprehensive set of SAA tools (see Opportunity 1). Slovakia could use the experiences of countries such as New Zealand to further streamline and simplify these rules (Box 3.8).

Slovakia does not offer a one-stop-shop portal covering practical information for foreign workers, unlike other countries (e.g. Estonia, Lithuania or Sweden). The MPSVR has a webpage on the website with some information on work permits, housing and education ([www.employment.gov.sk/en/information-foreigners/](http://www.employment.gov.sk/en/information-foreigners/)), but this falls short compared with what other countries are doing.

Dedicated portals can offer valuable support in the relocation process by providing information on skills needs and job offers, and on the recognition of foreign qualifications and online language training (OECD, 2019<sup>[8]</sup>). To make further progress in this respect, Slovakia could use the experiences of Sweden, Estonia or Lithuania (Box 3.8). In the Slovak case, it will be important to decide whether this portal will be distinct from the portal for return Slovaks that might be introduced as a part of the diaspora engagement strategy. Having one portal might be more cost effective, but it might make the tailoring of information more difficult.

Several participants in workshops and focus groups felt that foreign workers did not receive significant help from the government to facilitate their integration. This is confirmed by international evidence. Slovakia does not offer subsidised language training upon arrival, nor civic integration courses and counselling services for foreign workers (OECD, 2017<sup>[69]</sup>).

Slovakia also does not offer pecuniary incentives to foreign workers. However, as in the case of return migrants, there is limited evidence on the effect of such incentives on the probability of relocation. Denmark introduced preferential tax rates (for the first three years of residence) for high earning (i.e. in the top 1% of the income distribution) foreign or Danish individuals who decided to relocate to the country. Econometric evidence suggests that adopting these preferential rates has led to a significant increase in the probability of relocation for foreign workers (Kleven et al., 2014<sup>[72]</sup>). However, given the feedback from stakeholders on tax incentives (see previous section), Slovakia should be cautious in adopting such schemes.

The MPSVR has recently launched a strategy to improve the relocation and integration of foreign workers, the Foreigner Labour Mobility Strategy in the Slovak Republic. The strategy sets goals that would be helpful to make further progress, including improving the MPSVR information portal, increasing outreach activities for foreign workers, and updating the integration strategy for the Slovak Republic (Ministry of Labour, Social Affairs and Family, 2018<sup>[73]</sup>). However, the strategy does not clearly specify how to articulate these goals in a concrete set of policy initiatives. The recommendations below could provide some support to fully develop the strategy going forward.

### Box 3.8. Relevant international examples: Attracting skilled workers from abroad

#### New Zealand's system to regulate the inflow of skilled foreign workers

New Zealand pioneered the first expression of interest (EoI) system in 2003 in the context of a wider review of its supply-driven permanent migration system. The introduction of the two-step EoI process moved New Zealand from a policy of passive acceptance of residence applications to a more active selection of skilled migrants. An EoI system is a two-step application process: 1) selection for the pool; and 2) selection to apply. Potential migrants express an interest in migrating to New Zealand and are admitted into a pool if they meet certain criteria, which aim to maximise the economic contribution of migrants. Once in the pool they may be selected and receive an invitation to apply. Candidates who do not receive an invitation to apply to a specific migration scheme are dropped from the pool after a fixed period. Before the EoI system, applications were assessed on a “first come, first served” basis. This led to long queues, which frustrated employers, and left short-term demand unmet. Caps were quickly reached early in the filing period, while higher-scoring applications submitted later entered the queue.

Source: OECD (2019<sup>[8]</sup>), *OECD Skills Strategy 2019: Skills to Shape a Better Future*, <https://dx.doi.org/10.1787/9789264313835-en>.

#### Information portals: Examples from Sweden, Estonia and Lithuania

In **Sweden**, a portal provides up-to-date information to foreign workers on skills needs and job offers by region, online language training, regulated occupations and recognition of foreign qualifications, as well as the possibility to apply for work permits online. All of this is available in numerous languages. **Estonia** has developed an official portal dedicated to attracting foreigners to the country. Like Sweden's portal it provides job offers and has information on visas, housing, healthcare, taxes and other topics of concern to foreigners considering moving to Estonia. **Lithuania** has made the Work in Lithuania portal available to foreigners in English. Aiming to encourage professionals living abroad to build their careers in Lithuania, the website provides job offers, success stories of people who have already moved to the country and information about living in Lithuania.

Source: Swedish Institute (2019<sup>[74]</sup>) Working in Sweden webpage, [www.sweden.se/work](http://www.sweden.se/work); Enterprise Estonia (2019<sup>[75]</sup>), Work Estonia website, [www.workinestonia.com/](http://www.workinestonia.com/); Invest Lithuania (2019<sup>[76]</sup>), Work in Lithuania website, <https://workinlithuania.lt>.

### Services in support of integration: Examples from Austria, Belgium (Flanders), Portugal and Germany (Frankfurt)

**Austria** offers various support services for new arrivals regarding the recognition of foreign qualifications, including contact points, an online portal and individual grants for recognition.

In **Belgium (Flanders)**, the third step in the immigrant integration programme is to direct participants to the Flemish employment service (VDAB), which offers job-oriented language courses, including Dutch in the Workplace. In **Portugal**, vocation-specific language courses are part of the Portuguese for All training scheme available at no cost to the immigrant population. Vocation-specific language courses are available for retail, hospitality, beauty care, civil construction and civil engineering. Vocation-specific language courses are also part of the Intervention Programme for Unemployed Immigrant Workers.

In **Germany (Frankfurt)**, an outreach programme targeted at women with higher qualifications – Start, Change, Get Ahead – assigns highly skilled migrant women a personal mentor. For one year, the mentor shares knowledge, experience and networks with the migrant. Parallel to mentoring, the programme provides professional counselling, upskilling, intercultural training and skills recognition support. Within one year, about half of the participants managed to obtain a job aligned with their qualifications.

Source: OECD (2019<sup>[8]</sup>), *OECD Skills Strategy 2019: Skills to Shape a Better Future*, <https://dx.doi.org/10.1787/9789264313835-en>.

### Recommendations for attracting workers from abroad

- **Streamline and improve the recently introduced hiring procedures for non-EU/EEA workers.** The Slovak government should consider extending the simplified procedure to all firms, but should ensure that the list of shortages information reflects all available information from SAA tools (see Opportunity 1). Going forward, the government could consider introducing an expression of interest model as in other countries (e.g. New Zealand).
- **Introduce a one-stop-shop portal for foreign workers that advertises employment opportunities in Slovakia and supports the relocation process.** The MPSVR should introduce an improved portal with job vacancies, information on regulated occupations and recognition of foreign qualifications, as well as an online application process for work permits (e.g. in Sweden). The MPSVR will need to consider whether to merge the portal with the one for return Slovaks (e.g. in Estonia) or whether to have a separate portal (e.g. in Lithuania).
- **Strengthen the provision of services that can support the integration of foreign workers.** The government should consider offering a full range of integration services, including recognition of qualifications (e.g. in Austria), counselling (e.g. in Germany), civic integration (e.g. in Belgium) and language training (e.g. in Portugal). The MPSVR will need to ensure that subnational authorities have sufficient awareness and capacity to deliver strong integration strategies at the local level.

## Overview of recommendations

<b>Opportunity 1: Improving the dissemination of information on labour market and skills needs</b>	
Strengthening the dissemination of information from SAA tools to all users	<ul style="list-style-type: none"> <li>Develop a comprehensive strategy to consolidate results from multiple SAA exercises, and tailor dissemination to different users.</li> </ul>
<b>Opportunity 2: Strengthening the responsiveness of students and their families to labour market needs</b>	
Improving the direct dissemination of information to students and their families	<ul style="list-style-type: none"> <li>Introduce a one-stop-shop portal that allows students and their families to access information on labour market and skills needs and study opportunities.</li> <li>Consider launching a publicity campaign targeted at students and their families that advertises the importance of using labour market information.</li> </ul>
Expanding career guidance in schools and universities	<ul style="list-style-type: none"> <li>Complement reforms to career guidance in schools by implementing clear standards for the compensation of school counsellors, as well as the range of services offered.</li> <li>Provide targeted funding and tighten regulatory requirements for career guidance centres in universities.</li> </ul>
<b>Opportunity 3: Strengthening the responsiveness of secondary VET and tertiary education institutions to labour market needs</b>	
Supporting recent reforms in secondary VET institutions	<ul style="list-style-type: none"> <li>Support recent reforms on the allocation of funding and study places in secondary institutions by making full use of the results from SAA tools.</li> <li>Support the recently introduced dual system by financing employer-led training associations.</li> <li>Further strengthen the role and capacity of sectoral assignees in curriculum development, quality assurance and the provision of information.</li> </ul>
Strengthening incentives to align tertiary education with labour market needs	<ul style="list-style-type: none"> <li>Introduce more targeted incentives to monitor the employability of graduates in the funding structure.</li> <li>Consider introducing separate governance and funding arrangements for professionally oriented institutions to encourage the uptake of professional bachelor programmes.</li> </ul>
<b>Opportunity 4: Moving from “brain drain” to “brain gain”</b>	
Attracting Slovak workers from abroad	<ul style="list-style-type: none"> <li>Identify or introduce a government body responsible for the implementation of a diaspora engagement programme.</li> <li>Develop a comprehensive strategy for engagement with the diaspora that builds on data on the skills and motivation of Slovaks abroad.</li> </ul>
Attracting foreign workers from abroad	<ul style="list-style-type: none"> <li>Streamline and improve the recently introduced hiring procedures for non-EU/EEA workers.</li> <li>Introduce a one-stop-shop portal for foreign workers that advertises employment opportunities in Slovakia and supports the relocation process.</li> <li>Strengthen the provision of services that can support the integration of foreign workers.</li> </ul>

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# **4**

## **Fostering greater participation in adult learning**

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This chapter provides an overview of the Slovak Republic's adult learning system and specific recommendations to foster greater participation. Slovakia's economy has shown strong performance, which is reflected in low unemployment rates and rising wages. However, Slovakia faces high risks of job automation, and its degree of economic openness makes it vulnerable to external trade shocks and fluctuations in foreign demand for Slovak products and services. In this context, adult learning is an essential tool to shield the Slovak Republic against these risks and to lead the country to higher levels of development and well-being. This chapter identifies three opportunities to raise participation in adult learning: improving the governance of adult learning, increasing participation among adults out of work, and supporting the capacity of employees and firms to engage in adult learning.

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## Introduction: The importance of fostering greater participation in adult learning in the Slovak Republic

Across the OECD, adults with lower literacy and numeracy levels are far more likely than those with higher levels of skills to have lower earnings and employment rates, report poor health, feel excluded from political processes and to report not having trust in others. There is also a growing need to upgrade and reskill regularly in adulthood in the context of technological change, more frequent transitions between jobs, the growth of non-standard forms of work (and by extension less access to employer-sponsored training) and the lengthening of working lives (OECD, 2019<sup>[1]</sup>).

The Slovak economy is strong and is catching up with higher-income countries (OECD, 2019<sup>[2]</sup>). Employment and wages are growing and the unemployment rate is historically low, dipping below 7%. Nonetheless, Slovak production and exports are concentrated in a small number of manufacturing industries, and the economy relies significantly on the electronic and automotive sectors. For example, machinery, transport equipment and manufactured goods account for over 76% of total merchandise exports, and these sectors also provide work to a quarter of all Slovak employees.

This high degree of specialisation and agglomeration has allowed the development of clusters, which although have been relevant in attracting foreign direct investments (FDI), are a source of vulnerability. The risk of automation is particularly high in Slovakia, with the OECD estimating that about 34% of workers already face a high risk of seeing their jobs automated, and another 31% face significant changes in their job tasks due to automation. This is the highest share among OECD countries for which data are available (Nedelkoska and Quintini, 2018<sup>[3]</sup>). This high risk of automation is felt in Slovak workplaces, with 60% of Slovak employees expecting that several of their skills will become obsolete.

The strong reliance on exports in a small number of sectors makes Slovakia –and the Slovak population– vulnerable to international trade shocks. Trade openness, defined as exports and imports as a percentage of gross domestic product (GDP), is high, and almost 60% of employment is embodied in foreign final demands, one of the highest among OECD countries. The population is ageing rapidly and working lives are lengthening (see Chapter 1).

In this context, adult learning is and will continue to be essential for boosting the skills of adults, and can generate a range of personal, economic and social benefits (Box 4.1). More effective adult education and training will be needed to maintain or increase the level of skills to keep pace with these rapidly changing conditions.

### Box 4.1. What is adult learning?

Adult learning encompasses any education or training activity undertaken by adults for job-related or other purposes, and includes:

- Formal education or training: education or training activity that leads to a formal qualification (at primary, secondary, post-secondary or tertiary level).
- Non-formal education or training: education or training activity that does not necessarily lead to a formal qualification, such as on-the-job training, open or distance education, courses or private lessons, seminars or workshops.
- Informal learning: learning that results from daily activities related to work, family or leisure. It is not organised or structured in terms of objectives, time or learning support. It may be unintentional from the learner's perspective.

Adult learning is therefore “life-wide”, occurring in the following diverse contexts:

- Education and training institutions: traditional providers of formal education, such as schools, colleges or universities, or specialised adult or continuing education and training centres. They may be public or private institutions.
- Workplaces: typically as informal learning or non-formal education and training. It can also include the work-based learning component of formal education.
- Community: typically as informal learning or non-formal education and training through participation in civic and cultural activities, social networks, sports, volunteering activities, etc.
- Homes: typically as informal learning through interactions with family members, reading books, Internet use, watching television, listening to the radio, etc. It may also involve formal or non-formal education and training via online or correspondence courses.

For the purpose of this chapter, adult learning refers to a range of learning activities (whether informal, non-formal or formal) undertaken by adults after leaving initial education and training, and that is expected to have some effect on performance and productivity at work.

Increasing participation in adult learning has been set as an important objective by the current government (see Manifesto of the Government of the Slovak Republic 2016-2020) (The Government of the Slovak Republic, 2016<sup>[4]</sup>). It has also been set as a goal by the European Union (EU), as described in the Recommendation on Upskilling Pathways (The Council of the European Union, 2016<sup>[5]</sup>), and in the Education and Training 2020 Strategic Framework, which targets a minimum participation rate in adult learning of 15% by 2020. It is also stressed in the first principle of the European Pillar of Social Rights.

This chapter will provide analysis and recommendations for fostering participation in adult learning, especially among marginalised and disadvantaged groups (e.g. unemployed, low skilled) and among workers in small and medium-sized enterprises (SMEs). The following section provides an overview of the Slovak adult learning system, describes how it is organised and identifies the key actors and their responsibilities. It also assesses the main trends and performance. The last section conducts a detailed assessment of the selected opportunities and provides tailor-made policy recommendations in these areas.

## Overview and performance of the adult education system in the Slovak Republic

### *Overview of the Slovak adult education system*

Adults can obtain a professional qualification recognised by the state mainly through non-formal accredited further education and training programmes. These programmes have the objective of supplementing, updating or extending the qualifications required for pursuing professional activities. After completing these programmes, participants obtain a certificate with nationwide validity that certifies the acquisition of relevant competences. These certificates, however, do not lead to a “higher level of education” (*stupeň vzdelania*) as defined in Slovak Law, which distinguishes educational levels from qualifications (*kvalifikácia*). While the former are granted by institutions in the initial formal education system (e.g. universities, schools, vocational education and training [VET] schools), the latter are acquired non-formally in further education and training institutions.

These qualifications can be used to signal the possession of certain competences to employers. Some qualifications entitle the person to apply for a trade licence in occupations regulated by the Trade Licensing Act no. 455/1991 (e.g. auditors, tax advisors, stockbrokers), which require a formal certification of the competences in order to start a new business or work in the field.

Adult education can be provided by state schools (e.g. secondary vocational schools, conservatories, higher education institutions) and non-school educational institutions (e.g. private providers, non-governmental organisations [NGOs]). In order for certificates granted by private institutions to be officially recognised by the state, the programme needs to be accredited by the Accreditation Committee for Further Education, which the Ministry of Education, Science, Research and Sport (MŠVVŠ) is responsible for. All accredited educational programmes are registered in the Further Education Information System, which can be accessed publicly.

The financial costs of participating in adult education programmes is usually covered by participants; however, jobseekers may participate at no cost. The Central Office of Labour, Social Affairs and Family (Ústredie práce, sociálnych vecí a rodiny, ÚPSVR) –the Slovak public employment service– can use European Social Funds (e.g. the REPAS programme, detailed below) to finance the education of jobseekers in the context of active labour market policies (ALMP). Some funds are also available for employed persons to participate in accredited further education. Such education usually takes place as a part of large national projects supported mainly by European sources (e.g. the CVANU programme).

Adults who have reached the age of 18, have completed compulsory schooling, and who can demonstrate more than five years of experience in certain fields can also receive formal recognition of the competences acquired through practical experience. For this purpose, Slovakia has set up a system for the validation of professional qualifications. Accredited institutions, such as professional organisations and higher education institutions, can certify the competences of adults through a formal examination carried out by an examination board. The examination has theoretical and practical components, and successful completion leads to a certificate. The competences required for each qualification are specified in the Slovak Qualifications Framework (SKKR), which has been linked to the European Qualifications Framework (EQF). Currently, there are over 30 qualifications for which the recognition process is available, including mason, carpenter, electronic engineer and butcher. The full list is available through the Further Education Information System.

Regarding the provision of education and training for jobseekers, the main competences are assumed by the Ministry of Labour, Social Affairs and Family of the Slovak Republic (MPSVR) – the provision of such training is one of its ALMP. Two main MPSVR programmes have been in place since 2014 to facilitate the smoother transition of jobseekers to the labour market: REPAS and KOMPAS (Štefánik, 2018<sup>[6]</sup>). Both are co-funded by the European Social Fund and provide funding for jobseekers to participate in training provided by external providers. REPAS focuses on the provision of retraining courses for eligible jobseekers, with the ÚPSVR covering 100% of the training cost, as long as the price of the training course is within the financial limits specified for different categories of training. All applicants must be registered as jobseekers prior to applying in order to be eligible. After taking the initiative to look for the type of occupational activity for which they want to qualify, the jobseeker presents the counsellor in a regional ÚPSVR office with a form describing the training programme and indicating its cost, duration and the relevant requalification provider. The duration of the training can vary from a few days up to six months. The counsellor assesses the suitability of the training course with the needs of the local labour market, as well as against the career goals of the jobseeker. During the validation procedure, the price of the training course is also checked. Other specific conditions, such as the duration of unemployment or the current level of qualifications, are also assessed and can play a role in the validation procedure. For instance, disadvantaged jobseekers, defined by Act no. 5/2004 (for instance those registered as a jobseeker for 12 consecutive months), are favoured in the evaluation process by being awarded more points by default. If the request is validated, the local labour office signs a contract directly with the training provider. The entire training cost is then reimbursed directly to the provider *ex post*, on the condition that the candidate successfully finishes the training. Participants receive a certificate accredited by the MŠVVŠ upon successful completion of the training. The KOMPAS programme focuses on developing the jobseeker's core competences, such as communication, computer, entrepreneurial, language, or basic

literacy and numeracy skills (Eurydice, 2019<sup>[7]</sup>). Participants who successfully complete the course receive a certificate of completion.

In 2018, REPAS+ and KOMPAS+ programmes were launched, building on the pilot REPAS and KOMPAS projects, and as a policy response to the European Commission's recommendations on Upskilling Pathways (The Council of the European Union, 2016<sup>[5]</sup>). Under the reformed programmes, the ÚPSVR also provides a daily allowance of EUR 4.64 to each participant to cover their travel and subsistence costs during the training. Since the launch of the REPAS programme, more than 15 000 jobseekers (8% of all jobseekers) have been trained, of which 15% were low skilled. Care services (19.5%), accounting (15.5%), security (7.8%), acquiring a lorry driving license (7.7%) and welding (5.21%) are among the most popular choice of courses. According to the data available, the KOMPAS+ project has trained 2 247 jobseekers (1% of all jobseekers), of which 37.5% were low skilled, since 2018. In 2017, 51% of REPAS/KOMPAS participants were employed within six months. Despite these positive signs, the fact that there are only a few quality control mechanisms, other than direct feedback from candidates, needs to be highlighted; mainly with respect to the KOMPAS project, where accreditation is not a prerequisite.

In 2017, the Minister of Labour, Social Affairs and Family was tasked with ensuring an annual requalification of roughly 5 000 jobseekers to cater to the needs of the automobile industry. This decision was taken in the context of the need to address pressing labour market shortages, especially in the automobile sector, where thousands of qualified workers are required. Against this backdrop, the MPSVR launched the Ready for Work project, with a total budget of more than EUR 30 million. This project is being implemented by a consortium of two private training firms in co-operation with a privately run academy specialising in dual education founded by Volkswagen, Siemens, Matador and the Bratislava Self-Governing Region. Conditional on successfully passing a final exam, 20 000 registered jobseekers are expected to have been requalified by 2021 (UPSVR, 2019<sup>[8]</sup>).

Employed adults and workers can participate in education and training activities in their workplaces. These activities are usually paid by the employer, although there is the possibility to obtain financial support from European or state sources. These courses are typically provided by private trainers or institutions, although large companies and businesses often have their own teachers and trainers.

Adults who have not completed mandatory school education have the chance to enrol in second chance programmes organised at the local level by schools or other recognised providers across the country.

Cultural and educational institutions, such as the National Enlightenment Centre, the Slovak National Museum or Slovak National Gallery, also provide non-job-related adult education and organise lectures, debates and seminars that are open to the public. There are also 17 universities of the third age in Slovakia across 13 cities that provide special interest education to pensioners. However, because of high demand from other age groups, the admission age is sometimes adjusted to as low as 40 years-old. Lectures are given mainly by university teachers, and students pay fees that range between EUR 40 to 100 per semester.

Other ministries play a role in the adult learning system; for example, the Ministry of Health provides further education for physicians and professionals in the health sector, and the Ministry of the Interior oversees training activities for civil servants.

**Table 4.1. Main adult learning actors in the Slovak Republic**

	Role in the adult learning system
Ministry of Education, Science, Research and Sports (MŠVVŠ)	Sets out the main legal and policy framework. The main practical activities are centred around the accreditation of education programmes and the information system of further education.
Ministry of Labour, Social Affairs and Family (MPSVR)	Adopts and implements measures to combat unemployment, support employment and social inclusion via mainly national projects funded through EU funds. The projects often contain adult learning activities (e.g. requalification) and are implemented in the regions.
Ministry of the Interior	Responsible for the further education of staff in public administration.
Ministry of Health	Responsible for the further education of physicians.
Central Office of Labour, Social Affairs and Family (Ústredie práce, sociálnych vecí a rodiny, ÚPSVR)	The Slovak public employment service. It has 46 branches across the country.
State Institute for Vocational Education (ŠIOV)	National contact point for Europass, EPALE, ECVET, EQAVET, EQF, EPALE and national co-ordinator for the European Agenda for Adult Learning.
Training providers and associations	Responsible for delivering training.

### ***Performance of the Slovak Republic***

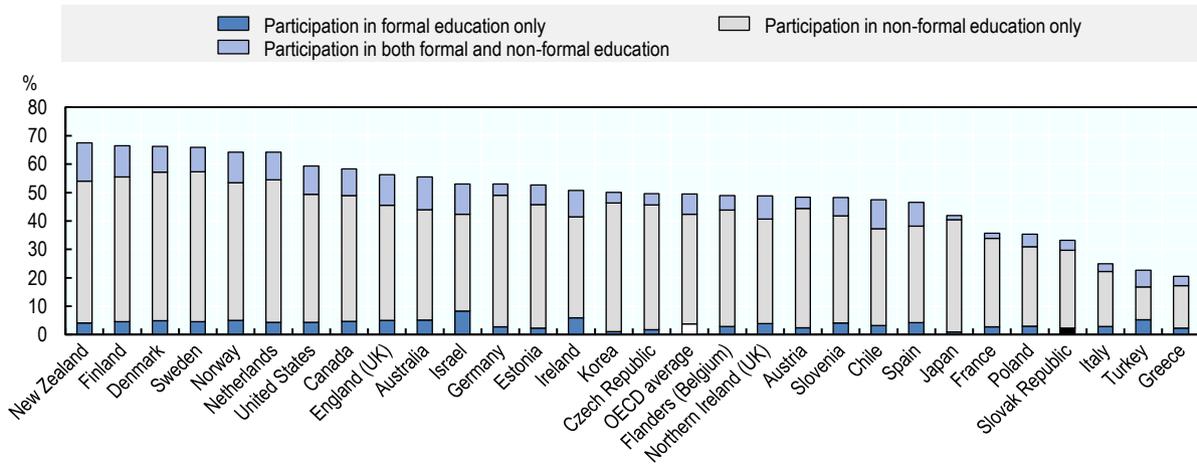
The literacy and numeracy skills of adults are comparatively strong in the Slovak Republic. In the Survey of Adult Skills, a product of the Programme for the International Assessment of Adult Competencies (PIAAC), Slovak adults score 6 and 13 points more in literacy and numeracy, respectively, than adults in the OECD on average. The numeracy scores of Slovak adults are comparatively stronger than their literacy skills, which is in contrast to the average across the OECD, where literacy skills are usually stronger. Overall, the share of Slovak adults scoring low in numeracy and/or literacy is almost 10% lower than in the OECD on average (OECD, 2016<sup>[9]</sup>). However, where many OECD countries have experienced a rapid increase in skills performance over time, with large differences in skills outcomes between generations, the Slovak Republic has only experienced a marginal difference in outcomes between generations.

At the same time, many adults in Slovakia do not have the right skills to succeed in an interconnected, digital world. According to the Survey of Adult Skills (PIAAC) data, fewer than 35% of Slovak 25-34 year-olds score high in problem-solving in technology rich environments, compared with an OECD average of almost 45%. The lack of digital skills manifests itself more among less educated adults in Slovakia than among their counterparts with similar educational levels in the OECD. Fewer than 3% of Slovak adults with below upper secondary education, and fewer than 20% of Slovak adults with upper secondary education, have above average digital problem-solving skills, compared to 7% and 23%, respectively, on average across the OECD. The number of Slovak adults (22%) with no computer experience is more than double the OECD average (10%) (OECD, 2016<sup>[9]</sup>).

Despite the significant need to improve the skills of Slovak adults, which will be crucial for the economy to thrive in the future, participation rates in adult education and training are among the lowest in the OECD: 32% participated in formal and/or non-formal education in 2012, compared with 50% for OECD-PIAAC countries as a whole (Figure 2.1). Similarly, Eurostat (2019<sup>[10]</sup>) notes that in 2018, 4% of the Slovak population aged 25-64 reported participating in formal and non-formal education and training in the last four weeks, compared to an EU average of over 11%. The participation of this age group in formal and non-formal education and training over the last 12 months (46.1%) is roughly in line with the EU average (45.2%). However, the participation of Slovak adults aged 55-64 (30.3%) is lower than the participation of those aged 25-34 (54.3%) – which is a common trend across the EU – as well as lower than the EU average (32.9%) (Eurostat, 2019<sup>[11]</sup>).

**Figure 4.1. Slovak adults participate less in adult learning than the OECD average**

Adult participation in formal and/or non-formal education, 2012/2015

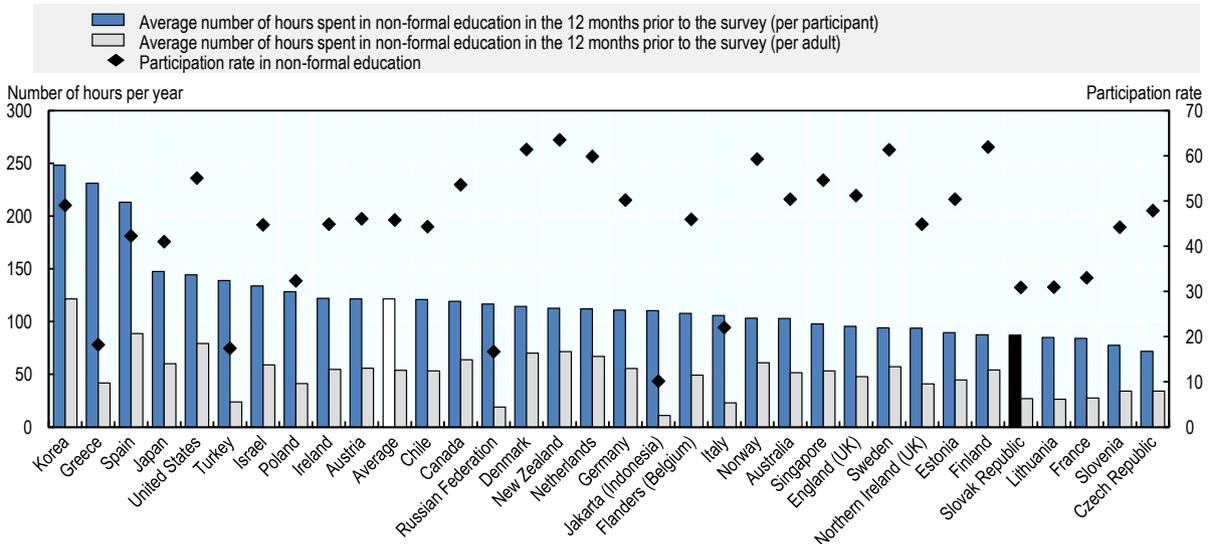


Source: OECD (2019<sub>[12]</sub>), *OECD Skills Surveys: Survey of Adult Skills (PIAAC) (database)*, <https://www.oecd.org/skills/piaac/>.

StatLink <https://doi.org/10.1787/888934075336>

**Figure 4.2. Hours in non-formal education per participant/per adult, and participation rate in non-formal education (2012 or 2015)**

Survey of Adult Skills, 25-64 year-olds



Note: Year of reference for Chile, Greece, Israel, Jakarta (Indonesia), Lithuania, New Zealand, Singapore, Slovenia and Turkey is 2015. Year of reference for all other countries is 2012. Countries and subnational entities are ranked in descending order of the average number of hours participants spent in non-formal education in the 12 months prior to the survey.

Source: OECD (2016<sub>[13]</sub>), *Education at a Glance 2016: OECD Indicators*, <https://dx.doi.org/10.1787/eaq-2016-en>.

StatLink <https://doi.org/10.1787/888934075355>

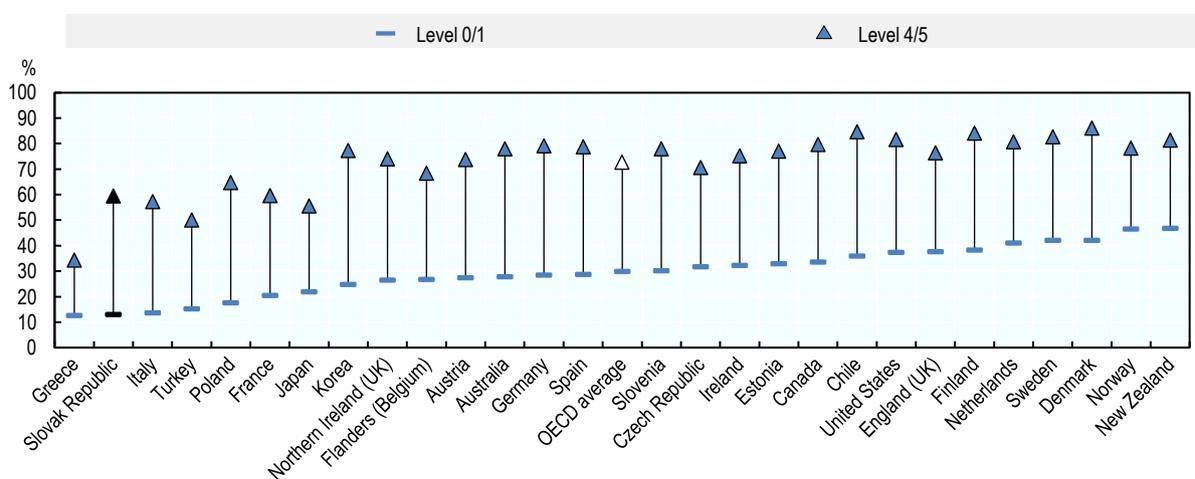
Slovak adults participate less intensively in adult education than adults in other countries. As shown in Figure 4.2, the average number of hours per participant in non-formal education activities is among the lowest across OECD countries. According to the Survey of Adult Skills (PIAAC) data, Slovak adults spend 34 hours less per year on adult learning than adults in other OECD countries, on average. Overall, the number of hours per year of non-formal education per adult in Slovakia –including participants and non-participants– is exactly half that of the OECD average (54 hours per adult on average across OECD countries).

The barriers to increased participation in further education and training in Slovakia remain diverse and high. Being too busy at work and lacking adequate employer support are the main obstacles to participation, as identified by 33% and 14% of Slovak adults, respectively. These barriers are identified as larger obstacles in Slovakia than in the OECD on average, with Slovak adults reporting the lack of employer support twice as many times as their OECD counterparts, according to the Survey of Adult Skills (PIAAC) data. 33% of Slovaks reported being too busy at work as an obstacle to participation in adult learning activities, compared to 29% in the OECD on average. The Slovak Republic also has one of the highest differences in participation rates between those with and without young children (OECD, 2019<sub>[11]</sub>). Adults in Slovakia also lack the necessary motivation to participate more than other adults in the OECD. The Survey of Adult Skills (PIAAC) data show that while 64% of Slovak adults did not participate in formal and/or informal education, and did not want to do so, 26% participated, but did not want to.

OECD data shows that Slovakia's adult learning system is lagging behind in terms of inclusiveness. In the inclusiveness index calculated in OECD (2019<sub>[14]</sub>), which measures participation gaps between disadvantaged and more advantaged adult learners in terms of their socio-demographic characteristics and employment or contractual situation, Slovakia ranks the second worst among all OECD countries, only coming before the Netherlands. Slovak adults who would benefit the most from adult learning participation are participating the least. For instance, low-skilled Slovak adults are much more likely to not participate than their high-skilled counterparts. At the same time, low-skilled Slovak adults are almost at the bottom of the ranking in terms of participation in adult learning among OECD countries: only 13% of adult Slovaks with level 0/1 literacy participate in formal and/or non-formal education and training, compared to an OECD average of almost 30% (Figure 4.3).

### Figure 4.3. Less-skilled Slovak adults participate less in adult learning than higher-skilled adults

Share of adults (25-65 year-olds) participating in formal and/or non-formal education and training by literacy level, 2012 or 2015.



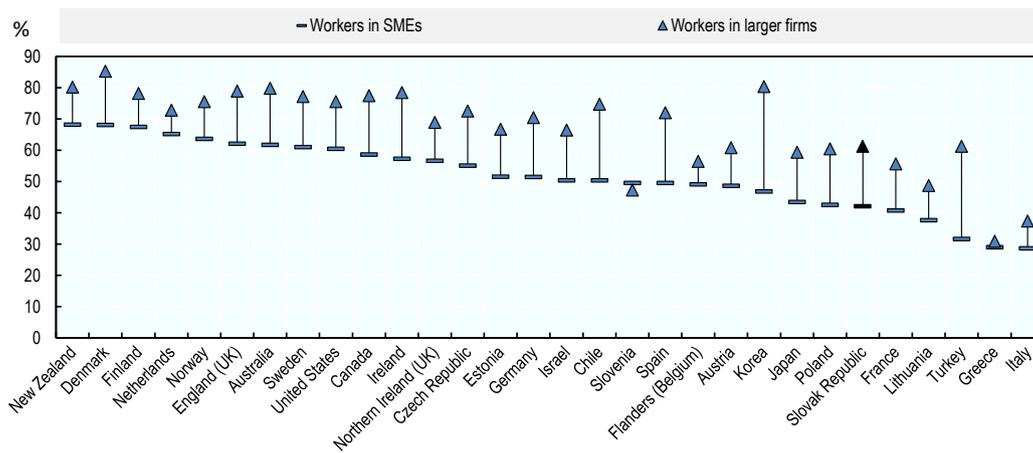
Source: OECD (2016<sub>[13]</sub>), *Education at a Glance 2016: OECD indicators*, <https://doi.org/10.1787/eag-2016-en>.

StatLink  <https://doi.org/10.1787/888934075374>

In a similar vein, and as in all PIAAC-participating countries, Slovak adults employed in SMEs are less likely to participate in formal and non-formal job-related learning than those employed in large firms (Figure 4.4). Furthermore, the gap in the likelihood of participation between Slovak employed and unemployed adults is the largest within the OECD, and unemployed adults in Slovakia are the least likely to engage in adult learning among all OECD countries (Figure 4.5). There is an even larger gap in participation in adult learning between employed and long-term unemployed adults Slovaks, and workers with temporary contracts participate less in training activities than those with permanent contracts (OECD, 2019<sup>[14]</sup>). Therefore, fostering greater participation in adult learning will be particularly important for those who are less skilled, unemployed, working in an SME or temporary contract workers in Slovakia.

**Figure 4.4. Slovak workers in SMEs participate less in adult learning than workers in large firms**

Percentage of adults (25-64) participating in formal and non-formal job-related learning



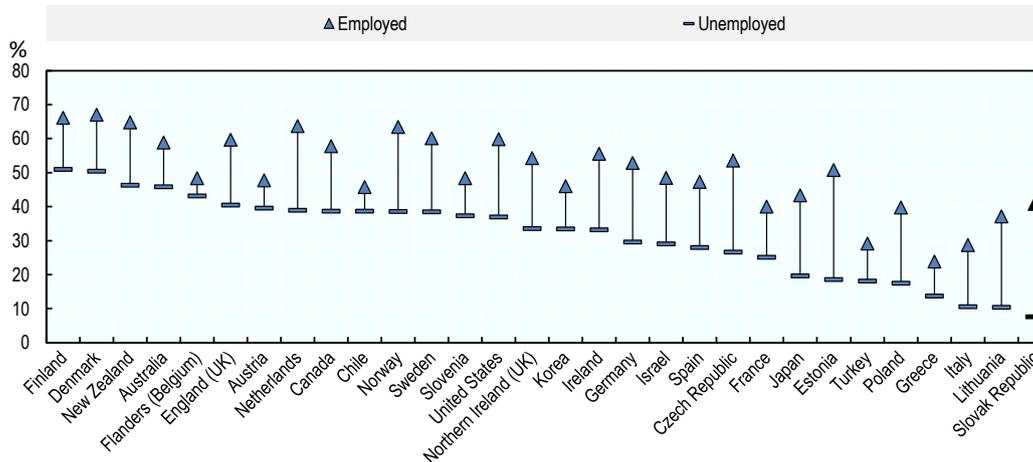
Note: SMEs are firms which employ fewer than 250 employees.

Source: OECD (2019<sup>[12]</sup>), *OECD Skills Surveys: Survey of Adult Skills (PIAAC) (database)*, <https://www.oecd.org/skills/piaac/>.

StatLink <https://doi.org/10.1787/888934075393>

**Figure 4.5. Unemployed Slovak adults participate in adult learning significantly less than those employed**

Percentage of adults (25-64) participating in formal and non-formal job-related learning



Source: OECD (2019<sup>[12]</sup>), *OECD Skills Surveys: Survey of Adult Skills (PIAAC) (database)*, <https://www.oecd.org/skills/piaac/>.

StatLink <https://doi.org/10.1787/888934075412>

## Opportunities to foster greater participation in adult learning in the Slovak Republic

The OECD team, in consultation with the MŠVVŠ, identified the following opportunities to foster greater participation in adult learning in Slovakia:

1. Improving the governance of adult learning.
2. Increasing the participation among adults out of work.
3. Supporting the capacity of employees and firms to engage in adult learning.

### ***Opportunity 1: Improving the governance of adult learning***

Increasing participation in adult learning requires a policy framework that is well co-ordinated. In order to encourage adults to participate in learning and education over their life course, a clear definition of adult learning, as well as its importance, needs to be acknowledged across all levels of government and society. Furthermore, a clear connection between government goals and policies, as well as a consensual, coherent, long-term vision supported by an unambiguous division of responsibilities, is necessary for the functioning of an adult learning system that is capable of easily attracting and retaining participants.

Slovakia should therefore focus its efforts on improving the governance of its adult learning system by:

- Further improving its long-term adult learning strategy.
- Improving co-ordination across ministries, levels of government and stakeholders.

#### *Further improving the Slovak Republic's long-term adult learning strategy*

During the first decades of the modern independent existence of the Slovak Republic –1989 onwards– the policy area of adult learning received limited attention within the government's economic and social agenda. Before 1989, under the communist regime, the educational system in Slovakia (still Czechoslovakia) was centrally planned and put significant emphasis on universal access to formal education. At that time, the dropout rate from schools was low and the enrolment rate in formal education was relatively high. Aside from certain occupations that required continuous learning and training, such as doctors and lawyers, adult education was neither explicitly targeted nor developed as a policy area, and the concept of adult learning was almost non-existent.

After the transition to a free market system in the 1990s, and especially after accession to the European Union in 2004, adult learning received renewed attention in Slovakia, as in most EU and OECD countries. The EU Memorandum on Lifelong Learning in 2001 in particular constituted a watershed moment, as Slovakia was a candidate for EU accession and benefited from the strong support of national policy actors regarding EU initiatives. Slovakia joined the consultation process of the Lifelong Learning Memorandum, which led to Slovakia's first National Strategy for Adult Education.

The first strategic document addressing adult education was the National Programme of Education and Training in the Slovak Republic for the Next 15-20 Years ("Millennium"), which was approved in 2001. Millennium outlined the basic principles for reforming education and training, such as the organisation of education, the establishment and financing of schools, responsibilities for defining the national and school curricula, training of teachers, and linkages of VET with the labour market. It also formally introduced the concepts of lifelong learning and further education, encompassing formal, non-formal and informal education taking place in institutions (e.g. VET), workplaces and the society.

Since 2001, Slovakia has adopted several lifelong learning strategies, including the 2004 Framework Strategy on Lifelong Learning, the 2007 Strategy on Lifelong Learning and Guidance, the Act on VET no. 61/2015, and the 2011 Lifelong Learning Strategy. This last strategy was preceded by

the Act on Lifelong Learning no. 568/2009, which sets the basic legislative framework that prevails today, such as types of further education, the main institutions involved, and the principles of accreditation of institutions. The 2011 Lifelong Learning Strategy was matched by an action plan for the 2012-2014 period, which was reviewed in 2016. Table 4.2 summarises the most relevant strategies and initiatives on lifelong learning in the last two decades.

**Table 4.2. Strategies and initiatives covering lifelong learning in the Slovak Republic**

	Objectives	Year
National Programme of Education and Training in the Slovak Republic for the Next 15-20 Years	Outlines the basic principles for reforming education and training.	2001
Act on Employment Services no. 5/2004	Contains provisions for education and training for labour markets and specifies the conditions for financing training programmes for those in and out of work.	2005
Strategy on Lifelong Learning and Guidance	Develops of an open system of lifelong learning, a system of lifelong guidance, the Lifelong Learning Act, implementation of an information system for lifelong learning and lifelong guidance, and creation of the National Qualifications Framework (NQF).	2007
National Programme for Learning Regions	Links lifelong learning and the needs of regional labour markets by networking all relevant stakeholders in public administration, education and employment sectors.	2007
Act on Lifelong Learning	Defines the types of further education and the main institutions involved, and the principles of accreditation of institutions and programmes.	2009
Lifelong Learning Strategy	Aims to focus on the development of the key skills and competences of individuals, thus enabling them to raise their qualifications and support their personal growth.	2011
Operational Programme Human Resources	Strives to support the development of human resources and lifelong learning and their full integration into the labour market to improve their social situation	2014
The National Employment Strategy until 2020	Stresses the fact that lifelong learning is an essential precondition for maintaining employability, and that effective links between formal, non-formal and informal learning and teaching form the basis for effective lifelong learning.	2014
Act on Vocational Education and Training	Sets out the fact that VET schools can also become “Centres of Vocational Preparation” and provide training programmes in accordance with the Act on Lifelong Learning.	2015
Upskilling Pathways (European Commission)	Seeks to help adults acquire a minimum level of literacy, numeracy and digital skills and/or acquire a broader set of skills, based on the 2016 Recommendation of the European Council. Slovakia hosted and participated in an international mutual learning workshop in 2018, followed by the publication of an implementation report.	2016
National Roma Integration Strategy until 2020	Seeks to improve the socio-economic status of the Roma population by expanding employment opportunities on the labour market, building human capital through better education and healthcare, and increasing their empowerment and participation in social and civic activities.	2016
Government programme for 2016-2020	Announces new Act on Lifelong Learning.	2016
National Programme for the Development of Education (“Learning Slovakia”)	Aims to provide a long-term concept of education content from pre-primary education, through primary and secondary education to higher education, as well as further education, focusing on personal development and the acquisition of the knowledge and skills required for being successful on the job market.	2017
Intelligent Industry Action Plan for the Slovak Republic	Seeks to support companies by creating better conditions for the implementation of digitalisation, innovative solutions and enhanced competitiveness through the reduction of bureaucratic burden, modification of current legislation, definition of standards or co-financing of research. Contains a set of 35 measures to be implemented by the end of 2020.	2018

Slovakia has struggled to deliver what has been formulated in these strategic documents, and workshop and focus groups participants highlighted that the current policy instruments are insufficient to fulfil Slovakia's aspirations to develop a strong adult learning system. For example, financing mechanisms to support the participation of adults in learning or training activities are almost non-existent, even though the 2011 Lifelong Learning Strategy highlighted the need to create financial tools to support further education.

This disconnection between goals and policies is compounded by the fact that almost 20 years after Millennium, the policy discourse on adult learning still lacks a consensual view, and the system is perceived as highly fragmented. Furthermore, there is no clear vision about the adult learning system

that Slovakia needs, its goals, architecture, and the right mix of policies to be put in place. This view was echoed by stakeholders and government officials who participated in OECD workshops and focus groups. They highlighted the fact the public awareness about the importance of lifelong learning is limited, and that measures to support adult learning are marginal and non-systematic. Moreover, all lifelong learning strategies have historically been formulated at the national level, and with limited regard for the fact that differences in terms of the need for adult learning exist between different Slovak regions. At the local level, several learning activities, usually carried out by VET schools under the name of further education, continuous education or re-qualification, have taken place (e.g. self-governing regions, districts or municipalities); however, these activities have not been formally recognised in the current adult education framework, and further contribute to fragmentation of the system. A successful vertical co-ordination mechanism, such as in Finland (Box 4.2), could be well-placed to address the gap.

#### **Box 4.2. Relevant international example: Vertical co-ordination mechanism in Finland**

Finland's multi-level governance reforms, underpinned by targeted support from sectoral ministries, have driven collaboration between local areas and regions on education and training services.

The PARAS reform in Finland was a multi-dimensional reform that included municipal mergers, inter-municipal co-operation for service provision (in particular in the areas of healthcare and education), and better governance in urban regions. In merging or co-operating municipalities, the reform also had an impact on managerial practices (organisational restructuring, introduction of new practices, etc.). Decisions to merge or co-operate were taken on a voluntary basis.

Legislation to support the reform was enacted in 2005 and 2007, and the implementation of the first phase of the reform was planned over 2007-08. Legislation introduced quantitative thresholds to be reached for healthcare and education provision. Municipalities or inter-municipalities authorised to provide basic education services had to have at least 50 000 inhabitants. The local authorities involved could agree that the functions of co-management areas would be conducted jointly or by one local authority on behalf of one or more other local governments.

Municipalities and urban regions had to submit their reports and implementation plans to central government by the end of August 2007. In 2008, central government evaluated the reform progress, based on supplementary information submitted by municipalities. The reform was implemented between 2009 and 2012. As decisions were voluntary, each municipality/urban region implemented (or not) its plans at its own pace. In 2009, the central government submitted a report to the parliament on the reform to restructure municipalities and services. At the end of the reform period, a questionnaire was sent by central government to municipalities to find out what decisions they had taken within the framework of the reform.

The establishment of quantitative thresholds for education services drove collaboration and was supported by a joint project by the Ministry of Education and Culture and education providers to ensure structural and economic support for education and training across regions. One criticism of the threshold was that in urban regions it risked encouraging wealthy "inner-ring" municipalities to co-operate with central municipalities while maintaining their own services.

Source: OECD (2017<sup>[15]</sup>), *Multi-level Governance Reforms: Overview of OECD Country Experiences*, <http://dx.doi.org/10.1787/9789264272866-en>.

## Recommendations for further improving the Slovak Republic's long-term adult-learning strategy

- **Unify existing strategies and initiatives into one coherent lifelong learning strategy.** Current initiatives are not integrated and do not offer a coherent and co-ordinated response to the challenge of strengthening the adult learning system and increasing participation. The adult education sector has been waiting for a new strategy on lifelong learning and further education since 2014 when it was first mentioned by the MŠVVŠ. The government should give high priority to this new endeavour, which should unite the various elements of adult learning and be accompanied by a clear and actionable implementation plan. Adult education should be co-ordinated with other national policies that indirectly tackle the knowledge, skills and competences of adults.
- **Emphasise the governance, financing and equity aspects of adult learning in the new lifelong learning strategy.** The new strategy should focus on three important aspects. First, emphasis should be placed on the governance of adult education, to better foster collaboration between ministries, levels of government (e.g. regions) and stakeholders (see the next section). This could build on the co-ordination mechanisms set in motion by the national co-ordinator for adult learning. Second, financial aspects of adult education should be given high priority by establishing clear mechanisms and incentives to increase participation (see Opportunity 3 for detailed proposals). Finally, the strategy should address the existing inequalities in access to adult education and set up concrete actions to reach marginalised groups and increase training among SMEs and firms facing a higher risk of automation.
- **Explicitly acknowledge in the new lifelong learning strategy that the need for adult learning is greater in certain Slovak regions.** Adult education policy should continue to be addressed as a national policy. However, there are significant differences between regions that need to be considered in the new strategy. For example, Slovakia has recently developed implementation plans for the least developed districts in the context of the Act no. 336/2015. These plans provide targeted support to disadvantaged districts and cover a broad range of policies. In line with efforts made in the context of work related to Upskilling Pathways, these plans should also cover adult learning and be aligned with national level policies. Box 4.2 describes a vertical co-ordination mechanism between local areas and regions on education and training services in Finland.

### *Improving co-ordination across ministries, levels of government and stakeholders*

Adult education policy is inherently complex. This complexity is reflected in several dimensions. First, there are a large number of ministries, agencies and bodies involved in the design and implementation of adult education policies (see Table 4.1). Second, adult education targets very diverse groups of adults such as those who are inactive, long-term unemployed, jobseekers, and employees in the public and private sectors. Third, there is a broad range of education providers, including second-chance schools, private providers, NGOs, universities and VET schools. Fourth, adult education has a strong regional and local component, with Slovak regions differing significantly in ways such as economic activity and the educational attainment of the population. Finally, the financing of adult education comes from multiple sources including state budget, employers, individuals or European Social Funds (ESF).

This complexity requires good governance arrangements to ensure that policies are delivered effectively, as is called for under the European Agenda for Adult Learning. Both vertical and horizontal co-ordination have been identified as critical for well-functioning adult learning systems (OECD, 2019<sup>[1]</sup>; 2019<sup>[14]</sup>). Similarly, effectively engaging stakeholders in the policy cycle can bring multiple benefits, including more legitimacy and a better alignment of adult education with labour market needs.

Horizontal – inter-ministerial – co-ordination is key for ensuring that policies designed by different ministries have minimal overlap, address gaps in adult learning provision and are mutually reinforcing (OECD, 2019<sup>[14]</sup>). Overall, the MŠVVŠ assumes a key role in policy design and in the monitoring of policies in the area of adult education. The implementation of programmes and activities has been carried out directly by the MŠVVŠ, the State Institute of Vocational Education (ŠIOV) and, for number of years until recently, the National Institute of Lifelong Learning. Since 2018, ŠIOV has assumed a key co-ordination role for the lifelong learning agenda.

Slovakia has a mix of institutionalised and informal mechanisms for inter-ministerial co-ordination. The most standard co-ordination process is in the form of cross-sectoral consultations on strategic documents across different ministries that take place before a strategic document is presented for policy approval. For example, the development of a new national or sectoral strategy, or the implementation of a complex project, is typically preceded by a cross-ministerial consultation. Each ministry or relevant agency designates a representative to participate in a pre-assessment process. These processes typically produce outputs such as policy recommendations, budgets and action plans. This co-ordination mechanism allows every relevant actor to contribute to the policy design process. A good example of how this co-ordination works in practice is the advisory group established in the context of the Upskilling Pathways initiative, which also builds on the arrangements set in motion by the national co-ordinator for adult learning. Successful international examples of horizontal and vertical (across different levels of government) co-ordination can be observed, for instance, in Norway and Ireland (Box 4.3).

#### **Box 4.3. Relevant international example: Horizontal co-ordination in Norway and Ireland**

**Norway** is generally regarded as one of the leading countries in terms of developing and using the skills of its people. In order to respond effectively to its challenges and improve governance arrangements, the Norwegian government, represented by several ministries, together with social partners, the voluntary sector and adult learning associations, as well as representatives of the Sami ethnic minority, committed to implementing the Norwegian Strategy for Skills Policy 2017-2021 (*Nasjonal Kompetansepolitisk Strategi*), which included implementation of the Skills Policy Council. According to its mandate, the council's purpose is to follow up on the strategy and to continue to promote co-operation between the involved stakeholders. This includes regular discussions and advice on current skill policy issues, regular reports on the strategy partners' own policy measures to implement the strategy, as well as potential revision of the strategy if needed.

In practice, the council acts as an advisory body to all involved stakeholders, with the goal of co-ordinating and improving existing and new policy measures in the field of (public as well as non-public/social-partner provided) skills policy. The minister of education chairs the council, thereby providing the opportunity for all stakeholders to influence policy making at a very high level. Most importantly, and in contrast to other tripartite councils in Norway, it does not have a decision- or policy-making function, and only gives non-binding advice. The council meets three to four times a year in sessions that last around two hours.

One main benefit of the Skills Policy Council is that it oversees and applies a holistic approach to a previously very fragmented policy area. It can therefore identify overarching challenges and help to develop more comprehensive policy solutions, instead of addressing just specific parts of the system. In addition, it has strengthened co-ordination and co-operation and acts as a forum for diffusing expertise within the area of skills policy. Even though there had been co-operation with social partners before the establishment of the Skills Policy Council, it was more infrequent and ad hoc on specific issues, rather than systemic and on overarching issues.

**Ireland** established its National Skills Council (NSC) and nine regional fora in April 2017, in follow up to the National Skills Strategy to 2025. This infrastructure and regional co-ordination mechanism addresses both horizontal and vertical governance mechanisms, as well as stakeholder engagement.

The NSC is chaired by the minister for education and skills and is made up of officials and private sector organisations, firms and agencies. The mandate is to oversee research and to advise on the prioritisation of identified skills needs and how to deliver on these needs. It also promotes and reports on how education and training providers respond to these needs.

The regional fora are nine regional managers who are single points of contact for employers in the region and in charge of promoting regular collaboration between employers and the education and training system at the regional level. These managers provide a cohesive structure for collaboration between employers and training providers, as well as support for employers in understanding and accessing training and higher education opportunities. They also strengthen the links between education and training providers by planning and delivering programmes within their respective regions.

Source: OECD (2018<sup>[16]</sup>), *Skills Strategy Implementation Guidance for Portugal: Strengthening the Adult-Learning System*, <https://doi.org/10.1787/9789264298705-en>; OECD. (forthcoming<sup>[17]</sup>), *Strengthening the Governance of Skills Systems*.

Although adult education falls primarily under the competence of MŠVVŠ in Slovakia, there are areas in which co-ordination with other ministries, most notably the MPSVR, is crucial. For example, the MŠVVŠ is responsible for co-ordinating and drafting the different strategies of lifelong learning, and takes the lead on co-ordinating and implementing important policies (e.g. the National Qualifications System, the quality assurance process, the system for the validation of skills). However, the effectiveness of such policies heavily depends on the degree of co-ordination with the MPSVR, which is in direct contact – through labour offices – with most potential beneficiaries, such as jobseekers or those who are unemployed. However, workshop participants and stakeholders noted that co-ordination between the MPSVR and other ministries, especially the MŠVVŠ, is far from optimal. According to participants, the interactions between the two ministries do not occur with necessary frequency, and establishing stable working relationships is difficult.

Stakeholders involved in adult learning, such as training providers, civil society or NGOs, are well placed to understand the skills and training needs of adults because of their proximity to learners. Developing mechanisms for co-operation between these stakeholders and the government can help align adult learning programmes to local needs, facilitate the sharing and replication of good practices, and improve the quality of training (OECD, 2019<sup>[14]</sup>).

Slovakia performs relatively well in terms of engaging stakeholders, who are generally invited to participate in national consultation processes. Given that many procedures for public consultations are in place from a formal point of view, Slovakia ranks highly on the OECD Regulatory Indicators Survey that measures stakeholder engagement in developing primary laws in the executive government (OECD, 2018<sup>[18]</sup>). Taking into account the methodology, transparency, systematic adoption, and oversight and quality control of stakeholder engagement, Slovakia scores the second highest among all OECD countries. For every legislative and non-legislative proposal submitted to the government, including legislative intents, public consultations are required. All drafts submitted to the government are automatically published on the government consultation portal at the same time as being submitted for inter-ministerial comment. Fifteen working days are usually allowed for comments from the date of publication on the portal. Should 500 or more individuals or organisations support a particular comment, ministries must respond by providing written feedback, which becomes part of a file submitted to the government for discussion (OECD, 2015<sup>[19]</sup>). For example, a broad range of stakeholders were actively engaged and represented in the ESF-funded project for the creation of the National Qualifications System (NSK) (Vantuch, 2016<sup>[20]</sup>). The NSK benefitted from input from 24 sectoral councils representing employers from different regions and economic sectors, as well as members of the academic and educational community, among others.

There is a government council for NGOs, which is chaired by the Plenipotentiary of the Slovak Government for the Development of Civil Society. However, in practice it is more geared towards discussing general policies or strategies on co-operation with NGOs, rather than towards finding out the views of NGOs on specific policies or regulations (OECD, 2015<sup>[19]</sup>).

Despite the high degree of inter-ministerial consultation and meaningful stakeholder engagement throughout the policy design process, co-ordination during the later stages of the policy cycle seems to be absent in adult education policy. Specifically, there seems to be limited inter-ministerial co-ordination and stakeholder engagement in the implementation and monitoring phases. Workshop participants and stakeholders who participated in focus groups indicated that once a strategy is published or an agreement is reached, implementation is carried out almost in isolation only by the responsible body.

#### **Recommendations for improving co-ordination across ministries, levels of government and stakeholders**

- **Introduce cross-sectoral co-ordination during the implementation and monitoring stages of policy/programme cycles.** Cross-sectoral, and specifically inter-ministerial, co-ordination would be more effective if it covered all stages of strategy/programme cycles. Slovakia should expand the co-ordination initiatives that take place at the end of the policy cycle by building on the earlier stages of consultations. Co-operation and co-ordination in later stages would not only lead to better results, but are important learning mechanisms to improve the delivery capacity of the public administration. While there is no universal, clear format for how cross-sectoral, inter-ministerial co-ordination is best organised to function adequately in all contexts, international examples can provide guidance. Box 4.3 illustrates mechanisms used effectively in Norway and Ireland.
- **Reinforce co-ordination with regions and districts.** Cross-sectoral co-ordination can be extremely effective when combined with vertical co-operation across different levels of governments. Bottom-up initiatives that respond to region-specific problems should be accommodated and fostered through cross-sectoral efforts in order to support locally driven adult education opportunities. For instance, nine regional fora were established by the Irish government in the follow-up to Ireland's National Skills Strategy to 2025, which fostered vertical and horizontal co-ordination as well as stakeholder engagement (Box 4.3)

#### ***Opportunity 2: Increasing the participation among adults out of work***

As highlighted in the performance section, low participation rates in adult learning among unemployed adults, and even more so among those who are long-term unemployed, can be observed in Slovakia and across the OECD. Slovakia has the smallest share of unemployed adults participating in formal and non-formal job-related learning among all OECD countries (OECD, 2019<sup>[14]</sup>). Similarly, Cedefop (2016<sup>[21]</sup>) notes that Slovakia has the smallest share of unemployed adults in adult learning (1.6%) among all EU countries, which is significantly below the EU28 average of 9.6%. In addition, the gap between the participation of unemployed and employed Slovaks in adult learning is one of the largest in the OECD. The participation of Slovaks out of work in adult learning is thus integral for increasing overall participation levels in Slovakia. Continued education and training as a way of re/upskilling presents important gains at an individual level through increased employment prospects and the related economic and mental well-being; however, the government also reaps important benefits in the form of a better qualified workforce, a lower unemployment rate, a stronger and more resilient economy, and reduced pressure on the welfare state.

As a result, Slovakia should concentrate its efforts on increasing participation in adult learning among adults out of work by:

- Providing high-quality and accessible training.
- Strengthening the outreach of labour offices.

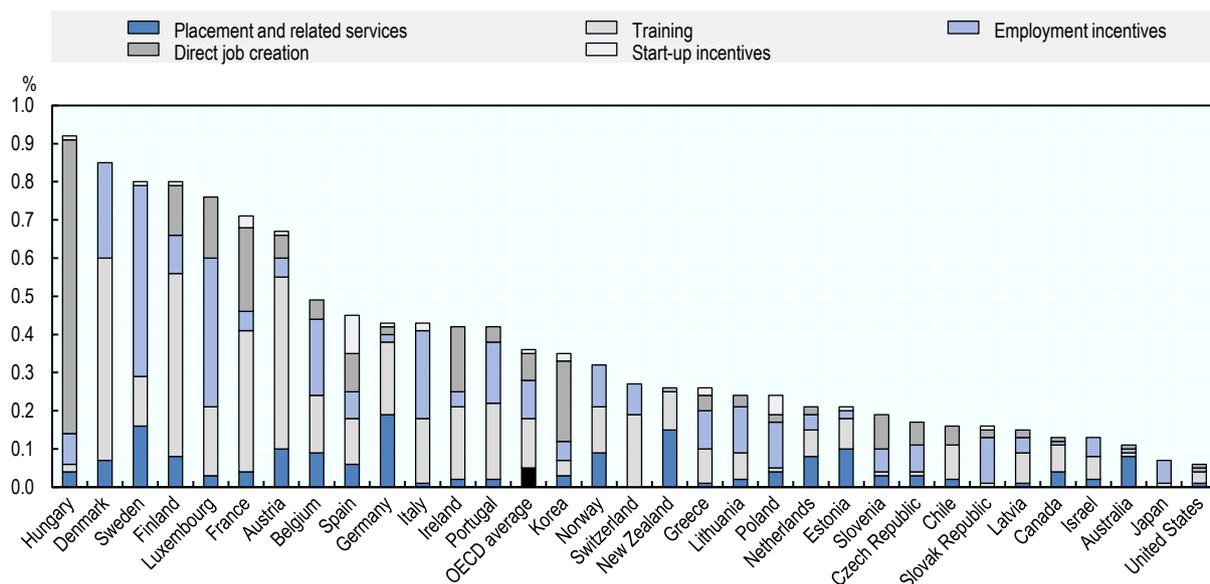
### Providing high-quality and accessible training

Slovakia has set ambitious employment targets for 2020 to decrease the long-term unemployment rate to below 3% (6.7% in 2018) and raise the employment rate to 72% (68.6% in the first quarter of 2019, according to OECD data). With the current historically low unemployment rate, and with the labour market tightening, one of the main challenges will be decreasing the long-term unemployment rate – especially among the Roma population. 6 out of 10 unemployed adults have been unemployed for 12 months or more, while the average unemployment duration in Slovakia is more than 30 months, the highest across all OECD countries (Kahanec and Sedlakova, 2016<sup>[22]</sup>; OECD, 2019<sup>[23]</sup>). Slovakia also aims to lower the unemployment rate among those who are low skilled and increase the labour force participation of women aged between 25 and 35 who have children. To achieve this goal, Slovakia is heavily relying on ALMP.

However, ALMP spending is among the lowest across OECD countries (OECD, 2019<sup>[24]</sup>), accounting for 0.16% of GDP in 2016, which is significantly lower than the OECD average of 0.36% (Figure 4.6). In addition, ALMP spending is dominated by demand-side programmes; for example, roughly 75% of ALMP spending is on employment incentives, which is almost three times as large as the OECD average (27.7%). As highlighted in the European Commission report, Taking Stock of Implementation of Upskilling Pathways (European Commission, 2019<sup>[25]</sup>), one of the most problematic aspects of ALMP spending in Slovakia is that most funding comes from the ESF, which may not be a stable source in the long term. Workshop and focus group participants noted that the strong reliance on ESF prevents Slovakia from properly designing a long-term strategy to tackle employment-related issues through ALMP.

**Figure 4.6. Expenditure on ALMP is low in Slovakia, and investment in training is limited**

As a percentage of GDP



Note: For Greece, Italy, Luxembourg and Spain, data refer to 2015. OECD data on public expenditure on labour markets are based mainly on information about individual labour market programmes appearing in state budgets, and the accounts and annual reports of bodies implementing the programmes.

Source: OECD (2019<sup>[24]</sup>), *Measuring the Digital Transformation: A Roadmap for the Future*, <https://dx.doi.org/10.1787/9789264311992-en>.

StatLink  <https://doi.org/10.1787/888934075431>

ALMP spending on education and training is one of the most effective solutions to tackle unemployment in the long term; however, in Slovakia only 6.3% of total ALMP funding was spent on education and training and programmes in 2016. This share lags significantly behind that of OECD countries (35%), some of which, such as Denmark, put significant emphasis on education and training related ALMP (Box 4.4).

#### **Box 4.4. Relevant international example: Education and training focused ALMP in Denmark**

As part of the vocational training and education initiatives in the 2014 Employment Reform, Denmark decided to re-emphasise the focus on education and training within the context of ALMP. The goal was to boost the educational level of those unemployed with the lowest and fewest skills, while focusing on the provision of education and training that reflects labour market needs.

The right to six weeks of vocational training from the first day of unemployment was introduced for low-skilled and skilled unemployed adults, provided that they are members of an unemployment insurance fund. The training is mainly offered through government administered adult vocational training programmes (AMU) targeting low-skilled and skilled workers. These programmes are designed to reflect labour market needs, and are primarily focused on specific sectors and job functions.

Social partners (through 11 continuing training and education committees, each responsible for a different labour market sector) play an important role in designing the specific programme offer.

DKK 100 million (Danish kroner) has been allocated to public employment services (PES)/jobcentres to facilitate purchasing short vocational training programmes for all unemployed adults. To ensure that these programmes can answer labour market demands, social partners within the eight regional labour market councils decide what kind of short vocational training programmes the PES/jobcentres are allowed to finance with the help of the additional resources.

Unskilled unemployed adults over the age of 30 who receive unemployment benefits will be given the chance to apply for and complete one of 107 vocational training programmes. These programmes must be made available to those unemployed within the benefit period of two years, and a specific agreement between the unemployed person and the PES/jobcentre must also be in place. Unemployed adults will have to “pay” for these vocational programmes through a reduction of their unemployment benefit. However, they are also offered a loan that allows them to draw the full unemployment benefit rate while the education lasts, but which is to be repaid upon the completion of their course.

Those unemployed over the age of 30 will be eligible to have their non-formal and informal competences assessed to give credit for acquired competences. Recognition of prior learning by competence assessment programmes (RKV) will also support the composition of the participant’s individual training plan, including one or several adult vocational training programmes.

Source: Danish Agency for Labour Market and Recruitment (2018<sup>[26]</sup>), *Vocational training and education initiatives in the Employment Reform (2014)*, <https://star.dk/en/active-labour-market-policy-measures/vocational-training-and-education-initiatives-in-the-employment-reform-2014/>.

Kahanec and Sedlakova (2016<sup>[22]</sup>) highlight that Slovakia has been persistently spending one of the smallest amounts of GDP on education and training related ALMP among EU member states: only 6.3% of all Slovak jobseekers were supported through training and education programmes, or 12.4% if pilot REPAS programmes are taken into account (Hidas, Vaľková and Harvan, 2016<sup>[27]</sup>). As discussed, REPAS and KOMPAS are the two main programmes of the MPSVR to facilitate the transition of jobseekers to the labour market. Both are co-funded by the European Social Fund under the Operational Programme Human Resources (2014-2020). The average co-financing rate of the programme’s relevant priority axis is almost 84% in Slovakia (Ministry of Labour, Social Affairs and Family, 2014<sup>[28]</sup>). REPAS and KOMPAS

provide funding for jobseekers to participate in training provided by external providers. The introduction of REPAS in 2014 boosted participation in training activities among jobseekers, with recent evaluations showing a positive effect on participants' employment (Štefánik, 2018<sup>[6]</sup>; Petráš, 2018<sup>[29]</sup>) and indicating that the probability of finding a job after the training is between 3 to 4 percentage points higher than if participants had not enrolled in the training. The results show, however, substantial heterogeneity: the programme's effects appear strong in occupations such as private security services or forklift operation, and non-existent in others, such as welding or beauty services. Nevertheless, the overall cost-benefit ratio of the programme is positive.

Despite these successes, education and training opportunities for jobseekers face several challenges. First, and despite the proven impact on trainee outcomes, the quality of training can be further improved. Since 2010, training delivered in the context of ALMP is regularly procured. Some studies show, however, that the introduction of a procurement process coincided with a decline in the quality of training, as measured by the effect on probability of finding employment after having received training (Bondonio and Nemeč, 2015<sup>[30]</sup>). This view is shared by ÚPSVR officers interviewed as a part of the study by Bondonio and Nemeč (2015<sup>[30]</sup>) Workshop and focus group participants also noted that in public procurement processes, the training provider offering the lowest per-trainee price tends to have a high chance of winning the call for tender, while quality factors are not sufficiently weighted.

Second, there are challenges in terms of the relevance of the training provided. When jobseekers register with ÚPSVR they may request to participate in training by completing a "re-qualification request". In this request participants are free to choose the type and area of training programme. Sometimes the choice can be suggested by a career counsellor, although counselling services available at ÚPSVR are limited (Ministry of Finance, 2017<sup>[31]</sup>). After an initial assessment, participants may be allowed to undertake the requested training. Therefore, the nature and relevance of the training largely depends on the quality of information that the jobseeker possesses, which in many cases can be limited. As agreed by counsellors in labour offices, low-skilled adults have difficulties in identifying viable and relevant training paths.

Third, training is not easily accessible for those who need it the most – the low skilled. For example, the number of participants in adult education provided by ÚPSVR is the lowest in regions with the highest numbers of low-qualified jobseekers. The financial resources of ALMP are not directed towards the "hardest employable" groups: for every euro directed at long-term unemployed adults, Slovakia directs 50% more to those who are short-term unemployed (Hidas, Vaľková and Harvan, 2016<sup>[27]</sup>). Moreover, the dominant ALMP measure targeting those who are long-term unemployed is the programme "Activation Works", which aims to promote and maintain the working habits of the long-term unemployed by placing jobseekers in jobs for 10-20 hours a week. However, this programme has been associated with a significant stigmatising effect, resulting in negative employment effects after participation. Finally, jobseekers in remote areas do not have easy access to transport to participate in training activities or to a computer to search for information.

### **Recommendations for providing high-quality and accessible training**

- **Direct a greater share of ALMP spending to labour market relevant training and education.** Slovakia should gradually decrease the share of expenditure on income maintenance and employment incentives for those unemployed, and reallocate these resources to training related activities. This measure, which does not require an increase in total expenditure, would increase accessibility to adult education among those who need it the most, fostering in turn their participation (Štefánik, 2018<sup>[6]</sup>). These measures should also address basic skills gaps in the adult population. Considerable efforts to reorient ALMP towards education and training have been undertaken in many countries, for instance Denmark (Box 4.4).

- **Increase resources for ÚPSVR counselling services to expand access to training for unemployed adults, especially those long-term unemployed and with low skills.** Enhancing the capacity of ÚPSVR to provide customised counselling services is crucial for ensuring that jobseekers undertake relevant training. More resources should be paired with improving information collection about jobseekers at the moment of registration (Ministry of Finance, 2017<sup>[31]</sup>). It is important that counsellors have access to past unemployment records and employment history, which would allow a more rigorous profiling and segmentation of jobseekers while offering them more meaningful training opportunities, such as in Australia (Box 4.5).

### *Strengthening the outreach of labour offices*

There are two main challenges to better connecting Slovak labour offices with all adults in Slovakia: first, the offices have insufficient coverage and capacity; and second, there are institutional constraints related to their mandate. Despite the introduction of REPAS in 2014, the coverage of training is still limited. With REPAS the number of jobseekers participating in ALMP-financed training increased almost tenfold, from 1 629 participants in 2013 to 15 306 participants in 2016 (Štefánik, 2018<sup>[6]</sup>). However, still only 9% of all Slovak jobseekers participate in training (an increase from 1% in 2011). At the same time, the legal mandate of labour offices limits their scope of work and service provision to those registered as jobseekers.

Despite recent efforts to improve the resourcing of ÚPSVR, its capacity still needs to be enhanced (OECD, 2019<sup>[2]</sup>). Several studies have highlighted the insufficient capacity of ÚPSVR to effectively provide the services required by jobseekers. The current network of 46 regional ÚPSVR offices is not enough to cover all relevant areas of the country. Many unemployed adults, especially those living in remote or rural areas, still face significant transport barriers to access regional offices and to regularly attend training or counselling services. The success rate of the ÚPSVR (measured as the percentage of jobseekers removed from their system and thus placed in the labour market) is 24% on average, although significant regional differences remain. ÚPSVR effectiveness is negatively affected in disadvantaged areas with high levels of unemployment, where there is more administrative workload per counsellor (Hidas, Vaľková and Harvan, 2016<sup>[27]</sup>).

This limited geographical coverage of ÚPSVR may prevent unemployed adults, especially those in isolated regions, from registering as jobseekers in the first place. At the same time, although part of the burden of the insufficient number of labour offices could in theory be shared by municipalities and regional governance offices, their own capacities, lack of knowledge, awareness and non-existent tradition of providing services (and especially training) to jobseekers, act as obstacles. These barriers often discourage municipal actors from applying for EU funds to support and potentially develop their activities in this field, and are exacerbated by the perceived complexity associated with applying for and handling funds provided by the EU.

The Slovak government has taken concrete steps to improve the capacity of ÚPSVR. For example, the 2013 administrative reform, Effective, Reliable and Open public Administration (ESO), allowed ÚPSVR and its regional branches to make significant management improvements, such as integrating the ÚPSVR Directorate-General and labour office branches. This allowed for more effective administration of labour market policies, more efficient staff allocation across and within labour offices, as well as the establishment and reinforcement of labour offices as points of first contact. In the context of the implementation of the 2014 Act on Assistance in Material Need, ÚPSVR received EUR 9 million and expanded its network considerably. It hired 840 workers to increase its capacity to connect with the programme's recipients (Kahanec and Sedlakova, 2016<sup>[22]</sup>). In addition, and within the context of improving the system of public employment services, reducing the number of clients per counsellor by further increasing the numbers of personnel acting as points of first contact is planned. The introduction of performance related competitive wages for counsellors, and stronger analytical and prognostic capacity accompanied by a monitoring and evaluation framework, is also foreseen (Kahanec and Sedlakova, 2016<sup>[22]</sup>). This will be of particular importance, especially as ÚPSVR is reported to have limited analytical capacity (Kahanec and Sedlakova, 2016<sup>[22]</sup>).

Overall, these reforms recognise and try to address the fact that human resources within labour offices in Slovakia pose a challenge, which is exacerbated by the fact that the type of services needed by low-skilled unemployed adults are complex and labour intensive. For example, providing guidance and counselling services requires specialised knowledge and expertise, and following jobseekers from the moment of registration until they find a job typically involves significant face-to-face interactions and personalised services, which current ÚPSVR officers are not always capable of delivering. According to the latest data, the number of registered jobseekers per counsellor is 2 280, taking into account the aforementioned reform efforts (Kahanec and Sedlakova, 2016<sup>[22]</sup>), which is too high to provide high-quality and meaningful counselling services. Thus, improving the capacity and efficiency of ÚPSVR officers, together with broadening the geographical coverage and outreach of ÚPSVR offices, will be crucial, especially with respect to providing support and personalised services to long-term unemployed adults, low-skilled workers or those living in geographically isolated areas. To achieve this goal, some countries, such as Australia, rely on automatized quantitative tools. The Australian Job Seeker Classification Instrument (JSCI), described in Box 4.5, uses a combination of administrative data, questionnaires and a statistical model to predict the likelihood of remaining unemployed for another year after registering as a jobseeker.

#### **Box 4.5. Relevant international example: The Job Seeker Classification Instrument in Australia**

Australia implemented its Job Seeker Classification Instrument (JSCI) in 1998 to target efforts at those who need the most support. It was one of the first countries to develop such a quantitative tool.

The JSCI is based on a model that predicts a jobseeker's likelihood to remain unemployed for another year after commencing in employment services. The information for relevant factors is collected through a combination of administrative data (from the income support application) and a questionnaire completed by the jobseeker. The JSCI calculates a score for each jobseeker that helps allocate them to different service streams that will provide the level of support they need to find and keep a job. The JSCI also includes "triggers" that indicate a need for an additional assessment (the employment services assessment) to identify if the jobseeker has complex or multiple barriers to employment. These triggers, such as medical barriers or alcohol abuse, may result in a specialist more closely reviewing the jobseeker's circumstances and work capacity to determine if they are better suited to one of the main service streams (for the most complex) or to an additional service stream dedicated to jobseekers with disabilities.

The JSCI questionnaire includes 18 to 49 questions. Generally, a jobseeker with a higher level of disadvantage will have to answer more questions. The main 18 factors involve age and gender, work experience (e.g. paid seasonal or irregular work), jobseeker history (e.g. duration of income support), educational attainment, vocational qualifications (e.g. not useful vocational qualifications), English proficiency, country of birth, Indigenous status, Indigenous location, geographic location (e.g. extreme disadvantaged employment region), proximity to a labour market (e.g. remote area), access to transport, possibility to contact them by phone, disability/medical conditions, stability of residence, living circumstances (e.g. lone parent with young child), ex-offender status, and personal factors (anger issues, caring responsibilities, domestic violence, drug treatment programme). The JSCI relies on the self-disclosure of jobseekers in answering the questions, which means that the quality of the data is largely dependent on their honesty and objectivity. Some more sensitive questions are voluntary and the jobseeker can decline to answer them (Indigenous status, refugee status, disability and medical conditions, criminal convictions and personal factors). Nevertheless, the government invests a lot of time and effort to ensure fulsome disclosure by using behavioural economics techniques, guidance for interviewers and user-centred design of the questions. Jobseekers are encouraged to fully disclose their circumstances to ensure that they receive the most appropriate employment services and support.

Source: OECD (2019<sup>[32]</sup>), *Strengthening Active Labour Market Policies in Italy*, Connecting People with Jobs, <https://doi.org/10.1787/160a3c28-en>.

The legally defined mandate of the ÚPSVR in Slovakia limits the scope of their work to only target those unemployed and registered as jobseekers. Services provided include informational, guidance and expert advice related to occupational choices, qualifications required for relevant jobs, adaptation to a new work environment, accessing unemployment benefits or participation in different ALMP programmes. Registering at a local labour office in the place of permanent residence is not an obligation for each Slovak citizen after the termination of an employment relation, which means that unregistered unemployed or inactive groups are not targeted by the ÚPSVR and cannot benefit from any services that they provide.

### **Recommendations for strengthening the outreach of labour offices**

- **Integrate municipalities into the employment registration process to expand access to training opportunities for hard-to-reach groups of unemployed adults.** Given the insufficient coverage and capacities of labour offices in Slovakia, municipalities, with adequate support, could temporarily take responsibility for jobseeker registration, which is currently assumed solely by local labour offices. With the roles split in this way, the public employment service would have more potential overall to reach more unemployed adults, especially those living in hard-to-access areas and prevented from registering by considerable transfer costs or family responsibilities. For example, greater responsibility was given to municipalities in support of jobseekers in Japan, where legislation in 2000 allowed local governments to implement other employment measures and provide regular job-matching services. Since then, municipalities and prefectures have become key players, managing Job Cafés (small-scale employment service offices for young jobseekers), employment and work preparation centres for single mothers, as well as job-creation projects (OECD, 2013<sup>[33]</sup>).
- **Consider the use of data driven processes and tools to increase the capacity and efficiency of labour offices.** The work of ÚPSVR officers could be complemented by the use of quantitative tools to support internal processes. For example, quantitative tools using jobseekers' background information and work history could be used to predict outcomes, such as the risk of falling into long-term unemployment. These tools, in combination with officers' judgment and expertise, could improve the screening of jobseekers and be used to offer personalised services that are better adapted to jobseekers' needs. For example, Slovakia can look at the Australian Job Seeker Classification Instrument (JSCI), which is described more extensively in Box 4.5.

### ***Opportunity 3: Supporting the capacity employees and firms to engage in adult learning***

Although the participation of employed adults in adult learning is higher than among those unemployed in Slovakia, it is also unequal, with workers most in need of continuous education and training participating considerably less. For instance, while Slovak adults working in SMEs participate less in adult learning than employees of large firms, the participation of Slovak SME workers is also low by international comparison. Only five other OECD countries report having lower participation of SME employees in adult learning. However, interviews with workshop and focus group participants revealed that even the training provided to adults in large companies tends to be firm specific, and fails to develop the general human capital and basic, transferable skills of Slovak workers.

Various barriers to the inclusive participation of workers in adult learning in Slovakia have been identified through desk research and stakeholder surveys. According to these insights, an important step forward will be to remove the financial barriers that individuals and firms face through the provision of financial incentives. However, financial support provided by the state in this area is almost non-existent, with most current financial schemes targeting those (registered) unemployed, as highlighted in the previous opportunity.

To address this gap, the MŠVVŠ is currently analysing the introduction of individual learning accounts and a tax allowance for companies that invest in training their employees in support of continuing education.

These are identified as Measure 106 within the Implementation Plan of the National Programme for the Development of Education (“Learning Slovakia”) (Ministry of Education, 2019<sup>[34]</sup>). If well designed and implemented, such a financing mechanism could increase the participation of workers in adult learning and boost the supply of relevant skills in general, as well as contribute to increasing the inclusiveness of participation. The main trade-off in the design of such a subsidy scheme is the simplicity of a universal approach (with lower administration costs, but possibly higher deadweight loss) vs. greater targeting (with increased administration costs and possibly reduced take-up, but also reduced deadweight loss).

In the context of ongoing analysis of the new financial instruments, Slovakia should seek to maximise its potential to increase inclusive participation in adult learning by:

- Designing targeted incentives that reflect labour market needs.
- Targeting tax exemptions at SMEs.

#### *Designing targeted incentives that reflect labour market needs*

Measure 106 of “Learning Slovakia” considers introducing an individual learning account (ILA) scheme to foster participation in adult learning. ILAs are one type of asset building mechanism – similar to a bank account – to finance learning activities. The first ILA scheme emerged in the late 1990s as an alternative to traditional subsidies. They are designed to finance future learning activities. The government, employers and individuals can contribute to the account, the funds of which can be used at any time by the beneficiary. The MŠVVŠ will run a pilot programme from 2020 to 2027, with a total public investment of over EUR 15 million. In the pilot programme, EUR 200 will be allocated in each account for individuals to use to finance further education (Ministry of Education, 2019<sup>[34]</sup>). The introduction of Slovakia’s ILA pilot programme signals a step in the right direction towards better incentivising adults to participate in training. Should evaluation be encouraging, Slovakia will expand and adopt the scheme permanently after 2027. However, details of the programme have not yet been made public. Workshop and focus group participants also noted that the project is still in its design phase, and that there is neither a concrete implementation plan nor additional details about how it will work in practice. For example, it is not clear who and what training will be eligible and how the effectiveness of the programme will be evaluated. Despite the lack of details about the concrete plan for an ILA in Slovakia, it is important to consider the pros and cons of this scheme in order to take concrete actions to maximise its effectiveness (see recommendations section).

The main advantage of ILAs is that they allow employee entitlement to training to be decoupled from the employer. By owning the ILA, the entitlement to training can be transferred from one job to another. It empowers employees by giving them the freedom to choose the type and timing of training, the training provider, as well as the amount invested (OECD, 2017<sup>[35]</sup>). This has the potential to improve the alignment of training with labour market needs, provided that individuals have access to sufficient information, advice and guidance. Moreover, subsidies targeting individuals, as opposed to employers (such a tax deduction), tend to be more effective in targeting vulnerable groups. Various international examples of countries that direct incentives at vulnerable groups, such as Finland, Belgium, or Latvia, are described in Box 4.6.

#### Box 4.6. Relevant international example: Targeting incentives at vulnerable groups

Certain groups face more barriers than others in terms of skills investments. These groups also tend to be those most affected by changing skills demands. Such groups include low-skilled and low-wage workers, migrants, minorities, people with disabilities, young and older workers, the long-term unemployed, and some parents. Given that many advantaged groups are likely to invest in their own skills without the help of public subsidies, governments can reduce deadweight losses of incentive programmes by targeting schemes at those who need them most.

The vast majority of incentive programmes for vulnerable workers focus on the individual as the main beneficiary (rather than the employer). Access to programmes is frequently restricted based on a number of characteristics such as age (e.g. 45-64 in case of the Targeted Initiative for Older Workers in Canada); income and wealth (e.g. the extensive means test of the *Kyushoku-sya Shien Seido* programme in Japan); skill (e.g. maximum upper secondary education for Alternate Training in Wallonia, Belgium); the presence of children (e.g. the Transitional Benefits for single parents in Norway); and disability (e.g. the Australian Mobility Allowance). In Australia (Aboriginal and Torres Strait Islander), Canada (Aboriginal) and Israel (Arab and ultra-Orthodox men and women), a large number of subsidies are available for individuals from minority backgrounds. Some programmes are open to a wide number of vulnerable groups simultaneously (e.g. the Allowance for Course and Course-related Costs in Austria), while others target individuals with multiple barriers (e.g. *the Nodarbin to personu profesion / s kompetences pilnveide*, SAM 8.4.1) programme in Latvia, which prioritises employed persons aged 45+ in low-wage occupations). Some programmes, while open to everyone, provide greater support to vulnerable groups. For example, in Finland, the *Ammattitutkintostipendi* scholarship for qualified employees is 15% higher for individuals with no qualifications.

Source: OECD (2017<sup>[35]</sup>), *Financial Incentives for Steering Education and Training*, <https://dx.doi.org/10.1787/9789264272415-en/>.

If ILAs are not well designed they can give rise to a number of disadvantages. First, their implementation may imply significant administrative costs. For example, the Slovak government plans to invest more than EUR 15 million in ILAs, which would benefit a maximum of 78 200 individuals. However, it would need to plan from the outset the managing costs of the ILA. Second, in order to steer choices towards labour market relevant training, it is important that ILAs are accompanied by strong guidance provision, as highlighted in Opportunity 2. For example, in England, 85% of workers did not receive any information or guidance to assist them with their choice of learning, and 73% had not considered more than one provider before starting their course (OECD, 2017<sup>[35]</sup>). In the Netherlands a similar scheme named “*Levensloopregeling*” was used disproportionately less by those who needed it the most (Ministry of Social Affairs and Employment, 2011<sup>[36]</sup>). For this reason, it is crucial that an ILA is paired with a strong information system that provides support and guidance to employees. Third, international experience shows that ILAs are more likely to be used by high- than low-skilled workers, if not accompanied by extra incentives targeting the latter category. Finally, the 2001 scheme in England, for which no quality assurance arrangements were put in place, was discontinued because of reports of providers manipulating the scheme to pocket the subsidy without any real course content (BMBF and OECD, 2005<sup>[37]</sup>). Therefore, it is vital that robust quality assurance that certifies the providers is in place. The Slovak Accreditation Committee for Further Education would be the natural candidate to take on this role in the context of ILAs.

It is worth noting that there seems to be a renewed interest in ILA type schemes, even in countries that have abandoned previous similar schemes (e.g. the Netherlands is reviving this instrument after a wide public consultation).

### Recommendations for designing targeted incentives that reflect labour market needs

- **When piloting an ILA scheme, consider the different enabling conditions that are prerequisites for successful implementation.** The scheme should be accompanied by strong guidance and quality assurance systems. Special attention should also be given to vulnerable groups (see examples of how different groups can be targeted in Box 4.6). Evaluation measures should be put in place that allow for regularly reviewing the extent to which the scheme fulfils its intended policy objectives.
- **Training subsidies should be spent on approved training courses only.** A multi-stakeholder and inter-ministerial committee should define and approve the list of eligible training courses from which beneficiaries could choose. The selection of training courses should be aligned with labour market needs (see Chapter 3 on skills assessment and anticipation exercises) and pass strict quality control (*ex ante* accreditation matched with *ex post* quality control). Training qualifications should be linked to the Slovak Qualifications Framework (SKKR), and participants should receive formal recognition of the skills acquired.

#### *Targeting tax exemptions at SMEs*

Slovakia's National Programme for the Development of Education ("Learning Slovakia") also considers introducing a tax allowance for companies that invest in training their employees (Measure 106). Slovakia would allow companies to deduct 25% of the cost of training from their taxable base. Therefore, for every EUR 100 invested in training, the taxable income of companies would be reduced by EUR 25. At the current Slovak company tax rate of 21%, this incentive would reduce companies' tax payments by EUR 5.25 (21% of EUR 25). This tax allowance would be introduced and piloted along with the aforementioned ILA (see previous section).

Tax allowances targeting companies can be effective mechanisms to boost participation in adult learning among employees. Many employers do not invest in training for their employees (especially those low skilled) due to lack of resources, and this constraint is usually higher among SMEs. Employers may also not want to invest in training and the development of employees' general skills because of the risk of poaching, as they would lose their investment if workers leave for another company after undergoing training.

A tax incentive as proposed in Slovakia can alleviate these problems. Targeting employers –rather than workers as in an ILA scheme– might be more effective, as they may have better knowledge about the skills that workers need, meaning that the selected training may be well aligned with labour market needs. With enough flexibility regarding choice, training may contribute towards filling relevant skills gaps at the sectoral or local level. The implementation cost of a tax exemption would be low as it would build on the existing tax system.

Potential problems that Slovakia could face when introducing the tax exemption include the risk that companies will use it to finance training that they would have financed even in the absence of the tax benefit. In this case, the exemption may create large deadweight losses, which have been well documented in the literature (Oosterbeek, 2013<sup>[38]</sup>). This is the reason why, for example, the Netherlands and Canada are replacing tax incentives for education and training with direct subsidies (OECD, 2017<sup>[35]</sup>). As noted by several workshop and focus group participants, a significant share of training investment is directed at courses on safety regulations compliance, or on courses that develop specific skills to manipulate equipment. In this context, significant deadweight losses will arise if the tax exemption is predominantly used to finance this type of training activity as it would have been funded anyway. Therefore, the tax deduction should apply to approved training courses only. For instance, within the context of the individual learning voucher scheme in place in Upper Austria, the government mandates using the vouchers only for training provided by an organisation with a quality seal (Box 4.7).

### Box 4.7. Relevant international example: The quality seal for individual learning vouchers in Upper Austria

The Government of Upper Austria supports the participation of employees in adult learning courses by means of an individual learning voucher, the *Bildungskonto*. While these vouchers are open to employees in general, they are targeted primarily at low-skilled and low-educated adults. Since the government wants to ensure that the vouchers are spent on education and training of appropriate quality, it introduced a requirement for the vouchers to be used only for training provided by organisations with a quality seal.

The process of awarding quality seals (*Qualitätssiegel*) was introduced in the 1990s as an initiative of the Adult Education Forum, an umbrella organisation of all non-profit providers operating in the region. The forum developed a catalogue of criteria related to the nature of training, the qualifications of management and instructors, the curriculum, physical facilities, and feedback from students. Based on these criteria, certified auditors examine different aspects of an organisation seeking a quality seal. All original 15 members of the Adult Education Forum have passed these audits, as have 260 affiliated regional and local institutions. Since the pass rate has been almost 100%, the quality seal operates less by denying seals of approval than by providing criteria that organisations should meet. Since 2000, profit-oriented private adult education institutions that are not members of the Adult Education Forum can also take these audits and earn the quality seal, as 75 non-member institutions in Upper Austria have done. The criteria for awarding the seal are continuously updated.

Source: OECD (2012<sup>[39]</sup>), *Better Skills, Better Jobs, Better Lives: A Strategic Approach to Skills Policies*, <http://dx.doi.org/10.1787/9789264177338-en>; OECD (2005<sup>[40]</sup>), *Promoting Adult Learning*, <https://doi.org/10.1787/9789264010932-en>.

Survey data show that in Slovakia, as in most countries, large firms invest significantly more in training workers than SMEs (OECD, 2019<sup>[14]</sup>). Large firms not only face lower financial barriers, but also lower non-financial barriers (e.g. information) than SMEs (see Chapter 5 on the barriers faced by SMEs in the context of the adoption of high-performance workplace practices). For this reason, there is a risk that the tax exemption would favour large rather than small companies. The international experience with tax deductions shows that they are difficult to target and that deadweight losses can be significant. Slovakia should design the system carefully to limit such losses, encourage SMEs to participate more, and promote training for low-skilled adults. Numerous OECD countries already provide incentives targeted at SMEs, as described in detail in Box 4.8.

### Box 4.8. Relevant international example: Approaches to support training in SMEs

Many OECD countries run programmes targeted exclusively at SMEs. Some are designed to help SMEs overcome cost barriers (e.g. *Chèque Formation* in Wallonia, Belgium; *Profil!Lehre* and *Weiter!Bilden* in Austria; and the Consortium for HRD Ability Magnified Program [CHAMP] in Korea), while others specifically seek to help them grow and become more competitive through skills investments (*Industry Skills Fund* in Australia; *KMO Portefeuille* in Flanders, Belgium). The *Formação-Ação* in Portugal focuses on a particular barrier to SME growth – management skills.

Some programmes are open to firms of all sizes, but provide larger subsidies to SMEs. For example, the Crédit-Adaptation in Wallonia (Belgium) offers EUR 6-7 per training hour to large firms, and EUR 9-10 to SMEs. In France, employers with fewer than 250 employees receive an additional EUR 1 000 subsidy if they take on an apprentice. In Finland, the precision training offered as part of the Joint Purchase Training covers 30-50% of the costs, depending on the size of the company. In Japan, several programmes provide greater subsidies to SMEs, including Career Keisei Joseikin (which covers half the training costs of SMEs, compared to just a third for large firms); Career-up Josei-kin (which provides larger wage subsidies and higher ceilings on training costs for SMEs); and the Subsidy for Securing and Developing Skilled Construction Workers (which covers 90% of the cost of training for SMEs, compared to 50% for larger firms). In Latvia, training support for enhancing the competitiveness of enterprises covers 80% instead of 60% of the costs of general training, and 45% instead of 35% of the costs of special training when the firm is an SME. In Poland, grants awarded through the National Training Fund cover 100% of the costs of lifelong learning for micro-enterprises, compared to 80% for all other firms.

Another approach is to provide more flexibility and/or simpler procedures for SMEs. For example, in the Canada Job Fund Agreements, employers can apply for up to CAD 10 000 (Canadian dollar) in government contributions toward the direct costs of training, such as tuition and training material; and they are required to contribute, on average, an additional one-third to these training costs. However, small businesses with 50 or fewer employees can benefit from more flexible funding arrangements, such as the possibility to count wages as half of their employer contribution, or can contribute a minimum of 15%.

Source: OECD (2017<sup>[35]</sup>), *Financial Incentives for Steering Education and Training*, <https://dx.doi.org/10.1787/9789264272415-en>.

### Recommendations for targeting tax exemptions at SMEs

- **Consider differentiated tax exemptions for SMEs.** To allow the tax benefit to target those most in need of training, allow SMEs to deduct a greater amount of training costs from their taxable base (as in Malta) or limit the tax benefit only to SMEs. An alternative solution would be to allow a greater deduction if the companies train low-skilled workers; however, this would involve higher administration costs as it would be more complex to verify. Box 4.8 provides examples of financial incentives targeting SMEs.
- **Limit tax deductions to non-wage costs only.** If wage costs – salaries paid to workers while they undergo training – can be deducted from the taxable base, firms will have incentives to provide training to their high-skilled employees as their salaries are higher and therefore the tax benefit will be larger. The focus, however, should be on low-educated and low-skilled workers. For example, the Netherlands and Austria have adopted this approach (OECD, 2005<sup>[40]</sup>).
- **Tax deductions should only apply to approved training courses.** Similar to the recommendation related to the ILA scheme (see previous section), Slovakia should create a list of training courses for which the tax deduction would be applicable. This would minimise the risk of firms training workers in non-transferable skills through training mandated by the law (e.g. safety), and maximise the impact and value-added of the training. Austria has already adopted a quality oriented approach to training courses within the context of its individual learning voucher scheme (Box 4.7).

## Overview of recommendations

<b>Opportunity 1: Improving the governance of adult learning</b>	
Further improving Slovakia's long-term adult learning strategy	<ul style="list-style-type: none"> <li>• Unify the existing strategies and initiatives into one coherent lifelong learning strategy.</li> <li>• Emphasise the governance, financing and equity aspects of adult learning in the new lifelong learning strategy.</li> <li>• Explicitly acknowledge in the new lifelong learning strategy that the need for adult learning is greater in certain Slovak regions.</li> </ul>
Improving co-ordination across ministries, levels of government and stakeholders	<ul style="list-style-type: none"> <li>• Introduce cross-sectoral co-ordination during the implementation and monitoring stages of policy/programme cycles.</li> <li>• Reinforce co-ordination with regions and districts.</li> </ul>
<b>Opportunity 2: Increasing the participation among adults out of work</b>	
Providing high-quality and accessible training	<ul style="list-style-type: none"> <li>• Direct a greater share of ALMP spending to labour market relevant training and education.</li> <li>• Increase resources for the Central Office of Labour, Social Affairs and Family (Ústredie práce, sociálnych vecí a rodiny, ÚPSVR) counselling services to expand access to training for unemployed adults, especially those long-term unemployed and with low skills.</li> </ul>
Strengthening the outreach of labour offices	<ul style="list-style-type: none"> <li>• Integrate municipalities into the employment registration process to expand access to training opportunities for hard-to-reach groups of unemployed adults.</li> <li>• Consider the use of data driven processes and tools to increase the capacity and efficiency of labour offices.</li> </ul>
<b>Opportunity 3: Supporting the capacity of employees and firms to engage in adult learning</b>	
Designing targeted incentives that reflect labour market needs	<ul style="list-style-type: none"> <li>• When piloting an ILA scheme, consider the different enabling conditions that are prerequisites for successful implementation</li> <li>• Training subsidies should be spent on approved training courses only.</li> </ul>
Targeting tax exemptions at SMEs	<ul style="list-style-type: none"> <li>• Consider differentiated tax exemptions for SMEs.</li> <li>• Limit tax deductions to non-wage costs only.</li> <li>• Tax deductions should only apply to approved training courses.</li> </ul>

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# **5 Strengthening the use of skills in workplaces**

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The effective use of skills in workplaces has potential benefits for employers, employees and society as it can raise productivity, wages and job satisfaction. Public policy makers can work with employers to help create the conditions or provide direct support for strengthening skills use in workplaces. This chapter explains the importance of the effective use of skills for the Slovak Republic and provides an overview of current practices and performance. Three opportunities are discussed to improve skills utilisation: creating the conditions to facilitate the adoption of high-performance workplace practices (HPWP) in Slovak firms, providing incentives and support to Slovak firms for the adoption of HPWP, and enhancing the governance of policies and strategies affecting skills use.

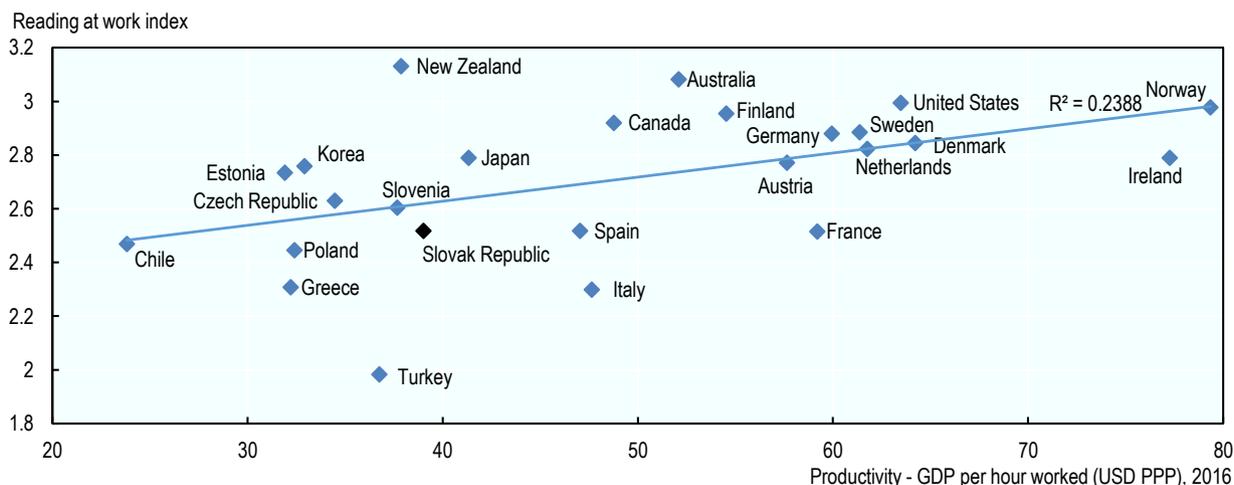
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## The importance of the effective use of skills for the Slovak Republic

Skills policies tend to focus primarily on the development of skills in education and training, and the link between these skills and the labour market (see chapters 2, 3 and 4). Recently there has been a growing awareness that how well employers use skills in the workplace may be just as important as the skills their workers possess. To take full advantage of the initial investment in skills development, and to limit the depreciation and obsolescence of unused skills, countries should strive to use the skills of the population as intensively as possible in the economy, workplaces and society (Guest, 2006<sup>[11]</sup>).

Putting skills to better use in the workplace (see Box 5.1 for definitions) is important for workers, employers and the broader economy. Studies using data from the Survey of Adult Skills, a product of the Programme for the International Assessment of Adult Competencies (PIAAC), demonstrate the positive impacts of the effective use of skills on performance in both the economy – including on employment, wages and productivity (see Figure 5.1) – and society – including health, trust and political efficacy (OECD, 2016<sup>[2]</sup>). A number of megatrends reinforce the importance of the effective use of skills in the workplace to ensure the long-term sustainability of Slovakia's economy (OECD, 2019<sup>[3]</sup>).

**Figure 5.1. Reading at work and productivity in terms of GDP per hour worked**



Note: Reading at work index ranges from 1 "Never" and 5 "Every day".

Source: OECD (2019<sup>[4]</sup>), Calculations based on OECD Survey of Adults Skills (PIAAC) (2012, 2015), [www.oecd.org/skills/piaac/](http://www.oecd.org/skills/piaac/); OECD (2019<sup>[5]</sup>), "GDP per hour worked" (indicator), <https://doi.org/10.1787/1439e590-en>.

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Skills use matters in the context of demographic change. The Slovak Republic has one of the fastest ageing populations in the OECD: for every 10 adults aged 15 to 64 (working-age population), there are two adults aged 65 and older; however, in 2060 this number will increase to 6 adults aged 65 and older for every 10 of working age (OECD, 2019<sup>[6]</sup>). Following this trend, the growth in population will contribute less to gross domestic product (GDP) growth, making productivity growth an increasingly important driver for the economy. In this context, the more effective use of skills in workplaces could play an important role in driving future productivity growth.

Using skills more effectively also matters in the context of technological change. Slovakia has the highest share of jobs at risk of automation across the OECD, and technological change and digitalisation are major challenges (Nedelkoska and Quintini, 2018<sup>[7]</sup>). To ensure competitiveness it becomes increasingly

essential to adopt innovation and technological change; however, current innovative activities in Slovak firms could be expanded (OECD, 2019<sup>[6]</sup>). The more effective use of skills could support this expansion as not only does the more effective use of skills stimulate innovation, but more innovative firms tend to better utilise the skills of their employees.

Better skills utilisation could help to overcome the challenges resulting from globalisation. The enhanced competition caused by a globalised and interconnected world creates the need for firms to be internationally competitive. While some labour intensive segments of the economy (e.g. car assembly) already benefitted from joining global value chains, for future competitiveness and economic progress it will be essential to move beyond this approach (OECD, 2019<sup>[6]</sup>). Slovakia's production still focuses mainly on low-value-added downstream activities, and it will be essential that a broad range of sectors move up the value chain – a trend which has slowed in the past decade (OECD, 2017<sup>[8]</sup>). The more effective use of skills in workplaces could support firms to move up value chains through increased innovation and stronger productivity growth.

Despite the positive outcomes of better skills use for workers, employers and the broader economy, as well as the increased importance of how skills are used in the context of megatrends, many firms in Slovakia and other OECD countries are still not optimally using the skills of their employees. This is partly because they are not organising workplaces in a way that supports effective skills use. The main determinants of effective skills use are a variety of organisational and management practices that shape how and why skills are used in the workplace. Practices known to positively affect the performance of employees and firms are often referred to as high-performance workplace practices (HPWP) (see Box 5.1). These include work flexibility and autonomy; teamwork and information sharing; training and development; and benefits, career progression and performance management. The Survey of Adult Skills (PIAAC) demonstrates that there is a strong link between the adoption of these HPWP and the intensive use of skills (see Figure 5.2).

### Box 5.1. Definitions and measurements of skills use and HPWP

#### Skills use

The OECD Skills Strategy Framework (OECD, 2019<sup>[3]</sup>) and its pillar on “using skills effectively” describes skills utilisation in both the labour market (also referred to as “activation”) and in workplaces. This chapter will solely address the latter interpretation of skills use because it is less intensively covered in other studies and is very relevant for the productivity, demographic and innovation challenges in Slovakia.

The Survey of Adult Skills (PIAAC) is one of the main sources used to analyse the use of information processing skills in workplaces, which include reading, writing, numeracy, information and communication technology (ICT), and problem solving. The approach used in the Survey of Adult Skills (PIAAC) follows the job requirements approach (JRA), whereby the survey enquires about the frequency with which tasks relevant to each skill are carried out. For example, the survey measures the frequency (from 1 “never carried out” to 5 “carried out every day”) for ICT-related tasks such as the use of email, spreadsheets and programming languages, which result in a composite variable for the use of ICT skills. To assess the “effectiveness” of skills use, these frequency indicators need to be analysed in combination with actual skill levels. The method has some limitations, including that 1) the measures are developed on self-reported data and could be affected by workers' skills and perceptions; and 2) the measures are based on task frequency and thereby possibly do not capture the full list and complexity of tasks for skill types (OECD, 2016<sup>[2]</sup>).

### High-performance workplace practices (HPWP)

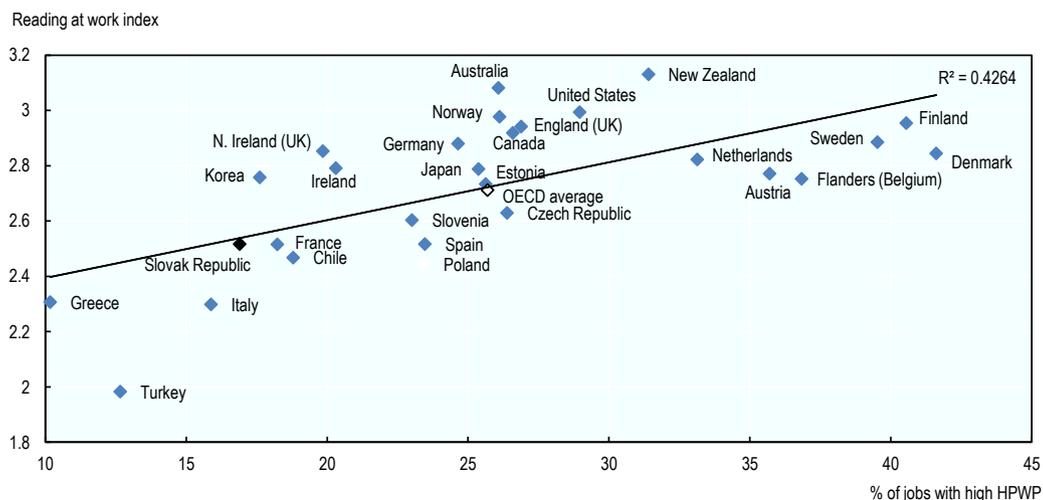
Despite considerable literature on HPWP, there is no consensus on the exact definition (Posthuma et al., 2013<sup>[9]</sup>; UKCES, 2009<sup>[10]</sup>). There is no universal list of HPWP that can be applied to any organisation, since their effect can depend heavily on organisational context. Organisations should implement a system of practices that complement and reinforce each other and that fit the specific organisation. A number of authors have tried to identify specific practices and different categories of HPWP, for example Posthuma et al (2013<sup>[9]</sup>) and Sung and Ashton (2006<sup>[11]</sup>), and a definition of HPWP has been developed based on analysis of data from the Survey of Adult Skills (PIAAC) (OECD, 2016<sup>[2]</sup>). These taxonomies differ in both depth and breadth.

This report applies a pragmatic approach, where broad categories of workplace practices are selected based on existing taxonomies and driven by available data on underlying indicators. The following broad categories of HPWP have been selected:

- **Flexibility and autonomy:** including flexibility in working time and tasks, involvement in setting tasks, planning activities, and applying own ideas.
- **Teamwork and information sharing:** including receiving support from colleagues, working in a team, and sharing work-related information with colleagues.
- **Training and development:** including participation in continuing vocational training and on-the-job training.
- **Benefits, career progression and performance management:** including bonuses, career advancement, performance appraisal and competency profiles.

Source: OECD (2019<sup>[3]</sup>), *OECD Skills Strategy 2019: Skills to Shape a Better Future*, <https://dx.doi.org/10.1787/9789264313835-en>; OECD (2016<sup>[2]</sup>), *Skills Matter: Further Results from the Survey of Adult Skills*, <https://dx.doi.org/10.1787/9789264258051-en>; UKCES (2009<sup>[10]</sup>), *High Performance Working: A Synthesis of Key Literature*, [www.ukces.org.uk](http://www.ukces.org.uk); Posthuma et al. (2013<sup>[9]</sup>), *A High Performance Work Practices Taxonomy: Integrating the Literature and Directing Future Research*, <https://dx.doi.org/10.1177/0149206313478184>; Sung J. and D. Ashton (2006<sup>[11]</sup>), *High Performance Work Practices: Linking Strategy and Skills to Performance Outcomes*, [www.longwoods.com/articles/images/High%20Performance%20Work%20Practices\\_UKReport2011.pdf](http://www.longwoods.com/articles/images/High%20Performance%20Work%20Practices_UKReport2011.pdf).

**Figure 5.2. Relationship between using reading skills at work and HPWP adoption**



Note: Skill use indicators show how often skills are used, scaled from 1 “Never” to 5 “Every day”. The share of jobs with high HPWP is based on various averages of HPWP measures included in PIAAC.

Source: OECD (2019<sup>[4]</sup>), Calculations based on OECD Survey of Adults Skills (PIAAC) (2012, 2015), [www.oecd.org/skills/piaac/](http://www.oecd.org/skills/piaac/).

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A number of positive developments in Slovakia have created a momentum for policies and reforms to improve skills utilisation in workplaces. First, several initiatives that directly or indirectly affect skills use have been introduced in recent years. For instance, the Slovak Business Agency (SBA), a subordinated agency of the Ministry of Economy, currently runs a broad range of programmes to support small and medium-sized enterprises (SMEs) (see overview of current arrangements section for more information). Slovakia should use these initiatives as a foundation for future actions, and new policies and programmes should be informed by lessons learned from these initiatives to build on and expand good practices. Second, based on conversations and discussions with government and stakeholder representatives (participants) consulted during this project, recent developments appear to have resulted in changing attitudes towards skills use and HPWP in Slovakia. Enhanced competition between firms and labour shortages in various sectors has forced employers to remain competitive through productivity growth, including by adopting HPWP, and has put pressure on employers to attract talent, including by improving working conditions. For Slovakia, this context should be considered a great opportunity to further promote and support skills use and HPWP, and thereby secure future economic and social prosperity.

## Overview and performance of skills use in the Slovak Republic

### *Overview of current arrangements for skills use in the Slovak Republic*

Slovakia is already taking active action to address most of the described challenges caused by megatrends. Directly and indirectly these actions are affecting the use of skills in workplaces. Policies that affect skills use can be very diverse due to the variety in types of HPWP – from work flexibility to performance management – and the (often external) factors affecting the adoption of HPWP, including management skills, engagement of employees and overall economic context (e.g. the broader value chain and industrial clusters (OECD, 2016<sup>[12]</sup>; OECD/ILO, 2017<sup>[13]</sup>)). Relevant policies for skills use could therefore include policy fields such as industry, innovation, economic development, and human and social capital.

A large number of Slovak ministries are currently developing such policies – most notably the Ministry of Economy; the Ministry of Labour, Social Affairs and Family; the Ministry of Finance; the Office of the Deputy Prime Minister of the Slovak Republic for Investments and Informatisation (Úrad podpredsedu vlády pre investície a informatizáciu, ÚPVII); and the Ministry of Education, Science, Research and Sports. Multiple other public and private organisations, institutions and agencies are involved in activities that indirectly affect skills utilisation in workplaces, including the Slovak Chamber of Commerce and Industry (Slovenská obchodná a priemyselná komora, SOPK), the Central Office of Labour, Social Affairs and Family (Ústredie práce, sociálnych vecí a rodiny, ÚPSVAR), employee organisations (e.g. the Confederation of Trade Unions of the Slovak Republic), employer organisations (e.g. the Entrepreneurs Association of Slovakia), and tripartite bodies (e.g. the Economic and Social Council). However, few organisations directly target practices in workplaces.

The most important government agency at the national level for providing support to employers and entrepreneurs in SMEs is the Slovak Business Agency (SBA). Founded in 1993 as the National Agency for Development of SMEs (renamed SBA in 2014), it is Slovakia's oldest specialised non-profit organisation, and a unique platform for public and private sectors. The mission of the SBA is to support SMEs at all levels, and to improve their international competitiveness through measures aimed at raising the survival rates of enterprises, enhancing innovation and stimulating entrepreneurial behaviour. Support can be either financial or non-financial, and can target specific groups such as start-ups and marginalised groups. The SBA also provides analyses of the business environment, including yearly reports on the state of SMEs in the Slovak Republic that include an extensive assessment of support instruments and identify problems and recommendations. Since 2017, seven National Business Centres in every regional capital function as a one-stop-shop for information and services to all businesses on SBA programmes and

activities. As part of the SBA, the Better Regulation Centre was created to reduce the regulatory burden on businesses and improve the business environment in Slovakia.

As part of the Ministry of Economy, the Slovak Investment and Trade Development Agency (Slovenská agentúra pre rozvoj investícií a obchodu, SARIO), and the Slovak Innovation and Energy Agency (Slovenská inovačná a energetická agentúra, SIEA) also run programmes that indirectly affect workplaces and skills utilisation. SARIO aims to increase the inflow of foreign investment and supports the high-performance of businesses. It works towards a competitive investment and business friendly environment in Slovakia by providing information and consultancy services, and organising trade missions, trade fairs and knowledge events. SIEA implements, monitors and evaluates public support measures aimed at energy efficiency and the development of innovations. It has established regional consultation centres to provide information to entrepreneurs, and organises seminars, workshops and conferences.

The future ambitions of Slovakia, as expressed in a number of strategies, emphasise directly or indirectly the need to promote change in workplaces. The Strategy of the Digital Transformation of Slovakia 2030, created by ÚPVII, is an inter-departmental, long-term vision that defines policy priorities for Slovakia. It covers the period 2019-2030 and was created in the framework of digitisation processes, the digital single market agenda of the European Union, and global digital transformation priorities. It will be the basis for the development of specific measures, for instance the Action Plan of the Digital Transformation of Slovakia 2019-2022, and puts emphasis on the business sector and the transformation to Industry 4.0. In this context, it addresses the need for innovation in companies, the enabling of new business models and the adoption of technology.

## **Performance of the Slovak Republic**

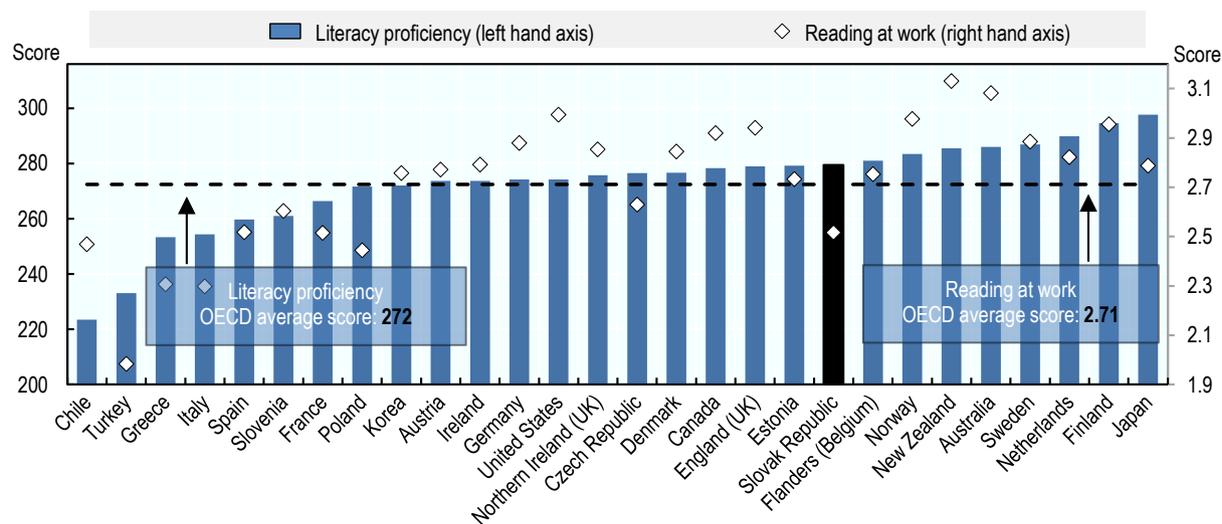
### *The use of skills in workplaces*

Overall, the skills of adults are not used to their full potential in the workplace. The use of most types of information processing, job-specific and generic skills of employees in Slovakia could be intensified. As one of the few countries in the OECD, the use of reading skills at work in Slovakia is well below the OECD average, while the literacy proficiency of adults is above the average (see Figure 5.3) (OECD, 2016<sup>[2]</sup>). This indicates a large waste of initial investment in skills. The use of ICT skills could be strengthened (OECD, 2016<sup>[2]</sup>), and Slovak firms could do more to adopt technologies. While many new ICT technologies such as cloud computing and big data are widely available, they have been adopted and used by only a comparatively small share of firms in Slovakia – 21% of enterprises used cloud services in 2018 (26% in the EU) and 9% analysed big data (12% in the EU) (Eurostat, 2019<sup>[14]</sup>).

Some types of skill are used more intensively than others in Slovak workplaces, most notably numeracy and problem-solving skills. For numeracy, this performance is in line with the strong numeracy skills of the adult population (OECD, 2016<sup>[2]</sup>). However, various countries with comparable numeracy skills proficiency manage to utilise these skills even more intensively, especially the Czech Republic, which is one of the top performers in this regard.

The skills of some workers are particularly underutilised in Slovakia, largely driven by whether they possess these skills – i.e. the use of skills is naturally restricted by the skills that adults possess. Consequently, low-skilled adults are using their skills less intensively than those with higher skills (OECD, 2016<sup>[2]</sup>). As low skill levels are especially prevalent among low-educated and older adults, these groups are particularly lagging behind in Slovakia.

**Figure 5.3. Literacy proficiency and reading at work indicators, The Survey of Adult Skills (PIAAC), 2012, 2015**



Note: Skill use indicators show how often skills are used, scaled from 1 "Never" to 5 "Every day".

Source: OECD (2019<sup>[4]</sup>), Calculations based on OECD Survey of Adults Skills (PIAAC) (2012, 2015), [www.oecd.org/skills/piaac/](http://www.oecd.org/skills/piaac/).

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As to be expected, there is large variation in the use of information processing skills between different firms and sectors – for example, ICT skills are likely to be less needed in construction than in the financial sector. Skills use is also correlated with firm size – larger firms, for instance, use the skills of employees more intensively, on average, than medium-sized firms. As a consequence, the aggregated use of skills in workplaces is largely shaped by the sectoral composition and distribution of firm sizes in a country.

The specific structure of the Slovak economy is characterised by a large manufacturing sector, which has a pronounced effect on average skills use in Slovak workplaces. Almost 25% of the workforce is employed in manufacturing, a share significantly above the OECD average of 14%, while sectors known for their average high-skill levels (e.g. ICT, financial and insurance activities) represent a share of jobs slightly below the OECD average. This is also reflected in the large share of jobs characterised by medium-level educational requirements in Slovakia, and the comparatively high use of physical skills (Quintini, 2014<sup>[15]</sup>).

### *The adoption of HPWP in the Slovak Republic*

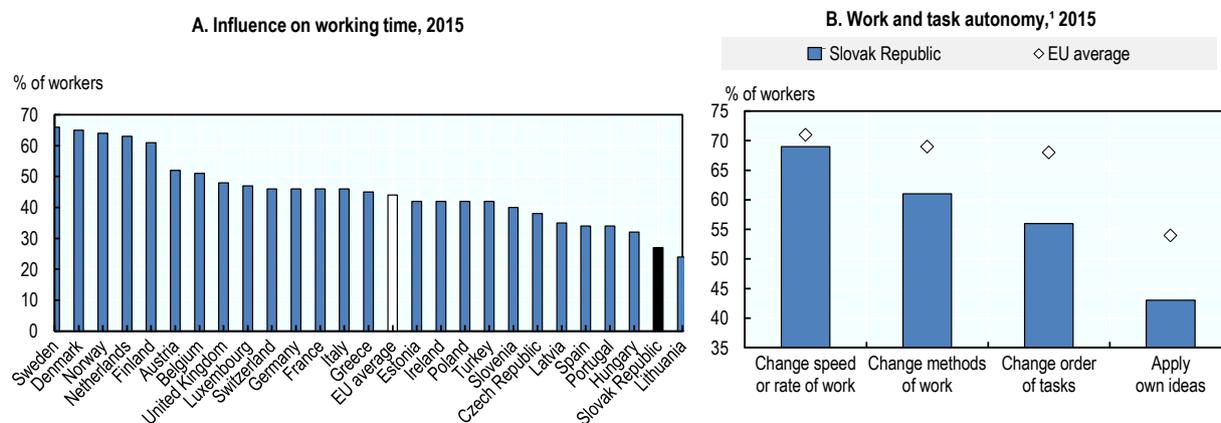
Slovakia's employers are adopting HPWP at a lower rate than their counterparts in most other countries: about 17% of jobs adopted these practices, compared with 26% in the OECD, and only Italy, Turkey and Greece have a lower share across the OECD. However, this hides differences in the adoption of different workplace practices, since HPWP captures a diverse range of practices that cover 1) flexibility and autonomy in the workplace; 2) teamwork and information sharing; 3) training and development; and 4) benefits, career progression and performance management (see Box 5.1).

### **Flexibility and autonomy at work**

Flexibility at work and autonomy in performing tasks in the workplace are among the most relevant types of HPWP. For instance, employee control over aspects of their job is considered the job characteristic with the most significant benefits for firms and employees in various theoretical frameworks for job design (Morrison et al., 2005<sup>[16]</sup>). Moreover, the introduction of various new technologies enhances momentum for more flexibility and autonomy by making software (e.g. for teleworking) more accessible and reliable.

There are indications that flexibility in Slovak workplaces can be enhanced. In 2015, 27% of employees had influence on their working time, with only Lithuania having a lower share across the EU (see Figure 5.4), and only 8% of workers were able to adapt working hours to some extent (19% in EU) (Eurofound, 2019<sub>[17]</sub>). However, an EU survey from 2013 shows slightly better performance in work flexibility – 69% of establishments appeared to be offering working time flexibility, a share above the EU average of 66% (Eurofound, 2015<sub>[18]</sub>). Part-time work is relatively uncommon: in 2013, 45% of firms offered these contracts, compared with almost 70% across the EU (Eurofound, 2015<sub>[18]</sub>), and only 10% of employees worked less than 35 hours per week, compared with 28% in the EU.

**Figure 5.4. Adoption of practices that enhance the work flexibility and autonomy of employees**



1. Share of workers indicating having work and task autonomy “always or most of the time”.

Source: Eurofound (2015<sub>[18]</sub>), European Company Survey 2013 (ECS), <https://doi.org/10.2806/417263>; Eurofound (2019<sub>[17]</sub>), European Working Conditions Survey (EWCS) 2015, [www.eurofound.europa.eu/data/european-working-conditions-survey](http://www.eurofound.europa.eu/data/european-working-conditions-survey).

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Performance can also be improved regarding work autonomy. A relatively small share (43%) of employees feel that they can apply their own ideas at work in Slovakia, compared with 54% in the EU, and employees have comparatively little control over the tasks they need to perform, the speed of their work and the methods applied (see Figure 5.4) (Eurofound, 2019<sub>[17]</sub>). Slovakia is at the bottom of the EU ranking in terms of employees having a say in the choice of working partners. There is also limited involvement of employees in their work – 34% of workers feel that they can influence decisions important for their work, the lowest share across the EU (Eurofound, 2019<sub>[17]</sub>).

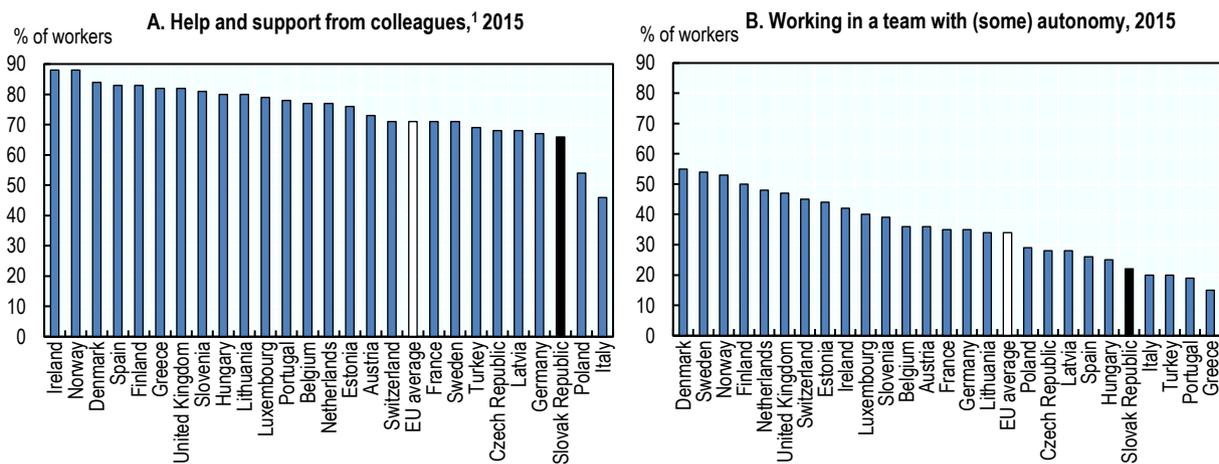
Different sectors of the economy are adopting these work practices to different extents, which is largely the result of the type of jobs they offer. For example, it can be expected that opportunities for work flexibility are more limited for workers on an assembly line than for office employees. For Slovakia, this is particularly relevant given the strong manufacturing sector and the large share of routine jobs (Marcolin, Miroudot and Squicciarini, 2016<sub>[19]</sub>). The sectoral composition therefore does have an effect on the weak performance in flexibility and autonomy in Slovakia. For skilled occupations in Slovakia, the share of workers with flexibility in work hours to a (very) high extent is comparable with the OECD average (calculations based on Survey of Adult Skills (PIAAC) (OECD, 2019<sub>[4]</sub>)). For elementary, semi-skilled blue collar and semi-skilled white-collar occupations, work flexibility is much less prevalent in Slovakia than in most OECD countries.

## Teamwork and information sharing

Teamwork supports the intensive use of skills. Employees that co-operate with co-workers to some or a very high extent are using their skills more intensively than employees that do not (OECD, 2016<sub>[2]</sub>). Furthermore, workplaces where information is freely shared and where colleagues instruct and train each other reflect a working culture that supports the optimal use of skills. In Slovakia, such a working culture should be stimulated, and there are indications that there is significant room to improve the current culture of teamwork and information sharing.

In 2015, a comparatively low share of workers in Slovakia (66%) had colleagues who help and support them, with only Italy and Poland having lower shares in the EU (see Figure 5.5) (Eurofound, 2019<sub>[17]</sub>). In addition, the share of workers involved in teamwork with a certain degree of autonomy is low in Slovakia: more than half of workers indicate not working in a team at all, compared with 45% in the EU. However, the Survey of Adult Skills (PIAAC) results suggest better performance – with the share of workers who regularly co-operate with co-workers and who share work-related information slightly above the OECD averages (calculations based on the Survey of Adult Skills (PIAAC) (OECD, 2019<sub>[4]</sub>).

**Figure 5.5. Co-operation between colleagues and teamwork in firms**



1. Share of workers indicating getting help and support from colleagues “always or most of the time”.

Source: Eurofound (2019<sub>[17]</sub>), *European Working Conditions Survey (EWCS) 2015*, [www.eurofound.europa.eu/data/european-working-conditions-survey](http://www.eurofound.europa.eu/data/european-working-conditions-survey).

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The composition of the economy in terms of sectors and occupations affects teamwork and information sharing activities. However, Slovakia’s large manufacturing sector does not appear to significantly distort the average for teamwork and information sharing practices, with a large share of workers, compared to the EU average, saying that they do not work in teams across all sectors of the economy (from between 44% in public administration, education and health, to 62% in financial and other services) (Eurofound, 2019<sub>[17]</sub>).

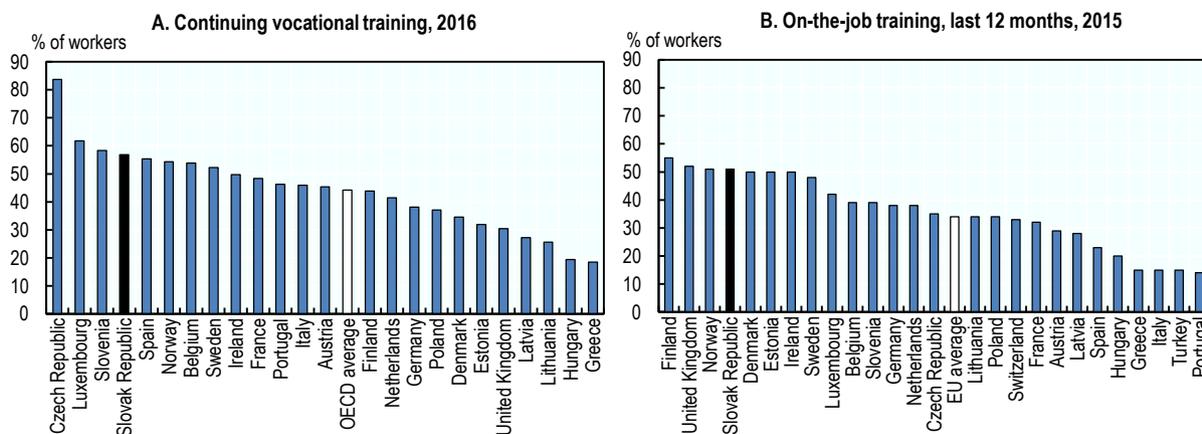
## Training and development

For the different categories of HPWP, Slovakia shows the strongest performance in training and development. Various surveys demonstrate strong performance in a range of learning and training activities at work. In 2015, 51% of employees participated in on-the-job training, with only the United Kingdom and Finland having a higher share in the EU (see Figure 5.6) (Eurofound, 2019<sub>[17]</sub>).

Furthermore, over 57% of workers participated in continuing vocational training (Eurostat, 2018<sub>[20]</sub>), which is one of the highest shares in the EU.

However, a below average share of firms provide training to employees (70% vs. 77% in the EU) (Eurostat, 2018<sub>[20]</sub>), which indicates that the high participation rates for training are largely explained by strong performance of the largest firms in Slovakia. In the context of automation, it is crucial that SMEs do more to raise training in their firms. Training in Slovak firms also tends to be firm specific, and there are indications that it often includes mandatory courses (e.g. safety training).

**Figure 5.6. Participation in continuing vocational and on-the-job training**



Source: Eurostat (2018<sub>[20]</sub>), *Continuing Vocational Training Survey (CVTS) 2015*, <https://ec.europa.eu/eurostat/web/microdata/continuing-vocational-training-survey>; Eurofound (2019<sub>[17]</sub>), *European Working Conditions Survey (EWCS) 2015*, [www.eurofound.europa.eu/data/european-working-conditions-survey](http://www.eurofound.europa.eu/data/european-working-conditions-survey).

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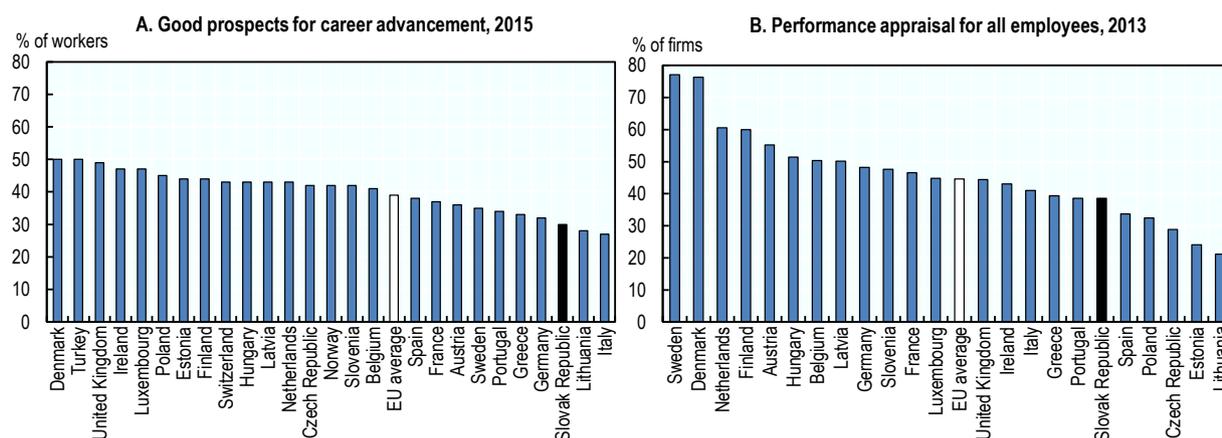
High participation rates in workplace training contrasts with the low overall performance of Slovakia in adult learning (as explained in Chapter 4). This can partly be explained by the predominant non-formal and informal character of learning in Slovak firms. Participation in job-related non-formal education and training was relatively high in 2016 (41.8% vs. 35.8% in the EU), and employed adults engaged often in informal learning (79.8% vs. 62.5% in the EU) (Eurostat, 2016<sub>[21]</sub>), especially through “learning by doing” (calculations based on the Survey of Adult Skills (PIAAC) (OECD, 2019<sub>[4]</sub>).

### Benefits, career progression and performance management

Various studies provide evidence on the positive effects of incentive pay on skills use and productivity, with both individual and group performance-based bonuses having a positive effect on productivity (Bloom et al., 2010<sub>[22]</sub>). In Slovakia, the share of employees receiving yearly bonuses is low: 35% compared to the OECD-PIAAC average of 45%.

There are also signs that the adoption of other types of performance management and career progression practices could be improved. A relatively small share of firms have performance appraisal systems for all employees (35% vs. 45% in the EU), and a small share of workers signal good prospects for career advancement (30% vs. 39% in the EU) (see Figure 5.7) (Eurofound, 2015<sub>[18]</sub>). Jobs appear to be relatively static in Slovakia – a small share of firms restructured or reorganised the workplace in recent years, and a small share of workers experience yearly changes in elements of their job, such as working hours, salary, influence over work or tasks and duties (Eurofound, 2019<sub>[17]</sub>).

**Figure 5.7. Career advancement prospects and performance appraisal systems**



Source: Eurofound (2019<sup>[17]</sup>), *European Working Conditions Survey (EWCS) 2015*, [www.eurofound.europa.eu/data/european-working-conditions-survey](http://www.eurofound.europa.eu/data/european-working-conditions-survey); Eurofound (2015<sup>[18]</sup>), *3rd European Company Survey 2013 (ECS)*, <https://doi.org/10.2806/417263>.

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## Opportunities to improve the effective use of skills

Better skills utilisation could play an important role in Slovakia's response to the current challenges reinforced by megatrends, and it will be crucial for Slovakia to expand efforts to raise skills use and adopt HPWP in firms. This chapter describes three possible opportunities to improve this performance. The selection is based on input from literature, discussions with the National Project Team, discussions in the two workshops, and several bilateral and focus group meetings. As a result, the following opportunities are considered to be the most relevant for the specific context in Slovakia.

1. Creating the conditions to facilitate the adoption of HPWP in Slovak firms.
2. Providing incentives and support to Slovak firms for the adoption of HPWP.
3. Enhancing the governance of policies and strategies that affect skills use.

The opportunities present a broad perspective on improving skills use by emphasising the following: 1) policies that indirectly affect the adoption of HPWP by improving the conditions that facilitate this adoption (Opportunity 1), for instance through strong management and an engaged and motivated workforce; 2) policies that more directly affect the adoption of HPWP in firms (Opportunity 2), for example financial incentives, support measures to firms, information and awareness campaigns; and 3) the overall governance of these policies that affect skills use (see Opportunity 3), including a whole-of-government approach and the efficiency and effectiveness of the public sector.

### **Opportunity 1: Creating the conditions to facilitate the adoption of HPWP in Slovak firms**

Skills use can be improved by creating a culture in firms where innovation and entrepreneurship flourish. To develop such a culture, it is essential that employees, management staff, employers and entrepreneurs have the skills and motivation to make changes in the organisation. In Slovakia, there are indications that such a working culture, as well as the required skills and motivations, can be strengthened.

The low adoption of HPWP in Slovakia, despite various programmes and measures, shows that for many firms there are other factors contributing to the limited adoption. It is likely that systemic barriers within firms play a role, i.e. the enabling conditions in workplaces that facilitate the adoption of HPWP are not

well developed. For instance, having engaged employees and skilled managers could strongly contribute to the successful implementation of innovative workplace practices, and open attitudes are needed to facilitate change in workplaces. Stakeholders in workshops and meetings indicated that such a culture needs to be improved in many firms, especially SMEs, and that many employers and entrepreneurs lack the willingness to grow and innovate. This is also reflected in the low innovativeness of many Slovak enterprises, for example, business enterprise research and development (BERD) expenditure is among the lowest in the EU (OECD, 2019<sup>[6]</sup>).

This opportunity will further explore how these supporting factors in Slovak firms can be improved to facilitate the successful adoption of HPWP. It could be argued that these conditions (e.g. engaged employees) are the outcome of well-implemented HPWP; for example, having HPWP arrangements such as flexible work and good career opportunities would contribute to overall job satisfaction and engagement with the workplace. In light of this, Opportunity 1 will primarily focus on external factors, in addition to HPWP affecting these conditions (e.g. employee representative structures and their positive effect on employee engagement).

This opportunity will start by analysing the working environment and culture for employees in Slovakia to strengthen their attitudes towards changes in the workplace. The skills and motivation of current entrepreneurs and management staff will then be explored, followed by an assessment of how entrepreneurial attitudes and skills can be improved by developing them from early on in the education system.

### *Creating a supportive working environment for employees*

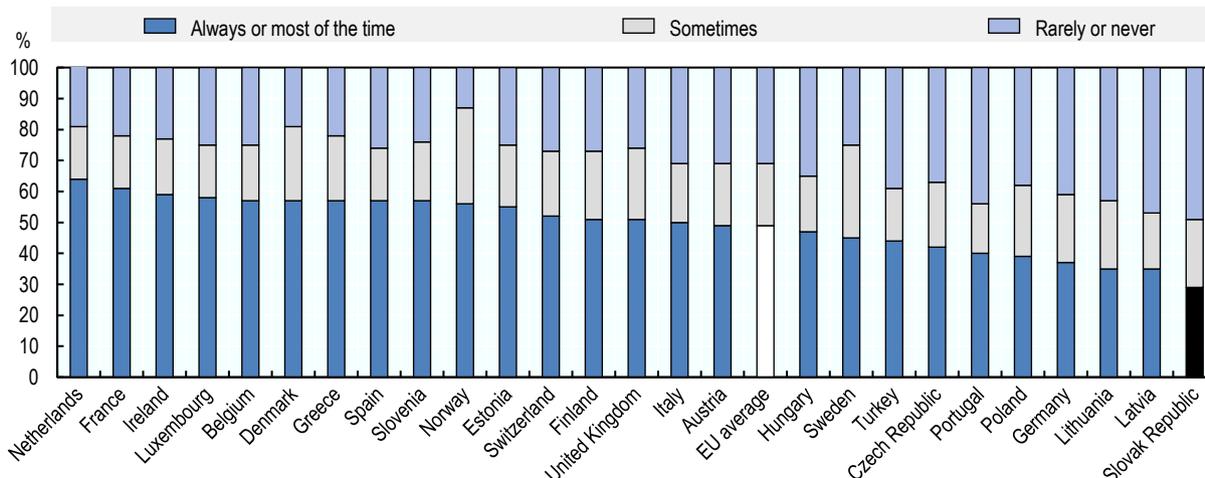
Various studies show that employee engagement is one of the main determinants of skills use and productivity. Employee engagement reflects the willingness to invest effort in work and the enjoyment of work by employees, and could be enabled through various practices, including clear leadership, listening to the voice of the employee and organisational integrity (UKCES, 2014<sup>[23]</sup>). Strengthening the participation of workers in company decisions on the modernisation of work organisation and management practices could be considered a viable option to encourage a better use of skills in the workplace (OECD/ILO, 2017<sup>[13]</sup>). The importance of engaging and involving employees in Slovak firms was also mentioned by various participants in workshops during this project.

Various surveys demonstrate the relatively weak overall performance in engaging employees in Slovak firms. Only 29% of employees (49% in the EU) feel that they are (always or most of the time) involved in improving the work of their organisation or the work processes of their department or organisation, the lowest share across EU countries (see Figure 5.8) (Eurofound, 2019<sup>[17]</sup>). Slovak firms are also characterised by top-down decision making: in 72% of firms, decisions on daily tasks are made at the top of the organisation, compared with 62% on average in the EU (Eurofound, 2015<sup>[18]</sup>). However, despite the low overall engagement, almost 6 out of 10 workers have regular meetings where they can express their views on what is happening in the organisation, a share comparable with the EU average.

Slovak employers should aim for “high road strategies”, where employees and the skills that they possess are viewed as an integral part of a business’s competitive advantage, rather than “low road” strategies, where labour is considered a commodity and workers are seen as a cost to be minimised. High road strategies also entail higher quality jobs, and many dimensions of jobs quality are proven to be positively associated with the better performance of employees, including skills use and productivity (OECD/ILO, 2017<sup>[13]</sup>). Many Slovak firms have not yet embraced high road strategies. Participants in workshops and meetings expressed that the majority of firms in Slovakia tend to focus primarily on production and less on their employees.

### Figure 5.8. Involvement of employees in the improvement of work, 2015

Distribution of answers to question “Are you involved in improving the work organisation or work processes of the department or organisation?”, OECD-EU countries



Source: Eurofound (2019<sub>[17]</sub>), *European Working Conditions Survey (EWCS) 2015*, [www.eurofound.europa.eu/surveys/european-working-conditions-surveys](http://www.eurofound.europa.eu/surveys/european-working-conditions-surveys).

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Surveys point to an unsupportive work environment and low job satisfaction in many Slovak firms. Help and support from colleagues is low in Slovakia, only Italy and Poland perform worse, and 1 in 5 workers are very satisfied with their working conditions, compared with 1 in 4 across EU countries (Eurofound, 2019<sub>[17]</sub>). Related to this low job satisfaction is the large share of Slovak workers not feeling that they receive the recognition they deserve for their work: with 42% of employees expressing that they receive enough recognition, Slovakia has the lowest share in the EU. Worryingly, 1 in 4 workers feels that their work is generally not useful, only Poland and Turkey have a higher share in the EU (Eurofound, 2019<sub>[17]</sub>). A potential driver behind this dissatisfaction could be the small share of workers indicating that they have good prospects for career advancement (30% vs. 39% in the EU) (Eurofound, 2015<sub>[18]</sub>).

Employee representative structures could support better employee engagement and a more supportive working environment. Data from the Survey of Adult Skills (PIAAC) show, for instance, that institutions with strong collective bargaining and unionisation are associated with a higher utilisation of workers' skills in the workplace (OECD, 2016<sub>[12]</sub>). Furthermore, for works councils, which are worker representative bodies that typically complement trade unions in a number of European countries, empirical research shows the positive effects of the exchange of information, consultation and participation of employees (CESifo, 2015<sub>[24]</sub>) (see Box 5.2 for an international example).

In Slovakia, 2 out of 5 workers indicate having a trade union, works council or similar committee to represent employees in their organisation, a share lower than the EU, where 1 in 2 workers, on average, indicate having such a body in their organisation (Eurofound, 2019<sub>[17]</sub>). Since 2002, employees in Slovakia can be represented either by trade unions, works councils or employee trustees. Trade unions are united in the various confederations. The Confederation of Trade Unions of the Slovak Republic is the largest in Slovakia, with 26 sectoral trade union associations representing 231 000 members (Eurofound, 2017<sub>[25]</sub>). Only trade unions are entitled to enter into collective bargaining, and while works councils can conclude agreements with management on employment and working conditions, these do not have the same value as collective agreements.

Participants in workshops and meetings indicated that the overall role of employee representative structures in skills development and workplace practices could be expanded. Trade union density has declined in recent decades, from 36% of employees in 1998 to 11% in 2015 (OECD, 2019<sup>[26]</sup>), and there is a widespread reliance on the labour code for protecting individual and some collective employment conditions, which limits the scope of collective bargaining (Drahokoupil and Kahancova, 2017<sup>[27]</sup>). Furthermore, the relevance of works councils and other participation forms remains marginal in Slovakia, despite some exceptions, for instance in the public sector, and there are examples of situations where the presence of both trade union and works councils results in competition rather than co-operation (Drahokoupil and Kahancova, 2017<sup>[27]</sup>).

Better quality jobs could support better employee engagement and a more supportive working environment (see Box 5.3 for a national example of a programme to improve job quality). Slovakia is performing relatively well on several measures of job quality. For instance, wages are on the rise and problems relating to work-life balance are relatively less common in Slovakia than in other EU countries (Eurofound, 2019<sup>[17]</sup>). New amendments to the Labour Code address extra compensation for working at night, during holidays and at weekends. Introduced in 2019, “recreational vouchers” give employees (in firms with more than 50 employees) the opportunity to reimburse vacations spent in Slovakia by up to 55% of authorised costs (with a maximum of EUR 275). However, participants in workshops and meetings mentioned that the lack of employment protection and the large share of temporary contracts are obstacles to employee development and job satisfaction; although aggregate indicators on the strictness of employment protection show only slightly less strict protection in Slovakia than in the OECD (OECD, 2019<sup>[28]</sup>), and temporary employment as a share of dependent employment in Slovakia is relatively low (8.3% vs. 11.7% across the OECD in 2018) (OECD, 2019<sup>[29]</sup>).

### **Box 5.2. Relevant international example: Employee representative structures in firms**

#### **Works councils in Germany**

In Germany, the most important employee representative body is the works council (Betriebsrat), which can be elected in establishments with more than five regularly employed employees who are eligible to vote. The size of the works council depends on the size of the firm. The formation of a works council is not mandatory for employees, and the initiative must come from the employees or the unions, with the employer bearing the costs of the works council to perform its duties. Works councils are set up especially in medium-sized and big enterprises, and more rarely in small enterprises: they are organised in 97.5% of firms with more than 1 000 workers and in 4.2% of firms with 5 to 20 employees. The works council has general information and consultation rights under the Works Constitution Act. To perform its duties it must have an established dialogue with the employer, and together they can agree on works agreements, which are binding for all employees. These work agreements are a special type of contract regarding the working conditions of the individual employees, with the same direct and binding effect on the individual employment relationships as statutory law.

Source: DICE Database (2015<sup>[30]</sup>), Workplace Representation – Legal Basis and Thresholds, [www.ifo.de](http://www.ifo.de).

### Box 5.3. Relevant national example: Private initiative to improve working culture

#### Own the Way You Work – Swiss Re

Swiss Re in Slovakia has introduced a comprehensive programme named “Own The Way You Work” (OTWYW) to promote agile working. An integral part of the working culture at Swiss Re, and in alignment with the needs of clients and colleagues, is that employees are largely free to organise their day as they choose. By focusing on outcome and results, the initiative recognises that individuals can be more effective when choosing where and when they work. Flexibility is enabled by technological solutions that ensure employees can remain in contact and collaborate on projects even when not physically together in the office. The scheme is based on trust and is about creating an environment where responsibility, empowerment and autonomy are valued within the company. The scheme has been recognised by numerous awards. The introduction of OTWYW resulted in a 2017 Via Bona award in the category of Family, Gender Equality, and Equal Opportunities Friendly Employer 2017; and Glassdoor cited OTWYW as a reason for ranking Swiss Re amongst the top 20 global companies for employee benefits and perks in 2017.

Source: Swiss Re (2019<sup>[31]</sup>), Own the Way You Work, [www.swissre.com/Library/own-the-way-you-work.html](http://www.swissre.com/Library/own-the-way-you-work.html).

#### Recommendations for creating a supportive working environment for employees:

- **Raise the job satisfaction of Slovak workers by promoting a working environment where workers’ contributions are recognised, valued and rewarded.** To address the low job satisfaction of workers in Slovak firms, the government should promote firms to move towards “high road strategies” where employees’ skills are considered an integral part of a business’s competitive advantage. In order to do this, the Slovak government and stakeholders (including employer organisations and trade unions) should promote a culture in firms that gives employees more ownership and responsibility over their work, and where their contributions are recognised, valued and rewarded through career advancement. Soft regulations should also be applied (see Opportunity 2), such as raising awareness of the issue by including it in government strategies and information campaigns, as well as publicly awarding good performers (see Box 5.3 for a relevant example).
- **Raise employee engagement by strengthening employee representative structures in Slovak firms.** To raise the involvement of employees in firms, the Slovak government should expand and strengthen the role of employee representative structures, most notably works councils. The government could consider making legislative changes to ensure that works councils become more active and effective, and raise awareness of the benefits of works councils. Trade unions should aim for a more active role in setting standards and agreements on skills development and workplace practices.

#### *Strengthening the skills and motivation of management staff*

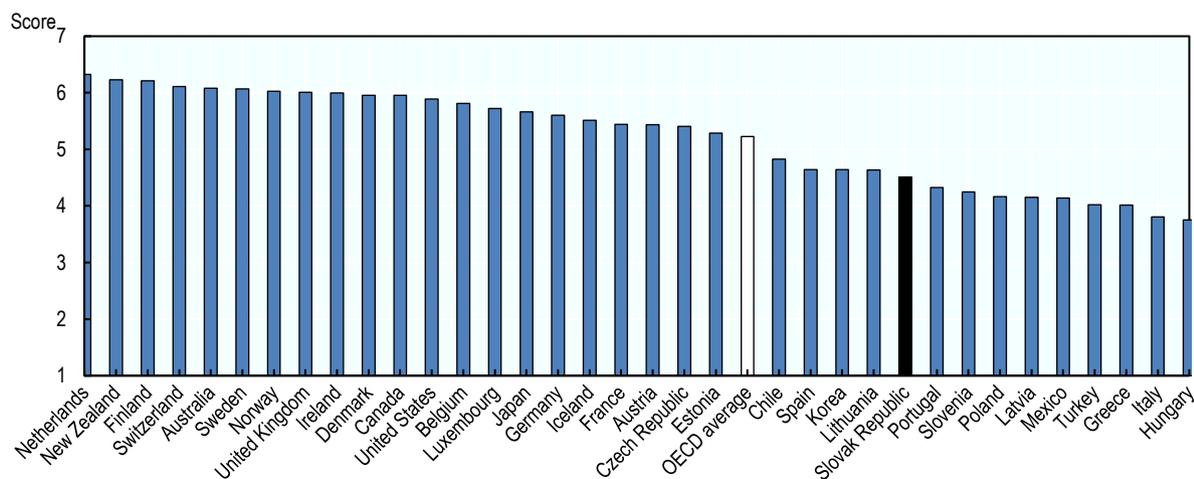
It is important that the individuals responsible for the implementation of workplace practices have the skills, motivation and expertise to implement them. In many SMEs this individual is often the employer or entrepreneur, but for larger firms it is often the management level. For the successful adoption of HPWP in organisations, it is crucial to have all management staff on board and equipped with the right skills.

Strong and effective management has various benefits for firms, and is associated with higher levels of employee engagement, willingness to invest effort in work and enjoyment of work. Furthermore, there is evidence that managers with more advanced management skills are more likely to innovate, launch new

products and services, adopt higher quality-based product market strategies, and be aware of what kind of practices are needed to improve firm performance (UKCES, 2014<sup>[23]</sup>).

In consultations with stakeholders, the limited capacity and knowledge at the managerial level was frequently identified as a barrier to the implementation of HPWP in Slovakia. The share of firms with professional management, defined as professional managers chosen for merit and qualifications, is comparatively low in Slovakia (see Figure 5.9). An aggregate management quality index based on input from workers gives Slovakia one of the lowest scores in the EU, and shows that employees are not satisfied with their management (Eurofound, 2019<sup>[17]</sup>). Moreover, 17% of managers appear to be low skilled, as measured by the Survey of Adult Skills (PIAAC) (OECD, 2019<sup>[4]</sup>). Consequently, many Slovak firms are not yet implementing management practices that are considered to have strong workplace outcomes, with a small share of employers adopting management practices that are demonstrated to result in high well-being in workplaces (practices referred to as “systematic and involving” and “interactive and involving”) (Eurofound, 2015<sup>[18]</sup>). The OECD Skills for Jobs database shows large shortages in “businesses and management” knowledge in Slovakia (OECD, 2018<sup>[32]</sup>), and the SBA (2017<sup>[33]</sup>) acknowledges that there is a shortage of experienced managers, especially for SMEs. It is projected that current shortages in management will deepen, as managers are the occupation with the largest projected increase in employment between 2016 and 2030 (Cedefop, 2019<sup>[34]</sup>).

**Figure 5.9. Reliance on professional management**



Note: Score based on responses to the question: “In your country, who holds senior management positions in companies? [1 = usually relatives or friends without regard to merit; 7 = mostly professional managers chosen for merit and qualifications]”.

Source: World Economic Forum (2018<sup>[35]</sup>), *The Global Competitiveness Report 2017-2018*, [www.weforum.org/gcr](http://www.weforum.org/gcr).

StatLink  <https://doi.org/10.1787/888934075602>

Despite the comparative weak performance across the different measures of quality and skills of management staff, there appears to be limited awareness of the need to address the issue, which is reflected in the absence of the topic of management quality in all major related strategies, including the Strategy of the Digital Transformation of Slovakia 2030. To raise management quality, a starting point could be to put the topic on the policy agenda by including it in these strategies (see also Opportunity 3 on strengthening these strategies). Moreover, Slovakia should aim to build awareness of managerial quality and skills through soft regulation. This could be a campaign where the benefits of good management practices are presented or where success stories are shared. Additionally, a central platform (e.g. database/website) with information on practices specifically for management, as well as practical information on implementation, could help to raise awareness and support change in workplaces.

A decentralised approach that leverages employer networks and sectoral strategies is often most successful in supporting change in workplaces (see Opportunity 2). For management practices, these networks could play a role in spreading know-how, expertise, and sharing good practices between managers. Various organisations with large networks of employers and managers could contribute to this, including chambers of commerce, business clusters, employer organisations and entrepreneurial associations. Some of these organisations already appear to be active in spreading knowledge. For instance, the Young Entrepreneurs Association of Slovakia has a management club where young entrepreneurs can gain experience about modern principles of management.

Like all adults in Slovakia (as discussed in Chapter 4), management staff from start-ups to large firms should have sufficient opportunities to upskill through targeted training and education (see Box 5.4 for international examples). However, surveys show that managers are currently not yet actively participating in training and development. PIAAC-data indicate that managers do participate more in adult education and training than employees not in management positions, but the share is low compared to the OECD average (64% in Slovakia and 71% on average across the OECD) (calculations based on the Survey of Adult Skills (PIAAC) (OECD, 2019<sup>[4]</sup>). Participants in workshops and meetings indicated that managers are increasingly aware of the need to upskill, and that management training is becoming more popular. Management training in Slovakia appears to be characterised by a large number of private providers. A Slovak study on the lifelong learning of managers, with an emphasis on self-education, shows that 73% are involved in self-education activities on a regular basis, but that a considerable 92% are not satisfied with the offer of educational courses provided by their employer (Fulková and Bošanský, 2009<sup>[36]</sup>). For many managers, insufficient time is the main barrier for participating in training, leading to 50% studying in the evening.

#### **Box 5.4. Relevant international examples: Supporting upskilling for management staff**

##### **Manager programmes by the Polish Agency for Enterprise Development (PARP)**

PARP has a number of programmes targeting managers. For instance, the SME Manager Academy finances training and advisory support for managerial staff in SMEs in the area of business management, including human resources. The academy aims to: 1) diagnose the needs of SMEs and skills gaps of owners and managers; and 2) train managers of enterprises from the SME sector. Financial support covers up to 80% of the project, while the remaining 20% is covered by the SME. PARP has also introduced the PARP Academy, which is an e-learning platform that offers 50-free-of-charge online training sessions tailored to the needs of SME sector. The sessions are in four thematic areas related to setting up and running a business (e.g. managerial and personal skills<sup>37</sup>). Since 2006, over 180 000 participants have benefited from PARP Academy training.

##### **Skillnet Ireland**

In Ireland, the national agency, Skillnet Ireland, promotes training and upskilling for Irish companies. It designs tailored training programmes for companies and is overseen by a board consisting of representatives from the Department of Education and Skills and key industry stakeholders. Accessed through networks that link companies based on areas of interest and business needs, it facilitates networking, the sharing of best practices and the delivery of upskilling programmes for employees. A core part of the programme is aimed at upskilling managers. The “management development programme” offers courses for a wide variety of managerial needs. Managers can improve their leadership and communication skills, foundational skills, and techniques necessary for managing teams, as well as learn specific skills required in sectors such as retail. Courses are subsidised, and in 2018, 56 182 people were trained from 16 462 member companies.

Source: PARP (2019<sup>[37]</sup>), Polish Agency for Enterprise Development website, <https://en.parp.gov.pl/>; Skillnet Ireland (2019<sup>[38]</sup>), Skillnet Ireland website, [www.skillnetireland.ie/](http://www.skillnetireland.ie/).

### Recommendations to strengthen the skills and motivation of management staff:

- **Raise awareness of the need to improve the quality of management staff and share knowledge and examples of strong management practices.** Raise awareness by putting management quality on the policy agenda through its inclusion in strategies of the Slovak government and related institutions (see also Opportunity 3 on strengthening strategies). Introduce targeted campaigns where concrete benefits and good examples of good management practices are shared, and aim to utilise current networks of employers and businesses. Launch a central platform (e.g. database/website) with information on practices specifically for management, as well as practical information on implementation.
- **Raise the participation of management staff in education and training by improving and expanding the overall training offer that is relevant for management.** To raise the skills of management staff, the Slovak government should aim to expand and strengthen the current (mainly private) training offer for managers to meet the demand for management training and to ensure that there are sufficient, relevant training opportunities. To expand the current offer, the Slovak Business Agency could play a role in introducing new programmes targeted at managers (see examples of programmes in Box 5.4), especially in SMEs. The Slovak government could consider raising financial support to existing training providers, and introducing related quality standards. Since insufficient time is a main barrier to participation for many managers, the government should promote flexibility of the training offer, for instance by introducing and/or supporting e-learning platforms.

#### *Developing entrepreneurial attitudes from early on in the education system*

Entrepreneurial attitudes are needed in firms to stimulate changes in working culture, adopt innovation and support future growth. These entrepreneurial attitudes appear to be strong and have shown improvement in Slovakia in recent years, with the number of new business increasing and the start-up ecosystem expanding (Institute for Entrepreneurship, 2018<sup>[39]</sup>; European Commission, 2018<sup>[40]</sup>). Slovakia has improved legislation to start businesses and moved up the Global Entrepreneurship Index from 41st in the world in 2015 to 36th in 2018. Slovakia is also a good example of female entrepreneurship, which is reflected by the share of female founders (23.5% compared to EU average of 15.6%). Furthermore, the SBA has a number of programmes to support start-ups, including the Start-up Sharks programme, the Incubation Programme and the Internships Programme.

Despite these positive signals, there are still areas related to entrepreneurship that can be improved, for instance, both the number of start-ups and the success rate of young companies remain low in general, and Slovakia is not successfully implementing several European Commission recommendations to strengthen the start-up ecosystem (European Commission, 2018<sup>[40]</sup>). One of the most important areas to improve is attitudes to entrepreneurship. Several stakeholders in workshops and meetings during this project expressed their concern for the lack of an entrepreneurial drive in Slovakia. The share of the population seeing entrepreneurship as a desirable career choice is below the EU average and shows a downward trend, and entrepreneurial intentions have been declining since 2011, despite a small increase between 2017 and 2018 (European Commission, 2018<sup>[40]</sup>).

To improve entrepreneurial attitudes, it is most effective to start developing entrepreneurial talent and skills early on in the education system. These entrepreneurial skills include general skills such as the ability to build teams, motivate, communicate, mentor, and develop, as well as engage in entrepreneurial activities (OECD, 2011<sup>[41]</sup>). In workshops and meetings, participants stressed the importance of starting early in developing these skills, and the OECD supports this approach (OECD, 2011<sup>[41]</sup>). Early exposure is essential for the development of entrepreneurial skills, and there is evidence of a strong correlation between perceived entrepreneurial skills and total early stage entrepreneurial activity (OECD, 2011<sup>[41]</sup>), as well as positive effects on job creation, economic success and innovation (OECD, 2015<sup>[42]</sup>). As a result, in

the EU and other OECD countries, developing and promoting entrepreneurship in education has become a key policy objective, with several Nordic countries even developing specific entrepreneurship education strategies (European Commission/EACEA/Eurydice, 2016<sup>[43]</sup>).

For Slovakia, participation in entrepreneurship education appears to be above average – in 2012, 29% of survey respondents said that they had taken part in a course or activity at school related to entrepreneurship, defined as turning ideas into action and developing own project, compared with 27% across OECD-EU countries (European Commission/EACEA/Eurydice, 2016<sup>[43]</sup>). An example of entrepreneurship education in Slovakia is the Training Firms programme run by the Slovak Centre for Training Firms. Students, primarily at secondary vocational education and training (VET) schools, simulate the activities of firms by running a fictional training company, thereby expanding their entrepreneurial knowledge, developing transversal skills, and preparing them for the realities of the labour market.

However, the teaching of entrepreneurial skills in education can still be improved. Entrepreneurship education in Slovakia is cross-curricular – only part of the curriculum as a topic within other compulsory subjects – in primary and secondary education, and not a separate subject (compulsory or optional) as in Finland, Spain, Latvia and Estonia, for example (see Box 5.5). Slovakia does not have a specific national strategy for entrepreneurship education, like in a number of (mainly Nordic) countries, despite it being addressed extensively in the National Youth Strategy 2014-2020, and to a lesser extent in other education strategies (e.g. the concept of the “school firm” in the 2017 document National Programme for the Development of Education [“Learning Slovakia”]). Moreover, some schools and organisations find that entrepreneurial skills are insufficiently addressed in the regular curriculum and have too little emphasis on practical experiences. This has led to a number of private initiatives being launched in Slovakia, such as Junior Achievement Slovakia, which is a non-profit educational organisation that provides programmes to support entrepreneurial thinking (see Box 5.6).

Slovakia recently took steps to improve entrepreneurial education. A scheme and programme for supporting entrepreneurship education, prepared by the Ministry of Economy and the SBA, is currently in the approval process. This scheme will provide financial support to providers of entrepreneurship education and direct support to activities organised by the SBA. The initiatives have a broad target group, from kindergarten to primary and secondary education, as well as parents and adults. The Ministry of Economy has also included the topic of entrepreneurship education in current plans for a new agreement for the programme period 2021-2027, with the intention of having systemic support for entrepreneurship education at the national level.

### **Box 5.5. Relevant international example: Entrepreneurship education curricula and strategy**

#### **Estonian Entrepreneurship Education Development Plan: Be Enterprising! (2010)**

The Estonian strategy for entrepreneurship education aims to raise awareness of entrepreneurship education, train teachers, provide teaching materials and allocate resources. Concrete actions include awareness raising activities via events and social networks, the development of materials and instructions for courses (both students and teachers), and an evaluation system. The strategy includes a map of entrepreneurial learning outcomes and focuses on integrating these into curricula. Entrepreneurship education is explicitly referred to in the curricula as a general skill, is a cross-curricular objective in ISCED 1-3, and is taught in several optional and compulsory subjects.

Source: European Commission/EACEA/Eurydice (2016<sup>[43]</sup>), *Entrepreneurship Education at School in Europe*, <https://doi.org/10.2797/875134>.

### Box 5.6. Relevant national examples: Programmes and initiatives for the development and promotion of entrepreneurial skills of young Slovaks

#### Junior Achievement (JA) Slovakia

JA Slovakia has been implementing practical training programmes in elementary and secondary schools more than 25 years. As a non-profit educational organisation, JA Slovakia is supported by a long list of partners from the private sector, as well as Slovak government. The mission of the organisation is to provide young people in Slovakia with above standard education through practical programmes, to support entrepreneurial and economic thinking and offer preventive solutions for youth employment. The programmes are in entrepreneurial, economic and financial education, and range from JA Business Basics where pupils in elementary school get practical information on how businesses operate, to JA Applied Economy where secondary school student set up their own businesses. JA Slovakia also trains teachers in a variety of modern methods of education, providing them with didactic tools, textbooks and methodological manuals. JA Slovakia also organises short-term projects that often complement or are an extension of regular curricula, such as the Innovation Camp, where students test their ability to work on real practical problems in one day.

#### Duke of Edinburgh's International Award

The Duke of Edinburgh's International Award is an international youth achievement award that aims to equip young people for life and work. The awards enables young people aged 14 to 24 to actively use their free time to develop life skills that will make a difference to themselves, their communities and the world. Worldwide, millions of young people have participated in the award, and in 2007 it was introduced in Slovakia by the British International School in Bratislava. Since late 2014, a team of educators, with strong support from business leaders, has been working on the opening of the national office of the award in Slovakia. The main goal of the national office will be to spread the award in Slovakia.

Source: Junior Achievement Slovakia (2019<sup>[44]</sup>), Junior Achievement Slovakia website, [www.jaslovensko.sk/en/](http://www.jaslovensko.sk/en/); Duke of Edinburgh's International Award (2019<sup>[45]</sup>), Duke of Edinburgh's International Award website [www.dofe.sk/en/about-award/](http://www.dofe.sk/en/about-award/).

#### Recommendation for developing entrepreneurial attitudes from early on in the education system:

- **Improve attitudes towards entrepreneurship by expanding and strengthening public and private programmes in the education system that develop entrepreneurial skills.** The Slovak government should give entrepreneurship education a more prominent position in the curricula, as well as continue and potentially expand support for entrepreneurship education, building on the recently proposed scheme and programme for supporting entrepreneurship education by the Ministry of Economy and the Slovak Business Agency. Furthermore, the government should more actively involve representatives of enterprises in the teaching and design of courses, and potentially develop a strategy for entrepreneurship education (see Box 5.5 for an international example).

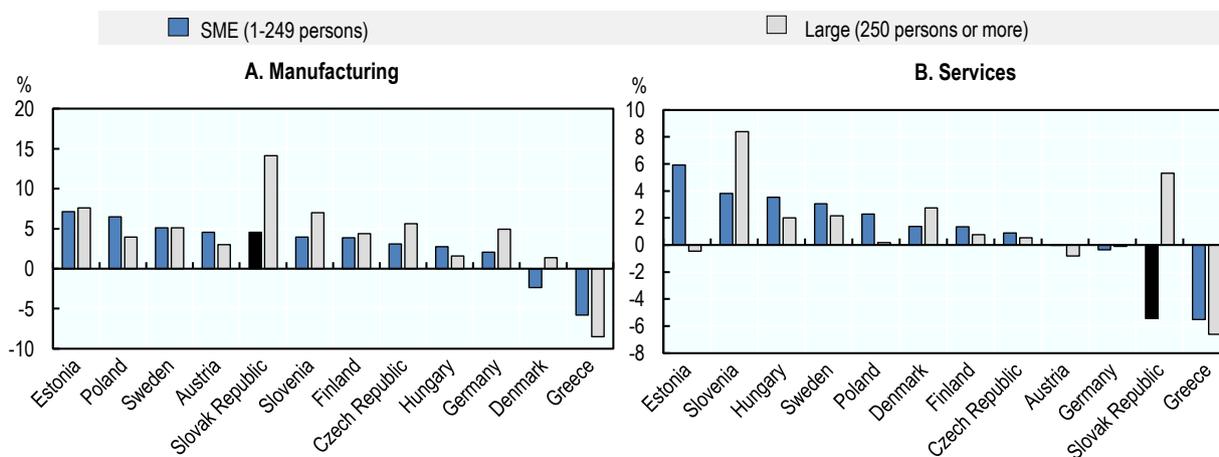
## Opportunity 2: Providing incentives and support to Slovak firms for the adoption of HPWP

Strong productivity growth and the success of the Slovak economy in recent years has largely been driven by joining global value chains and supported by large foreign investment inflows. This has created a competitive export-led manufacturing industry with specific specialisation in automotive and electronics sectors (OECD, 2019<sup>[6]</sup>). As a result, economic success in Slovakia is based on a narrow range of industries and driven by a small number of large, international firms; for example, the ten largest exporters, all of which are foreign, account for 40% of total exports (OECD, 2017<sup>[46]</sup>). The overall strong average economic performance therefore hides large disparities.

SMEs in particular, which are predominantly domestically owned, are increasingly falling behind, thereby creating a “two speed economy”. Despite the comparatively large share of SMEs in the Slovak economy – they employ three-quarters of the active labour force – these firms have benefited less from recent growth. Since 2009, there has been a particularly pronounced divergence in productivity performance between the mainly foreign large companies and the mainly local SMEs. This divergence is especially evident in the services sector, where the productivity of SMEs has dropped since 2009 (see Figure 5.10) (OECD, 2019<sup>[6]</sup>).

**Figure 5.10. Productivity growth by firm size and sector**

Real value added per person employed, average annual change, percentage, 2009-14 or latest available year



Source: OECD (2019<sup>[6]</sup>), *OECD Economic Surveys: Slovak Republic 2019*, [https://doi.org/10.1787/eco\\_surveys-svk-2019-en](https://doi.org/10.1787/eco_surveys-svk-2019-en).

StatLink  <https://doi.org/10.1787/888934075621>

The divergence in productivity is reflected in the adoption of HPWP. Strengthening the adoption of HPWP in SMEs and local firms could help to reduce the gap and counter the trend of divergence, and would support broader, more sustainable economic growth in Slovakia. Encouraging local firms to modernise their workplaces could have significant returns in efficiency and productivity (OECD, 2019<sup>[6]</sup>).

Slovakia needs to introduce targeted measures and initiatives that directly support the adoption of HPWP in Slovak firms, in addition to improving the conditions that facilitate adoption (as discussed in Opportunity 1). This opportunity will explore how current support measures to firms could be strengthened and expanded to raise the adoption of HPWP. It will also explore how a decentralised approach, supported by employer groups, business clusters and sectoral associations, could facilitate spillovers of knowledge to the local SMEs that are left behind.

*Raising awareness of skills use, workplace practices and support programmes*

The low priority given to skills utilisation in workplaces by policy makers is partly due to the fact that there is little precedent for public intervention at the level of the workplace, and insufficient clarity for policy makers about their role and what levers to use to influence workplace change (OECD/ILO, 2017<sup>[13]</sup>). For governments to improve the work environment and engagement of employees in Slovak firms, a different policy approach is needed that includes all stakeholders and has a significant role for soft regulation, i.e. non-binding persuasive policy intervention, such as publicly recognising strong performers and awareness raising campaigns (Alasoini, 2016<sup>[47]</sup>).

Policies that aim to raise awareness of the relevance of effective skills use and HPWP could be a relevant first step to strengthen skills use performance in Slovakia. In workshops and meetings during this project, the lack of awareness of the need and relevance of workplace innovation in many SMEs was considered a major issue, and participants indicated that a large number of firms are not aware of the benefits. To raise the awareness and motivation of employers and entrepreneurs to adopt these practices, the benefits of HPWP should be made tangible and clear, especially given that they are not always directly visible. For instance, results from implementation, such as a rise in productivity, are not immediate and do take time (OECD/ILO, 2017<sup>[13]</sup>). Workplace practices should also be explained in a practical and clear manner, including by showing examples of good and bad practices.

In Slovakia, there are already several campaigns that can be considered good examples of how to raise awareness about innovation and entrepreneurship. For instance, the Slovak government introduced the Campaign to Increase the Innovation Performance of the Slovak Economy (see Box 5.7), and the SBA organises several campaigns for entrepreneurship and doing business, such as Businesswoman of Slovakia, an award for successful women in business and their ability to establish companies firmly in the market, and the European Enterprise Promotion Award (EEPA), which aims to recognise innovation and rewards successful public bodies and public-private partnerships in promoting entrepreneurship and doing business. Various other organisations have comparable competitions, for instance, the Young Entrepreneurs Association of Slovakia introduced the Business Idea of the Year, a campaign with a EUR 300 000 prize and supported by 400 TV commercials, and the Junior Chamber International launched the Student Business Awards and Creative Young Entrepreneur Award. While these are all good examples of campaigns, the competitions primarily focus on entrepreneurship, and could possibly be expanded with competitions that have a more direct link to workplace practices and innovation (see Box 5.8 for an international example).

Awareness could also be raised through the dissemination and centralisation of information. In Slovakia, employers can obtain access to information on SBA activities through National Business Centres. The front offices of these centres aim to provide information on all financial and non-financial services and products to their clients. However, stakeholders in workshops and meetings expressed the fact that information on support is still often dispersed. While there are currently many support programmes for SMEs, many employers are not aware of them; even some participants in workshops and meetings were not fully aware of the activities of the SBA, indicating that the organisation could do more to promote its work. Many participants expressed support for a centralised portal or database with relevant information for employers and entrepreneurs. There is already a website in Slovakia, [www.slovensko.sk](http://www.slovensko.sk), which provides an overview of available support measures by the SBA and other organisations, as well as guidelines and information on application and procedures. However, this portal does not include, for instance, more general relevant information on workplace innovations, and it might be helpful for employers and entrepreneurs to present examples of good practices and successful projects.

### Box 5.7. Relevant national example: Awareness raising campaign for innovation

#### Campaign to Increase the Innovation Performance of the Slovak Economy (Zvýšenie inovačnej výkonnosti slovenskej ekonomiky)

To increase the innovation performance of the Slovak economy, a set of targeted activities in all Slovak regions was introduced as a part of a national project and implemented by the Slovak Innovation and Energy Agency (SIEA). These include a media campaign, innovation workshops, competitions, a hackathon and seminars at universities. In addition to raising innovation performance, the campaign aims to increase the amount of pending patents, the longevity of SMEs and innovation culture within SMEs, while bolstering the interest of students in sciences and entrepreneurship. Given the limited awareness of the importance of innovation in Slovakia, activities also aim to strengthen creativity and innovative spirit while fostering a pro-innovation climate in society. Regional consultation centres providing specialised innovation and technological guidance services have been set up, and a number of quantifiable indicators will be analysed to evaluate the project.

Source: SIEA (2019<sup>[48]</sup>), Increasing the Innovation Performance of the Slovak Economy, <https://kamidueurofondy.sk/projekty/362>.

### Box 5.8. Relevant international example: International awareness raising campaigns

#### European Workplace Innovation Network (EUWIN)

The European Commission created EUWIN in 2013 to stimulate awareness of workplace innovation and to share knowledge and experience between enterprises, researchers, social partners and policy makers across the EU. The aim of EUWIN as a learning network (accessible at <http://portal.ukwon.eu/>) is to sustainably improve the performance of organisations and the quality of jobs. The network distributes evidence on the benefits of modernising the workplace and working conditions, and focuses on awareness raising via dedicated regional workshops and social media. It also provides a valuable resource for managers and employee representatives through its Knowledge Bank.

Source: OECD/ILO (2017<sup>[13]</sup>), *Better Use of Skills in the Workplace: Why It Matters for Productivity and local Jobs*, <https://dx.doi.org/10.1787/9789264281394-en>.

#### Recommendations for raising awareness of skills use, workplace practices and support measures:

- **Promote the benefits of skills use and workplace innovations through campaigns and by introducing a centralised portal with relevant information.** To raise awareness of the relevance of skills use and HPWP, the Slovak government and related stakeholders should expand existing campaigns (e.g. the European Enterprise Promotion Award) and/or introduce new ones that more directly emphasise the need for workplace innovation (potentially based on or an extension of activities by EUWIN – see Box 5.8). The Slovak government could also expand the flow of information on workplace practices in general, for instance by introducing a centralised portal or website that clearly and practically summarises all relevant information on workplace innovations, as well as shows examples of good practices and descriptions of successful projects. Possibly, such a portal could be combined with, or an extension of, the centralised portal for management practices, as recommended in Opportunity 1.
- **Expand awareness of existing support measures for firms, especially among SMEs.** The SBA and other organisations providing support to firms should introduce targeted campaigns (e.g. through social media) to raise awareness among SMEs of their support programmes. Existing online platforms, including [www.slovensko.sk](http://www.slovensko.sk) and the SBA website, should be better promoted to raise awareness of available support measures and the required applications and procedures.

### *Strengthening and expanding support measures to firms*

For many firms, it is not the lack of awareness, but the lack of resources and know-how that prevents them from adopting HPWP (OECD/ILO, 2017<sup>[13]</sup>). While promoting HPWP through soft regulation is important, it may not be sufficient. In all countries, it is primarily SMEs that have difficulties in adopting HPWP, often due to a lack of a human resources (HR) function. For change to occur in workplaces, employers must have significant buy-in and investment in the benefits of prioritising and developing HR. An additional complication is the need for firms to implement a bundle of HPWP, given that partial implementation of HPWP may not result in significant performance gains (OECD/ILO, 2017<sup>[13]</sup>). Public interventions can help to incentivise actions by employers, especially SMEs, including through direct interventions, expert consultation and business coaching programmes (see Box 5.9 for international examples).

Slovakia has expanded support to SMEs in recent years, and many of these changes are part of, or based on, principles presented in the Small Business Act. The act is an overarching framework for EU policy on SMEs that aims to improve entrepreneurship, simplify the regulatory and policy environment for SMEs, and remove barriers to their development. In Slovakia, implementation of the act is overseen by a working group under the patronage of the Ministry of Economy, and with representation from the SBA and nine ministries. The SME business community is involved and consulted on implementation through SME Envoy, a group of representatives of Slovak SMEs.

Slovakia's performance across different elements of the Small Business Act has been mixed (European Commission, 2018<sup>[40]</sup>). Since 2008 it has made significant progress in access to finance for SMEs, which now have access to finance from a variety of sources, including ministries, non-profit organisations (including microloans and risk capital schemes by the SBA), private banks, and development banks such as the European Bank for Reconstruction and Development and the European Investment Bank. However, as already discussed, performance in various measures of entrepreneurship, skills and innovation has deteriorated since 2008 (SBA, 2017<sup>[33]</sup>).

The SBA is the main organisation providing support to SMEs in Slovakia. In addition to financial support and various projects aimed at promoting clusters, innovations, and start-ups, the SBA has a number of active non-financial support programmes for SMEs. For example, it runs a programme for education, training and consulting to selected groups of people interested in doing business. The programmes involve consultation services, the development and formulation of business plans for future businesspersons, and short-term education, all free of charge. National Business Centres offer co-working areas, creative points, and a number of projects to support firms throughout their life cycle. The Acceleration Programme offers professional counselling, training courses and activities to develop business potential, increase awareness about entrepreneurship, and present success stories and good business practices; the Incubation Programme is designed for starting entrepreneurs; the Internship Programme is where starting entrepreneurs can apply for participation in professional events, fairs and shows in the EU; and the Growth programme supports the growth of SMEs in Slovak and/or foreign markets. The SBA also implements a number of European initiatives. For instance, it is involved in the Enterprise Europe Network that brings together almost 600 business support organisations from more than 50 countries. The network is linked through databases, shares knowledge and sources technologies and business partners across all network countries.

As discussed in the section on current arrangements, the activities of other organisations, such as the Slovak Innovation and Energy Agency (SIEA) and the Slovak Investment and Trade Development Agency (Slovenská agentúra pre rozvoj investícií a obchodu, SARIO), indirectly affect skills use and workplaces practices. Many of these organisations' programmes are part of the Operational Programme "Research and Innovation", and activities vary from running regional consultation centres for entrepreneurs (SIEA), to activities stimulating the internationalisation of SMEs through co-operation and advisory services to SMEs (SARIO).

While many of these programmes are effective in promoting and supporting change in workplaces, they can be improved in several ways. First, the complex administrative procedures for support measures are considered a major barrier for many firms, especially SMEs (SBA, 2017<sup>[33]</sup>), and within the framework of the Small Business Act there is a push to tackle complex administrative procedures (European Commission, 2018<sup>[40]</sup>). Participants in workshops ranked the recommendation to reduce the administrative burden for support measures second highest in a survey, and stakeholders consulted during the project indicated that the current administrative burden reduces the motivation of potential applicants to apply for support. The general business environment is also suffering from the negative impact of administration, including starting a business and obtaining permits and licenses (World Bank Group, 2019<sup>[49]</sup>). Criticism of Slovak bureaucracy appears to be widespread, and the Entrepreneurs Association of Slovakia even organises a competition for Bureaucratic Absurdity of the Year.

The Slovak government has launched various initiatives to decrease administrative burden and bureaucracy. The Ministry of Economy is currently preparing the fourth “anti-bureaucratic package” of measurements that should help to improve the business environment and decrease the administrative burden for companies and entrepreneurs. In this process, companies and the public can post their ideas and participate in the preparation of the package (Ministry of Economy, 2019<sup>[50]</sup>). In addition, the Slovak government has adopted the RIA2020-Strategy for Better Regulation (OECD, 2019<sup>[6]</sup>). This long-term strategy includes a comprehensive approach to whole-of-government regulatory policy, including by focusing on improving both *ex ante* and *ex post* evaluation of regulations.

Slovakia is not the only country that faces the challenge of growing perceptions that regulatory and legislative inflation stifles economic activity, and almost all OECD countries aim to reduce the administrative burden for businesses. For instance, the European Commission launched the Action Programme for Reducing Administrative Burdens in 2007, which describes a method to quantify administrative burdens and sets specific targets to reduce them (the so-called Standard Cost Model). Many countries have applied related models and methods to reduce administrative burdens (see Box 5.10 for an example) (OECD, 2018<sup>[51]</sup>).

Given that a large share of support programmes in Slovakia are funded by the EU, with related administrative requirements for transparency of funding, some participants in workshops and meetings consider EU legislation a main driver behind the administrative burden. Representatives of Slovak SMEs are generally critical of EU legislation, primarily referring to the bureaucracy and costs of administrative processes for companies. In the EU, only the Czech Republic and Austria have a more negative view of the bureaucratic burden related to the application of EU legislation (SBA, 2017<sup>[33]</sup>). However, requirements based on EU legislation are often less stringent than Slovak legal standards (the so-called gold-plating effect), and Slovakia should aim to review and minimise the occurrence of these situations where legal standards are unnecessary stringent (SBA, 2017<sup>[33]</sup>).

Participants and stakeholders in workshops and meetings during the project indicated that there is room to consolidate and align support measures, which would contribute to a reduction in administrative burden (SBA, 2017<sup>[33]</sup>). For example, the fragmentation of initiatives and instruments limits the growth of start-ups (European Commission, 2018<sup>[40]</sup>). There is sufficient room to further unify and simplify obligations for SMEs, and a centralised portal where obligations are explained in a clear and understandable form to SMEs could support accessibility.

Furthermore, there are signs that the quality of current support programmes could be improved and the scope could be expanded. Mentoring and coaching programmes are often successful in changing organisational practices, especially in co-operation with the business environment. However, since these work practices are often sector specific, the number of organisations and consultants with the required expertise is often limited (OECD/ILO, 2017<sup>[13]</sup>). Moreover, due to a strong reliance on European funding, many programmes focus on regional development and thereby exclude comparatively strong performing regions such as the Bratislava region. Participants in workshops and meetings also expressed that as a result of many programmes targeting start-ups and innovative SMEs, more conventional SMEs are

regularly excluded from programmes. To expand support to firms, a number of stakeholders proposed adding the adoption of workplace practices (or at least related expenditures) to an existing measure to support innovation in Slovak firms, where research and development (R&D) expenditure can be deducted from taxes. However, the implementation of this measure has been limited so far, partly due to complicated application procedures for SMEs (Baláž, Frank and Ojala, 2018<sup>[52]</sup>).

### **Box 5.9. Relevant international examples: Supporting firms in the adoption of HPWP**

#### **High-Performance Working Initiative (HPWI) New Zealand**

New Zealand has centred its pursuit of workplace innovation on improving productivity performance, and has singled out the poor utilisation of skills in the workplace as a key policy issue. The High-Performance Working Initiative (HPWI) provides business coaching through consultants for SMEs to help streamline work practices to improve performance and productivity, while also increasing employee engagement and satisfaction. Public funding is provided, but the firm contributes half the funding.

#### **Initiatives to support the adoption of HPWP in Singapore**

In Singapore, interventions to support the adoption of HPWP involve funding and other types of support for employers to reshape their workplaces and move towards higher-value-added production. These can include strengthening HR systems to better link skills acquisition to career trajectories, hiring consultants to review compensation structures to retain skilled workers, or hiring consultants to assess the organisation's training needs and to adapt available training to these specific needs. An example of such a programme is the Enterprise Training Support scheme, introduced in 2013, which aims to 1) raise employees' productivity and skills levels; 2) attract and retain employees by developing good human resource management systems and practices tied to training; and 3) attract and retain valued employees by benchmarking compensation and benefits.

Source: OECD/ILO (2017<sup>[13]</sup>), *Better Use of Skills in the Workplace: Why It Matters for Productivity and Local Jobs*, <https://dx.doi.org/10.1787/9789264281394-en>.

### **Box 5.10. Relevant international example: Reducing administrative burden for businesses**

#### **Regulatory reform in Germany to reduce the costs of regulation**

Following regulatory reform, Germany is one of the few countries where business perceptions of the burden to comply with regulatory requirements have improved in the last ten years. Germany has put a strong emphasis on the reduction of the costs of regulation, including by introducing the “One-In, One-Out” rule in 2015, and has made several improvements to its regulatory policy system, especially regarding *ex ante* impact assessments. Institutionally, all regulations are subject to quality control by the independent National Regulatory Control Council (NKR), and there is a central co-ordinating and monitoring body (the Better Regulation Unit in the Federal Chancellery) that implements the programme on better regulation and bureaucracy reduction. Overall, regulatory reform has achieved various reductions in compliance costs for businesses, citizens and the administration. For instance, by simplifying electronic invoicing, the administrative burden for business was reduced by circa EUR 3.3 billion per year. Additional key elements of the regulatory reform include the shortening of retention periods under commercial, tax and social legislation, e-government activities, the harmonisation of requirements for financial and payroll accounting, and advanced electronic signatures for businesses.

Source: OECD (2018<sup>[51]</sup>), *OECD Regulatory Policy Outlook 2018* <https://dx.doi.org/10.1787/9789264303072-en>.

### Recommendations for strengthening and expanding support measures to firms:

- **Improve the accessibility of support programmes for SMEs by reducing the administrative burden.** The Slovak government, in collaboration with the Slovak Business Agency, employer organisations and other stakeholders, should build on existing initiatives and strategies, such as the “anti-bureaucratic packages” by the Ministry of Economy and the RIA2020-Strategy for Better Regulation, to reduce the administrative burden for companies. The Slovak government should ensure that legislation for support measures is not unnecessarily strict, i.e. stricter than EU legislation, regular audits should be performed to remove any unnecessary bureaucracy, and the Slovak government should actively work towards further simplification of administrative procedures.
- **Strengthen support to firms by consolidating and aligning support measures and by offering programmes to all firms.** The accessibility of support programmes can be improved by ensuring that the many initiatives currently available are well aligned and consolidated. There is sufficient room to further unify and simplify obligations for SMEs. A centralised portal where support measures are presented and where obligations are explained in a clear, understandable and interactive form to SMEs would support accessibility. This portal could be combined with, or an extension of, the centralised portal with relevant information on workplace innovations, good practices and descriptions of successful projects, as described earlier. Moreover, support should be accessible for firms in all regions, not just the most innovative firms and start-ups.

#### *Leveraging employer groups, clusters and sectoral associations for the adoption of HPWP and to facilitate knowledge spillovers*

To support the adoption of workplace practices in Slovak firms, the government should aim for a decentralised approach at the level of employers and sectors. Evidence suggests that approaches that leverage employer networks or collaboration at the sector level are cost-efficient and potentially more effective at catalysing change than centralised approaches (OECD/ILO, 2017<sup>[13]</sup>). These networks and clusters can take a number of forms, ranging from informal networking to formal networks with a central hub organisation and membership structure, fees and formal governance arrangements. In workshops and related meetings during this project, several participants, including employers, stressed the importance of these networks and associations in Slovakia (OECD/ILO, 2017<sup>[13]</sup>).

Responding to the challenge of a two-speed economy in Slovakia, these networks and organisations could not only support the sector-specific adoption of HPWP, but could also be utilised to facilitate knowledge spillovers between large international and smaller local firms. There is evidence of the positive relationship between a country’s openness to multinational production and economic growth, and often this relationship is attributed to knowledge spillovers – i.e. the foreign multinational creates positive productivity externalities to domestic firms. These spillovers appear in different forms, including direct knowledge transfers through partnerships, opportunities to observe and learn the technologies of foreign firms, as well as interaction and movement in the labour market (Alfaro and Chen, 2013<sup>[53]</sup>). Slovakia could make better use of the presence of large foreign enterprises to strengthen the extension of technological knowledge and management expertise to local businesses (OECD, 2019<sup>[6]</sup>) (see Box 5.11 or international examples of policies that stimulate knowledge spillovers).

In Slovakia, chambers of commerce are very active in bringing together employers on a regular basis. The main public body representing Slovak businesses is the Slovak Chamber of Commerce and Industry (SOPK). The SOPK co-operates with national and regional authorities, unions and sectoral associations to promote favourable working conditions and environment for Slovak businesses. The SOPK brings together its members in specialised seminars and events aimed at raising awareness and sharing information, as well as in training sessions and business meetings. The American Chamber of Commerce (AmCham) in Slovakia is another very active chamber, and with 330 international and local firms it is one

of the largest chambers of commerce in Slovakia. In addition to informing its members and advocating for their businesses, AmCham organises numerous events every year, where local and foreign business partners, clients, Slovak and American politicians can meet. Events vary from business breakfasts to workshops on specific topics.

Several organisations and associations, in addition to the SBA, support the exchange of information and practices among employees. For instance, the Entrepreneurs Association of Slovakia (Združenie podnikateľov Slovenska, ZPS) has represented the private business sector since 1989. Its members are mainly SMEs, as well as other associations. The ZPS focuses on issues related to the development of a favourable business environment, and many member associations are active in bringing together employers. For example, the Young Entrepreneurs Association of Slovakia brings together entrepreneurs under the age of 40 in formal and non-formal networking meetings, and the Slovak Franchising Association is a platform for networking and best practice exchange through seminars, workshops and discussions for aspiring or active entrepreneurs in franchising.

The EAS is one of the founding members of the National Union of Employers of the Slovak Republic, which is an umbrella organisation that unites employers and participates in national level tripartite consultations. Other main employer organisations are the Federation of Employers Association of the Slovak Republic (Asociácia zamestnávateľských zväzov a združení, AZZZ), the Association of Towns and Communities (Združenie miest a obcí Slovenska, ZMOS), and the Association of Industrial Unions (Asociácia priemyselných zväzov, APZ). There are also employer collaborations in specific sectors, for instance the IT Association of Slovakia (ITAS) unites all national and international firms in the private IT/ICT sector, the Association of Digital Marketing Agencies brings together primarily professional agencies active in the Slovak digital marketing field, and the Košice IT Valley is a cluster in the Košice region that unites and enforces co-operation between members in the area of ICT. Košice IT Valley is one of the 11 members of the Union of Slovak Clusters, which since 2010 has promoted the creation and development of cluster policy in Slovakia, and aimed to strengthen research, product development, innovation and technology transfer, education, and the exchange of information related to clusters.

Despite these many good initiatives, these networks can be further improved. Like most countries, the companies most in need of enhanced adoption of HPWP are not the firms most actively participating in these initiatives. Under-represented and disadvantaged groups of entrepreneurs typically have more limited networks, often because of their reliance on friends and family who typically face similar disadvantages (OECD/European Commission, 2015<sup>[54]</sup>). This is a challenge in Slovakia; for instance, chambers appear to primarily target international and large firms, and many of the associations described above focus on entrepreneurial firms and competitive sectors. Based on this, it is likely that local SMEs experiencing negative productivity growth are under-represented in these networks. Moreover, participants in workshops and meetings during this project indicated that a culture of sharing information could be strengthened. Currently, a competitive economy with labour shortages in various sectors is hampering co-operation between firms due to fear of loss of talent (OECD, 2019<sup>[6]</sup>). While the current economic situation is especially challenging, facilitating collaboration between competitors will always be complex, and Slovakia should actively respond to this challenge.

Policy makers should aim to develop high-quality, inclusive networks with clear and tangible benefits for all participating firms. This could be achieved by ensuring a high degree of interaction between members of the network and the broader business community, thereby creating a greater pool of resources for its members. Slovakia could consider introducing measures to promote participation in networks, for example by linking networks with training and access to financing, and by supporting the use of low cost and easily accessible online networks. Networks could also be strengthened by developing clearly defined objectives, and by designing them in a way that ensures ownership by the members to build trust in the network (OECD/European Commission, 2015<sup>[54]</sup>).

### Box 5.11. Relevant international examples: Programmes facilitating knowledge spillovers

#### J-Good Tech - Japan

In Japan, SME Support Japan, a government run organisation overseen by the Ministry of Economy, Trade and Industry, promotes SMEs in Japan and abroad. SME Support Japan runs the initiative J-Good Tech, an online business matching site that connects SMEs with larger domestic and foreign companies. The overall aim is to support the creation of strategic partnerships between businesses and facilitate the exchange of information and ideas. The service is free to use, and companies are screened before they are listed on the site. Currently 18 100 companies in Japan and abroad use the service, resulting in hundreds of SMEs and large companies exchanging ideas and collaborating on products.

#### Competitiveness clusters - France

France has sought to facilitate knowledge spillovers between large and small firms in the same sector by creating competitiveness clusters (*pôles de compétitivité*) in the regions of France identified with a particular specialisation. The aim of grouping companies together is to realise partnerships between different actors with complementary skills and knowledge, develop collaborative R&D projects, and enable targeted support to clusters on issues such as access to private financing and skills management. The clusters also intend to attract companies and to avoid business relocation to other countries. As part of the clusters, a wide number of services are offered to SMEs to promote their participation.

Source: J-Good Tech (2019<sup>[55]</sup>), J-Good Tech website, <https://jgoodtech.jp/pub/ja/>; French Ministry for the Economy and Finance (2019<sup>[56]</sup>), Competitiveness clusters, <https://competitivite.gouv.fr>.

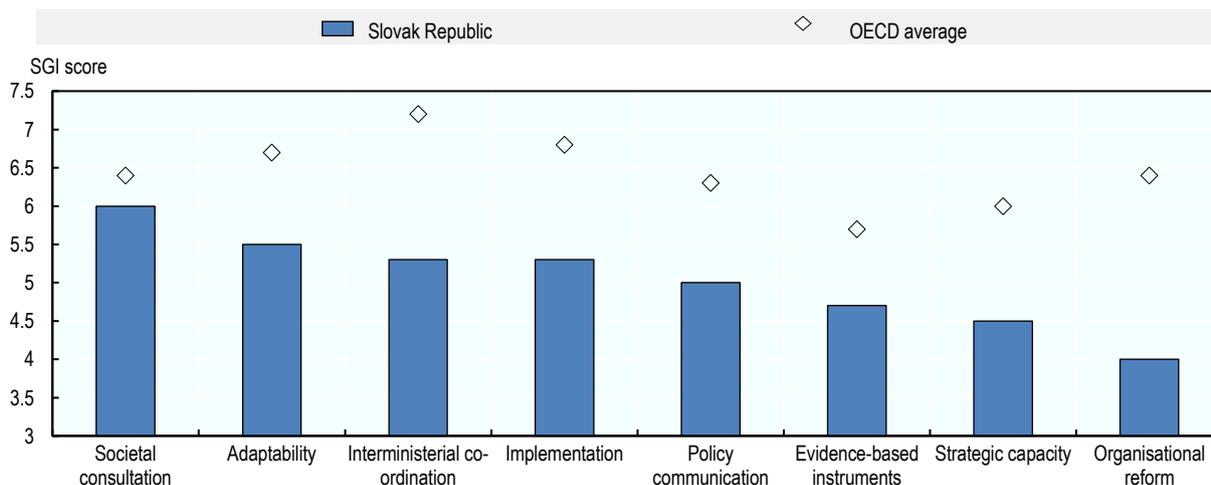
#### Recommendations for leveraging employer groups, clusters and sectoral associations for the adoption of HPWP and to facilitate knowledge spillovers:

- **Strengthen current employer networks, clusters and associations, including by stimulating the participation of local SMEs.** The Slovak government should build on the strong existing employer networks, clusters and associations, and stimulate the participation of firms most in need of workplace innovation (especially local SMEs). In order to do this it should aim to develop high-quality, inclusive networks with clear and tangible benefits for all participating firms. This can be achieved by ensuring a high degree of interaction in networks, introducing measures to promote participation in networks (e.g. by linking networks with training and access to financing), developing clearly defined objectives for these networks, supporting the use of online networks, and designing networks in a way that ensures ownership by the members to build trust in the network. The Slovak government could also consider introducing campaigns targeted at local SMEs that present the benefits of networks to stimulate participation.
- **Introduce programmes that facilitate and promote the exchange of knowledge between large international firms and local SMEs.** To make better use of the presence of foreign enterprises, the Slovak government should aim to enhance knowledge spillovers to local businesses. Slovakia could consider introducing tools to connect SMEs with larger domestic and foreign companies to develop strategic partnerships and to facilitate the exchange of technological know-how and/or management experience (see international example in Box 5.11).

### Opportunity 3: Enhancing the governance of policies and strategies that affect skills use

Implementing reforms is challenging for governments, especially when policies involve a wide range of actors and entities, such as different levels of government and stakeholders, and cut across multiple policy sectors. Across the spectrum of policy sectors, policies aimed at improving skills outcomes – in both the development and use of skills – are a prominent example of complexity. In all OECD Skills Strategy projects so far, the inherent difficulty of co-ordinating and aligning different policy sectors and actors has been one of the main challenges impeding more the effective and efficient implementation of skills policies. For Slovakia, as in all OECD countries, these governance arrangements can always be strengthened, with performance across different measures of sustainable governance below OECD averages (see Figure 5.11).

**Figure 5.11. Sustainable Governance Indicators, executive capacity, 2018**



Note: Scores given by national experts on a scale of 1 (lowest) to 10 (highest).

Source: Bertelsmann Stiftung (2019<sup>[57]</sup>), *Sustainable Governance Indicators 2018*, [www.sgi-network.org/2018/Governance/Executive\\_Capacity](http://www.sgi-network.org/2018/Governance/Executive_Capacity).

StatLink  <https://doi.org/10.1787/888934075640>

This opportunity will expand on the role of visions, strategies and action plans to raise Slovakia's performance in skills use and workplace practices. It will also explore the need for continuity, consistency and better implementation of these initiatives. The relevance of the whole-of-government approach and stakeholder engagement for the Slovak skills use policy context will be discussed, and the role of Slovakia's public sector, especially its effectiveness and efficiency, will be assessed.

#### *Strengthening visions, strategies and action plans for the growth and innovation of firms and workplaces*

To bolster future economic and social prosperity, Slovakia should aim to move a broad range of sectors up the value chain and raise productivity growth, especially in SMEs and local firms (OECD, 2019<sup>[6]</sup>). This should be supported by the more effective use of skills and the adoption of HPWP. To enforce such an economic transformation, visions, strategies and action plans are essential for setting goals and clarifying roles for government and stakeholders. However, many stakeholders expressed their concerns about existing strategies. In a small survey among participants in workshops, one of the most important recommendations was to ensure that strategies and policies on skills use, workplace practices and related industrial policies have a long-term vision, continuity and focus on implementation.

In Slovakia, there are several national, regional and sectoral strategies related to economic development, human and social capital, industry, and innovation (see overview in Chapter 1). These strategies could be utilised to put the topics of skills use and workplace practices on the policy agenda and to create momentum for reform. However, like in many OECD countries, these topics have not been a focus of policy makers, and are only addressed indirectly in some strategies. Arguably, the Strategy of the Digital Transformation of Slovakia 2030 is the strategy most directly related to the topic of skills use and workplace practices. Other strategies that address these topics indirectly include the Strategy for Smart Specialisation that is currently being developed, and co-ordinated by the Smart Industry Platform, a working group of multidisciplinary experts from industry, academia and government. In 2018, the latest Action Plan for Smart Industry (Industry 4.0), which targets five areas ranging from “research and innovation” to “information and promotion”, was approved by the Slovak government. The action plan touches on workplace innovation, managerial skills and employee engagement, but does not appear to propose any specific measures that affect workplace practices (Vantuch and Jelínková, 2019<sup>[58]</sup>).

These strategies, visions and actions plans, among others, show the determination of the Slovak government to transform the economy, but a number of conditions could improve their effectiveness. First, stakeholders in workshops and meetings during this project considered the implementation of strategies and programmes a major issue. In Slovakia, strategies tend to be well developed and comprehensive, but their implementation is often comparatively weak. This finding is supported by data from the 2018 Sustainable Governance Indicators (SGI), which scored Slovakia 5.3 (on a scale of 10) in terms of “implementation” as a category of executive capacity, compared with 6.8 on average across OECD countries (see Figure 5.11) (Bertelsmann Stiftung, 2019<sup>[57]</sup>). According to stakeholders, this is partly the result of limited continuity and a lack of long-term vision, which is often the consequence of dynamics related to the policy cycle. As will be discussed in the next section, the OECD Skills Strategy considers broad, early and extensive engagement of all levels of government and all relevant stakeholders key to improving the continuity of strategies.

Second, consistency and alignment of the large number of existing action plans and strategies in Slovakia should be enforced. Stakeholders expressed that strategies are sometimes even contradictory. There are, however, already various initiatives that aim to improve the consistency and co-ordination of policies and reforms. The Strategy of the Digital Transformation of Slovakia 2030 is a good example of a long-term vision that aims to align future strategies and programmes; and the Department for Agenda 2030 Co-ordination of the ÚPVII – tasked with implementing the UN Agenda 2030 – intends to strengthen elements of strategic planning and enhance coherence among economic, social, and environmental policies. The Slovak government also approved the Proposal of a Methodology and Institutional Framework for the Creation of Public Strategies by ÚPVII, which aims to introduce an adequate and applicable system to guide and unify the process of preparation, design and implementation of strategic documents. Potentially, such a system would contribute to the better alignment of existing policies.

Third, outcomes of strategies could be improved through better evaluation and monitoring. The European Semester of the European Commission, which aims to co-ordinate the economic policies of EU countries, expressed concerns about the sporadic use of evaluation and in-depth *ex post* assessment of policies, as well as the limited use of evidence-based analysis in policy making in Slovakia. For instance, policy decisions in Slovakia are only rarely supported by cost-benefit analyses (European Commission, 2018<sup>[59]</sup>). These findings are aligned with perceptions of participants in workshops and meetings, who expressed that there is no culture of evaluation driven design, and a comparatively low score for “evidence-based instruments” by SGI (see Figure 5.11). Moreover, to raise the chance of successful implementation, strategies could be supported by the inclusion of quantitative and measurable targets (see Box 5.12 for international example of a vision with quantifiable targets). For skills use and related HPWP, performance indicators that are understood and supported by all stakeholders would support implementation and strengthen the monitoring and evaluation of the strategy. The European Semester expressed that quantifiable policy targets are only rarely established when policies are being adopted by the Slovak

government, and while the use of performance indicators varies across ministries, they often focus on inputs rather than outputs (European Commission, 2018<sup>[59]</sup>).

### Box 5.12. Relevant international example: Vision for innovation and growth in businesses

#### Canada's Innovation and Skills Plan

In 2017, Canada initiated the Innovation and Skills Plan, a blueprint to foster a culture of innovation in firms and workplaces, create well-paying highly skilled jobs, and help provide better services for entrepreneurs and businesses. The vision is broken down into four key areas: 1) people and skills; 2) research, technology and commercialisation; 3) investment, scale-up and clean growth; and 4) programme simplification. The programme targets many areas of Canadian society and brings together different initiatives from different government departments to create one coherent strategy. Some of the aims include increasing digital skills and literacy; increasing the number of professional, science and tech-related jobs in the Canadian economy; growing business investment in research and development; doubling the number of SMEs majority owned by women; and doubling the number of high-growth firms in Canada. Each target has a quantifiable goal that should be completed by 2025 (the end date of the plan), and information on the progress of these objectives is provided to the public in a clear manner. On its dedicated website, progress bars visually track how close each target is to being achieved. The public is also able to see which government initiatives have been created to pursue each objective. This helps create accountability and transparency in the implementation of the Innovation and Skills Plan.

Source: Government of Canada (2019<sup>[60]</sup>), The Innovation and Skills Plan, [www.ic.gc.ca/eic/site/062.nsf/eng/h\\_00083.html](http://www.ic.gc.ca/eic/site/062.nsf/eng/h_00083.html).

#### **Recommendation for strengthening the visions, strategies and action plans for the growth and innovation of firms and workplaces:**

- **Develop a long-term vision for skills use and HPWP by including them more explicitly in existing visions, strategies and action plans, and ensure their continuity, consistency and implementation.** Support Slovakia's move up the value chain by putting skills use and HPWP on the policy agenda, and aim to improve the impact of relevant strategies. Ensure continuity by strengthening the engagement of all levels of government and all relevant stakeholders from early on in the development of strategies (see also next section). Slovakia should build on recent initiatives to consolidate and co-ordinate the large number of strategies, such as the Strategy of the Digital Transformation of Slovakia 2030 and the updated Lifelong Learning Strategy (see Chapter 4), to improve consistency across strategies. It could improve implementation by stimulating a culture of policy evaluation and monitoring, for instance by including measurable targets and indicators (see Box 5.12 for an international example).

#### *Applying a whole-of-government approach and engaging stakeholders in policies that affect skills use*

The OECD Skills Strategy recommends a whole-of-government approach to skills policies. A wide range of actors have roles and responsibilities in the skills system, and it is essential that their efforts are co-ordinated and well aligned. Government engagement with non-government stakeholders (employers, trade unions, education and training providers, civil society organisations, etc.) on skills policy is also important. Engaging stakeholders throughout the policy cycle can help policy makers tap into on-the-ground expertise and foster support for policy reform and implementation. To successfully introduce and implement policies related to skills use and workplace practices, Slovakia should therefore ensure that the efforts of all those involved are effectively co-ordinated.

In Slovakia, the whole-of-government approach for skills use policies could be strengthened (as discussed in Chapter 4 on adult learning). Despite various initiatives in recent years to reform the public administration

and to promote a whole-of-government approach, there are signs that there is still limited co-operation between the various ministries and government organisations on innovation, labour market and education topics (OECD, 2014<sub>[61]</sub>). The SGI scored Slovakia 5.3 (out of 10) for “inter-ministerial co-ordination”, compared with 7.2 on average in the OECD (see Figure 5.11) (Bertelsmann Stiftung, 2019<sub>[57]</sub>). Participants in workshops and meetings commented that ministries often do not work together, and that it is often difficult to have the collaborative involvement of all relevant ministries and government organisations in skills policies.

Political differences at the ministerial level are a barrier to co-operation. While it could be argued that this is the case in all OECD countries, in Slovakia, the effect of political differences on inter-governmental collaboration is comparatively strong and is exacerbated by the large share of civil servants replaced with every new government. These findings are supported by the European Commission, which sees fragmentation of policy design and rigid departmentalism in Slovakia’s public administration as a major barrier to the implementation of policies and collaboration between ministries (European Commission, 2018<sub>[59]</sub>). Furthermore, the large number of municipalities complicates co-ordination between central and local government. On some topics, such as innovation policies, the limited co-operation and co-ordination is partly due to dependence on EU structural funds, where organisations end up competing rather than co-operating over access to R&D funding (OECD, 2019<sub>[6]</sub>).

Participants in workshops and meetings expressed support for the establishment of a skills council at the national level as a way of responding to the challenge of limited co-operation between ministries on policies affecting the use of skills, including economic development, human and social capital, industry and innovation. Several OECD countries have a dedicated body for skills policies oversight (see Box 5.13 for an international example) that aims to enhance the whole-of-government approach. Such bodies could appear in different forms, including as specific structures such as inter-ministerial committees and commissions, or as fully-fledged ministries with broad responsibilities and powers that encompass traditionally separate sectors.

Within the Slovak government, there are already efforts to improve co-ordination between ministries. The Central Co-ordination Authority of the Office of the Deputy Prime Minister of the Slovak Republic for Investments and Informatisation (ÚPVII) is tasked with the management, co-ordination and supervision of government policy, especially that which is linked to European Structural and Investment Funds (ESIF). This primarily concerns policies linked to the use of EU funds related to the digitalisation of society and investments, with some policies affecting skills use and workplaces. The OECD recommended in 2015 to strengthen the role of the government office in leading co-ordination by allowing it to steer a whole-of-government strategy, policy setting and steering exercises effectively (OECD, 2015<sub>[62]</sub>). Nevertheless, despite some examples where the government office has played a role in fostering better co-ordination (e.g. in the 2017 project, Safeguarding and Co-ordinating the Protection of the EU’s Financial Interests), the OECD could not find evidence of an expansion of co-ordination efforts by the government office in recent years.

Slovakia’s Centre of Government (CoG) is focusing on ways to strengthen its capacity to co-ordinate government actions more effectively. To start, the Slovak administration should aim for a broad definition of CoG to highlight the need to strengthen co-ordination among CoG institutions and with line ministries and government agencies. In addition to the Government Office, CoG institutions include the Ministry of Finance, the Ministry of Foreign and European Affairs and the Ministry of the Interior (OECD, 2015<sub>[62]</sub>). In 2015, the OECD concluded that co-operation between CoG institutions was not sufficiently institutionalised, and that strategic direction, as well as a common understanding and willingness to engage collectively, were lacking (OECD, 2015<sub>[62]</sub>). Reinforcing co-operation and co-ordination among these institutions and the public administration could help to overcome the silo-based approach in Slovakia.

Slovakia appears to perform much better in terms of co-operation and co-ordination with stakeholders. Participants in workshops and related meetings expressed that the Slovak government has a good

relationship with employer associations and trade unions. Moreover, stakeholder engagement is well embedded in the regulatory processes in Slovakia, for example, public consultations are required for every legislative proposal submitted to government, including legislative intents (OECD, 2017<sup>[63]</sup>). This is reflected in the fact that Slovakia has among the highest scores in the 2015 OECD Indicators of Regulatory Policy and Governance (iREG) on stakeholder engagement. In addition to a number of sectoral bodies, social dialogue at the national level between the government and social partners takes place in the Economic and Social Council, a tripartite body that covers all relevant issues affecting economic and social policy in the country, including employment conditions and wages (Eurofound, 2017<sup>[25]</sup>).

Despite these outcomes, it is still relevant for Slovakia to continue and potentially expand stakeholder engagement in skills use policies. According to a survey among workshop participants, a recommendation on ensuring that the government has a good relationship with firms, employer associations and sectoral organisations was given the highest overall rank, with almost 1 in 3 respondents indicating it as essential. The SBA continues to emphasise the need for a co-ordinated approach among all stakeholders to ensure systematic, comprehensive and sustainable support of the business environment in general, and particularly of the SME sector (SBA, 2017<sup>[33]</sup>). Furthermore, stakeholders during the project expressed that some stakeholders, especially employers with strong negotiating positions, manage to push their own agenda more than other stakeholders. As mentioned in Opportunity 2 on strengthening the working culture in Slovak firms, the role of trade unions in the development of skills development and use policies could be strengthened.

### Box 5.13. Relevant international example: Dedicated body for the oversight of skills policies

#### Norway's Skills Policy Council

Norway established a Skills Policy Council to oversee the implementation of its National Skills Strategy for 2017-21. The council is composed of members from the government, the eight main social partners, a representative from the regional authorities, and a representative from the voluntary sector and adult learning associations. The Minister of Education and Integration heads the council. The council also discusses deliverables from the Future Skills Needs Committee and provides input on new policy initiatives. Norway has also established a directorate for lifelong learning, Skills Norway, which is housed in the Norwegian Ministry of Education and Research. Its role is to co-ordinate the priority areas highlighted in the National Skills Strategy.

Source: OECD (2019<sup>[3]</sup>), *Skills Strategy 2019: Skills to Shape a Better Future*, <https://dx.doi.org/10.1787/9789264313835-en>.

#### Recommendation for applying a whole-of-government approach and engaging stakeholders in policies that affect skills use:

- **Strengthen co-operation and co-ordination between all ministries, government organisations and stakeholders in the development of policies that affect skills use and workplace practices.** Strengthen a whole-of-government approach by introducing new mechanisms (e.g. a dedicated oversight body such as a Skills Policy Council, see Box 5.13 for an example) or by expanding existing mechanisms (e.g. the Central Co-ordination Authority of ÚPVII) that enforce co-operation on policies for innovation, labour market and education. Aim for more continuity by establishing relationships and promoting co-operation between ministries at levels and positions less affected by the political cycle. Promote the continued relevance of the strong culture of stakeholder engagement and ensure that equal importance is given to the views of all stakeholders.

*Enhancing the adoption of HPWP in the public sector to raise effectiveness and efficiency*

For the successful adoption and implementation of policies and programmes affecting skills use and workplace practices, the public sector should function effectively and efficiently. For Slovakia, increasing public sector efficiency is a crucial policy challenge, and current inefficiencies to some extent undermine the current business environment (OECD, 2019<sup>[6]</sup>). For example, in Slovakia it takes an average of 300 days to obtain a building permit for a warehouse, compared with 153 days on average across the OECD (World Bank Group, 2019<sup>[49]</sup>). Partly as result of this administrative inefficiency, the confidence of Slovak citizens in their government and the public sector remains below the OECD average (OECD, 2017<sup>[63]</sup>).

The public sector should aim to become a leader in the adoption of new technologies and workplace practices. Increased adoption of HPWP within government could improve the effectiveness, quality and efficiency of government. Furthermore, practices in the public sector could display strong leadership and strategic direction, and the public sector could set a good example and potentially spread and promote good practices by adopting them.

Data show that the use of skills and the adoption of HPWP in the public sector could be improved. Skills are better utilised in the private sector than in the public sector, with an especially large gap in the use of numeracy skills (based on the Survey of Adult Skills (PIAAC) calculations (OECD, 2019<sup>[4]</sup>). For HPWP such as working time flexibility, the public sector also appears to be less flexible than the private sector – for 8 out of 10 civil servants, working hours are entirely set by the organisation, while in the financial sector this is the case for only 5 out of 10 workers (Eurofound, 2019<sup>[17]</sup>). Workshop and meeting participants from government indicated that workplace practices such as teleworking are not a regular practice across ministries and strongly depend on the ministry or government organisation, as well as the relationship with management staff. However, the use of performance-related pay in the Slovak government is relatively common (OECD, 2017<sup>[63]</sup>).

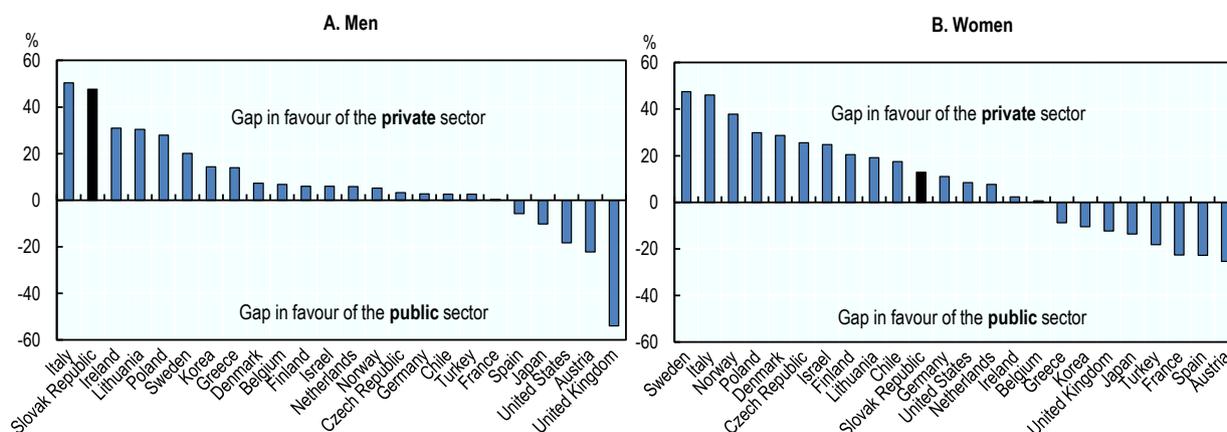
Management of the civil service is relatively decentralised (European Commission, 2018<sup>[59]</sup>). Across OECD countries, Slovakia scores the highest in the extent of delegation of Human Resource Management (HRM) practices to line ministries (OECD, 2017<sup>[63]</sup>). The OECD states that with appropriate framework conditions and minimum standards, a decentralised approach that delegates HRM to line ministries enables managers to better direct staff and is more targeted to the organisation's unique requirements. However, some level of common HRM standards and central oversight are needed to avoid uneven pay scales, improve opportunities for government-wide strategic HR planning, and reduce potential nepotism and political interference in staffing. Slovakia is one of the few OECD countries with no central HRM unit to oversee minimum standards.

A number of strategies in Slovakia cover the topic of public administration modernisation. Since 2012, the public administration reform programme, Effective, Reliable and Open Public Administration (ESO), has underscored the need to strengthen the quality and performance of the central civil service through an HRM reform agenda (OECD, 2014<sup>[61]</sup>). The National Reform Agenda for Slovakia also stresses the importance of modernising public administration, strengthening capacities and improving government efficiency (Ministry of Finance of the Slovak Republic, 2018<sup>[64]</sup>), and there is an action plan for digitising the public administration for 2017-2020. Finally, Slovakia's long-term vision, the Strategy of the Digital Transformation of Slovakia 2030, has a separate section for public administration that emphasises innovations (e.g. eGovernment) and the capacity and culture of invention, as well as the role of data and artificial intelligence (AI).

The development of the right skills of civil servants is crucial to improve effectiveness and efficiency; however, skill levels among public employees show room for improvement. The average skills of public sector employees are significantly lower than those of private sector employees, with the disparity one of the highest in the OECD for male civil servants (see Figure 5.12) (based on the Survey of Adult Skills

(PIAAC) calculations (OECD, 2019<sup>[4]</sup>). Several stakeholders in workshops and meetings also identified a large mismatch problem, with many employees not matched to the activities that require resources.

**Figure 5.12. The skills gap between public and private sectors, by gender, 2012/2015**



Note: The charts present the % difference between the public and private sectors in the average of the medians of literacy, numeracy and problem solving.

Source: Mazar, Y. (2018<sup>[65]</sup>), *Differences in Skill Levels of Educated Workers between the Public and Private Sectors, the Return to Skills and the Connection between them: Evidence from the PIAAC Surveys*, <https://ideas.repec.org/p/boi/wpaper/2018.01.html>.

StatLink  <https://doi.org/10.1787/888934075659>

Slovakia could take actions to ensure that civil servants have the right skills (see Box 5.14 international example). First, the better recruitment of civil servants could help to reduce skills gaps with the private sector (OECD, 2019<sup>[6]</sup>), including by expanding the recruitment of people with strong analytical capabilities – skills that are currently in shortage in the Slovak public sector and that impact effective policy making. A strong recruitment system is especially important for the Slovak public sector, partly because the political cycle has a high impact on staff turnover, and also because the European Commission concludes that the recruitment system for civil servants is often based on patronage (European Commission, 2018<sup>[59]</sup>). Participants in workshops indicated that there is a competency framework listing the required competencies to support the recruitment process for civil servants, but that it is not widely used. Second, the development of performance indicators to help individuals and departments assess their progress can support upskilling in the public sector (OECD, 2019<sup>[6]</sup>), but Slovakia is near the bottom of the ranking of OECD countries in the adoption of performance assessment in HR decisions by central government (OECD, 2017<sup>[63]</sup>). Third, better pay could help to reduce the gap with the private sector. A positive development in this regard is that government and unions signed an agreement in 2018 to raise salaries by 10% in both 2019 and 2020.

Finally, training is crucial to raise skills in the public sector. Slovak civil servants must dedicate at least five days a year to their training and are obliged to enhance skills and qualifications based on requirements agreed at the beginning of each year (European Commission, 2018<sup>[59]</sup>). Despite these regulations, only a relatively small share of civil servants actually participate in education and training. The participation rate in the Slovak public sector is very low, and near the bottom of EU country rankings: in 2018, 6.9% of civil servants participated in education and training in the last four weeks, compared with 16.8% across EU countries and between 40% and 50% in top-performing countries such as Finland and Estonia (Eurostat, 2019<sup>[66]</sup>). One driver behind this low participation rate is that training tends to be under-resourced, and Slovakia does not have an overarching strategy or co-ordination system for training policy in the public service (OECD, 2015<sup>[62]</sup>). Participants in workshops also expressed concerns about the quality of courses offered, as well as the limited availability of training opportunities for junior officials. There are, however, some good recent initiatives. For instance, an act from 2017, which came into force in 2019, introduces

an individual plan of education for every employee in the public administration, with two days of leave for studying each year and the freedom to choose courses. This HR plan, facilitated by the Ministry of Finance, looks promising, but participants indicated that limited funding is a challenge.

### Box 5.14. Relevant international example: Skills initiatives in the public sector

#### UK civil service skills initiatives

The UK civil service has been taking steps to align its skills strategy with its strategic vision. The 2012 Civil Service Reform Plan identified skills gaps that must be addressed in order to meet the objectives of reducing public expenditure while meeting the growing service expectations of citizens. In 2013, the UK civil service published a capabilities plan for the whole civil service that identified four priority skills gaps central to support the 2012 reform: 1) leading and managing change; 2) commercial skills and behaviours; 3) delivering successful projects and programmes; and 4) redesigning services and delivering them digitally.

The 2013 plan lays out ways to build internal capabilities through learning and development, buy them through contracting and/or recruiting, and borrow them through loans between departments and secondments with the private sector. These strategies are reinforced in the UK's Civil Service Workforce Plan 2016-2020, which sets out five areas for action: 1) opening up recruitment across the civil service to attract and retain people of talent; 2) building career paths through skills mapping and professional development; 3) developing leadership skills by introducing a Leadership Academy; 4) ensuring inclusion with a goal to become the most inclusive employer in the UK; and 5) look at pay and rewards with a view to increased flexibility to attract scarce skills.

Source: UK Cabinet Office (2016<sup>[67]</sup>), *Civil Service Workforce Plan 2016-2020*, [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/536961/civil\\_service\\_workforce\\_strategy\\_final.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/536961/civil_service_workforce_strategy_final.pdf).

#### Recommendations for enhancing the adoption of HPWP in the public sector to raise effectiveness and efficiency:

- **Strengthen the adoption of HPWP in the public sector by setting government-wide standards and requirements.** The highly decentralised HR structure in Slovakia is likely to negatively affect the overall adoption of HPWP, and government-wide standards, potentially supported by a long-term strategic plan for government, could contribute to better performance. Centralised standards could for instance contribute to a stronger recruitment system. Moreover, the government should ensure that actions to promote the modernisation of public administration, as addressed in strategies (e.g. National Reform Agenda, Strategy of the Digital Transformation of Slovakia 2030), are effectively and efficiently implemented.
- **Ensure that civil servants have the right skills for their work by improving learning opportunities and strengthening the recruitment system.** To respond to low participation rates in education and training among civil servants, Slovakia's government should build on existing legislation and initiatives (e.g. the plan for study leave and training), as well as expand and raise the quality of training opportunities. It should also strengthen the recruitment system in the civil service supported by a well-developed and widely used competency framework that lists the required competencies, as well as the development of performance indicators to support the development of individuals and departments.

## Overview of recommendations

<b>Opportunity 1: Creating the conditions to facilitate the adoption of HPWP in Slovak firms</b>	
Creating a supportive working environment for employees	<ul style="list-style-type: none"> <li>• Raise the job satisfaction of Slovak workers by promoting a working environment where workers' contributions are recognised, valued and rewarded.</li> <li>• Raise employee engagement by strengthening employee representative structures in Slovak firms.</li> </ul>
Strengthening the skills and motivation of management staff	<ul style="list-style-type: none"> <li>• Raise awareness of the need to improve the quality of management staff and share knowledge and examples of strong management practices.</li> <li>• Raise the participation of management staff in education and training by improving and expanding the overall training offer that is relevant for management.</li> </ul>
Developing entrepreneurial attitudes from early on in the education system	<ul style="list-style-type: none"> <li>• Improve attitudes towards entrepreneurship by expanding and strengthening public and private programmes in the education system that develop entrepreneurial skills.</li> </ul>
<b>Opportunity 2: Providing incentives and support to Slovak firms for the adoption of HPWP</b>	
Raising awareness of skills use, workplace practices and support measures	<ul style="list-style-type: none"> <li>• Promote the benefits of skills use and workplace innovations through campaigns and by introducing a centralised portal with relevant information.</li> <li>• Expand awareness of existing support measures for firms, especially among SMEs.</li> </ul>
Strengthening and expanding support measures to firms	<ul style="list-style-type: none"> <li>• Improve the accessibility of support programmes for SMEs by reducing the administrative burden.</li> <li>• Strengthen support to firms by consolidating and aligning support measures and by offering programmes to all firms.</li> </ul>
Leveraging employer groups, clusters and sectoral associations for the adoption of HPWP and to facilitate knowledge spillovers	<ul style="list-style-type: none"> <li>• Strengthen current employer networks, clusters and associations, including by stimulating the participation of local SMEs.</li> <li>• Introduce programmes that facilitate and promote the exchange of knowledge between large international firms and local SMEs.</li> </ul>
<b>Opportunity 3: Enhancing the governance of policies and strategies that affect skills use</b>	
Strengthening visions, strategies and action plans for the growth and innovation of firms and workplaces	<ul style="list-style-type: none"> <li>• Develop a long-term vision for skills use and HPWP by including them more explicitly in existing visions, strategies and action plans, and ensure their continuity, consistency and implementation.</li> </ul>
Applying a whole-of-government approach and engaging stakeholders in policies that affect skills use	<ul style="list-style-type: none"> <li>• Strengthen co-operation and co-ordination between all ministries, government organisations and stakeholders in the development of policies that affect skills use and workplace practices.</li> </ul>
Enhancing the adoption of HPWP in the public sector to raise effectiveness and efficiency	<ul style="list-style-type: none"> <li>• Strengthen the adoption of HPWP in the public sector by setting government-wide standards and requirements.</li> <li>• Ensure that civil servants have the right skills for their work by improving learning opportunities and strengthening the recruitment system.</li> </ul>

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## Annex A. Engagement

The National Skills Strategy project involved ongoing oversight and input from an inter-ministerial team (the National Project Team) co-ordinated by the Ministry of Education, Science, Research and Sport of the Slovak Republic and composed of experts from various other ministries and organisations, as outlined in Table A.1 below.

The European Commission was represented by Alison Crabb (Head of Unit, Skills and Qualifications, Directorate-General for Employment, Social Affairs and Inclusion), Michael Morass (Deputy Head of Unit Poland, Czech Republic and Slovakia, Directorate-General for Employment, Social Affairs and Inclusion), Michael Horgan (Policy Officer, Directorate-General for Employment, Social Affairs and Inclusion) and Jitka Verdickt (Programme Manager, EU Policies, Directorate-General for Employment, Social Affairs and Inclusion).

**Table A.1. National Project Team**

<b>National Project Team</b>	
Michal Rehúš	Head of the Education Policy Institute (EPI), Ministry of Education, Science, Research and Sport
Ján Toman	Analyst EPI, Ministry of Education, Science, Research and Sport
Pavol Galáš	Analyst EPI, Ministry of Education, Science, Research and Sport
Karol Jakubík	VET Department, Ministry of Education, Science, Research and Sport
Jozef Jurkovič	Head of Higher Education Section, Ministry of Education, Science, Research and Sport
Michal Deneš	Lifelong Learning Department, Ministry of Education, Science, Research and Sport
Luba Habodaszová	Institute for Financial Policy (IFP), Ministry of Finance
Anna Čaplovičová	Section of Business Environment and Innovation, Ministry of Economy
Monika Pacoláková	Section of Labour, Ministry of Labour, Social Affairs and Family

**Table A.2. Supporting experts**

<b>Supporting experts</b>	
Michaela Bednárík	Analyst EPI, Ministry of Education, Science, Research and Sport
Dávid Martinák	Analyst EPI, Ministry of Education, Science, Research and Sport
Mária Perignéthová	Analyst EPI, Ministry of Education, Science, Research and Sport
Ivana Studená	Deputy Head, Centre of Social and Psychological Sciences, Slovak Academy of Sciences
Samo Varsík	Analyst EPI, Ministry of Education, Science, Research and Sport

### Workshop moderators and note-takers

Members of the National Project Team and the Education Policy Institute acted as moderators and note-takers during the workshops in April and June 2019.

## OECD missions to Slovakia

The OECD held three missions to Slovakia between January and June 2019 and met with a broad range of stakeholders, including representatives of municipalities, regional development agencies, adult education providers, employers, employer associations and trade unions. The missions included large interactive workshops, in-depth thematic sessions and bilateral meetings.

### *Mission 1: Skills Strategy Seminar*

During the first mission from 28 to 30 January 2019, members of the OECD team undertook the following:

1. Held a high-level meeting with the Minister of Education, state secretaries and directors from four ministries, three non-ministerial institutes, two centres and unions, and the European Commission to explain, get feedback on and receive endorsement for the main elements of the project.
2. Held a technical-level meeting with representatives of four ministries and other stakeholders to discuss and receive feedback on the main elements of the project.
3. Held three bilateral meetings with representatives of three different ministries to discuss their major responsibilities, their initial insights into the four priority areas of the project, and their expectations of the project.

Representatives of several ministries and offices, as well as the European Commission, attended the senior official discussion and the technical-level meeting in Bratislava on 29 January 2019.

**Table A.3. Organisation and stakeholders participating in the Skills Strategy Seminar, Bratislava, 29 January 2019**

Association of Industrial Unions (Asociácia priemyselných zväzov)
European Commission (Európska komisia)
Methodology and Pedagogy Centre (Metodicko-pedagogické centrum)
Ministry of Economy (Ministerstvo hospodárstva SR)
Ministry of Education, Science, Research and Sport (Ministerstvo školstva, vedy, výskumu a športu SR)
Ministry of Finance (Ministerstvo financií SR)
Ministry of Labour, Social Affairs and Family (Ministerstvo práce, sociálnych vecí a rodiny SR)
National Institute of Education (Štátny pedagogický ústav)
Office of the Deputy Prime Minister for Investments and Informatization (Úrad podpredsedu vlády SR pre investície a informatizáciu)
ReferNET
Slovak Academy of Sciences (Slovenská akadémia vied)
State Institute for Vocational Education (Štátny inštitút odborného vzdelávania)

### *Mission 2: Assessment mission*

During the second mission from 8 to 11 April 2019, members of the OECD team undertook the following:

1. Held an Assessment Workshop with around 60 participants that convened representatives of ministries, state agencies, researchers, academics, non-governmental organisations (NGOs), teachers, school founders, students and employers/business. The workshop focused on discussions of Slovakia's challenges and opportunities, current reforms and the next key priorities for the country regarding skills.
2. Hosted four in-depth focus group discussions with subject matter experts and practitioners in the four areas of focus for the project. These sessions convened policy makers, ministry officials, public agencies and stakeholders to explore Slovakia's challenges and opportunities

in each priority area, and to discuss current skills reforms underway to help respond to these priorities. The purpose was to allow the OECD to go into the details of specific challenges and recommendations with a small group of experts and stakeholders and develop tailored recommendations.

3. Held two meetings with the National Project Team to reflect on the ongoing co-operation with the OECD and discuss upcoming project phases.

**Table A.4. Organisation and stakeholders participating in the Assessment Workshop, Bratislava, 9 April 2019**

Academia Istropolitana Nova
Alliance of Sector Councils (Aliancia sektorových rád)
American Chamber of Commerce (Americká obchodná komora)
Association for Career Guidance and Career Development (Združenie pre kariérové poradenstvo a rozvoj kariéry)
Association of Adult Education Institutions in the Slovak Republic (Asociácia inštitúcií vzdelávania dospelých v SR)
Association of Private Schools and School Facilities (Asociácia súkromných škôl a školských zariadení)
Association of Educational Counsellors (Asociácia výchovných poradcov)
AT&T
Central Office of Labour, Social Affairs and Family (Ústredie práce sociálnych vecí a rodiny)
Club 500 (Klub 500)
Comenius University in Bratislava (Univerzita Komenského v Bratislave)
Education Policy Institute (Inštitút vzdelávacej politiky)
Entrepreneurs Association of Slovakia (Združenie podnikateľov Slovenska)
Institute for Financial Policy (Inštitút finančnej politiky)
IT Association of Slovakia (IT Asociácia Slovenska)
Ministry of Economy (Ministerstvo hospodárstva SR)
Ministry of Education, Science, Research and Sport (Ministerstvo školstva, vedy, výskumu a športu SR)
Ministry of Labour, Social Affairs and Family (Ministerstvo práce, sociálnych vecí a rodiny SR)
Pavol Jozef Šafárik University in Košice (Univerzita P. J. Šafárika v Košiciach)
People in Peril NGO (Človek v ohrození, n.o.)
ReferNET
Slovak Academy of Sciences (Slovenská akadémia vied)
Slovak Chamber of Commerce and Industry (Slovenská obchodná priemyselná komora)
Slovak Governance Institute (Inštitút pre dobre spravovanú spoločnosť)
Slovak PhD Students' Association (Asociácia doktorandov Slovenska)
Social Policy Institute (Inštitút sociálnej politiky)
State Institute for Vocational Education (Štátny inštitút odborného vzdelávania)
Technical University of Košice (Technická univerzita v Košiciach)
University of Economics in Bratislava (Ekonomická univerzita v Bratislave)
Youth Council of Slovakia (Rada mládeže Slovenska)

**Table A.5. Organisation and stakeholders participating in focus group discussions, Bratislava, 10 to 11 April 2019**

Alliance of Sector Councils (Aliancia sektorových rád)
Central Office of Labour, Social Affairs and Family (Ústredie práce sociálnych vecí a rodiny)
Club 500 (Klub 500)
Dell Slovakia (Dell Slovensko)
Institute of Banking Education of the National Bank of Slovakia (Inštitút bankového vzdelávania Národnej banky Slovenska)
IT Association of Slovakia (IT Asociácia Slovenska)
Ministry of Education, Science, Research and Sport (Ministerstvo školstva, vedy, výskumu a športu SR)
National Union of Employers (Republiková únia zamestnávateľov)
Slovak Academy of Sciences (Slovenská akadémia vied)
Slovak PhD Students' Association (Asociácia inštitúcií vzdelávania dospelých)
State Institute for Vocational Education (Štátny inštitút odborného vzdelávania)

### ***Mission 3: Recommendations mission***

During the third mission from 17 to 20 June 2019, members of the OECD team undertook the following:

1. Hosted a Recommendations Workshop for representatives of national ministries and agencies, subnational authorities, employers, trade unions, education and training providers, and others. The workshop involved discussing and developing the recommendations for improvement in Slovakia in each of the four priority areas of the project, and selecting the most relevant national and international good practices related to the recommendations.
2. Hosted four sets of bilateral meetings with ministry officials, representatives of business associations and NGOs, teachers, independent experts and researchers.
3. Held two meetings with the National Project Team to debrief on previous meetings and answer outstanding questions.

**Table A.6. Organisation and stakeholders participating in the Recommendations Workshop, Bratislava, 18 June 2019**

AINova (AINova)
Association of Adult Education Institutions in the Slovak Republic (Asociácia inštitúcií vzdelávania dospelých v SR)
Association of Primary Education of Slovakia (Združenie základných škôl Slovenska)
Central Office of Labour, Social Affairs and Family (Ústredie práce, sociálnych vecí a rodiny)
Centre of Educational Management of the Faculty of Management at the Comenius University (Centrum edukačného manažmentu FMUK)
Comenius University in Bratislava (Univerzita Komenského v Bratislave)
Education Policy Institute (Inštitút vzdelávacej politiky)
Entrepreneurs Association of Slovakia (Združenie podnikateľov Slovenska)
Institute of Economic Research of the Slovak Academy of Sciences (Ekonomický ústav SAV)
Institute of Banking Education of the National Bank of Slovakia (Inštitút bankového vzdelávania Národnej banky Slovenska)
Ministry of Education, Science, Research and Sport (Ministerstvo školstva, vedy, výskumu a športu SR)
Ministry of Labour, Social Affairs and Family (Ministerstvo práce, sociálnych vecí a rodiny SR)
Ministry of the Interior (Ministerstvo vnútra SR)
National Institute for Certified Educational Measurements (Národný ústav certifikovaných meraní vzdelávania)
Pavol Jozef Šafárik University in Košice (Univerzita Pavla Jozefa Šafárika v Košiciach)
People in Peril NGO (Človek v ohrozeni n.o.)
ReferNET
Slovak Academy of Sciences (Slovenská akadémia vied)
Slovak Business Agency (Slovak Business Agency)

Slovak Chamber of Trades (Slovenská živnostenská komora)
Slovak Governance Institute (Inštitút pre dobre spravovanú spoločnosť)
State Institute for Vocational Education (Štátny inštitút odborného vzdelávania)
Student Council for Higher Education (Študentská rada vysokých škôl)
Swiss Re
The Capital City of Slovakia Bratislava (Hlavné mesto SR Bratislava)
University of Economics in Bratislava (Ekonomická univerzita v Bratislave)

**Table A.7. Bilateral meetings, Bratislava, 17, 19 to 20 June 2019**

American Chamber of Commerce (Americká obchodná komora)
Ministry of Economy (Ministerstvo hospodárstva SR)
Ministry of Finance (Ministerstvo financií SR)
Office of the Deputy Prime Minister for Investments and Informatization (Úrad podpredsedu vlády SR pre investície a informatizáciu)
ReferNET
Slovak Business Agency
Slovak Governance Institute (Inštitút pre dobre spravovanú spoločnosť)
State Institute for Vocational Education (Štátny inštitút odborného vzdelávania)
Volkswagen Slovakia (Volkswagen Slovensko, a.s.)



OECD Skills Studies

# OECD Skills Strategy Slovak Republic

## ASSESSMENT AND RECOMMENDATIONS

Skills are the key to shaping a better future and central to the capacity of countries and people to thrive in an increasingly interconnected and rapidly changing world. Megatrends such as globalisation, technological advances and demographic change are reshaping work and society, generating a growing demand for higher levels and new sets of skills.

OECD Skills Strategy projects provide a strategic and comprehensive approach to assess countries' skills challenges and opportunities and help them build more effective skills systems. The OECD works collaboratively with countries to develop policy responses that are tailored to each country's specific skills needs. The foundation of this approach is the OECD Skills Strategy Framework, which allows for an exploration of what countries can do better to 1) develop relevant skills over the life course; 2) use skills effectively in work and in society; and 3) strengthen the governance of the skills system.

This report, "OECD Skills Strategy Slovak Republic: Assessment and Recommendations", identifies opportunities and makes recommendations to strengthen the skills of youth, reduce skills imbalances, foster greater participation in adult learning and strengthen the use of skills in the workplace.

Consult this publication on line at <https://doi.org/10.1787/bb688e68-en>.

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