European Commission

Education and Training Monitor 2013

Slovakia

Education and Training

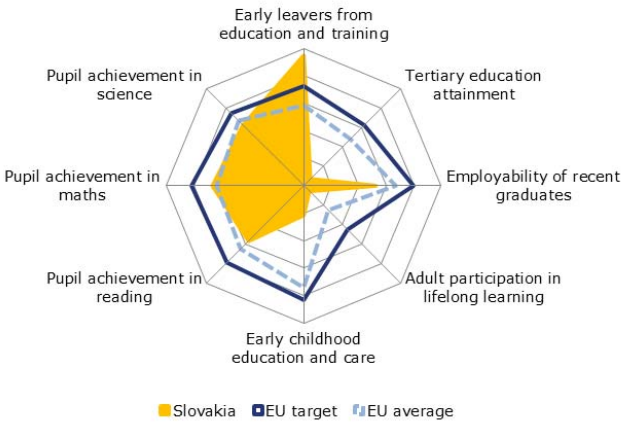
1. Key indicators and benchmarks

Europe 2020 headline targets			Slovakia 2009	Slovakia 2012	EU average 2009	EU average 2012	Europe 2020 target / Benchmark
1. Early leavers from education and training (age 18-24)			4.9%	5.3%	14.2% EU28	12.7% EU28	**EU target: 10%** National target: 6%
2. Tertiary educational attainment (age 30-34)			17.6%	23.7%	32.1% EU28	35.7% EU28	**EU target: 40%** National target: 40%
ET 2020 Benchmarks							
3. Early childhood education and care (4 years old - year before start of compulsory primary)			77.9%	76.9% 11	91.7%	93.2% 11	**95%**
4. Basic skills Low achievers (15 year-olds; Level 1 or lower in PISA study)	Reading		22.3%	:	19.6%	:	**15%**
	Mathematics		21.0%	:	22.2%	:	**15%**
	Science		19.3%	:	17.7%	:	**15%**
5. Learning mobility	Initial vocational training (IVET)	**a.** Students participating in Leonardo da Vinci programs as a share of vocational students at ISCED 3	0.0%	0.1% 11	0.6%	0.7% 11	
	Higher Education	**b.** Erasmus inbound students as % of student population in host country		0.5% 11		1.1% 11	
		c. Inbound degree mobile students as % of student population in the host country		3.9% 11		7.0% 11	
6. Employment rate of graduates (age 20-34) having left education 1-3 years before reference year			74.4%	68.6%	78.3%	75.7%	**82%**
7. Adult participation in lifelong learning (age 25-64)			2.8%	3.1%	9.3%	9.0%	**15%**
Proposed ET 2020 benchmark							
8. Foreign languages skills	**a.** ISCED 2 students at proficiency level B1 or higher in first foreign language[1]		:	:	:	43.5% 11	
	b. ISCED 2 students learning two or more foreign languages		22.5%	52.2% 11	58.6%	60.8% 10	
Other ET 2020 Indicators							
9. Investment in education and training	**a.** General government expenditure on education (% of GDP)		4.3%	4.0% 11	5.5%	5.3% 11	
	b. Annual expenditure on public and private educational institutions per pupil/student in € PPS	ISCED 1-2	€ 3,070 08	€ 4,168 10	€ 5,732 08	€ 6,021 10	
		ISCED 3-4	€ 3,283 08	€ 3,466 10	€ 6,964 08	€ 7,123 10	
		ISCED 5-6	€ 5,130 08	€ 5,318 10	€ 9,309 08	€ 9,168 10	
10. Digital competences	**a.** Pupils in grade 4 (ISCED 1) using computers at school		46.7% 07	70.0% 11	60.7% 07	64.7% 11	
	b. Individuals aged 16-74 with high computer skills[2]		21.0%	24.0%	25.0%	26.0%	
11. Entrepreneurial competences	Individuals aged 18-64 who believe to have the required skills and knowledge to start a business		:	50.0%	42.3% a	42.0% a	
12. Vocational education and training	Share of vocational students at ISCED 3		71.6%	70.9% 11	49.6%	50.3% 11	
13. Skills for future labour markets Projected change in employment 2010-2020 in %	High qualification		:	38.0%	:	19.1% EU28	
	Medium qualification		:	-4.5%	:	4.6% EU28	
	Low qualification		:	-12.6%	:	-20.2% EU28	
14. Low-skilled adults	Literacy		:	11.6%	:	19.9% EU17	
	Numeracy		:	13.8%	:	23.6% EU17	
	Problem solving in technology rich environments[3]		:	33.1%	:	26.9% EU13	

Source: Cedefop: 13 / EAC: 10a,b / European Survey on Language Competences (ESLC): 8a / Eurostat (Government finance statistics): 9a / Eurostat (LFS): 1, 2, 6, 7 / Eurostat (ISS): 10b / Eurostat (UOE): 3, 8b, 9b, 10c, 12 / IEA TIMSS: 10a / Global Entrepreneurship Monitor: 11 / OECD (PIAAC): 14 / OECD (PISA): 4

Notes: 07 =2007, 08 =2008, 09 =2009, 10 =2010, 11 =2011, e= estimate, a= unweighted average b= break, p= provisional
Number of countries included in EU average: PISA=25, Entrepreneurship=18, Language skills=13, ICT/Computers at school=13, others: EU27
[1]= average of skills tested in reading, listening, writing, [2]= having carried out 5-6 specific computer related activities, [3]= Results cover people with scores below level 1 as well as people who have no computer experience or failed the ICT test

Figure 1. Position in relation to highest (outer ring) and lowest performers (centre)



Source: DG EAC calculations on the basis of data from Eurostat (LFS 2012 and UOE 2011) and OECD (PISA 2009). *Note:* all scores are set between a maximum (the highest performers visualised by the outer ring) and a minimum (the lowest performers visualised by the centre of the chart).

2. Main challenges

Recent and on-going reforms to improve the quality and labour-market relevance of education at all levels need to be stepped up to further ease school-to-job transition. Youth unemployment rose to 34% in 2012, while companies report skills shortages. Global public expenditure on education, as well as its share for teaching activities (teachers, material, equipment), are low. The attractiveness of the teaching profession is very low. Systematic forecasts of future labour market needs remain insufficient. The announced measures in vocational education and training (VET) towards "flexible" dual education and higher education (HE) (focus on employability, promotion of studies in certain fields more needed on the labour market) are positive and require support notably in terms of funding and better quality of teaching staff. Positive initiatives were launched to improve the situation of vulnerable groups, in particular marginalised Roma communities, aimed at increasing their educational achievements in mainstream education; to give their full effect, they will need to be encompassed in a comprehensive set of concrete measures as announced by the government.

Based on this, the following CSR was formulated in the 2013 European Semester: "4. Step up efforts to address high youth unemployment, for example through a Youth Guarantee.] Take steps to attract young people to the teaching profession and raise educational outcomes. In vocational education and training, reinforce the provision of work-based learning in companies. In higher education, create more job-oriented bachelor programmes. Foster effective knowledge transfer by promoting cooperation between academia, research and the business sector. Step up efforts to improve access to high-quality and inclusive pre-school and school education for marginalised communities, including Roma."

3. Investing in skills and qualifications

Investing in education and training in a context of economic crisis

Education expenditure as a share of GDP remains among the lowest in the EU in 2011 at all levels of education and has decreased from 4.5% of GDP in 2010 to 4% in 2011 (EU average was 5.3% in 2011)[1]. In addition, funding mechanisms favour quantity more than quality and adapt insufficiently to local needs. There has been a recent change in higher education to strengthen the link between research performance and public funding; further changes will aim at discouraging tertiary schools from retaining non-performing students. Funds to schools are not allocated according to the needed number of classes but according to the number of students. The 2013 National Reform Programme (NRP), based on the "Report on the situation in education in Slovakia for public discussion" issued in March 2013 by the Ministry of Education, sets the objective of gradually increasing public expenditure on education to 6% of GDP by 2020. It also aims at increasing efficiency by adjusting the number of schools and teachers to demographic developments and to better reflect the employability of (VET) graduates. It announces that funding of vocational schools will be updated to reflect higher costs.

Skills

Aggregate PISA score has improved since 2006 but is still below OECD average. The disparity in performance between schools is large, having led the Government to adopt measures aimed at improving the quality of pre-primary and compulsory education. A national system for the testing of the mother tongue language and mathematics (3 stages in the 4th, 9th grade and at the upper secondary leaving exam) provides a good basis for analysis and evidence-based policy. External and internal quality evaluation of schools will be enhanced and

[1] COFOG data, Eurostat.

enable a more autonomous management of schools, notably as regards teaching material, in line with the curricular reform launched in 2008 introducing two-level (state and school) curricula.

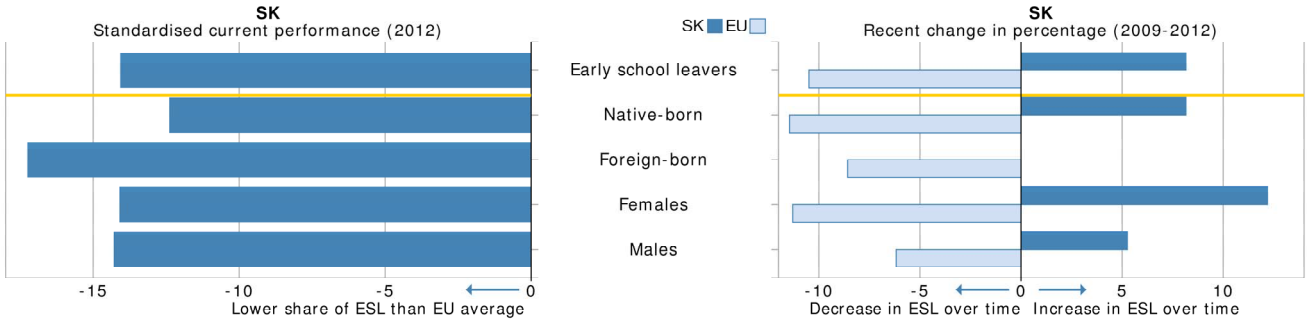
ICT skills of the population are slightly below EU average. The provision of ICT infrastructures in schools remains significantly below the EU average, especially at primary and lower secondary schools. Supply of quality digital learning content including Open Educational Resources seems insufficient. Development of the knowledge society, computerisation and digitalisation are among the key objectives of the "Programme Declaration 2012-2016". Education to entrepreneurship is integrated in the curricula and supported notably through State and NGO projects. The share of the population believing to have the required skills and knowledge to start a business (50%) is comparatively high. The average number of foreign languages learned per pupil is still close to EU average level; however the obligation to learn a second foreign language in compulsory education will be suppressed from the state curricula, even if the openness of the Slovak economy would justify continuing the emphasis on language skills.

Anticipation of changes in employment till 2020 point to a sharp increase in high qualifications skills.
The National Qualifications Framework (NQF) is still under development, after several postponements. In 2011, a set of level descriptors for a comprehensive NQF for lifelong learning was approved by the Ministry of Education; it will include qualifications from all subsystems of formal education and training. A national register of qualifications – the backbone of the national qualification system and the NQF – is being established with the aim of including all national full and partial qualifications with qualifications and assessment standards. Referencing to the European Qualifications Framework is planned for 2014.

4. Tackling early school leaving and raising the bar in school education

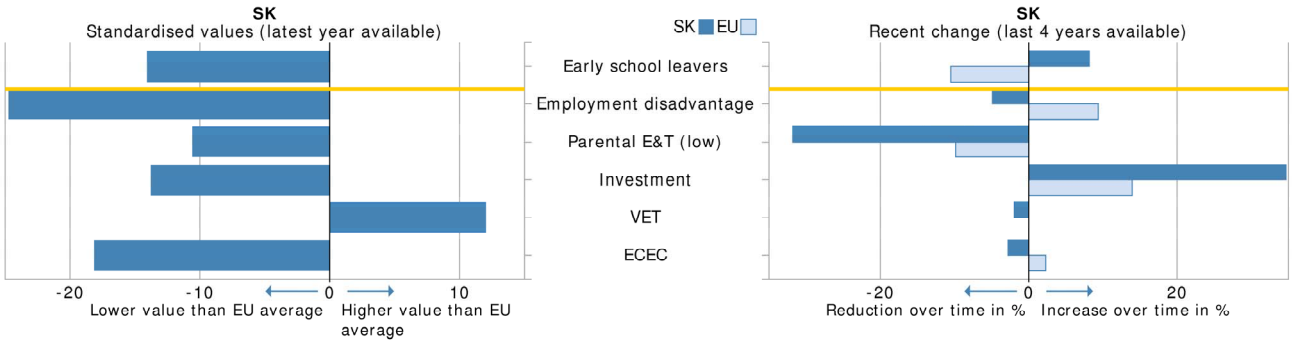
Slovakia is one of the EU best performers for early school leaving (ESL), with a rate of 5.3% in 2012, compared to the EU average of 12.7%. While it already meets its national target of 6%, ESL rate has been increasing recently, in particular for girls. The target takes into account the increasing proportion of children from marginalised Roma communities, whose vast majority leave school early[2]. Roma children are often segregated and put in special schools. On-going measures (often supported by EU funds) to better integrate them into mainstream education need to be enhanced (e.g. zero-classes, all-day programmes, teacher assistants, inclusive education). Statistical data gathering including will be launched which should enable monitoring ESL.

Figure 2. Early leavers from education and training: sub-groups



Source: JRC-CRELL. *Note:* ESL = early school leaving. See Annex 2 for further information.

Figure 3. Early leavers from education and training: sub-indicators



Source: JRC-CRELL. *Note:* see Annex 2 for an explanation of the sub-indicators.

[2] In Slovakia, the share of Roma and non-Roma living in close proximity to Roma households, aged 18-22, not attending school and not having completed higher than lower secondary or short-term upper-secondary education in 2011 was 95%, "Roma education in comparative perspective", UNDP/World Bank/EC regional survey.

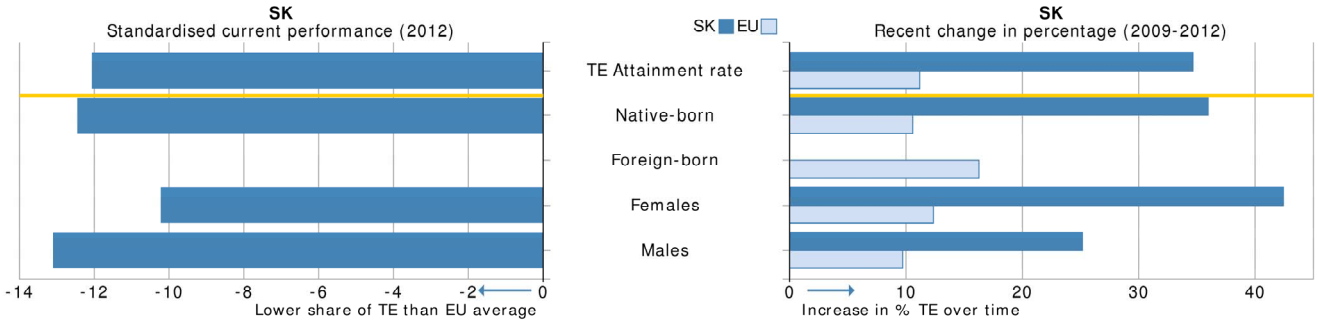
Participation in early childhood education is low compared to EU average (76.9% vs. 93.2%in 2011), with a slightly negative trend. The Government will adjust capacities in view of achieving a 95% attendance of children over 4 by 2020[3].

The teaching profession's attractiveness is particularly low, teachers' relative wages being the lowest among OECD countries[4]. The recently introduced career-system for teachers could partly contribute to improving the quality of educational outcomes by increasing the attractiveness of the profession and encouraging teachers to participate in in-service training. It will be essential to ensure that professional learning opportunities respond to the specific needs of each individual teacher and the global financial envelope for teachers' salaries increases for the system to really become attractive to teachers. Professional standards for beginning teachers will be developed and future teachers will spend more time in practical training[5].

5. Encouraging participation in tertiary education and modernising higher education

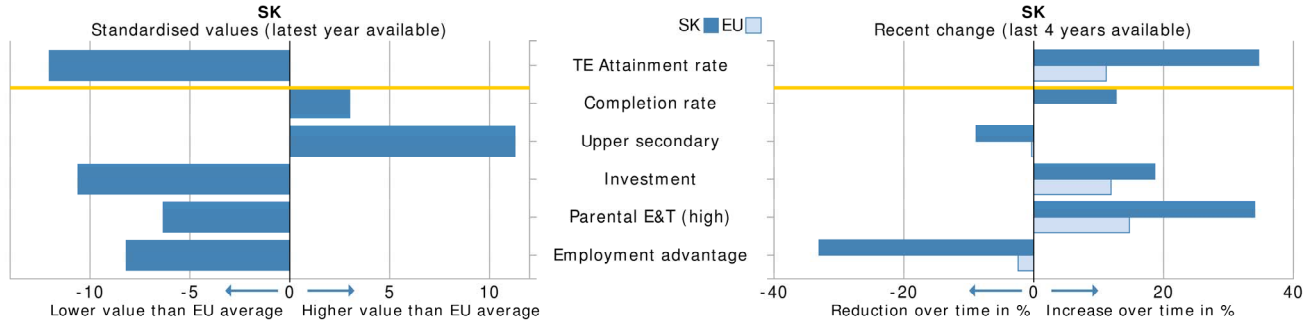
Although Slovakia's tertiary attainment of 23.7% in 2012 is lower than the EU average of 35.7%, the number of new entrants has risen rapidly, calling for increased efforts to improve quality and labour market relevance. The national target is 40%. Slovak HE graduates frequently experience horizontal (a quarter are in jobs not corresponding to their field of studies) and vertical (more than a third of them are in positions that only require upper-secondary level of education) mismatches. 2011 OECD data indicate that just above 70% of students who enter tertiary education do graduate with at least a first degree at this level[6]. Employment rate of people aged 20-34 having achieved tertiary education was 75.2% in 2012, much higher than the 61.6% for those having achieved only upper-secondary education.

Figure 4. Tertiary education attainment: sub-groups



Source: JRC-CRELL. *Note:* TE = tertiary education. See Annex 2 for further information.

Figure 5. Tertiary education attainment: sub-indicators



Source: JRC-CRELL. *Note:* see Annex 2 for an explanation of the sub-indicators.

Besides existing funding mechanisms based also on performance, amendments to the Higher Education Act were adopted in 2012 to improve quality, covering notably the obligatory development of internal quality assurance systems, conditions for teachers, internationalisation, part-time studies and improved support to students with special needs. The current funding system of higher education institutions (HEIs) does not stimulate the creation of more vocationally-oriented bachelor degrees with practical experience organised with companies but encourages the vast majority of students to continue studying to obtain Master degrees. The Ministry intends to

3 2013 NRP.

4 Teachers' wages are 44% of the average earnings of tertiary education graduates in Slovakia, while the OECD average varies from 77% to 85%, OECD Economic Review, December 2012 – They were raised by 5% in 2012, teachers asking for a further increase of 5% in 2013.

5 2013 NRP.

6 Education at a Glance 2013 – NB, national data gives a higher figure, see Information Portal on HE, Ministry of Education, Science, Research and Sport.

open up discussions with employers on potential enhanced cooperation with HEIs and to enhance quality assurance.

Slovak open universities participate in the first pan-European Massive Open Online Courses initiative (MOOCs) launched in 2013, which offers courses on a wide variety of subjects free of charge[7].

6. Facilitating the transition from education to work

Youth unemployment rate was 34% in 2012 and had risen by more than 76% since 2008, employment of graduates in 2012 being at 68.6%, comparing to the 75.7% EU average. Structural mismatches partly explain these rates. While the proportion of work-based learning in initial VET is rather high (41%), it takes predominantly place in vocational schools facilities without the involvement of companies in providing apprenticeship places; reforms adopted in 2012 have created legal framework for systematic involvement of social partners in view of improving labor market relevance of VET (VET concerns more than 70% of secondary pupils). This has notably led to the creation of more than 20 pilot projects in the automotive sector, the aim being to mainstream such schemes in the most suitable sectors. Law amendments adopted in 2012 also introduce regulation of number of students/classes in various fields, stricter conditions for accessing VET, publication of employability of graduates twice a year. It will be essential to make sure that the definition of skills needs is appropriately carried out in a comprehensive way by the labor sector and that the cooperation with the education sector and incentives for employers to recruit apprentices are efficient. The decentralization of curricular development at school level, based on national curricula, should enable a better reflection of local and regional labor market needs. A national quality assurance scheme is still missing. There are no short-term VET schemes allowing for certification of vocational skills for simple works (crafts) only, while these could contribute helping low-achievers entering the labour market[8]. Slovakia signed in December 2012 a Memorandum on European cooperation in vocational education and training, calling for concrete actions to enhance i.a. VET quality and labor market relevance.

7. Upgrading skills through lifelong learning

The findings of Survey of Adult Skills (PIAAC[9]) reveal that adults (aged 16-65) in Slovakia perform above the EU average in the literacy and numeracy proficiency tests. However, young people aged 16-19 with upper secondary education perform below the EU average in the literacy proficiency tests and not better than older cohorts with similar qualifications. The gap in proficiency skills for literacy between the generations aged 25-34 and 55-65 is low in Slovakia (between 12 and 15 points only, i.e. equivalent to skills usually acquired with 2 years of education), while in the EU it is on average equivalent to skills usually acquired with 5 years of education.

While employed people have on average higher skills than unemployed people at EU level, the gap is even more pronounced in numeracy for Slovakia (27 points, i.e. equivalent to skills usually acquired with 4 years of education). In parallel, Slovakia also has a large proportion of inactive people among the high skilled population (about 24%). The difference between native- and foreign-born adults is one of the lowest across EU countries in both literacy and numeracy skills.

About 20% of adults (aged 16-65) have no computer experience. However young people perform better than the older generations and closer to the EU average.

The share of low-skilled people (those with at most level 1) is close to 11% for literacy and 13% for numeracy, much better than the EU average. However, low skilled people are much less likely to participate in job-related learning compared to high skilled people.

Participation in lifelong learning is among the lowest in the EU and is decreasing (3.1% vs. 9% EU average in 2012), in particular among the long-term unemployed population. Still, the 2010 Continuous Vocational Training Survey points to a higher share in Slovak enterprises offering continuous training to their employees than EU average (69% vs. 66%), together with a higher share of employees in these companies taking part in the courses than EU average (58% vs. 48%).The law on lifelong learning was amended in September 2012, creating an alternative way for adults to enter the labour market through retraining within accredited short practice-oriented courses. Financial incentives for individuals and employers are missing. Validation of non-formal learning is announced to be included in the law in the near future[10]. Due to the absence of quality data on future skills needs, a career oriented guidance and counselling for pupils, students and adults is absent.

---

7 Initiative led by the European Association of Distance Teaching Universities (EADTU), see portal www.OpenupEd.eu.

8 VET in Slovakia 2012, Refernet.

9 Volume I of the Education and Training Monitor (chapter 6) provides an overview of the results of the survey. Skills levels are presented either in terms of average score points or proportion of adults at a given proficiency level in literacy or numeracy (level 1 to 5) or problem solving in technology-rich (ICT) environments (level 1 to 3 or no ICT experience).

10 2013 NRP.