European Commission

Education and Training Monitor 2016

Hungary

Education and Training

Volume 2 of the Education and Training Monitor 2016 includes twenty-eight individual country reports. It builds on the most up-to-date quantitative and qualitative evidence to present and assess the main recent and ongoing policy measures in each EU Member State, with a focus on developments since mid-2015. It therefore complements the existing sources of information which offer descriptions of national education and training systems.

The structure of the country reports is as follows. Section 1 presents a statistical overview of the main education and training indicators. Section 2 briefly identifies the main strengths and challenges of the country's education and training system. Section 3 looks at expenditure on education, and demographic and skill challenges. Section 4 focuses on early school leaving, early childhood education and care, and basic skills as important areas related to tackling inequalities and promoting inclusion. Section 5 deals with policies to modernise school education, covering, inter alia, the teaching profession and digital and language skills. Section 6 discusses measures to modernise higher education. Finally, section 7 covers vocational education and training, as well as adult learning.

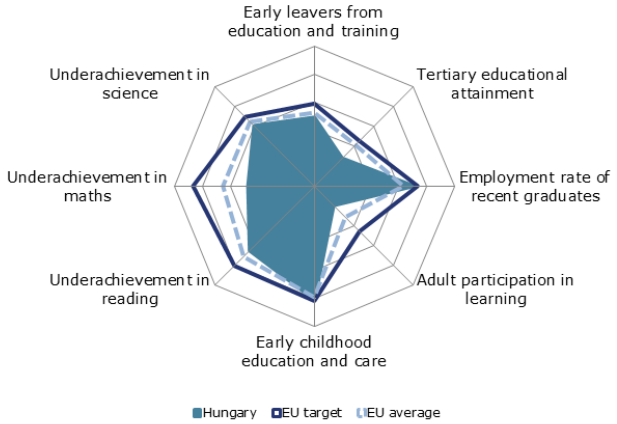
The manuscript was completed on 15 September 2016.
Additional contextual data can be found online (ec.europa.eu/education/monitor)

1. Key indicators

			Hungary 2012	Hungary 2015	EU average 2012	EU average 2015
ET 2020 benchmarks						
Early leavers from education and training (age 18-24)	Total		11.8%	11.6% [b]	12.7%	11.0%
Tertiary educational attainment (age 30-34)	Total		29.8%	34.3%	36.0%	38.7%
Early childhood education and care (ECEC) (from age 4 to starting age of compulsory education)			94.5% [11]	94.7% [14]	93.2% [11]	94.3% [14]
Proportion of 15 year-olds with underachievement in:	Reading		19.7%	:	17.8%	:
	Maths		28.1%	:	22.1%	:
	Science		18.0%	:	16.6%	:
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-8 (total)		73.3%	80.4% [b]	75.9%	76.9%
Adult participation in lifelong learning (age 25-64)	ISCED 0-8 (total)		2.9%	7.1% [b]	9.2%	10.7%
Other contextual indicators						
Education investment	Public expenditure on education as a percentage of GDP		4.7%	5.2% [14]	5.0%	4.9% [14,p]
	Expenditure on public and private institutions per student in € PPS	ISCED 1-2	€3.356	€3.481 [13]	:	: [13]
		ISCED 3-4	€3.276	€3.253 [13]	:	: [13]
		ISCED 5-8	€6.747	€7.370 [13]	:	: [13]
Early leavers from education and training (age 18-24)	Native-born		11.7%	11.6% [b]	11.6%	10.1%
	Foreign-born		:	:	24.9%	19.0%
Tertiary educational attainment (age 30-34)	Native-born		29.7%	34.5%	36.7%	39.4%
	Foreign-born		36.0%	26.1% [u]	33.8%	36.4%
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-4		62.4%	75.6% [b]	69.7%	70.8%
	ISCED 5-8		84.0%	86.7% [b]	81.5%	81.9%
Learning mobility	Inbound graduates mobility (bachelor)		2.8% [13]	3.0% [14]	5.5% [13]	5.9% [14]
	Inbound graduates mobility (master)		7.0% [13]	8.5% [14]	13.6% [13]	13.9% [14]

Sources: Eurostat (see section 9 for more details); OECD (PISA).
Notes: data refer to weighted EU averages, covering different numbers of Member States depending on the source; b = break in time series, d = definition differs, p = provisional, u = low reliability, 11 = 2011, 13 = 2013, 14 =2014.
Further information can be found in the relevant section of Volume 1 (ec.europa.eu/education/monitor).

Figure 1. Position in relation to strongest (outer ring) and weakest performers (centre)



Source: DG Education and Culture calculations, based on data from Eurostat (LFS 2015) and OECD (PISA 2012).
Note: all scores are set between a maximum (the strongest performers, represented by the outer ring) and a minimum (the weakest performers, represented by the centre of the figure).

2. Highlights

- From 2015/2016 the compulsory starting age for early childhood education and care was lowered from five to three years to better prepare children for school and so reduce the risk of children dropping out later on.
- Dual study programmes were introduced in higher education in 2015/2016 to improve the labour market relevance of degree programmes.
- The government announced the transfer of the operation of public schools from the municipalities to the state and the decentralisation of the state school maintainer organisation as of January 2017.
- A new core curriculum was introduced for vocational grammar schools in 2016/2017, under which the teaching hours for vocation-specific subjects were increased.
- Hungarian education faces equity challenges. Students' performance is linked to their socioeconomic background, and the participation of disadvantaged groups, in particular Roma people, in inclusive mainstream education needs to increase.
- Hungary increased its public expenditure in education by 12.5% in 2014.

Box 1: The 2016 European Semester country-specific recommendation on education and training

The 2016 European Semester country-specific recommendations (CSRs) to Hungary (Council of the European Union, 2016) included a recommendation on education and training:

Take measures to improve educational outcomes and to increase the participation of disadvantaged groups, in particular Roma, in inclusive mainstream education.

3. Investing in education to address demographic and skill challenges

General government expenditure on education as a proportion of GDP was 5.2 % in 2014, slightly above the EU average (4.9 %).[1] Following a decrease in the previous three years, public expenditure on education increased by 12.5 % in 2014. This spending includes the use of EU funds in the sector. For the period 2014-2020, under the Human Resource Development Operational Programme of the European Structural and Investment Funds (ESIF), EUR 344 million has been allocated to tackling early school leaving and improving the quality of compulsory education (Government 2015a).

Employment rates in Hungary indicate an above the EU average proportion of highly skilled workers (83 %) as compared with medium-skilled workers (73.7 %) and, in particular, low-skilled workers (48.1 %). Higher salaries in other parts of Europe are driving growing numbers of highly skilled and medium-skilled workers abroad, leading to rising labour shortages in a number of sectors (European Commission 2016).

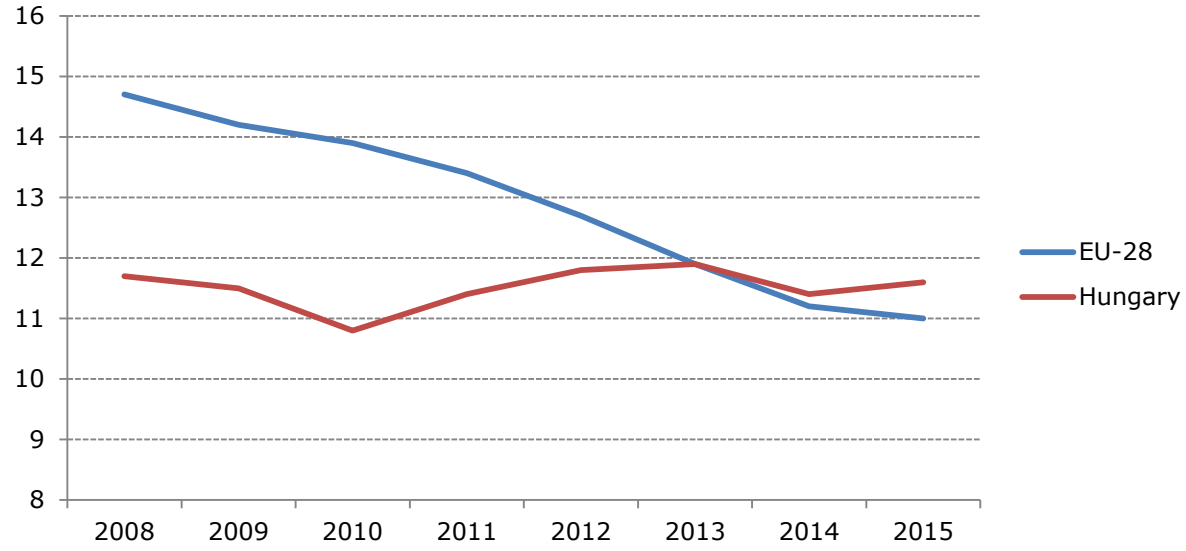
4. Tackling inequality and promoting inclusion

The early school leaving (ESL) rate in 2015 is 11.6 %, close to the EU average, but unlike the EU average, it has not fallen in the last five years (see Figure 1 below). ESL is particularly high among Roma people, at 57 % compared with 10.3 % among the non-Roma population (Central Statistical Office 2015). The level of ESL varies by region, with the highest rates in the north-east of the country, the region most affected by poverty. National data indicates strong variations according to school type, too: 46.9 % of all early school leavers drop out from

[1] Source: Eurostat, General government expenditure by function (COFOG) database.

vocational schools, 33 % from vocational upper secondary schools and 12.9 % from general upper secondary schools (Fehérvári 2015).

Figure 2. Early school leaving in Hungary and the European Union 2008-2015



Source: Eurostat. Online data code: *edat_lfse_14*.

The proportion of children participating in early childhood education and care is 94.7 %, close to the EU average (94.3 %) and the EU target (95 %).

Students' performance in the Programme for International Student Assessment (PISA) was below the OECD average in 2012 and has deteriorated in comparison with 2009 in all three core subjects tested: mathematics, science and reading (OECD 2013). Moreover, PISA data indicate that educational outcomes in Hungary's education system are strongly linked to socioeconomic status, despite the country's relatively low income inequality.[2] One factor in this is that pupils are tracked into different schools according to their performance starting from the age of 10, leading to significant variations in performance by school type — general upper secondary, vocational upper secondary and vocational schools. The choice of school type is in turn heavily influenced by the parents' socioeconomic background (PISA 2012). Large performance gaps are already present in the sixth grade and become prominent in the tenth grade (Education Authority 2016).

The uneven distribution of disadvantaged pupils between schools leads to large proportions of disadvantaged pupils at certain schools, which impacts heavily on the quality of teaching. According to the Hungarian Academy of Sciences, school segregation, calculated on the basis of possible contact between disadvantaged and non-disadvantaged pupils in primary schools, is growing (Hungarian Academy of Sciences 2015). This development has also an ethnic dimension: the Roma Inclusion Index shows that 20 % of Roma children attend segregated schools, and separate education exists both in towns with several schools and in remote settlements (Kertesi–Kézdi 2013). Although successful pedagogical models for inclusive education exist in Hungary, the number of schools introducing such models is limited, and the number of Roma-majority schools has risen significantly since 2008 (Nahalka 2016). In May 2016, the European Commission launched infringement proceedings against Hungary concerning discrimination against Roma children in education in Hungary in breach of Directive 2000/43/EC on equal treatment irrespective of racial or ethnic origin.

[2] In PISA 2012, students' reading performance had the second highest variation according to economic, social and cultural status in the EU. Income inequality as measured by the GINI-index was below average in Hungary in 2013 (28.9 against an EU-average of 30.5). Source: https://data.oecd.org/inequality/income-inequality.htm

The risk of children dropping out of school has risen, partly due to increasing child poverty,[3] as disadvantaged young people are increasingly tempted to leave school to take jobs that require no qualifications. Their income under the so called public work scheme is below the minimum wage but still substantially higher than the family allowance for staying at school. The proportion of young people aged 25 or under participating in the public work scheme was 16 % in December 2015 (Government 2016b).

Hungary adopted a strategy in 2014 for discouraging young people from leaving school without qualifications. The related implementation plan has not yet been published, however. The strategy included an early warning system to identify students at risk of dropping out based on data from the central school information system. Risks are calculated based on the number of absences and trends in the student's score average. There is no monitoring system for young people who have already dropped out, either at the level of the school, the local authorities or social services. Given the lack of information on the paths of these young people, it is not possible to offer them systematic assistance to integrate them into society and the labour market.

From 2015/2016 the compulsory age for participation in early childhood education and care was lowered from five to three years. The aim is to better prepare disadvantaged children to start school and so reduce the risk of them dropping out in the future. This measure is accompanied by a training programme for kindergarten teachers on how to reduce disadvantages through activities in the kindergarten and family day care. The number of kindergarten places was increased through an infrastructure development programme (Government 2014a). To enforce compulsory participation in kindergarten, pre-school support was abolished and the family allowance was made conditional on pre-school attendance from September 2015.

In May 2015 the age limit for enrolling in formal education was raised from 21 to 25 years. This may increase the chances of disadvantaged learners obtaining a qualification.
Specific catch-up programmes and scholarships for disadvantaged children, including Roma children, and dedicated teacher training programmes are still available. These programmes should, however, be complemented by additional structural measures to increase the inclusiveness of mainstream education.

To enhance students' social responsibility and to help their career choice, from 2016, students wishing to sit the school leaving exam will have to certify a total of 50 hours of voluntary work in grades 9 to 11 (Ministry of Human Capacities 2012).[4]

5. Modernising school education

Teachers' salaries increased slightly in 2013 but are still among the lowest in the EU and correspond to around 71 % of the salaries of other tertiary graduates (OECD 2016). Salaries are linked to the four different categories of the new career model for teachers. In parallel with the introduction of this model, salary supplements for replacement and supplementary hours were abolished, reducing the impact of the raise on the base salary. Significant net salary increases appeared in the highest teaching category (level 2). The number of teacher training applicants is still insufficient to replace retiring teachers in particular in science subjects despite dedicated scholarships for trainee teachers.

According to the 2012 PISA survey, Hungarian students had the weakest performance in Europe in the digital competence test and their results had deteriorated since 2009. The lack of digital skills limits their future employment prospects and reduces the potential pool of student applicants to engineering and IT, sectors in which there is already a significant labour shortage (IVSZ 2015). In June 2015 the annual national competence test in mathematics and literacy included, for the first time, a foreign language assessment. The test is compulsory for all pupils learning English or German as a first foreign language in grades 6 and 8. In the first language test, that assessed reading comprehension, the proportion of 8th graders reaching the required level A2 was 70 % for English and 60 % for German (Education Authority, 2016). The language

[3] Child poverty affected 41.5 % of children in 2014 (European Commission 2016).
[4] See: http://www.kozossegi.ofi.hu/

skills of secondary graduates have a direct impact on their later study options: holding a foreign language certificate at level B2 will become an admission criterion to bachelor programmes as of 2020 (Government 2014b).

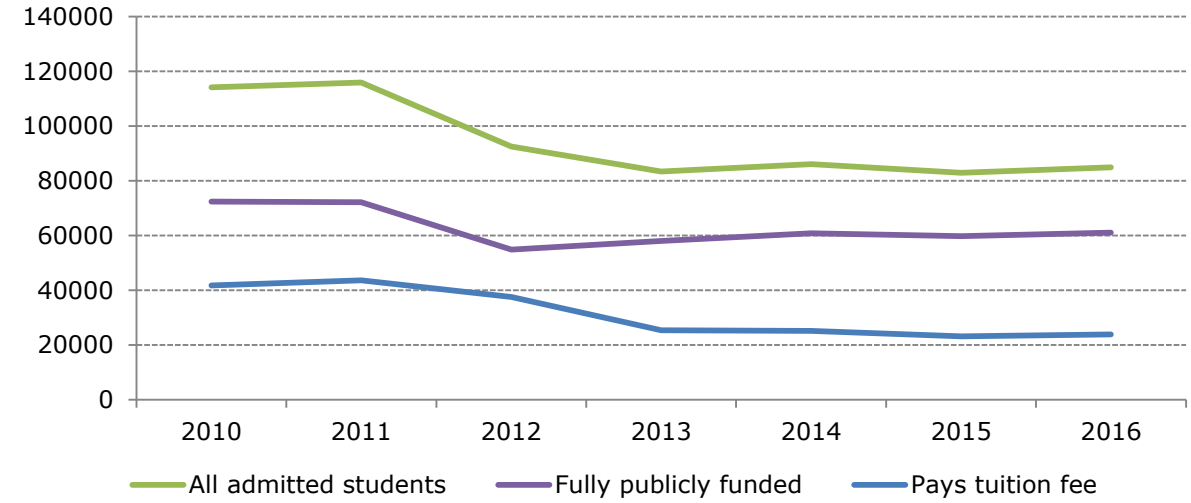
Legislative changes introduced since 2011 in school education have increased teaching hours and restricted schools' freedom in a number of areas: teaching content, textbook choice and the management of financial and human resources. Teachers are appointed and paid by the state maintenance centre — the Klik —, which also manages school procurement. A lack of financial autonomy and excessive administrative requirements for everyday expenses have led to tension between schools and the state maintenance centre in recent years. The teachers' compulsory self-appraisal and the assessment by the newly established inspectorate directly affect teachers' promotion and salaries, so these instruments are viewed negatively by teachers.

In response, the minister responsible for education submitted an amendment package in May 2016. The government's implementing decree of June 2016 reorganises the management structure of schools in such a way that the operation of all schools will be taken over from the municipalities by the state.[5] The central state maintenance will be complemented by 58 district-level centres. Schools will be allowed to manage a certain part of their financing allowing them some autonomy regarding their everyday expenses. The amendment will also authorise school heads to distribute the salary supplement increments of 2016 and 2017 with a performance-based differentiation between teachers.

6. Modernising higher education

Hungary's tertiary educational attainment rate for 30- to 34-year-olds stood at 34.3 % in 2015 compared with the EU average of 38.7 %. The 2015 rate is close to the objective of 35 % set by the Hungarian higher education strategy for 2023.[6] However, there has been a decline in applications and enrolment rates for tertiary programmes since 2011 (Figure 3) and a high drop-out rate from higher education,[7] which may negatively affect tertiary attainment rates in Hungary over the next decade.

Figure 3. Change in the number of tertiary students 2010-2016



Source: Felvi database 2016

[5] Operating and maintaining roles of schools used to be separated. The operation (e.g. reparation works) of schools in settlements under 3000 inhabitants was done by the state, above 3000 inhabitants by the municipalities. From 2017 onward the state maintainer will take over this role from all municipalities.

[6] The EU2020 national target for tertiary attainment is 34 % until 2020.

[7] The drop-out rate from higher education was at 47% in 2011 according to UNESCO-UIS/OECD/EUROSTAT data collection in OECD Education at a Glance 2013. National data from 2015 indicates drop-out rates of 36.4 % in the first cycle, 17.8 % in the second cycle and 38.7 % in undivided programmes.

While science, technology, engineering and mathematics (STEM) programmes are a priority, the number of entrants to these programmes is falling. Drop-out rates are particularly high among students of STEM subjects. The rate of graduates of maths, computer science, technology, manufacturing and construction, in particular at master's and doctoral levels, is one of the lowest in the EU.

The higher education strategy of 2014 included plans to introduce competence tests for students in their first and final year of study from 2016/2017. The aim is to obtain a better picture of the efficiency and added-value of the study programmes. It should also make it possible to identify low-performing students in their first year and offer them mentoring support to improve their chances of completing their studies. To measure the employability of graduates, a graduate tracking system was established, connecting the higher education information system, the student loan centre, the national tax office, the labour office and some other databases. Surveys are carried out three and five years after graduation.[8]

As an incentive to reduce the duration of their study periods, as of 2015/2016 students need to acquire an average of at least 18 credits a semester — instead of 15 — to maintain their state-funded place. Also, state-funded students need to sign a student declaration at the start of their studies stating they will obtain their diploma within one and a half time the estimated study time. Beyond that, students must repay 50 % of the state support.

A number of changes announced in the higher education strategy of 2014 have been implemented:

- The government amended the decree on organising doctoral schools and programmes (Government 2015a) with the aim of improving the outcomes of doctoral programmes and increasing the number of students who obtain a PhD. The doctoral process is split into two phases: a two-year programme with a complex examination at the end, and a two-year research phase culminating in a PhD thesis. The decree also increased state allowances for doctoral students.
- The government appointed the members of the newly established boards (*konzisztórium*) in all state-owned higher education institutions. Each board consists of three government-appointed members, the chancellor and the rector. The 'chancellor' is nominated by the Minister for Human Capacities, takes decisions on strategic, financial and economic matters and represents the maintainer of the higher education institution.
- 15 % of study programmes were axed in 2016/2017 by government decision.
- The existing types of higher education institution — colleges and universities — were complemented by two new sub-structures. The first is the 'university of applied sciences', which offers at least two degree programmes in dual form. Unlike a university, a university of applied sciences is not required to offer doctoral programmes. The other new sub-structure is the 'community-based higher education centre' where an existing higher education institution delivers a tertiary programme in small settlements.
- The first dual higher education programmes began in 2015/2016 (Box 2).

Box 2: Dual programmes in higher education

Dual programmes are specific practice-oriented courses delivered by a higher education institution in cooperation with corporate partners or other organisations. They consist of academic studies at the participating university and work-based learning at a partner company that is qualified to deliver this training. Students spend approximately the same time with each training partner and are paid by the company on a contractual basis.

[8] According to the latest survey published in October 2015, 15 % of recent graduates had started further tertiary programmes; 10 % had participated in a mobility period during their studies; 7 % had had work experience abroad and 28 % were planning to work abroad in the next five years. 80 % of graduates in employment held a position matching their study profile to some extent, of which 20 % were doing work closely related to their studies. 17 % felt that their current employment did not require a tertiary degree.

The objective is to increase the relevance of higher education and to respond to rising demand for highly skilled workers in a number of areas. Dual training is seen as benefiting all parties. Companies receive a tax deduction and can recruit future employees trained according to their specific profiles. Higher education institutions are able to modernise their curriculum in collaboration with their training partners and use the companies' expertise and equipment to offer high-level training to their students. Students gain work experience alongside their training, earn a salary and have a good chance of being offered a job at their training company upon graduation.

The legal basis for dual higher education was created by an amendment of the Act on higher education of July 2014. A dual training council was established in January 2015. It grants permission to launch the programmes and accredits the companies offering training places. Study programmes began in 2015/2016. Companies providing practical placements can deduct the cost of the trainee from their vocational training tax contribution and can apply for financial support for training equipment. HUF 2.2 billion (around EUR 7.1 million) was allocated to support this measure from ESIF 2014-2020 (Government 2015d).

The following criteria were set:

- Dual programmes consist of academic studies provided at the participating university and 20-24 weeks of work-based learning per year with a company; the duration of work-based learning corresponds to at least 80 % of the duration of the study periods.
- The degree programme is in one of the fields established by law, e.g. agriculture or engineering.
- The company/organisation is qualified by the Dual Training Council to deliver the training.
- A cooperation agreement is signed between the higher education institution and the company partner(s), setting out the roles and responsibilities of each party.
- The curriculum delivered by the higher education institution is the same as the curriculum for the corresponding course that does not involve work-based learning.
- The company pays the student a wage. The amount is defined in the training contract and corresponds to at least 15 % per week of the monthly minimum wage.

In its launch year, dual training met with a strong interest from higher education institutions and companies. However, only around 40 % of the available training places were filled and companies reported difficulties finding motivated and sufficiently skilled candidates. The competences of secondary school graduates were found to be particularly weak in STEM subjects, crucial for engineering and information technology in which there is already a shortage of graduates. Greater flexibility in the organisation of dual training, making it adaptable to the needs of the different regions, sectors and company types, could possibly attract more training partners to the programme (EJMSZ 2016).

7. Modernising vocational education and training and promoting adult learning

Participation in upper secondary vocational education and training (VET) is below the EU average (26.5 % compared with 48.9 % in 2013). The proportion of VET students in work-based learning is about 70 %, one of the highest rates in Europe.[9] The employment rate of recent upper secondary graduates[10] is above the EU average (77.3 % compared with 73.0 %). Adult participation in lifelong learning (7.1 %) is below the EU average (10.7 %).

Vocation-specific content — and with that, the choice of profession — was brought forward to grade 9, the first year of initial vocational education and training (IVET) programmes in 2013. The government announced that it would further restructure VET in 2016/2017 (Government

[9] It should be noted that this includes all programmes with a practical element regardless of whether it takes place at a company or at a school.

[10] People aged 20-34 who left upper secondary education between one and three years before the reference year.

2015c). The names of all three types of IVET programme were upgraded: secondary vocational schools (International Standard Classification of Education (ISCED) 344-454) became vocational grammar schools (*szakgimnázium*), vocational schools (ISCED 353) became vocational secondary schools (*szakközépiskola*), while special vocational schools that train students with special needs are now called vocational schools (*szakiskola*).

The new vocational secondary school has a structure of 3+2 years. Vocation-specific content was increased, while the teaching hours of general education content were drastically reduced. This restricts the possibility of transition between various IVET programmes, and may ultimately increase the risk of early school leaving (Mártonfi 2015). In the optional additional two years, learners can automatically continue their studies in the same school as part of a general education programme leading to the secondary school leaving exam (matura), the entry requirement for higher education. However, with the strong reduction in the basic skills content of the three-year curriculum, students are unlikely to acquire the level of key competences needed to master subjects for the matura.

As regards the 4+1 year vocational grammar schools, students now receive a certificate that entitles them to take up certain jobs on passing the secondary school leaving exam in a vocational subject at the end of the fourth year. In summer 2016, a new core curriculum was adopted for this type of school, under which the teaching hours for vocation-specific subjects were increased at the expense of science subjects. It needs to be monitored whether these changes do not limit transition options between study programmes.

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9. Annex. Key indicator sources

Indicator	Eurostat online data code
Early leavers from education and training	edat_lfse_02 + edat_lfse_14
Tertiary educational attainment	edat_lfse_03 + edat_lfs_9912
Early childhood education and care	educ_ipart (2011), educ_uoe_enra10 (2014)
Employment rate of recent graduates	edat_lfse_24
Adult participation in lifelong learning	trng_lfse_01
Public expenditure on education as a percentage of GDP	gov_10a_exp
Expenditure on public and private institutions per student	educ_uoe_fini04
Learning mobility	educ_uoe_mobg03

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