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**COMMISSION STAFF WORKING DOCUMENT**

**Education and Training Monitor 2019**

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*Additional contextual data can be found online ([ec.europa.eu/education/monitor](https://ec.europa.eu/education/monitor))*

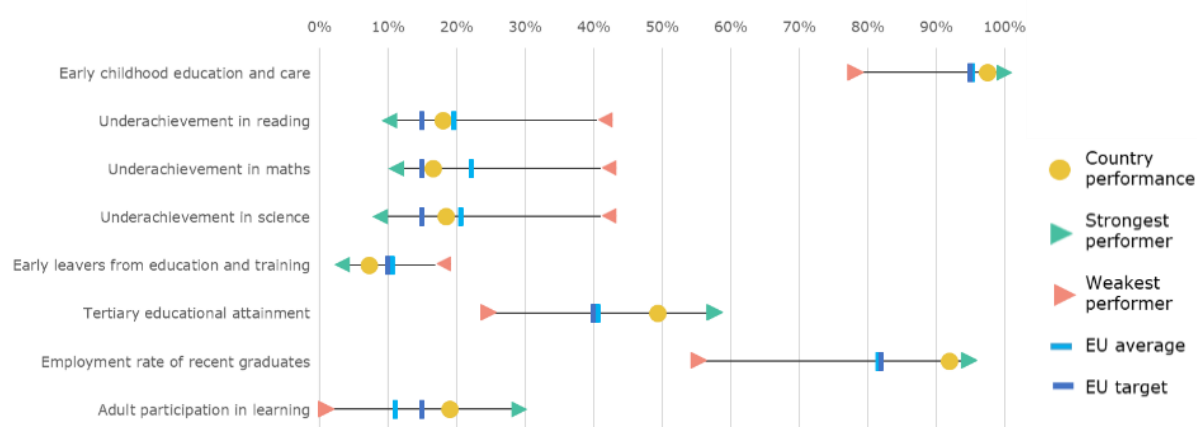
# NETHERLANDS

# 1. Key indicators

			Netherlands		EU average	
			2009	2018	2009	2018
Education and training 2020 benchmarks						
Early leavers from education and training (age 18-24)			11.3%	7.3%	14.2%	10.6%
Tertiary educational attainment (age 30-34)			38.3%	49.4%	32.3%	40.7%
Early childhood education and care (from age 4 to starting age of compulsory primary education)			99.5%	97.6% <sup>17</sup>	90.8%	95.4% <sup>17,d</sup>
Proportion of 15 year-olds underachieving in:	Reading		14.3%	18.1% <sup>15</sup>	19.5% <sup>EU27</sup>	19.7% <sup>15</sup>
	Maths		13.4%	16.7% <sup>15</sup>	22.3% <sup>EU27</sup>	22.2% <sup>15</sup>
	Science		13.2%	18.5% <sup>15</sup>	17.7% <sup>EU27</sup>	20.6% <sup>15</sup>
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)		ISCED 3-8 (total)	92.3%	92.0%	78.3%	81.6%
Adult participation in learning (age 25-64)		ISCED 0-8 (total)	17.1%	19.1%	9.5%	11.1%
Learning mobility	Degree-mobile graduates (ISCED 5-8)		:	2.3% <sup>17</sup>	:	3.6% <sup>17</sup>
	Credit-mobile graduates (ISCED 5-8)		:	22.6% <sup>17</sup>	:	8.0% <sup>17</sup>
Other contextual indicators						
		Public expenditure on education as a percentage of GDP	5.6%	5.1% <sup>17</sup>	5.2%	4.6% <sup>17</sup>
Education investment		ISCED 0	€6 221 <sup>12</sup>	€6 207 <sup>16</sup>	:	€6 111 <sup>15,d</sup>
		ISCED 1	€6 228 <sup>12</sup>	€6 211 <sup>16</sup>	€5 812 <sup>12,d</sup>	€6 248 <sup>15,d</sup>
		ISCED 2	€9 303 <sup>12</sup>	€9 267 <sup>16</sup>	€6 937 <sup>12,d</sup>	€7 243 <sup>15,d</sup>
		ISCED 3-4	€9 409 <sup>12</sup>	€9 445 <sup>16</sup>	:	€7 730 <sup>14,d</sup>
		ISCED 5-8	€14 667 <sup>12</sup>	€14 178 <sup>16</sup>	€10 549 <sup>12,d</sup>	€11 413 <sup>15,d</sup>
Early leavers from education and training (age 18-24)	Native-born		11.2%	7.0%	13.1%	9.5%
	Foreign-born		13.6%	11.1%	26.1%	20.2%
Tertiary educational attainment (age 30-34)	Native-born		39.7%	51.9%	33.1%	41.3%
	Foreign-born		30.9%	36.2%	27.7%	37.8%
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-4		90.4%	88.1%	72.5%	76.8%
	ISCED 5-8		93.6%	94.8%	83.8%	85.5%

Sources: Eurostat; OECD (PISA); Learning mobility figures are calculated by the European Commission's Joint Research Centre from UOE data. Further information can be found in Annex I and in Volume 1 ([ec.europa.eu/education/monitor](https://ec.europa.eu/education/monitor)). Notes: The EU's 2009 PISA averages do not include Cyprus; d = definition differs, : = not available, 12= 2012, 14= 2014, 15 = 2015, 16= 2016, 17 = 2017.

**Figure 1 Position in relation to the strongest and weakest performers**



Source: European Commission, Directorate-General for Education, Youth, Culture and Sport (DG EAC) calculations, based on data from Eurostat (LFS 2018, UOE 2017) and OECD (PISA 2015).

## 2. Highlights

- The early school leaving rate is below the Europe 2020 national target but has slightly increased.
- The Netherlands faces an increasing shortage of teachers, both in primary and secondary education.
- The 2019-2022 Quality Agreements aim to improve the quality of vocational education and training.
- Dutch tertiary education increasingly attracts foreign students.

## 3. A focus on teachers

**The Netherlands faces an increasing shortage of teachers.** The teacher shortage at primary schools is projected on current trends to reach 4 000 full-time equivalents by 2020 and 10 000 by 2025 (Government, 2018a). The number of primary school teachers has decreased by more than 18% since 2007, in step with the decrease in the school population (CBS, 2018a). 35% of all primary teachers are aged 50 or over, and only one in three teachers work full-time. The statutory salary in purchasing power standards (PPS) of a newly-qualified teacher in lower secondary school is more than 30% higher than the EU average. Salaries for teachers with 15 years of service are among the highest in the EU (Eurydice, 2018). In 2019, the government announced a EUR 13 million investment for a regional approach to tackle teacher shortages (OCW, 2019a). This includes incentives to bring back to teaching early-retired teachers and people with a teaching qualification but not yet employed as teachers.

**Teaching hours are above the OECD average.** Net teaching time in primary school is 930 hours per year, compared with the OECD average of 771 hours. In upper secondary education, teachers spend 750 hours teaching a year, almost 100 hours more than the OECD average (OECD, 2019a). According to a national survey (TNO-CBS, 2018), primary school teachers are among the workers reporting the most work-related stress (together with cooks, doctors, managers and lawyers). In 2018, the trade unions, the Primary Education Council and the government signed the '*work pressure agreement*' to help reduce stress in primary education. In 2018/2019, primary schools received an extra EUR 237 million to tackle excessive work pressure. In 2021/2022, funding for this purpose will increase to EUR 430 million, delivering an additional EUR 35 000 on average per school in 2018/2019, and EUR 65 000 from 2021/2022 onwards.

**Recent measures aim to raise teacher qualification levels and attract more candidates to the career.** There are two routes to enter the teaching profession: either through initial teacher education or via a two-year practical training for side-entrants. Over the period 2014-2017, the number of primary teachers leaving their job was equal to the number entering via the second route (Education Council, 2018). This is despite the Netherlands having a much higher proportion of teachers who believe that teaching is a valued profession in society than the EU average (31% vs 18%). The number of enrolments for initial teacher education (ITE) fell by more than 50% from 2003 to 2017, though there was a slight increase in 2018. The drop was partly linked to compulsory entrance tests introduced to improve teacher quality in the fields of geography, history, science and technology. The other contributory factor was the new study loan system, which led to a sharp decrease in first-year enrolments in 2015/2016. To counterbalance this, tuition fees for the first two years of primary school ITE were halved as of 2018/2019. The 2016 Act on Primary Education allowed teachers to switch from secondary to primary education, teaching the subject in which they are qualified. Switching between different vocational fields still requires additional certification. In its formal advice of 2018, the Education Council proposed more flexible structures in initial teacher education and working arrangements that support continuing professional development for teachers within schools.

**Continuing professional development is optional but encouraged through a range of measures.** A voucher programme was launched in 2008 to encourage teachers from primary to tertiary vocational education to take higher or additional qualifications. The voucher covers tuition fees and expenses related to study materials, travel and replacement. Almost 40 000 teachers benefited from the scheme from 2008-2015, though a study found it had limited impact (CPB, 2015). Another measure to increase teacher quality is the '*functiemix*', or diversification of career

paths, introduced in 2008 (OCW, 2008). This is a financial incentive for schools to distribute teachers across the salary scale, linked to promotion grades. Teachers need to have at least a higher vocational education degree to be eligible for promotion. For school principals, a register was set up where they can record that they have the basic competences required for their profession and to thereby encourage continuous professional development (Government, 2018b). This is in line with the 2017 reformed supervision framework of the Inspectorate, which made school boards directly responsible for the quality of education.

**The distribution of qualified teachers varies markedly by region and by composition of the school population.** The proportion of teachers who feel well or very well prepared for teaching in multicultural and/or multilingual settings is lower than the EU average (17% vs 24%) (OECD, 2019b). In primary education, teachers with a master's degree teach more often in schools with a high percentage of students with high-educated parents. Teachers from a non-Western migrant background tend to teach in schools with more students from a similar background. Shortages are more acute in schools where the majority is of a non-Western background: in 2017/2018, 13% of schools with 0-25% students from a migrant background were looking for teachers through job sites, compared with 48% of schools with 75-100% of pupils from a migrant background. There are regional differences in the percentage of lessons taught by unqualified teachers: the highest percentage measured is in South Holland (5.14%) and the lowest (2.25%) in Limburg. The percentage of lessons taught by unqualified teachers is also higher in pre-vocational secondary education (VMBO) than in general upper secondary education (HAVO and VWO).

## 4. Investing in education and training

**Public expenditure on education remains stable.** In 2017, expenditure on primary to tertiary education accounted for 5.1% of the Netherlands' gross domestic product (GDP), well above the EU average of 4.6%. In real terms, there was an increase of 1.2% in education spending in 2017. The highest shares of spending are allocated to primary and secondary education. Between 2006-2016, total expenditure went up by 31% in secondary education, and by 14% in primary education (CBS, 2019).

**The school-age population is becoming smaller and more diverse.** In 2017, the Netherlands counted 3.9 million inhabitants from a migrant background (CBS, 2018b), of whom around 2 million from non-Western countries. This represents almost a doubling of non-Western migrants since 1996 (MPI, 2019). In the meantime, the number of pupils has fallen both in primary and secondary education in recent years and this trend is expected to continue (Government, 2019a). Around a quarter of pupils now have a migration background, of whom around 70% have a non-Western migration background. The share of newcomer pupils from a first-generation non-Western migration background increased from 2% in 2013 to 7% in 2017 (Education Inspectorate, 2019).

**Demand for high- and medium-skilled workers substantially exceeds labour supply.** In 2017, there was a rise in the number of unfilled vacancies and a fall in the number of unemployed people (CBS, 2018). Demand for high-skilled workers is expected to grow by 2.4 million and for medium-skilled workers by 1.3 million until 2025. Supply is expected to grow by only 1 million for highly-skilled people and to fall for medium-skilled workers over the same period (OECD, 2018b). Though the gap in educational attainment between the foreign and the native-born population has been closing at secondary level, it remains significant at tertiary level: 34.6% of foreign-born 30-34 year olds hold a tertiary diploma, against 50.7% of the native-born population. Differences in the labour market participation between people with a non-Dutch background and people with a Dutch background are smallest among those with a high level of education (CBS, 2018).

## 5. Modernising early childhood and school education

**Participation in early childhood education and care (ECEC) is high, but recent legislation has increased the cost of care to families.** From age four, 97.6% of children participate in ECEC, compared with an EU average of 95.4%. For 2020, the government made an extra EUR 170 million available to improve ECEC quality (OCW, 2018a). The objectives are to increase the number of participation hours to 960 for children over one and a half years; to raise the qualification level of ECEC staff to tertiary education; and to evaluate educational opportunities and the use of resources. The 2017 Law on innovation of childcare quality decreased the ratio of children/ECEC staff from 4 to 3 children per 1 ECEC professional. This led to an increase in childcare costs,

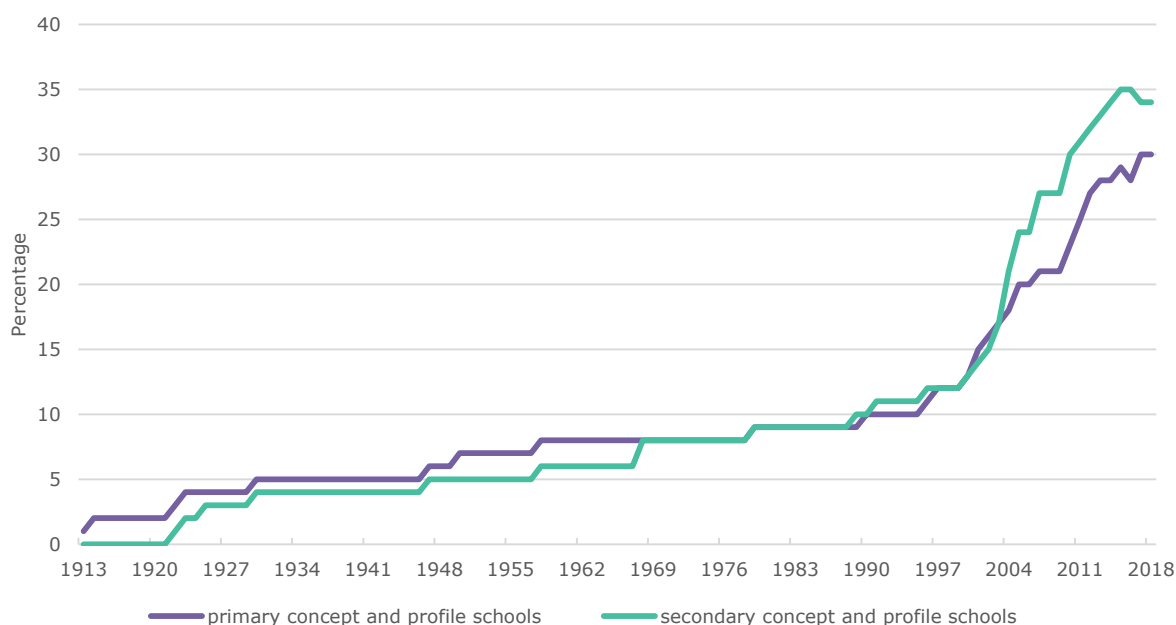
especially for smaller-scale nurseries, as more employees are required now to care for the same number of children.

**The rate of early school leaving (ESL) is below the Europe 2020 national target but has increased recently.** The Netherlands had set itself the ambition of reducing the rate of early school-leavers to 8% by 2020 and achieved it in 2016. The rate marginally increased in 2018 for the first time since 2013, from 7.1% in 2017 to 7.3% in 2018. Alongside the Europe 2020 target, it also set another national target, defining early school leaving as the number of young people having left education without a basic qualification during the school year: it is referred to as the number of new early-school leavers or dropouts. This number started rising in 2017, reaching 25 574 in 2017-2018. The aim to reduce this figure to a maximum of 20 000 by 2021 is therefore further away than before. Although the dropout rate in (general) secondary education is 0.5%, it rose from 4.7% to 5% in VET. The proportion of early school leavers is highest among young people with a non-Western migrant background. Secondary schools including VET schools receive extra money if they can reduce their dropout rate to below the national rate (Government, 2019b). An amendment to the Act on Education and Vocational Education in June 2018 made cooperation between schools and municipalities to combat ESL compulsory instead of temporary convenants (Government, 2018c). In February 2019, the Education Council published a number of recommendations to prevent school failure (Education Council, 2019). One of these was to integrate the pre-vocational (VMBO) and the vocational (MBO) tracks to reduce the number of transitions, because transitions lead to a high risk of dropping out.

**Education autonomy is combined with higher accountability.** The Dutch constitution gives a high level of autonomy to school boards in terms of resource allocation, curriculum and assessment and high levels of responsibilities for decision-making at school level (OECD, 2018a). However, the government is responsible for safeguarding good quality education. One of the main tools it uses to evaluate school quality is pupil performance at standardised tests. Since 2014, it is mandatory for all primary schools to conduct a centrally approved test in the last grade of primary education. The Inspectorate may penalise schools that do not meet quality requirements, for example if pupils' final test results in mathematics and reading are below the norm for more than two years. In 2019, 1.7% of primary schools were assessed as being weak or very weak, and as a consequence were supervised more intensively (Education Inspectorate, 2019). The 2017 Act on the teaching profession (Government, 2017a) made teachers responsible for pedagogical processes and teaching content and methods. The law stipulates that teachers must be given sufficient authority on the above three points. The school and the teachers make agreements about how to use this autonomy and record these in a professional statute. The purpose of this arrangement is to stimulate innovative approaches to teaching and learning.

**The Netherlands has seen an increase in the number of school concepts and profiles, with a risk to equity.** Differences between schools in the Netherlands have the highest impact on pupil performance of all OECD countries (OECD, 2016), and are closely linked to the different educational tracks they offer. This means the achievements of individual pupils is closely linked to the choice of the school they make. Schools may choose a curriculum with a specific profile such as science (*technasia*), culture or media literacy; or a special education concept such as Montessori and Agora education. The number of such special profile schools has increased sharply since 2000, especially in secondary education (Education Inspectorate, 2019) (Figure 2). Profile schools have a different impact on segregation: bilingual schools and *technasia* have the effect of increasing segregation, while profiles such as *Science Orientation Netherlands*, *Havisten Competent* or *Topsport Talent* schools reduce it. Areas with high shares of profile schools are those with the highest teacher shortages. The Education Council has warned against this increasing fragmentation in the school system, on the basis that it may lead to greater segregation and narrowing of learning paths (Education Council, 2019).

**Figure 2 The share of profile and concept schools in primary and secondary education over time**



Source: Education Inspectorate, 2019

**The Digitalisation Agenda for primary and secondary education fosters the use of new technologies in education.** The Agenda was adopted in 2019 (OCW, 2019b) as part of the Dutch Digitalisation Strategy, with the objectives of fostering innovation in education, improving teachers' and pupils' digital skills, ensuring that IT infrastructure is safe and of good quality and raising awareness of the ethics of digitalisation. In addition, there are a number of other related programmes such as the national training programme 'Digital Teacher', which aims to improve the digital skills of primary teachers. The programme 'Pass IT on!' (*Geef IT Door*) allows secondary schools to invite IT professionals to give a guest lecture. The government-funded centre of expertise Mediawijzer.net provides links to over 1 000 media literacy organisations to organise public campaigns, conduct research, and offer educational services.

## 6. Modernising higher education

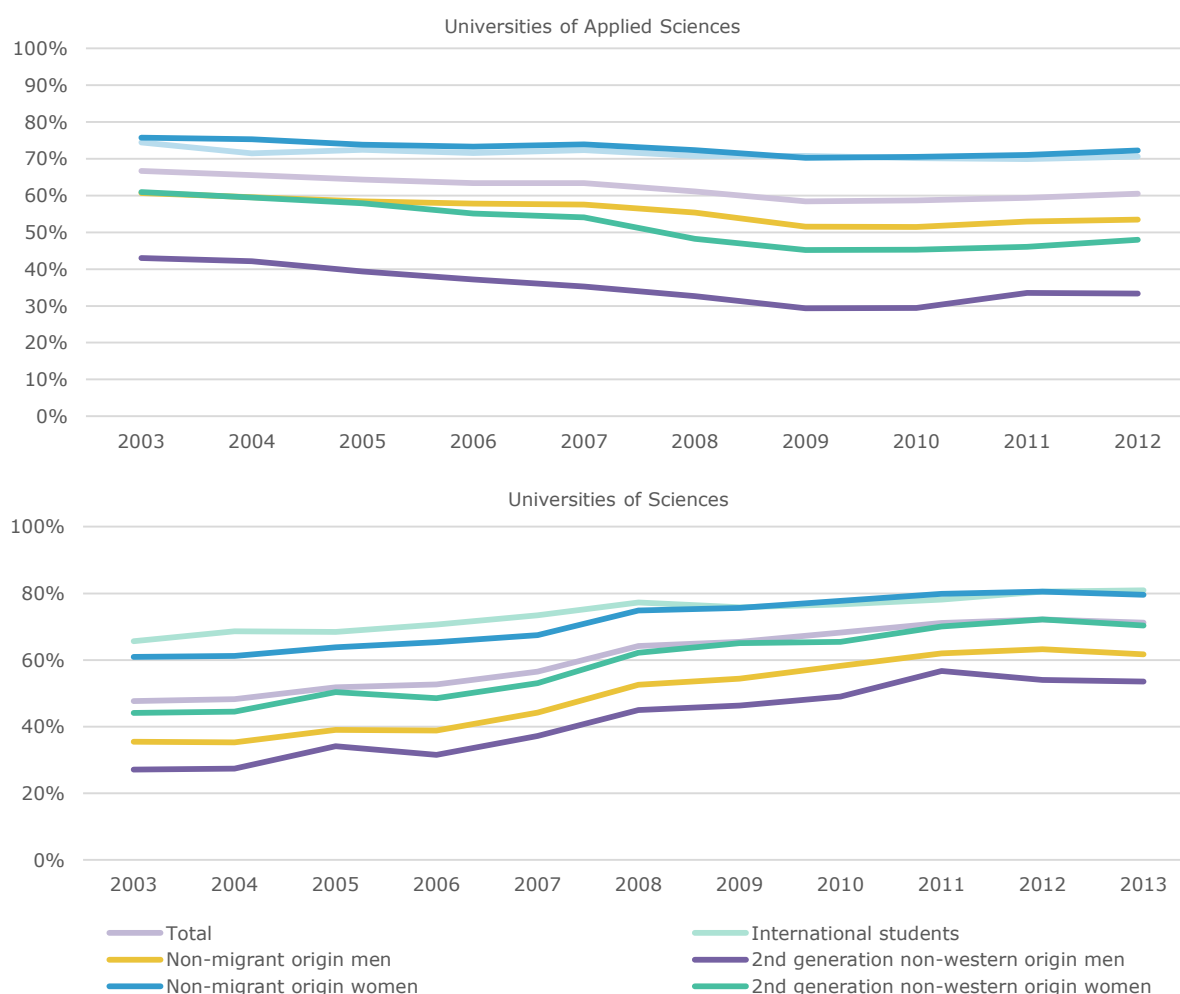
**The tertiary attainment and graduate employment rates are well above the EU average.** 49.4% of the population aged 30-34 hold a tertiary degree, against the EU average of 40.7%. There is, however, a large gap in the attainment rates of the native (51.9%) and foreign-born populations (EU-born: 40.2%; non EU-born: 34.5%). The employment rate of recent tertiary graduates was very high: 94.8% in 2018, well above the EU average of 85.5%.

**Following the 2017 evaluation of performance agreements with institutions, new agreements to boost quality were signed in 2018.** The performance-related budget, representing about 7% of the total tertiary education budget, is linked to each institution achieving its set performance goals. Over the period 2013-2016, higher education institutions could only receive such funding if they had signed a performance agreement. In April 2018, the Minister of Education, Culture and Science signed an agreement with the Association of Research Universities, the Association of Universities of Applied Sciences and student organisations about shaping the quality agreements — successors to the performance agreements — for the period 2019-2024.

**Dutch tertiary education increasingly attracts foreign students.** With the exception of bachelor's programs at universities of applied sciences, the share of foreign students is growing at all levels in both types of tertiary education (university of sciences (*wo*) and applied sciences (*hbo*)) (Education Inspectorate, 2019). One in five students starting a university bachelor's degree is a non-national. In master's programs, it is almost 30%. The majority of foreign students come from European Economic Area countries. A growing number of degree programmes are offered in English, especially at master's level (three-quarters of programmes). International students tend to complete their course within the nominal study duration plus one year (Figure 3) more frequently than home students.



**Figure 3 Completion rates at universities of sciences (wo) and universities of applied sciences (hbo), by gender and migration background**



Source: Education Inspectorate, 2019

### Box 1: Enhancing teaching quality in higher education: the University Teaching Qualification

In 2008, the Association of Universities created a quality certificate for lecturers, the University Teaching Qualification (UTQ), certifying their didactic competences (EUA, 2018). Universities agreed on common features and content of the teaching qualification, to enable employment without further testing. Since then, the UTQ has become compulsory for all lecturers, university lecturers, senior university lecturers and professors, and it is recognised by all Dutch universities. It standardises both the type of competencies to be acquired, and their assessment. Universities can also complement the UTQ with additional features specific to their institutional profile and study programmes.

UTQ certification begins with an interview of the applicant lecturer, conducted by the faculty's UTQ contact person. Based on the applicant's teaching experience, development goals are set for the applicant to achieve within two years. A personal portfolio tracks the applicant's progress towards meeting the expected learning outcomes, including student evaluations, the supervisor's assessment, self-reflection on teaching skills development, and advice from a mentor.

A peer review conducted by Dutch universities concluded that the introduction of the UTQ in 2008 and the performance agreements in 2012 had contributed to a marked increase in the focus on lecturer professionalisation (VSNU, 2018).

## 7. Modernising vocational education and training

**The share of upper-secondary students participating in vocational education and training (VET) is increasing and graduates fare well on the labour market.** 87.9% of recent VET graduates had a job in 2018, against an EU average of 79.5%. In 2017, the share of students enrolled in upper secondary VET was 68.2%, well above the EU average of 47.8% (UOE, 2017). The highest increase was in the share of students in the school-based pathway (bol) (CBS, 2018b).

**The 2019-22 quality agreements aim to further improve the quality of VET provision.** The Macro-effectiveness Act adopted in 2015 aimed to improve the match between VET programmes and labour market needs (OECD, 2018a). The law encourages schools to cooperate instead of competing with each other to prevent multiple schools in the same area from offering similar tracks. Before starting new educational programmes, schools are required to coordinate their plans. The government also created an investment fund to stimulate public-private partnerships between vocational schools and the labour market. The 2018 quality agreements allow each vocational secondary school (mbo) to frame their own strategy and priorities for 2019-2022, in consultation with regional partners (OCW, 2018b). Funding of approximately EUR 400 million a year has been earmarked for the quality agreements, of which 25% is performance-based. As of 2019, vocational and general secondary schools can apply jointly for a subsidy to tackle shortages of teachers in their region (Government, 2019c). Subsidies may reach EUR 250 000 per region, which can be increased by up to EUR 75 000 if one or more VET-schools are involved.

### Box 2: Top Academies

This is a public-private partnership run under the European Social Fund Project 'Career guidance Practical Education and Secondary Special Education Rijnmond 2017-2018'.

Budget: EUR 450 000; ESF-grant: EUR 225 000

Duration: August 2017 — August 2019

Implementing body: Learn2Work, in collaboration with the municipality of Rotterdam

The Top Academies public-private partnership sets up workplaces within companies for pupils from practical education, secondary special education and VET to learn a profession. The curriculum is designed in collaboration with the business sector. Lessons are given at the workplace, both by the subject teacher of the school and an employee of the company. In 2017/2018, the project involved 17 Top Academies, 32 companies, 18 schools and 222 students.

## 8. Developing adult learning

**Overall participation in adult learning is high, though lower among low-skilled people.** 19.1% of adults have had a recent learning experience, compared with the EU average of 11.1%. However, low-skilled workers participate in adult learning much less frequently (at 9.9 %), increasing the risk that their skills become outdated. Since the 2016 reform of the accreditation procedure for prior learning (*Erkenning Verworven Competenties*), labour market and education routes have been separated (OECD, 2018b). In the labour market route, candidates can have their prior competences recognised in an 'experience certificate' for a specific job. In the education route, candidates can validate prior competences to complete their VET or tertiary education programmes with exemptions and complementary education structures. The 2017 Coalition Agreement included plans to introduce individual learning accounts to foster investment in skills (Government, 2017b). The advantage of this system is that the learning account is specific to the individual and not to the job, so they take their accounts with them when they change jobs (OECD, 2018b).

**In March 2019, the government announced a new approach to address illiteracy.** It earmarked EUR 425 million for the programme 'Tel mee met taal' for the period 2020-2024, an increase of EUR 35 million compared with budget for 2015-2019. The aim is to reach out to illiterate Dutch native speakers and to promote digital skills. The Language Accord for Employers, implemented by UWV/ Leerwerkloketten, aims to support employers by improving the basic skills of their employees and to make basic skills part of their HR policy (STVDA, 2019). To date, around 250 employers have joined the Language Agreement and around 10 000 workers have followed a language course.

**Dutch adults are well equipped to benefit from digitisation.** The Netherlands is in the top tier of countries in terms of digital skills and exposure to digitisation of the economy and society (OECD, 2019c). Dutch workers use ICT intensively on the job and mostly perform non-routine tasks. Alongside Norway and Sweden, more than 80% of people aged 16-64 in the Netherlands perform many and complex activities online, including e-finance or creating websites and blogs.

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## Annex I: Key indicator sources

Indicator	Eurostat online data code
Early leavers from education and training	edat_lfse_14 + edat_lfse_02
Tertiary educational attainment	edat_lfse_03 + edat_lfs_9912
Early childhood education and care	educ_uoe_enra10
Underachievement in reading, maths, science	OECD (PISA)
Employment rate of recent graduates	edat_lfse_24
Adult participation in learning	trng_lfse_03
Public expenditure on education as a percentage of GDP	gov_10a_exp
Expenditure on public and private institutions per student	educ_uoe_fini04

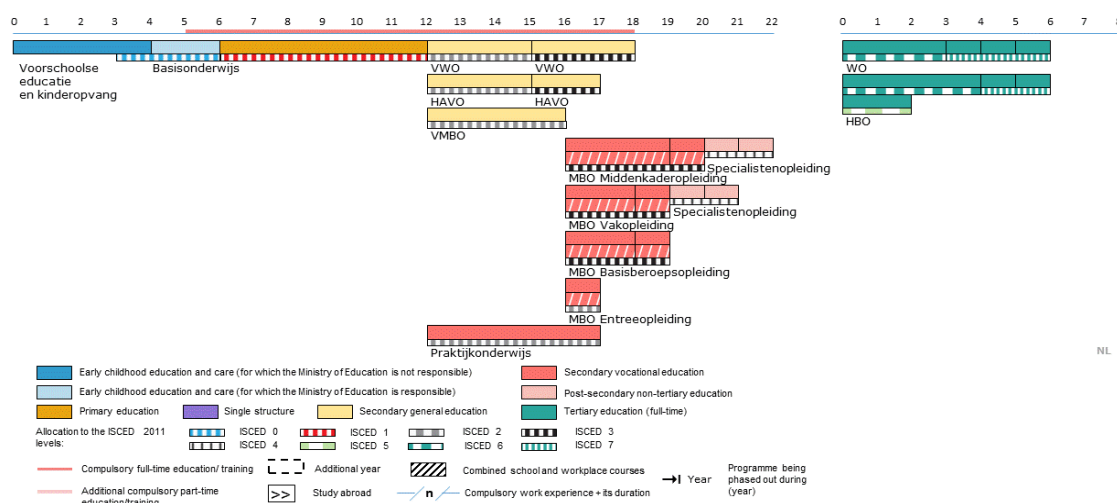
Learning mobility:

- Degree-mobile graduates

JRC computation based on Eurostat / UIS / OECD data

- Credit-mobile graduates

## Annex II: Structure of the education system



Source: European Commission/EACEA/Eurydice, 2018. The Structure of the European Education Systems 2018/19: Schematic Diagrams. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union.

Comments and questions on this report are welcome and can be sent by email to:  
Livia RUSZTHY  
[Livia.Ruszthy@ec.europa.eu](mailto:Livia.Ruszthy@ec.europa.eu)  
or to  
[EAC-UNITE-A2@ec.europa.eu](mailto:EAC-UNITE-A2@ec.europa.eu)

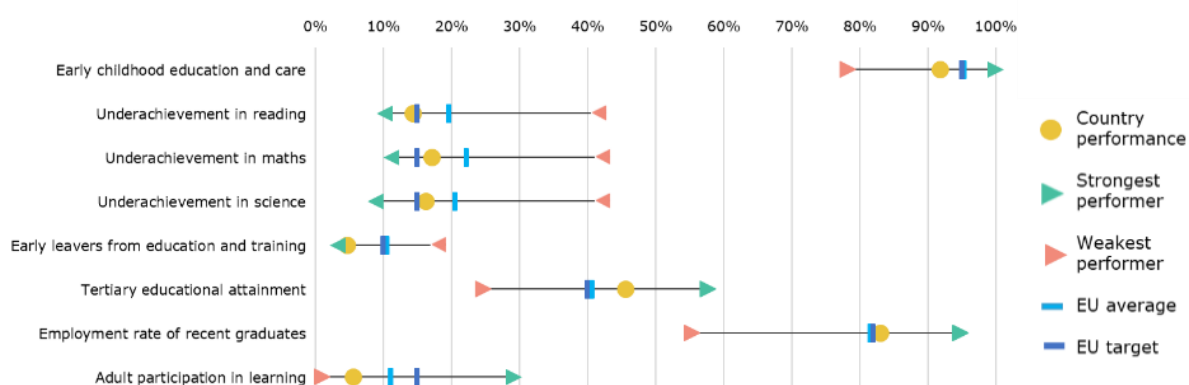
# POLAND

# 1. Key indicators

			Poland		EU average	
			2009	2018	2009	2018
<b>Education and training 2020 benchmarks</b>						
Early leavers from education and training (age 18-24)			5.3%	4.8%	14.2%	10.6%
Tertiary educational attainment (age 30-34)			32.8%	45.7%	32.3%	40.7%
Early childhood education and care (from age 4 to starting age of compulsory primary education)			70.9%	91.9% <sup>17</sup>	90.8%	95.4% <sup>17,d</sup>
Proportion of 15 year-olds underachieving in:	Reading		15.0%	14.4% <sup>15</sup>	19.5%	19.7% <sup>15</sup>
	Maths		20.5%	17.2% <sup>15</sup>	22.3%	22.2% <sup>15</sup>
	Science		13.1%	16.3% <sup>15</sup>	17.7%	20.6% <sup>15</sup>
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)						
	ISCED 3-8 (total)		78.4%	83.1%	78.3%	81.6%
Adult participation in learning (age 25-64)						
	ISCED 0-8 (total)		4.7%	5.7%	9.5%	11.1%
Learning mobility	Degree-mobile graduates (ISCED 5-8)		:	1.0% <sup>17</sup>	:	3.6% <sup>17</sup>
	Credit-mobile graduates (ISCED 5-8)		:	: <sup>17</sup>	:	8.0% <sup>17</sup>
<b>Other contextual indicators</b>						
Public expenditure on education as a percentage of GDP			5.4%	4.9% <sup>17</sup>	5.2%	4.6% <sup>17</sup>
Education investment	Expenditure on public and private institutions per student in € PPS	ISCED 0	€4 098 <sup>12,d</sup>	€5 080 <sup>16</sup>	:	€6 111 <sup>15,d</sup>
		ISCED 1	€4 974 <sup>12</sup>	€5 034 <sup>16</sup>	€5 812 <sup>12,d</sup>	€6 248 <sup>15,d</sup>
		ISCED 2	€4 885 <sup>12</sup>	€5 136 <sup>16</sup>	€6 937 <sup>12,d</sup>	€7 243 <sup>15,d</sup>
		ISCED 3-4	€4 519 <sup>12</sup>	€4 544 <sup>16</sup>	:	€7 730 <sup>14,d</sup>
		ISCED 5-8	€6 537 <sup>12</sup>	€7 000 <sup>16</sup>	€10 549 <sup>12,d</sup>	€11 413 <sup>15,d</sup>
Early leavers from education and training (age 18-24)	Native-born		5.3%	4.8%	13.1%	9.5%
	Foreign-born		:	: <sup>u</sup>	26.1%	20.2%
Tertiary educational attainment (age 30-34)	Native-born		32.8%	45.5%	33.1%	41.3%
	Foreign-born		: <sup>u</sup>	67.2%	27.7%	37.8%
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)						
	ISCED 3-4		68.7%	77.1%	72.5%	76.8%
	ISCED 5-8		85.7%	88.9%	83.8%	85.5%

Sources: Eurostat; OECD (PISA); Learning mobility figures are calculated by the European Commission's Joint Research Centre from UOE data. Further information can be found in Annex I and in Volume 1 ([ec.europa.eu/education/monitor](https://ec.europa.eu/education/monitor)). Notes: EU averages of 2009 PISA do not cover Cyprus; d = definition differs, u = low reliability, : = not available, 12 = 2012, 14 = 2014, 15 = 2015, 16 = 2016, 17 = 2017.

**Figure 1 Position in relation to strongest and weakest performers**



Source: European Commission, Directorate-General for Education, Youth, Culture and Sport (DG EAC) calculations, based on data from Eurostat (LFS 2018, UOE 2017) and OECD (PISA 2015).

## 2. Highlights

- Early school leaving continues declining; participation in early childhood education and care among children under 3 remains low.
- The higher education reform has been launched, bringing major changes to the functioning of higher education institutions.
- Implementing the 2017 school system changes is causing organisational, financial and curricular challenges. Further challenges relate to teachers' pay, emerging shortages, and initial and continuing training.
- Participation in adult learning remains low.

## 3. A focus on teachers

**Low salaries make the teaching profession less attractive.** Most teachers hold qualifications above the minimum requirements (European Commission/EACEA/Eurydice, 2018). However, the annual basic salary of a starting teacher in purchasing power standards (PPS) is less than half the EU average — EUR 12 091 v EUR 25 246 — and salary progression over the career is comparatively flat (Figure 2). In 2017, secondary level teachers' average salary was 82% of that of other tertiary-educated employees in Poland (OECD, 2018b). While salaries increased by 5.35% in 2018 and by 5% in January 2019, an increase by 9.6% is forecasted from September till December 2019, below teachers' demands<sup>1</sup>. The proportion of young people interested in becoming teachers dropped by 50% between 2012 and 2015<sup>2</sup>. The Supreme Audit Office found that a high proportion of low-performing secondary school graduates enter teacher education programmes (NIK, 2017) while another recent study shows that fewer than 4% of the best-performing students plan to become teachers. The profession is even less popular among mathematics students (Herbst, 2018). Further evidence that teachers have on average relatively low numeracy skills (compared to other graduate professionals in Poland or to teachers in other countries) is indicated by the PIAAC<sup>3</sup> survey (E. Hanushek, et al., 2018) and a national survey (IBE, 2015). School leaders' salaries are only marginally higher than those of regular teachers, and also low compared to their counterparts in other EU countries. Research shows that salaries and the availability of other jobs are important factors negatively affecting the attractiveness of teaching (OECD, 2018a).

**Teacher shortages are emerging for specific subjects and early childhood education and care (ECEC).** In 2017<sup>4</sup>, around a third of Polish teachers at primary and secondary education levels were over 50. The proportion of teachers under 30 is comparatively low in primary schools (8.2% v 11.9% in the EU) and in secondary schools, where it decreased from 9.1% in 2013 to 5.2% in 2017 (EU average: 8.2%). In pre-primary education, 22.6% teachers are below 30, reflecting the recent expansion of ECEC. Three-quarters of teachers at all ISCED levels are women. While there is no shortage of teachers overall, teacher supply is becoming insufficient for mathematics and English, and in pre-schools, particularly in large cities<sup>5</sup>. Recent changes to the school system, the 2019 teachers' strike outcome, and criticisms in the media, have led to teachers leaving the profession<sup>6</sup>. It may become a challenge to replace retiring or parting teachers.

<sup>1</sup> See: <https://glos.pl/znp-list-do-ministra-edukacji-w-sprawie-plac-nauczycieli>

<sup>2</sup> The 2015 PISA survey indicated that only 2.4% of 15-year olds (v 6% 3 years earlier) wanted to become teachers.

<sup>3</sup> The Programme for the International Assessment of Adult Competencies

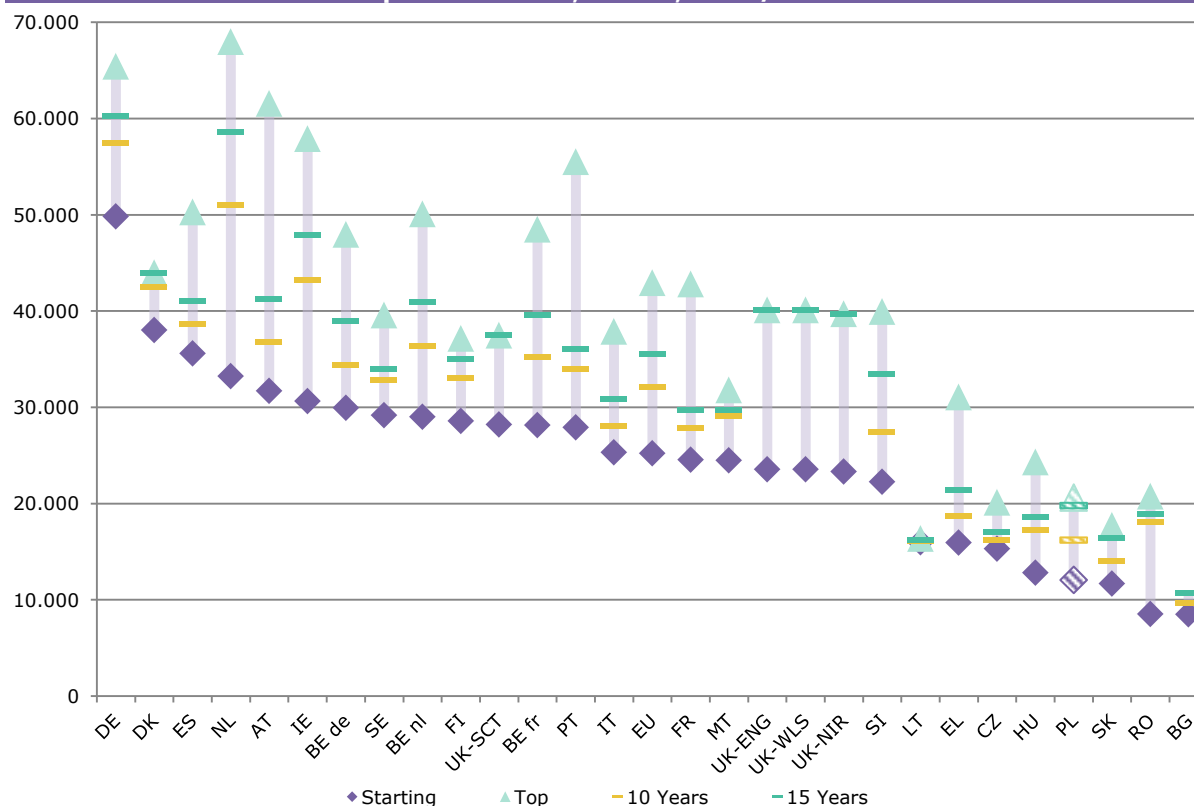
<sup>4</sup> Eurostat, UOE, 2017. Online data code: [educ\\_uoe\\_perp01](#)

<sup>5</sup> See: <https://edukacja.warszawa.pl/aktualnosci/21678-praca-szuka-nauczyciela>

<sup>6</sup> See: <https://glos.pl/ankieta-glosu-nauczycielu-czy-zegnasz-sie-ze-szkola>



**Figure 2 Annual basic gross statutory salaries for full-time teachers in lower secondary public schools, in PPS, 2016/2017**



Source: Eurydice, 2018. For clarity's sake, Luxembourg is not presented.

**Measures are being taken to improve initial teacher education.** The quality of training programmes varies, and continuing professional development (CPD) does not sufficiently upgrade teachers' skills (NIK, 2017). Consequently, Poland will introduce new measures<sup>7</sup>:

- from 2019/2020, pre-school and early school education (I-III classes), and special education, will be taught in five-year master's studies only;
- from 2022/2023, only higher education institutions which conduct research and use the latest scientific developments in the field of teacher education will have the right to train teachers.

Initial teacher education standards and teacher qualifications provisions will be revised. New model curricula for initial education will be developed, with stronger emphasis on practical training and on supporting students with special educational needs (Eurydice, 2019). Teachers indicate high cost and lack of relevant courses as main barriers to their participation in CPD (Hernik K., et al, 2015). School heads report weaknesses in preparing for managerial posts mainly due to lack of appropriate training and high costs. Their main development needs are managerial competences and legal knowledge, and how to obtain additional financial resources for the school.

**Tensions between government and teachers continue.** Unsatisfactory negotiations between the government and the Polish Teachers' Union over salaries<sup>8</sup>, and 2018 changes to the Teachers' Charter<sup>9</sup> led to a nationwide strike launched on 8 April 2019. The strike was suspended until September to allow for final secondary school exams<sup>10</sup>. Changes to the Charter regarding assessment and career progression were partially reversed by new modifications in June 2019<sup>11</sup>. The most urgent challenges relate to salary negotiations and to problems linked to the phase-out of

<sup>7</sup> See: <https://konstytucjadlanauki.gov.pl/ksztalcenie#studia>

<sup>8</sup> On 7 April 2019, the government and Solidarność Trade Union agreed on an overall 15% statutory salary increase in 2019, and other measures. The agreement was not signed by the Polish Teachers' Union.

<sup>9</sup> See: <http://prawo.sejm.gov.pl/isap.nsf/download.xsp/WDU20180001574/O/D20181574.pdf>

<sup>10</sup> See: <https://znp.edu.pl/konczymy-pierwszy-etap-protestu-i-zaczynamy-drugi/>

<sup>11</sup> See: <http://dziennikustaw.gov.pl/du/2019/1287/1>



lower-secondary schools<sup>12</sup>. In the longer term, there is a need to improve the profession's prestige, initial education and CPD.

#### Box 1: Teacher education and training programmes supported by the European Social Fund (ESF)

To improve teachers' skills, Poland developed a model of training schools under the Operational Programme - Knowledge Education Development (OP KED). The pilot project ran from July 2016 to October 2018, with a budget of PLN 4 258 339 (EUR 1 013 890).

The project's aim is to develop training schools for teachers and students in teacher training programmes using advanced and innovative teaching methods. Training schools should provide a real-work environment and bolster the skills to work with students more effectively. New materials and tools for teachers are to be developed. In 2018, the 'Supporting the creation of training schools' project was launched with a budget of PLN 43 127 908.80 (EUR 10 268 550) to create 32 training schools.

In January 2019, under the 'Teacher education programmes' national call within OP KED, Poland awarded PLN 47 million (EUR 11.2 million) to 23 projects for higher education institutions to develop teacher education programmes. The projects, aimed at improving future teachers' competences, will last between 24 and 36 months.

See: <https://www.ore.edu.pl/2017/10/o-projekcie/>;  
<https://www.ncbr.gov.pl/programy/fundusze-europejskie/power/konkursy/konkurs-pkn18/>

## 4. Investing in education and training

**Poland continues to invest heavily in education.** Poland spent 4.9% of its GDP on education in 2017 (EU average: 4.6%). Education represented 11.9% of the total general government expenditure (EU average: 10.2%). Against the background of continued economic growth over the last decade, education spending has grown significantly: in 2010-2017, public expenditure on education increased in real terms by 8%. The government plans to gradually increase spending on higher education as part of the reform launched in 2018. According to the state budget, in 2019 spending will be almost PLN 18 billion (EUR 4.1 billion), compared to PLN 15.8 billion (EUR 3.6 billion) in 2018. A further PLN 9.8 billion (EUR 2.2 billion) will be spent on science<sup>13</sup>.

**Despite increases in recent years, spending per student is low.** In 2016, annual public spending per student in Poland for all ISCED levels remained below the EU average (in PPS): EUR 4 777.7 v the EU average of EUR 6 733<sup>14</sup>. The gap is narrow for primary education but significant for secondary and tertiary levels despite a 25% increase in expenditure per full-time tertiary student in 2010-2015 (OECD, 2018b).

**Poland is investing in information and communications technology infrastructure and digital competences.** The Polish Educational Network project (OSE<sup>15</sup>) envisages the creation of an internet network connecting all Polish schools (about 30 500) by 2020. Schools will be centrally provided with internet access and security services, and free educational content for teachers and students. The capital costs are estimated at PLN 320 million (EUR 76.2 million), which will come from the European Regional Development Fund<sup>16</sup>; the network's annual maintenance cost estimated at PLN 164 million (EUR 40 million) will come from the state budget.

<sup>12</sup> See: <https://glos.pl/nauczyciele-nie-chca-pracowac-w-zawodzie-w-warszawie-zabraknie-35-tys-pedagogow>,  
<https://znp.edu.pl/stanowisko-zg-znp/>

<sup>13</sup> See: Dz.U. z dn. 1.02.2019r. poz. 198,  
<http://prawo.sejm.gov.pl/isap.nsf/download.xsp/WDU20190000198/O/D20190198.pdf>

<sup>14</sup> Eurostat, UOE, 2017. Online data code: educ\_uae\_fine09 (for the EU average, data is provisional)

<sup>15</sup> See: <https://ose.gov.pl/>

<sup>16</sup> See: 'Digital Poland': [https://ec.europa.eu/regional\\_policy/en/atlas/programmes/2014-2020/poland/2014pl16rfop002](https://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/poland/2014pl16rfop002)

## 5. Modernising early childhood and school education

**Participation in early childhood education and care (ECEC) among children over 3 declined slightly in 2017, breaking a long-term trend.** In 2017, the participation rate of children aged 4+ in pre-school education in Poland was 91.9%, 1.2 pps lower than in 2016. The drop is likely linked to the obligatory pre-school age rising from 5 to 6 from in 2016/2017. The introduction of a legal entitlement to pre-school education for children between 3 and 5 was completed in 2017/2018. Attendance of 3 year-olds increased from 53% in 2013 to 70% in 2016, before declining to 67% in 2017<sup>17</sup>. In 2019, the total state budget subvention for pre-school education increased to PLN 3.1 billion (EUR 756 million) from almost PLN 3 billion (EUR 707 million) in 2018.

**Enrolment of children under 3 is increasing slowly and is linked to socio-economic and parental background.** Between 2010 and 2017, the ECEC enrolment rate for children under 3 increased by 9.6 pps to 11.6% in 2017 (EU average: 34.2%). Children under 3 are more likely to be enrolled if they come from relatively advantaged socio-economic backgrounds: the enrolment rate is 21% for children with tertiary-educated mothers, but only 3% among those with less well-educated mothers (OECD, 2018b)<sup>18</sup>. The Ministry of Family, Labour and Social Policy supports expanding places for children under 3 with a 2019 budget of PLN 450 million (EUR 110 million) under the 'Toddler+' programme, launched in 2011 (Eurydice, 2019).

**The early school leaving rate is low but regional disparities exist.** In 2018, the rate was 4.8%, one of the lowest in the EU (10.6%). Between 2010 and 2018, it decreased overall by 0.6 pps, falling in rural areas by 1.8 pps while increasing by 1.4 pps in towns and suburbs to 5.4%. Regional variations persist: the highest rates are in Warmińsko-Mazurskie, Lubuskie, and Zachodniopomorskie (9.1%-10.7%), and the lowest in Southern Macroregion (below 3%)<sup>19</sup>.

**Implementing the school system reform<sup>20</sup> is currently the main challenge consuming substantial resources.** The change to the two-level school system required the transformation or phasing-out of lower secondary schools: 11.4% of the 665 schools disappeared from the official register in 2017-2018 (NIK, 2019a). During 2019/2020, an additional cohort of students will enter upper secondary schools. This additional cohort is estimated at 370 000 students. Although the Ministry of Education<sup>21</sup> says there are around 100 000 more places in secondary schools available nationally, there is a mismatch between students' preferences and the school type or location. In January 2019, there was a deficit of 14 873 places for students across eight voivodships (NIK, 2019a). Large cities are experiencing shortages in comprehensive secondary schools<sup>22</sup>. The transformation consumes significant resources which could be used to address other educational challenges (European Commission, 2018). Local governments claim that the actual costs incurred in implementing the reform will be double the allocated ministerial subvention. Primary and secondary schools are reorganising their staff numbers and premises, often operating in shifts. The proportion of teachers working in more than one school increased by almost 55% during 2016-2018, which limited their availability to students and affected class planning (NIK, 2019a). It will be crucial to reach a consensus following two separate consultations on the Polish education system launched by the teaching community<sup>23</sup> and the government<sup>24</sup>.

**There will be a need to monitor the impact of the new core curriculum on students' competences and well-being.** From 2016/2017, the compulsory primary school and pre-school entry age was increased to 7 and 6 respectively. Consequently, the common general education period was reduced from 9 to 8 years, which may affect children from disadvantaged backgrounds and rural areas. The Children's Ombudsman concluded that the new core curriculum is too advanced and may be beyond students' learning capabilities. This is affecting particularly students in the seventh grade (RPD, 2018). In January 2019, the Ombudsman concluded that homework burdens on pupils were excessive (RPO, 2019). The Supreme Audit Office's report of 22 May 2019

<sup>17</sup> Eurostat, UOE, 2017. Online data code: [educ\\_uoe\\_enra20](#)

<sup>18</sup> The impact of the parental leave extension introduced in 2016 was not considered.

<sup>19</sup> Eurostat, Labour Force Survey, 2018. Online data code: [edat\\_lfse\\_16](#)

<sup>20</sup> The reform of lower and upper secondary education was introduced by the Law on School Education in December 2016 for implementation between 1 September 2017 and the school year 2022/23.

<sup>21</sup> See: <https://www.gov.pl/web/edukacja/ponad-100-tys-wiecej-miejsc-w-szkolach-srednich>

<sup>22</sup> See: <https://www.prawo.pl/samorzad/brak-miejsc-dla-chetnych-do-szkol-srednich-z-powodu-podwojnego,443961.html>

<sup>23</sup> See: <https://www.naradaobywatelska.pl/>

<sup>24</sup> See: <https://www.gov.pl/web/edukacja/okragly-stol-edukacyjny>

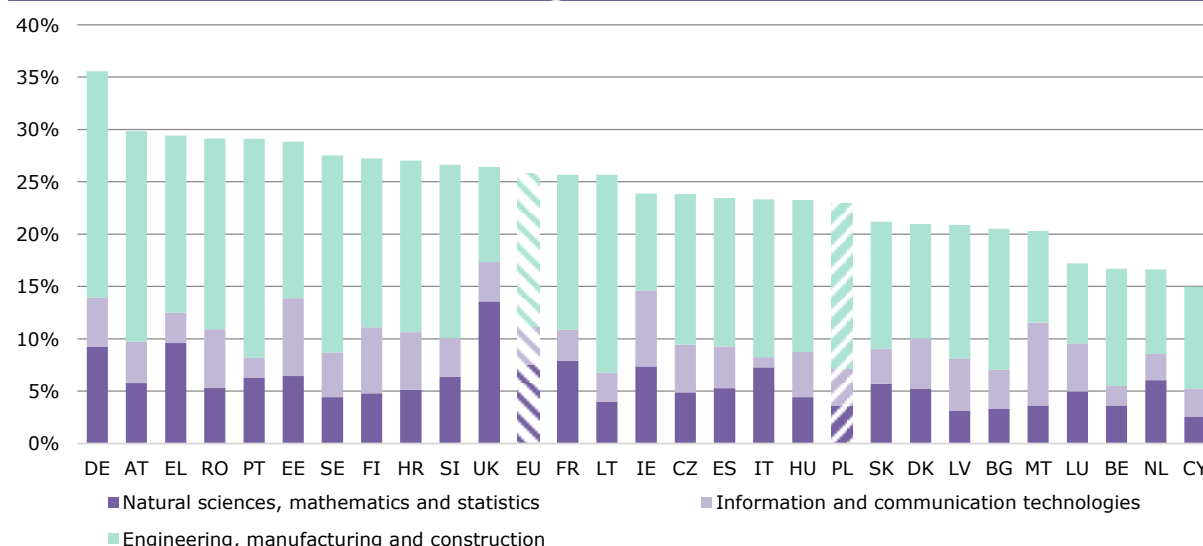
indicated deficiencies in preparing and implementing the reform, including inconsistencies between specific core curricula (NIK, 2019a). According to recent monitoring controls, learning conditions in 56% of schools have not improved while in 34% of schools they have worsened (e.g. insufficient classroom availability and equipment, poor school infrastructure, overloaded class schedule)<sup>25</sup>.

**Preparatory activities to improve inclusive education are being continued.** With the assistance of the European Commission's Structural Reform Support Service, the Ministry of Education is seeking to improve the quality of inclusive education. The European Agency for Special Needs and Inclusive Education will assist the Ministry with recommendations to support new legislation in 2020. During 2019-2021, the ministry will implement projects to improve inclusive education supported by the ESF. Implementation of the 2017 framework on individualised teaching for students with special educational needs still raises doubts among stakeholders. They claim that in practice it reduces the level of integration of such children: they must fully participate in all classes or otherwise follow home-schooling<sup>26</sup>.

## 6. Modernising higher education

**Poland maintains a high rate of tertiary educational attainment, but the proportion of science, technology, engineering and mathematics (STEM) graduates is low.** In 2018, the higher educational attainment rate was 45.7%, the same as in 2017, exceeding Europe 2020 national target of 45% for Poland. The gender gap at 19.2 pps in favour of women is one of the highest in the EU (EU average: 10.1 pps). The number of students has been decreasing steadily, by 36% over the past 10 years, reflecting demographic trends. Numbers declined by 4.8% between 2017/2018 and 2018/2019 (Statistics Poland, 2019). The proportion of graduates in STEM fields is 22.9%. It is particularly low in natural sciences, mathematics and statistics, at 3.6% — one of the lowest in the EU (Figure 3). Poland's graduate tracking system (ELA<sup>27</sup>) shows the good relative employment position of recent tertiary graduates. Graduates in 2017 earned on average 77% of the average wage (related to the district of living). They also spent around three quarters of their first 12 months after graduation working; 64% of that was spent under regular labour code employment contracts.

**Figure 3 Distribution of tertiary graduates by STEM fields in 2017, as a proportion of total graduates**



Source: Eurostat, UOE, 2017. Online data code: [educ\\_uoe\\_grad02](#)

<sup>25</sup> In 2018, the regulation of the Minister of National Education and Sport of December 31, 2002 was amended to strengthen safety and hygienic conditions in schools.

<sup>26</sup> Krytyka Polityczna, 4.03.2019: <https://krytykapolityczna.pl/kraj/w-szkole-nie-ma-dla-ciebie-miejsca/>

<sup>27</sup> See: <http://ela.nauka.gov.pl>

**Higher education institutions (HEI) are preparing to implement the reform<sup>28</sup>.** The main aim of the reform is to improve i) the quality of education, ii) scientific achievements and iii) internationalisation. This involves changing the evaluation, management and financing models. HEIs are currently preparing new statutes, which will enter into force from 1 October 2019. To prepare implementation of the reform, there is regular consultation with academia, including through a series of debates ('NKN Forum'). In February 2019, a task force was established to monitor its implementation. The main changes include the following.

- HEI management will be more centralised at the institutional level and more matters regulated by the HEI statute. The Rector gains capacity to shape policy, and responsibility for financial management and personnel policy.
- Funding to boost teaching and research will be allocated to HEIs at institution level, no longer to faculties.
- Evaluation principles will focus on disciplines and not faculties. Only HEIs, Polish Academy of Science units, or research institutes with a high evaluation can confer doctoral or post-doctoral degrees.
- HEIs will be clearly classified into academic and vocational HEIs. Different kinds of institutions can establish federations.

## 7. Modernising vocational education and training

**The employability of VET graduates is increasing, yet work-based learning is limited.** In 2017, nearly 178 000 new students entered VET programmes in Poland, a decrease of 0.7% since 2016, continuing the declining trend since 2013. Given demographic decline, the proportion of students enrolled in upper secondary VET continued to increase reaching 51.7% in 2017 (EU average: 47.8%). Initial VET students had limited exposure to work-based learning — only 15% of students in VET were enrolled in combined school and work-based programmes in 2017/2018. In line with a favourable labour market situation, the employment rate among recent initial VET graduates increased in 2018 to 78.4% (EU average: 79.5%) from 75.2% in 2017.

**The VET reform is progressing, focusing mostly on initial VET.** Amendments to the Educational Law from November 2018 ensure that local governments receive an increased educational subsidy for students working in targeted jobs. Ministers competent for specific professions will be able to set up and run vocational schools and institutions. From 1 September 2019, the education system will include new vocational education centres in non-school form, based on existing 'practical training centres' (CKP) or 'centres of vocational training' (ODZ). All VET schools will be obliged to cooperate with employers in relevant sectors.

**Measures to support the professional development of teachers in vocational schools are ongoing.** Mobility projects for teachers, which are being implemented with support from the ESF and Erasmus+, include work placements in companies, job shadowing and practical training in other countries. A new regulation from February 2019 defines more flexible requirements regarding work experience and pedagogical training for vocational training instructors.

### Box 2: Integrated skills strategy for 2030

In January 2019, the government adopted the 'Integrated Skills Strategy 2030 – general part'. A cooperation project with the OECD was then launched, supported by Erasmus+. The project focuses on:

- supporting greater participation of adults in learning;
- reducing skills mismatch in the labour market;
- strengthening the use of skills in the labour market and workplace;
- strengthening coordination and skills management structures.

<sup>28</sup> The Law 2.0 (*Ustawa 2.0*) of 20 July 2018 came into force on 1 October 2018, replacing all previous legislation in this area.

Challenges, opportunities and recommendations will be defined by area and included in the *OECD Report on Skills Strategy: Poland*, scheduled for December 2019. On this basis, Poland is to develop a detailed implementation plan building on the Integrated Skills Strategy covering general, vocational and higher education, and adult learning.

See: <https://bip.kprm.gov.pl/kpr/bip-rady-ministrow/prace-legislacyjne-rm-i/prace-legislacyjne-rady/wykaz-prac-legislacyjnych/r876903221,Zintegrowana-Strategia-Umiejetnosci.html>

## 8. Developing adult learning

**Participation in adult learning is slightly increasing.** Only 7.6% of adults in Poland have not acquired an upper-secondary qualification (EU average: 21.9%). The proportion of low-qualified adults in employment is 43.1% (EU average: 56.8%). However, in 2018, only 5.7% of adults aged 25-64 had had a learning experience in the last 4 weeks (EU average: 11.1%), a slight increase compared to 4% in 2017. During 2017, around 16 000 adults over 25 acquired an upper-secondary qualification. Adult learning reaches only a small proportion of the nearly 1.5 million 25-64 year-olds who have a low educational attainment level. In January 2019, the government adopted the general part of the *Integrated Skills Strategy*: the implementation plan will be developed based on the cooperation with OECD (See Box 2). Implementation of the National Qualification Framework is progressing: additional qualifications have been added to the registry and validation and certification institutions have been selected, but the process faces delays. Policy coordination at national level is improving (the Act on the Integrated Qualification System is implemented in cooperation with different ministries and sectoral skills councils), but not at regional level. In 2019, Poland received a country-specific recommendation from the Council of the EU to 'Foster quality education and skills relevant to the labour market, especially through adult learning' (Council of the EU, 2019).

**Formal adult education has limited effectiveness, but educators are considered its strength.** Formal adult education was heavily criticised by the Supreme Audit Office in 2016 for its limited effectiveness. However, there were only minor concerns about educators' qualifications in the schools audited, and both learners and the report favourably assessed their competence level.

**The quality of training offered to adults needs careful monitoring.** The majority of non-formal education in Poland is delivered by private providers functioning as businesses without any specific sectoral regulation or coordination. Additionally, adult educators in the non-formal system are not considered teachers and thus not subject to any qualifications requirements. Some initiatives aim to provide accreditation for training institutions and to verify educators' competences (e.g. the Database of Development Services<sup>29</sup>, supported by the ESF).

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<sup>29</sup> See: <https://uslugirozwojowe.parp.gov.pl/>



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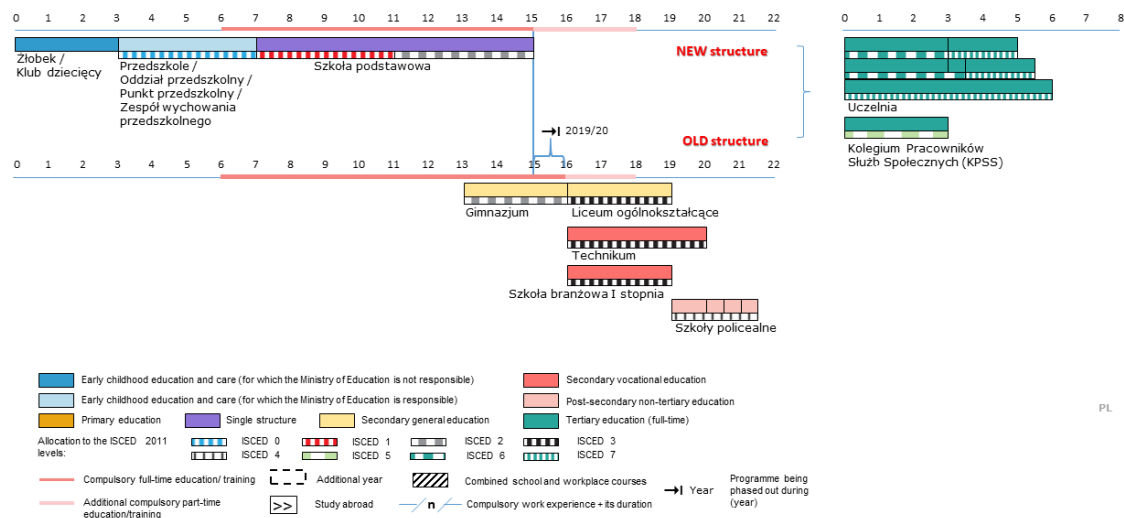
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## Annex I: Key indicator sources

Indicator	Eurostat online data code
Early leavers from education and training	edat_lfse_14 + edat_lfse_02
Tertiary educational attainment	edat_lfse_03 + edat_lfs_9912
Early childhood education and care	educ_uoe_enra10
Underachievement in reading, maths, science	OECD (PISA)
Employment rate of recent graduates	edat_lfse_24
Adult participation in learning	trng_lfse_03
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:	
- Degree-mobile graduates	JRC computation based on Eurostat / UIS / OECD data
- Credit-mobile graduates	

## Annex II: Structure of the education system



Source: European Commission/EACEA/Eurydice, 2018. The Structure of the European Education Systems 2018/19: Schematic Diagrams. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union.

Comments and questions on this report are welcome and can be sent by email to:  
 Sylwia SITKA  
[Sylwia.Sitka@ec.europa.eu](mailto:Sylwia.Sitka@ec.europa.eu)  
 or  
[EAC-UNITE-A2@ec.europa.eu](mailto:EAC-UNITE-A2@ec.europa.eu)

# PORTUGAL

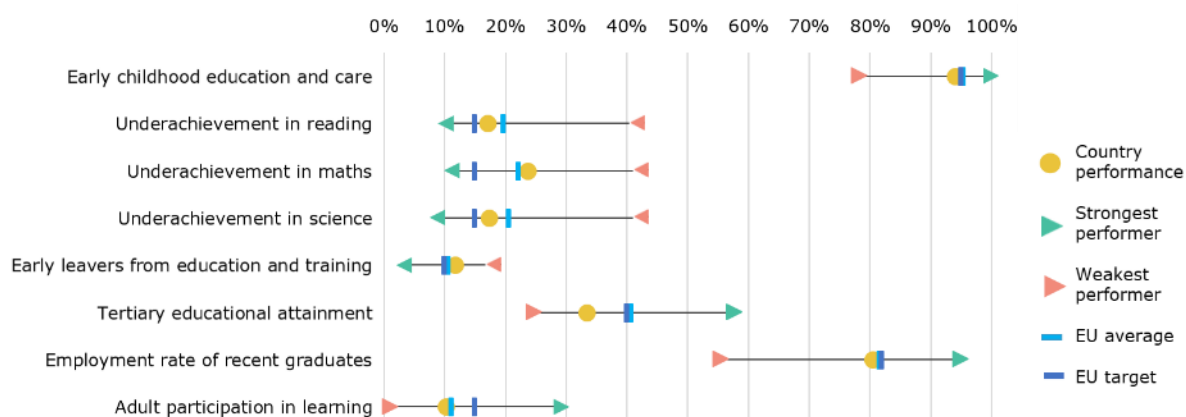


# 1. Key indicators

			Portugal		EU average	
			2009	2018	2009	2018
Education and training 2020 benchmarks						
Early leavers from education and training (age 18-24)			30.9%	11.8%	14.2%	10.6%
Tertiary educational attainment (age 30-34)			21.3%	33.5%	32.3%	40.7%
Early childhood education and care (from age 4 to starting age of compulsory primary education)			90.1%	94.2% <sup>17</sup>	90.8%	95.4% <sup>17,d</sup>
Proportion of 15 year-olds underachieving in:	Reading		17.6%	17.2% <sup>15</sup>	19.5%	19.7% <sup>15</sup>
	Maths		23.8%	23.8% <sup>15</sup>	22.3%	22.2% <sup>15</sup>
	Science		16.5%	17.4% <sup>15</sup>	17.7%	20.6% <sup>15</sup>
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-8 (total)		82.4%	80.6%	78.3%	81.6%
Adult participation in learning (age 25-64)	ISCED 0-8 (total)		6.4%	10.3%	9.5%	11.1%
Learning mobility	Degree-mobile graduates (ISCED 5-8)		:	3.6% <sup>17</sup>	:	3.6% <sup>17</sup>
	Credit-mobile graduates (ISCED 5-8)		:	7.5% <sup>17</sup>	:	8.0% <sup>17</sup>
Other contextual indicators						
Education investment	Public expenditure on education as a percentage of GDP		7.0%	5.0% <sup>17</sup>	5.2%	4.6% <sup>17</sup>
	Expenditure on public and private institutions per student in € PPS	ISCED 0	€4 862 <sup>12</sup>	€4 646 <sup>15</sup>	:	€6 111 <sup>15,d</sup>
		ISCED 1	€4 685 <sup>12</sup>	€4 738 <sup>15</sup>	€5 812 <sup>12,d</sup>	€6 248 <sup>15,d</sup>
		ISCED 2	€6 171 <sup>12</sup>	€6 212 <sup>15</sup>	€6 937 <sup>12,d</sup>	€7 243 <sup>15,d</sup>
		ISCED 3-4	€6 907 <sup>12,d</sup>	€6 609 <sup>15</sup>	:	€7 730 <sup>14,d</sup>
		ISCED 5-8	€7 403 <sup>12,d</sup>	€8 885 <sup>15,d</sup>	€10 549 <sup>12,d</sup>	€11 413 <sup>15,d</sup>
Early leavers from education and training (age 18-24)	Native-born		31.0%	11.7%	13.1%	9.5%
	Foreign-born		29.6%	12.8%	26.1%	20.2%
Tertiary educational attainment (age 30-34)	Native-born		21.1%	33.1%	33.1%	41.3%
	Foreign-born		22.6%	36.8%	27.7%	37.8%
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-4		79.7%	75.0%	72.5%	76.8%
	ISCED 5-8		84.0%	85.9%	83.8%	85.5%

Sources: Eurostat; OECD (PISA); Learning mobility figures are calculated by the European Commission's Joint Research Centre (JRC) from UOE data. Further information can be found in Appendix I and Volume 1 ([ec.europa.eu/education/monitor](http://ec.europa.eu/education/monitor)). Notes: The EU's 2009 PISA averages do not include Cyprus; d = definition differs, : = not available, 12=2012, 14=2014, 15 = 2015, 16=2016, 17 = 2017.

**Figure 1 Position in relation to strongest and weakest performers**



Source: European Commission, Directorate-General for Education, Youth, Culture and Sport (DG EAC) calculations, based on data from Eurostat (LFS 2018, UOE 2017) and OECD (PISA 2015).

## 2. Highlights

- Teachers are satisfied with their jobs, but the ageing teacher population, the high proportion of non-permanent staff and weaknesses in induction and continuing professional development remain challenging.
- Investment to upgrade infrastructure is insufficient, particularly for early childhood education and care in metropolitan areas.
- Regional disparities in education outcomes, grade repetition and early school leaving rates are improving. Tertiary educational attainment has grown but business demand for ICT specialists exceeds supply.
- There is a significant proportion of low qualified adults while participation in adult learning remains low.

## 3. A focus on teachers

**Teachers are satisfied in their jobs but feel poorly valued in society.** TALIS 2018 (OECD, 2019a) reports that a higher proportion of teachers are satisfied with their job than the EU average<sup>30</sup> (92.1% v 89.5%), and only slightly less after 5 years of work (91.9%). Overall, 64.8% of teachers say that if they had to decide again, they would still choose teaching (EU average: 77.6%). The proportion who report that teaching was their first career choice is the highest in the EU (84.2% v 65.7%), but somewhat lower for male teachers (78.8%). However, many teachers believe that teaching is not a valued profession in society (only 9.1% consider it is valued, against 17.7% at EU level).

**Initial teacher training is being modernised but the changes are not yet implemented.** Teacher training is undertaken in higher education institutions: universities prepare teachers mainly for secondary level, and polytechnics for pre-primary and primary levels. Training culminates in teaching practice of several weeks in 'host schools' under the supervision of a teacher and a professor. Pedagogical training for special education needs has been recently introduced, but is not yet present in all programmes (CNE, 2018; Liebowitz et al., 2018). For higher education, the minimum requirement to start an academic career in both polytechnics and universities is a doctoral degree (National Assembly, 2009a, 2009b). However, a significant but declining proportion of polytechnics professors have only lower degrees.

**There are some barriers to continuing professional development (CPD).** In TALIS 2018 (OECD, 2019a), 40% of teachers report having participated in some kind of formal or informal induction when they joined their current school. 14% of novice teachers (with up to 5 years of experience) have an assigned mentor. Regarding CPD, 88% of teachers report have taken part in some kind of in-service training in the last 12 months, and 82% of them acknowledged that it had a positive impact on their teaching practice. TALIS also shows that the proportion of teachers who feel well or very well prepared to teach in a multicultural or multilingual setting is below the EU average (18.9% v 23.8%). 21.6% of teachers report a high need for CPD in this area (EU average: 13.4%). A high proportion of teachers report that their employers do not support their participation in CPD sufficiently (89.1% v 26.7% EU average) and that there are not enough incentives to participate (84.6% v 52.9% EU average). 77.2% report that their participation is restricted by schedule conflicts (52.4% EU average).

**Teachers feel quite confident in using information and communications technology (ICT).** According to TALIS (OECD, 2019a), the proportion of teachers who feel well or very well prepared in using ICT is just above the EU average (40.2% v 39.4%). The proportion reporting a high need for CPD in ICT is below the EU average (12.0% v 16.1%). However, fewer than half of teachers say this element was covered in their formal education (46.9% v EU average of 52.9%).

<sup>30</sup> In 2018, 23 Member States participated in TALIS: Austria, Belgium fr, Belgium nl, Bulgaria, Croatia, Cyprus, Czechia, Denmark, England (UK), Estonia, Finland, France, Hungary, Italy, Latvia, Lithuania, Malta, the Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden. TALIS 2018 covers lower secondary teachers and school leaders in mainstream public and private schools.

### Box 1: EU-supported programme for CPD of teachers

The 'Continuous training for teachers and other members of the education and training system' (*Formação contínua de docentes e outros agentes do sistema de educação e formação*) programme aims to improve the quality of teaching by upskilling teachers, school administrators and other education and training staff.

The programme (total budget EUR 6.8 billion) is supported by the European Social Fund. Over 2016-2018, 40 636 teachers and other professionals participated in training.

The main results are:

- more than 90% of teachers completed their professional development activities, with a strong positive assessment;
- participants agreed on the positive impact of this training on: changing how they work (74%); their performance (72%) in the classroom; updating their curricular knowledge (76.3%); promoting collaborative working (84.4%); and promoting change and innovation (61.4%);
- a lesser degree of agreement that the training would improve learning outcomes (40.2%); autonomy (30.3%) and overall performance of the school (42.5%).

See: <https://www.dgae.mec.pt/gestrehumanos/pessoal-docente/formacao/formacao-continua/>

**Despite recent measures, there are many non-permanent teachers.** The proportion of teachers on temporary contracts increased between 2015-2016 and 2016-2017, to 18.2% in primary education and 21.7% in secondary (DGEEC, 2017, 2018). In 2017-2018 the proportion was 16.9% in primary education and 21.4% in secondary (DGEEC, 2019a). In 2015/2016 the 'stop-rule' (*norma-travão*) became effective, which allowed all teachers with five successive annual contracts to obtain a permanent contract, benefiting 1 400 temporary teachers in the first year. The "stop-rule" was extended to those with 4 annual contracts in 2017 and to those with 3 annual contracts in 2018. New permanent positions were created, enabling 3 260 teachers with temporary contracts to become permanent in 2017-2018, and 3 319 in 2018-2019.

**The teacher population is ageing and predominantly female.** Teachers below the age of 30 account for a very small proportion of the workforce in ISCED 1-3 (0.9% v 9.4% at EU level in 2017)<sup>31</sup>. The proportion aged 50 or older is 43.8% (EU average: 36%)<sup>32</sup>. Only 3.9% of tertiary-level staff were under 30 while 43% were 50 or older. More than two-thirds of teachers and academic staff across all levels of education are women, with the highest concentrations in the earlier years: at pre-primary level women make up 99% of the teaching staff, at primary level 81% and at secondary level around 70%. At tertiary level this drops to 44%.

**A large gender gap also exists in schools and university managerial positions.** There are more men than women in school leadership positions. In lower secondary education, fewer than 40% of principals are women (OECD, 2014a). Sample data from 2016 shows that only 36.9% of third-level faculty heads and only 28.6% of rectors were women (DGES, 2016). More than 70% of school principals are aged over 50 (OECD, 2014a, 2014b).

## 4. Investing in education and training

**Education spending increased in 2017 and is above the EU average, but still below its pre-crisis level.** In 2017 public expenditure on education was 5.0% of GDP, slightly more than in 2016 (4.8%) and above the EU average (4.6%)<sup>33</sup>. This is still far below its pre-crisis level (7.1% in 2010 and 5.9% in 2013). Public education expenditure between 2010-2017 fell by 23% in real (inflation-adjusted) terms (12-15% in primary and tertiary education and 25% in secondary)<sup>34</sup>. Annual expenditure per student at primary, secondary and tertiary levels is below the OECD average (OECD, 2019b).

<sup>31</sup> Eurostat, UOE, 2017.

<sup>32</sup> In 2017, 41.0% of secondary teachers and 39.8% of primary teachers were 50 or older. The percentage of teachers under 30 was 1.1% for secondary teachers and 1.1% for primary education.

<sup>33</sup> Eurostat, COFOG, 2017.

<sup>34</sup> 2010 was an outlier regarding annual public education expenditure, with higher levels of investment than in previous and subsequent years. A significant part invested in a large adult education programme.

**Investment in school infrastructure is insufficient.** Portugal allocates less than 2% of the education budget to building or upgrading school infrastructure (Liebowitz et al., 2018)<sup>35</sup>. In 2007-2016, an ambitious investment plan was set out for pre-primary, primary and secondary school infrastructure. However, budget cuts delayed the planned investment in around two-third of secondary schools, and school buildings currently show levels of disrepair that result in difficult learning conditions (European Commission, 2019). The Ministry of Education plans, under the state budget for 2019, improvements in 200 secondary schools and 300 pre-schools and primary schools (National Assembly, 2019a). The 2016-2020 requalification plan envisage an investment of EUR 744 million, benefiting 785 schools across the country.

**Private spending on education is among the highest in the EU.** The proportion of expenditure on education (from primary to tertiary) from private sources (20.8%) is among the highest in EU OECD countries. Between 2012 and 2015 private expenditure as a proportion of GDP decreased from 1.18% to 0.86%<sup>36</sup>.

## 5. Modernising early childhood and school education

**Universal participation in early childhood education and care (ECEC) will be possible only with further public investment.** The government aims to provide pre-primary education for all 3 year-olds by 2020 (in 2017, the participation rate was 83.4%). Participation in ECEC for children aged between 4 and the start of compulsory primary school was 94.2% in 2017, up from 92.5% in 2016 and almost at the EU average of 95.4%. There is a lack of places, in urban areas in particular (European Commission, 2019). In 2017, in the Lisbon area only 88.8% of children were enrolled<sup>37</sup>. The government plans to open more than 5 000 pre-primary school places in urban areas by 2019<sup>38</sup>.

**High grade repetition is a major problem.** Official data (DGEEC, 2019b) show that grade repetition happens to a significant number of students (7%) from the second year of primary education, and to decreasing numbers in fourth and fifth grades (respectively, 2% and 6% of students each year). Because of this, a growing number of students are older than the expected school age at each level; pupils tend to accumulate multiple repetitions (CNE, 2018). Leibowitz et al. (2018) recommended exploring alternative strategies to respond to students' difficulties, for example, an early-warning system to identify students at risk of failure and provision of timely and effective educational support. The national programme for school success, supported by the European Social Fund, follows such a preventive approach and supports tailor-made local solutions, linked to school autonomy policies. The National Education Council (CNE, 2018) has advocated a reorganisation of primary education by merging the first and second cycles into one. This would smooth the sudden transition from being taught by a single teacher to having around 10 teachers, learning more subjects and changing school premises and peers. While this idea has gathered some support, policymakers also point out that it would be complex to deliver, requiring an overhaul of teaching and physical infrastructure. Portugal is among the countries where the proportion of pupils in compulsory education learning two or more languages is the lowest.

**Early school leaving is now close to the EU average, although large differences persist.** The percentage of early leavers from education and training has decreased again from 12.6% in 2017 to 11.8% in 2018, approaching the EU average (10.6%). Large gender disparities persist (14.7% for males against 8.7% for females in 2018). There are also very significant regional differences (28.3% in the autonomous region of Azores v 11.2% in the continental area, in 2018).

**The curricular autonomy and flexibility programme for secondary studies has been extended to all schools.** After a pilot phase, all schools can now benefit from a degree of flexibility in curriculum management (from 0% to 25% of weekly teaching workload) (National Assembly, 2018). There is no official data yet on its impact.

<sup>35</sup> It does not include the infrastructure investment incurred by municipalities in pre-school and primary schools facilities, which are neither included in the national education budget nor recorded at education statistics.

<sup>36</sup> OECD, Private spending on education. doi: 10.1787/6e70bede-en

<sup>37</sup> Taxa bruta de pré-escolarização (%) por Localização geográfica (NUTS - 2013) e Sexo; Anual - Direção-Geral de Estatísticas da Educação e Ciência. <http://www.ine.pt>

<sup>38</sup> Resolução do Conselho de Ministros n. 61/2018 in Diário da República n. 97/2018, Serie I de 2018-05-21.

### Box 2: The profile - a national key competences framework

The profile of students at the end of compulsory education (*Perfil dos Alunos à Saída da Escolaridade Obrigatória*), adopted in 2017, outlines what individuals should know, understand and be able to do at the end of secondary education (broadly, age 18). The profile draws on input by key stakeholders such as teachers' unions, students and parents associations, education researchers, schools councils and the National Education Council. The Ministry of Education developed tools that show how this profile is being implemented at local level (using some schools as case studies). The Ministry has also made the '*Curriculum Autonomy and Flexibility*' website available as a space for reflection and sharing of practices. It compiles innovative practices on topics like collaborative and pedagogical practices; projects developed with and for the community; education for citizenship; and learning assessment.

A monthly bulletin<sup>39</sup> addresses issues such as: interconnection of knowledge from different disciplines; the importance of continuous and systematic evaluation; and the active involvement of students in learning and in the daily life of the school.

This key competences framework in the profile is based on the *European Qualifications Framework* (EQF) and complemented by guidance documents (*Aprendizagens Essenciais* - AE) on essential learning for each education level. These list the knowledge, skills and attitudes to be developed by students for each year and subject.

**One third of teenagers do not like school and over half of them are not self-confident about their level of performance.** A recent survey of students in upper primary and lower secondary studies<sup>40</sup> shows that 30% of them do not like school. Only 4.2% of respondents consider themselves 'very good' students, while 52% see themselves as students 'with little or no academic success'. The main difficulties with school identified are: very extensive programmes (87.2%), boring programmes (84.9%), very hard subjects (82%) and stress related to assessment (77%).

## 6. Modernising higher education

**Measures aim to ease access to higher education.** The government took measures to widen higher education enrolment in less densely populated regions and increased the offer of two-year short-cycle higher education professional courses (*Cursos Técnicos Superiores Profissionais*) and master programmes. Other measures due to start in 2019-2020 strengthen funding and social support to students. They include a reduction in tuition fees and more grants and housing for low-income students<sup>41</sup> (National Assembly, 2019b,c). Only 24% of students currently benefit from grants for first-cycle studies (EC/EACEA/Eurydice, 2018) and families contribute 70% of total spending. Other measures include the extension of the term to pay tuition fees and capped fees or free tuition for students receiving social grants. Although tertiary education attainment for people aged 30-34 almost doubled in 10 years (from 18.3% in 2006 to 34.6% in 2016), the national goal of reaching 40% in 2020 seems unattainable.

**The learning mobility of Portuguese graduates is close to the EU average.** The proportion of secondary graduates who obtain a tertiary degree outside Portugal (3.6%) was equal to the EU average in 2017; the proportion who participate in short-term study periods and/or work placements abroad (7.5%) is close to it (8.0%).

**A gradual abolition of tuition fees at bachelor level is being debated<sup>42</sup>.** Higher education institutions consider that eliminating tuition fees would hurt the financial sustainability of universities, which already face difficulties due to insufficient public funding, without fully alleviating students' economic difficulties.

<sup>39</sup> <http://afc.dge.mec.pt/pt/recursos/publicacoes>

<sup>40</sup> See: [http://aventurasocial.com/publicacoes/publicacao\\_1545534554.pdf](http://aventurasocial.com/publicacoes/publicacao_1545534554.pdf)

<sup>41</sup> A ten-year national programme will increase accommodation in student residences. The programme aim is to provide accommodation to 25% of students.

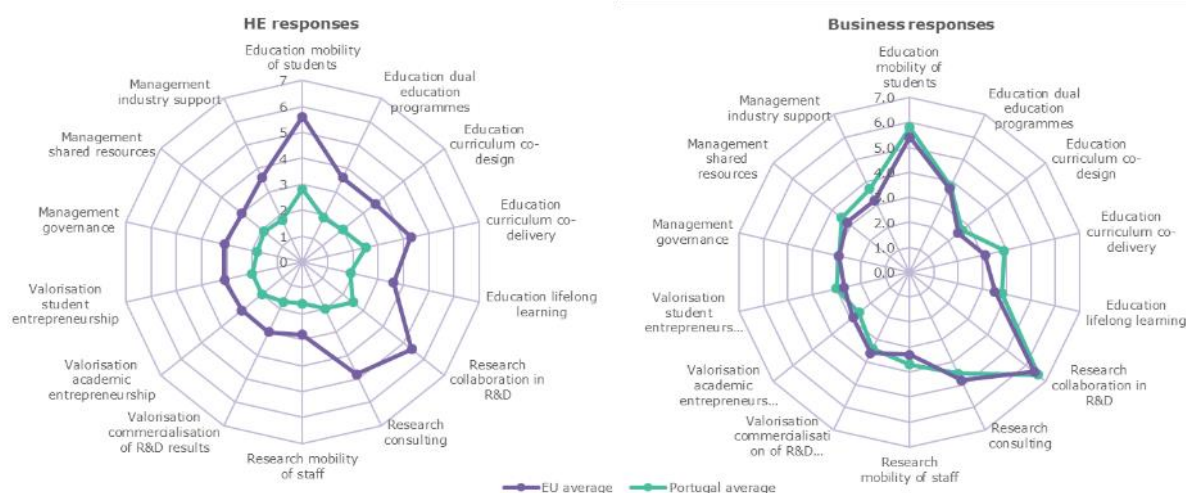
<sup>42</sup> Conclusions of the national Convention of Higher Education available [here](#).



**Companies have difficulties finding ICT specialists.** In 2018, 34.6% of companies report hard-to-fill vacancies requiring ICT skills<sup>43</sup>. In 2017, the proportion of ICT specialists in the total workforce was 2.2%, one of the lowest in the EU and well below the average (3.8%). Almost half of these have tertiary education<sup>44</sup> (below the EU average of 62.3%), and only 14.4% are female (EU average: 17.2%). In 2017, there was 30% growth in students graduating from upper secondary vocational ICT studies (around 1 000), and 73% growth (over 600) in graduates from tertiary ICT studies<sup>45</sup>. The number of university students enrolled in ICT also grew in 2017 (by 11%), but only represents 2.6% of total students and the gender gap remains wide (only 17% female)<sup>46</sup>. The Council of the EU's 2019 country-specific recommendation to Portugal included: 'Increase the number of higher education graduates, particularly in science and information technology' (Council of the EU, 2019).

**Both the academic and business sectors desire further cooperation.** A recent survey<sup>47</sup> shows that higher education institutions tend to cooperate with small and micro-sized companies in their region, focusing on students' mobility, joint research and curriculum co-delivery. Over 60% of academics do not undertake cooperation with businesses. Academics perceive the lack of funding and insufficient work time as the main barriers to further cooperation. 77% of business respondents cooperate to a medium-high extent with universities in joint R&D, around 60% in valorisation and management activities and 50% in consulting<sup>48</sup>. More than two thirds are involved in mobility of students, fewer in mobility of staff. Cooperation is above the EU average in mobility of students, dual education programmes, curriculum co-design and co-delivery and lifelong learning. Cultural differences, different time horizons, a lack of business knowledge within universities and their focus on producing scientific outcomes are the main barriers to further cooperation identified by business. Both academics and businesses show a strong commitment to increasing or maintaining cooperation (99% of the survey's respondents).

**Figure 2 State of cooperation from the higher education and business viewpoints**



Source: DG EAC calculations, based on data from *State of University-Business Cooperation in Europe 2019*. Code: 0: Not at all; 1-4: Low; 5-7: Medium; 8-10: High.

## 7. Modernising vocational education and training

**Although nearly 40 000 new students entered formal VET in 2017, this was a decline of almost 4% from 2016.** Total enrolment in upper secondary VET (40.7% of all students at that education level) also saw a slight decline in 2017 and is below the EU average of 47.8%<sup>49</sup>. The employment rate among recent VET graduates declined to 77.4% in 2018 from 78.9% in 2017, marginally below the EU average of 79.5%.

<sup>43</sup> See: [https://digital-agenda-data.eu/datasets/digital\\_agenda\\_scoreboard\\_key\\_indicators/visualizations](https://digital-agenda-data.eu/datasets/digital_agenda_scoreboard_key_indicators/visualizations)

<sup>44</sup> Eurostat, Labour Force Survey, 2018.

<sup>45</sup> Eurostat, UOE, 2017.

<sup>46</sup> Instituto Nacional de Estatística Portugal: *Alunas/os inscritas/os no ensino superior (N.º) por Localização geográfica (NUTS - 2013), Sexo e Área de educação e formação (CITE-F 2013)*; *Anual - Direção-Geral de Estatísticas da Educação e Ciência*

<sup>47</sup> State of University-Business Cooperation Portugal: University Perspective. <https://ub-cooperation.eu/index/portugalhei>

<sup>48</sup> State of University-Business Cooperation Portugal: Business Perspective <https://ub-cooperation.eu/index/portugalbus>

<sup>49</sup> Eurostat, UOE 2017

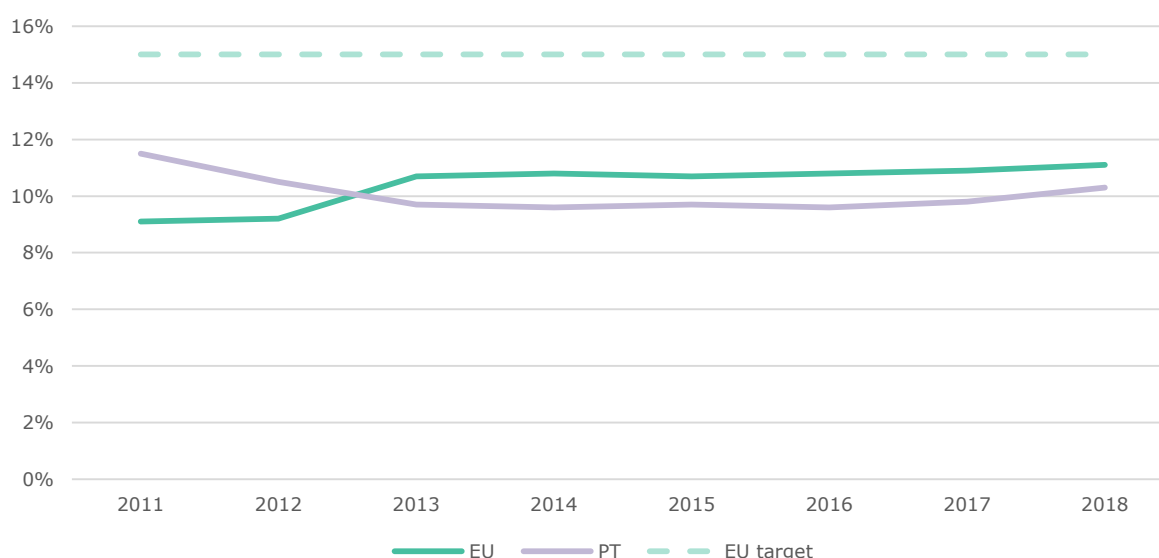
**Portugal needs to better align the VET offer to labour market needs.** Upskilling has become an economic imperative due to deep changes in the nature of work. VET has been a national political priority for some time and the provision of training opportunities has improved considerably over the past decade. Nevertheless, a significant structural deficit persists in the qualifications of the labour force. More systematic collection and dissemination of data on VET is necessary to keep improving access to programmes as well as their quality and their labour market relevance. The OECD National Skills Strategy reports also acknowledges important improvements on this area, especially through the guidance to adjust VET offer through the System of Anticipation of Qualification Needs, involving different public and private stakeholders on the identification of skills needs.

**Important steps were taken regarding curricula and training of VET teachers and trainers.** In 2018, new principles for upper secondary curricula, including VET programmes, gave more autonomy to training providers. Schools can now adapt curricula to local needs and deliver them in a more flexible way. With the adoption of three pedagogical training standards, Portugal aims to increase the quality of CPD for VET teachers and trainers. Such standards also concern the continuous training of in-company trainers and e-trainers<sup>50</sup>.

## 8. Developing adult learning

**Adult participation in lifelong learning is growing but still far from the EU benchmark.** In 2018, the participation rate of adults in education and training (10.3%) was close to the EU average (11.1%), but still well short of the EU benchmark (15%). The rate is higher than the EU average for those with primary to lower secondary education (4.7% v 4.3%), for upper secondary and post-secondary non-tertiary graduates (11.2% v 8.8%), and for tertiary graduates (20.7% v 19.0%). The 2019 country-specific recommendation to Portugal included: 'Improve the skills level of the population, in particular their digital literacy, including by making adult learning more relevant to the needs of the labour market' (Council of the EU, 2019).

**Figure 3 Adult participation in learning in Portugal and in the EU, 2011-2018**



Source: Eurostat, Labour Force Survey. Notes: Participation rate in education and training (last 4 weeks), as % of the 25-64 year-old population

**Developing a coherent strategy remains a major challenge.** The action phase of the national skills strategy, with a particular focus on strengthening adult-learning, is currently ongoing. Its successful implementation will be crucial to 'help the country recover fully from the last recession and meet the challenges of an increasingly global and digital economy' (OECD, 2018). The start of the 'Qualifica' programme in 2017 was an important milestone. Adult learning funding increased, as did hiring and training of staff for the 294 Qualifica centres, which will be monitored by regional

<sup>50</sup> Referencial de Formação Pedagógica Contínua de Formadores – Formador de Tutores, Referencial de Formação Pedagógica Contínua do Formador a Distância – (e-Formador), Referencial de Formação Pedagógica Contínua de Formadores – Formador de Unidades de Formação de Curta Duração-UFCD à Distância (Formato Híbrido).

teams. Promotion of Qualifica among businesses and to create local qualification networks is also underway. The launch of the 'READ+Qualifica' (*LER+Qualifica*) programme took place in October 2018, alongside the National Reading Plan 2027; a national adult literacy plan is under development. The new national information campaign also targets groups most in need in order to raise awareness of the value of skills development. Digital skills are a particular focus because, in spite of efforts under the 'Portugal INCoDe.2030' programme, ICT skills gaps continue to grow significantly. The effectiveness of all these measures requires both thorough monitoring and the support of qualified teachers and trainers. However, the career of 'adult educator' still needs to become a recognised, attractive and long-term option, supported by specialised courses and academic degrees for teaching/training of adult educators.

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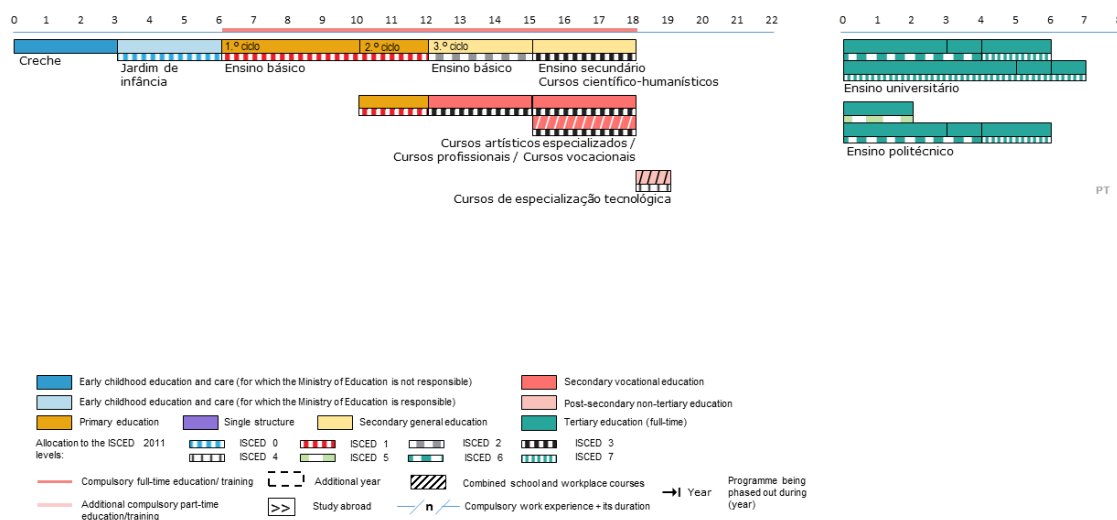
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## Annex I: Key indicator sources

Indicator	Eurostat online data code
Early leavers from education and training	edat_lfse_14 + edat_lfse_02
Tertiary educational attainment	edat_lfse_03 + edat_lfs_9912
Early childhood education and care	educ_uoe_enra10
Underachievement in reading, maths, science	OECD (PISA)
Employment rate of recent graduates	edat_lfse_24
Adult participation in learning	trng_lfse_03
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:	
- Degree-mobile graduates	JRC computation based on Eurostat / UIS / OECD data
- Credit-mobile graduates	

## Annex II: Structure of the education system



Source: European Commission/EACEA/Eurydice, 2018. The Structure of the European Education Systems 2018/19: Schematic Diagrams. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union.

Comments and questions on this report are welcome and can be sent by email to:  
 Antonio GARCIA GOMEZ  
[antonio.garcia-gomez@ec.europa.eu](mailto:antonio.garcia-gomez@ec.europa.eu)  
 or  
[EAC-UNITE-A2@ec.europa.eu](mailto:EAC-UNITE-A2@ec.europa.eu)

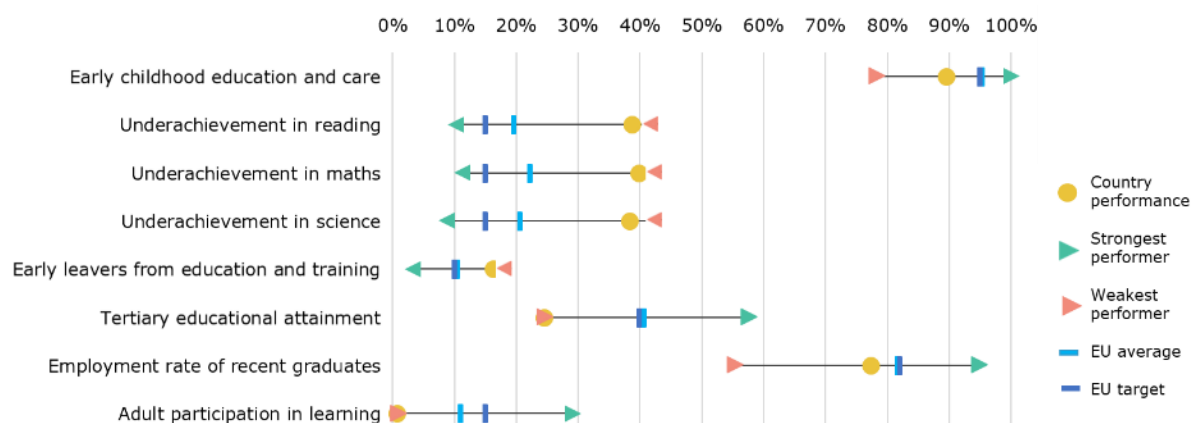
# ROMANIA

# 1. Key indicators

			Romania		EU average	
			2009	2018	2009	2018
Education and training 2020 benchmarks						
Early leavers from education and training (age 18-24)			16.6%	16.4%	14.2%	10.6%
Tertiary educational attainment (age 30-34)			16.8%	24.6%	32.3%	40.7%
Early childhood education and care (from age 4 to starting age of compulsory primary education)			88.0%	89.6% <sup>17</sup>	90.8%	95.4% <sup>17,d</sup>
Proportion of 15 year-olds underachieving in:	Reading		40.4%	38.7% <sup>15</sup>	19.5% <sup>EU27</sup>	19.7% <sup>15</sup>
	Maths		47.0%	39.9% <sup>15</sup>	22.3% <sup>EU27</sup>	22.2% <sup>15</sup>
	Science		41.4%	38.5% <sup>15</sup>	17.7% <sup>EU27</sup>	20.6% <sup>15</sup>
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-8 (total)		77.6%	77.4%	78.3%	81.6%
Adult participation in learning (age 25-64)	ISCED 0-8 (total)		1.8%	0.9%	9.5%	11.1%
Learning mobility	Degree-mobile graduates (ISCED 5-8)		:	5.8% <sup>17</sup>	:	3.6% <sup>17</sup>
	Credit-mobile graduates (ISCED 5-8)		:	1.8% <sup>17</sup>	:	8.0% <sup>17</sup>
Other contextual indicators						
Education investment	Public expenditure on education as a percentage of GDP		3.8%	2.8% <sup>17</sup>	5.2%	4.6% <sup>17</sup>
	Expenditure on public and private institutions per student in € PPS	ISCED 0	:	€2 094 <sup>16</sup>	:	€6 111 <sup>15,d</sup>
		ISCED 1	€1 600 <sup>12</sup>	€1 368 <sup>16</sup>	€5 812 <sup>12,d</sup>	€6 248 <sup>15,d</sup>
		ISCED 2	€1 740 <sup>12</sup>	€2 614 <sup>16</sup>	€6 937 <sup>12,d</sup>	€7 243 <sup>15,d</sup>
		ISCED 3-4	€1 769 <sup>12</sup>	€2 466 <sup>16</sup>	:	€7 730 <sup>14,d</sup>
		ISCED 5-8	€4 035 <sup>12</sup>	€4 688 <sup>16</sup>	€10 549 <sup>12,d</sup>	€11 413 <sup>15,d</sup>
Early leavers from education and training (age 18-24)	Native-born		16.7%	16.4%	13.1%	9.5%
	Foreign-born		:	:	26.1%	20.2%
Tertiary educational attainment (age 30-34)	Native-born		16.7%	24.6%	33.1%	41.3%
	Foreign-born		:	:	27.7%	37.8%
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-4		69.1%	67.7%	72.5%	76.8%
	ISCED 5-8		85.7%	88.9%	83.8%	85.5%

Sources: Eurostat; OECD (PISA); Learning mobility figures are calculated by the European Commission's Joint Research Centre (JRC) on UOE data. Further information can be found in Annex I and Volume 1 ([ec.europa.eu/education/monitor](https://ec.europa.eu/education/monitor)). Notes: The EU's 2009 PISA averages do not include Cyprus; c= confidential, d = definition differs, u = low reliability, : = not available, 12= 2012, 14=2014, 15 = 2015, 16= 2016, 17 = 2017.

**Figure 1 Position in relation to strongest and weakest performers**



Source: European Commission, Directorate-General for Education, Youth, Culture and Sport (DG EAC) calculations, based on data from Eurostat (LFS 2018, UOE 2017) and OECD (PISA 2015).

## 2. Highlights

- Concrete ideas have been presented for major reform of the education and training system. Clear steps need to be taken for the implementation of the reform.
- Public spending on education is low in EU comparison, while the sector's investment needs are high. Any major reform is likely to require additional funding linked to stronger equity and efficiency mechanisms.
- Better support for teachers — in particular by redesigning initial teacher education and strengthening continuing professional development — can help improve quality and equity.
- Efforts were made to expand dual education. Participation in adult learning remains low despite the high need for upskilling and reskilling.

## 3. A focus on teachers

**The attractiveness of the teaching profession is rather low.** 40.9% of Romanian teachers believe that their profession is valued by society, according to the OECD's Teaching and Learning International Survey (OECD, 2019a). This percentage is significantly above the average of the 23 EU countries surveyed<sup>51</sup> (17.7%) and the third highest after Finland (58.2%) and Cyprus (43.5%). In spite of this positive perception by teachers, a number of factors have affected the attractiveness of the profession, including low entry requirements for teacher education programmes and traditionally low salaries (OECD, 2017). Since 2017, teachers' salaries have been increasing following a new salary grid for public sector employees<sup>52</sup>. The grid also reduced from 40 to 25 years the time needed to reach maximum pay and introduced higher bonuses for certain staff categories, including teachers and school leaders in isolated localities. According to the initial 2019 budget, the amount allocated for salaries and other teachers' expenses<sup>53</sup> increased by almost 31%.

**The shortage of staff with proper qualifications in rural areas and the availability of support specialists remains a challenge.** Shortages are reported for qualified primary school teachers and for lower secondary school teachers in ICT, sciences, foreign languages and the arts. The number of candidates in the national competition for teaching positions (i.e. titularizare) would normally be sufficient to fill vacancies, but less than 50% of candidates obtain the required mark. In addition, the relatively high number of positions filled by staff without proper qualifications remains a challenge, particularly in schools in rural and remote areas. The number of support specialists (e.g. special education teachers, school counsellors, Roma mediators, etc.) is often insufficient. For example, a school counsellor is expected to work with 800 students, but in practice the student/counsellor ratio is 2.5 times higher.

**Teachers' career policies face significant challenges.** Initial teacher education offers very little preparation and practical training, particularly in modern teaching techniques or inclusive pedagogy; in practice, the certification exam and the tenure exam are used as the main method to screen candidates entering the profession (OECD, 2017). However, this has proved to be less effective than having high entry standards and comprehensive initial teacher education; in itself, the certification exam tends to assess theoretical knowledge without being an authentic measure of on-the-job competence (ibid). Merit-based allowance tends to encourage teachers to focus narrowly on preparing pupils for tests and academic competitions, rather than encouraging them to improve the outcomes of low achieving students or those from disadvantaged backgrounds.

**Strengthening continuing professional development gives an opportunity to improve teaching quality.** Unlike many European countries, which will see a significant proportion of their teachers retire within the next 10 years, in Romania less than 30% of school teachers<sup>54</sup> are older than 50 (EU average: 37%). Therefore, raising teaching quality involves working primarily with existing teachers; moreover, as the overall number of teachers is expected to decline in line with the student population, any reform of recruitment or initial teacher education will only affect a minority of the profession in the next few decades (OECD, 2019b). A high percentage of Romanian

<sup>51</sup> In 2018, 23 Member States participated in TALIS: Austria, Belgium fr, Belgium nl, Bulgaria, Croatia, Cyprus, Czechia, Denmark, England (UK), Estonia, Finland, France, Hungary, Italy, Latvia, Lithuania, Malta, the Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden. TALIS 2018 covers lower secondary teachers and school leaders in mainstream public and private schools.

<sup>52</sup> Full implementation by 2022.

<sup>53</sup> e.g. food vouchers, holiday vouchers, retrospective recognition of salary rights (Law 85/2016).

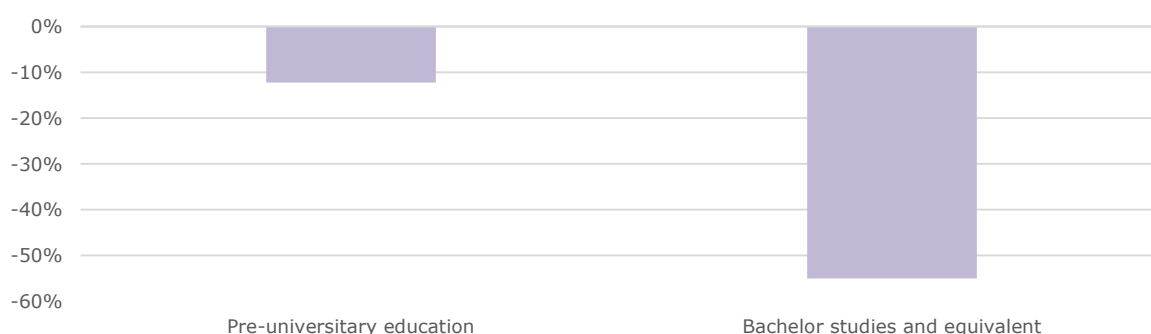
<sup>54</sup> ISCED 1-3.

teachers report taking part in professional development, although the content and delivery of courses is not perceived as sufficiently adapted to their needs (IŞE, 2018; OECD 2019b). 70% of teachers report that participation in continuing professional development is restricted by high costs (EU-23 average: 44%). In particular, Romanian teachers reported a high development need in ICT skills for teaching (21.2%), approaches to individualised learning (21.5%), teaching students with special educational needs (35.1%) and cross-curricular skills (22.8%)<sup>55</sup> (OECD, 2019a).

## 4. Investing in education and training

**Investment in education remains low in EU comparison, and funding mechanisms to support equity are weak.** In 2017, general government spending on education was equivalent to only 2.8% of GDP, significantly below the EU average of 4.6% and the lowest percentage in the EU. This low level of funding reflects both the underfunding of education policies at national and local levels and Romania's strong GDP growth in 2017. Traditionally, underinvestment is particularly felt in pre-university education<sup>56</sup>. Basic funding and existing correction coefficients are insufficient to meet schools' needs. As a result, excessive enrolment leading to overcrowding is often used as a solution by schools in rich urban areas to hire top teachers. Because schools in small cities and in rural areas tend to have less students and smaller classes, they are not able to attract highly qualified teachers even if they receive more funding per student. In any case, the attractiveness of schools in rural and disadvantaged areas for highly qualified staff is usually limited. The system of complementary funding by local authorities tends to favour schools in richer municipalities, thus reinforcing inequalities in the system (World Bank, 2018). Nevertheless, it should be said that the initial 2019 state budget envisaged a significant increase for education and training policies compared to 2018.

**Figure 2 Percentage change in the number of students in 2017 compared to 2007**



Source: National Institute for Statistics

**The school network is lagging behind demographic trends, and the need for modernisation is high.** Since 2010, the number of students in pre-university education fell by a quarter. Faced with demographic decline, between 2000 and 2016 Romania closed down 25%<sup>57</sup> of its schools with legal personality and 17% of satellite schools<sup>58</sup> (World Bank, 2018). However, 58% of schools, providing education for 34% of students, still have a surplus of building space given the number of students enrolled (MEN, 2018). The situation is particularly striking in rural areas, but some urban areas also face similar challenges. In contrast, 22% of students study in overcrowded schools (which account for 10% of total). The need to improve sanitary conditions<sup>59</sup> and provide students with modern learning spaces (e.g. science laboratories, gym halls, libraries) is also high (ibid.). With declining demographic trends likely to persist<sup>60</sup>, and given the poor state of physical learning environments in many schools<sup>61</sup>, redesigning the school network could help improve

<sup>55</sup> Training on these topics are provided by the County Teacher Training Centres.

<sup>56</sup> In 2016, about 57% of expenditure went to pre-university education (approx. 3 million students), while 41% of spending went to universities, i.e. for a number of students that was about 6 times lower (World Bank, 2018).

<sup>57</sup> The figures cover pre-school up to post-high schools, except special education schools.

<sup>58</sup> These account for two thirds of the network.

<sup>59</sup> EUR 65 million (approx. EUR 13.7 million) were allocated in the initial 2019 budget to improve sanitary conditions in 1 489 schools.

<sup>60</sup> In Romania, the school age population (3-18 year-olds) is projected to fall by 10% by 2030 compared to Eurostat's baseline projections for 2020.

<sup>61</sup> National programmes to modernise educational infrastructure (crèches, kindergartens, schools) include PRET (Proiectul privind Reforma Educației Timpurii), PNDL (Programul Național de Dezvoltare Locală), PRIS (Proiectul privind Reabilitarea Infrastructurii Școlare).

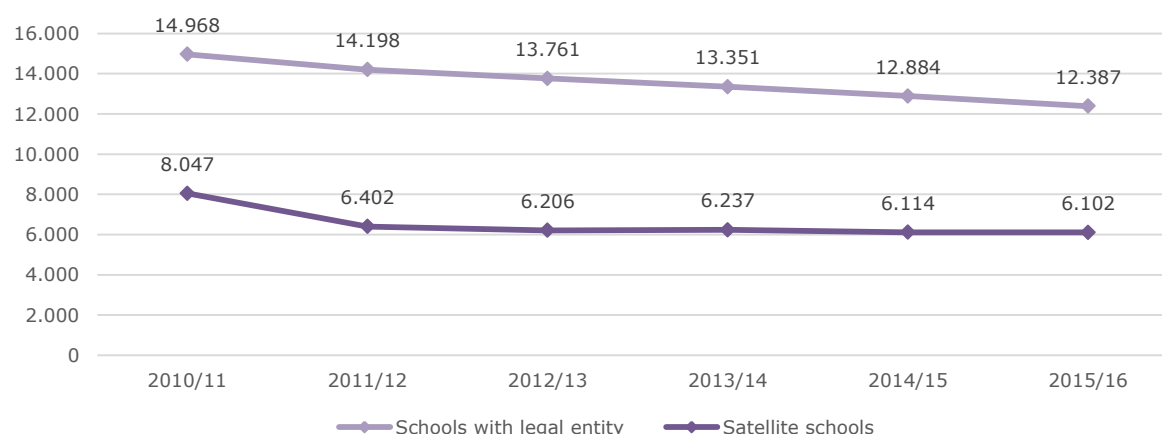
efficiency and free up resources for quality improvements. However, any plans to reorganise the school network need to take account of the already high equity challenges. These are echoed in low enrolment rates in early education and care for children from lower socio-economic groups, high early school leaving and large gaps in educational outcomes between schools with legal personality and satellite schools. Already, long walking distances to kindergartens in rural areas and commuting costs are barriers to accessing quality education, while school transportation services are insufficient, particularly in rural areas.

### Box 1: EU funds support the modernisation of educational infrastructure

Some EUR 350 million were earmarked in 2014-2020 under the European Regional Development Fund for investments in educational infrastructure in Romania. Priority is given to areas where enrolment rates in pre-school education are low and early school leaving is high. Investments in vocational education and training and higher education are also financed.

In general, funding is available for the modernisation of existing infrastructure, the construction of new buildings and purchase of equipment. The funding scheme was based on the Strategy on the Modernisation of Educational Infrastructure 2017-2023 and has raised a lot of interest among local and central government authorities and public universities. By the third quarter of 2018, 814 projects had been submitted totalling a non-reimbursable value of EUR 1.3 billion.

Figure 3 Optimisation of the school network, 2010-2016



Source: World Bank (2018).

## 5. Modernising early childhood and school education

**Participation rates in early childhood education and care are improving but there are still challenges linked to access and quality.** Good quality early childhood education and care is crucial for the development of key competences. The participation rate for children aged 4 to compulsory school age has been increasing and reached 89.2% in 2017, but is still below the EU average (95.4%). Disparities between regions<sup>62</sup> and between rural and urban areas<sup>63</sup> persist. To improve quality, a new curriculum for children aged 0-3 and 4-6 years was developed and aligned with the new school curriculum. A standard cost for nurseries was developed and awaits approval. Its implementation could pave the way for expanding services for children under 3, for whom enrolment rates are particularly low (16% in 2017, about half the EU average), with negative consequences for women's labour market participation. This is due to a combination of factors, including lack of nurseries and other formal care arrangements. A project<sup>64</sup> co-funded by ESF was launched in April 2019 aiming to increase participation rates in ante-preschool education.

<sup>62</sup> Participation rates range from 94.4% in the North-West region to 77.5% in the Bucharest capital region.

<sup>63</sup> Gross enrollment rates in kindergarten (ages 3-6) were almost universal in urban areas (97.4%) compared to 85% in rural areas (National Institute for Statistics).

<sup>64</sup> 'Development of ante-preschool services' has a budget of EUR 168 million (approx. EUR 35.7 million) and aims to support access to ante-preschool services for 14 000 children.

**Early school leaving is high, with repercussions for the labour market and the economy.**

In 2018, the rate of early leavers from education and training (age group 18-24) decreased for the second consecutive year to 16.4%. Although well below its peak of 19.1% in 2016, the rate remains one of the highest in the EU (EU average: 10.6%). Therefore, reaching the national target of 11.3% by 2020 is unlikely. Early school leaving persists due to a combination of factors, including socio-economic aspects and gaps in the provision of quality education. In rural areas — where poverty is highest and the quality of education tends to be lower — one in four people aged 18-24 has left school too early. By contrast, the rate is 15% in towns and only 4.2% in cities. Authorities are currently developing an early warning mechanism that could help improve data collection and strengthen coordination between schools, inspectorates and other relevant institutions (social assistance, NGOs, the police, the church, etc.). Through the ESF calls recently launched, the availability of second chance programmes is improving. However, the need remains to adapt programmes to the needs of adult learners.

**The acquisition of basic and digital skills is still problematic.** PISA 2015 shows that about 40% of Romanian 15 year-olds lack basic competences in either reading, mathematics or sciences (OECD, 2016). Implementation of the new school curriculum continues alongside the retraining of teachers<sup>65</sup>. However, individualised approaches for students remain insufficiently developed. The percentage of young people (ages 16-19) who assess their digital skills as basic or above basic is below the EU average (52% compared to 83% in 2017). There are substantially fewer highly digitally equipped and connected schools in Romania than the EU average (European Commission, 2019b).

**Improving equity in education remains a major challenge, alongside raising quality.** An analysis of 2015 PISA scores shows that most of the gap in performance between Romania and high performing EU countries is explained by the clustering of students in schools with students of similar socioeconomic background; poorer students are not only socially segregated together, but they also attend lower quality schools (World Bank, 2018). Apart from socioeconomic background, equity challenges disproportionately affect Roma and students from rural areas, who tend to have lower educational outcomes. The percentage of Roma children attending kindergarten is less than half the national average; young Roma are more likely to drop out early from education (FRA, 2016). The monitoring methodology to tackle school segregation is delayed but expected to be piloted in the school year 2019/2020. Taking account of these challenges, the 2019 European Semester country-specific recommendations call on Romania to 'improve the quality and inclusiveness of education, in particular for Roma and other disadvantaged groups' (Council of the European Union, 2019).

**Box 2: Plans to overhaul the education and training system**

The Ministry of Education and the Presidential Administration have both put forward their own visions for comprehensive reform of the education and training system.

**Education unites us:** Among the proposals of the Education Ministry is an overhaul of initial teacher education and a revision of teacher policies. Compulsory education would start at age 3 and end at 18/19, following five distinct stages (preschool, lower primary, upper primary, lower secondary, upper secondary). The focus would be on building cognitive and socio-emotional skills and knowledge in different subjects and on overcoming learning gaps through personalised learning. Four types of baccalaureate are envisaged: A1 and A2 for sciences and humanities, V for vocational education and T for the professional track — the latter giving access only to non-tertiary education.

**Educated Romania:** Following a two-year consultation process, the Presidential Administration put forward two scenarios to revise the school structure. Teachers would play a key role in the reform, whose overarching aims are to improve quality and equity in education. Modernisation proposals are made around seven key topics: the teaching profession, equity, school leadership, vocational education and training, higher education, early education and care, and student evaluation. The Presidential Administration aims to gain political support for the reform.

<sup>65</sup> Through the project 'Relevant curriculum, open education for all (CRED)'.



## 6. Modernising higher education

**Participation in higher education is generally low.** In 2018, tertiary attainment for the 30-34 age group — measured as a European benchmark— declined to 24.6% from 26.3% in 2017. This is significantly below the EU average of 40.7% and below Romania's national Europe 2020 target of 26.7%. Gross enrolment rates have not only remained low but have been decreasing since 2009 (European Commission, 2018). The number of students entering higher education is limited by factors including demographics, the persistence of early school leaving and a low, though improving, pass rate for the bacalaureate exam. The Romania Upper Secondary Project (ROSE), which aims to reduce dropouts and improve the transition to higher education by giving grants to low performing high schools, has continued, yielding some positive results in targeted high schools. Data shows that less than 5% of students enrolling in a bachelor programme come from families where their parents' level of education is low (European Commission, 2018). To improve access, dedicated places for students from rural areas have been introduced<sup>66</sup>, scholarships have increased and dedicated places for Roma students are financed.

**Ensuring that graduates possess high-quality labour market-relevant skills remains a challenge.** The ICT sector is expected to continue to grow in the coming years but will face labour shortages; skills shortages also exist in the health sector, in skilled trades, engineering, transport and distribution (Manpower Group, 2015; Cedefop 2017; Cedefop 2018). Although the percentage of graduates in science, technology, engineering and mathematics (STEM) as a total of higher education graduates is among the highest in the EU, the actual number of graduates is low. Employers report that graduates often lack soft skills but possess good, though overly theoretical knowledge (World Bank, 2018b). Work on developing the methodology for external evaluation of PhD programmes has continued, although reaccreditation of doctoral schools is still pending. The employment rate of recent tertiary education graduates is high and increasing (89% in 2018, EU average: 85.5%). Nevertheless, these figures should be seen in the context of the low number of graduates and high economic growth. The authorities have developed a methodology to track whether graduates occupy jobs requiring a higher education degree in their field of study, but as yet no graduate tracking system is in place. For the moment, there is no global or sectoral assessment of skills needs (European Commission, 2019b). Therefore, the 2019 country-specific recommendations also call on Romania to 'improve skills, including digital, notably by increasing the labour market relevance of vocational education and training and higher education' (Council of the European Union, 2019).

## 7. Modernising vocational education and training

**Efforts to expand dual vocational education and training continue but the labour market relevance of VET remains limited.** The total enrolment in upper secondary VET in Romania was stable at 56.2% in 2017 and above the EU average of 47.8<sup>67</sup>%. Students enrolled in VET had limited exposure to work-based learning, with only 10% of them enrolled in combined school and work-based programmes. Recent VET graduates' employability saw a slight increase in 2018 to 69.0% (67.2% in 2017), but remains below the EU average (79.5%). To increase the attractiveness of professional education, students following this path can obtain scholarships. Out of the VET students enrolled in upper secondary education in 2017/2018, 1.5% chose the dual VET pathway, which is currently only provided at European Qualification Framework (EQF) level 3. Despite strong interest from businesses, dual education is rather unattractive for students. Moreover, retaining students in these companies is difficult and the required financial investment by companies is high. ESF supports partnerships between VET schools and businesses and is expected to fund the VET reform. The recruitment rules for VET school teachers are being improved and simplified. Some efforts were made to upgrade teacher competences and develop the initial and continuing training of in-company trainers.

## 8. Developing adult learning

**Recent developments represent a step forward in promoting adult learning.** The national programme '*Invest in yourself*' offers financial support to access education, training and culture through a state-guaranteed loan. The governmental and presidential policy documents offering a long-term vision for education include references to lifelong learning, although not in a consistent

<sup>66</sup> 2 000 places, equivalent to 3.2% of the total number of publicly funded study places.

<sup>67</sup> VET enrolment figures given as a percentage of total student enrolment figures at the upper secondary level.



way and not specifically to adult learning. To facilitate access to upskilling for low-qualified adults, the level of qualification 1 was introduced in the national qualifications framework. The classification 'unqualified workers' was renamed 'elementary occupations' and a list of such occupations was developed. Government Ordinance 96/2018 introduced the possibility of a six-month apprenticeship programme at EQF level 1. However, this programme is not yet available. With the support of ESF, the Ministry of Labour is in the process of establishing occupational standards for EQF level 1 and an appropriate training offer.

**The need for upskilling is high.** Nearly 2.4 million adults (or 21.5% of adults aged 25-64) had only a low level of educational attainment in 2017. The share of low-qualified adults in employment (55.6%) was also close to the EU average of 56.8%. However, the likelihood that adults update their knowledge and skills through adult learning is low: in 2018, only 0.9% of adults aged 25-64 have had a recent learning experience during the 4 weeks preceding the Labour Force Survey (EU average: 11.1%). This is particularly worrying given the much smaller number of jobs which require only a low level of education. With only 824 000 such jobs deemed 'elementary occupations' in 2017, this clearly highlights the need for substantial upskilling and reskilling.

**Further efforts are needed to increase participation in adult learning.** Community centres for adult education are still to be extended, while quality assurance mechanisms have not yet been developed. A system for continuing professional development of adult learning professionals is not yet in place. The system of adult learning might also benefit from a more reliable and comprehensive data collection system, clearer institutional arrangements and the establishment of a coordination body.

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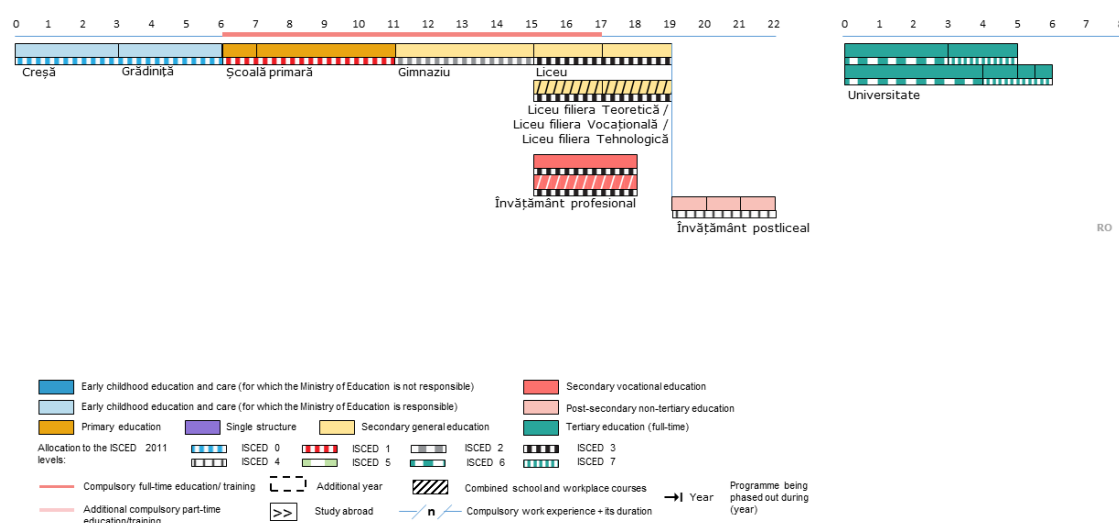
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## Annex I: Key indicator sources

Indicator	Eurostat online data code
Early leavers from education and training	edat_lfse_14 + edat_lfse_02
Tertiary educational attainment	edat_lfse_03 + edat_lfs_9912
Early childhood education and care	educ_uoe_enra10
Underachievement in reading, maths, science	OECD (PISA)
Employment rate of recent graduates	edat_lfse_24
Adult participation in learning	trng_lfse_03
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:	
- Degree-mobile graduates	JRC computation based on Eurostat / UIS / OECD data
- Credit-mobile graduates	

## Annex II: Structure of the education system



Source: European Commission/EACEA/Eurydice, 2018. The Structure of the European Education Systems 2018/19: Schematic Diagrams. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union.

Comments and questions on this report are welcome and can be sent by email to:  
 Alexandra TAMASAN  
[Alexandra.Tamasan@ec.europa.eu](mailto:Alexandra.Tamasan@ec.europa.eu)  
 or  
[EAC-UNITE-A2@ec.europa.eu](mailto:EAC-UNITE-A2@ec.europa.eu)

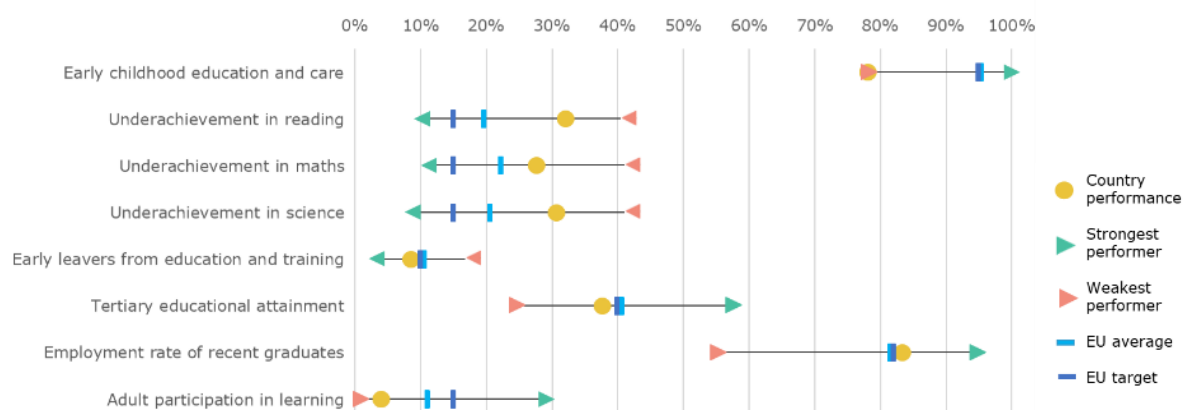
# SLOVAKIA

# 1. Key indicators

			Slovakia		EU average	
			2009	2018	2009	2018
Education and training 2020 benchmarks						
Early leavers from education and training (age 18-24)			4.9%	8.6%	14.2%	10.6%
Tertiary educational attainment (age 30-34)			17.6%	37.7%	32.3%	40.7%
Early childhood education and care (from age 4 to starting age of compulsory primary education)			77.4%	78.2% <sup>17</sup>	90.8%	95.4% <sup>17,d</sup>
Proportion of 15 year-olds underachieving in:	Reading		22.2%	32.1% <sup>15</sup>	19.5%	19.7% <sup>15</sup>
	Maths		21.0%	27.7% <sup>15</sup>	22.3%	22.2% <sup>15</sup>
	Science		19.3%	30.7% <sup>15</sup>	17.7%	20.6% <sup>15</sup>
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)		ISCED 3-8 (total)	74.4%	83.4%	78.3%	81.6%
Adult participation in learning (age 25-64)		ISCED 0-8 (total)	3.1%	4.0%	9.5%	11.1%
Learning mobility	Degree-mobile graduates (ISCED 5-8)		:	13.0% <sup>17</sup>	:	3.6% <sup>17</sup>
	Credit-mobile graduates (ISCED 5-8)		:	0.0% <sup>17</sup>	:	8.0% <sup>17</sup>
Other contextual indicators						
Education investment	Public expenditure on education as a percentage of GDP		4.2%	3.8% <sup>17</sup>	5.2%	4.6% <sup>17</sup>
	Expenditure on public and private institutions per student in € PPS	ISCED 0	€3 648 <sup>12</sup>	€4 388 <sup>15</sup>	:	€6 111 <sup>15,d</sup>
		ISCED 1	€4 208 <sup>12</sup>	€5 193 <sup>15</sup>	€5 812 <sup>12,d</sup>	€6 248 <sup>15,d</sup>
		ISCED 2	:	€4 744 <sup>15</sup>	€6 937 <sup>12,d</sup>	€7 243 <sup>15,d</sup>
		ISCED 3-4	€3 907 <sup>12,d</sup>	€5 379 <sup>15</sup>	:	€7 730 <sup>14,d</sup>
		ISCED 5-8	:	€11 987 <sup>15</sup>	€10 549 <sup>12,d</sup>	€11 413 <sup>15,d</sup>
Early leavers from education and training (age 18-24)	Native-born	4.9%	8.5%	13.1%	9.5%	
	Foreign-born	:	:	26.1%	20.2%	
Tertiary educational attainment (age 30-34)	Native-born	17.5%	37.6%	33.1%	41.3%	
	Foreign-born	:	:	27.7%	37.8%	
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-4	67.9%	84.6%	72.5%	76.8%	
	ISCED 5-8	83.5%	82.4%	83.8%	85.5%	

Sources: Eurostat; OECD (PISA); Learning mobility figures are calculated by the European Commission's Joint Research Centre from UOE data. Further information can be found in section 10 and in Volume 1 ([ec.europa.eu/education/monitor](https://ec.europa.eu/education/monitor)). Notes: EU averages of 2009 PISA do not cover Cyprus; d = definition differs, u = low reliability, := not available, 12 = 2012, 14 = 2014, 15 = 2015, 17 = 2017.

**Figure 1 Position in relation to strongest and weakest performers**



Source: European Commission, Directorate-General for Education, Youth, Culture and Sport (DG EAC) calculations, based on data from Eurostat (LFS 2018, UOE 2017) and OECD (PISA 2015).

## 2. Highlights

- Slovakia is improving early childhood education and care, which is particularly positive for children from deprived families.
- Slovakia is taking a more strategic approach to lifelong learning, upskilling and reskilling.
- The early school leaving rate has continued increasing since 2010, approaching 14% in Eastern Slovakia.
- Investment in education and training is insufficient, and this is reflected in teachers' still low salaries despite recent increases.

## 3. A focus on teachers

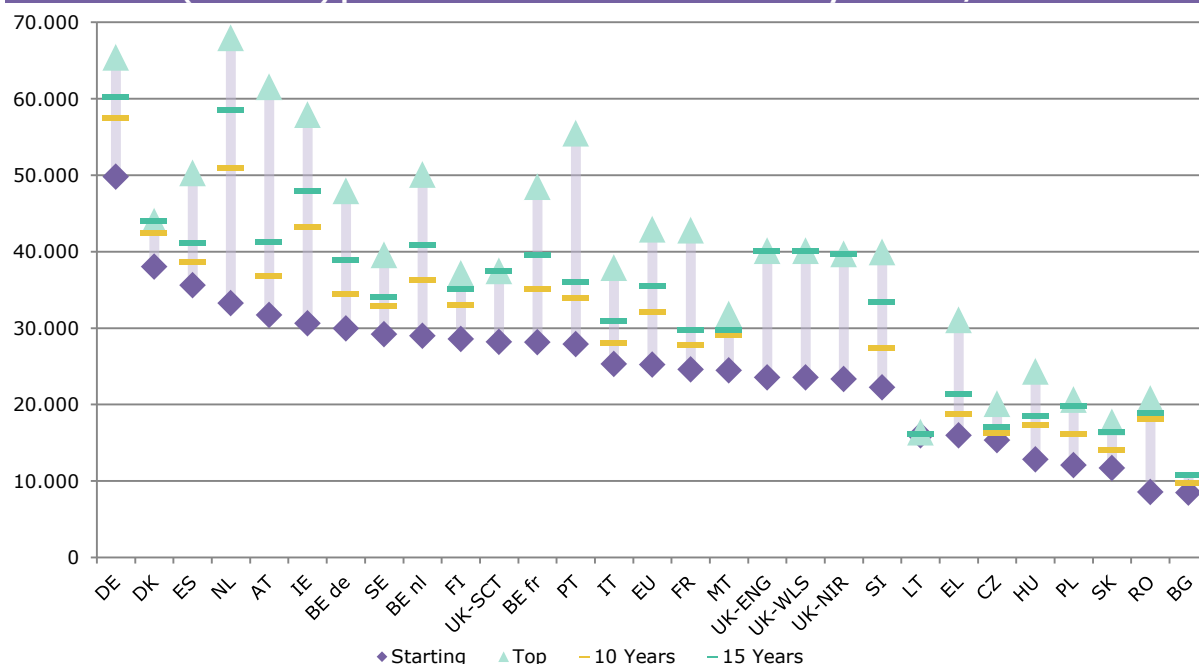
**The teaching profession remains unattractive in Slovakia.** According to the 2018 OECD Teaching and Learning International Survey (TALIS)<sup>68</sup>, the proportion of Slovak teachers who think that the teaching profession is valued in society is the lowest in the EU — 4.5% v 17.7% at EU level (OECD, 2019b). While overall there is no shortage of teachers, teacher supply problems emerge in the Bratislava region, where living costs are high, as well as for vocational education trainers and teachers of science, technology, engineering, mathematics (STEM), physics and English<sup>69</sup>. Average teachers' salaries lag far behind comparable workers — following planned pay increases in 2019-2020, upper secondary teachers in public institutions will earn only 68% of the average salary of a full-time full-wage employee with tertiary education (Ministry of Finance (MoF), 2019). The statutory salaries of Slovak teachers with 15 years of experience are among the lowest in the EU, with one of the smallest differentials between minimum and maximum salary (Figure 2). School heads receive a management allowance, which can be 12-50% higher than the maximums for teachers depending on the municipality size<sup>70</sup>. Since most municipalities are small, the 38% ceiling applies mainly. Overall, head positions are not perceived an attractive career goal, including the financial aspect (Santiago, P. et al., 2016). The 2018-2027 National Programme for the Development of Education (NPDE) envisages further increasing teachers' salaries to reach, in 2027, 85% of the salary of tertiary-educated employees, modifying the career system, the initial training and continuing professional development (CPD) of teachers (Ministry of Education (MoE), 2018a). Whether this will be enough to attract talented young teachers, for example in STEM subjects, remains unclear. A new study on the attractiveness of the profession in Slovakia will be published in 2019.

<sup>68</sup> In 2018, 23 Member States participated in TALIS: Austria, Belgium fr, Belgium nl, Bulgaria, Croatia, Cyprus, Czechia, Denmark, England (UK), Estonia, Finland, France, Hungary, Italy, Latvia, Lithuania, Malta, the Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden. TALIS 2018 covers lower-secondary teachers and school leaders in mainstream public and private schools.

<sup>69</sup> See: <https://spectator.sme.sk/c/20902676/lack-teachers-primary-schools-jobs.html>  
<https://spravy.pravda.sk/domace/clanok/481433-na-slovensku-chybaju-stovky-ucitelov-najviac-v-hlavnom-meste/>  
<https://skolskyportal.sk/prevadzka-skoly/skolam-chybaju-stovky-ucitelov>

<sup>70</sup> See: [https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2003/553/20190101#priloha.priloha-priloha\\_c\\_6\\_k\\_zakonu\\_c\\_553\\_2003\\_z\\_z.oznacenie](https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2003/553/20190101#priloha.priloha-priloha_c_6_k_zakonu_c_553_2003_z_z.oznacenie)

**Figure 2 Annual basic gross statutory salaries for full-time teachers in lower secondary (ISCED 24) public schools in PPS for the school year 2016/2017**



Source: Eurydice, 2018. Note: For the sake of clarity of comparison between countries, Luxembourg is not presented here.

**The teacher population is ageing.** In 2017, 30% of primary teachers and 39.6 % of secondary teachers were aged over 50; only 7% of primary teachers and 8.8% of secondary school teachers were under 30<sup>71</sup>. The profession in Slovakia is dominated by women: they are represented most strongly in pre-primary (99.5%) and primary education (90%), but still over 70% in secondary education. The ratio is reversed at tertiary level where women constitute 45.8% of teachers.

**Initial teacher education and CPD are weak.** There is some evidence that many applicants for initial teacher training may use it as an easy access route to higher education. This is borne out by the large proportion of graduates from initial teacher training who do not enter the profession (Santiago, P. et al, 2016). Although, according to national data, 73% of students in such programmes declare becoming a teacher, the proportion of graduates from initial teacher training working as teachers is much lower<sup>72</sup>. Initial teacher training lacks sufficient quantity and quality of practice, preparation for teaching students with special needs and applying an individualized approach (Santiago, P. et al, 2016). Slovakia plans a comparative analysis of initial teacher training systems in different countries to provide the basis for modernising its system (MoF, 2019). Slovak teachers indicate that their participation in CPD is hindered by its high cost (42.9%), lack of incentives (42.8%), and its low relevance (40.3%). 20.8% of teachers feel well prepared for teaching in a multicultural setting (EU average: 23.8%), and 9.3% declared a high need for related training. 16.6% of teachers identified information and communications technology (ICT) skills as their main training need (OECD, 2019b).

**Parliament passed a new law on pedagogical staff.** The new act on pedagogical and professional staff was approved on 2 April 2019<sup>73</sup>. It changes the teacher attestation process, introduces a new category of career counsellor, a new code of ethics, and reduces the workload of some categories of education employees (Eurydice, 2019). However, the bill was criticised by the teacher community as not bringing the systemic change necessary to improve the attractiveness of the profession and teachers' professional development<sup>74</sup>.

<sup>71</sup> Eurostat, UOE, 2017. Online data code: educ\_uoe\_perp01

<sup>72</sup> See: <https://www.minedu.sk/data/att/14502.pdf>

<sup>73</sup> See: <https://www.nrsr.sk/web/Default.aspx?sid=zakony/zakon&MasterID=7111>

<sup>74</sup> See: <http://sku.sk/vyzva-poslancom-nr-sr-k-hlasovaniu-o-zakone-o-pedagogoch/>  
<https://www.skolskyportal.sk/legislativa/ucitelia-vyjadri-li-nespokojnost>

## 4. Investing in education and training

**Investment in education and training remains low.** As in previous years, in 2017, general government expenditure on education as a proportion of GDP remained well under the EU average: 3.8% against 4.6%. Education constituted 9.4% of the public budget, also below the EU average (10.2%). Slovakia spends a comparatively higher proportion of its education budget on pre-primary and primary education (36.4% v EU average of 32%) than on secondary education (24.6% v EU average of 41%). Annual public spending per student in purchasing power standards remains low: in 2016<sup>75</sup>, for primary and lower-secondary students it was EUR 4 541 (EU average: EUR 6 139), for upper and post-secondary non-tertiary students EUR 4 736 (EU average: EUR 7 029). Given pupils' worsening results in international tests<sup>76</sup>, the continued strong impact of socio-economic background, regional disparities, and rising early school leaving (ESL) rates, a new focus on investing might be considered to improve educational outcomes, teachers' skills and the attractiveness of teaching, as well as greater inclusion of disadvantaged groups in education and training, in particular Roma. Support for specialists and inclusive teams to facilitate inclusive education, including for Roma children, is being provided by the ESF (Eurydice, 2019); in future the necessary national resources will need to sustain such support.

**Slovakia is making efforts to rationalise its public expenditure on education in a complex administrative set-up.** Public education spending is managed by: (i) the Education Ministry, responsible for 35.7% of the total; (ii) the Ministry of Interior, responsible for 30.5%; and (iii) the self-governing bodies (regions and municipalities), managing the remaining 33.8% (Eurydice, 2019). Besides funding, the Ministry of Interior and its regional offices lay down regulations on school life and administer secondary and special schools. As Slovakia has the highest proportion in the EU of pupils in special schools (EASNIE, 2018), better coordination of educational policies at national level is necessary. Positively, reflecting the recommendations of the 2017 spending review carried out with the support of the European Commission's Structural Reform Support Service and the International Monetary Fund, the budget allocation for individual schools has been made more precise from 2019 onwards as it takes into account each teacher's years of service (MoF, 2019).

**In 2018, Slovakia launched the 2018-2027 NPDE to address current challenges in education and training.** The total cumulative budget of planned measures is EUR 15.6 billion. High-impact measures of the first action plan (2018-2019) include the introduction of compulsory education from age 5 initially planned for 2020, and a legal entitlement to pre-primary education for 4 and 3 year-olds planned for 2021 and 2022 (MoE, 2018b). The European Structural and Investment Funds (ESIF) are also supporting the implementation of these measures. By end of 2019, the government plans to update measures for the following years.

## 5. Modernising early childhood and school education

**Provision of kindergarten facilities is making good progress, yet enrolment rates remain low.** In 2017, the participation rate of Slovak children over 4 in early childhood education and care (ECEC) was 78.2%, the lowest in the EU. The weakest participation was in Eastern Slovakia at 65.3%. The government expanded free kindergarten places to all children (regardless of age) from socio-economically deprived families from September 2018<sup>77</sup>. In June 2019, Parliament approved lowering the compulsory school age to 5 starting in January 2021<sup>78</sup>. The ESIF are supporting the provision of kindergartens: 11 147 places are to be created over 2014-2020 to enable enrolment of 5 year-olds to rise to a projected 96.4% in 2020. Around 2 100 more places will be needed to ensure full enrolment. The management of supply and demand for places is ineffective: 12 502 child admission requests were not met in 2018/2019 for capacity reasons, predominantly in developing municipalities and those with a high share of Roma, despite there being 12 000 spare places nationwide (Hellebrandt, T. et al. 2019).

**Measures are planned to further facilitate participation in ECEC and to review teaching requirements.** In 2017/2018 only 43% of children aged 3-5 from families receiving the 'benefit in material need'<sup>79</sup>, and 31.7% of children in that age group from marginalised Roma communities,

<sup>75</sup> Eurostat, UOE, 2017. Online data code: educ\_uoe\_fine09.

<sup>76</sup> 2015 Programme for International Student Assessment (PISA).

<sup>77</sup> See: <https://www.minedu.sk/prispevok-na-vychovu-a-vzdelavanie-pre-ms/>

<sup>78</sup> See: <https://www.nrsr.sk/web/Dynamic/DocumentPreview.aspx?DocID=468868>

<sup>79</sup> See: <https://ec.europa.eu/social/main.jsp?catId=1127&langId=en&intPageId=4769>



were enrolled in kindergartens (Hellebrandt, T. et al., 2019). To increase the enrolment of children from low-income families, the NPDE envisages free transport starting 2020. The qualification requirements for kindergarten staff are to be reassessed in 2020. Ensuring the quality and inclusiveness of educational provision is crucial as poor-quality ECEC can eliminate the potential benefits or even have detrimental effects on children's development and learning (OECD, 2018).

### Box 1: ESF-funded project to support inclusive ECEC

In July 2018, a national project called 'Support for pre-primary education of children from marginalised Roma communities' (*Projekt Inklúzie v Materských školách - PRIM*) was launched with ESF funding.

The main objective is to increase kindergarten attendance by children from marginalised Roma communities by creating an inclusive environment (establishing inclusive teams involving additional teachers and professional staff) and working with families whose children are not yet attending kindergartens.

The project is open to 150 municipalities until 31 October 2020. It is implemented by the Office of the Plenipotentiary of the Slovak Government for Roma Communities.

See more: <http://www.minv.sk/?narodny-projekt-prim-projekt-inkluzie-v-materskych-skolach>

**Equity in education and the quality of educational outcomes are weak.** The 2015 PISA<sup>80</sup> survey found that the proportion of underachievers in Slovakia's secondary schools is significantly higher than the EU average in reading, mathematics and science, and has increased over the years (OECD, 2016). The 2018 national tests run by the Ministry of Education among primary students (Testing 5<sup>81</sup>) confirm large differences in educational outcomes between districts<sup>82</sup> and regions<sup>83</sup>. Students from socially disadvantaged families achieved an average success rate of 22.9% in mathematics in these tests, against 60.9% among students without a social disadvantage<sup>84</sup>. The grade repetition rate is 15 times higher among pupils from socially disadvantaged environments and marginalised Roma communities simultaneously — 14.9%, against 1% among other pupils (Hellebrandt, T. et al., 2019). Teachers in Slovakia rarely employ a differentiated and individualised approach that takes into account diverse educational needs (SSI, 2016). Investment in teachers' competencies and attracting best teachers to disadvantaged areas could help address pupils' learning difficulties.

**The ESL rate has risen since 2010.** Slovakia's ESL rate has strongly deteriorated to 8.6% in 2018 (EU average: 10.6%) from 4.7% in 2010 (EU average: 13.9%). At 13.9%, Eastern Slovakia has the highest rate. Moreover, in 2017/2018, 7.8% of 16 year-olds had not entered the final class of lower secondary education, putting them at risk of dropping out of school (Hellebrandt, T. et al. 2019)<sup>85</sup>. The rates were particularly high for pupils from families receiving the 'benefit in material need' (32.6%) and marginalised Roma communities (37.2%). Poor educational outcomes in secondary education translate into the deteriorating trend in ESL, which is reflected in long-term unemployment among the low-skilled. 60% of the low-skilled long-term unemployed in Slovakia are aged under 29 (European Commission, 2019a).

**The education system is not sufficiently inclusive.** In October 2018, the Plenipotentiary for Roma communities and three other Slovak officials involved in school education and rights protection pleaded for urgent measures to desegregate Roma pupils in primary schools<sup>86</sup>. Roma children have low attainment rates and only a few manage to reach tertiary education (OECD, 2019a). It is estimated that 62% of Roma children attend a school where all or most other children are also Roma (FRA, 2016); no real progress on desegregation has been observed over the recent past (Amnesty International, 2016). In January 2019, the government approved an updated action plan for Roma integration up to 2020 aimed at raising the Roma population's education level to the

<sup>80</sup> OECD 2015 Programme for International Student Assessment.

<sup>81</sup> See: <https://www.minedu.sk/testovanie-5-2018-vysledky-celoslovenskeho-testovania-piatakov/>

<sup>82</sup> See: Results of all 79 districts in 2018 Testing 5: <https://www.nucem.sk/dl/4046/Pr%C3%ADloha4.pdf>

<sup>83</sup> See: Results of 8 regions in 2018 Testing 5: <https://www.nucem.sk/dl/4045/Pr%C3%ADloha1.pdf>

<sup>84</sup> 2 041 pupils from socially disadvantaged families were tested in 69 districts; there were no such students in 16 districts.

<sup>85</sup> In Slovakia schooling is obligatory till age 16.

<sup>86</sup> See: [https://www.minv.sk/swift\\_data/source/mvsv/dokumenty/desegregacia-vzdelavanie-spolocne-vyhlasenie-romovia.pdf](https://www.minv.sk/swift_data/source/mvsv/dokumenty/desegregacia-vzdelavanie-spolocne-vyhlasenie-romovia.pdf)

national average<sup>87</sup>. The budget totals EUR 55.72 million for 2019-2020 (Eurydice, 2019). A European Commission infringement procedure against Slovakia over the segregation of Roma children in education is ongoing. In 2019, Slovakia received a country-specific recommendation from the Council of the EU to 'Improve the quality and inclusiveness of education at all levels and foster skills. Enhance access to affordable and quality childcare and long-term care.' (Council of the EU, 2019<sup>88</sup>).

**Slovakia is making progress on digital skills.** In 2017, 59% of Slovaks aged 16-74 had at least basic levels of digital skills, 4 pps more than in 2016 and above the EU average (57%). Slovakia ranks 20<sup>th</sup> in the EU's 2018 Digital Economy and Society Index (European Commission, 2019b). The NPDE highlights the need to extend ICT use in classrooms. It envisages the establishment of a central digital educational content repository including the content developed under ESF projects<sup>89</sup>, which will be available to pedagogical staff.

#### Box 2: 'IT Fitness test'

'IT Fitness test' is an online self-testing instrument developed by Comenius University (content), the Technical University of Košice (maintaining the portal) and the IT Association of Slovakia (promotion and certification).

The tool enables self-assessment of IT skills in office productivity software, internet security, collaboration tools and social networks, and comprehensive tasks. Two versions are available: (i) for primary school pupils to verify their readiness for upper secondary school, and (ii) for any individual to test their employability in terms of meeting employers' IT requirements.

Between 2010 and 2018, 180 000 individuals self-tested. Following analysis of the results, the test authors suggest paying more attention to building critical thinking, analysing and assessing information, and to projects interlinking IT with other school subjects. The results also point to a strong need to improve students' and teachers' competencies concerning security. (Vantuch, J., Jelinkova, D., 2019).

See [www.itfitnesstest.sk](http://www.itfitnesstest.sk)

## 6. Modernising higher education

**The level of tertiary attainment is steadily growing but disparities exist.** In 2018, the national tertiary attainment rate was 37.7% (EU average: 40.7%). The gap with the EU average has been narrowing over time, from 11.7 pps in 2010 to only 3.0 pps in 2018. The gender gap in favour of women is 13.5 pps (EU average: 10.1 pps). High regional disparities persist: in the Bratislava region 59.9% of the adult population have a tertiary degree, almost double the rate in other regions, where it ranges between 33.4% and 35.2%.

**The employment rate of recent tertiary graduates is lower than that of upper secondary vocational education and training (VET) graduates.** Contrary to the situation in other Member States (except Luxembourg), the employment rate of recent tertiary graduates (aged 20-34) is lower than for upper secondary VET graduates: 82.4% v 84.7%. The rate is also lower than the EU average of 85.5% (Figure 3). The proportion of STEM graduates, at 21.2%, is below the EU average of 25.8%<sup>90</sup>. Outward migration is high among people under 30, including tertiary graduates, in particular in the medical and technical fields, where 22% of graduates leave the country. This poses a challenge to growth. The corresponding loss of investment is estimated at EUR 45 million (MoF, 2017). In 2017, 13% of Slovak graduates graduated abroad (EU average: 3.6%).

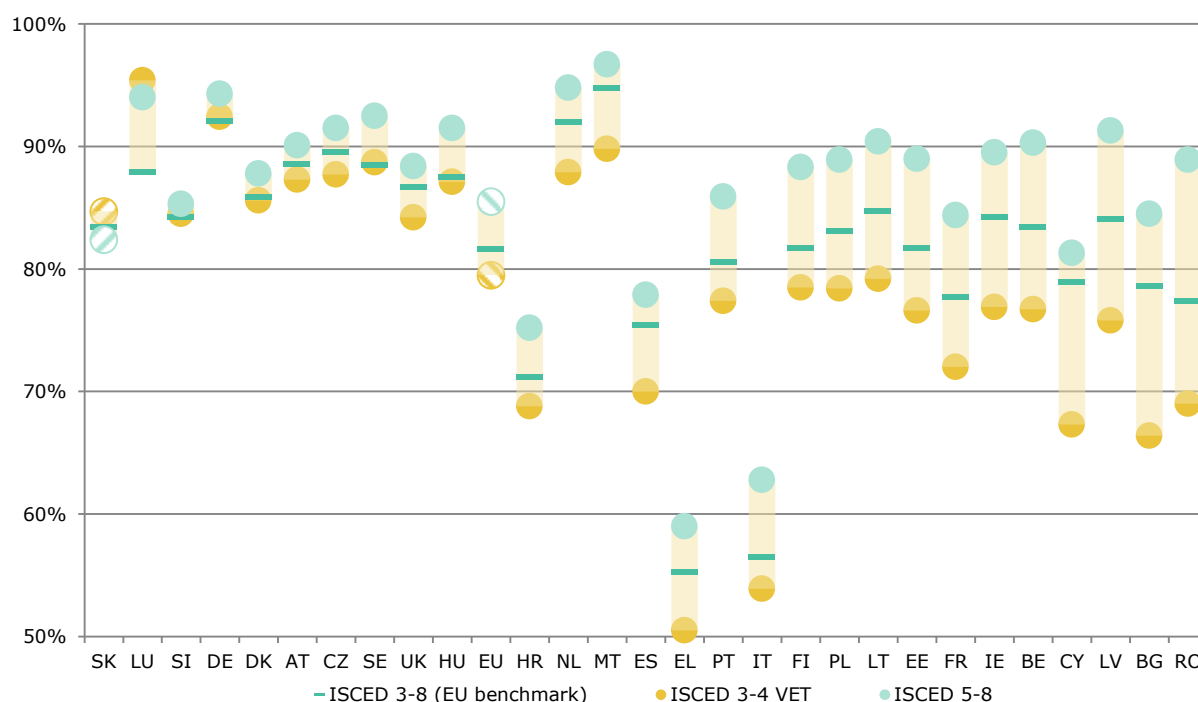
<sup>87</sup> See: <https://rokovania.gov.sk/RVL/Material/23492/2>

<sup>88</sup> See: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019DC0525&from=EN>

<sup>89</sup> See: <https://predmety.iedu.sk>, <http://rsov.iedu.sk>, <https://vychovy.iedu.sk>, <https://anglictina.iedu.sk>.

<sup>90</sup> Eurostat, UOE, 2017. Online data code: educ\_uoe\_grad02

**Figure 3 Employment rate of recent graduates (age 20-34) by ISCED level, 2018**



Source: Eurostat, Labour Force Survey, 2018.

**Slovakia is implementing the new law on quality assurance in higher education.** A new legal framework for quality assurance in higher education (Act no 269/2018)<sup>91</sup> and the amendment to the act on higher education institutions (Act no 270/2018) came into force on 1 November 2018. The main changes concern the new system of accreditation and the increased importance of quality assurance processes. A new Slovak Accreditation Agency for Higher Education (SAAHE) is being created. The amendment simplifies the process of creating study programmes and introduces interdisciplinary studies (Eurydice, 2019).

**Professionally-oriented bachelor's programmes are to be developed, as advocated by stakeholders.** In December 2018, a call for projects under the ESF was launched to develop a professionally oriented bachelor's studies, with a budget of EUR 15 million<sup>92</sup>. The projects had been strongly advocated for by employers and educational practitioners. Another call will follow to implement the programmes. It is important that SAAHE develops accreditation and assessment criteria for this type of programme as well.

## 7. Modernising vocational education and training

**Measures are being introduced to increase the responsiveness of VET to labour market needs and to address skills shortages.** In 2017, total enrolment in upper secondary VET in Slovakia was 68.9 % (EU average: 47.8%). VET students had some exposure to work-based learning (12% in 2017 v 11% in 2016) — most programmes include practical elements in the curriculum (UOE, 2017). The employment rate among recent VET graduates increased from 81.6% in 2017 to 84.7% in 2018 (EU average: 79.5%). The NPDE focuses on linking education and training with the labour market, notably through funding for employers' organisations involved in dual VET (an annual estimated budget of EUR 987 062 for 2018-2027) and by increasing financing for VET schools (estimated EUR 76 902 604 over the same period). Post-secondary VET programmes are to be expanded and dual VET is to be promoted in tertiary education. EUR 18 008 185 for 2019-2027 will be earmarked for new career counsellors positions at education counselling centres. The 'entrance quotas' for learners in VET programmes introduced by the 2018 amendment of the VET Act have been softened by the Ministry of Education in reaction to the dissatisfaction of VET schools and families. A revision of quotas is envisaged based on the results of

<sup>91</sup> See: <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2018/269/20180926>

<sup>92</sup> See: <http://www.minedu.sk/27122018-vyzva-na-predkladanie-ziadosti-o-nenavratny-financny-prispevok-na-podporu-prepojenia-vysokoskolskeho-vzdelavania-s-potrebnami-praxe-vysoka-skola-pre-prax-oplz-po12018dop131-02/>

the Skills Governance project run by Slovakia and Cedefop. The NPDE has planned EUR 20 000 for adjusting professional standards for pedagogical staff and experts in regional schools in 2020/2021.

## 8. Developing adult learning

**A more strategic approach is being developed to improve upskilling, reskilling and adult participation in learning.** Only 8.3% of adults have not acquired at least an upper-secondary qualification (EU average: 21.9%) (Eurostat, 2018). However, only 4.0% of adults aged 25-64 had had a learning experience in the last 4 weeks in 2018 (EU average: 11.1%) (Eurostat, 2018). In 2017, around 1 500 adults aged over 25 acquired an upper-secondary qualification, which is a small proportion of the nearly 272 000 adults with a low level of educational attainment (Eurostat, 2017). Consequently, only 37.9% of low-qualified adults were employed (EU average: 56.8%) (Eurostat, 2018). This highlights the need for substantial upskilling and reskilling. In 2019, the Ministry of Education in cooperation with OECD has launched a project on the national skills strategy aimed at improving adult learning, skills levels, systems of qualifications, participation in learning, financing, and career guidance. An Act on lifelong learning will follow. The NPDE implementation plan contains three tasks concerning adult learning:

- (i) completion of the system of qualifications by increasing their flexibility (introduction of professional qualifications) and validation of non-formal and informal learning;
- (ii) participation in the second cycle of PIAAC<sup>93</sup>;
- (iii) an analysis of adult participation in learning, a pilot scheme and subsequently a roll-out of individual learning accounts (set at EUR 200 combined with 25% tax-base deductions for employers on training expenses, with total funding of EUR 15.64 million over 2020-2027).

**Efforts are being made to improve adult learning at regional level.** As part of guidelines for programmes for underdeveloped regions there is a special focus on upskilling and reskilling. Priorities include: support for low-skilled workers, young people and marginalised Roma to acquire labour-market relevant skills; establishing a training centre focused on IT and electrical engineering to attract young learners and retrain jobseekers in Bardejov; and establishing a regional VET campus in Kežmarok offering initial and continuing training, and career guidance.

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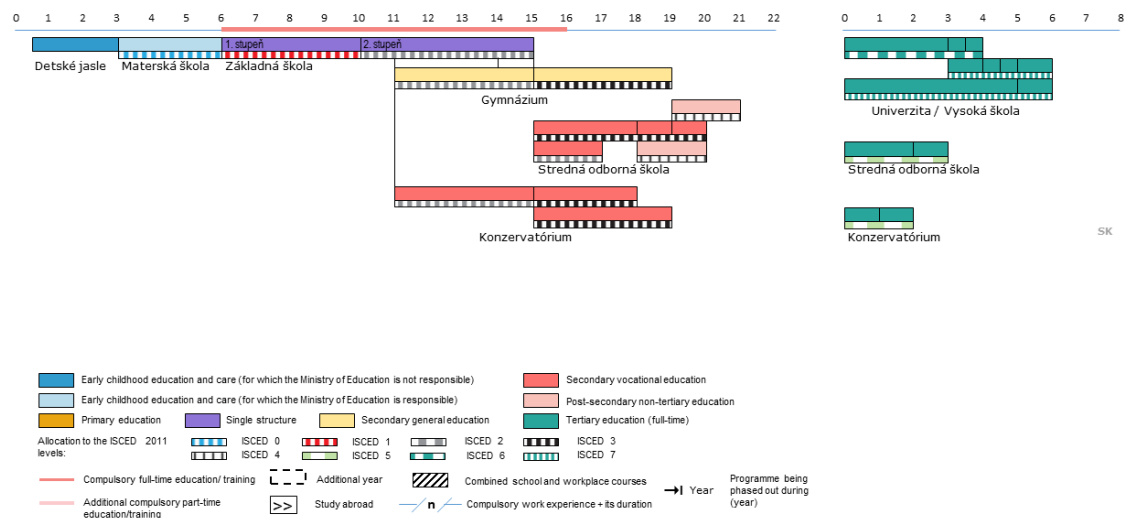
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## Annex I: Key indicator sources

Indicator	Eurostat online data code
Early leavers from education and training	edat_lfse_14 + edat_lfse_02
Tertiary educational attainment	edat_lfse_03 + edat_lfs_9912
Early childhood education and care	educ_uoe_enra10
Underachievement in reading, maths, science	OECD (PISA)
Employment rate of recent graduates	edat_lfse_24
Adult participation in learning	trng_lfse_03
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:	
- Degree-mobile graduates	JRC computation based on Eurostat / UIS / OECD data
- Credit-mobile graduates	

## Annex II: Structure of the education system



Source: European Commission/EACEA/Eurydice, 2018. The Structure of the European Education Systems 2018/19: Schematic Diagrams. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union.

Comments and questions on this report are welcome and can be sent by email to:  
 Sylwia SITKA  
[Sylwia.Sitka@ec.europa.eu](mailto:Sylwia.Sitka@ec.europa.eu)  
 or  
[EAC-UNITE-A2@ec.europa.eu](mailto:EAC-UNITE-A2@ec.europa.eu)

# SLOVENIA

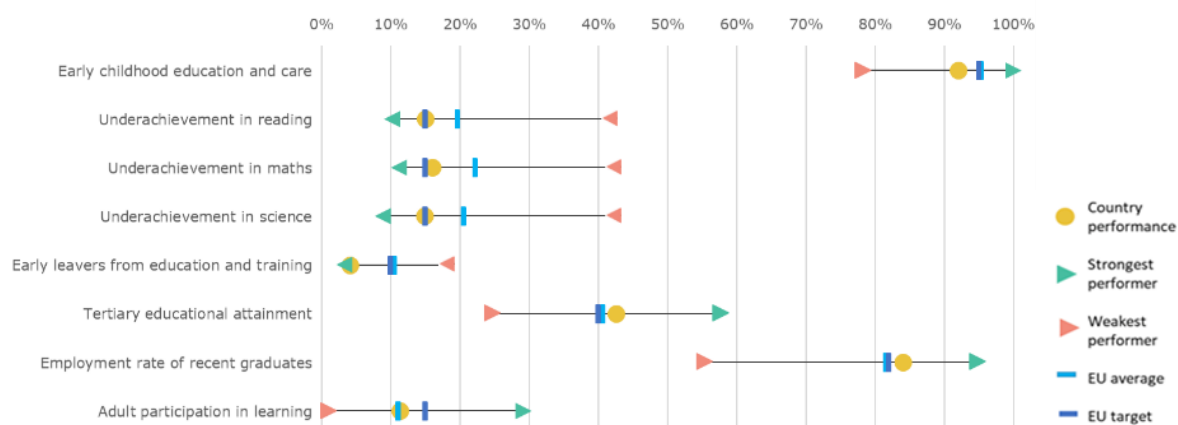


# 1. Key indicators

			Slovenia		EU average	
			2009	2018	2009	2018
Education and training 2020 benchmarks						
Early leavers from education and training (age 18-24)			5.3%	4.2%	14.2%	10.6%
Tertiary educational attainment (age 30-34)			31.6%	42.7%	32.3%	40.7%
Early childhood education and care (from age 4 to starting age of compulsory primary education)			87.7%	92.1% <sup>17</sup>	90.8%	95.4% <sup>17,d</sup>
Proportion of 15 year-olds underachieving in:	Reading		21.2%	15.1% <sup>15</sup>	19.5% <sup>EU27</sup>	19.7% <sup>15</sup>
	Maths		20.4%	16.1% <sup>15</sup>	22.3% <sup>EU27</sup>	22.2% <sup>15</sup>
	Science		14.8%	15.0% <sup>15</sup>	17.7% <sup>EU27</sup>	20.6% <sup>15</sup>
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)		ISCED 3-8 (total)	82.3%	84.2%	78.3%	81.6%
Adult participation in learning (age 25-64)	ISCED 0-8 (total)		14.8%	11.4%	9.5%	11.1%
Learning mobility	Degree-mobile graduates (ISCED 5-8)		:	3.6% <sup>17</sup>	:	3.6% <sup>17</sup>
	Credit-mobile graduates (ISCED 5-8)		:	2.8% <sup>17</sup>	:	8.0% <sup>17</sup>
Other contextual indicators						
Education investment	Public expenditure on education as a percentage of GDP		6.6%	5.4% <sup>17</sup>	5.2%	4.6% <sup>17</sup>
	Expenditure on public and private institutions per student in € PPS	ISCED 0	€6 968 <sup>12</sup>	€6 157 <sup>16</sup>	:	€6 111 <sup>15,d</sup>
		ISCED 1	€7 014 <sup>12</sup>	€7 496 <sup>16</sup>	€5 812 <sup>12,d</sup>	€6 248 <sup>15,d</sup>
		ISCED 2	€7 597 <sup>12</sup>	€9 113 <sup>16</sup>	€6 937 <sup>12,d</sup>	€7 243 <sup>15,d</sup>
		ISCED 3-4	€5 353 <sup>12</sup>	€5 343 <sup>16</sup>	:	€7 730 <sup>14,d</sup>
		ISCED 5-8	€8 359 <sup>12</sup>	€8 839 <sup>16</sup>	€10 549 <sup>12,d</sup>	€11 413 <sup>15,d</sup>
Early leavers from education and training (age 18-24)	Native-born	5.0%	3.6%	13.1%	9.5%	
	Foreign-born	13.0% <sup>u</sup>	11.6% <sup>u</sup>	26.1%	20.2%	
Tertiary educational attainment (age 30-34)	Native-born	32.2%	45.3%	33.1%	41.3%	
	Foreign-born	21.0% <sup>u</sup>	22.1% <sup>u</sup>	27.7%	37.8%	
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-4	73.3%	82.4%	72.5%	76.8%	
	ISCED 5-8	88.7%	85.3%	83.8%	85.5%	

Sources: Eurostat; OECD (PISA); Learning mobility figures are calculated by the European Commission's Joint Research Centre from UOE data. Further information can be found in Annex I and in Volume 1 ([ec.europa.eu/education/monitor](http://ec.europa.eu/education/monitor)). Notes: The EU's 2009 PISA averages do not include Cyprus; d = definition differs, u = low reliability, :=not available, 12=2012, 14=2014, 15 = 2015, 16=2016, 17 = 2017.

**Figure 1 Position in relation to strongest and weakest performers**



Source: European Commission, Directorate-General for Education, Youth, Culture and Sport (DG EAC) calculations, based on data from Eurostat (LFS 2018, UOE 2017) and OECD (PISA 2015).

## 2. Highlights

- Enrolment in early childhood education and care is approaching the EU benchmark.
- The proportion of Slovenian upper secondary students enrolled in vocational education and training is one of the highest in the EU, and the employment rate of such graduates is high.
- There are enough new entrant teachers but large numbers are approaching retirement and shortages already exist in certain categories.
- Tertiary educational attainment is high, but the differences between men and women and the native-born and foreign-born population are large.

## 3. A focus on teachers

**The teaching profession is predominantly female.** Slovenia has 42 166 teachers across the different educational levels<sup>94</sup>. The profession is overwhelmingly female: 97% of teachers in early childhood education and care (ECEC), 88% of primary and lower secondary school teachers and 67% of upper secondary school teachers are women. These percentages are slightly higher than the EU average in ECEC and primary schools, but significantly higher for secondary schools (the EU average for lower secondary school is 68% and for upper is 61%). Men are in a majority only in tertiary education (57%)<sup>95</sup>. There are no policies to address this imbalance.

**Teachers' required qualifications vary between educational levels; continuous professional development (CPD) is needed for career progression.** Primary and secondary teachers need to have at least a master's degree, ECEC teachers at least a bachelor's degree and ECEC teaching assistant's at least upper secondary education (ZOFI, 2018). CPD takes place at various public institutions and at private providers. Participation in CPD is a requirement for career advancement. Career progression is possible to three higher grades, after 5, 10 and 15 years of experience. The proportion of teachers who feel well or very well prepared in using information and communications technology (ICT) for teaching (67%) is much higher than the EU average (39.4%) (OECD, 2019)<sup>96</sup>.

**Teachers' salaries are relatively low, but on the rise.** Funding cuts in education led to reductions in and later a freezing of teachers' salaries (ZUJF, 2012), which are still considerably lower than those of other workers with tertiary education (ranging from 69% for ECEC teachers to 94% for upper secondary school teachers) (OECD, 2018). They are also significantly lower than the average salaries of EU teachers covered by OECD data. Teacher dissatisfaction led to strikes in 2018. The new government agreed a three-step increase in salaries in the public sector over the next 2 years, by 4% each time. The differential between starting and maximum salaries over the career is higher than the EU average: for lower secondary teachers, pay rises by 79.6% over the career compared to the EU average of 64% (Eurydice, 2018).

**Currently there are enough new entrant teachers, but the teaching workforce is ageing and shortages exist in certain categories.** More than 50% of tertiary education teachers are over 50 years old. The proportion of teachers over 50 is lower for secondary and primary school and ECEC teachers, at 38 %, 34% and 24%, respectively<sup>97</sup>. There are shortages, particularly in rural areas, of special education experts, support teachers, art teachers, primary education class teachers and teachers of STEM subjects (science, technology, engineering, mathematics) (Primate, 2018/2019; Prosta delovna mesta, 2019). While the profession is well regarded, and teachers are trusted (Tso, 2004, 2016), it seems that teaching is less attractive to men: 75.4% of male teachers report that teaching was their first choice as career, compared to 83.4% of female teachers. The percentage of teachers who believe that teaching is a valued profession in society

<sup>94</sup> Eurostat, UOE, 2017.

<sup>95</sup> Ibid.

<sup>96</sup> In 2018, 23 Member States participated in TALIS: Austria, Belgium fr, Belgium nl, Bulgaria, Croatia, Cyprus, Czechia, Denmark, England (UK), Estonia, Finland, France, Hungary, Italy, Latvia, Lithuania, Malta, the Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden. TALIS 2018 covers lower secondary teachers and school leaders in mainstream public and private schools.

<sup>97</sup> Ibid.

(5.6%) is the second lowest in the EU (EU average: 17.7%) (OECD, 2019). Teachers are highly unionised and very concentrated in one union, which covers teachers from all levels of education.

**There are enough applicants for the school principal positions available.** Principals attend a one-year programme in the National School for Leadership in Education covering instructional leadership and managerial tasks, and take annual skills upgrading programmes. They also participate in annual meetings with the Minister of Education.

#### Box 1: 'The first job in education' project

This project (Slovenian: *Prva zaposlitev na področju vzgoje in izobraževanja*) helps graduates who are finishing their teacher education to find their first jobs. They are provided with practical training in competencies for independent educational work that enables them to pass a professional examination and become fully qualified teachers. This project is important because it provides young people with practical in-school training and enables their early activation.

Persons wishing to participate cannot apply to the scheme directly. Institutions (schools, kindergartens or other educational institutions) apply<sup>98</sup> to train and temporarily employ beginner teachers and must confirm an offer of further employment after they finish the project.

The project is financed by the European Social Fund (ESF) and the Ministry of Education, Science and Sport under the EU's Operational Programme for 2014-2020 and the Youth Guarantee. This is the fourth year of implementation, at a total cost so far of just over EUR 8 million. Between 2016 and 2019, 658 beginner teachers and teaching assistants were trained. Funding for 2019 amounts to EUR 1.5 million (EUR 1.2 million of it from the ESF)<sup>99</sup>.

## 4. Investing in education and training

**Slovenia invests more in education and training than the EU average, even though spending was cut sharply during the economic downturn.** In 2017, Slovenia spent 5.4% of its GDP on education, compared to the EU average of 4.6%; the share of total general government expenditure spent on education (12.6%) is also above the EU average (10.2%). Nevertheless, before the crisis, education accounted for 6.5% of GDP. Education sector suffered the largest public spending cuts, from which it has still not recovered, with decreases falling most heavily on the secondary and tertiary education sectors<sup>100</sup>, though tertiary education spending has started to recover in the last 3 years. The new government has promised to restore the share of GDP allocated to education to 6% (Collective Agreement, 2018) and increases are planned in the 2019 Budget (Proračun, 2019).

**Decision of the Constitutional Court on the issue of public funding for private primary schools upheld by the Parliament.** In 2015, the Constitutional Court decided that all private primary school programmes should be fully funded by the government, not 85%-funded as now. This decision caused extensive debate, as opponents argue that spending more on private schools will reduce spending on the public network. A draft bill in response to the judgement was submitted to the Parliament. Parliament vetoed changes that would cut state funding for private primary schools, arguing that it would be in opposition to the Constitutional Court decision.

## 5. Modernising early childhood and school education

**Participation in early childhood education and care has grown rapidly; a new programme offers free ECEC in the last year before compulsory school.** From 2007/2008 to 2018/2019, the number of children enrolled in ECEC (aged 1-5) increased by more than 41% (from 61 359 to 89 600 children) (SORS 2018, MZŠŠ 2018, 2019). ECEC attendance by children under 3 is high, at 44.8% in 2017 (EU average: 34.2 %)<sup>101</sup>. Participation between age 4 and the beginning of

<sup>98</sup> See: [http://www.mizs.gov.si/si/javne\\_objave\\_in\\_razpisi/okroznice/arhiv\\_okroznice/okroznice\\_razpisi\\_in\\_javna\\_narocila/javni\\_razpisi/?tx\\_t3javnirazpis\\_pi1%5Bshow\\_single%5D=1653](http://www.mizs.gov.si/si/javne_objave_in_razpisi/okroznice/arhiv_okroznice/okroznice_razpisi_in_javna_narocila/javni_razpisi/?tx_t3javnirazpis_pi1%5Bshow_single%5D=1653)

<sup>99</sup> See: <http://www.eu-skladi.si/sl/aktualno/novice/evropska-sredstva-za-prvo-zaposlitev-na-podrocju-vzgoje-in-izobrazevanja-3>

<sup>100</sup> Eurostat, COFOG, 2017

<sup>101</sup> Eurostat, DESI, 2017

compulsory education stood at 92.1% in 2017, still below the EU benchmark for 2020 of 95% and the EU average of 95.4%. However, it has improved by 2.3 pps since 2013. Participation is low among children from low socio-economic background and from migrant families, exactly those who could benefit the most from it, as it would help their socioeconomic and cultural integration and provide them with long-term educational benefits<sup>102</sup>. Since autumn 2018 kindergartens can apply for state funds to offer children who have not participated in ECEC before free attendance of short programmes of 240 hours per year in the last year before primary education. However, applications are currently very low.

**Educational performance in Slovenian schools is comparatively good.** Slovenia's early school leaving rate of only 4.2% is significantly better than both the EU average of 10.6% and its Europe 2020 national target of 5%. PISA results show good average skills in maths, reading and science among Slovenian 15 year-olds. The share of low achievers in all three fields is close to the Education and Training 2020 benchmark of less than 15% (only mathematics is slightly higher at 16.1%). There are concerns over the big gender gap in performance, with boys performing significantly worse in reading (OECD, 2016).

**Two pilot projects are exploring further improvement to primary education.** Experimental re-introduction of external examination after the third year of primary school is taking place in 20 schools. The aim is to help teachers plan their future teaching and improve its quality. Another pilot project involves the introduction of an obligatory second foreign language in 7<sup>th</sup> grade, and teaching of the first foreign language from 1<sup>st</sup> grade in 20 schools.

**Digital skills are below the EU average.** The digital skills of employed people aged 25-64 are slightly below the EU average, as are the percentages of individuals aged 16-74 who regularly use the internet (79% compared to 83%) or have basic or above-basic digital skills<sup>103</sup>. In the last International Computer and Information Literacy Study (ICILS) survey Slovenian students recorded good overall results. However, a high proportion, 36%, did not achieve the second difficulty level (i.e. they have low digital skills) and 8% did not reach the first level (i.e. they have very low digital skills) (IEA, 2014).

#### Box 2: 'Only (with) others are we'

The 'Only (with) others are we'<sup>104</sup> project (in Slovenian *Le z drugimi smo*) aims to train 10 000 expert workers and leaders at all levels in social and civic intercultural competencies in order to boost the integration of migrants and the acceptance of diversity, to support faster identification of potential conflict situations and to develop intercultural relations and conflict resolution. The participants are taught how to include this approach in any lesson to help the integration of migrant students and to help students adopt the attitude that diversity is enriching.

The project is part of a larger project to strengthen the social and civic competencies of education staff that is funded by the Slovenian Ministry of Education, Science and Sport and the European Social Fund (ESF). The budget is EUR 1 million, of which EUR 800 000 is from the ESF. 'Only (with) others are we' is running from 2016/2017 to 2020/21. The Slovenian Migration Institute and the Educational Research Institute carry out, with external help, five free 16-hour professional training courses with the following titles:

- 1) Living the Diversity: Immigrant Inclusion and Slovene Language;
- 2) Zero tolerance for violence: Challenges and Issues;
- 3) Respectful communication and Conflict Management;
- 4) The Challenges of modern Society in Education;
- 5) Intercultural Relations and Integration in Education Practice.

Seminars cover both theoretical information about appropriate pedagogical approaches and strategies, and active learning through discussions, workshops, role-play, problem solving and case studies.

<sup>102</sup> Education and Training Monitor Volume I.

<sup>103</sup> Eurostat, DESI, 2017.

<sup>104</sup> See: <https://isim.zrc-sazu.si/en/programi-in-projekti/only-with-others-are-we> and <https://lezdrugimismo.si/sl/predstavitev-projekta-katalog-zgibanka>

Training is being carried out at three levels:

- 1) regional training in all 12 regions – carried out once a year per region, for two days (Friday and Saturday);
- 2) national training at the premises of the Scientific Research Centre of the Slovenian Academy of Sciences and Arts, twice a year;
- 3) training for all preschool/primary/secondary school teaching staff in individual schools, which is then adapted to their needs and carried out in 2, 3 or 4 days, at their request.

## 6. Modernising higher education

**Tertiary attainment is high and the targets have been achieved, but a sharp decline in the last year and the big differences between men and women and between native-born and foreign-born raise concerns.** Slovenia already achieved its national target of 40% tertiary educational attainment in 2013. The percentage of people with tertiary qualifications continued to grow until 2017, when at 46.4% it was significantly above the EU average (39.9%). In 2018, however, there was a sharp drop to 42.7%. While this fall occurred among both men and women, it is more pronounced in men, from 34.7% in 2017 to 31.6% in 2018. This drop might be partially due to all the older graduates who had to complete the pre-Bologna programmes by 2016. The difference between the tertiary attainment of women and men is the largest in the EU (56.3% as compared to 31.6%)<sup>105</sup>. There is also a very big difference between the native-born (45.3%) and foreign-born population (22.1%), and even more so for foreign-born people from non-EU countries (only 12.9%).

Figure 2 Tertiary educational attainment by gender, 2018



Source: Eurostat, LFS.

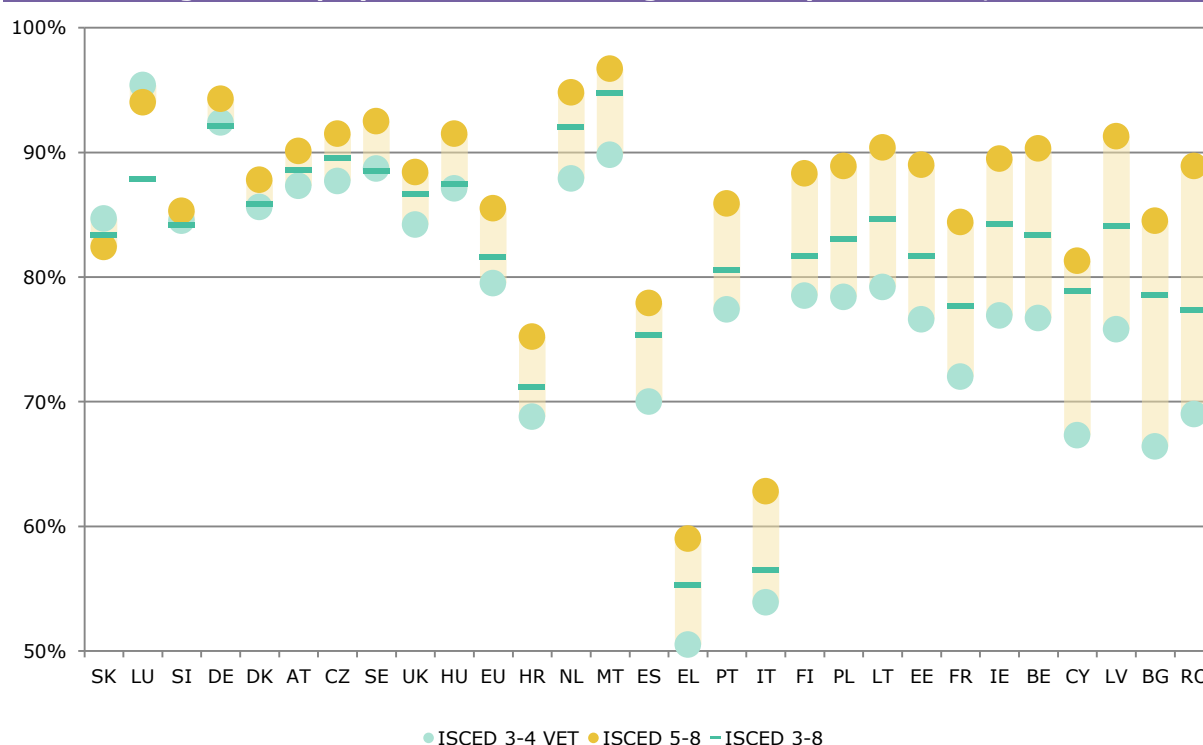
**Big decrease in the number of students enrolling in tertiary education in the recent years is slowing down.** While the total decline in student numbers in the last 5 years amounts to 18 159 students, this decline has significantly decreased in the last year (it was 4 818 students less from 2015 to 2016 and 1 251 students from 2016 to 2017)<sup>106</sup>. In addition to demographic trends,

<sup>105</sup> This gender difference seems set to continue. Almost two thirds of students in Slovenia in 2017 were female (61.3%, compared to 38.7% of males).

<sup>106</sup> Eurostat, UOE, 2017.

one of the reasons for the drop in the number of enrolments is the introduction, in 2012, of measures to prevent fictitious enrolment. One possible factor might be that the employment rate of recent higher education graduates (85.3%) is only slightly higher than for graduates from vocational secondary schools (84.5%), the smallest difference between them in the EU. The employment rate of all recent graduates (ISCED 3-8) in Slovenia (84.2%) is above both the EU benchmark for 2020 (82%) and the EU average (81.6%) in 2018. It declined from 2010 (80.7%) to 2014 (70.1%), but since then it has been rising and is currently at its highest point since 2010.

**Figure 3 Employment rate of recent graduates by ISCED level, 2018**



Source: Eurostat, Labour Force Survey.

**Slovenia has developed a graduate tracking mechanism.** This has been developed as an additional module to the existing e-VŠ electronic student data registry. It should allow for the career monitoring of students graduating from higher education institutions (MIZS, 2019b) and provide positive input on the labour market's needs for tertiary graduates. It should thus help inform policy makers, universities and students about the employability of graduates from different studies.

**Slovenia continues to refine its financing mechanisms for higher education.** Having introduced performance-based funding of higher education institutions in 2016, Slovenia in 2018 analysed its implementation and identified issues for improvement in the next round of negotiations of performance agreements. In spring 2019 it invited the European Commission and peers from six countries who had previously advised on the creation of the new system to a follow-up event to review its initial implementation. The event was attended by national stakeholders and addressed how to improve the negotiation of performance agreements, allocation mechanisms, the definitions of priorities and indicators, and monitoring of implementation.

## 7. Modernising vocational education and training

**Both the proportion of upper secondary students in VET and the employment rate of VET graduates are very high.** In 2017, 21 378 new students entered formal VET programmes in Slovenia, a decline of almost 9% from 2016 due to demographic reasons. However, total enrolment in upper secondary VET saw a slight increase in 2017 from previous years, with 70.9% of students at the upper secondary level attending vocational programmes; this is among the highest shares in the EU and well above the EU average (47.8%). Students enrolled in VET had limited exposure to work-based learning — none of the VET educational programmes are reported to combine school and work-based programmes (however, see the pilot action described below), but all VET



programmes include practical lessons at school. The employment rate among recent VET graduates in 2018 saw a notable increase, to 84.5% from 62.4% in 2015 and well above the EU average of 79.5% in 2018.

**Amendments to the Vocational Education Act entered into force in September 2018.** They focus on: quality evaluation of learning at the workplace; establishing a register of learning places at national level; and introducing a certificate providing detailed, uniform and internationally comparable information to employers on vocational qualifications, in line with the Europass Certificate Supplement. Other amendments aim to ease the integration of migrants into secondary education by giving those without proof of former education the possibility of enrolling in upper secondary education by taking an examination, and by having schools provide intensive Slovenian courses during their first year. There is currently no legal obligation to track vocational graduates, but it is part of the national quality assurance indicators.

**Following the adoption of the Apprenticeship Act in 2017, Slovenia has continued strengthening apprenticeships and considerably increased the number of apprentices in 2018-2019.** The ESF-funded 'Reform of vocational upper secondary education' project started in 2017 in four vocational programmes. In 2018/2019 it was extended with four additional programmes (glassmaker, papermaker, painter-letterhead, machine mechanic); four more will be added in 2019-2020, to be offered in 21 upper secondary schools. In 2018, the VET Institute (CPI) conducted the first evaluation of the pilot phase, showcasing positive feedback from apprentices and companies and identifying some areas for improvement related to support mechanisms for companies and the status of the apprentice. As a result, the CPI drafted the 'Framework model of further development of modern apprenticeship' and will prepare practical guidelines on planning, implementation, monitoring and evaluation of apprenticeships and on training of in-company trainers.

**Several initiatives support the professional development of VET teachers and trainers.** A three-year ESF project called 'Strengthening the competences of education staff in the field of managing an innovative educational institute' was completed in 2018 (an upgrade of ESF project has recently been launched). Activities included the development of quality assurance in vocational schools, the promotion of entrepreneurship, innovative methods of teaching and further development of teachers' pedagogical skills. In addition, CPI analysed VET teachers' knowledge, attitudes and use of ICT in designing and implementing digital competences in VET programmes. The results fed into the training of about 70 teachers in 12 vocational schools in 2018-2019, helping them to develop learners' digital competencies.

## 8. Developing adult learning

**The proportion of low-qualified adults is small while participation in adult education is just above the EU average.** A relatively small percentage of adults (11.9%) have at most a lower secondary qualification, compared to an EU average of 21.9%. The share of low-qualified adults in employment (51.3%) is below the EU average (56.8%). 11.4% of adults aged 25-64 in Slovenia have had a learning experience during the last 4 weeks (EU average: 11.1%). However, this participation rate has dropped significantly since 2010, when it was 16.4%. Only 70 000 jobs are categorised as belonging to elementary occupations which can be filled by those with only low skills; this highlights the need for a more substantial upskilling and reskilling effort, given that the total number of low-qualified adults is around 140 000 and only around 1 000 adults are acquiring an upper-secondary qualification each year. In 2019, Slovenia received from the Council of the EU a country-specific recommendation to 'Increase the employability of low-skilled and older workers by improving labour market relevance of education and training, lifelong learning and activation measures, including through better digital literacy.' (Council of the EU, 2019).

**Support for building up skills frameworks and for skills development, including for the low-skilled, is continuing.** Slovenia has finished the second phase of its National Skills Strategy in co-operation with OECD and got 8 recommendations to improve governance in adult learning. Regarding the recommendations Slovenia started the process of the new Master Plan for Adult Education (2021-2030). Over 2018-2022 several projects are supporting the upskilling of low-skilled adults and helping to increase their employability (Munera, Panup and Atena projects).



**The new Adult Education Act defines the provision of adult education programmes and supporting activities that will be provided as a public service.** The most important current activity is the design of the new National Master Plan for Adult Education which will define the national policy for adult education, form the basis for concrete planning and supplement the Adult Education Act. The target groups are lacking key competences, life skills and job-specific skills. The implementation will require additional staff with different profiles.

**Currently, the supply of adult educators is barely in balance with the demand, while sufficiently qualified trainers and educators for CVET are lacking.** It is expected that more adult educators with different profiles will be needed in the future. Adult educators either follow a university programme at the Faculty of Arts at the University of Ljubljana or graduate from other university programmes in social or human sciences and then enrol in the special one-year programme of pedagogic andragogic training. The Slovenian Institute for Adult Education supports the implementation and provision of literacy courses for different target groups of adults, quality assurance, guidance for adult learners, self-directed learning, promotional activities and evaluation studies.

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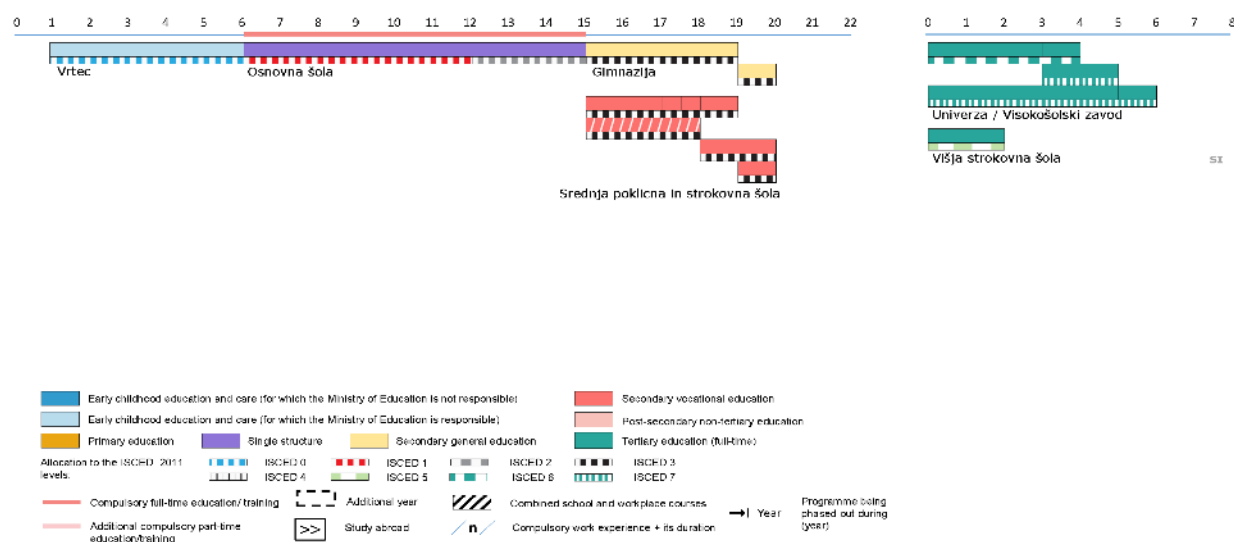
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## Annex I: Key indicator sources

Indicator	Eurostat online data code
Early leavers from education and training	edat_lfse_14 + edat_lfse_02
Tertiary educational attainment	edat_lfse_03 + edat_lfs_9912
Early childhood education and care	educ_uoe_enra10
Underachievement in reading, maths, science	OECD (PISA)
Employment rate of recent graduates	edat_lfse_24
Adult participation in learning	trng_lfse_03
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:	
- Degree-mobile graduates	JRC computation based on Eurostat / UIS / OECD data
- Credit-mobile graduates	

## Annex II: Structure of the education system



Source: European Commission/EACEA/Eurydice, 2018. The Structure of the European Education Systems 2018/19: Schematic Diagrams. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union.

Comments and questions on this report are welcome and can be sent by email to:  
 Marina GRŠKOVIC  
[Marina.Grskovic@ec.europa.eu](mailto:Marina.Grskovic@ec.europa.eu)  
 or  
[EAC-UNITE-A2@ec.europa.eu](mailto:EAC-UNITE-A2@ec.europa.eu)

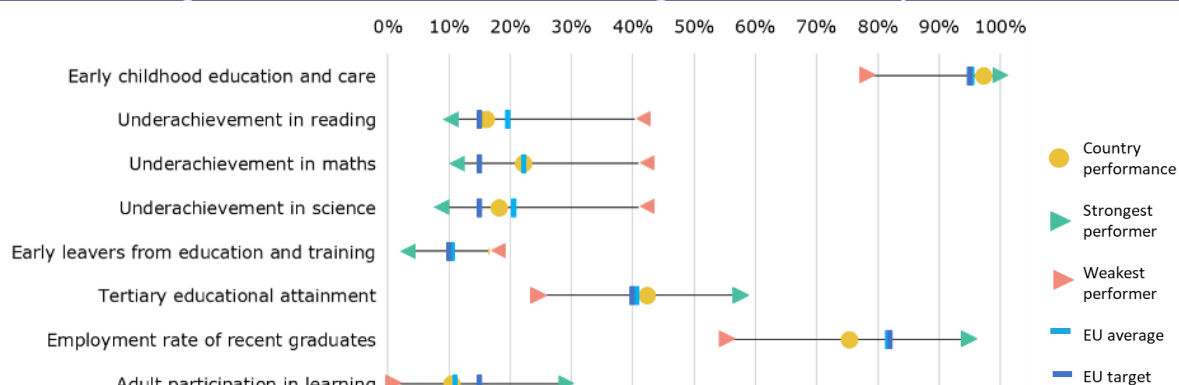
# SPAIN

# 1. Key indicators

			Spain		EU average	
			2009	2018	2009	2018
Education and training 2020 benchmarks						
Early leavers from education and training (age 18-24)			30.9%	17.9%	14.2%	10.6%
Tertiary educational attainment (age 30-34)			40.7%	42.4%	32.3%	40.7%
Early childhood education and care (from age 4 to starting age of compulsory primary education)			98.4%	97.4% <sup>17</sup>	90.8%	95.4% <sup>17,d</sup>
Proportion of 15 year-olds underachieving in:	Reading		19.6%	16.2% <sup>15</sup>	19.5% <sup>EU27</sup>	19.7% <sup>15</sup>
	Maths		23.8%	22.2% <sup>15</sup>	22.3% <sup>EU27</sup>	22.2% <sup>15</sup>
	Science		18.2%	18.3% <sup>15</sup>	17.7% <sup>EU27</sup>	20.6% <sup>15</sup>
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)		ISCED 3-8 (total)	73.0%	75.4%	78.3%	81.6%
Adult participation in learning (age 25-64)		ISCED 0-8 (total)	10.8%	10.5%	9.5%	11.1%
Learning mobility	Degree-mobile graduates (ISCED 5-8)		:	1.9% <sup>17</sup>	:	3.6% <sup>17</sup>
	Credit-mobile graduates (ISCED 5-8)		:	7.7% <sup>17</sup>	:	8.0% <sup>17</sup>
Other contextual indicators						
Education investment	Public expenditure on education as a percentage of GDP		4.6%	4.0% <sup>17</sup>	5.2%	4.6% <sup>17</sup>
	Expenditure on public and private institutions per student in € PPS	ISCED 0	€4 881 <sup>12</sup>	€5 251 <sup>16</sup>	:	€6 111 <sup>15,d</sup>
		ISCED 1	€5 269 <sup>12</sup>	€5 532 <sup>16</sup>	€5 812 <sup>12,d</sup>	€6 248 <sup>15,d</sup>
		ISCED 2	€6 770 <sup>12</sup>	€6 618 <sup>16</sup>	€6 937 <sup>12,d</sup>	€7 243 <sup>15,d</sup>
		ISCED 3-4	€6 775 <sup>12</sup>	€7 179 <sup>16</sup>	:	€7 730 <sup>14,d</sup>
		ISCED 5-8	€9 155 <sup>12</sup>	€9 116 <sup>16</sup>	€10 549 <sup>12,d</sup>	€11 413 <sup>15,d</sup>
Early leavers from education and training (age 18-24)	Native-born	27.7%	14.9%	13.1%	9.5%	
	Foreign-born	45.2%	32.0%	26.1%	20.2%	
Tertiary educational attainment (age 30-34)	Native-born	45.8%	46.3%	33.1%	41.3%	
	Foreign-born	23.9%	29.3%	27.7%	37.8%	
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-4	63.9%	68.2%	72.5%	76.8%	
	ISCED 5-8	76.5%	77.9%	83.8%	85.5%	

Sources: Eurostat; OECD (PISA); Learning mobility figures are calculated by the European Commission's Joint Research Centre from UOE data. Further information can be found in Annex I and in Volume 1 ([ec.europa.eu/education/monitor](http://ec.europa.eu/education/monitor)). Notes: The EU's 2009 PISA averages do not include Cyprus; d = definition differs, : = not available, 12=2012, 14=2014, 15 = 2015, 16=2016, 17 = 2017

**Figure 1 Position in relation to strongest and weakest performers**



Source: European Commission, Directorate-General for Education, Youth, Culture and Sport (DG EAC) calculations, based on data from Eurostat (LFS 2018, UOE 2017) and OECD (PISA 2015).

## 2. Highlights

- The teaching profession is attractive, but working conditions differ among regions and between public and private education systems.
- Private spending in education is significant, while public spending is static compared to GDP.
- Planned reforms, reflecting political uncertainties, have been slowed down.
- The process to modernise vocational education and training is ongoing. Adult participation in education is slowly rising.

## 3. A focus on teachers

**Teaching is an attractive profession in Spain, particularly in the public sector.** School teachers' salaries are higher than the average for tertiary educated workers in Spain and among the highest in Europe (OECD, 2018). Salaries in public schools vary significantly across the Autonomous Communities<sup>107</sup>, and are higher than those in private schools. Currently (MECD, 2019a), 504 569 teachers work in public schools and 207 612 in private schools. 33% of schools in general education are private (MECD, 2017), educating 32% of pupils (School Council, 2018), well above the EU average of 19%. Institutions linked to the Catholic Church own around 57% of these schools<sup>108</sup>. The relative share varies between regions, from around 50% of students in private schools in Madrid and the Basque country to around 20% in Castilla-La Mancha and Extremadura (MECD, 2019a). According to TALIS (OECD, 2019)<sup>109</sup>, the proportion of teachers satisfied with their job is higher than the EU average (95.7% v 89.5%), but decreases among teachers with more than 5 years' experience (97.3% for novice teachers vs 95.4% for teachers with more than 5 years of experience). Overall, 89.3% of teachers say that if they had to decide again, they would still choose to become a teacher (EU average: 77.6%); teachers with more than 5 years' experience, slightly less (88.3%; EU average: 76.4%). The proportion of teachers reporting that teaching was their first career choice is below the EU average (61.8% v 65.7%); lower for men (53.9%) than for women (66.7%) (EU average: 11.5 pp lower).

**Many teachers are on interim contracts.** To become a civil servant, teachers must pass an open competition assessing their knowledge in the teaching subject and evaluating work experience. These competitions have always attracted high numbers of applications. During the financial crisis, they were scarce<sup>110</sup>, with needs covered through short-term contracts, 'interim teachers' (*profesores interinos*). Around 25% of teachers are interim, with strong regional differences (from 41% in the Balearic Islands; to 13% in Galicia)<sup>111</sup>. The high share of interim teachers (who are assigned to a different school each year) makes it difficult to build stable and cohesive teams in schools. In 2018, a competition for teachers in upper secondary level (including vocational education and training, VET) took place, with 23 689 jobs available. The results of this competition were lower than expected, particularly in certain subjects<sup>112</sup>, which meant that many of the offered positions could not be covered by civil servants in certain regions.

**The teacher population is ageing and predominantly female.** In 2016/2017, 7.3% of school teachers (pre-primary to secondary education) were under 30 years old, 28.5% were 30-40, 30% were 40-50, and 34.2% were over 50 years old (School Council, 2018), close to the EU average<sup>113</sup>.

<sup>107</sup> For example, a secondary teacher may earn 28% more in the Basque country than in Asturias. Analysis by the teachers' union FES-UGT at <http://www.fespugt.es/images/PDF/ensenanza/GAB-retribuciones-publica-ccaa-2015.pdf>.

<sup>108</sup> See: *Survey on Financing and Expenditure of Private Education 2014-2015*, National Institute of Statistic (INE).

<sup>109</sup> In 2018, 23 Member States participated in TALIS: Austria, Belgium fr, Belgium nl, Bulgaria, Croatia, Cyprus, Czechia, Denmark, England (UK), Estonia, Finland, France, Hungary, Italy, Latvia, Lithuania, Malta, the Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden. TALIS 2018 covers lower secondary teachers and school leaders in mainstream public and private schools.

<sup>110</sup> See: <http://stecyl.net/mas-alumnado-mucho-menos-docentes-congelacion-de-ofertas-de-empleo-publico-y-mas-en-situacion-de-interinidad/>.

<sup>111</sup> See the June 2019 Trade Union Comisiones Obreras (CCOO) Teaching Federation report at <http://www.fe.ccoo.es/6724a0c909e00066e50bb71cba0dc52b000063.pdf>.

<sup>112</sup> Ranging from 12% to 30% in different regions. See: <https://www.elmundo.es/espana/2018/09/06/5b903bea22601d12758b464d.html>. According to the trade union Unión General de Trabajadores (UGT) almost one<sup>112</sup> Eurostat, UOE 2017.

<sup>112</sup> Ibid 7.

<sup>113</sup> Eurostat, UOE 2017.

In higher education, in 2017 44% of teachers were over 50 and only 3.6% under 30<sup>114</sup>. It is clear that over the next decade, a substantive renewal of the workforce will be needed. 94.5% of ECEC teachers are women; 66.2% in primary and secondary schools. In higher education, 43.4% of teachers and researchers are women and make up 52.7% of the academic staff under 35 and 37.2% of the over-50 group. There are no programmes to address the gender imbalance.

**Teacher qualification requirements are set centrally**<sup>115</sup>. Pre-primary and primary school teachers need a university degree in early or primary education. Secondary school teachers need a university degree. Teachers' induction in public schools consists of an internship (from three months to one school year), varying by region but broadly similar in content. Both central and regional administrations provide professional development courses. In 2018, almost 10 000 teachers followed online courses managed by the National Institute for Educational Technologies and Teachers' Training (INTEF) and 34 000 teachers followed self-paced online courses. Spanish teachers report in TALIS (OECD 2019) that a lack of incentives is the main barrier to participation in continuous professional development (76.3% v 51.9% at EU level). The survey also showed that once they finish their formal education, the proportion of teachers who feel well or very well prepared to use information and communication technologies (ICT) for teaching is below the EU average (36.2% v 39.4%). 38% of teachers reported that ICT was included in their formal education (EU average: 52.9%). However, the percentage increases considerably, to 85.8% for those who have been teaching up to five years.

**Teachers are generally not attracted to the career of a school leader.** School leaders must simultaneously be teachers, school directors, pedagogical leaders and administrators. They are elected through a process involving the school board (representatives of parents, students, teachers and the educational administration). They must have a minimum of five years' teaching experience and have passed a preparatory training course. Their mandate is for four years, with the possibility to renew once only. Vacancies for school leader positions attract few candidates. This reflects the: 1) temporary nature of the job, after which they usually return to teaching in the same school; 2) heavy administrative burden; 3) lack of autonomy in curricular matters and teaching staff supervision, a task reserved to the educational inspectorate. Associations of school leaders cite a lack of professional identity for school leaders as the reason it attracts few candidates to the position<sup>116</sup>.

## 4. Investing in education and training

**Education spending was stable in 2018, below the EU average.** While Spanish GDP has grown from 2016 to 2017, public expenditure on education as a share of GDP remained at 4%, below the EU average of 4.6%<sup>117</sup>. Public expenditure on education per pupil at primary, secondary and tertiary level is also below other similar EU Member States economies<sup>118</sup>. Regional administrations spend the vast majority (85.6%), largely on salaries (67.6% of all public education spending)<sup>119</sup>. 13.4% of education spending goes to publicly funded private schools (*escuelas concertadas*<sup>120</sup>), representing 8%-25% of all students enrolled in schools, depending on the region (MECD, 2019b). Between 2010 and 2015, spending on universities fell by EUR 1.5 billion and is projected to drop further by EUR 3.5 billion by 2021. The failure to approve the 2019 state budget means that the share of government expenditure on education will be the same in 2019 as in 2018.

**Private spending on education is significant.** The proportion of private-sector expenditure (primary to tertiary), excluded international sources, is among the highest in EU and OECD countries at 19% (OECD, 2018). Between 2012 and 2015, private education expenditure as a share of GDP increased (0.68% to 0.82%), mainly in secondary and tertiary education<sup>121</sup>. This

<sup>114</sup> Ibid 7.

<sup>115</sup> For teachers in public schools <https://www.boe.es/buscar/pdf/2007/BOE-A-2007-4372-consolidado.pdf>, and for teachers in private schools <https://www.boe.es/buscar/pdf/2010/BOE-A-2010-11426-consolidado.pdf>.

<sup>116</sup> See: <http://educalab.es/documents/10180/38496/MEDB+digital/4ea4b5d9-6a99-468c-a387-46affa4b6c50>.

<sup>117</sup> Eurostat, COFOG, 2017.

<sup>118</sup> Eurostat, UOE 2017.

<sup>119</sup> Ibid 12.

<sup>120</sup> *Escuelas concertadas* (concerted schools) are private schools that provide free school places under the same conditions as public schools. Their administration is private but their financing is mostly public, alongside parental contributions. Around 26% of students attend this type of school.

<sup>121</sup> OECD, Private spending on education. doi: 10.1787/6e70bede-en.

contrasts with most other EU countries in the OECD, where it either fell or remained the same<sup>122</sup>. In 2016/2017, over 30% of students (from primary to tertiary) had a scholarship (MECD, 2019b). In 2019, the government continued increasing funding for such scholarships.

**Additional funding is available to address regional disparities.** The 2019 European Semester country-specific recommendation to Spain included the recommendation to: 'Reduce early school leaving and improve educational outcomes, taking into account regional disparities' (Council of the European Union, 2019). In December 2018<sup>123</sup>, the Ministry of Education and the Autonomous Communities agreed to allocate EUR 200 million for regional cooperation programmes. The government allocated EUR 81 million to support the new programme to reduce school leaving, EUR 46 million to dual-VET, EUR 19 million to continuing professional development and mobility of teachers, and EUR 8 million to raising the quality of vocational education and training.

## 5. Modernising early childhood and school education

**Enrolment in early childhood education and care (ECEC) is high, but with regional disparities for the youngest children.** Participation in ECEC of children over 4 in 2017 was very high (97.4% v EU average 95.4%). The proportion of children under 3 in ECEC keeps rising, from 39.7% in 2015 to 45.8% [provisional data] in 2017, above the EU average of 34.2%<sup>124</sup>. The government plans to extend access to ECEC to all children from 0-3 years. There are major regional disparities in enrolment of children up to 2 years old: 53.8% in the Basque Country, 13.3 in Ceuta and 19.5% in Murcia (MECD, 2019b). There is no single legal framework; regions (Autonomous Communities) have different models and prioritise different factors, such as social equity in some regions (priority to children from lower socio-economic background), work-life reconciliation (priority to children whose parents work), or a blend of objectives. According to UNICEF (2018), these regional differences hinder equal access to childcare.

**Progress to reduce early school leaving has slowed down.** Although the percentage of early leavers from education and training fell from 28.2% in 2010 to 17.9% in 2018, it remains way above the EU average and Spain's Europe 2020 target of 15% (Figure 2). In 2018, the rate in 12 out of 19 regions either remained stable or rose (in 7 regions)<sup>125</sup>. In December 2018, the government adopted a new orientation and reinforcement programme, amending the former PROEDUCAR. It supports educational centres and students in vulnerable socio-economic situations, and aims to strengthen teachers' competences to address student diversity. Some Autonomous Communities approved programmes to improve pupil outcomes in primary and lower secondary education.

**Announced major legislative reforms were delayed.** The general election prevented the government from undertaking legislative proposals including the reform of the current education law, a new model of scholarships, universal access to early childhood education, reforms of access to the teaching profession and teacher education, and reforms to reduce the number of interim teachers. The only legislative reform adopted was the act on teaching conditions from pre-primary to secondary education<sup>126</sup>. This allows Autonomous Communities to reduce teaching hours (from 25 to 23 hours in ECEC, primary and special education, and from 20 to 18 hours elsewhere), lower the number of students per class, and substitute on-leave teachers more rapidly.

<sup>122</sup> See: <https://data.oecd.org/eduresource/private-spending-on-education.htm#indicator-chart>.

<sup>123</sup> See: <http://www.educacionyfp.gob.es/prensa/actualidad/2018/12/20181207-programas.html>.

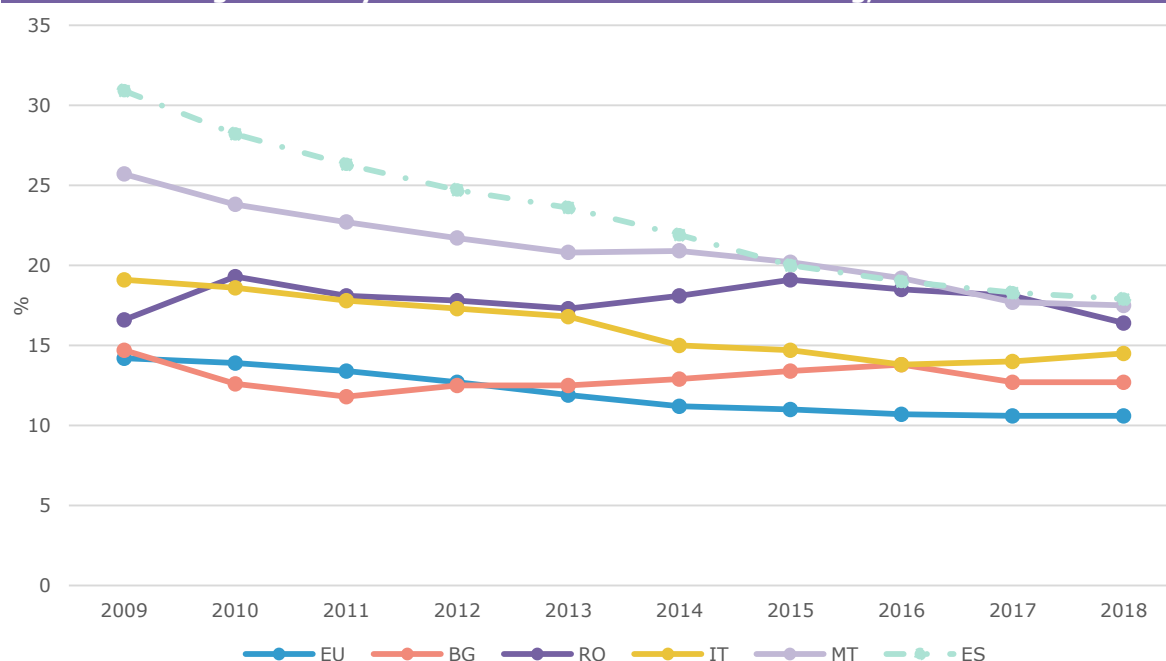
<sup>124</sup> Eurostat, EU-SILC. Online data code: *tepsr\_sp210*.

<sup>125</sup> Source: National Institute of Statistics (INE). EDUCAbase. Abandono temprano de la educación-formación por comunidad autónoma, sexo y periodo. See: <http://estadisticas.mecd.gob.es/EducaJaxiPx/Tabla.htm?path=/Formacionym/EPA/Indi/I0/&file=Indi01.px&type=pcaxis&L=0>.

<sup>126</sup> See: <http://www.educacionyfp.gob.es/prensa/actualidad/2019/02/20190221-leyrecorteseducativos.html>. The text of the proposal can be consulted in the web page of the Congreso de los Diputados: <http://www.congreso.es/portal/page/portal/Congreso/PopUpCGI?CMD=VERLST&BASE=pu12&DOCS=1-1&DOCORDER=LIFO&QUERY=%28BOCG-12-A-49-1.CODI.%29#>.



**Figure 2 Early leavers from education and training, 2009-2018**



Source: Eurostat, Labour Force Survey, 2018

## 6. Modernising higher education

**Expected reforms to higher education were delayed.** The government announced in November 2018 a comprehensive reform of higher education, but this has not yet materialised. Other announced reforms (on scholarships, on the payment and recognition of social rights for university students on internships) were also not adopted. One of the reasons was that the government and the universities did not agree on who should cover the cost.

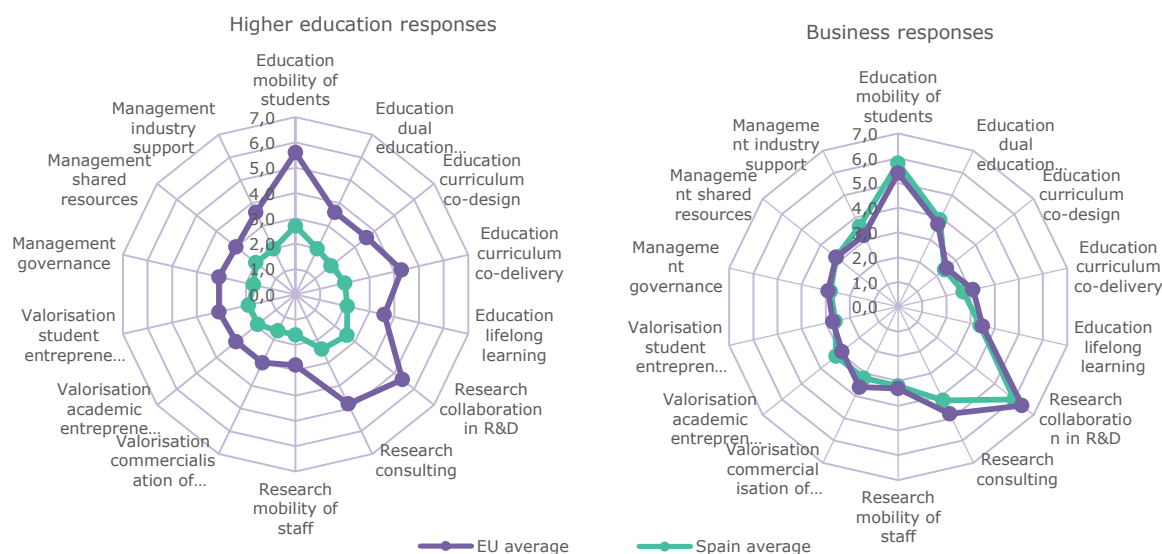
**Higher education faces challenges.** At 42.4%, Spain's higher education attainment rate in 2018 is high, above the EU average of 40.7%<sup>127</sup>. However, 21.5% of enrolled students drop out of university (12.1% of master's students)<sup>128</sup>. This is despite the fact that over 40% of students receive a scholarship in the first year of the bachelor's. Regarding learning mobility, the proportion of graduates graduating outside Spain (1.9%) is well below the EU average (3.6%), but the share of students participating in short-term study periods and/or work placements abroad (7.7%), is close (EU average: 8%).

**Though both academia and business desire further cooperation, it remains weak.** A recent survey (Galán Muros et al., 2019a) found that higher education institutions tend to cooperate with large and medium-size companies located in their region. This usually focuses on student mobility, with collaborative research and consultancies. But over 75% of academics are not involved; staff mobility and R&D commercialisation is particularly low (below the EU average). Academics perceive the main barriers to cooperation to be the lack of funding, administrative barriers and a lack of understanding of university activities by business. From the business perspective (Galán Muros et al., 2019b), 72% of respondents cooperate to a medium-high extent with universities, particularly in joint R&D. Few are involved in staff mobility, but cooperate significantly on student mobility. Cooperation is particularly low in aspects such as curriculum co-design, co-delivery and student entrepreneurship. Business perceive a lack of business knowledge within universities, low public financial support, and the high level of bureaucracy in universities as barriers to cooperation. The 2019 European Semester country-specific recommendation to Spain included the recommendation to: 'Increase cooperation between education and businesses with a view to improving the provision of labour market relevant skills and qualifications, in particular for information and communication technologies' (Council of the European Union, 2019).

<sup>127</sup> Eurostat. Online data code: [sdg\\_04\\_20](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1).

<sup>128</sup> Indicators of Higher Education 2018: <http://www.educacionyfp.gob.es/servicios-al-ciudadano-mecd/estadisticas/educacion/universitaria/estadisticas/estadistica-indicadores-universitarios/2018-2019.html>.

**Figure 3 State of cooperation from the higher education and business viewpoints**



Source: European Commission (DG Education and Culture) calculations, based on data from *State of University-Business Cooperation in Europe 2019*. Code: 0: Not at all; 1-4: Low; 5-7: Medium; 8-10: High.

**National and regional administrations are seeking to foster university-business cooperation.** Employment rates of recent graduates are improving (from 76.6% in 2017 to 77.9% in 2018) but below the EU average (85.5%). The government allocated EUR 19 million to hire 200 doctoral students under the programme 'Torres Quevedo'<sup>129</sup> to carry out industrial research in companies, business associations, and science and technology parks. Regional examples of university-business cooperation include the Basque region's university-business strategy, and the partnership agreement between Aragon, the automotive industrial cluster and other private-sector partners to build the first learning factory in Spain<sup>130</sup>.

#### Box 1: Joint academia-business strategic alliance in the Basque country

In June 2017, the regional education department of the Basque Country adopted the [University-Business strategy 2022](#). Its objectives are to generate knowledge based on scientific excellence and apply it in the business sector, and to train highly skilled people with the skills needed in the business sector. The strategy is aligned with the regional smart specialisation strategy ([RIS3-Euskadi](#)). The *Cluster 4Gune* was created in 2017 to foster collaboration between academia and education and training bodies in STEM areas. In 2019, the [Plan for the Basque University system 2019-2022](#) was adopted to strengthen cooperation between the three Basque universities (UPV-EHU, Mondragón University and Deusto University) and research, innovation and business organisations (BERCs, Ikerbasque, Unibasq, Clúster 4Gune and Euskampus). In 2018/2019, the universities offer 25 dual-university degrees (bachelor and master's levels), including training in companies (accounting for 25-50% of credits). Almost 500 students are currently enrolled and 600 private-sector bodies involved. The goals by 2022 are to reach 1 750 students, to increase the share of female STEM students from 32-52%, and to increase the number of jobs in companies for highly qualified workers by 25%.

The Basque Country adopted in 2018 the [law on vocational training](#) and in 2019 the [5th Basque vocational training plan 2019-2021](#). Around 1 500 companies are involved in vocational training. Dual-VET graduates (around 20% of all VET students) have an employability rate of 96.2%. The Basque VET system is widely acknowledged as one of most successful and innovative in Europe.

<sup>129</sup> See press note from the Spanish Ministry of Science, Innovation and Universities [here](#).

<sup>130</sup> See: <https://www.eleconomista.es/aragon/noticias/9684428/02/19/Educacion-la-CAAR-y-TuvRheinland-impulsan-la-primera-fabrica-de-aprendizaje-en-Espana.html>; <https://cifpa.aragon.es/inauguracion-fabrica-aprendizaje/>.

## 7. Modernising vocational education and training

**Enrolment in upper secondary VET slightly increased in 2017.** In 2017, 35.3% of students were enrolled in vocational programmes, well below the EU average 47.8%. Students had limited exposure to work-based learning; very few programmes provided for it in 2017. The level of employability of recent VET graduates rose significantly notably from 58.5% in 2017 to 70% in 2018, still below the EU average of 79.5% (2018).

**The development of the strategic plan for vocational training intends to boost VET.** The government presented a plan proposal in September 2018, including measures such as: developing new specialisation courses for VET graduates wishing to adapt their skills to labour-market needs, updating occupational standards and qualifications, easing progression to intermediate and higher-VET programmes, and improving the validation of non-formal and informal learning. The National Catalogue of Professional Qualifications and the Catalogue of VET Diplomas were updated. In December 2018, the government tripled the budget for VET teacher training and mobility (EUR 8.6 million, co-financed by the European Social Fund).

**The general council for vocational training<sup>131</sup> set up working groups to boost the VET system and increase cooperation between education and businesses.** The work of these groups focuses on the development, evaluation and quality of the system, professional information and guidance, national reference centres and integrated vocational training centres, dual-VET, and accreditation of professional competences acquired through work experience.

**Spain has taken many measures on dual-VET.** Royal Decree 28/2018 reduced the age limit for participating in dual-VET. In December 2018, the Council of Ministers approved further funding at regional level, with co-funding from European funds, to promote dual-VET. The agreement between the chamber of commerce and the public employment service to advise and support companies participating in dual-VET was extended until end 2019. In February 2019, the government published the strategic plan for dual vocational training, announcing more active participation of companies in continuous professional development for teachers and in designing occupational standards and training programmes.

### Box 2: Innovative bottom-up approach to VET

*Generation* is an academy founded by McKinsey & Company that helps unemployed young people obtain career-launching jobs working closely with employers. It provides training programmes (web, digital, sales, robotics, etc.) lasting 4-12 weeks, including a mix of hard and soft skills and based on experiential learning. *Generation* also provides social support services and mentoring before and after training. Students are then recruited by the investing employers who have a guarantee regarding their skills. Since 2015, *Generation* has organised programmes in six regions, with 1 200 participants (500 men, 700 women), of which 81% found a job after graduation and 76% had a job six months later. From 2014-2020, *Generation* will receive EUR 5 000 000 from the European Social Fund.

## 8. Developing adult learning

**In Spain, there is no specialised training to become an adult educator and no specific qualification to teach or train educators.** Therefore, the supply of specialised adult education teaching/training staff is insufficient, both for VET and 'general' adult education.

**The government approved the action plan for youth employment in December 2018.** One of its six priorities is to promote vocational training for young adults to improve their competencies.

**Adult participation in lifelong learning is increasing but still far from the EU benchmark.** In 2018, the participation rate of adults in education and training (10.5%) was close to the EU average (11.1%), but far below the EU benchmark of 15%. 39.9% of adults in Spain lack an upper-secondary qualification (EU average: 21.9%). In 2017, around 63 500 adults aged 25 or older acquired an upper-secondary qualification<sup>132</sup>, but this is only a small percentage of the nearly 10.7 million adults with only low-level educational qualifications. Skills polarisation and skills

<sup>131</sup> Consejo General de Formación Profesional.

<sup>132</sup> Eurostat, UOE, 2017.

mismatches affect the performance of the labour market in Spain and weigh on productivity growth. In 2018, the proportion of low and high qualified adults on total employment in Spain (32.8% and 43.2% respectively) are above EU averages (16.3% and 35.8%), while the proportion of mid qualified adults (23.9%) is below (47.7% in the EU)<sup>133</sup>.

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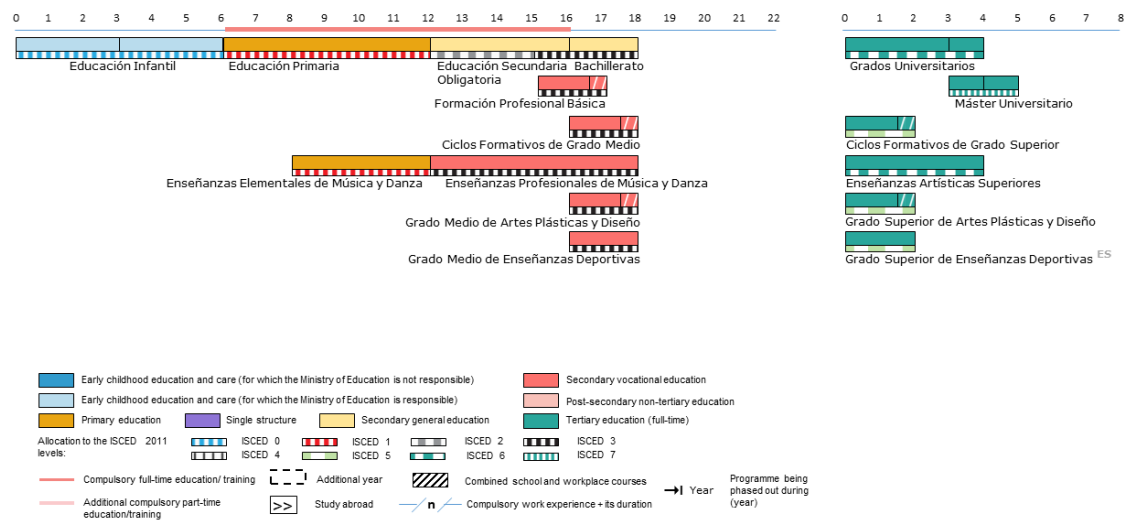
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## Annex I: Key indicator sources

Indicator	Eurostat online data code
Early leavers from education and training	edat_lfse_14 + edat_lfse_02
Tertiary educational attainment	edat_lfse_03 + edat_lfs_9912
Early childhood education and care	educ_uoe_enra10
Underachievement in reading, maths, science	OECD (PISA)
Employment rate of recent graduates	edat_lfse_24
Adult participation in learning	trng_lfse_03
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:	
- Degree-mobile graduates	JRC computation based on Eurostat / UIS / OECD data
- Credit-mobile graduates	

<sup>133</sup> Eurostat, Labour Force Survey, 2018

## Annex II: Structure of the education system



Source: European Commission/EACEA/Eurydice, 2018. The Structure of the European Education Systems 2018/19: Schematic Diagrams. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union.

Comments and questions on this report are welcome and can be sent by email to:

Antonio GARCIA GOMEZ

[antonio.garcia-gomez@ec.europa.eu](mailto:antonio.garcia-gomez@ec.europa.eu)

or

[EAC-UNITE-A2@ec.europa.eu](mailto:EAC-UNITE-A2@ec.europa.eu)

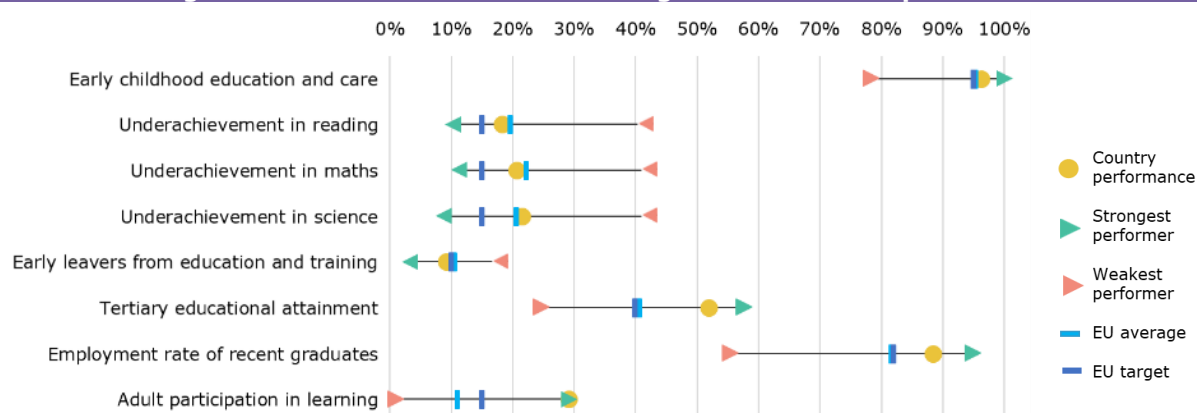
# SWEDEN

# 1. Key indicators

			Sweden		EU average	
			2009	2018	2009	2018
Education and training 2020 benchmarks						
Early leavers from education and training (age 18-24)			7.0%	9.3%	14.2%	10.6%
Tertiary educational attainment (age 30-34)			43.9%	52.0%	32.3%	40.7%
Early childhood education and care (from age 4 to starting age of compulsory primary education)			94.7%	96.3% <sup>17</sup>	90.8%	95.4% <sup>17,d</sup>
Proportion of 15 year-olds underachieving in:	Reading		17.4%	18.4% <sup>15</sup>	19.5%	19.7% <sup>15</sup>
	Maths		21.1%	20.8% <sup>15</sup>	22.3%	22.2% <sup>15</sup>
	Science		19.1%	21.6% <sup>15</sup>	17.7%	20.6% <sup>15</sup>
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)		ISCED 3-8 (total)	81.6%	88.5%	78.3%	81.6%
Adult participation in learning (age 25-64)		ISCED 0-8 (total)	22.5%	29.2%	9.5%	11.1%
Learning mobility	Degree-mobile graduates (ISCED 5-8)		:	4.6% <sup>17</sup>	:	3.6% <sup>17</sup>
	Credit-mobile graduates (ISCED 5-8)		:	10.9% <sup>17</sup>	:	8.0% <sup>17</sup>
Other contextual indicators						
Education investment	Public expenditure on education as a percentage of GDP		6.8%	6.8% <sup>17</sup>	5.2%	4.6% <sup>17</sup>
	Expenditure on public and private institutions per student in € PPS	ISCED 0	€9 822 <sup>12</sup>	€10 513 <sup>16</sup>	:	€6 111 <sup>15,d</sup>
		ISCED 1	€7 943 <sup>12</sup>	€8 248 <sup>16</sup>	€5 812 <sup>12,d</sup>	€6 248 <sup>15,d</sup>
		ISCED 2	€8 446 <sup>12</sup>	€8 745 <sup>16</sup>	€6 937 <sup>12,d</sup>	€7 243 <sup>15,d</sup>
		ISCED 3-4	€8 430 <sup>12</sup>	€8 407 <sup>16</sup>	:	€7 730 <sup>14,d</sup>
		ISCED 5-8	€17 358 <sup>12</sup>	€17 647 <sup>16</sup>	€10 549 <sup>12,d</sup>	€11 413 <sup>15,d</sup>
Early leavers from education and training (age 18-24)	Native-born	6.4%	7.3%	13.1%	9.5%	
	Foreign-born	11.9%	17.7%	26.1%	20.2%	
Tertiary educational attainment (age 30-34)	Native-born	44.3%	51.9%	33.1%	41.3%	
	Foreign-born	42.6%	52.3%	27.7%	37.8%	
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-4	74.6%	83.6%	72.5%	76.8%	
	ISCED 5-8	89.6%	92.5%	83.8%	85.5%	

Sources: Eurostat; OECD (PISA); Learning mobility figures are calculated by the European Commission's Joint Research Centre from UOE data. Further information can be found in Annex I and in Volume 1 ([ec.europa.eu/education/monitor](https://ec.europa.eu/education/monitor)). Notes: The EU's 2009 PISA averages do not include Cyprus; d = definition differs, u = low reliability, p=provisional, 15 = 2015, 17 = 2017.

**Figure 1 Position in relation to strongest and weakest performers**



Source: European Commission, Directorate-General for Education, Youth, Culture and Sport (DG EAC) calculations, based on data from Eurostat (LFS 2018, UOE 2017) and OECD (PISA 2015).



## 2. Highlights

- Tertiary educational attainment and graduate employment rates are high.
- The population's digital skills are among the best in the EU.
- There is a serious teacher shortage, and a large number of teachers lack formal qualifications.
- School segregation and inequality are serious and growing concerns.

## 3. A focus on teachers

**There is a serious teacher shortage.** The number of pupils is rising. Simultaneously, around 40% of teachers are aged over 50<sup>134</sup>, and 10% of compulsory school teachers are aged 60-65. One in five special needs teachers will retire within 5 years<sup>135</sup>. Many teachers are leaving the profession due to health issues and work-related stress (Arevik, 2015)<sup>136</sup>. According to the National Agency for Education (NAE), an additional 92 000 fully qualified teachers and pre-school teachers are needed within the next 4 years (NAE, 2017a). Projections to 2031 show that while 227 000 teachers will be needed, only about 145 000 will graduate, leaving a shortfall of over 80 000 (NAE, 2017b). There are already shortages of science, technology and modern languages teachers. 10% of all university students are already studying to become teachers, and increasing the number in teacher education will not be enough. Efforts are being made to draw on newly arrived migrants who have teaching qualifications from their country of origin (see box). The Swedish Association of Local Authorities and Regions (SALAR) has further suggested employing retired teachers and more effective use of distance education. Only 10.7% of teachers in Sweden believe their profession is valued in society, and it is the first choice of career for only 59.1% (OECD, 2019)<sup>137</sup>. The gender imbalance among teachers is somewhat less pronounced than in other Member States<sup>138</sup>.

**Initial teacher education programmes vary with the level of education.** Initial teacher education programmes for pre-school last 3.5 years and lead to a bachelor's degree. Those for primary school last 4 years, lower secondary 4.5 years and upper secondary 5 years, and lead to a master's degree. There is also a 'Bridging Teacher Education' programme consisting of school placement and education science for those already qualified in school subjects but who have no teacher education.

**A high proportion of people working as teachers lack formal teaching qualifications.** In 2017/2018, almost 20% of teachers in compulsory and 20% in upper secondary schools had no formal initial teacher education<sup>139</sup>; for teachers younger than 29, this rises to 53%. The proportion of unqualified teachers is higher in independent schools (NAE, 2018). There is a strong socio-economic dimension in municipal schools, with students who are Swedish-born and whose parents are better educated more likely to be taught by qualified teachers (Granestränd and Halth, 2018). Researchers claim that many teachers also lack appropriate subject knowledge (Lärarnas Nyheter, 2013). Following a reform in autumn 2016, unqualified teachers are no longer able to have permanent contracts (except for VET or mother tongue teachers) or to grade students (NAE, 2018). According to the Education Act, municipalities should distribute funding for hiring qualified teachers on the basis of socio-economic factors, to improve equality.

**Several major continuous professional development initiatives have been introduced in recent years.** 'Boost for mathematics' (2012) was attended by 75% of all mathematics teachers. 'Boost for reading' (2015) was attended by teachers from 50% of all municipal schools and 25% of independent schools in the first 3 years. 'Boost for teachers' (introduced in 2007) is university-

<sup>134</sup> From 35% for ECEC to 44% for tertiary education.

<sup>135</sup> Swedish Teachers Union.

<sup>136</sup> According to a report from one teacher union, 50% of teachers feel stress, compared with 21% of people in comparable occupations - Lärarförbundet (2018).

<sup>137</sup> In 2018, 23 Member States participated in TALIS survey: Austria, Belgium fr, Belgium nl, Bulgaria, Croatia, Cyprus, Czechia, Denmark, England (UK), Estonia, Finland, France, Hungary, Italy, Latvia, Lithuania, Malta, the Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden. TALIS 2018 covers lower secondary teachers and school leaders in mainstream public and private schools.

<sup>138</sup> In 2017, 95% of teachers in ECEC, 76% of primary and 64% of secondary school teachers were women. In tertiary education less than half the teachers were female- Eurostat, UOE, 2017.

<sup>139</sup> See: <https://www.skolverket.se/om-oss/press/pressmeddelanden/pressmeddelanden/2018-03-22-stora-skillnader-i-lararbehorighet-mellan-kommuner>

based training for teachers who do not have a teaching qualification in the subject or age group they teach, with 30 000 teachers enrolled.

**Teachers' salaries are lower than those of other tertiary graduates, and wage progression is very limited.** Teachers' statutory starting salaries are somewhat higher than those of their peers across the EU, but progression to the maximum salary is much lower than the EU average (e.g. for primary 35.2%, EU average 61%)<sup>140</sup>. Teachers earn considerably less than other full-time workers with tertiary degrees (ranging from only 76% for pre-school teachers to 91% for upper secondary school teachers) (OECD, 2018). Low salaries and limited wage progression hinder teacher recruitment and reduce job satisfaction among experienced teachers (which slips from 92.3% initially to 89.9% after 5 years). Only 63.1% of Swedish teachers would become teachers if they could choose again. This is the lowest percentage in the EU (EU average 77.6%), though it has improved by nearly 10 pps since 2013 (OECD, 2019). From 2016/2017, the government has earmarked central funds to increase salaries, under the 'Boost for Teachers' Salaries' initiative. The funds increase salaries for about 30% of teachers by varying amounts (the average is SEK 2 594 (EUR 243.60) per month), and are distributed by municipalities and independent schools to excellent teachers.

#### Box 1: 'Fast-track' – an opportunity for newly arrived pre-school teachers and teachers in Sweden

In 2015, six universities jointly developed a 'fast-track training course' for newly arrived migrant teachers and pre-school teachers. It has since targeted refugees and asylum seekers. The programme combines 'supplementary teacher education' at one of the universities, given partly in Arabic and partly in English, with studies in Swedish and a 26-week internship at a school or pre-school. Between April 2016 and December 2018, 1 261 newly arrived teachers and pre-school teachers benefited from the programme. To become a qualified teacher, they still need to complete a bridging programme and pass a teaching examination. This is proving a challenge for many.

The broader 'fast-track' initiative was set up, also in 2015, by the social partners and the public employment service in 20 professions where there are labour shortages. The scheme for teachers has been one of the most successful.

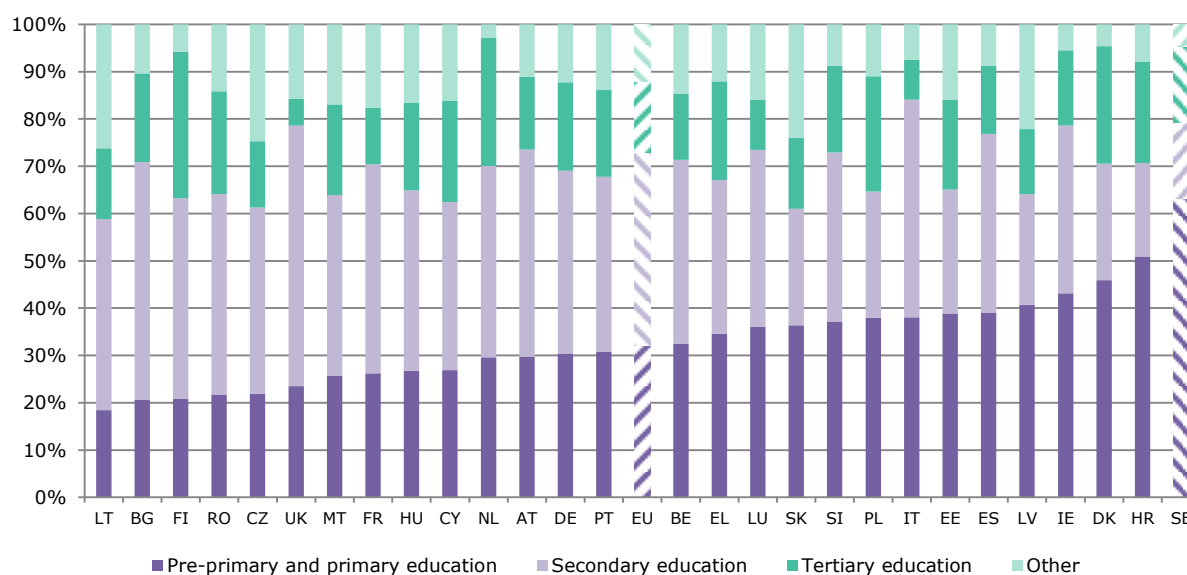
## 4. Investing in education and training

**Investment in education is high, and is concentrated in compulsory education.** In 2017, Sweden was the Member State that dedicated the biggest share of GDP to education (6.8%), much higher than the EU average (4.6%). The share of total general government expenditure on education is also very high (13.7%, EU average 10.2%), with an increase of 1.1 pps from 2013 to 2017. Sweden spends 63.3% of this on pre-primary and primary education, a share which is the highest in the EU and almost double the EU average. The proportion spent on upper secondary education (16.1%) is the lowest in the EU (EU average 41.0%)<sup>141</sup>.

<sup>140</sup> Eurydice, 2018.

<sup>141</sup> Eurostat, COFOG, 2017.

**Figure 2 General government expenditure in education by level, 2017**



Source: Eurostat.

### **The school-age population is rising, and further investment in education will be needed.**

The school-age population is expected to grow by 12.3% between 2020 and 2030, and by 17.8% by 2040, one of the highest rates of growth in the EU. Continued high investment in education will be needed<sup>142</sup>. In 2019, Sweden received a country-specific recommendation from the Council of the European Union to, among other things 'focus investment-related economic policy on education and skills' (Council of the European Union, 2019).

## **5. Modernising early childhood and school education**

**Participation in early childhood education and care (ECEC) is high and a new emphasis on learning is being introduced.** Participation in ECEC for children up to 3 years old is one of the highest in the EU (52.7%, EU average 34.2%)<sup>143</sup>. In 2017, it was 96.3% among children from 4 until the starting age of compulsory education, above the EU average of 95.4% and the EU benchmark for 2020 of 95%<sup>144</sup>. Traditionally, ECEC has concentrated on play and pupil-centred pedagogy, but in 2018 a new curriculum was adopted (Regeringen, 2018a) which incorporates a strengthened focus on learning, in particular reading and digital skills. Implementation should begin from autumn 2019. From autumn 2018, 'pre-school class' is a mandatory part of the school cycle<sup>145</sup>, with more teaching content to prepare children for their first school year. Challenges for ECEC relate to the differences in quality and provision between municipalities and the shortage of qualified ECEC teachers.

**Early school leaving is below the EU average.** While the rate of 9.3% is below the EU average (10.6%), there has been a rise from 7% in 2009, and the national Europe 2020 target of 7% seems unattainable. Young men are 2.4 pps more likely to leave school early than young women. There is a wide and growing difference between native-born pupils (7.3%) and those born abroad (17.7%).

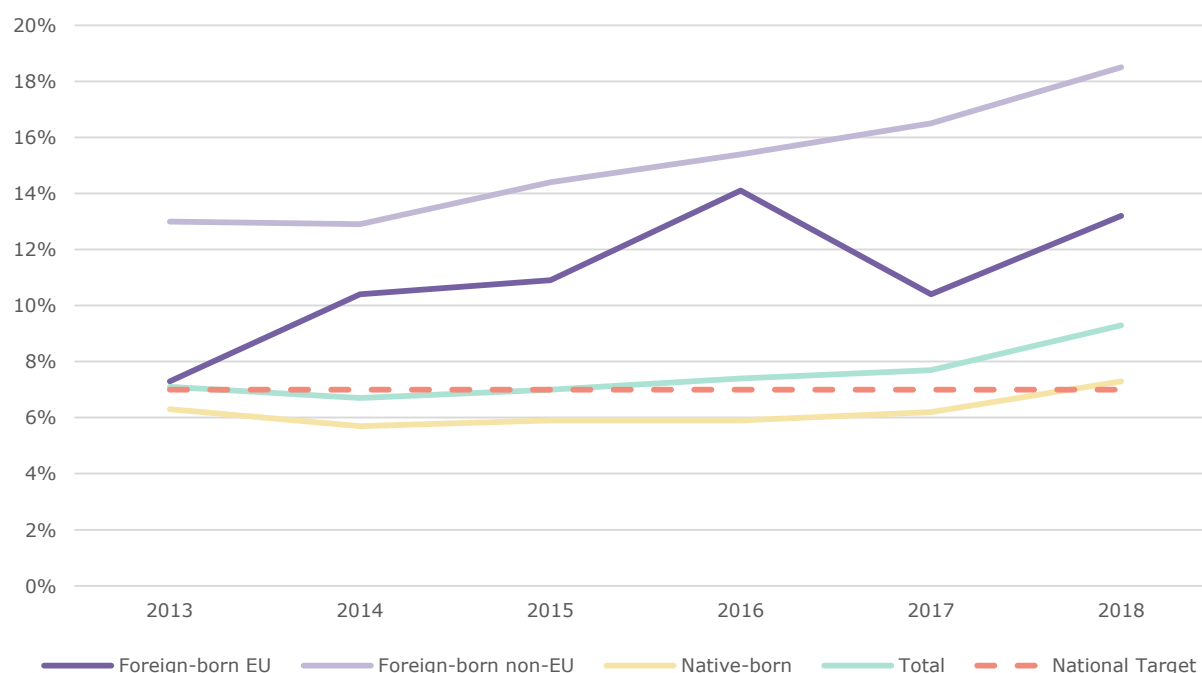
<sup>142</sup> 600 new schools and 300 new kindergartens need to be built by 2020 – (SALAR, 2018).

<sup>143</sup> Eurostat EU-SILC survey.

<sup>144</sup> Eurostat, UOE, 2017.

<sup>145</sup> The amendment to the Education Act (2010:800) entered into force on 1 January 2018.

**Figure 3 Early leavers from education and training by country of birth(18-24 years) 2013-2018**



Source: Eurostat. Online data code: [edat\\_lfse\\_02](#)

**Growing segregation and inequality in schools are serious concerns.** Growing inequalities within a traditionally highly inclusive system can be traced to the 1990s education reform, when education was decentralised and a school market and school choice were introduced. Private providers run independent schools (publicly funded but privately run). Evidence shows that school choice contributes to segregation, as children of well-educated and Swedish-born parents tend to opt for independent schools more frequently than migrants and children of less well-educated parents (Kornhall and Bender 2019, p. 5). This segregation has a negative effect on school results for already vulnerable students. It is likely that segregation has contributed to the reduced equity and declining overall educational results observed in the OECD's PISA survey and in national grades and tests (Kornhall and Bender, 2019, p. 18). PISA shows that the impact of socio-economic status in Sweden is higher than the EU average<sup>146</sup>. The fact that municipalities are responsible for funding schools creates further potential for inequality, given the wide differences in resources at their disposal. Additional funding is being directed to municipalities whose schools have concentrations of children from migrant and lower socio-economic backgrounds: SEK 1 billion (EUR 104 million) in 2018, SEK 3.5 billion (EUR 365 million) in 2019 and SEK 6 billion (EUR 627 million) in 2020. The aim is to help schools attract better teachers and improve teaching quality (SOU, 2017).

**Swedes' digital skills are among the best in the EU and continue to improve.** The digital skills of young people aged 16–19 are better than the EU average (68% have above-basic skills, EU average 57%). Sweden has the second highest proportion (77%) of individuals aged 16–74 who have basic or above-basic overall digital skills (EU average 57% in 2017)<sup>147</sup>. The proportion of those regularly using the internet is also among the highest (91% in 2018, EU average 83%). This figure has remained high for the past 7 years. The education system is one of the most digitalised in the EU: most schools have one computer per student and even pre-schools are close to that level. Sweden has had a digital strategy for schools since 2017, and programming has recently been incorporated into 13 of the 19 subjects in the national curriculum (Regeringen, 2017). One goal is that by 2022 all schools should be prepared for national tests to be taken digitally. In March 2019 SALAR and NAE created a national action plan to digitalise the school system and formal adult education. Despite the good digital skills of the population, the proportion of teachers who feel well

<sup>146</sup> Measured as the score-point difference in science associated with one-unit increase in the PISA index of economic, social and cultural status (OECD, 2016).

<sup>147</sup> Eurostat, DESI, 2017.

or very well prepared to use information and communications technology (ICT) for teaching is below the EU average (37%, EU average 39.4%). 22.2% of teachers report a high need to develop their ICT skills (EU average 16.1%).

## 6. Modernising higher education

**Tertiary educational attainment is one of the highest in the EU.** Sweden has a high tertiary educational attainment rate (52 % in 2018), above the Europe 2020 national target of 45-50% and much higher than the EU average (40.7%). It has been consistently high for years, and since 2010 has risen by approximately 1 p.p. annually. The rate for women is 59.1% and that for men 45.3%. The attainment rate of foreign-born people from other EU countries is almost as high as that of the native-born population, but there is a big gap for foreign-born people from non-EU countries (attainment rate 35.2%)<sup>148</sup>.

**Although the employment rate of tertiary graduates is among the highest in the EU, the proportion of graduates in natural sciences and mathematics is low.** While the proportion of graduates in science, technology, engineering and mathematics (STEM) subjects (27.5%) is slightly above the EU average, most of them are studying engineering and construction (18.8%). In 2017, the proportion studying natural sciences, mathematics and statistics was among the lowest in the EU (4.4%, EU average 7.6%)<sup>149</sup>. The employment rate among recent tertiary graduates is one of the highest in the EU (92.5% in 2018)<sup>150</sup> and has been constantly increasing since 2010. However, there is a shortage of graduates in teaching, medicine, nursing (European Centre for the Development of Vocational Training (Cedefop, 2018) and ICT (Almega, 2017).

**Two major changes in the right to access tertiary education will enter into force in 2022.** One affects existing access through the National University Aptitude Test, which is taken after successful completion of secondary education to improve the chances of being selected for highly attractive university studies. The test will be restricted to students who are at least 18 years old. The government hopes the change will encourage students to focus on completing their upper secondary studies first. The second change is the creation of a new test to validate competencies, designed to allow those aged 24 or older who have not completed secondary education to pursue tertiary studies.

**An expert group has proposed changes in the funding of tertiary education.** In 2018, a commission of inquiry into funding for higher education recommended a common budget allocation for education and research, with an increased share for research (to rise from 44% to at least 50% of the total). It also proposed quality assurance of both higher education and research, and a funding mechanism for universities' social responsibilities (SOU, 2019).

**Tertiary education teachers are among the oldest in Europe, and their employment is insecure.** Of tertiary education teachers, 44% are older than 50, and 19% older than 60<sup>151</sup>. Employment in tertiary education is not always secure, as 28% of teachers and researchers have only temporary contracts (SULF).

**A new strategy for internationalisation was proposed recently.** An expert group proposed a new national strategy to internationalise higher education. The proposals call for the recruitment of more international students by facilitating enrolment and increasing scholarships (including bilateral funding agreements with non-EU countries), incentives for industry (tax deductions for donations and scholarships) to support higher education and boost the supply of skills, and increased funding for universities, with increased autonomy to reduce tuition fees for non-EU students. These proposals should be implemented in 2020–2030. Learning mobility among Swedish graduates is higher than the EU average (15.5%, EU average 11.6%), but it is still below the EU benchmark of 20%. Inward mobility, at 10.3%, is somewhat lower than the EU average (10.8%), and most of it is in postgraduate degrees. Most international graduates come from other EU countries or from countries in Asia.

<sup>148</sup> Eurostat, LFS, 2018.

<sup>149</sup> Eurostat, UOE, 2017.

<sup>150</sup> Eurostat, LFS, 2018.

<sup>151</sup> Eurostat, UOE, 2017.

## 7. Modernising vocational education and training

**Participation in initial VET is low, though the employment rate of recent VET graduates is one of the highest in the EU.** In 2017, nearly 37 900 new students entered upper secondary formal VET education in Sweden, an increase of 3% from 2016 (UOE, 2017). 34.1% of students at upper secondary level attend vocational education, below the EU average (47.8%) (UOE, 2017). Few students participate in combined school- and work-based programmes (UOE, 2017). The employment rate among recent VET graduates has increased slightly from 87.8% in 2017 to 88.7% in 2018. It is above the EU average (79.5%) (LFS, 2018), among the highest in the EU and almost as high as that of tertiary education graduates<sup>152</sup>.

**Measures are being taken to make VET more attractive.** They include establishing VET courses that prepare for tertiary education, and the development of new apprenticeships by the Apprenticeship Centre, working with stakeholders. National and regional coordinators have been set up to help schools collaborate with local enterprises (Cedefop, forthcoming). A national commission of inquiry into vocational education suggested establishing trade or industry schools to provide a work-based component. This has been a pilot project since January 2018, involving 10 trade schools which can obtain a state grant of up to SEK 50 000 (EUR 4 670) per learner (Cedefop, forthcoming). In 2018, an inquiry began to explore a regionalised model of upper secondary provision and diversification of programmes, to better address the mismatch with skills needs (Regeringen, 2018b). Findings will be presented in February 2020. A January 2019 report explored supporting learners in making well-informed choices. It proposes individual career guidance and a compulsory activity 'Future choices' focusing on working life, career paths and vocational areas before learners proceed to upper secondary education (Ministry of Education, 2019).

**The shortage of teachers also impacts VET.** There is a lack of qualified VET teachers, and the situation is expected to get worse. The NAE is running a campaign to attract professionals. State grants were introduced in 2013 and 2016 to raise salaries for particularly well-qualified teachers, while companies that offer apprenticeships receive financial support if their trainers undergo training. School managers and school leaders in municipalities receive support in change management and digitalisation (NAE, ReferNet Sweden, 2019).

### Box 2: Yrk in

The 'Yrk in' project (2017–2020) aims to increase young people's interest in VET, provide them with better job opportunities, develop new forms of study and vocational guidance, step up collaboration with employers and achieve less gender-stereotyped programme selection.

The target group is young people aged 15–24 who lack secondary school education, with a particular focus on newly arrived migrants. The project aims to support 400 young people who are preparing for upper secondary school studies or who wish to resume them.

Yrk in supports improved guidance and flexible admission and forms of training for migrants and others.

Methods used are early work-life training/education, support to businesses, training of mentors/job coaches, study guidance, visits to industries, and career portfolios for new arrivals. Yrk in is being implemented by SALAR in four regions. The total budget is SEK 30.5 million (EUR 3 million), of which SEK 20.5 million (EUR 2 million) comes from the European Social Fund.

## 8. Developing adult learning

**The proportion of low-skilled adults is below the EU average, and they are more likely to participate in adult learning, but there are jobs available to only one in three of them.** 14.47% of the adult population have not acquired at least an upper-secondary qualification (EU average: 21.9%) (LFS, 2018). Furthermore, the proportion of low-qualified adults actually in employment is higher (64%), than the EU average (56.8%) (LFS, 2018). Participation in adult learning (29.2%), is the highest in the EU and substantially above the EU average (11.1%) (LFS, 2018). The need for more substantial upskilling remains, however: in 2017 there were 751 000

<sup>152</sup> Eurostat, LFS, 2018.



low-qualified adults but only 242 000 jobs with an elementary skills requirement (LFS, 2017). In 2017, no adults aged 25 or above acquired an upper-secondary qualification (UOE, 2017).

**Boosting adult learning is an objective of the new government's coalition agreement (January 2019).** Adults will be given additional opportunities to participate in further education and training, and the conditions of study loans will be improved (NAE, ReferNet Sweden, 2019).

**Changes have been proposed to municipal adult education and there are proposals to develop a new teacher education profile for adult learning.** In August 2018 a national commission of inquiry proposed making the system more responsive to changes in the labour market and to the needs of individuals, both as second-chance education and as support for career changes (Ministry of Education, 2018). It also proposes offering more apprenticeship and school-based training to adults with intellectual disabilities (NAE, ReferNet Sweden, 2019). There are no programmes which directly train teachers to teach in formal adult education. The inquiry into municipal adult education has proposed offering a formal adult education profile by some higher education institutions (NAE, ReferNet Sweden, 2019). The commission's proposals are now being worked on within the Government Offices.

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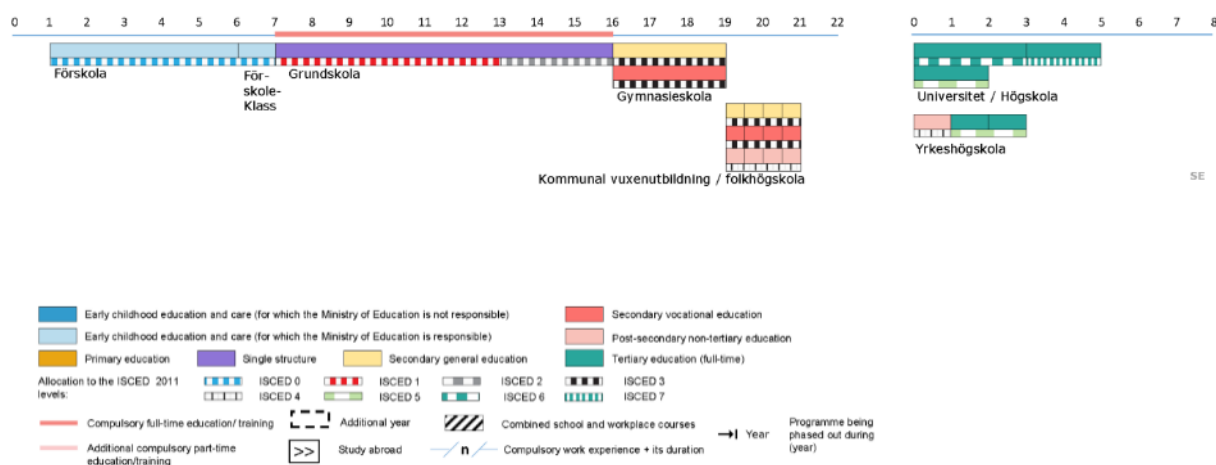
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## Annex I: Key indicator sources

Indicator	Eurostat online data code
Early leavers from education and training	edat_lfse_14 + edat_lfse_02
Tertiary educational attainment	edat_lfse_03 + edat_lfs_9912
Early childhood education and care	educ_uoe_enra10
Underachievement in reading, maths, science	OECD (PISA)
Employment rate of recent graduates	edat_lfse_24
Adult participation in learning	trng_lfse_03
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:	
- Degree-mobile graduates	JRC computation based on Eurostat / UIS / OECD data
- Credit-mobile graduates	JRC computation based on Eurostat / UIS / OECD data

## Annex II: Structure of the education system



Source: European Commission/EACEA/Eurydice, 2018. *The Structure of the European Education Systems 2018/19: Schematic Diagrams*. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union.

Comments and questions on this report are welcome and can be sent by email to:  
Marina GRŠKOVIC  
[Marina.Grskovic@ec.europa.eu](mailto:Marina.Grskovic@ec.europa.eu)  
or  
[EAC-UNITE-A2@ec.europa.eu](mailto:EAC-UNITE-A2@ec.europa.eu)

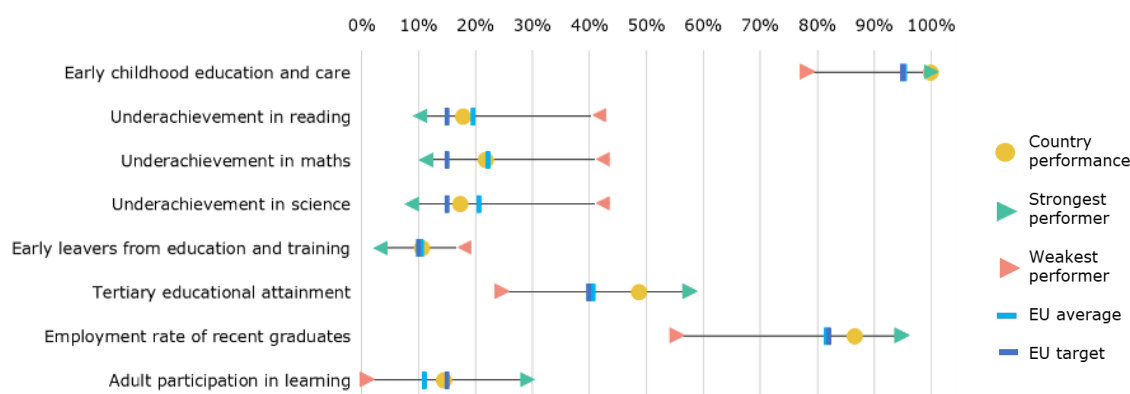
# UNITED KINGDOM

# 1. Key indicators

			United Kingdom		EU average	
			2009	2018	2009	2018
Education and training 2020 benchmarks						
Early leavers from education and training (age 18-24)			15.7%	10.7%	14.2%	10.6%
Tertiary educational attainment (age 30-34)			41.4%	48.8%	32.3%	40.7%
Early childhood education and care (from age 4 to starting age of compulsory primary education)			97.3%	100.0% <sup>17</sup>	90.8%	95.4% <sup>17,d</sup>
Proportion of 15 year-olds underachieving in:	Reading		18.4%	17.9% <sup>15</sup>	19.5%	19.7% <sup>15</sup>
	Maths		20.2%	21.9% <sup>15</sup>	22.3%	22.2% <sup>15</sup>
	Science		15.0%	17.4% <sup>15</sup>	17.7%	20.6% <sup>15</sup>
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)		ISCED 3-8 (total)	80.1%	86.7%	78.3%	81.6%
Adult participation in learning (age 25-64)	ISCED 0-8 (total)		20.7%	14.6%	9.5%	11.1%
Learning mobility	Degree-mobile graduates (ISCED 5-8)		:	0.8% <sup>17</sup>	:	3.6% <sup>17</sup>
	Credit-mobile graduates (ISCED 5-8)		:	3.3% <sup>17</sup>	:	8.0% <sup>17</sup>
Other contextual indicators						
Education investment	Public expenditure on education as a percentage of GDP		6.2%	4.6% <sup>17</sup>	5.2%	4.6% <sup>17</sup>
	Expenditure on public and private institutions per student in € PPS	ISCED 0	€7 895 <sup>12</sup>	€5 833 <sup>16</sup>	:	€6 111 <sup>15,d</sup>
		ISCED 1	€7 498 <sup>12</sup>	€8 140 <sup>16</sup>	€5 812 <sup>12,d</sup>	€6 248 <sup>15,d</sup>
		ISCED 2	€7 688 <sup>12</sup>	€7 945 <sup>16</sup>	€6 937 <sup>12,d</sup>	€7 243 <sup>15,d</sup>
		ISCED 3-4	€7 458 <sup>12</sup>	€7 997 <sup>16</sup>	:	€7 730 <sup>14,d</sup>
		ISCED 5-8	€18 217 <sup>12</sup>	€17 294 <sup>16</sup>	€10 549 <sup>12,d</sup>	€11 413 <sup>15,d</sup>
Early leavers from education and training (age 18-24)	Native-born	16.3%	11.0%	13.1%	9.5%	
	Foreign-born	11.6%	8.9%	26.1%	20.2%	
Tertiary educational attainment (age 30-34)	Native-born	41.9%	46.5%	33.1%	41.3%	
	Foreign-born	39.6%	55.7%	27.7%	37.8%	
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-4	74.9%	83.1%	72.5%	76.8%	
	ISCED 5-8	84.2%	88.4%	83.8%	85.5%	

Sources: Eurostat; OECD (PISA); Learning mobility figures are calculated by the European Commission's Joint Research Centre from UOE data. Further information can be found in Annex I and in Volume 1 ([ec.europa.eu/education/monitor](http://ec.europa.eu/education/monitor)). Notes: The EU's 2009 PISA averages do not include Cyprus; d = definition differs, := not available, 12= 2012, 14= 2014, 15 = 2015, 16= 2016, 17 = 2017.

**Figure 1 Position in relation to strongest and weakest performers**



Source: Calculations by the European Commission's Directorate-General for Education, Youth, Culture and Sport (DG EAC), based on data from Eurostat (LFS 2018, UOE 2017) and OECD (PISA 2015).

## 2. Highlights

- Efforts are being made to tackle the high proportion of teachers leaving the profession.
- In England, academies are growing in number, but many are facing financial pressures.
- The consequences of Brexit for UK higher education are unclear but policy responses to address the potential loss of EU research funding and reduced student inflows will be needed.
- England will introduce new qualifications as part of ongoing reforms of upper secondary VET.

## 3. A focus on teachers

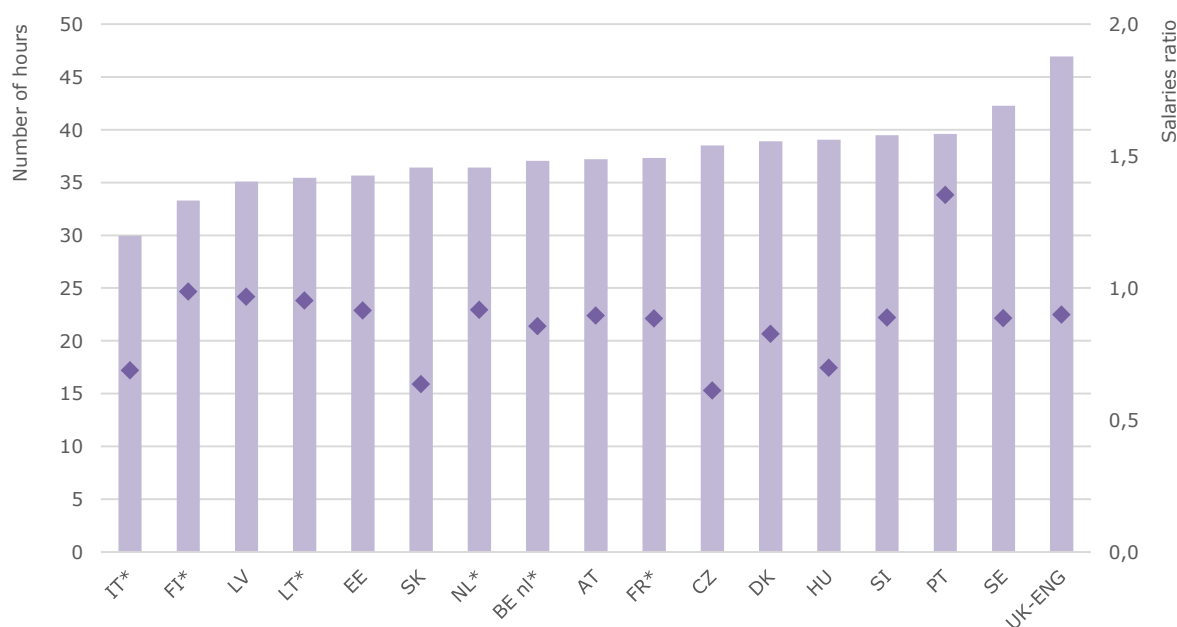
**Teachers in the United Kingdom are comparatively young.** About 80% of teachers in early childhood education are below the age of 50, one of the youngest workforces in the EU. The proportion is 85% in primary schools (EU average 68%) and 78% at secondary level (EU average 61%). The gender balance is close to the EU average for all educational levels.

**Teachers' working conditions place heavy demands.** At 26 pupils, the average class size in primary schools is the highest in the EU (EU average 21) (OECD, 2018). Pupil-teacher ratios at lower and upper secondary levels are also among the highest in the EU, with 15.2 and 17.2 pupils per teacher respectively, compared with an EU average of 12.2 for both. In addition, teaching time is far above the EU average. In Scotland it is among the highest in the EU, with 855 teaching hours per year in 2017 for all levels, compared to EU averages of 633 hours in upper secondary, 665 in lower secondary, and 754 in primary (OECD, 2018). One explanation for this is the comparatively short school holidays. In England, lower secondary teachers report that they work 47 hours a week, the highest working time across EU countries participating in the OECD Teaching and Learning International Survey (TALIS)<sup>153</sup>, of which 20 hours are devoted to teaching (OECD, 2019).

**Salaries are slightly below the EU average.** Teachers in England earn about 20% less than average tertiary-educated workers in pre-primary and primary, and 10% less at secondary level. Teachers in Scotland at all levels earn on average 17% less than similarly educated workers. On average in the EU, upper secondary teachers earn the same as tertiary-educated workers, and lower secondary teachers 7% less. School leaders in England are comparatively better paid, with secondary school leaders earning more than twice the average for tertiary-educated workers (the EU average is about 40% more). Primary school leaders are also above the EU average (earning 48% more, EU average 21%). In Scotland, the differential is 28% at all levels (OECD, 2018). Salary progression from minimum to maximum statutory salary for lower secondary teachers in England, Wales and Northern Ireland is close to the EU average of 64%, but in Scotland is well below the EU average at 33% (European Commission/EACEA/Eurydice, 2018).

<sup>153</sup> In 2018, 23 Member States participated in TALIS: Austria, Belgium fr, Belgium nl, Bulgaria, Croatia, Cyprus, Czechia, Denmark, England (UK), Estonia, Finland, France, Hungary, Italy, Latvia, Lithuania, Malta, the Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden. TALIS 2018 covers lower secondary teachers and school leaders in mainstream public and private schools.

**Figure 2 Working time of lower secondary teachers in comparison with actual salaries of those teachers relative to earnings of tertiary-educated workers, 2016-2018**



■ Total working hours per week (2018) ◆ Actual salaries of teachers relative to earnings of tertiary-educated workers (2016)

Source: OECD, Education at a Glance 2018, Table D3.2, and OECD, TALIS 2018 Results, Table I.4.12. Notes: ratio of salary, using annual average salaries of teachers in public institutions relative to the earnings of full-time, full-year workers with tertiary education. Working time is self-reported. \*Country-specific notes: FR, IT, NL, LT: Reference year for earnings of tertiary-educated workers is 2014. CZ, FI, BE: Reference year for earnings of tertiary-educated workers is 2015.

### The number of teachers leaving the profession keeps increasing, and is a policy concern.

The proportion of teachers who left state-funded schools in England for reasons other than retirement was 8.3% in 2017, an increase of 2.5 pps since 2012 (Department for Education (DfE), 2018a, Table 7b). Workload is the reason most often cited for teachers leaving the profession (Sims, 2017). In the 2018 TALIS, although they were more positive than the EU average in terms of how their profession was valued in society (28.8%, EU average 17.7%), only 77.5% of teachers in England reported that they were satisfied with their job, the lowest result in the EU (EU average 89.5%) (OECD, 2019). In 2010-2018, 4 152 secondary school teachers in the UK sought formal recognition of professional qualifications for the purpose of permanent establishment within the EU Member States, EEA countries and Switzerland<sup>154</sup>, a higher number than any other professional group, and a big increase on the 2 207 applications lodged in 2001-2009.

### The government has flagged teacher recruitment and retention in England as a priority.

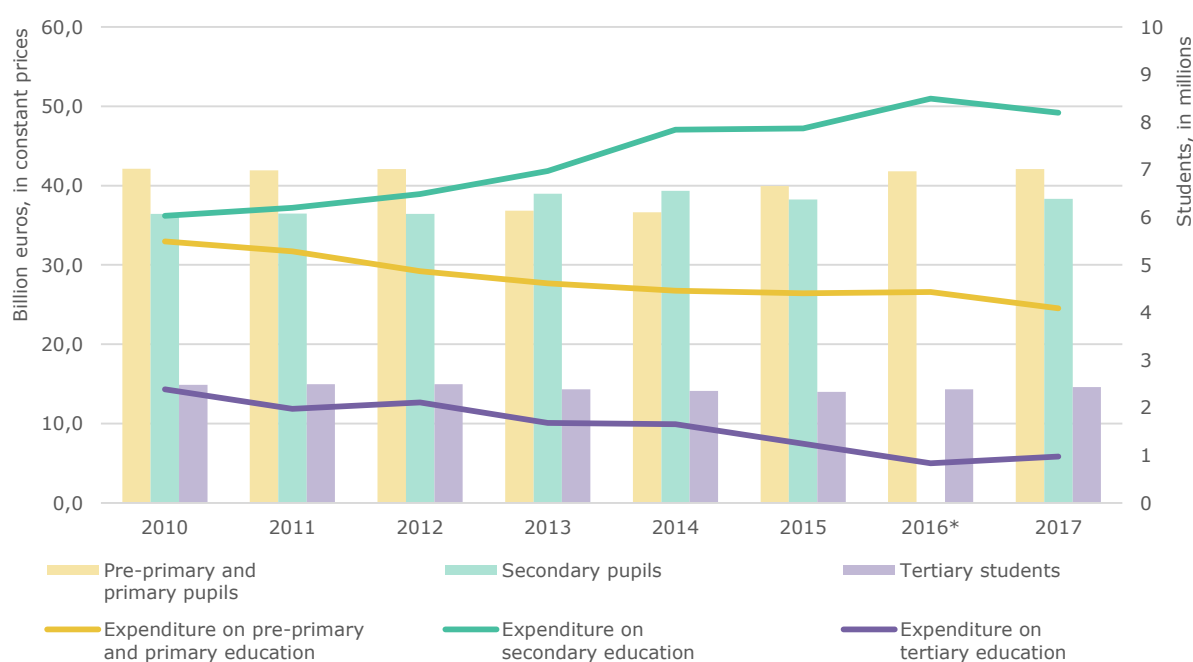
Authorities aim particularly to reduce departures during teachers' early careers, since 'over 20% of new teachers leave the profession within their first two years of teaching, and 33% leave within their first five years' (DfE, 2018a). A teacher recruitment and retention strategy has been developed together with teachers, head teachers, representative bodies and initial teacher training providers. The strategy includes pay increases to teachers each summer between 2018 and 2020. The 'Early Career Framework' aims to tackle the issue of teachers leaving the profession in the first few years. Early career teachers will be entitled to a fully-funded, two-year package of structured support, including funding and a guaranteed 5% off timetable in the second year of teaching, and training and support by mentors (DfE, 2019a).

<sup>154</sup> European Commission, Regulated professions database, <http://ec.europa.eu/growth/tools-databases/regprof/index.cfm>

## 4. Investing in education and training

**UK's general government expenditure on education continues to fall, but remains close to the EU average.** With a total budget of EUR 104 billion spent on education (a 2.3% decrease in real terms from the previous year), the UK allocates 4.6% of its GDP to education, the same as the EU average. This represents 11.3% of total general government expenditure, a fall of 0.3 pps. from 2016, but still above the EU average of 10.2%. Expenditure per pupil has fallen much more rapidly, by 13.4% in real terms in 2009-2016, reflecting the 10% increase in total pupil numbers in the same period. It is still comparatively high at primary level, at EUR 8 140 in purchasing power standards (PPS), comparable with Scandinavian countries. At secondary level, however, it is below the level of comparable countries, at EUR 7 945 and EUR 7 997 respectively for lower and upper secondary. The government spends 25% of the education budget on intermediate consumption (the purchase of goods and services by government), which is the highest proportion in the EU. It spends only 47.2% on compensation to employees (EU average 62%).

**Figure 3 Evolution of expenditure and number of students per education level**



Source: DG EAC calculations based on Eurostat, COFOG and UOE data. Online data codes: *gov\_10a\_exp*, *nama\_10\_gdp*, *educ\_uoe\_enra01* and *educ\_enr1tl*. Notes: \*2016 data for number of students in secondary education is not available. Number of students is expressed in millions on the right-hand axis; real government expenditure per level of education is expressed in billion euros on the left-hand axis, valued at constant prices using the implicit deflator for final consumption of the general government.

## 5. Modernising early childhood and school education

**A third (33.2%) of children aged under 3 attended formal early childhood education and care (ECEC) in the UK in 2017.** This is slightly below the EU average (34.2%), and represents a fall by almost 2 pps compared to the previous year. On the other hand, practically all children aged between 4 years and the starting age of compulsory education participate in ECEC.

**The lack of resources in ECEC has worsened.** Expenditure per pupil in ECEC fell from EUR 9 042 in 2012 to EUR 6 836 in 2016. The current level of spending per child of EUR 5 833 in PPS is far below Germany (EUR 8 529 in PPS) or Scandinavian countries (EUR 10 513 in PPS for Sweden). The pupil-teacher ratio grew from 17.6 pupils per teacher in 2014 to 23 in 2017, by far the highest rate in the EU<sup>155</sup>.

<sup>155</sup> Eurostat, UOE, 2017. Online data code: *educ\_uoe\_perp04*

**Several policy initiatives have been taken in ECEC.** The Scottish government launched its 'Leadership of early learning' programme in April 2019, which provides professional learning to school leaders in ECEC. Wales has a successful 'Flying start' programme<sup>156</sup>. Authorities in England have been rolling out the 30 hours of free childcare entitlement to three and four year olds children of working parents. Since 2017 the program has delivered support for over 600 000 children and was evaluated a success for families benefiting from it (DfE, 2018b). However, a review by a parliamentary committee concluded that funding was inadequate to deliver this commitment fully (NDNA, 2018).

**Early school leaving varies between regions and populations.** Overall, the rate of early school leaving (ESL) is at the EU average (10.6%) in 2018. Uniquely among EU countries, it is higher for native-born than foreign-born (2 pps difference). Among pupils born outside the EU, this rate falls to 6%, whereas the EU average for this group is 20.7%. The rate varies strongly by region, from 6% in London to almost 14% in the East of England. There is no major difference between Scotland, Wales, Northern Ireland and England. Wales, through its 'Youth engagement and progression framework', succeeded in reducing its ESL rate by 4.1 pps between 2013 and 2017 and at the same time has reduced the share of students not in employment, education or training (NEET)<sup>157</sup>.

**In England, there is rising concern about the financial viability of academies.** Academies are publicly funded independent schools which don't have to follow the national curriculum and can set their own term times. They're run by an academy trust which employs the staff and some academies have sponsors such as businesses, universities, other schools, faith or voluntary groups. About 8 600 of the more than 20 000 state schools in England have become academies (DfE, 2019b). However, the financial viability of many of them is in question, as surveys suggest that half of academies are accumulating debts, and 7.7% of trusts show cumulative deficits for 2018 (Kreston Academies Group, 2019).

**Also in England, the rise in the number of school exclusions is worrying.** The latest government statistics showed that schoolchildren were permanently expelled on 7 900 occasions in 2017/18, a rise of 3% compared to 2016/17, and the highest level since 2008/09 (DfE, 2019c).

**In 2019, the Welsh government announced the content of the school reform to be implemented from 2022 to 2026<sup>158</sup>.** This reform comprises a new curriculum, the introduction of a digital competence framework and more freedom in teaching. This comes along with a more rigorous inspection by the Inspectorate for Education and Training in Wales (at least twice in a 7-year period)<sup>159</sup>. Unions support this reform, but regret that teachers were not more involved in the consultation process<sup>160</sup>.

**Scotland is addressing equity and poverty issues with the Scottish Attainment Challenge.** GBP 750 million (EUR 840 million) has been dedicated to addressing socio-economic disadvantage and improving literacy and numeracy among disadvantaged children. A further GBP 120 million (EUR 135 million) will be available through the Pupil Equity Fund to schools with high numbers of children registered for free school meals<sup>161</sup>.

**UK pupils' digital literacy skills fell back.** According to a study by the University of Roehampton (Kemp & Berry, 2019), information and communication technology (ICT) skills have dropped: additionally, the number of hours of computing/ICT taught in secondary school dropped by 35.8% from 2012 to 2017. Meanwhile, the Department for Education announced the creation of the first ever National Centre of Computing Education. That centre will help improve teaching of the

<sup>156</sup> See: <https://familypoint.cymru/flying-start-wales/>

<sup>157</sup> See: <https://gov.wales/youth-engagement-and-progression-framework-implementation-plan>

<sup>158</sup> See: <https://gov.wales/new-school-curriculum-overview>

<sup>159</sup> See: <https://www.estyn.gov.wales/inspection>

<sup>160</sup> NASUWT responds to draft curriculum for Wales, 7 May 2019, <https://www.nasuwt.org.uk/article-listing/nasuwt-responds-to-draft-curriculum-for-wales.html>

<sup>161</sup> See: <https://www.gov.scot/policies/schools/pupil-attainment/>



computing curriculum and is supported by a new programme which will train up to 8 000 computing teachers on the latest digital skills<sup>162</sup>.

## 6. Modernising higher education

**The higher education system remains one of the best in the EU and the world.** UK higher education institutions (HEI) retain their reputation for global excellence, with no less than seven universities in the Top 50 of the Global QS Employability Rankings of HEIs<sup>163</sup>. The tertiary educational attainment rate increased slightly to 48.8% in 2018 (52.0% for women). This is one of the highest rates in the EU. Access by students from low socio-economic backgrounds to higher education in England is still difficult (DfE, 2018c). Despite some efforts from top universities to ensure greater openness, diversity and inclusion at university level remain a policy concern<sup>164</sup>.

**Tertiary educational attainment is, unusually, higher among foreign-born than native-born.** This can be at least partially explained by the great attractiveness of UK higher education: inward mobility in 2016 resulted in over 200 000 mobile graduates, of which 47 600 originate from other EU countries; this is a third of all mobile graduates in the EU. International students contributed GBP 11.9 billion (EUR 13 billion) to UK education exports in 2016. The Department for Education (DfE) and Department for International Trade (DIT) announced the launch of a new International Education Strategy in March 2019 which included an ambition to increase the number of international students to 600 000 by 2030 (DfE and DIT, 2019) and diversify the country of origin of students in favour of emerging economies, in particular China, India, and countries from South East Asia and Africa (Hinds, 2019). The reasons for this include the spending potential of those students, the anticipated falling age cohort of young Britons and the potential impact of Brexit on inflows of EU students.

**Outward mobility remains low among tertiary students.** Only 3.3% of graduates in 2017 undertook credit mobility during their studies, and 0.8% went abroad to take their whole degree. The UK government has started to address this, with the launch of the 'UK strategy for outward student mobility 2017-2020', which aims to double the number of students undertaking international placements as part of their higher education programmes (Universities UK (UUK), 2017).

### Box 1: Universities UK International (UUKi) and promoting outward student mobility

UUKi's 'strategy for outward student mobility' aims to double the percentage of UK-domiciled, full-time first-degree students who undertake international placements as part of their higher education programmes to just over 13% of students by 2020.

UUKi's 'Go International' programme helps implement the strategy by working with different stakeholders (UK HEIs, the Erasmus+ National Agency for the UK, sector agencies, careers services, employer representatives, UK government, overseas governments and professional, statutory and regulatory bodies).

**Stakeholders have expressed concerns about the impact of Brexit on the UK's higher education and research.** The Welsh government has expressed its concerns about a drop in funding linked to the end of access to European structural and investment funds. The UK government has announced a UK Shared Prosperity Fund to help compensate for this cut and has expressed its openness to continue participation in Horizon 2020 and Erasmus+. Universities UK has stated that a 'no deal' exit from the EU would be bad for their students, researchers and its 136 member universities (UUK, 2019). The House of Lords has emphasized the importance of securing association to the EU programmes, warning that it would be a challenge to try to replicate their benefits at a national level (House of Lords, 2019).

<sup>162</sup> See: <https://www.gov.uk/government/news/schools-minister-announces-boost-to-computer-science-teaching>

<sup>163</sup> QS, Graduate Employability Rankings 2019. <https://www.topuniversities.com>

<sup>164</sup> See: <https://www.educationopportunities.co.uk/>

**In England, the level of tuition fees is under review.** The government-commissioned independent panel report on the review of post-18 education and funding, known as the Augar review, presented in May 2019, recommended a reduction of tuition fees to a maximum of GBP 7 500 (EUR 8 400) a year, with the shortfall to be bridged by additional grant funding (UK Government, 2019). However, universities fear that this would cause difficulties in their financial planning<sup>165</sup>. Meanwhile, the UK Government has increased the annual fee caps and maximum fee loans for accelerated degree courses (those that are completed at least one year sooner than their standard equivalents) for the 2019/2020 academic year, with the aim of incentivising wider provision and uptake of these courses (DfE, 2018d). The objective is to decrease the amount of the tuition fees and living costs for students. Meanwhile, the gap between future earnings of postgraduate and undergraduate degree holders is widening while the 'graduate earnings premium' is decreasing. The differential in median salaries between young graduates (age 21-30) and non-graduates decreased by GBP 1 500 (EUR 1 638) since 2017 whereas the gap between those of graduates and postgraduates increased by GBP 1 000 (EUR 1 092) (DfE, 2019d).

**Student mental health remains a preoccupation.** NHS England is working closely with UUK via the 'Mental health in higher education' programme, and announced a particular focus on mental health of young adults through prevention and early intervention in their long term plan released in January (NHS, 2019).

## 7. Modernising vocational education and training

**Vocational Education and Training (VET) has become more attractive.** In 2017, 1.3 million new students entered formal VET programmes, an increase of almost 8% on 2016. The enrolment rate in upper secondary VET remains below the EU average (46.6%, EU average 47.8%). The employment rate of recent VET graduates in 2017 increased slightly to 84.2% (82% in 2016), above the EU average of 79.5% in 2018.

**In 2018, policy developments in England included a strong investment in the further education (FE) sector.** The FE Commissioner role has been expanded and strengthened since it was established in 2013. The 'National Leaders of Governance' and 'National Leaders of Further Education' initiatives were launched to share expertise between colleges across the country. A new innovative funding scheme, the Strategic college improvement fund, launched in 2018 for a period of 2 years, allocates GBP 15 million (EUR 17 million) for funding partnerships between top colleges and ones in need of improvement, to share best practices and drive up standards. Building on the 2016 Post-16 skills plan, and as part of a reform of upper secondary VET qualifications in England, a new technical qualification called T level, equivalent to three A-levels, will be introduced as of September 2020 in specific sectors (digital industry, construction industry, education and childcare) for learners after the general certificate of secondary education (GCSE) exam.

**Campaigns around the UK aim to make VET more attractive.** In Scotland, a new TV campaign was launched in November 2018 to raise the profile of colleges as first training options, and to assist national recruitment activities. A national apprenticeship network has also been launched. It targets former and current apprentices willing to engage in networking activities and share their experiences, in the hope of inspiring others to enrol in apprenticeships. In Wales, the 'The answer is apprenticeship' campaign aimed at youth (including NEETs) and their parents ran in summer 2018, to publicise the benefits of apprenticeships for gaining skills and qualifications needed to start a career.

<sup>165</sup> 'Tuition fee cut will send universities into crisis, leading vice-Chancellors warn'. Daily Telegraph, Published November 23. <https://www.telegraph.co.uk/education/2018/11/23/tuition-fee-cut-will-send-universities-crisis-leading-vice-chancellors/>

### Box 2: Graduate Apprenticeships as part of the Developing Scotland's workforce strategic intervention

Graduate apprenticeships provide a new way into degree-level study for individuals who are currently employed, or who want to go straight into work. Employees can equip themselves with higher levels of academic learning and industry accreditation, which helps them progress as professionals. By investing in their staff through such apprenticeships, employers can develop their workforce and help staff develop their skills to industry and professional standards.

14 of Scotland's universities and colleges will be delivering Graduate Apprenticeships, in 12 subject areas including ICT/Digital, Cyber Security, Data, Civil Engineering, Engineering, Construction and Business. Graduate Apprenticeships as part of the 'new work based learning models operations' have a combined budget of GBP 20.6 million (EUR 23.1 million), with support from the European Social Fund of GBP 8.5 million (EUR 9.5 million) in Phase 1 of delivery to December 2018.

## 8. Developing adult learning

**Adults in the UK are more likely to frequently update their knowledge and skills.** 14.6% of adults aged 25-64 have had a learning experience in the past 4 weeks, (EU average 11.1%). Of adults aged 25 or above, 151 328 acquired an upper secondary qualification in 2017. UK adults are on average better educated than their EU counterparts: 80.4% of adults have acquired at least an upper secondary qualification, compared with the EU average of 78.1%. However, the proportion of low-qualified adults in employment in the UK is high, at 65.7% compared with the EU average of 56.8%. This is excessive, given the low number of jobs requiring such qualifications, and highlights the need for a more substantial upskilling and reskilling effort. In this context, the Council of the European Union addressed a country specific recommendation to the UK in 2019 calling on it to 'focus investment-related economic policy on [...] training and improving skills' (Council of the European Union, 2019).

**National initiatives to promote adult learning are emerging.** In England, a national initiative 'Taking teaching further'<sup>166</sup>, was launched in 2018 for a pilot period of 2 years. It aims to raise the profile and attractiveness of the further education teaching profession to attract highly experienced industry professionals from key industry sectors to teach full or part-time. To increase the attractiveness of the construction sector – which has experienced skills shortages and a productivity gap in recent years – a GBP 22 million (EUR 25 million) construction skills fund was launched in June 2018 in England<sup>167</sup>. A digital skills partnership was set up in 2018 by the UK Department for Digital, Culture, Media and Sport, which supports implementation of the UK digital strategy in England. Skills advisory panels are being formed to provide information on skills needs and challenges in specific sectors and areas across England. In Scotland, the science, technology, engineering and mathematics (STEM) bursary programme 2018-19, an initial teacher education support scheme, was funded by Skills Development Scotland<sup>168</sup>. In Wales, a GBP 10 million (EUR 10 million) skills development fund was launched in September 2018 to support skills provision in areas where job-specific skills gaps have been identified by regional skills partnerships. The 'Inclusive apprenticeship action plan 2018-2021' also feeds into the Wales employability plan<sup>169</sup>.

<sup>166</sup> See : <https://www.et-foundation.co.uk/supporting/support-teacher-recruitment/taking-teaching-further/>

<sup>167</sup> See : <https://www.gov.uk/government/news/22m-fund-launched-to-boost-construction-skills>

<sup>168</sup> See : <https://www.gov.scot/publications/science-technology-engineering-mathematics-education-training-strategy-scotland/>

<sup>169</sup> See : <https://gov.wales/sites/default/files/publications/2018-11/inclusive-apprenticeships-disability-action-plan-for-apprenticeships-2018-21-1.pdf>

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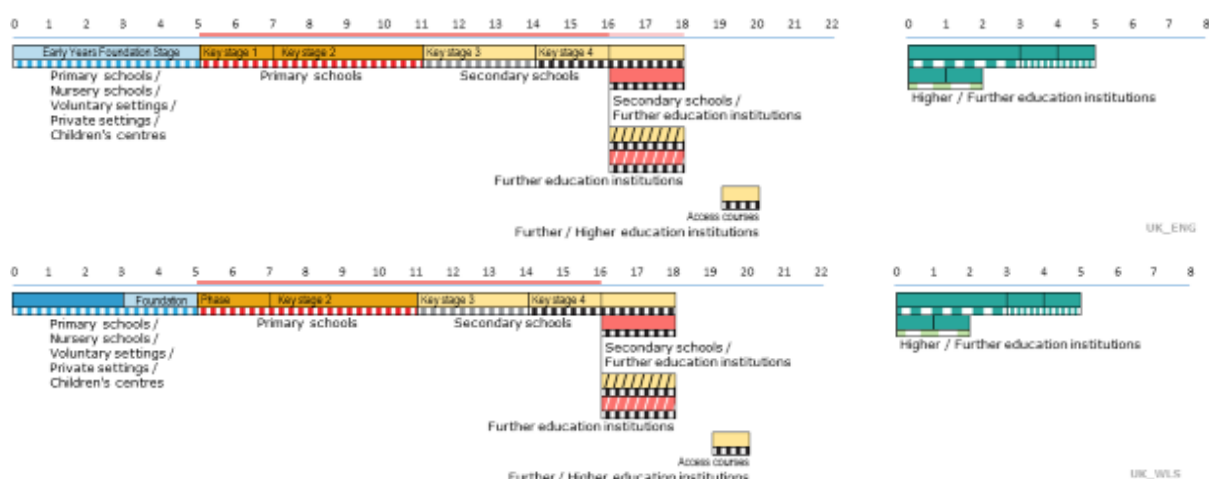
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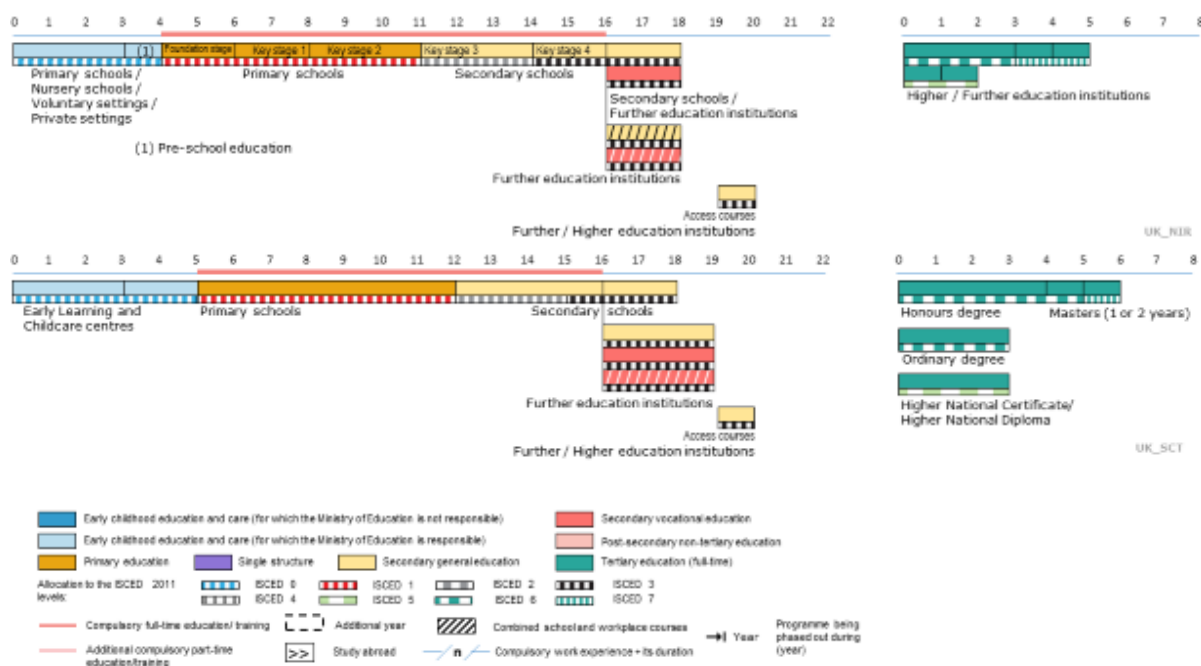
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## Annex I: Key indicator sources

Indicator	Eurostat online data code
Early leavers from education and training	edat_lfse_14 + edat_lfse_02
Tertiary educational attainment	edat_lfse_03 + edat_lfs_9912
Early childhood education and care	educ_uoe_enra10
Underachievement in reading, maths, science	OECD (PISA)
Employment rate of recent graduates	edat_lfse_24
Adult participation in learning	trng_lfse_03
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:	
- Degree-mobile graduates	JRC computation based on Eurostat / UIS / OECD data
- Credit-mobile graduates	

## Annex II: Structure of the education system





Source: European Commission/EACEA/Eurydice, 2018. The Structure of the European Education Systems 2018/19: Schematic Diagrams. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union.

Comments and questions on this report are welcome and can be sent by email to:  
[EAC-UNITE-A2@ec.europa.eu](mailto:EAC-UNITE-A2@ec.europa.eu)