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Education and Training Monitor 2013

(Volume 2: Country analysis - Part 7 of 7: Slovenia, Spain, Sweden, United Kingdom)

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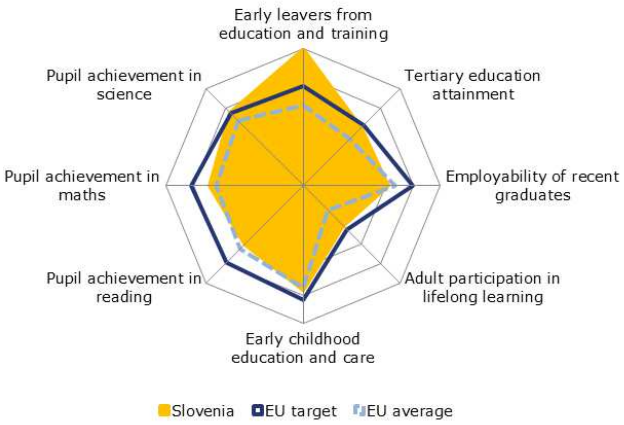
1. Key indicators and benchmarks

Europe 2020 headline targets			Slovenia 2009	Slovenia 2012	EU average 2009	EU average 2012	Europe 2020 target / Benchmark
1. Early leavers from education and training (age 18-24)			5.3%	4.4%	14.2% EU28	12.7% EU28	**EU target: 10%** National target: 5%
2. Tertiary educational attainment (age 30-34)			31.6%	39.2%	32.1% EU28	35.7% EU28	**EU target: 40%** National target: 40%
ET 2020 Benchmarks							
3. Early childhood education and care (4 years old - year before start of compulsory primary)			87.7%	89.8% 11	91.7%	93.2% 11	**95%**
4. Basic skills Low achievers (15 year-olds; Level 1 or lower in PISA study)	Reading		21.2%	:	19.6%	:	**15%**
	Mathematics		20.3%	:	22.2%	:	**15%**
	Science		14.8%	:	17.7%	:	**15%**
5. Learning mobility	Initial vocational training (IVET)	**a.** Students participating in Leonardo da Vinci programs as a share of vocational students at ISCED 3	1.0%	0.8% 11	0.6%	0.7% 11	
	Higher Education	**b.** Erasmus inbound students as % of student population in host country		1.3% 11		1.1% 11	
		c. Inbound degree mobile students as % of student population in the host country		1.8% 11		7.0% 11	
6. Employment rate of graduates (age 20-34) having left education 1-3 years before reference year			82.3%	73.2%	78.3%	75.7%	**82%**
7. Adult participation in lifelong learning (age 25-64)			14.6%	13.8%	9.3%	9.0%	**15%**
Proposed ET 2020 benchmark							
8. Foreign languages skills	**a.** ISCED 2 students at proficiency level B1 or higher in first foreign language[1]		:	54.0% 11	:	43.5% 11	
	b. ISCED 2 students learning two or more foreign languages		39.6%	50.4% 11	58.6%	60.8% 10	
Other ET 2020 Indicators							
9. Investment in education and training	**a.** General government expenditure on education (% of GDP)		6.5%	6.7% 11	5.5%	5.3% 11	
	b. Annual expenditure on public and private educational institutions per pupil/student in € PPS	ISCED 1-2	€ 7,134 08	€ 6,971 10	€ 5,732 08	€ 6,021 10	
		ISCED 3-4	€ 5,498 08	€ 5,670 10	€ 6,964 08	€ 7,123 10	
		ISCED 5-6	€ 6,398 08	€ 7,296 10	€ 9,309 08	€ 9,168 10	
10. Digital competences	**a.** Pupils in grade 4 (ISCED 1) using computers at school		33.3% 07	45.3% 11	60.7% 07	64.7% 11	
	b. Individuals aged 16-74 with high computer skills[2]		28.0%	31.0%	25.0%	26.0%	
11. Entrepreneurial competences	Individuals aged 18-64 who believe to have the required skills and knowledge to start a business		52.0%	51.0%	42.3% a	42.0% a	
12. Vocational education and training	Share of vocational students at ISCED 3		64.3%	65.4% 11	49.6%	50.3% 11	
13. Skills for future labour markets Projected change in employment 2010-2020 in %	High qualification		:	22.8%	:	19.1% EU28	
	Medium qualification		:	-6.6%	:	4.6% EU28	
	Low qualification		:	-17.9%	:	-20.2% EU28	
14. Low-skilled adults	Literacy		:	:	:	19.9% EU17	
	Numeracy		:	:	:	23.6% EU17	
	Problem solving in technology rich environments[3]		:	:	:	26.9% EU13	

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

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

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



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

2. Main challenges

Overall, Slovenia performs relatively well in education and training. Room for improvement could be identified in the following areas: Skills mismatch is a challenge both for the low-skilled but also for the high-skilled tertiary graduates. Although Slovenia recognises the importance of a national forecast of future skills needs on the labour market, a comprehensive system to identify current and projected labour market needs is yet to be developed.

In addition, the performance of 15-year olds', as measured by international tests[1], has failed to improve and has even deteriorated. In order to reverse this trend and to remedy apparent weaknesses, like in literacy, reform efforts need to be continued and eventually intensified. A national quality framework referenced to the European one will be enacted in 2013. Furthermore, special attention will have to be devoted to more efficient inclusion of vulnerable groups.

The current context of consolidation of public expenditure in Slovenia might have a negative impact on the quality of education the near future. In the context of growth-friendly fiscal consolidation there is a need for preserving expenditure in education and training while increasing its efficiency. Therefore CSR 1 2013 asked to "safeguard growth-friendly spending".

CSR 3 2013 asked in particular to "address the skills mismatch by improving the attractiveness of the relevant vocational education and training programmes and by further developing cooperation with the relevant stakeholders in assessing labour market needs " and to regulate for student work and for further tailor-made active labour market policy measures while improving their effectiveness.

3. Investing in skills and qualifications

Investing in education and training in a context of economic crisis

In 2011 Slovenia invested 6.7 % of GDP in education. This is an increase of 0.1% in comparison to 2010 and higher than 2011 EU average (5.3%). Since 2006 education spending has been consistently above EU average and education spending remained stable despite the recession. However there has been a tendency to shift resources from primary to secondary education[2]. Budgetary constraints induce searching for improved efficiency and Slovenia aims to rationalise its sprawling school network.

Skills and qualifications

PIRLS 2011 showed that performance of fourth graders in reading is above the scale centre point. TIMSS 2011 results showed that both fourth graders and eight graders scored above the scale centre point in mathematics and science in a context of continuous improvement compared to previous results. PISA tests show more mixed results. In reading and mathematics results are below the EU average but in science they are above.

In 2009 21.2% of pupils were low achievers in reading, which is higher than the EU average (19.6%) and represents an increase in comparison to the 2006 test (16.5%). Gender differences are important with boys

1 OECD: PISA, TIIMS, PIRLS

2 Eurydice Expenditure and Budgets for Education (2013) observes a relative increase of actual 2011 expenditure in secondary (113.2%) and tertiary education (114%) compared to 2008 and a decrease in primary education to 96.5 of the 2008 spending level.

being three times more likely to be underachievers than girls. In mathematics, there are 20.3% of underachievers which is higher than the EU average (22.2%[3]) and the percentage increased since 2006 (17.7%) with no major gender differences (20.9% for boys and 19.7% for girls).

With 14.8 %, Slovenia has a lower than EU average proportion of low achievers in science (EU average is 17.7%). The rate did not increase significantly since 2006 testing (13.9% in Slovenia in 2009). Boys (17.8%) are more likely to be low achievers than girls (11.6%).

With regards to transversal skills students in grade 9 and 10 have better command of a first foreign language than the EU average (EU 13 average is 43.5 % and for English language it is 45.2%) with 54 % reaching b1 level or higher.

In 2007 in Slovenia 33.3% of fourth graders used computers at schools. This is lower than the 60% EU average. Among the 16-74 year olds, 31% had high computer skills in 2012. This is higher than the EU average (26% in 2012).
Cedefop skills forecast shows that there will be a greater need for jobs that require higher education attainment. The increase in Slovenia is estimated to be 22.8%. Contrary to that, jobs that require medium and low qualification level will decrease by 6.6% and 17.9%, respectively.[4]

With regards to entrepreneurship 51% of 18-64 year olds believed in 2012 that they have required skills and knowledge to start a business. This is a decrease in comparison to 56% in 2010.

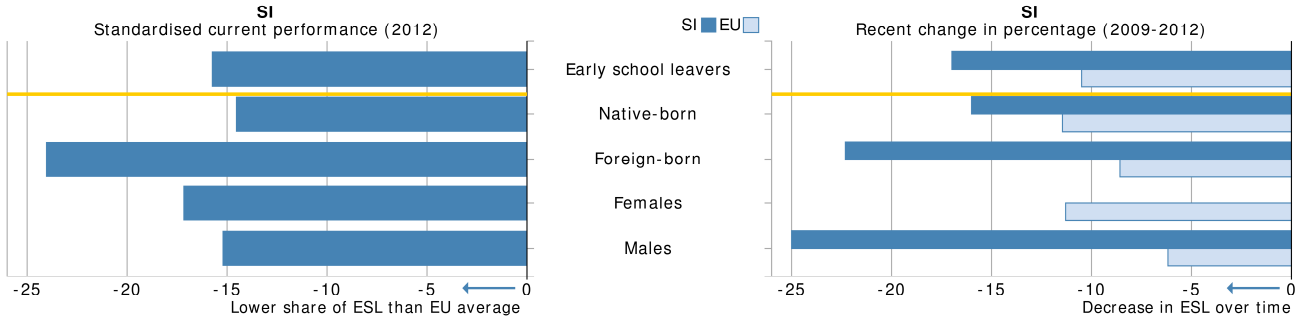
Slovenia started to develop a Slovenian Qualifications framework in 2005. In 2006 Slovenia adopted the classification system KLASIUS which is used for the classification of education and training (activities and results) informal administrative databases and for statistical analysis. KLASIUS is a mandatory national standard. SQF was developed with stakeholder involvement and in April 2013 a referencing report to the EQF was presented. It is foreseen to adopt a legal basis in late 2013.

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

Slovenia strongly outperforms the EU average in terms of early school leaving (ESL) (4.4% compared to the EU average of 12.8% in 2012) and it has already outperformed its Europe 2020 national target of 5%. Even so the contribution to ESL of foreign born children could be reduced from 13% in 2009 to 10.1% in 2012 it remains significantly higher than the 4.2% share of native ESL.

In 2012, employment disadvantage remained below the EU average but it has grown at a higher rate than the EU average related to the economic situation.

Figure 2. Early school leavers of specific population sub-groups

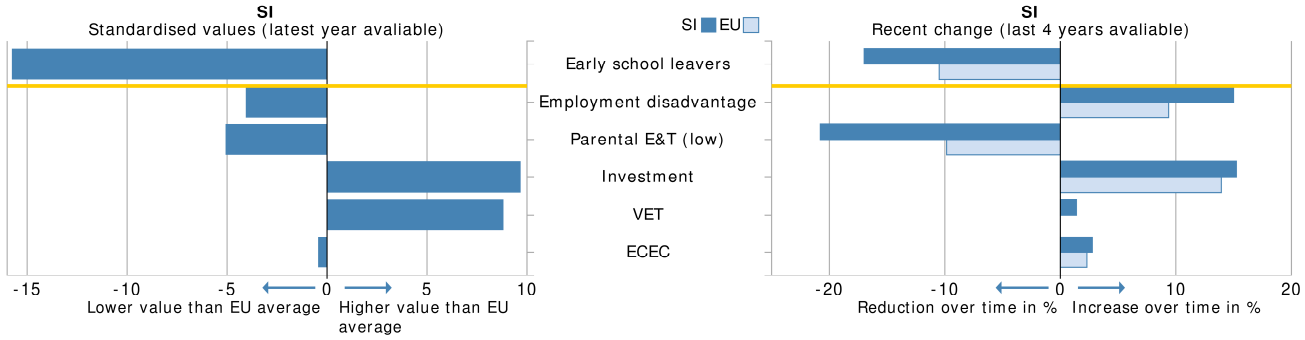


Source: JRC-CRELL. *Note:* ESL = early school leaving. See Annex 2 for further information.

As regards the other ET 2020 benchmarks, participation in early childhood education is close to the EU average (92.9 % in 2011). The percentage of three year olds who participate in 2012 in ECEC was 81% and percentage of four year-olds in both early childhood education and primary education was 87%.[5] Both rates exceeded OECD average. Slovenia has made considerable efforts to make early childhood education more affordable with the amendment of the Pre-School Institutions Act (2008) however saving in the context of the economic crisis had a mitigating effect. For instance fees for the second child in ECEC are only covered up to 30%.

[3] The goal is to lower the percentage of underachievers to 15%.
[4] CEDEFP, 2012 forecast.
[5] Source: OECD Education at a Glance 2012

Figure 3. Early school leavers and sub-indicators



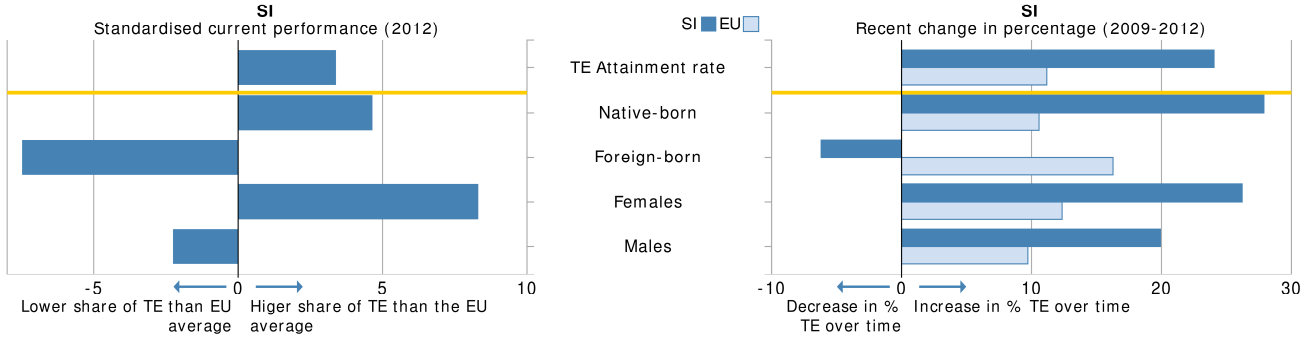
Source: JRC-CRELL. *Note:* see Annex 2 for an explanation of the sub-indicators.

Slovenia has a favourable ratio of student and teaching staff with 9.4 for pre-primary education, 16.2 for primary and 11 for secondary education. This created a positive pre-crisis classroom environment[6] before the rationalisation of the school network has been started.

When it comes to professional development, a high number of teachers participate in some form of professional development[7] although the average number of days of development taken was 8.3, well below the TALIS average of 15.3 days[8]. Fewer teachers than the TALIS average report needing more professional development[9]. Overall, most teachers receive feedback or appraisal of their performance as well as an evaluation[10]. This is high in comparison to other countries. Slovenia has an ageing teacher population that therefore shows an above average length of experience. High rates of absenteeism[11] are registered as well as a clear need for more professional training for teaching pupils with special needs.[12] In order to further reduce the already very low ESL rate in EU comparison particular attention to youth with special needs is required.

5. Encouraging participation in tertiary education and modernising higher education

Figure 4. Tertiary educational attainment of specific population sub-groups



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

6 Teaching and Learning International Survey (TALIS) in 2008 showed that lower-secondary education teachers score above average on self-efficacy and job satisfaction and view quality of classroom environment positively. For more see: OECD, TALIS 2008. For country specific notes see: http://www.oecd.org/edu/school/43072770.pdf

7 Almost 97% of teachers participate in professional development activities in the survey period compared to the TALIS average of 89%.

8 Average number of days of development taken was 8.3 days, well below the TALIS average of 15.3 days [Table 3.1].

9 Unsatisfied demand for more development is well below the average for Slovenia: 35% teachers wanted more development than they received (TALIS average= 55%) [Table 3.3].

10 Only 7% of teachers in Slovenia had not received feedback or appraisal in their school (7th lowest of the 23 countries see more TALIS, the TALIS average (37%). Only 9% of teachers believe that a teacher would be dismissed for poor performance in their school (TALIS average= 28%), the lowest rate amongst the 23 countries that participated in the survey.

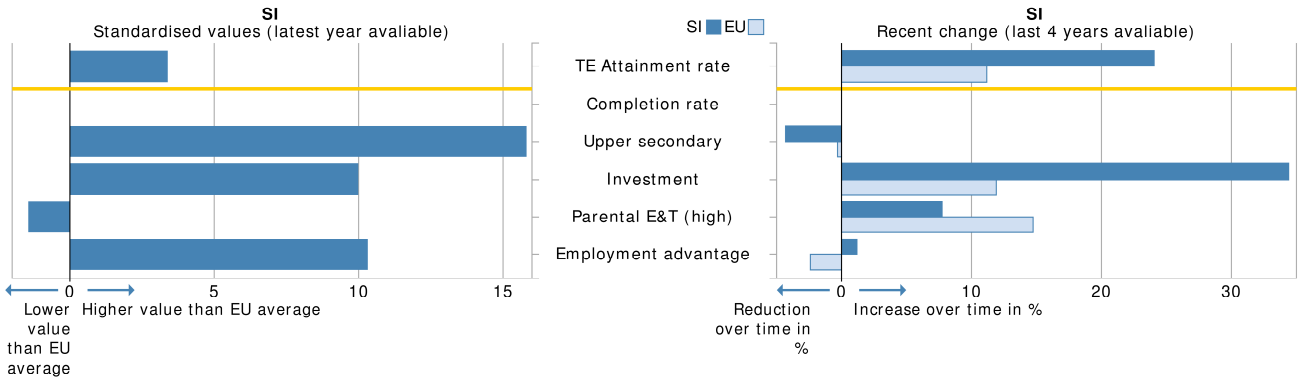
11 39% of teachers are in schools where the principal reports this hindering instruction a lot or to some extent (TALIS average 26%).

12 The areas of greatest development need for teachers in Slovenia, as in almost all other countries was teaching students with special learning needs (40% of teachers report this; TALIS average=31%) and student discipline and behaviour problems (32% compared with TALIS average of 21%) [Table 3.4].

Slovenia is approaching the 40% national and Europe 2020 target for tertiary attainment with 39.2% in 2012. More students (19%) opted for tertiary vocational programmes than the OECD average (17%). In addition 77 % of students opted for general tertiary programmes as opposed to 62 % OECD average. With only 29 % of the students expected to complete university education the dropout rate remains well above the OECD average of 39%.

Foreign-born have not participated in the steady increase in tertiary attainment[13] with a clearly below the EU dynamics. Progress in female tertiary attainment is more pronounced than in male. This translates in a clear employment advantage whose dynamics has slowed distinctively[14] in the recent difficult economic climate. However the upper secondary prevalence appears strong in comparison and this is combined with important investment in education that sustains this improvement.

Figure 5. Tertiary educational attainment and sub-indicators



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

According to 2010 figures new entry students preferred with 33% studies in the field of social sciences, business and law (EU21 average: 32%) over sciences with 8 %. This is below the EU 21 average (10%). A very important recent reform restricted the length of the specific status of a student, which grants different social rights, to the normal length of study plus one year.

In 2010 1.8% of all tertiary education students were enrolled in a university in another country for the purpose of obtaining a degree. This is below the EU average (2.4 %). However, for bachelor and master degrees the rate (2.2%) is close to the EU average (2.3%) and for Doctorate level education the rate is (4.9%).

One of the biggest challenges for inbound mobility is the language barrier. Other impediments are legal issues such as obtaining a visa, a lack of information as identified in the National Report regarding the Bologna Process implementation for 2009-2012 period. In the same report, recognition, funding and organisation of study and curriculum are identified as the biggest hurdles for outgoing mobility of students.

6. Facilitating the transition from education to work

Employment rate of graduates (22-34 old) with upper secondary and tertiary education level attainment in 2012 was 73.2%. This is below the EU average (75.7%). It also represents a decrease from 83.4% in 2008.

The unemployment rate of 25-64 year olds with below upper secondary education was 11.2% in 2012, as opposed to a 6.9% unemployment rate of people with upper secondary and post-secondary (non-tertiary) education.[15]

The number of 15-29 year olds who were not in employment, education or training (NEETs) was 8.8% which is lower than the OECD average (15.8%) and lower than in 2005 (10.1%).[16] However it is expected that the effects of the current difficult economic climate will start to show. The employment rate of graduates (73.2% in 2012) is below the EU average of 75.7%.

13 From 28.1% in 2006.
14 In fact, young tertiary graduates have been identified recently as one of the vulnerable groups, since the growth of the unemployment rate of young people and people with higher education was the most pronounced.
15 OECD education at glance 2010 Slovenia.
16 See OECD Education at a glance 2012: Slovenia Key facts.

Introducing more work-based components and increasing the attractiveness of dual VET is one of the key challenges in Slovenia. It is important to intensify the involvement of employers both in defining curricula and providing apprenticeship places. The NRP 2013 announced amendments to the Vocational Education and General Secondary Education Act and the Slovenian Qualifications Framework Act. These should be made on the basis of discussions how to create closer links to enterprises that will start in the second half of 2013.

Besides increasing the enrolment in vocational upper secondary programmes it remains very important to increase the attractiveness of vocational education and training as a whole. Efforts are under way on raising the profile of VET, career counselling and modernising courses.

7. Upgrading skills through lifelong learning

In Slovenia in 2012 participation of adults in lifelong learning was 13.8%. This is well above the EU average (9 %). However, it represents a decrease in comparison to the previous year (15.9%) and 2010 (16.2%) and is in line with the overall declining trend in the EU countries.

In 2012 participation rate in adult education was higher for the native population (14.6%) than for foreign-born (5.9%). Since 2009 it declined more for foreign-born population[17]. Compared to the EU average the native population rate is higher in Slovenia than in the rest of the EU (8.9%), but the participation rate of foreign-born population is significantly lower than the EU average (10.6%).

When it comes to gender differences the rates of participation in Slovenia in 2012 exceeded the EU average for both male (11.5% as opposed to EU average 8.3%) and female (16.1% as opposed to EU average 9.7%) participants.

In sum, Slovenia met the Europe 2020 target for lifelong learning of 15% already in 2010 and in 2011. However, certain groups felt the negative impact of the economic crisis, such as the foreign-born at a time when re- and up-skilling becomes even more important. In the future Slovenia will have to focus both on those with lower educational achievement and the older age-groups, whose participation in lifelong learning remained more limited.

On basis of the Labour Market Regulation Act measures are taken with respect to education and training in to ensure life-long career orientation. Counselling and information services are currently provided for unemployed persons and school-age youth through the Employment Service of Slovenia and concessionaires. For the adult population in general a network of adult education guidance centres (IGAE – Information and Guidance in Adult Education) performs this function. The goal is to engage regional career centres more intensively in career orientation for unemployed persons combined with enhanced involvement of social partners in the development and in the implementation of lifelong career orientation.

[17] Since 2009 the decrease for foreign born was 2 percentage points and for native population 0.7 percentage points See: Eurostat (LFS).

1. Key indicators and benchmarks

Europe 2020 headline targets			Spain 2009	Spain 2012	EU average 2009	EU average 2012	Europe 2020 target / Benchmark
1. Early leavers from education and training (age 18-24)			31.2%	24.9%	14.2% EU28	12.7% EU28	**EU target: 10%** National target: 15%
2. Tertiary educational attainment (age 30-34)			39.4%	40.1%	32.1% EU28	35.7% EU28	**EU target: 40%** National target: 44%
ET 2020 Benchmarks							
3. Early childhood education and care (4 years old - year before start of compulsory primary)			99.3%	100.0% 11	91.7%	93.2% 11	**95%**
4. Basic skills Low achievers (15 year-olds; Level 1 or lower in PISA study)	Reading		19.6%	:	19.6%	:	**15%**
	Mathematics		23.7%	:	22.2%	:	**15%**
	Science		18.2%	:	17.7%	:	**15%**
5. Learning mobility	Initial vocational training (IVET)	**a.** Students participating in Leonardo da Vinci programs as a share of vocational students at ISCED 3	0.1%	1.0% 11	0.6%	0.7% 11	
	Higher Education	**b.** Erasmus inbound students as % of student population in host country		1.9% 11		1.1% 11	
		c. Inbound degree mobile students as % of student population in the host country		3.2% 11		7.0% 11	
6. Employment rate of graduates (age 20-34) having left education 1-3 years before reference year			72.6%	62.4%	78.3%	75.7%	**82%**
7. Adult participation in lifelong learning (age 25-64)			10.4%	10.7%	9.3%	9.0%	**15%**
Proposed ET 2020 benchmark							
8. Foreign languages skills	**a.** ISCED 2 students at proficiency level B1 or higher in first foreign language[1]		:	26.7% 11	:	43.5% 11	
	b. ISCED 2 students learning two or more foreign languages		38.7%	40.3% 11	58.6%	60.8% 10	
Other ET 2020 Indicators							
9. Investment in education and training	**a.** General government expenditure on education (% of GDP)		5.1%	4.7% 11	5.5%	5.3% 11	
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10. Digital competences	**a.** Pupils in grade 4 (ISCED 1) using computers at school		:	60.7% 11	60.7% 07	64.7% 11	
	b. Individuals aged 16-74 with high computer skills[2]		28.0%	35.0%	25.0%	26.0%	
11. Entrepreneurial competences	Individuals aged 18-64 who believe to have the required skills and knowledge to start a business		48.0%	50.0%	42.3% a	42.0% a	
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13. Skills for future labour markets Projected change in employment 2010-2020 in %	High qualification		:	23.2%	:	19.1% EU28	
	Medium qualification		:	27.1%	:	4.6% EU28	
	Low qualification		:	-34.4%	:	-20.2% EU28	
14. Low-skilled adults	Literacy		:	27.5%	:	19.9% EU17	
	Numeracy		:	30.6%	:	23.6% EU17	
	Problem solving in technology rich environments[3]		:	23.2%	:	13.0% EU17	

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

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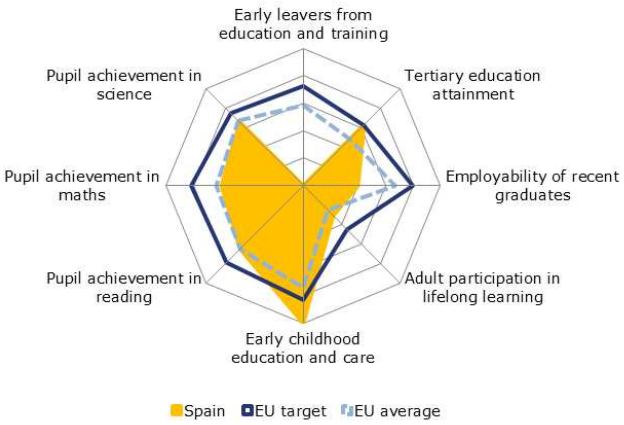


Source: DG EAC calculations on the basis of data from Eurostat (LFS 2012 and UOE 2011) and OECD (PISA 2009). *Note:* all scores are set between a maximum (the highest performers visualised by the outer ring) and a minimum (the lowest performers visualised by the centre of the chart).

2. Main challenges

The major challenges in the Spanish education system are the transition from education and training to the labour market, a persistently high rate of early school leavers with big regional disparities, and skills mismatches, including in higher education. Those challenges are aggravated by the economic situation in Spain demanding significant fiscal consolidation efforts, with budgetary cuts in education since 2011 at national and regional level.

Early school leaving and vocational education and training (VET) have been at the core of the European Semester country-specific recommendations (CSRs) since 2011. Progress has been made in both fields. Nevertheless, they still remain a major cause of concern and thus are also addressed in 2013 CSRs, which recommend that Spain continue with efforts to increase the labour market relevance of education and training, to reduce early school leaving and to enhance life-long learning, namely by expanding application of dual vocational training beyond the current pilot phase and by introducing a comprehensive monitoring system of pupils' performance by the end of 2013.

3. Investing in skills and qualifications

Investing in education and training in a context of economic crisis

In the context of fiscal consolidation, investment in education and training in Spain has suffered significant cuts at national and regional level. General government expenditure on education as a share of GDP declined from 5.1% in 2009 to 4.7% in 2011. Expenditure on educational institutions per student has also declined, but remained above the EU average.

In April 2012, a Royal Decree Law set urgent measures to rationalise public expenditure in education. These measures concerned the use of all resources available in education, and were implemented in the school year 2012-2013: increasing the number of teaching hours per teacher; reviewing class-sizes (which are low compared to the EU and OECD average) and therefore the student/teacher ratio; adjusting the offer of upper secondary education and first-cycle university degrees to real demand; reviewing the university fees in order to bring them closer to the real cost of higher education.

Total budgetary allocations for education (central and regional level) decreased by 4.1% in 2012 and by 7.3% in 2013. Regarding the central level (Ministry of Education, Culture and Sports), the decline was 22% in 2012 and 25.8% in 2013 (estimated)[18]. Important cuts were also done at the level of Autonomous Communities.

Skills

Despite some recent improvement in the three fields concerned (reading, mathematics and science), 15-year olds' performance on the PISA tests close to the EU average, coupled with big regional disparities.

[18] It has to be taken into account that the central administration budget stands approximately for less than 6% of the total education budget and from this budget more than 60% is allocated to scholarships. Source: Spanish Ministry of Education, EVOLUCIÓN DEL GASTO EN EDUCACIÓN DE LAS ADMINISTRACIONES EDUCATIVAS SEGÚN LOS PRESUPUESTOS INICIALES Información elaborada en el marco de la Estadística del Gasto Público en Educación.

A specific program for the improvement of foreign language learning was approved by the Government at end-2012 and is being implemented by the Autonomous Communities. 40.3% of pupils in lower secondary education learn a second foreign language (2010-2011 school year).

ICT skills of the population are above the EU average. At present, 89% of the schools have broad band connection to internet. The promotion of digital competences has been developed by means of the Territorial Cooperation Programmes for the integration of information and communication technologies (ICT) in publicly-funded schools.

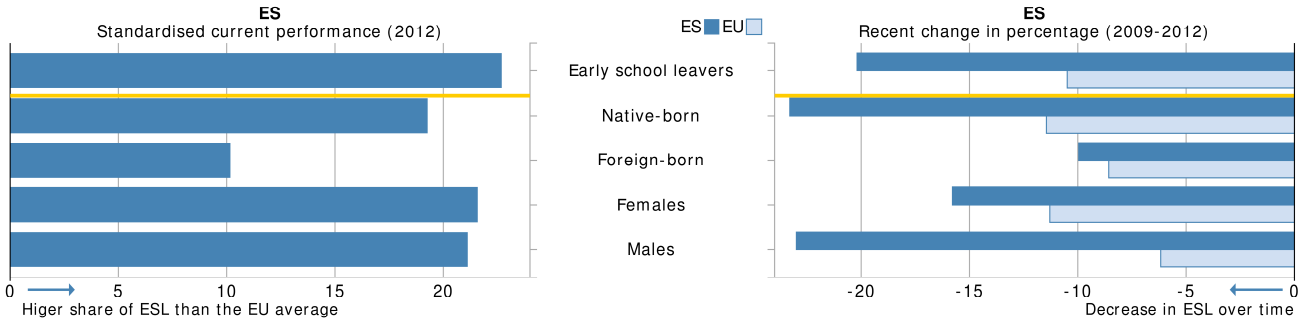
Regarding entrepreneurship competences, the percentage of 18-64 old adults who believe to have the required skills and knowledge to start a business is above the EU average. The Spanish Government presented on 12 March 2013 the Entrepreneurship and Youth employment Strategy 2013-2016. In this context, in May 2013 the Government approved a draft Law to incentivise the creation of enterprises and jobs and to provide measures to support entrepreneurs as autonomous workers to start new activities particularly in the difficult context of the economic crisis.

The elaboration of the National Qualification Framework (MECU), is pending. The Ministry of Education, Culture and Sport is currently updating the MECU website (to be ready by end-2013) and plans to present a report on the links between its national framework and the European Qualifications framework in the 4th quarter of 2013.

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

Despite a reduction from 31.2% in 2009 to 24.9% in 2012, the early school leaving (ESL) rate is far above the EU average (12.7%), with big regional disparities (from 11,5% in País Vasco to 32,2% in Extremadura). It is also far from the national target of 15% by 2020. Measures to fight ESL were put in place at national and regional level in recent years, including the 'Plan to fight ESL' (preventive and intervention measures such as analysis, awareness raising, follow up of early school leavers to support their reintegration into the education and training system), PROA (guidance and support programme) and PCPI (initial professional qualification programme). The ministry of education is currently carrying out an evaluation of these measures. The national programmes referred to above are not funded by the regions anymore since 2012, and also not included in the 2013 national budget.

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



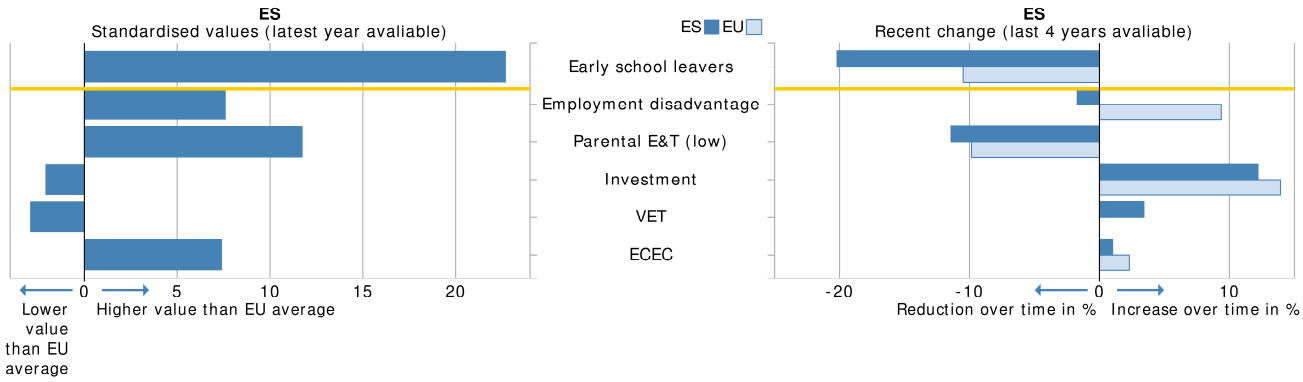
Source: JRC-CRELL. *Note:* ESL = early school leaving. See Annex 2 for further information.

As shown by some sub-indicators, employment disadvantage for early school leavers is high but has been decreasing somewhat while the EU average has been increasing. Investment is low but has been increasing, with a similar trend for VET opportunities.

Given the financial difficulties, the Government's efforts concentrate on normative measures; the reduction of ESL is the first main objective stated in the draft Organic Law for the Improvement of the Quality of Education (LOMCE), approved by the Government on 17 May 2013 and currently undergoing the legislative procedure in the Spanish Parliament. Amongst a series of measures, LOMCE in particular offers flexibility in pathways and aims to increase the percentage of students completing upper secondary education and obtaining initial vocational training diplomas.

Regarding participation rate in Early Childhood Education and Care (ECEC), Spain reached 100% in 2011. Finally, Spain is now elaborating a Non-University Teaching Staff Statute to regulate the teaching profession, including access to the teaching profession within public service, provision of teaching position, teachers' rights and obligations.

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

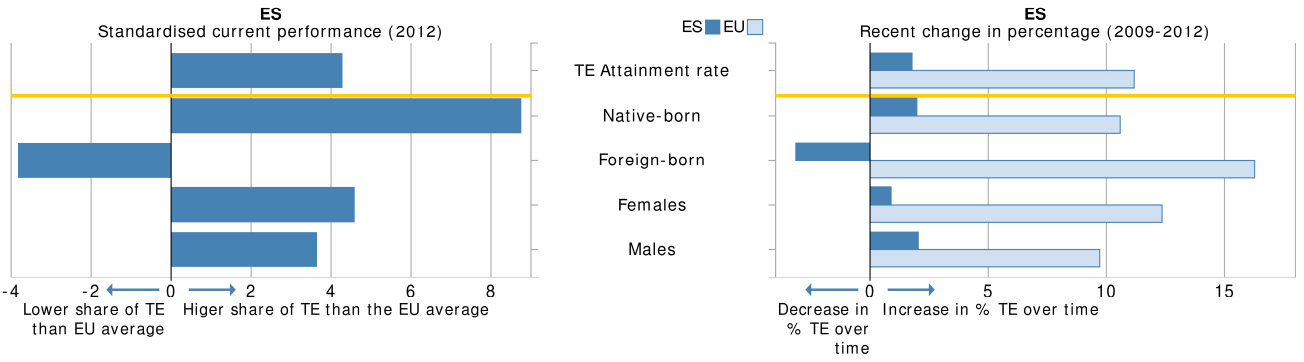


Source: JRC-CRELL. *Note:* see Annex 2 for an explanation of the sub-indicators.

5. Encouraging participation in tertiary education and modernising higher education

Spain established a 2020 national target of 44% for the tertiary attainment rate. At present, the rate is above the EU average (40.1% vs. 35.7 in 2012), although it has been stagnating over the last three years. In 2011, completion rates are above the EU average for both ISCED 5A (78% vs. 69%) and ISCED 5B programmes (73% vs. 59%). The reduction in the number of tertiary students in the field of sciences (-27.3% over the last ten years) represents a problem for the future innovation potential of the economy.

Figure 4. Tertiary education attainment: sub-groups

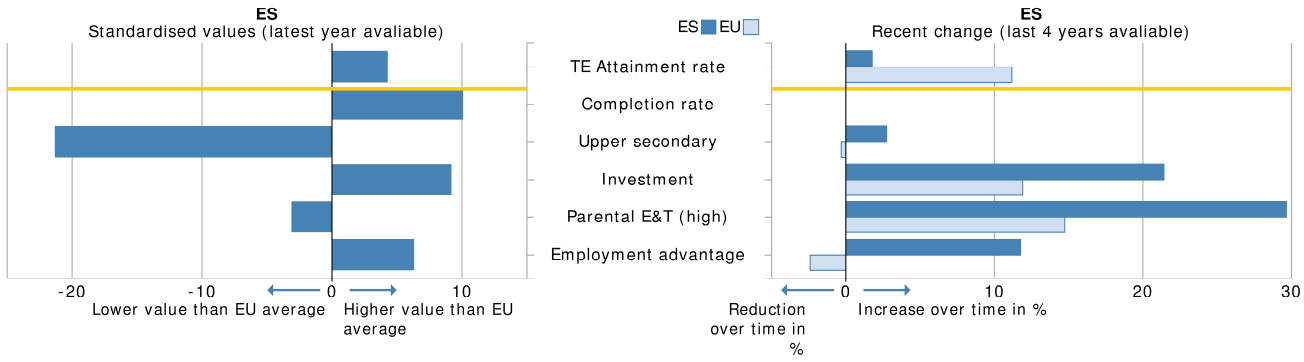


Source: JRC-CRELL. *Note:* TE = tertiary education. See Annex 2 for further information.

Upper secondary supply is limited but completion rates are indeed good, as is the employment advantage of having a tertiary education degree. Furthermore, investment is strong and has increased.

Spain has completed the integration into the Higher Education European Area and within this framework the Spanish authorities have announced important measures to increase excellence, innovation, competitiveness and internationalization of the university system. The first step in June 2012 was to set a high level group of experts that made "Proposals to improve quality and efficiency of the Spanish University system". As a following on-going step, a working group has been constituted in spring 2013 to further evaluate and operationalize proposals on rationalizing the range of qualifications, improving the teacher accreditation system, evaluating and optimising accountability mechanisms, governance and funding.

Figure 5. Tertiary education attainment: sub-indicators



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

6. Facilitating the transition from education to work and reshaping vocational training

Effective measures linking study and work practice will be key for enhancing the employability of young people. Spain lacks a comprehensive strategy to effectively match changes in its productive structure; in particular, training and skills are not sufficiently updated and adapted to market needs particularly on those sectors with better economic development prospects. In this context, increasing the proportion of tertiary VET education in the total tertiary attainment rate could be particularly relevant and dual VET, combining study and practice/work, could also be applied to some fields in higher education.

The youth unemployment rate (53.2% in 2012) is particularly worrisome, both because of its magnitude and the risk of becoming structural. There are also large regional differences, which tend to mirror those in early school leaving: the Autonomous Communities with the highest youth unemployment rates are the Canary Islands (62.6%), Andalucía (62.3%) and Extremadura (61.6%) and, while those with the lowest are Navarra (40.6%), Cantabria (41.5%), Pais Vasco and Aragon (42.5%). These inter-regional differences in unemployment rates testify to the need for stimulating workers' mobility nationwide, especially skilled young people.

Spain has initiated a reform of the VET system to better adapt the skills of young people to labour market needs and to make VET more attractive: first, the draft Organic Law for the Improvement of the Education (LOMCE) includes the setting up of a two-year course of Basic Vocational Training and, secondly, Royal Decree 1529/2012 introduced measures to develop the training and apprenticeship contract and establish the bases for dual vocational training (work-based training with different modalities). The Royal Decree has been agreed between the Ministries of Education and Labour; however the competences on their implementation remain within the 17 Autonomous Communities. During 2012, 4000 students, 500 enterprises and 140 schools participated in pilot projects. The measures concerning VET seem adequate, but in the present economic and labour market situation their full implementation remains a challenge. Further continued efforts jointly involving public authorities, education providers and employers will be required to extend and consolidate the dual VET system in Spain to implement work based learning and increase apprenticeship opportunities.

7. Upgrading skills through lifelong learning

The Survey of Adult Skills (PIAAC[19]) shows that adults (aged 16-65) in Spain perform far below the EU average in the proficiency tests on literacy and numeracy. This holds also true for young adults (aged 16-24). Young adults (16-29) with at most lower secondary education have low scores compared to the EU average. Moreover, the performance of young people with tertiary education is not far from that of young people with upper secondary education.

The gap in proficiency skills for literacy between the generations aged 25-34 and 55-65 is significant (i.e. equivalent to skills usually acquired with about 5 years of education). This might be due to improvements in the education system in recent decades and / or a decline in skills over the working life.

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

Close to 30% of adults have low literacy and numeracy skills (at level 1 or below) compared to the EU average of 19% for literacy and 24% for numeracy. Moreover, low-skilled people are 6 times less likely to participate in job-related learning than high skilled people[20].

Adult participation in lifelong learning in Spain is slightly above the EU average (10.7% as against 9% in 2012). Regarding continuing vocational training, Eurostat data for 2010 shows that in Spain 75% of all enterprises provide training (compared with an EU average of 66%).

The Spanish Government has announced in its 2013 National Reform Programme that the Ministry of Education, Culture and Sport is elaborating a National Strategic lifelong learning framework (MENAP). Its starting point is a former Action Plan for lifelong learning, which resulted from a wide consultation process among Ministries, Autonomous Communities and other concerned stakeholders; the economic crisis made it necessary to revise the content of this Plan. MENAP addresses the whole population in order to increase personal, social and professional skills complementing those acquired in the education system. It will present in a systematic way the necessary measures to increase access to information, guidance and advice for citizens to participate in lifelong learning, improve the quality of training, promote innovation, individualise the learning process and favour flexible learning pathways.

[20] At EU level, low skilled adults are 5 times less likely to participate in job-related learning than high skilled adults.

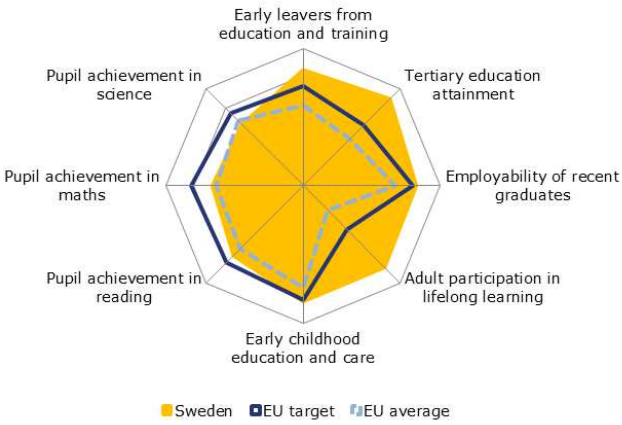
1. Key indicators and benchmarks

Europe 2020 headline targets			Sweden 2009	Sweden 2012	EU average 2009	EU average 2012	Europe 2020 target / Benchmark
1. Early leavers from education and training (age 18-24)			7.0%	7.5%	14.2% EU28	12.7% EU28	**EU target: 10%** National target: <10%
2. Tertiary educational attainment (age 30-34)			43.9%	47.9%	32.1% EU28	35.7% EU28	**EU target: 40%** National target: 40-45%
ET 2020 Benchmarks							
3. Early childhood education and care (4 years old - year before start of compulsory primary)			94.7%	95.3% 11	91.7%	93.2% 11	**95%**
4. Basic skills Low achievers (15 year-olds; Level 1 or lower in PISA study)	Reading		17.4%	:	19.6%	:	**15%**
	Mathematics		21.1%	:	22.2%	:	**15%**
	Science		19.1%	:	17.7%	:	**15%**
5. Learning mobility	Initial vocational training (IVET)	**a.** Students participating in Leonardo da Vinci programs as a share of vocational students at ISCED 3	0.4%	0.6% 11	0.6%	0.7% 11	
	Higher Education	**b.** Erasmus inbound students as % of student population in host country		1.2% 11		1.1% 11	
		c. Inbound degree mobile students as % of student population in the host country		7.9% 11		7.0% 11	
6. Employment rate of graduates (age 20-34) having left education 1-3 years before reference year			81.6%	83.2%	78.3%	75.7%	**82%**
7. Adult participation in lifelong learning (age 25-64)			22.2%	26.7%	9.3%	9.0%	**15%**
Proposed ET 2020 benchmark							
8. Foreign languages skills	**a.** ISCED 2 students at proficiency level B1 or higher in first foreign language[1]		:	82.3% 11	:	43.5% 11	
	b. ISCED 2 students learning two or more foreign languages		68.0%	76.4% 11	58.6%	60.8% 10	
Other ET 2020 Indicators							
9. Investment in education and training	**a.** General government expenditure on education (% of GDP)		7.2%	6.8% 11	5.5%	5.3% 11	
	b. Annual expenditure on public and private educational institutions per pupil/student in € PPS	ISCED 1-2	€ 7,314 08	€ 7,634 10	€ 5,732 08	€ 6,021 10	
		ISCED 3-4	€ 7,813 08	€ 7,945 10	€ 6,964 08	€ 7,123 10	
		ISCED 5-6	€ 15,702 08	€ 15,068 10	€ 9,309 08	€ 9,168 10	
10. Digital competences	**a.** Pupils in grade 4 (ISCED 1) using computers at school		58.5% 07	66.8% 11	60.7% 07	64.7% 11	
	b. Individuals aged 16-74 with high computer skills[2]		21.0%	35.0%	25.0%	26.0%	
11. Entrepreneurial competences	Individuals aged 18-64 who believe to have the required skills and knowledge to start a business		:	37.0%	42.3% a	42.0% a	
12. Vocational education and training	Share of vocational students at ISCED 3		56.4%	56.3% 11	49.6%	50.3% 11	
13. Skills for future labour markets Projected change in employment 2010-2020 in %	High qualification		:	8.6%	:	19.1% EU28	
	Medium qualification		:	3.1%	:	4.6% EU28	
	Low qualification		:	3.4%	:	-20.2% EU28	
14. Low-skilled adults	Literacy		:	13.3%	:	19.9% EU17	
	Numeracy		:	14.7%	:	23.6% EU17	
	Problem solving in technology rich environments[3]		:	19.5%	:	26.9% EU13	

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

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

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



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

2. Main challenges

Youth unemployment constitutes one of the main challenges in Sweden. The unemployment rate for young people[21] has remained at high levels since 2008, with 23.7% unemployed in 2012 compared to the EU27 average of 22.8%. While this figure is somewhat overstated, as up to 50% of unemployed young people in Sweden are full-time students searching for jobs[22] and contrary to a large majority of Member States, Swedish youth tend to spend comparatively short periods unemployed[23], 'non-student' unemployment rate is still high compared to other EU Member States with a similarly good labour market performance of the working age population. This points to a particular challenge for those young unemployed, who are low-skilled and left school without having completed upper-secondary education.[24]

Hence lack of adequate education appears to be one of the main obstacles for young people to become established at the labour market. Consequently, the 2013 European Semester country-specific recommendation (CSR) on education continues to focus on improving the labour market integration of low-skilled young people, by stepping up efforts to facilitate their transition from school to work, including via a wider use of work-based learning, apprenticeships and other forms of contracts combining employment and education.

3. Investing in skills and qualifications

Investing in education and training in a context of economic crisis

Sweden funds its equitable education system by devoting a high share of its GDP to education. General government expenditure on education as a share of GDP was 6.8% in 2011 compared to the EU average of 5.3%, with one of the highest levels of public expenditure per student in the world. This funding goes to both public and private educational institutions. While Sweden has one of the most decentralised school systems in the world, with its 290 municipalities in charge of organising and operating both municipal and the increasing number of independent schools, all schools from pre-primary to post-secondary are publicly funded. In higher education, 91% of the total expenditure is public[25], which is very high in OECD comparison, and is partly due to the fact that Sweden's public and government-dependant private higher education institutions do not charge tuition fees for students who are Swedish nationals or come from the EU, EEA or Switzerland.

Skills

Despite high funding levels in EU comparison, there is evidence that learning outcomes in compulsory school as measured by international student assessments are worse than in the early 2000s. 15-year olds' performance in OECD's PISA tests worsened between 2006 and 2009 in all three areas, even if Sweden still performed better than the EU average in reading and in mathematics in 2009. There is however a significant gender gap in reading, with 24.2% of boys being low-achievers compared to 10.5% of girls. Moreover, the relationship between socio-economic background and performance has become stronger, and differences between schools have increased[26]. The 2011 TIMSS & PIRLS studies on fourth and eighth grade pupils, conducted by the

21 Youth is understood as the 15-24 age group.
22 Source: Statistics Sweden (2012)
23 For university students the spell of unemployment is short. Moreover, as students often have temporary, short-term jobs, there is a high probability that they are between jobs at the moment when statistics for Eurostat's LFS are gathered.
24 Employment rate (15-64) of people with maximum lower secondary education is 46.3%, while the employment rate of higher education graduates is 87% (Eurostat, LFS, 2012).
25 Source: OECD, *Education at a Glance* 2013, Sweden Country Note
26 Source: OECD Reviews of Evaluation and Assessment in Education, Sweden, 2011

International Association for the Evaluation of Educational Achievement (IEA), also show rather mixed results in international comparison, in particular in mathematics.

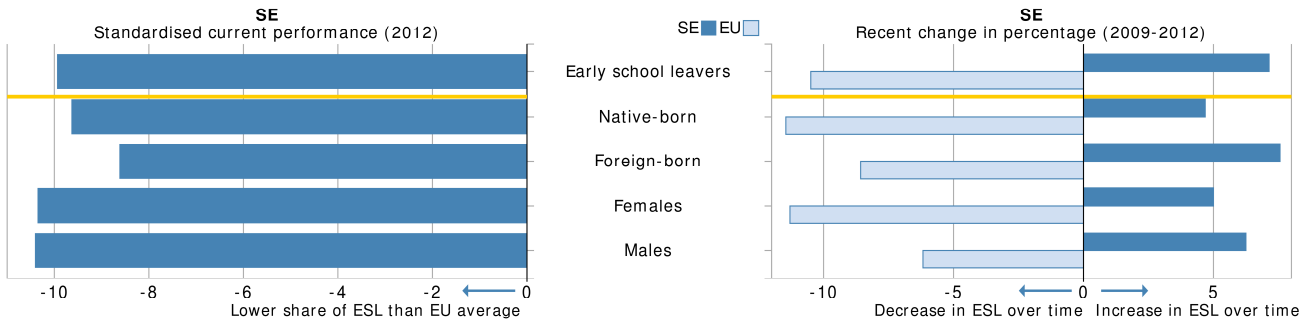
ICT skills of the adult population are far above the EU average. Although schools in Sweden are very well equipped with new technologies, this does not seem to translate into high level of use in the classrooms. Secondary school teachers' confidence in using ICT is close to the EU average while their participation in ICT professional development is lower than the EU average[27]. Entrepreneurship education has been built into the school curriculum and entrepreneurship skills are taught in teacher education. With regard to language skills, figures indicate excellent skills in the first foreign language, English.

The Swedish national qualifications framework (SEQF) is expected to be adopted in 2014, in the form of a decree (Förordning). The framework aims to include non-formal education and training as well as the extensive field of continuing and popular education and training run by the private sector and non-governmental organisations.[28] The overall success of the framework will depend on the extent to which the SEQF is seen as relevant to stakeholders outside formal, initial education and training.

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

Since 2006 the early school leaving rate, as defined by Eurostat, has been below the national target and EU benchmark of 10% (7.5% in 2012, with 8.5% of boys and 6.3% of girls being early school leavers). The analysis of sub-indicators points to the following reasons behind the good performance: high investment in education, favourable family environments and good participation patterns in early childhood education. However, if early school leaving is assessed based on the national definition used in Sweden i.e. young people at the age of 20 who have not completed upper secondary education successfully, the rate remained constant at a level of 27% over the past 5 years[29] and at a higher level than in the 1990s.

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



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

Sweden has recently adopted a number of measures aimed at tackling early school leaving. Regulations have been put in place together with the reforms of compulsory and upper secondary education in the 2010 Education Act. Furthermore, a government-run inquiry has resulted in new bills addressing early school leaving. The overarching goal defined in the policy framework is that all students should be given the chance to reach the achievement targets and complete upper secondary school with improved skills both for the labour market and further studies. Prevention measures start already in the early years of schooling by developing 'individual study plans' (utvecklingsplan) and granting special support to pupils who run the risk of dropping-out. Furthermore, those pupils who do not have the necessary grades to continue their studies at upper secondary level, can take part in 'introductory programmes', providing them the skills to move on to upper secondary education or an apprenticeship-type training.

However, the increasing lack of attractiveness of the teaching profession is thought to be an important bottleneck to increasing the quality of education in Sweden. The declining image of the profession is paired with a relatively low pay and little salary progression over the career. While across all OECD countries teachers' salaries increased by an average of 22% between 2000 and 2010, in Sweden the increase was only 8%. Moreover, in Sweden the gap between starting salaries and salaries at the top end of the scale is narrow

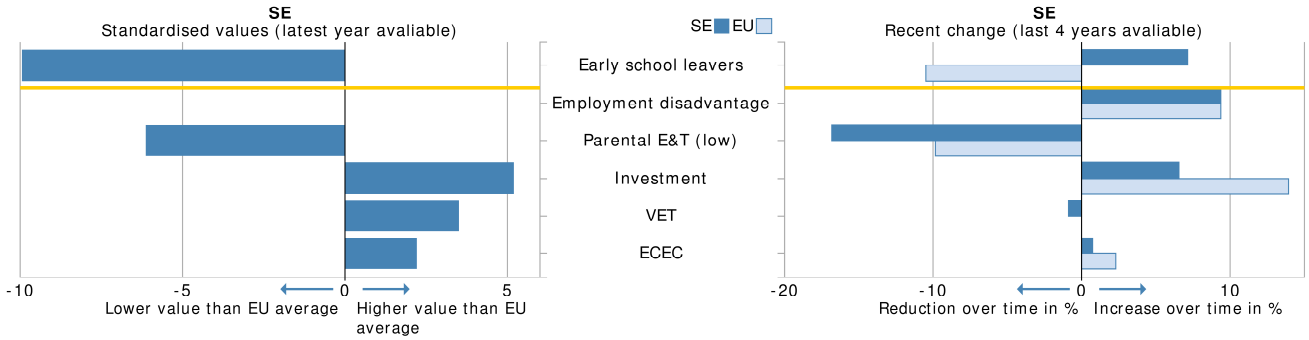
[27] Source: European Schoolnet & University of Liège (2013): Survey of Schools: ICT in Education, Benchmarking access, use and attitudes to technology in Europe's schools. EUN, Brussels

[28] http://www.cedefop.europa.eu/EN/Files/NQF_developments_2012-SWEDEN.pdf

[29] http://www.skolverket.se/statistik-och-analys/statistik/2.4391/efterfragade-matt-1.120818

compared to other OECD countries[30]. Furthermore, private returns to tertiary educated teachers are low, even negative compared to upper secondary graduates employed in other sectors[31]. At the same time, the teaching workforce is ageing: 40.2% of school teachers[32] are aged 50 or older, while only 6.8% are younger than 30.

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



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

To meet this challenge, the government adopted a wide range of measures, including the reform of initial teacher education, proposing an 'induction' year for future teachers and providing specific funds for municipalities to support continuing professional development of teachers. For the latter, the 2013 Budget Bill[33] includes the 'Boost for Teachers II' (Lärarlyftet II) initiative, which focuses on teachers who are not qualified in all subjects or age groups they teach and on vocational teachers who are offered to take part in practical activities in workplaces within their subject area. In addition, in the autumn of 2013, the Government introduced a career development reform, providing central government support for salary increases for so-called 'lead teachers' and 'senior masters'. The government is also preparing a proposal for adoption by Riksdagen in the autumn, with the aim to reduce the administrative burden on teachers[34]. Another important measure however, the accreditation of teachers is still on-going, with numerous postponements of the implementation deadline.

5. Encouraging participation in tertiary education and modernising higher education

The tertiary attainment rate with 47.9%[35] in 2012 is at an all-time high and the upward trend is likely to accelerate given that a spike in the generation of 19-year-olds in 2009 led to more young people starting higher education studies. Moreover, the academic year 2010-2011 witnessed the highest number of students ever enrolled, due to the creation of 10,000 temporary student places. As part of the 'Youth Package' ('Ungdomspaket'), presented in connection with the 2013 Budget Bill, funding is being made available for an additional 4,200 places in higher education during 2013-2015. Nevertheless this measure still means a reduction in the overall number of places compared to the 2010-2011 levels.

The analysis of sub-indicators indicates high investment, favourable family environments and high participation in upper secondary education behind the good performance. On the other hand, lengthy study periods and high drop-out rates (47% in 2011[36]) have long been characteristics of the Swedish higher education system. At the same time, as many students postpone the start of tertiary education, the average age of university entrants is high, although has been decreasing in recent year.[37] This raises doubts about the system's efficiency: OECD calculations estimate that Sweden has one of the highest cumulative expenditure per student over the average duration of tertiary studies. Nevertheless, recent measures, including linking the level of study support to study results i.e. academic credits earned, are likely to reduce students' study periods. Furthermore, in line with the demand and the needs of the labour market, the government intends to increase the number of study places in

30 Teachers are employed by the municipalities. Pay, including minimum salaries, and working conditions are governed by 5-year agreements between the employers' organisation (SALAR) and the teacher unions. The more specific salaries of individual teachers are however decided locally, as teacher recruitment and appointments are the responsibility of the school principals.

31 Source: Lönsamma studier? Livslönerapport 2011, Thomas Ljunglöf, Saco, http://www.saco.se/Forskning--kunskap/Publikationer-fran-Saco/rapporter/Lonsamma-studier-Livslonerapport-2011-/

32 School teachers are understood as teachers teaching in public and private institutions at ISCED levels 2-3. Source: Eurostat

33 The 2013 Budget Bill was presented by the Government on 20 September 2012 (http://www.regeringen.se/sb/d/15677/a/199189) and adopted by the Riksdag on 19 December 2012.

34 http://www.regeringen.se/sb/d/16843/a/208665

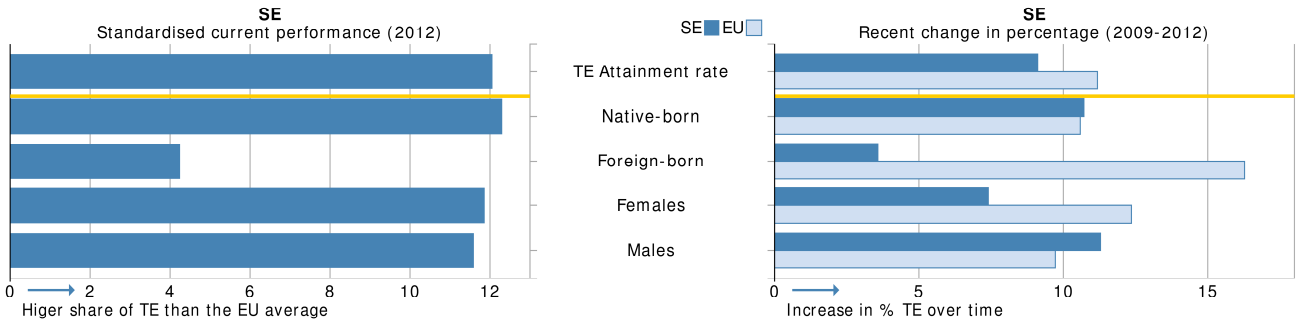
35 In 2012, the tertiary attainment rate was 53.7% for women and 42.4% for men. The number of women has risen more than the number of men over the past 30 years in higher education and as a result the share of women has grown gradually.

36 Source: OECD, *Education at a Glance*, 2013. In 2011, 53% of students graduated from the programme they entered, in comparison to the OECD average of 68%. Data includes students entering single courses who may never have intended to study all the courses required for a degree but rather choose to study a few courses as part of lifelong learning and/or up-skilling (an estimated 40% of students enrolled).

37 Sweden is indeed below the EU average in participation of 20-24 year olds in higher education.

the fields of engineering education, medical and dental studies and nursing, although the implementation will largely depend on individual institutions due to the principle of strong university autonomy.

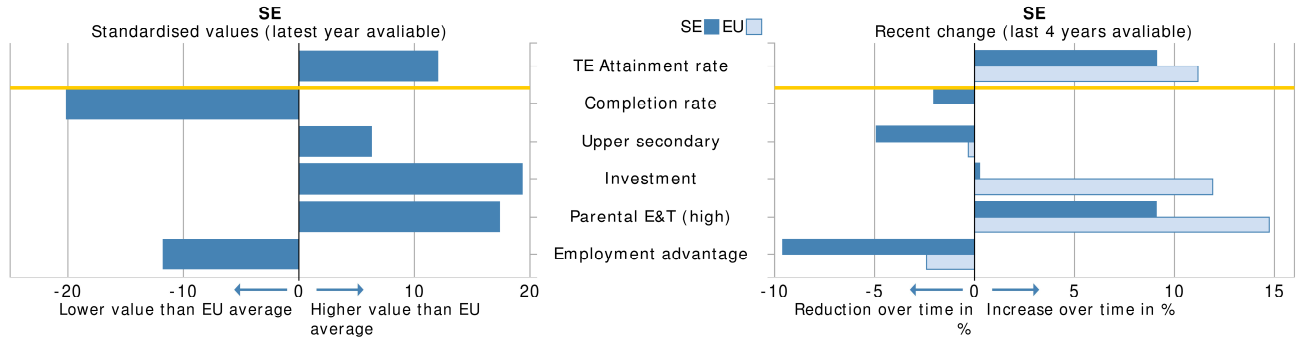
Figure 4. Tertiary education attainment: sub-groups



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

Sweden continues to modernise its higher education system by implementing quality-based resource allocation from the 2013 budget for the first time. The aim is to achieve higher quality in study programmes by creating financial incentives for universities and higher education institutions. Quality-based resource allocation represents additional funding and at its initial stage will only comprise a small part of the total resources (1.5% of the total funding) for study programmes in first and second cycles. In addition, the new quality assurance system largely based on learning outcomes was introduced in 2011.

Figure 5. Tertiary education attainment: sub-indicators



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

6. Facilitating the transition from education to work

While participation of upper secondary students in vocational education and training (VET) has been above the EU average (56.3%[38] as against 50.3% in 2011), the system has been characterised by a weak vocational content. Cooperation between schools and workplaces has been underdeveloped. Furthermore, the matching process has deteriorated which has led to increasing skills mismatches since the 2008-2009 economic crisis.[39]

Improving transition from school to work was already identified as the main objective of the 2011 school reform. As part of the reform, at upper secondary level the general education and the vocational education pathways have been further differentiated. Since autumn 2011 in the vocational path more time has been devoted to vocational subjects, and apprenticeships were introduced as an alternative route to attain a Vocational Diploma[40]. In addition, an institutionalised structure is being developed between schools and working life, with

38 In 2011, 59.5% of male upper secondary students and 53.4% of female upper secondary students participated in vocational education and training (VET).

39 http://ec.europa.eu/economy_finance/publications/country_focus/2013/pdf/cf_vol10_issue1_en.pdf

40 In the 2011/2012 academic year, a large majority of pupils in vocational track studied in vocational schools, where at least 15 weeks (12.5%) of the curriculum is work-based learning and 5-6% in apprenticeship schemes, where 50% of the curriculum is work-based learning.

the introduction of national councils and local programme councils.[41] To this end, the 2013 Budget Bill contains increased financial support for apprenticeships and vocational training programmes. Funding will be largely devoted to creating additional study places[42] and to stimulating employers to provide apprenticeship positions.

Funding is also meant to strengthen and raise the quality and attractiveness of VET through more adequate training for VET teachers and nationally organised training for trainers.

However, as first data shows and employer organisations point out[43], the attractiveness of the vocational path has dropped since the reform and there is a decreasing interest in apprenticeship programmes both from the part of students and employers.[44] In any case, since reforming the vocational training system requires time, it will take several years before the true effects of the reform have an impact on the labour market.

At post-secondary level, higher vocational education programmes of 2 years have been developed since 2009 to meet the needs of the labour market for qualified labour. The main innovative feature of the system is the close collaboration between labour market actors and education providers. Education programmes are financed by the Swedish National Agency for Higher Vocational Education, based on short-term skills forecasting, labour market needs analysis as well as graduate tracking. First results have shown that the newly established programmes have high demand and high insertion rates on the labour market for graduates[45]. However, the programmes' impact will need to be assessed also in the long run to decide if they can be viewed as a viable alternative to university higher education.

7. Upgrading skills through lifelong learning

The Survey of Adult Skills (PIAAC[46]) shows that adults (aged 16-65) in Sweden perform above the EU average in all three domains: literacy, numeracy and problem solving in technology-rich (ICT) environments. In fact, Sweden has the largest share of adults scoring at the highest level in problem solving in technology-rich environments in the EU. The share of low-skilled adults (scoring at level 1 or below) is about 13% in literacy and 15% in numeracy, far below the EU average (19% and 24%, respectively).

Young adults (aged 16-24) score significantly above the EU average in both literacy and numeracy. Furthermore, they have higher proficiency in literacy and problem solving but slightly lower proficiency in numeracy compared to the overall population. While employed people have on average higher skills than unemployed people at EU level, this gap is even more pronounced in Sweden, for both literacy and numeracy. The gap in literacy proficiency between the foreign- and native-born is also rather large compared to the EU average.

Participation of adults in lifelong learning has been traditionally high. The participation rate has been further increasing in the past 5 years and remains one of the highest in the EU (26.7% vs. 9% in 2012[47]). Nevertheless, high participation rates mask great gender differences; while participation rate for women is 31.9%, it is only 18.4% for men. Whereas foreign-born participation is at the same level as for natives (25.5%), participation of low-educated, who would benefit the most from further education, is lagging behind (16.9%). In 2010, 87% of Swedish enterprises provided vocational training to some of their staff, as against an EU average of 66%. Nevertheless, enterprises provided just about a quarter (26.6%) of all non-formal learning activities to adults in 2011.

Adult learning is deeply rooted in the Swedish society and is characterised by effective structures, flexible pathways and adequate financial means to implement targeted policies. A high quality adult learning and opportunities for further education and training in different occupational fields are both government priorities. While taking part in basic education is a legal right of all adults, municipalities also have the obligation to offer upper secondary education that meets the needs of both the adults and the labour market. Moreover, since 2012 individuals who complete vocational upper secondary programmes have been given the right to attend complementary courses offered by municipality adult education to qualify for higher education[48].

41 Guidance has been strengthened in the Education Act and a systematic tracking of vocational graduates is under preparation.

42 The 'Youth Package' ('Ungdomspaket'), presented in connection with the 2013 Budget Bill, has a total budget of SEK 1.8 billion for 2013 to create in total 18,300 temporary study places in secondary and adult vocational education, post-secondary vocational education, municipal adult education and higher education. The majority of places, close to 13,000 will be created in vocational education. In the period 2013-2016, a total of SEK 5.17 billion will be devoted to finance additional study places. http://www.regeringen.se/content/1/c6/19/82/65/4e285b8b.pdf

43 http://www.svd.se/opinion/brannpunkt/stoppa-yrkesprogrammens-forfall_7766908.svd

44 There are fewer apprentices today than in the pilot scheme in 2008. This is largely explained by the fact that an 'educational contract' was introduced in 2011, putting more responsibility on the organisers of apprenticeship training.

45 9 out of 10 students who graduated in 2011 had found employment by autumn 2012, with approximately 6 out of 10 graduates having employment that fully or mostly corresponded to their education programme. Source:https://www.myh.se/Publikationer/Employment-of-graduates-from-Higher-Vocational-Education-and-Advanced-Vocational-Education-and-Training-in-2012/

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

47 Source: Eurostat: LFS 2012

48 Following the 2011 reform (Education Act 2010), completion of vocational upper secondary programmes no longer gives direct access to higher education studies.

To improve skills matching in the labour market, in 2010 the Government tasked actors responsible for regional development in each county with setting up skills platforms for coordinating skills provision and short- and long-term education and training planning. Skills platforms have now been all set up and are proving to be important tools in securing skills supply to business and the public sector. Regional skills platforms are to be strengthened and further developed during 2013-2016, contributing to enhanced competiveness and sustainable national and regional development.

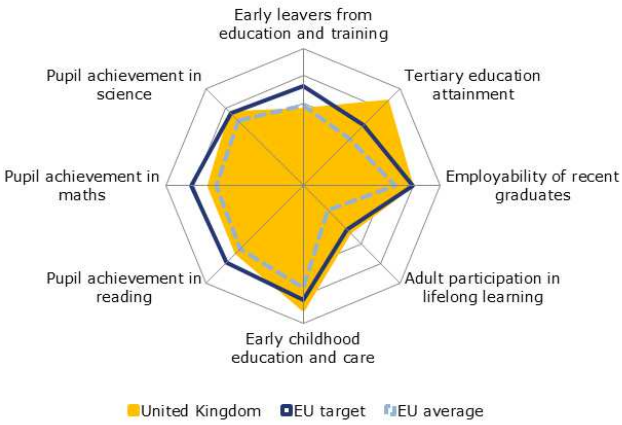
1. Key indicators and benchmarks

Europe 2020 headline targets			United Kingdom 2009	United Kingdom 2012	EU average 2009	EU average 2012	Europe 2020 target / Benchmark
1. Early leavers from education and training (age 18-24)			15.7%	13.5%	14.2% EU28	12.7% EU28	**EU target: 10%** National target: /
2. Tertiary educational attainment (age 30-34)			41.5%	47.1%	32.1% EU28	35.7% EU28	**EU target: 40%** National target: /
ET 2020 Benchmarks							
3. Early childhood education and care (4 years old - year before start of compulsory primary)			97.3%	97.0% 11	91.7%	93.2% 11	**95%**
4. Basic skills Low achievers (15 year-olds; Level 1 or lower in PISA study)	Reading		18.4%	:	19.6%	:	**15%**
	Mathematics		20.2%	:	22.2%	:	**15%**
	Science		15.0%	:	17.7%	:	**15%**
5. Learning mobility	Initial vocational training (IVET)	**a.** Students participating in Leonardo da Vinci programs as a share of vocational students at ISCED 3	0.4%	0.3% 11	0.6%	0.7% 11	
	Higher Education	**b.** Erasmus inbound students as % of student population in host country		1.0% 11		1.1% 11	
		c. Inbound degree mobile students as % of student population in the host country		16.9% 11		7.0% 11	
6. Employment rate of graduates (age 20-34) having left education 1-3 years before reference year			80.0%	81.5%	78.3%	75.7%	**82%**
7. Adult participation in lifelong learning (age 25-64)			20.1%	15.8%	9.3%	9.0%	**15%**
Proposed ET 2020 benchmark							
8. Foreign languages skills	**a.** ISCED 2 students at proficiency level B1 or higher in first foreign language[1]		:	9.3% 11,Eng	:	43.5% 11	
	b. ISCED 2 students learning two or more foreign languages		:	0.0% 11	58.6%	60.8% 10	
Other ET 2020 Indicators							
9. Investment in education and training	**a.** General government expenditure on education (% of GDP)		6.9%	6.5% 11	5.5%	5.3% 11	
	b. Annual expenditure on public and private educational institutions per pupil/student in € PPS	ISCED 1-2	€ 6,982 08	€ 7,585 10	€ 5,732 08	€ 6,021 10	
		ISCED 3-4	€ 7,201 08	€ 7,642 10	€ 6,964 08	€ 7,123 10	
		ISCED 5-6	€ 11,931 08	€ 12,781 10	€ 9,309 08	€ 9,168 10	
10. Digital competences	**a.** Pupils in grade 4 (ISCED 1) using computers at school		85.8% 07,Eng	96.6% 11,Eng	60.7% 07	64.7% 11	
	b. Individuals aged 16-74 with high computer skills[2]		29.0%	26.0%	25.0%	26.0%	
11. Entrepreneurial competences	Individuals aged 18-64 who believe to have the required skills and knowledge to start a business		47.0%	47.0%	42.3% a	42.0% a	
12. Vocational education and training	Share of vocational students at ISCED 3		30.5%	36.0% 11	49.6%	50.3% 11	
13. Skills for future labour markets Projected change in employment 2010-2020 in %	High qualification		:	20.6%	:	19.1% EU28	
	Medium qualification		:	17.8%	:	4.6% EU28	
	Low qualification		:	-42.9%	:	-20.2% EU28	
14. Low-skilled adults	Literacy		:	16.4%	:	19.9% EU17	
	Numeracy		:	24.1%	:	23.6% EU17	
	Problem solving in technology rich environments[3]		:	25.2%	:	26.9% EU13	

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

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

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



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

2. Main challenges[49]

The UK has an oversupply of low-skilled workers, and a shortage of workers with high-quality vocational and technical skills. Despite some progress in recent years, a significant minority of young people continue to leave secondary education without the skills and qualifications to compete in the labour market and saw their job prospects disproportionately affected by the economic crisis. Improving access to high quality, affordable, early childhood education and care remains an issue. Taking into account these challenges, the 2013 European Semester country-specific recommendations (CSRs) focused on apprenticeships and traineeships, young people with very poor basic skills and childcare.

3. Investing in skills and qualifications

Investing in education and training in a context of economic crisis

Government expenditure on education institutions in the UK is above the EU average (6.5% vs. 5.3% of GDP in 2011). The current Spending Review settlement included a real terms protection of the schools budget across all UK countries but required significant savings to be made in the area of further education (FE) and skills in England. The government in England is rebalancing investment in skills, focusing funding on young people (those with English and maths skills below Level 2 and the unemployed). It will also invest an additional £270 million by 2014-15 for capital investment to improve further education colleges in England, and will also provide improved information on returns to further education. As from 2013-14, learners aged 24 and over studying at Level 3 and above in England will have access to loans (24+ Advanced Learning Loans) to help them pay course fees.

Skills

In terms of basic skills, 15 year-olds' performance on PISA tests continues to outperform the EU average, although average performance in the UK has remained broadly constant in last few PISA assessments in reading and mathematics and only modestly improved in science. England and Northern Ireland also performed comparatively well in the 2011 TIMSS & PIRLS studies conducted by the International Association for the Evaluation of Educational Achievement (IEA) on fourth-grade students, especially in mathematics. Concerning ICT skills of young people, a very high share of pupils in the fourth grade uses computers at school. As regards entrepreneurship, the share of the population believing to have the required skills and knowledge to start a business is above the EU average also 15-year old pupils in the UK do not feel they develop entrepreneurial skills at school. Having English as mother tongue, pupils' foreign language skills are not very developed in the UK.

There is no single qualifications framework covering all qualifications offered to learners in England and Northern Ireland outside those in Higher education (HE). For learners in schools taking, in the main, General (GCSE and A Level) qualifications the National Qualifications Framework (NQF) is most relevant. The Qualifications and Credit Framework (QCF) mainly covers qualifications related to vocational/adult education and training.[50] Qualifications offered in HEIs are set out in the Framework for Higher Education Qualifications (FHEQ). Work has been done to

[49] The UK country fiche attempts to present and describe an aggregate UK education position. However, as education is a devolved responsibility in the UK there is substantial variation in the policies, organisation, funding and delivery of education across each of the individual countries.

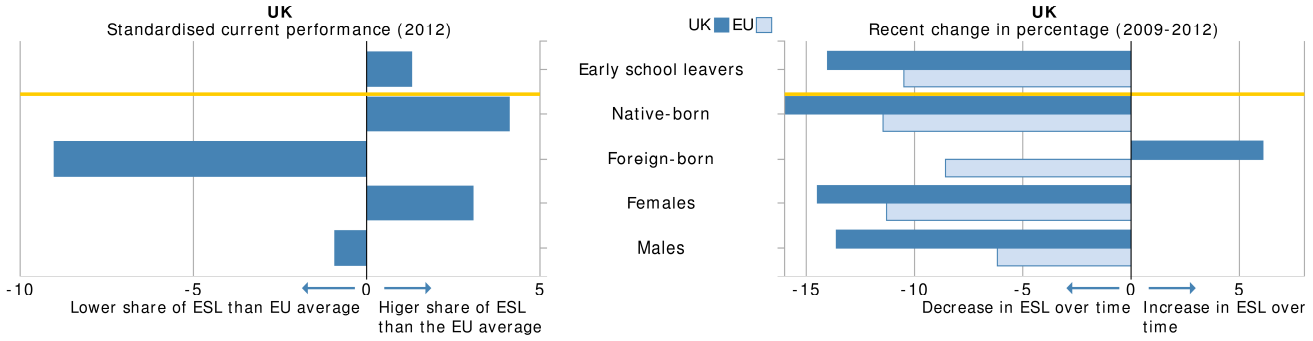
[50] The main difference in the NQF and QCF is the latter includes credit values in order to accommodate a more flexible method of delivery of the qualifications. The levels across the NQF and QCF are comparable. The NQF and QCF have each got 9 levels (Entry Level and Levels 1 to 8).

harmonise the levels in the FHEQ (with Levels 4 to 8) with the QCF and NQF. Wales uses the NQF and but has set the QCF within an overarching Credit and Qualifications Framework for Wales (CQFW). Scotland has a single framework (covering all regulated qualifications including HE qualifications) with 12 levels. Work has been done to articulate the UK frameworks to the European Qualifications Framework (EQF).

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

The UK's early school leaving rate continues to be slightly above the EU average (13.5% vs. 12.7% in 2012). Foreign-born pupils tend to perform better than natives.

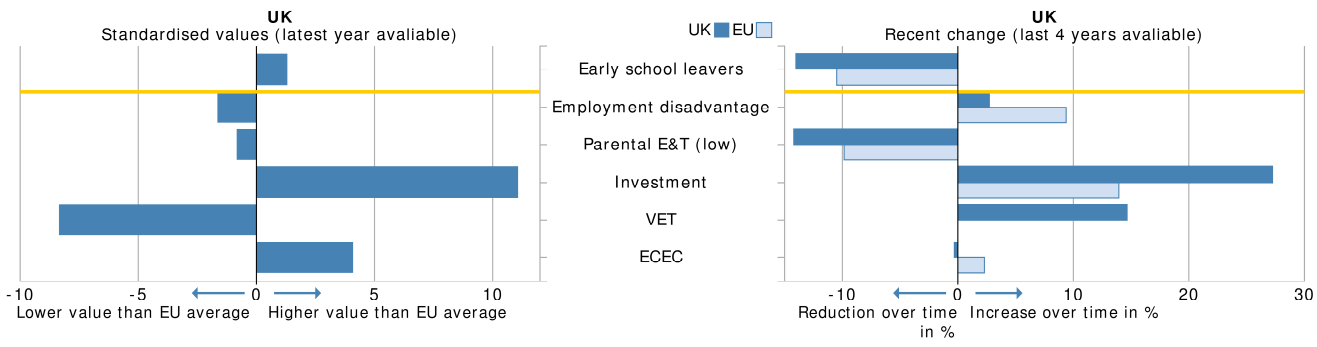
Figure 2. Early leavers from education and training: sub-groups



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

According to the 2011 Skills for Life Survey, 28% of 16-18 year-olds in England are functionally innumerate and 14% are functionally illiterate[51]. To address the problem of young people with very poor basic skills, the Government in each of the UK countries are enacting a range of reforms such as: i) raising the age of compulsory participation in education or training in England to 17 in 2013 and 18 in 2015; ii) reforming the education system in England, by reviewing the national curriculum[52] and (starting from September 2015) the General Certificate of Secondary Education examinations (GCSEs); iii) providing schools in England with a Pupil Premium worth £1.25 billion in 2012–13 to boost the attainment of pupils from deprived backgrounds, many of whom may be at greater risk of becoming NEETs; iv) in Northern Ireland consultation is taking place on proposals to reform funding mechanisms to better support schools in breaking the link between deprivation and educational underachievement. The Government will also invest an additional £980 million in school infrastructure in England by 2015, including funding for 100 new academies and free schools.

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



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

These measures have a long-term nature and therefore it is too early to assess their impact. The focus on system reform in England – rather than discrete measures or initiatives – is quite strong at school level. Raising the age for leaving compulsory schooling may have a significant effect in reducing early school leaving; however it remains to be seen whether pupils will be endowed with the right skills for the labour market. When

51 See Harding, C et al. (2011), *2011 BIS Research Paper Number 57, Skills for Life Survey: Headline Findings*.
52 The Department for Education proposed more demanding programmes in English, mathematics and science.

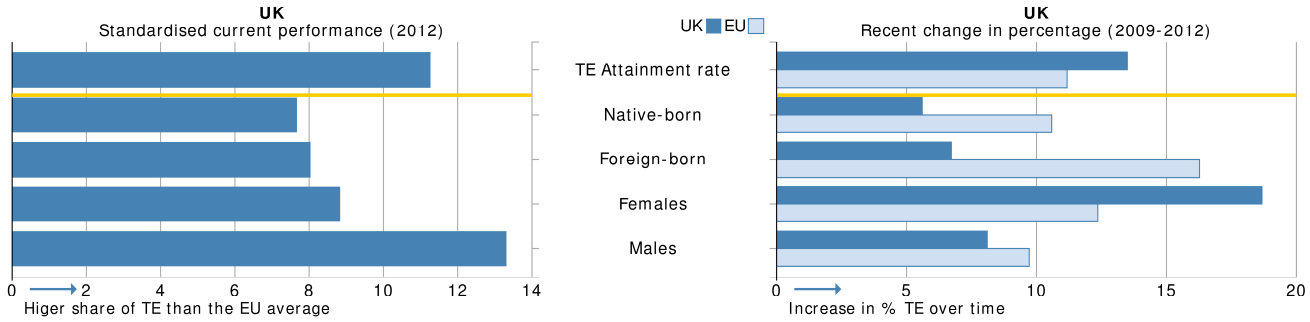
redesigning the GCSEs in England it will be important to avoid the creation of a two-tier system penalising low achievers who might not be able to pass the new exams. Finally, a survey by the official school inspection body in England (Ofsted) expressed some concern about the Pupil Premium, which a large share of schools were not using to target disadvantaged children as envisaged[53]. One of the 2013 CSRs asks the UK to reduce the number of young people aged 18-24 who have very poor basic skills.

Participation in early childhood education is above the EU average; however the UK faces an on-going challenge to improve access to high quality and affordable childcare, as mentioned in the 2013 CSRs. The government is improving the availability of early childhood education and care. In January 2013, the Government in England published *More Great Childcare,* which sets out a plan of action for delivering high-quality early childhood education and childcare, with a strong focus on child development. In February 2013, the Department for Education in England presented the Children and Families Bill to Parliament, proposing reforms to boost the number of high-quality, affordable childcare places.

5. Encouraging participation in tertiary education and modernising higher education

The UK performs well above the EU average (47.6% as against 35.7% in 2012) with regard to the tertiary attainment rate. Also completion rates are above the EU average (72% vs. 69% in 2011)[54].

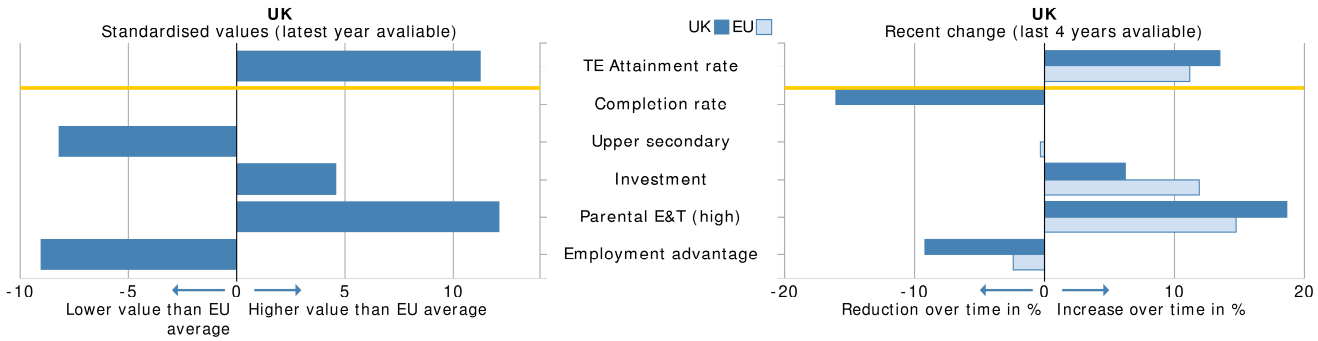
Figure 4. Tertiary education attainment: sub-groups



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

As from the academic year 2012-13, tuition fees increased to up to £9,000 per year in the UK, with a system of grants and government-backed loans available for students. University applications rates declined slightly in England for the academic year 2012-2013, against a recent trend of annual increases, with a larger drop for people coming from more advantaged backgrounds; by contrast, application rates in Northern Ireland, Scotland and Wales (where the student support regimes differ from England) broadly continued their recent trends[55].

Figure 5. Tertiary education attainment: sub-indicators



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

53 See Ofsted (2012), *The Pupil Premium*, http://www.ofsted.gov.uk/resources/pupil-premium
54 See OECD (2013), *Education at a Glance 2013*.
55 See UCAS (2012), *How have applications for full-time undergraduate higher education in the UK changed in 2012?*

Closely monitoring the impact of the new fee regime in England on participation in higher education remains important.

6. Facilitating the transition from education to work

Young, low skilled workers have seen their job prospects disproportionately affected by the economic crisis and the unemployment rate of low-skilled 15-24 year-olds is significantly above the EU average (37.2% in the UK compared to an EU average of 30.3% in 2012). By contrast, the employment rate of recent graduates from at least upper secondary education is well above the EU average (81.5% vs. 75.7% in 2012)[56].

The skills issue is set to become even more relevant in the next few years, as according to projections by the European Centre for the Development of Vocational Training (Cedefop), the number of low qualification jobs in the UK will strongly decrease and could represent only 11% of total jobs in 2020 (compared with an EU average of 18%).

The government introduced a new Traineeships programme in England in August 2013. This will provide 16-24 year-olds lacking the necessary skills and experience they need for the labour market with a tailor-made package of support to enable them to take up apprenticeships or other jobs. Traineeships could have a positive impact in the relatively short term, but will require effective implementation, as recommended by the 2013 CSRs.

In Scotland, through the 'Opportunities for All' commitment, the Government aims at offering a place in education or training to all 16-19 year-olds not already in learning, training or employment.

Participation of upper secondary students in vocational education and training is below the EU average (36% as against 50.3% in 2011). Vocational education and training policy has been too focused on basic skills and relatively low-level qualifications, while the economy increasingly demands more advanced qualifications. However some progress has been made in recent years. In England, the number of apprenticeships continues to grow and there is some evidence of a shift to higher-level qualifications. In 2011/12 there was a 22% growth in advanced level (Level 3) apprenticeships and a 68% increase in higher level (Levels 4 and 5) apprenticeships[57]. To increase the focus of apprenticeships on high-level skills, from 2013 Level 6 (graduate) and 7 (postgraduate) apprenticeships will be available in subjects including law, accountancy and advanced engineering. In addition, 24 University Technical Colleges (UTCs), a new type of schools set up in cooperation with employers and universities, will be opened by 2014. These colleges will teach engineering, business and other practical skills.

The Employer Ownership Pilot was launched in England to raise business engagement and investment by routing public money directly to employers rather than via providers, with businesses invited to set out the public investment they need to support their own investment in skills, training and apprenticeship opportunities. In 2012, 34 projects from businesses were selected, which are expected to generate 11,000 apprenticeships (including 4,400 for 16-18 year-olds), 27,000 full time equivalent non-apprenticeship vocational training opportunities and 49,000 other learning or training opportunities, including work experience and work placements. In the 2013-14 financial year, the Government will increase the size of the Employer Ownership Pilot from £250 million to £340 million.

A recent report from an independent ad-hoc commission, the Richard Review, called on the government to improve the quality of apprenticeships in England and make them more focused on the needs of employers; the government endorsed its recommendations for reforms and intends to start taking practical steps in autumn 2013. This could help to strengthen the role of employers in designing an effective apprenticeship system. However, the qualifications system remains very complex, and this may have an adverse effect on business involvement in the apprenticeships programme. The 2013 CSRs recommend that the UK increase the quality and duration of apprenticeships, simplify the system of qualifications and strengthen the engagement of employers, particularly in the provision of advanced and intermediate technical skills.

Scotland also has a fairly recent scheme for Modern Apprenticeships[58]. The Scottish Government is committed to ensuring 25,000 Modern Apprenticeship opportunities in each year of the Scottish Parliament (25,500 individuals started a modern apprenticeship in 2012-13). In Northern Ireland, the Department for Employment and Learning offers a guarantee of a training place through its Training for Success programme for all unemployed 16-17 year old school leavers with extended eligibility for those with a disability and from an in-care background.

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56 Measured as the employment rates of graduates aged 20-34 who have graduated (from upper secondary or tertiary education) no more than three years ago.

57 There were 520 600 apprenticeship starts in the 2011-12 academic year (compared to 457 200 in 2010-11), of which 291 300 were taken up by young people (compared to 275 100 in 2010/2011). In 2011/2012, advanced-level apprenticeships represented 36.1% of the total, compared with 33.7% in 2010/2011, while higher-level apprenticeships were 0.7% of the total, as against 0.5% in 2010/2011.

58 http://www.ourskillsforce.co.uk/modern-apprenticeships-for-employers/

7. Upgrading skills through lifelong learning

Adults (aged 16-65) in the UK (England and Northern Ireland) score around the EU average in the literacy and numeracy tests of the Survey of Adult Skills (PIAAC). However young people (aged 16-24) in England perform below the EU average and worse than the overall population. This is linked to the very low performance of young people (aged 16-29) with only lower secondary education. The survey also shows that recent graduates in tertiary education (aged up to 29) do not score better than older British cohorts with tertiary qualifications or even than recent upper secondary graduates in the best performing European countries. While employed people have on average higher skills than unemployed people at EU level, this gap is even more pronounced in the UK (England and Northern Ireland) for both literacy and numeracy.

The results pointing at a significant proportion of low skilled adults confirm the findings of national surveys. The UK has a persistently large number of functionally illiterate and innumerate adults, usually with no qualifications: according to the 2011 Skills for Life Survey, in England 5.1 million adults (15% of the adult population) are functional illiterate and 8.1 million adults (24% of the adult population) are functionally innumerate.

Participation of adults in lifelong learning in the UK decreased in recent years (although the figures are affected by breaks in series), while remaining high in EU comparison (15.8% vs. 9% in 2012). In 2010, 80% of UK enterprises provided vocational training to their staff, as against an EU average of 66%.

The Government established the National Careers Service in England in April 2012, as a joint initiative of the Department for Business Innovation and Skills and the Department for Education. This measure created for the first time an all-age careers service, with a £106 million budget for 2012/13. In Northern Ireland, in September 2012, the Northern Ireland Executive published *Access to Success*[59], a new integrated regional strategy for widening participation in higher education, which includes the development of non-traditional routes into higher education through Adult Access Courses and increased part-time opportunities. Northern Ireland has also instituted a range of measures to help engage employers, particularly those from the small and medium sized enterprises with skills development.[60]

[59] http://www.delni.gov.uk/access-to-success.pdf

[60] These include: Skills Solutions Service which provides a single point of contact for employers on skills matters providing advice, brokering training and helping employers access appropriate funding streams; a diagnostic service (the Management Analysis and Planning programme) to assist companies to identify and meet their management and leadership needs; an on-online diagnostic and signposting questionnaire for individual managers which will direct individual managers to appropriate programmes including; a range of 27 supported management and leadership programmes to develop managers at all levels within a business.

Annex 1. Summary statistics on the headline target

Early leavers from education and training

European Union (EU 28)

EU Benchmark	**10** %
EU average (2009)	**14.2** %
EU average (2012)	**12.7** %
Evolution 2009/12	**-1.5** p.p.

		OVERVIEW					SUB-GROUPS / EU average *(2012)*									SUB-INDICATORS / EU average *(latest year available)*									
							Standardized level values					Graphic display					Standardized level values						Graphic display					
		2009 (%)	2012 (%)	Position / EU benchmark (p.p.)	Position / EU Average (p.p.)	Evolution 2009/2012 (p.p.)	Early leavers	Native-born	Foreign-born	Females	Males	Early leavers	Native-born	Foreign-born	Females	Males	Early leavers	Employment disadvantage (difference low/medium educ)	Parental educ. and training (low)	Investment in prim-sec educ	Participation in VET (ISCED 3 level)	Particip. early childhood educ	Early leavers	Employment disavantage	Prental educ. (low)	Invest. prim-sec educ.	Participation in VET	Particip. early educ.
BE	Belgium	11.1	**12.0**			▲ 0.9	-1.5	-2.0	-2.0	-3.3	-1.2						-1.5	-4.9	0.8	7.4	13.1	5.3						
BG	Bulgaria	14.7	**12.5**			▼ -2.2	-0.6	2.0	-17.3	4.4	-4.8						-0.6	-13.7	-6.6	-10.1	1.1	-7.4						
CZ	Czech Republic	5.4	**5.5**			≈ 0.1	-13.7	-12.0	-23.5	-13.4	-14.1						-13.7	-20.8	-10.4	-10.3	13.3	-6.1						
DK	Denmark	11.3	**9.1**			▼ -2.2	-6.9	-5.1	-10.4	-7.9	-6.8						-6.9	0.9	-2.7	12.4	-2.5	5.5						
DE	Germany	11.1	**10.5** p			▼ -0.6	-4.3	-4.9	-3.5	-2.6	-6.4						-4.3	-1.6	-7.8	-2.0	2.6	3.4						
EE	Estonia	13.9	**10.5**			▼ -3.4	-4.3	-2.0	-17.3	-8.6	-1.9						-4.3	-4.8	-13.5	9.6	-9.3	-4.6						
IE	Ireland	11.6	**9.7**			▼ -1.9	-5.8	-4.7	-9.0	-6.2	-6.2						-5.8	-1.5	-0.6	7.4	-9.5	7.1						
EL	Greece	14.5	**11.4**			▼ -3.1	-2.6	-6.5	11.1	-4.2	-2.3						-2.6	17.6	4.6	(:)	-10.9	-20.7						
ES	Spain	31.2	**24.9**			▼ -6.3	22.7	19.3	10.2	21.6	21.1						22.7	7.6	11.8	-2.1	-2.9	7.4						
FR	France	12.2	**11.6**			▼ -0.6	-2.3	-1.6	-1.8	-2.6	-2.8						-2.3	3.2	2.6	-4.3	-3.3	7.4						
HR	Croatia	3.9	**4.2**			≈ 0.3	-16.1	-14.6	-17.3	-16.3	-16.5						-16.1	0.6	-1.2	-12.1	12.4	-25.1						
IT	Italy	19.2	**17.6**			▼ -1.6	9.0	6.3	9.1	7.7	8.2						9.0	2.8	9.8	0.2	5.7	3.9						
CY	Cyprus	11.7	**11.4**			≈ -0.3	-2.6	-6.9	-3.3	-8.8	2.0						-2.6	8.4	-1.9	14.5	-22.0	-9.2						
LV	Latvia	13.9	**10.5**			▼ -3.4	-4.3	-2.0	-17.3	-10.6	-1.1						-4.3	5.5	-13.7	-1.7	-7.3	-0.7						
LT	Lithuania	8.7	**6.5**			▼ -2.2	-11.8	-10.2	-17.3	-14.1	-10.9						-11.8	-12.1	-15.1	-9.9	-12.8	-10.1						
LU	Luxembourg	7.7	**8.1** p			≈ 0.4	-8.8	-8.9	-10.1	-12.1	-7.0						-8.8	13.8	-0.9	-9.0	6.5	2.5						
HU	Hungary	11.2	**11.5**			≈ 0.3	-2.4	-0.4	-17.3	-0.7	-4.7						-2.4	-10.9	-3.8	-10.0	-14.1	1.3						
MT	Malta	36.8	**22.6**			▼ -14.2	18.4	21.8	-17.3	14.5	19.1						18.4	-9.8	25.9	11.4	-6.7	7.4						
NL	Netherlands	10.9	**8.8** p			▼ -2.1	-7.5	-5.9	-9.0	-8.2	-7.8						-7.5	1.3	0.7	-2.8	11.0	7.0						
AT	Austria	8.7	**7.6**			▼ -1.1	-9.8	-11.0	-5.3	-8.2	-11.3						-9.8	-4.9	-2.8	0.3	15.1	1.1						
PL	Poland	5.3	**5.7** p			≈ 0.4	-13.3	-11.6	-17.3	-16.5	-11.5						-13.3	-7.9	-10.3	-3.3	-1.2	-16.5						
PT	Portugal	31.2	**20.8**			▼ -10.4	15.0	18.3	-3.6	7.3	18.5						15.0	16.1	24.6	7.5	-4.6	2.3						
RO	Romania	16.6	**17.4**			▲ 0.8	8.6	11.4	-17.3	12.6	4.4						8.6	7.9	-1.7	-26.7	7.5	-12.5						
SI	Slovenia	5.3	**4.4**			▼ -0.9	-15.8	-14.6	-24.1	-17.2	-15.2						-15.8	-4.1	-5.1	9.7	8.8	-0.4						
SK	Slovakia	4.9	**5.3**			≈ 0.4	-14.1	-12.4	-17.3	-14.1	-14.3						-14.1	-24.7	-10.6	-13.8	12.0	-18.1						
FI	Finland	9.9	**8.9**			▼ -1.0	-7.3	-5.7	-27.3	-6.4	-8.4						-7.3	-1.5	-10.1	5.5	11.3	-21.3						
SE	Sweden	7.0	**7.5**			≈ 0.5	-9.9	-9.6	-8.6	-10.4	-10.4						-9.9	0.0	-6.1	5.2	3.5	2.2						
UK	United Kingdom	15.7	**13.5**			▼ -2.2	1.3	4.1	-9.0	3.1	-0.9						1.3	-1.6	-0.8	11.1	-8.4	4.1						

Source: DG EAC, based on Eurostat data (LFS) and CRELL calculations

Legend:

p.p. : variation in percentage points **p**: provisional

Country position / benchmark and EU average

- BELOW or EQUAL to the EU benchmark/average
- CLOSE to the EU benchmark/average (0.1 - 1 p.p.)
- ABOVE the EU benchmark/average (> 1 p.p.)

Country's evolution 2009/2012 + performance

- ▼ Decrease — Highest performers
- ≈ Stable (+/- 0.5 p.p.)
- ▲ Increase — Lowest performers

Sub-indicators and standardized level values

For more information, please see Annex 2

Tertiary educational attainment

European Union (EU 28)

EU Benchmark	**40** %
EU average (2009)	**32.1** %
EU average (2012)	**35.7** %
Evolution 2009/12	**3.6** p.p.

		OVERVIEW					SUB-GROUPS / EU average *(2012)*										SUB-INDICATORS / EU average *(latest year available)*										
							Standardized level values					Graphic display					Standardized level values						Graphic display				
		2009 (%)	2012 (%)	Position / EU benchmark (p.p.)	Position / EU Average (p.p.)	Evolution 2009/2012 (p.p.)	Tertiary educ. attainment	Native-born	Foreign-born	Females	Males	Early leavers	Native-born	Foreign-born	Females	Males	Tertiary educ. attainment	Completion rate at ISCED 5A	Upper sec. educ. attainment	Investment in tertiary educ.	Parental education & training (high)	Employment advantage (difference medium/high educ.)	Tertiary educ. attainment	Completion rate ISCED 5A	Upp. sec. educ. attainment	Invest. tertiary educ.	Parental educ. (high)	Employment advantage
BE	Belgium	42.0	**43.9**			▲ 1.9	8.1	9.8	0.2	9.3	5.9						8.1	1.0	-6.1	4.3	6.6	2.3						
BG	Bulgaria	27.9	**26.9**			▼ -1.0	-8.9	-9.5	(:)	-5.5	-11.9						-8.9	(:)	12.7	-6.4	6.1	9.3						
CZ	Czech Republic	17.5	**25.6**			▲ 8.1	-10.2	-10.7	-1.8	-9.4	-9.9						-10.2	7.1	15.0	-7.4	-9.8	-7.4						
DK	Denmark	40.7	**43.0**			▲ 2.3	7.2	6.9	2.3	10.9	2.3						7.2	12.1	0.0	14.9	14.3	-6.7						
DE	Germany	29.4	**31.9**			▲ 2.5	-3.9	-3.2	-2.2	-6.2	-0.6						-3.9	7.1	4.2	(:)	2.6	-2.5						
EE	Estonia	35.9	**39.1**			▲ 3.2	3.3	2.7	1.3	9.0	-3.8						3.3	(:)	3.3	-4.3	25.8	-3.8						
IE	Ireland	48.9	**51.1**			▲ 2.2	15.3	13.0	8.0	15.5	13.3						15.3	(:)	-1.9	(:)	7.1	10.7						
EL	Greece	26.5	**30.9**			▲ 4.4	-4.9	-2.5	-8.3	-5.0	-4.3						-4.9	(:)	8.5	(:)	-4.7	13.3						
ES	Spain	39.4	**40.1**			▲ 0.7	4.3	8.8	-3.8	4.6	3.7						4.3	10.1	-21.3	9.2	-3.1	6.3						
FR	France	43.2	**43.6**			≈ 0.4	7.8	8.0	1.6	7.5	7.4						7.8	(:)	-6.4	0.5	0.4	-1.1						
HR	Croatia	20.6	**23.7**			▲ 3.1	-12.1	-12.3	-4.0	-9.7	-13.1						-12.1	(:)	22.0	-6.5	-2.5	17.1						
IT	Italy	19.0	**21.7**			▲ 2.7	-14.1	-12.0	-8.0	-11.9	-15.5						-14.1	(:)	5.6	-7.2	-9.0	-2.5						
CY	Cyprus	45.0	**49.9**			▲ 4.9	14.1	19.6	2.4	13.4	12.9						14.1	(:)	-5.8	-6.0	1.8	-4.4						
LV	Latvia	30.1	**37.0**			▲ 6.9	1.2	0.8	-0.5	7.0	-6.0						1.2	(:)	6.1	-5.5	5.9	19.8						
LT	Lithuania	40.6	**48.7**			▲ 8.1	12.9	11.5	(:)	14.2	9.8						12.9	(:)	9.2	2.2	11.5	25.5						
LU	Luxembourg	46.6	**49.6**			▲ 3.0	13.8	5.1	8.1	7.7	20.2						13.8	(:)	-4.8	(:)	3.4	9.9						
HU	Hungary	23.9	**29.9**			▲ 6.0	-5.9	-6.6	1.3	-3.9	-7.4						-5.9	-20.2	9.4	(:)	-2.8	6.1						
MT	Malta	21.0	**22.4**			▲ 1.4	-13.4	-14.8	1.8	-13.9	-11.7						-13.4	(:)	-7.0	-6.3	-15.0	-2.5						
NL	Netherlands	40.5	**42.3** p			▲ 1.8	6.5	7.6	-0.1	4.2	8.9						6.5	4.0	-2.8	3.5	3.6	-9.1						
AT	Austria	23.5	**26.3**			▲ 2.8	-9.5	-9.5	-4.8	-11.6	-6.0						-9.5	-3.0	14.3	2.5	-7.8	-5.9						
PL	Poland	32.8	**39.1** p			▲ 6.3	3.3	2.5	(:)	5.6	0.3						3.3	-6.1	9.7	6.1	-5.4	15.4						
PT	Portugal	21.1	**27.2**			▲ 6.1	-8.6	-8.6	-3.5	-8.6	-7.8						-8.6	-1.0	-11.4	0.8	-8.4	-2.1						
RO	Romania	16.8	**21.8**			▲ 5.0	-14.0	-14.4	(:)	-14.6	-11.9						-14.0	(:)	5.1	-12.9	-12.0	11.2						
SI	Slovenia	31.6	**39.2**			▲ 7.6	3.4	4.7	-7.5	8.3	-2.3						3.4	(:)	15.8	10.0	-1.4	10.3						
SK	Slovakia	17.6	**23.7**			▲ 6.1	-12.1	-12.5	(:)	-10.2	-13.1						-12.1	3.0	11.3	-10.6	-6.4	-8.2						
FI	Finland	45.9	**45.8**			≈ -0.1	10.0	10.3	0.0	13.3	5.5						10.0	8.1	15.7	27.7	18.3	-1.3						
SE	Sweden	43.9	**47.9**			▲ 4.0	12.1	12.3	4.3	11.9	11.6						12.1	-20.2	6.3	19.4	17.4	-11.8						
UK	United Kingdom	41.5	**47.1**			▲ 5.6	11.3	7.7	8.0	8.8	13.3						11.3	0.0	-8.2	4.6	12.1	-9.1						

Source: DG EAC, based on Eurostat data (LFS) and CRELL calculations

Legend:

p.p. : variation in percentage points **p**: provisional

Country position / benchmark and EU average

- ABOVE or EQUAL to the EU benchmark/average
- CLOSE to the EU benchmark/average (- 1/<0 p.p.)
- BELOW the EU benchmark/average (< -1 p.p.)

Country's evolution 2009/2012 + performance

- ▲ Increase — Highest performers
- ≈ Stable (+/- 0.5 p.p.)
- ▼ Decrease — Lowest performers

Sub-indicators and standardized level values

For more information, please see Annex 2

Annex 2. Explaining the sub-indicators for the headline target

The country reports contain figures that provide a more in-depth look at the performance as regards the twofold Europe 2020 headline target on education and training: early school leaving and tertiary attainment. In these figures, the latest values of particular sub-groups[61] and sub-indicators are compared to the corresponding EU averages[62] and also to past values (in percentage terms). Sub-indicators are used to shed light on the broader context of the country performance in early school leaving and tertiary education attainment and hint to policy levers that can be used to reach national targets by 2020, or to bring about change in the longer term.

Early leavers from education and training: sub-indicators
Employment disadvantage
Difference in the employment rate in percentage points between individuals aged 20 to 64 with an education level corresponding to ISCED 0-2 and those with an education attainment corresponding to ISCED 3-4. A higher disadvantage in employment rates might therefore increase the incentives to stay longer in the education and training system.
Parental E&T (low)
Proportion of females aged 45 to 54 whose education attainment corresponds to ISCED 0-2. The education attainment of this female cohort is a proxy for the family background of the target population. A vast literature highlights mother's education as a key determinant for explaining differences in education attainment.
Investment
Annual expenditure on public and private education institutions in EUR PPS at primary and secondary levels (ISCED 1 to 4) divided by the size of the cohort aged 6-18 and compared to the GDP per capita in EUR PPS. This constitutes the measure of investment in education and training systems and is a proxy for the quality of the supply of education[63].
VET
Proportion of ISCED 3 students who participate in vocational education and training (VET). The number of students enrolling in VET programmes is believed to be associated with subsequent school outcomes. Vocational programmes help reducing early leaving from education and training and might help to make education systems more socially inclusive.
ECEC
Proportion of pupils aged between 4 years and the starting age of compulsory education who are participating in early childhood education and care (ECEC). Early childhood education and care is found to be associated with better performance later in life.

Tertiary education attainment: sub-indicators
Employment advantage
Difference in percentage points in employment rate between individuals whose education attainment is equal to ISCED5-6 and those whose educational attainment corresponds to ISCED3-4. A higher return is believed to increase the incentives to stay longer in the education and training system.
Parental E&T (high)
Percentage of females aged 55-64 having completed ISCED 5-6. The education attainment of this female cohort is a proxy for the family background of the target population. A vast literature highlights mother's education as a key determinant for explaining differences in education attainment.
Investment
Annual expenditure on tertiary education (ISCED 5-6) divided by the size of the cohort aged 20-24 and compared to the GDP per capita expressed in PPS. This constitutes the measure of investment in education and training systems and is a proxy for the quality of the supply of education[64].
Upper secondary
Percentage of population aged 20-24 having attained at least upper secondary education. Rising skill demands in European countries have made qualifications at the upper secondary level the minimum credential for successful entries in the labour market. Upper secondary education attainment informs about the pool for new entrants into higher education.
Completion rate
Proportion of those who enter a tertiary-type A programme and go on to graduate from at least a first tertiary-type A programme. The completion rate in tertiary education allows contrasting countries in terms of the internal efficiency of the tertiary education system.

Note: This methodology is based on the Joint Assessment Framework (JAF) – the monitoring tool for the Europe 2020 strategy. Sub-groups and sub-indicators for the twofold Europe 2020 target on education and training are based on data provided by Eurostat (except from the completion rate, which comes from the OECD) and were developed by the JRC's Centre for Research on Lifelong Learning (CRELL).

61 Native-born, foreign-born, female, male. The figures for foreign-born students are not always provided, following the approach of Eurostat, which does not provide figures for the subset of the foreign-born population. For early leavers from education and training, this data is not available for the following countries: BG, EE, HR, HU, LT, LV, MT, PL, RO, SK. Moreover, the data for CZ, SI and FI lack reliability due to small sample sizes and should therefore be interpreted with caution. For tertiary education attainment, data is not available for the following countries: BG, LT, PL, RO, SK. Furthermore, the data for EE, MT, SI and HR lack reliability due to small sample size and should therefore be interpreted with caution.

62 When comparing sub-groups and sub-indicators to the corresponding EU average, standardised values are adopted. These standardised values are obtained by subtracting the EU weighted average and dividing by the standard deviation. In other words, the EU average becomes the reference point ("0") and the deviation from this reference point becomes comparable across different sub-groups and sub-indicators. Although data reported here refers to 28 EU countries, the EU weighted average is estimated across 27 countries as provided by Eurostat. Furthermore, the figures for the sub-group foreign-born are not always provided for all countries (see also footnote 2). Therefore, the standard deviation for this group is estimated only on available data.

63 The indicator takes into account demographic effects and avoids penalising countries with a high share of students that spend less on a per capita basis compared to other countries that spend more on relatively fewer students.

64 Ibid.