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Education and Training Monitor 2013

(Volume 2: Country analysis - Part 3 of 7: Finland, France, Germany, Greece)

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1. Key indicators and benchmarks

	Finland		EU average		Europe 2020 target / Benchmark
	2009	2012	2009	2012	
Europe 2020 headline targets					
1. Early leavers from education and training (age 18-24)	9.9%	8.9%	14.2% ^{EU28}	12.7% ^{EU28}	EU target: 10% National target: 8%
2. Tertiary educational attainment (age 30-34)	45.9%	45.8%	32.1% ^{EU28}	35.7% ^{EU28}	EU target: 40% National target: 42% ⁴

ET 2020 Benchmarks

3. Early childhood education and care (4 years old - year before start of compulsory primary)			71.9%	74.0% ¹¹	91.7%	93.2% ¹¹	95%
4. Basic skills Low achievers (15 year-olds; Level 1 or lower in PISA study)	Reading		8.1%	:	19.6%	:	15%
	Mathematics		7.8%	:	22.2%	:	15%
	Science		6.0%	:	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	0.8%	0.8% ¹¹	0.6%	0.7% ¹¹	
		b. Erasmus inbound students as % of student population in host country		2.2% ¹¹		1.1% ¹¹	
	Higher Education	c. Inbound degree mobile students as % of student population in the host country		4.6% ¹¹		7.0% ¹¹	
6. Employment rate of graduates (age 20-34) having left education 1-3 years before reference year			77.8%	80.7%	78.3%	75.7%	82%
7. Adult participation in lifelong learning (age 25-64)			22.1%	24.5%	9.3%	9.0%	15%

Proposed ET 2020 benchmark

8. Foreign languages skills	a. ISCED 2 students at proficiency level B1 or higher in first foreign language ¹	:	:	:	43.5% ¹¹
	b. ISCED 2 students learning two or more foreign languages	98.3%	98.3% ¹¹	58.6%	60.8% ¹⁰

Other ET 2020 Indicators

9. Investment in education and training	a. General government expenditure on education (% of GDP)		6.6%	6.4% ¹¹	5.5%	5.3% ¹¹
	b. Annual expenditure on public and private educational institutions per pupil/student in € PPS	ISCED 1-2	€ 6,650 ⁰⁸	€ 6,997 ¹⁰	€ 5,732 ⁰⁸	€ 6,021 ¹⁰
		ISCED 3-4	€ 5,845 ⁰⁸	€ 6,094 ¹⁰	€ 6,964 ⁰⁸	€ 7,123 ¹⁰
		ISCED 5-6	€ 12,066 ⁰⁸	€ 12,874 ¹⁰	€ 9,309 ⁰⁸	€ 9,168 ¹⁰
10. Digital competences	a. Pupils in grade 4 (ISCED 1) using computers at school		:	80.6% ¹¹	60.7% ⁰⁷	64.7% ¹¹
	b. Individuals aged 16-74 with high computer skills ²		33.0%	41.0%	25.0%	26.0%
11. Entrepreneurial competences	Individuals aged 18-64 who believe to have the required skills and knowledge to start a business		35.0%	34.0%	42.3% ^a	42.0% ^a
12. Vocational education and training	Share of vocational students at ISCED 3		68.8%	69.6% ¹¹	49.6%	50.3% ¹¹
13. Skills for future labour markets Projected change in employment 2010-2020 in %	High qualification		:	14.9%	:	19.1% ^{EU28}
	Medium qualification		:	3.9%	:	4.6% ^{EU28}
	Low qualification		:	-20.6%	:	-20.2% ^{EU28}
14. Low-skilled adults	Literacy		:	10.6%	:	19.9% ^{EU17}
	Numeracy		:	12.8%	:	23.6% ^{EU17}
	Problem solving in technology rich environments ³		:	19.7%	:	26.9% ^{EU13}

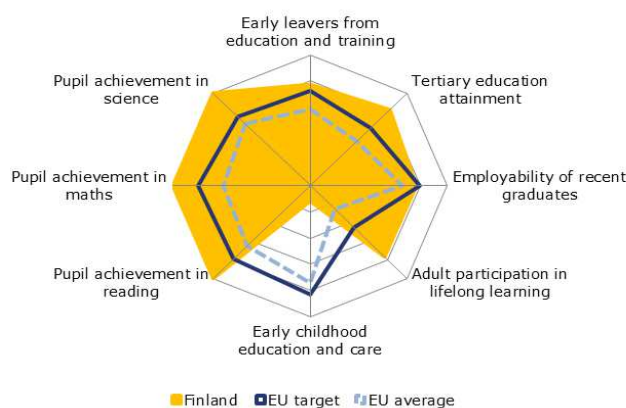
Source: Cedefop: 13 / EAC: 10a,b / European Survey on Language Competences (ESLC): 8a / Eurostat (Government finance statistics): 9a / Eurostat (LFS): 1, 2, 6, 7 / Eurostat (ISS): 10b / Eurostat (UOE): 3, 8b, 9b, 10c, 12 / IEA TIMSS: 10a / Global Entrepreneurship Monitor: 11 / OECD (PIAAC): 14 / OECD (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, ⁴= Tertiary educational attainment: the national target is defined more narrowly and excludes technological institutes

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

In general Finland has been able to maintain its high international position, particularly on basic skills. In the context of an ageing population, the employability of older workers and the need to delay their exit from the labour market on the one hand, and the level of youth unemployment and a lack of relevant skills among young job seekers on the other, are growing sources of concern for Finland, particularly young people not in employment, education and /or training (NEETs, ca. 40.000 persons).

Consequently, the 2013 European Semester country-specific recommendation (CSR) on education focused on the issue of the development of job related skills for young people and the long-term unemployed. A major initiative in this area is the “*Social Guarantee for Young People: education, work and tailored services*” enhanced as of January 2013. Finally, Finland will have to face in the future the issue of increasing the efficiency of its public spending on education, in particular in the tertiary sector.

3. Investing in skills and qualifications

Investing in education and training in a context of economic crisis

Public expenditure on education (COFOG data) remained stable in Finland during the period 2008-11, from 5.9% of GDP in 2008 to 6.4 % of GDP in 2011, and remains significantly higher than the EU general average of 5.3% in 2011. Finland has been hence able to maintain its education budget throughout the financial crisis, and its public expenditure on education has remained above the EU average, despite a generally difficult economic context.

Skills and qualifications

In terms of basic skills, 15-year olds' performance on PISA tests in reading, mathematics and science continues to be the best in the EU, despite a certain degree of stagnation in recent years. The recent PIRLS and TIMSS surveys confirm this lasting trend.

A large share of the population has high level of computer skills, with 53% of individuals aged 16-24 with high computer skills in 2012. Compared to the EU average, Finland shows a very high (and increasing) share of graduates in science, mathematics and technology (31.8% vs. 21.9%), as well as a low share of graduates in social science, business and law (23.0% vs. 35.7%). With regard to entrepreneurship, the share of the population believing to have the required skills and knowledge to start a business is below the EU average, with only 34% of the 18-64 years old population. On average, Finnish pupils at ISCED 2 learn more than two foreign languages (2.2), which is well above the EU average (1.5), certainly due to its official multilingualism policy.

As regards ICT and opening of education, in Finland, percentages of students in highly digitally equipped schools are among the highest in Europe, with only very small percentages of students not in such schools. Except in lower secondary school, more than 90% of students are in highly digitally equipped schools. In lower secondary school there are still 85% of students in such schools.

As regards qualifications in Finland the Finnish Parliament is examining the Act on a National Framework for Exam-based and other Competences establishing the NQF. EQF referencing is due to take place before the end of 2013.

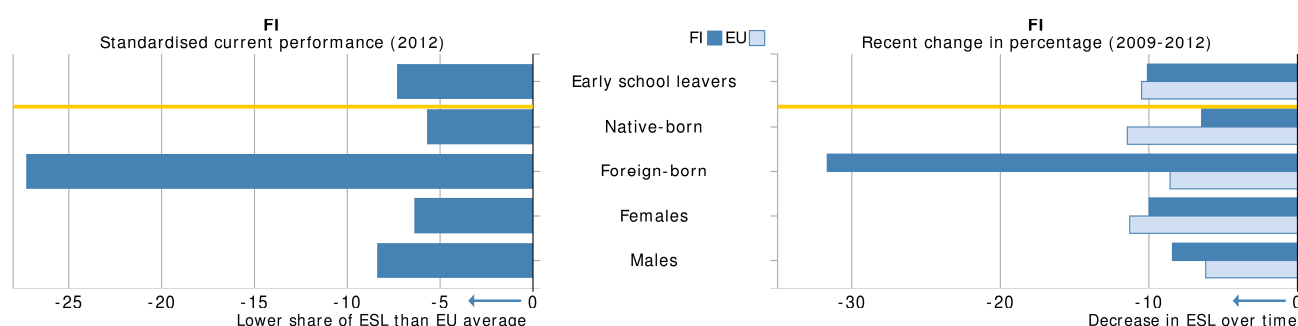
4. Tackling early school leaving and raising the bar in school education

Finland performs better than the EU average for the early school-leaving rate. In Finland it was 8.9 % vs. an EU average of 12.8% in 2012. However, it tends to be significantly higher among migrants, with an estimate of 14.9% in 2012. The overall rate of ESL has remained fairly stable for the last decade. For the period 2011-12 the early school-leaving rate has decreased by 0.9 pp.

Compared with the nation as a whole, migrant youths in Finland are more exposed to early school leaving (ESL). The situation is especially challenging for those young people who have arrived in Finland in the final stages of the Finnish programme of compulsory education. Thus language training for immigrants is to be increased at secondary and upper-secondary level as well as adult education centres, allowing for the improvement of their study prospects and their language skills. This is a very important and promising initiative of the Finnish authorities, given the disadvantaged position of non-natives vis-à-vis ESL.

Participation in early childhood education is well below the EU average (74% vs. an estimated 93% in 2011 for the 4-6 year old group, according to Eurostat UOE) due *i.a.* to the traditional Finnish model of child care. However, as all parents are entitled to have a public day care place for their under school-aged children, the participation rate in pre-primary education for 6-year-olds (pre-school year) is very high, at 98.5% in 2012 according to Statistics Finland.

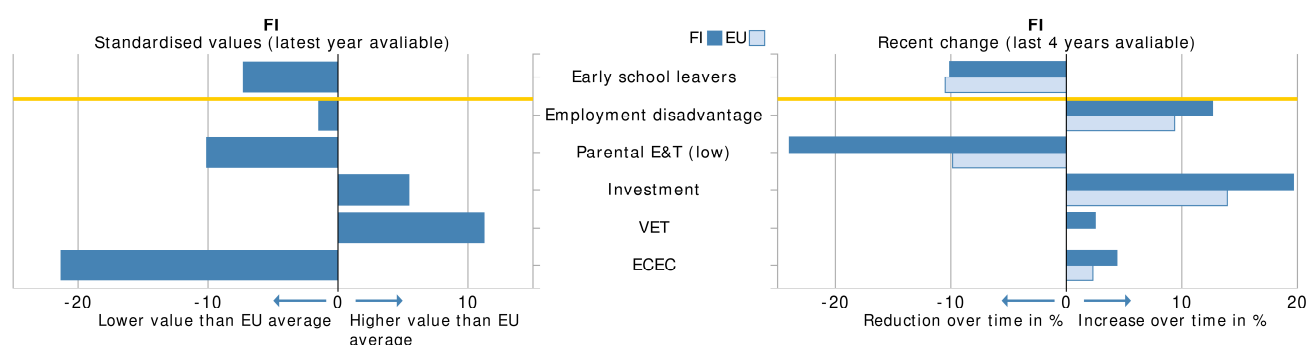
Figure 2. Early leavers from education and training: sub-groups



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

As some sub-indicators show, investment in education is high and it is increasing. Employment disadvantage is not so strong but it is increasing.

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



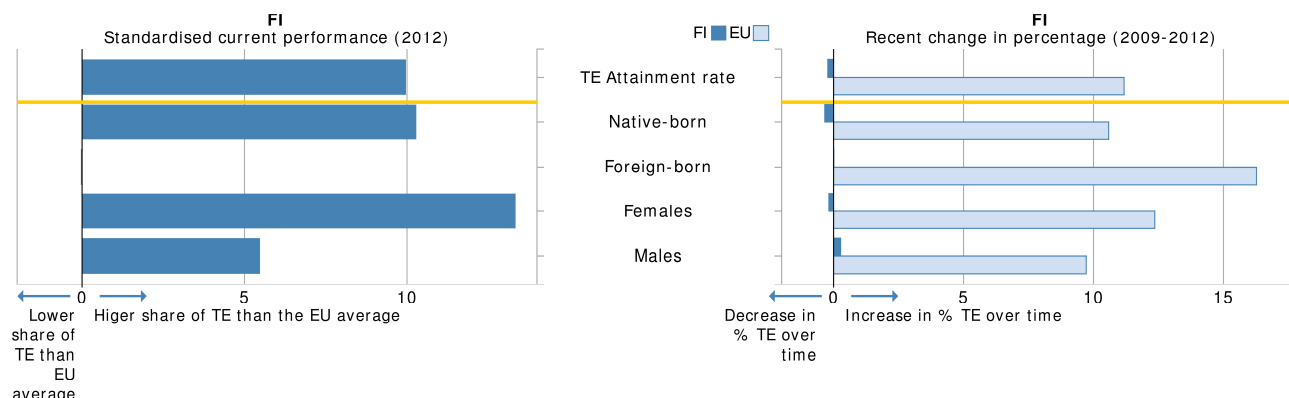
Source: JRC-CRELL. Note: see Annex 2 for an explanation of the sub-indicators.

Teachers in Finland are well prepared, highly respected and rewarded. Initial teacher education requirements in public institutions include a competitive examination to enter and teaching practice as part of pre-service training. All teachers in basic and general upper secondary education have a Master's degree.

5. Encouraging participation in tertiary education and modernising higher education

Finland is performing quite well as regards the tertiary attainment rate, with 45.8% (EU wide definition) as against an EU average of 35.7% in 2012. Finland has almost reached its national target and it has exceeded the EU headline target for 2020¹, but the rate for foreign born persons remains lower than for natives, with 33% vs. 47% in 2012. For the period 2011-12 the corresponding rate has slightly decreased by 0.2 pp., partly due to the phasing out of the previously large tertiary VET sector. As regards the drop-out rate from higher education in 2011 and according to the OECD it represented 24.2% in Finland, as compared to the OECD average of 31.6% for the same period².

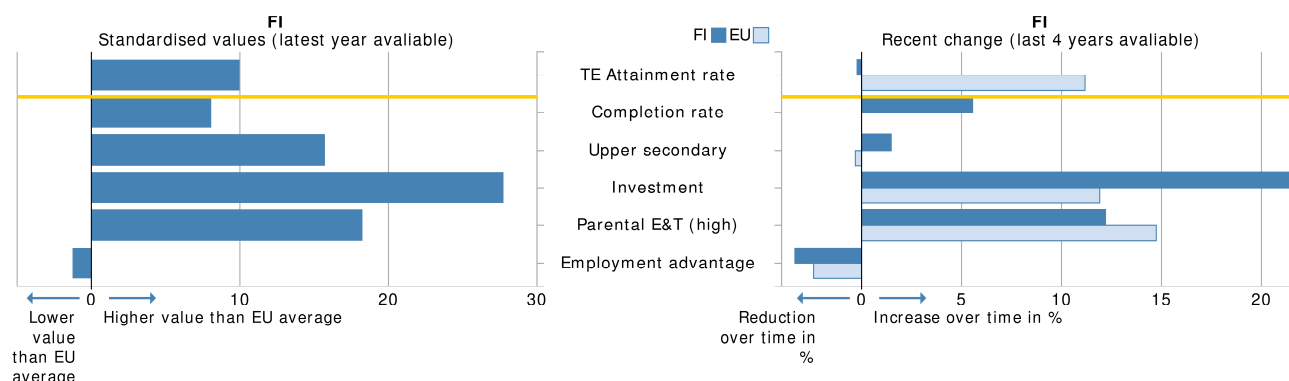
Figure 4. Tertiary education attainment: sub-groups



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

The supply of upper secondary education is strong and due to high completion rates, tertiary attainment is high as well. Moreover, investment is very high and still increasing. Employment advantage is, interestingly, not so strong. So it's not *per se* a direct labour market incentive that makes people continue into higher education.

Figure 5. Tertiary education attainment: sub-indicators



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

In the future Finland will have to address the issue of the efficiency of public spending in higher education, given one of the longest times to degree in all of the OECD countries, as well as the relative importance of expenditure in the tertiary sector.

The internationalisation and attractiveness for overseas students of the Finnish tertiary sector remain a challenge and will have to be further developed in the future. A Strategy for the Internationalisation of Higher Education Institutions in Finland 2009–2015 outlines the goals for the internationalisation of higher education, and is currently being revised by Finnish authorities, with a view to increasing the quality and attractiveness of universities.

¹ The Finnish national target is set at 42% according to the narrow national definition of tertiary attainment (without the tertiary VET). It is estimated that the 45.8% of tertiary attainment according to the EU-wide definition corresponds to ca. 40 % (according to Finnish statistics in 2011) when applying the Finnish narrow definition.

² OECD Education at a Glance 2013, see statistics at the following link <http://www.oecd-ilibrary.org/docserver/download/9613031e.pdf?expires=1372231758&id=id&accname=oid031827&checksum=4FF3E0083B6C93694CF460C1CBF57750>

6. Facilitating the transition from education to work

According to national statistics 69.6% of Finnish upper-secondary students were enrolled in VET in 2011. A recent Eurostat study shows that 74% of Finnish enterprises provided in 2010 continuous vocational education and training (CVET) for its employees, slightly higher than the 66% EU-average.

As part of the enhanced Youth Guarantee, launched in January 2013, Finland has increased the number of available study places in VET by 1.700. These study places were created particularly in geographical areas where there previously was relatively few study places available compared with the relevant age group.

This initiative responds to the high demand for VET in Finland, potentially reducing the numbers of those who are excluded from this type of provision. In parallel the selection criteria in vocational education in Finland are undergoing a change in order to prioritise those who have left compulsory education but do not have a secondary education degree. In addition, apprenticeships will be developed further by Finland (in 2010 only 16.8% of VET upper-secondary students were in apprenticeships, according to Statistics Finland), i.a. by providing more financial incentives for employers.

All in all this is a positive development, but the number of additional VET places seems rather limited, as estimates show that there are presently ca. 40.000 low skilled young people in Finland, who are neither in employment nor in education or training (NEETs). The increase in the number of apprenticeships will also remain to be monitored, given the complexity and the financial cost of the setting up of such schemes.

It is worth noting that in Finland the employment rate of graduates remained above the EU average throughout the economic crisis (80.7% in 2012 for Finland as against 75.7% for the EU-27) and youth unemployment figures remain at average level in comparison to other EU countries. This performance may be explained *inter alia* by the fact that Finland shows a very high - and increasing - share of graduates in science, mathematics and technology (MST) compared to the EU average, at 31.8% vs. 21.9%, as well as a low share of graduates in social science, business and law, at 23.0% vs. 35.7%, the latter being a group usually more exposed to unemployment in times of economic recession.

A comprehensive social guarantee for young people (*'Social Guarantee for Young People: education, work and tailored services'*) was introduced by Finnish authorities in 2006 and recently enhanced. The Youth Guarantee package consists of various elements: a guarantee of employment, education or training, as well as a young adults' skills programme, a youth 'workshop', and outreach youth work. The guarantee is in force as of 1 January 2013. Through this scheme the unemployed aged under 25 and recent graduates under 30 will be offered a job, place to study, training or other activation measure within 3 months of registration with the public employment service. The Government budget proposal includes 60 million EUR destined for local authorities for the employment, education and training guarantee in 2013. The above-mentioned young adults' skills programme will be implemented in 2013-2016, with a budget of 27 million EUR in 2013 and 52 million EUR in the years 2014-2016. In this context opportunities to achieve a vocational qualification or a part of it will be provided for those 20-29 year olds who only have achieved the comprehensive school leaving certificate. As regards the youth workshop and outreach youth work the funding for the period 2013-2015 is set to be of 19.5 million EUR, and 11.5 million EUR in 2016.

The guarantee package is one of the major political and social priorities of the Finnish government and an example of an ambitious public-private partnership with shared responsibility between authorities, trade unions and young people. It remains to be seen whether the on-going administrative and territorial reform will not have a significant adverse impact of the delivery of social and education services by local authorities, and that this action will be sufficiently well-funded in the future. In addition, the implementation of this scheme will require close inter-ministerial cooperation as the Finnish Ministry of Education and Culture is responsible for this project in collaboration with the Ministry of Employment and the Economy and the Ministry of Social Affairs and Health.

Finally, Finland also decided to improve student guidance during and after the end of compulsory education. The aim is give local authorities the legal responsibility to provide young people, who have ended compulsory education without a qualification, with professional career counselling and guidance.

7. Upgrading skills through lifelong learning

The Survey of Adult Skills (PIAAC³) shows that adults (aged 16-65) in Finland have one of the best results in the tests of literacy and numeracy proficiency in the EU. Moreover, the share of low skilled adults is one of the lowest, around 10% for literacy and 12% for numeracy (compared with an EU average of 19% and 24%, respectively). A large share of the population (more than 40%) shows high problem-solving skills in a technology rich (ICT) environment. The difference in scores of young people and old adults for both literacy and numeracy is very high, with youngsters performing much better than older people: the gap in proficiency skills for literacy between the generations aged 25-34 and 55-65 is about 40 percentage points (i.e. equivalent to skills usually acquired with about 5 years of education).

³ 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).

Participation of adults in lifelong learning is the third highest in the EU (24.5% in 2012). Participation rates among older and low skilled adult groups were also higher than average in Europe, but considerably lower than among the general adult population in Finland: for the 55-64 year olds it was estimated at 13.5% and for the low-skilled, it was only at 10.7%. It is worth underlining that the rate was indeed higher in 2012 for foreign born persons (28%) than for natives (24.3%) Given the future demographic challenges⁴, older and low-skilled workers would benefit from targeted measures with the aim to keep them longer active on the labour market and increase their social participation and active citizenship. Moreover, human resource policies in traditional industries should include special attention to older workers, also in order to prevent skill shortages as regards new and often evolving production processes. Finland will also have to face in the future the challenge of skills mismatches due to on-going structural change, i.e. the mismatch between the skills of workers leaving declining sectors and the skills required in expanding ones.

Finally, while general adult participation is far above the EU average, this is only to the lesser extent the case for CVET in enterprises, of which 74% report to provide continuing vocational training (EU66%).

⁴ See in particular the 2012 Ageing Report prepared by the European Commission (DG ECFIN) http://ec.europa.eu/economy_finance/publications/european_economy/2011/pdf/ee-2011-4_en.pdf

1. Key indicators and benchmarks

	France		EU average		Europe 2020 target / Benchmark
	2009	2012	2009	2012	
1. Early leavers from education and training (age 18-24)	12.2%	11.6%	14.2% ^{EU28}	12.7% ^{EU28}	EU target: 10% National target: 9.5%
2. Tertiary educational attainment (age 30-34)	43.2%	43.6%	32.1% ^{EU28}	35.7% ^{EU28}	EU target: 40% National target: 50% ⁴

ET 2020 Benchmarks

3. Early childhood education and care (4 years old - year before start of compulsory primary)		100.0%	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	19.8%	:	19.6%	:	15%
	Mathematics	22.5%	:	22.2%	:	15%
	Science	19.3%	:	17.7%	:	15%
5. Learning mobility	Initial vocational training (IVET)	a. Students participating in Leonardo da Vinci programs as a share of vocational students at ISCED 3		0.6%	0.7% ¹¹	
		b. Erasmus inbound students as % of student population in host country			1.1% ¹¹	
	Higher Education	c. Inbound degree mobile students as % of student population in the host country		11.9% ¹¹	7.0% ¹¹	
6. Employment rate of graduates (age 20-34) having left education 1-3 years before reference year		77.2%	76.5%	78.3%	75.7%	82%
7. Adult participation in lifelong learning (age 25-64)		5.7%	5.7%	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	:	14.3% ¹¹	:	43.5% ¹¹
	b. ISCED 2 students learning two or more foreign languages	50.8%	52.6% ¹¹	58.6%	60.8% ¹⁰

Other ET 2020 Indicators

9. Investment in education and training	a. General government expenditure on education (% of GDP)		6.1%	6.0% ¹¹	5.5%	5.3% ¹¹
	b. Annual expenditure on public and private educational institutions per pupil/student in € PPS	ISCED 1-2	€ 5,806 ⁰⁸	€ 6,039 ¹⁰	€ 5,732 ⁰⁸	€ 6,021 ¹⁰
		ISCED 3-4	€ 9,437 ⁰⁸	€ 9,825 ¹⁰	€ 6,964 ⁰⁸	€ 7,123 ¹⁰
		ISCED 5-6	€ 11,072 ⁰⁸	€ 11,606 ¹⁰	€ 9,309 ⁰⁸	€ 9,168 ¹⁰
10. Digital competences	a. Pupils in grade 4 (ISCED 1) using computers at school		:	:	60.7% ⁰⁷	64.7% ¹¹
	b. Individuals aged 16-74 with high computer skills ²		31.0%	30.0%	25.0%	26.0%
11. Entrepreneurial competences	Individuals aged 18-64 who believe to have the required skills and knowledge to start a business		27.0%	36.0%	42.3% ^a	42.0% ^a
12. Vocational education and training	Share of vocational students at ISCED 3		44.2%	44.6% ¹¹	49.6%	50.3% ¹¹
13. Skills for future labour markets Projected change in employment 2010-2020 in %	High qualification		:	29.5%	:	19.1% ^{EU28}
	Medium qualification		:	1.3%	:	4.6% ^{EU28}
	Low qualification		:	-18.5%	:	-20.2% ^{EU28}
14. Low-skilled adults	Literacy		:	21.6%	:	19.9% ^{EU17}
	Numeracy		:	28.0%	:	23.6% ^{EU17}
	Problem solving in technology rich environments ³		:	16.5%	:	13.0% ^{EU17}

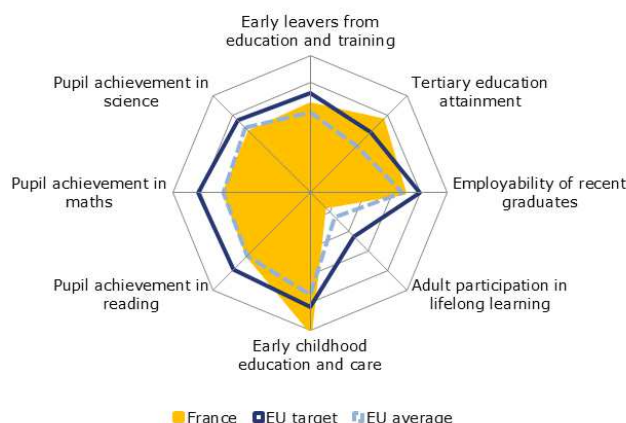
Source: Cedefop: 13 / EAC: 10a,b / European Survey on Language Competences (ESLC): 8a / Eurostat (Government finance statistics): 9a / Eurostat (LFS): 1, 2, 6, 7 / Eurostat (ISS): 10b / Eurostat (UOE): 3, 8b, 9b, 10c, 12 / IEA TIMSS: 10a / Global Entrepreneurship Monitor: 11 / OECD (PIAAC): 14 / OECD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

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 refer to people without ICT experience and people who failed the ICT test, ⁴ = Tertiary educational attainment: the national target is defined differently and refers to the age group 17-33 years old

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

Whilst the qualification level strongly influences the career path in France, too many young people leave school without qualifications or with poor qualifications and are unemployed or trapped in poor quality jobs. According to PISA, the widening gap between the top and lower achievers is one of the largest in the OECD countries. The early school leaving rate is stagnating. These trends hit France especially hard, as the employability of 15-19 year-olds, who are not in education (11% in 2010⁵) remains very low: in 2010, 71% were unemployed or entirely out of the labour force compared to 57% on average in OECD countries. While improving access of adults to education and training is crucial to increase the employment rates namely of young people, low-skilled and older people, the participation rate decreased during the last decade and lags far below the EU average and the 15% European benchmark.

Those challenges are reflected in two of the 2013 European Semester country specific recommendations: measures should be taken to improve the transition from school to work through, for example, a Youth Guarantee and promotion of apprenticeship as well as to increase the adult participation in lifelong learning, especially of the least qualified, older people and the unemployed.

3. Investing in skills and qualifications

Investing in education and training in a context of economic crisis

In the last years, general government expenditure on education in France as a share of GDP remained slightly above the EU average (6.0% vs. 5.3% in 2011). With a 0,3 % increase of this share, France is one of the few countries which significantly increased its total education expenditure during the period 2008-2010⁶. The pattern of expenditure in France is specific. Priority has been given to investment in higher education for the period 2000-2011 to the detriment of mandatory (in particular primary) and post-secondary non-tertiary education. With first measures already taken in 2012-13, the new government changed the policy priorities. The 2013 reform of compulsory education "Refondons l'école de la République" foresees additional means with a strong focus on pre-primary and primary levels⁷ namely with the disposal 'More teachers than classrooms' (« Plus de maîtres que de classes »).

Skills

In general, France's relative position as regards basic skills vis-à-vis the EU average has deteriorated over the last decade. School education only shows average results, slightly worse than the EU average, for reading, mathematics and science as documented by the 2009 PISA tests⁸. French average results of 10 years-olds in Literacy at the 2011 PIRLS remain slightly above the average results without significant difference in the last 10 years. With regard to language learning, performance of pupils at the end of upper secondary level remains modest, as only 14.3% achieve B1 or higher performance.

⁵ This rate decreased to 9,8% in 2011 out of which 72 % are unemployed

⁶ See European Commission, Recent trends in the funding of education in Europe, 2013

⁷ The reform foresees 60.000 new posts, 2/3d of the teachers posts will be allocated to the pre-primary and primary education

⁸ Between 2006 and 2009, performance in mathematics has remained stable whilst the results for reading and science have improved at a slower pace than the EU average.

The July 2013 reforms of both the compulsory education system and the higher education and research system demonstrates a comprehensive approach to adapt to the digital age⁹ namely to the use and production of Open Educational Resources (OER). Both include training and support for teachers to adopt new pedagogical approaches. The 2013 industrial strategy focuses on four sectors, out of which the digital economy. The development of eEducation is seen as a major component¹⁰ of the digital economy. An ambitious action plan "France Université Numérique" (FUN)", with specific funding, was launched in October 2013. It aims to support the international competitiveness of higher education actors by increasing their offer of Massive Open Online Courses (MOOCs) and by developing distance learning. France joined the 2013 pan-European 'MOOCs' initiative.

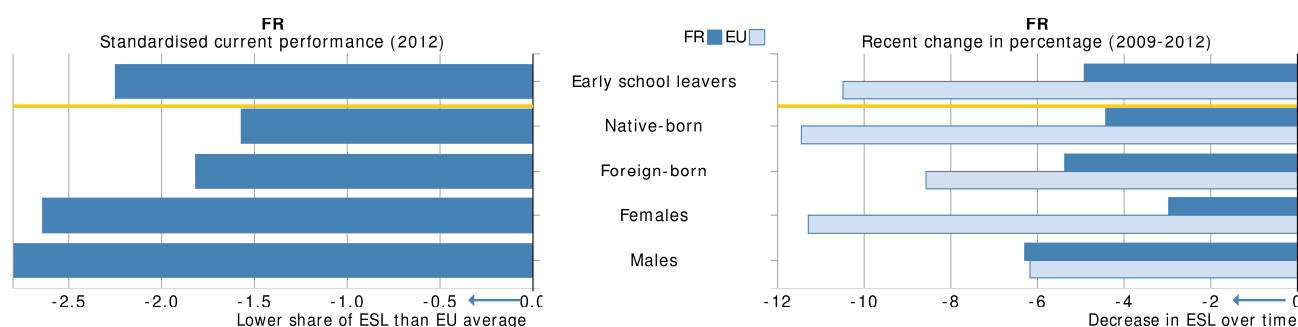
The French five-level national qualifications framework, established prior to the European qualifications framework (EQF), was referenced to the latter in October 2010. As of March 2012, Certificate Supplements of all qualifications in the NQF and in the national qualification data base (NRCP) refer to the relevant EQF level on. The decision to revise the structure possibly by an eight-level one as proposed by a 2009 reflection note has not yet been taken. In case a revised structure would be adopted, a new referencing report should be submitted, possibly in the next one to two years¹¹.

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

In 2012 in France, the proportion of young people who left school early is still below the EU average (11.6% vs. 12.8%) although improving at a much slower pace than the EU average. Contrary to the EU general trend, girls and foreign-born youngsters are respectively nearly as much at risk as boys and native-born. The unemployment rate amongst early school leavers remains above the EU average (45.6% vs. 40.1% EU average). France continues to have full coverage of early childhood education of 4 years-old. The current school reform aims to raise the falling participation of the 2 to 3 years old with an appropriate pedagogy.

Whilst there is not yet evidence of a comprehensive strategy against early school leaving (ESL), measures have been reinforced the last years, most of them focusing on secondary level and compensatory programmes. Since late 2011, a detection system (SIEI, an interdepartmental system of information exchange) makes it possible to identify young school leavers. Data are put at the disposal of 360 local platforms to identify youngsters who dropped out without qualification and to support them in finding a solution for further education and training. The local platforms are composed of different organisations offering education and training programmes outside the regular mainstream education system. The network "Formation Qualification Emploi" (Foquale)¹² aims to offer a personalised return path to education and training for 20.000 youngsters by the end of 2013. In 2013, measures have been taken or planned to intervene at an earlier stage (e.g. a reference person for ESL will be appointed in upper-secondary schools with a high level of absenteeism). Moreover, an interministerial working group has been tasked with the development of a comprehensive early school leaving strategy based on a transversal approach across the different policies¹³.

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



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

The sub-indicators below show that early school leavers have a greater employment disadvantage in France than in other EU countries. Therefore, particular attention is needed for this topic.

⁹ The first one encompasses the setting up of a 'public service for digital education' and legal measures to facilitate the use of OER by teachers. The reform on higher education (HE) and research foresees the provision of OER by the public HE institutions as well as related services

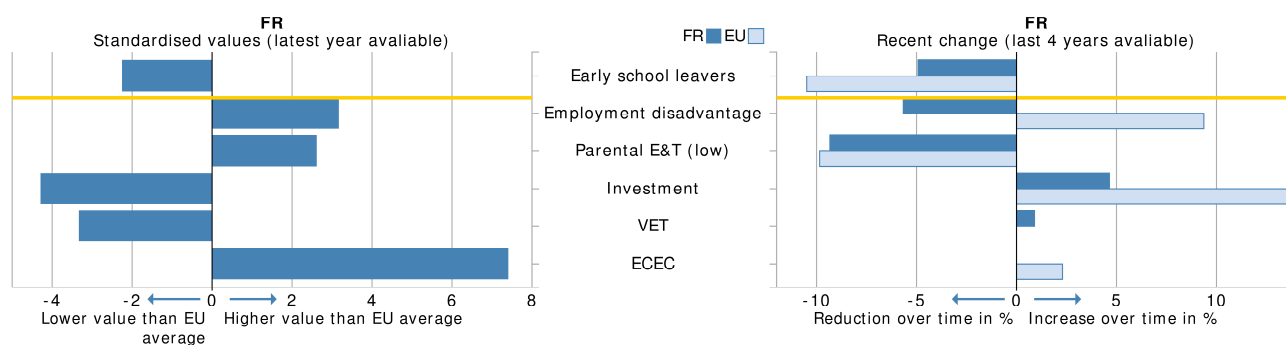
¹⁰ Ministère de l'Éducation nationale.htm ; 'La structuration de la filière du numérique éducatif : un enjeu pédagogique et industriel

¹¹ Cedefop, Analysis and overview of NQF developments in European countries. Annual report 2012.

¹² It succeeds to the 'network nouvelle chance' and was initiated in December 2012 as 'Objectif Formation – Emploi-ROFE'.

¹³ Peer learning Activity report on early school leaving (to be published soon)

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



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

In a medium to long term perspective, improving school quality and outcomes may help reduce early school leaving. The 2013 reform of the compulsory education system recognises the need to take upstream structural actions. One of the objectives is to halve by 2017 the number of youngsters leaving school without sufficient qualifications¹⁴ to enter the labour market. According to estimates, this concerns currently 1 out of 6 youngsters¹⁵.

The 2010 reform of initial teacher education raised the recruitment requirements of primary and secondary teachers from bachelor to master level. This requirement has had negative consequences in the short run including decrease in the number of applicants, shortage of training for new teachers or lower selection criteria for competitive examinations and recruitment procedures¹⁶.

Reversing the previous trend, the recently adopted reform foresees a strong increase in the number of teachers and aims at more supportive pedagogical approaches. Both teacher and educational staff's initial education and continuous training will be revised and a new competence framework¹⁷ leading to a new master in teaching is expected to be adopted soon. As regards continuing professional development, teachers have had a right to training since 2010, but this is under-used and attendance is hardly ever taken into account for career advancement purposes¹⁸.

The set-up of one new accredited institution in charge of staff's initial education and continuous training (Ecoles supérieures du professorat et de l'éducation 'ESPE') by 'Académie' is a key measure¹⁹ of the reform to introduce innovative approaches and more practical training for the future teachers. ESPE will replace the current IUFM from the 2013/14 academic year and will be tasked with a larger mission (e.g. offer of specific masters for teaching, closer links with universities, research and the world of work)²⁰ and open to a larger public (all educational staff from pre-primary to university).

Besides, the "emplois d'avenir professeur (teaching jobs for the future)"²¹ setup in 2013 seeks to attract, by 2015, 18.000 students from low-income backgrounds by providing the possibility of progressive entry into the teaching profession with a professional development path and financial aid.

5. Encouraging participation in tertiary education and modernising higher education

As regards the Europe 2020 target on tertiary education attainment, progress has been made from 39.7% in 2006 to 43.6% in 2012; this rate is well above the EU average (35.8%). France has a national target of 50 % of higher education attainment of 17- 33 year olds defined differently than the EU target²². The share of graduates

¹⁴ Minimal level of qualification: CAP ou BEP at level 5 of the French qualification system (level 3 of the EQF)

¹⁵ National Reform Programme 2013, statistical annex

¹⁶ Report of the Court of Auditors, February 2012: "Initial education and recruitment of teachers", p. 78, cited in Study on Policy Measures to Improve the Attractiveness of the Teaching Profession in Europe, European Commission 2013)

¹⁷ Project Decree of 6 June 2013.

¹⁸ Study on Policy Measures to Improve the Attractiveness of the Teaching Profession in Europe, European Commission 2013

¹⁹ Out of the 60.000 new posts foreseen, 27.000 posts are planned for the ESPE

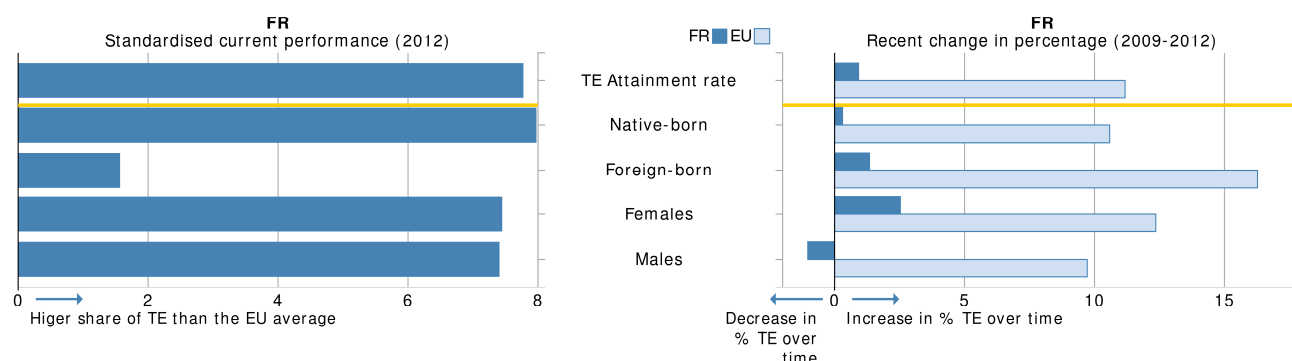
²⁰ Ministères de l'éducation nationale et de l'enseignement supérieur et de la recherche, Lancement des Ecoles Supérieures de Professorat, 1 July 2013

²¹ For three years from the second year of their Bachelor's degree course, students will receive financial aid and will work a certain number of paid hours (not as teachers) in primary and secondary schools. In return, students concerned will undertake to sit for a competitive examination for recruitment of teachers into the national education system, to be held at the end of the three years.

²² The EU benchmark considers the proportion of graduate within the 30-34 age group whereas the national indicator calculates the probability for someone to be first time graduate, at each age from 17 to 33, for a given year (synthetic indicator). The national target is not the educational attainment of an age-group, such as measured by a household survey. The national target is a "net graduation rate",

at doctoral level is lower than the EU average as a possible consequence of the dualisation of the French system between 'grandes écoles' and universities.

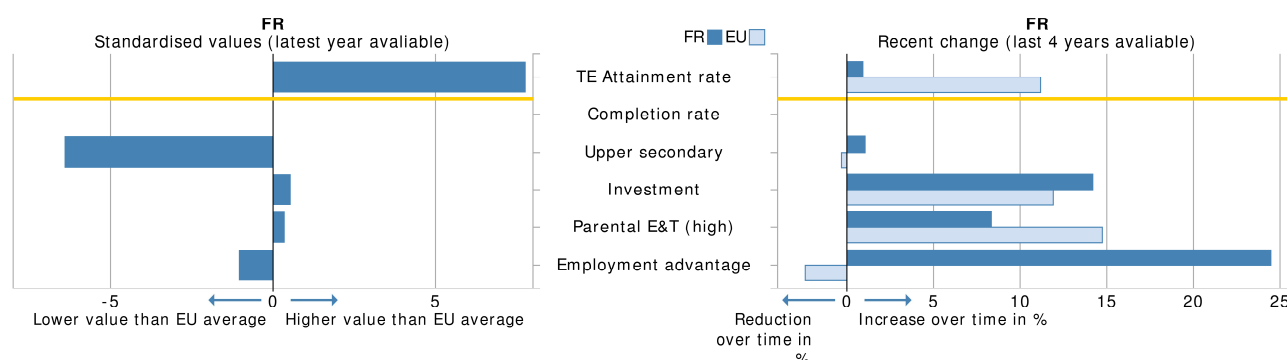
Figure 4. Tertiary education attainment: sub-groups



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

The sub-indicators below show that as regard employment, the comparative advantage of tertiary graduates is slightly smaller in France than in the EU average, but has significantly increased during the recent crisis years.

Figure 5. Tertiary education attainment: sub-indicators



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

Major reforms of the higher education system have been made since 2007 with mixed results as regards widening participation to under-represented groups, lowering the high drop-out rates and shortening of completion time. Broadening access to holders of professional and technical bachelors as well as improving student success rate in Licence is a key objective of the Higher Education and Research reform. Measures aim at a strong simplification and greater transparency of the teaching offer, support for more informed choice and reinforced guidance for the students. Governance and curricula (namely with the development of traineeships and the offer of training in English) reforms as well as measures to support new modes of learning should contribute to greater efficiency of the academic bodies, increased employability of the students and higher competitiveness in an international environment.

France is still firmly committed to promote outgoing ('Mobilité internationale 2020')/incoming learning mobility of students. After the 2009 visa procedure, further improvement is discussed as regard multiannual visa to attract talented foreign students.

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

Reflecting the general EU trend, the employment rate of recent graduates from upper secondary and tertiary education decreased in 2012 whilst remaining slightly above the EU average (76.5% vs. 75.7%). Youth

defined as the estimated percentage of an age group that will complete tertiary education, based on graduation data and on current patterns of graduation.

unemployment increased in 2012 (from 22.8% to 24.3%) in particular for those with the lowest level of education. This trend had already been visible since the start of the economic crisis in 2008. The situation of the low qualified will become ever more difficult, since employment in high qualification jobs is forecast to increase by 29.5% in France and represent 43% of total jobs in 2020 (compared to an EU average of 34%).

To facilitate transition to work, initiatives taken or planned by the government in 2013 aim at securing jobs with a focus on the less qualified ('emplois d'avenir'²³ and 'contrat de génération') reinforcing alternate training (namely apprenticeships²⁴), developing measures for early school leavers and launching the 'youth guarantee' with a focus on youngsters which are the most at risk of exclusion and poverty.

In 2012, 44.6% of upper secondary students were enrolled in vocational education and training, slightly below the 50.3% EU average. The number and share of young, low-qualified individuals entering apprenticeship have decreased despite various measures²⁵.

The evaluation of the 2009 reform of the 'Lycée professionnel' is planned for 2013. The reform aimed to support the access to a professional baccalaureate in a shorter period of time²⁶ and to introduce more flexible and diversified pathways with work-based learning opportunities.

New measures to combat early school leaving are particularly relevant for those lycées which on average suffer from the highest level of absenteeism. One of the objectives of the 2013 school reform is to equip every youngster leaving the education system with sufficient qualifications²⁷ to enter the labour market. Support after the compulsory age of education (16) should be provided and the possibility to benefit from apprenticeship schemes whilst being enrolled reinforced. Access to short term higher VET will be rendered more easy to the professional bachelor graduates.

In parallel, the bill on further decentralisation of national competences to the regions, currently under discussion, foresees an increased role of the regions in the initial professional pathways to be taught in their territory in order to ensure a better match with the regional skills needs.

In the medium-term, the reform of apprenticeship and lifelong learning, announced by beginning 2014 (initially in 2013), aims among others to ensure that the less qualified benefit from the system. For the moment, among the population of young people between 16 and 19 years old, the proportion of pupils in apprenticeships is on average of 8%²⁸. This represents quite a low proportion.

Moreover, the recently adopted 'Refondons l'école de la République' reform of compulsory education provides an upstream structural reform to prevent low achievers which was called for by many experts.

7. Upgrading skills through lifelong learning

The Survey of Adult Skills (PIAAC²⁹) reveals that French adults (aged 16-65) perform slightly below the EU average in the literacy and numeracy tests. Proficiency of adults, with at most lower secondary educational attainment, is among the lowest in the EU, in particular for numeracy. Results for other educational levels are close to the EU average. However compared to the OECD average, the relative position of France appears more critical.

This relative high share of low skilled people seems to be related to a large skill gap between young and old generations³⁰. The youngest generation (aged 16-24) scores better than the overall population in literacy (by 13 points, i.e. equivalent to skills usually acquired with 2 years of education). While results for the age group 25-34 are close to the EU average in literacy and below average for numeracy, adults aged 55-65 are amongst the worst performers in the EU.

These first results suggest analysing further the impact of adult learning policies in the long run considering that in France the proportion of low skilled people (level 1 or below) is slightly above the EU average (22% vs. 20%) and that results are more influenced by the generational gap than in EU average. Indeed, there is a high share of people aged 55-64 with at most lower secondary education attainment (41% vs. 36% at EU level) compared to 17% for the age group 25-34 (below the EU average of 19%).

²³ The 'emplois d'avenir' initiative aims to offer 150.000 subsidised jobs by 2014 to young people, mostly in the public sector and with a focus on the young people (16-25 years) without a diploma.

²⁴ The previous target was revised downwards at 500,000 apprenticeship contracts by 2017, see 2013 French NRP.

²⁵ Pierre Cahuca, Stéphane Carcillo et Klaus F. Zimmermann, L'emploi des jeunes peu qualifiés en France, les notes du conseil d'analyse économique no 4, avril 2013

²⁶ In 3 years period equivalent to the one needed for the general baccalaureate.

²⁷ CAP ou BEP at level 5 of the French qualification system (level 3 of the EQF).

²⁸ Source: national statistics <http://www.data.gouv.fr/DataSet/564571?xtmc=%C3%A9volution%20nombre%20apprenti&xtcr=1>

²⁹ 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).

³⁰ Only partial results are available for France.

Adults' participation in lifelong learning declined since 2006 and lags far behind both the EU average (5.7% vs. 9% in 2012) and the 15% European benchmark. Low skilled adults continue to participate much less (2.5% in 2011) than the most educated. In 2010³¹, the share of the French companies providing training to their employees was above the EU average (76% versus 66%).

Despite ongoing reforms undertaken in 2009 (law on Lifelong guidance and training³²) and 2011 (law on 'Alternate routes and career security' (Loi pour le développement de l'alternance et la sécurisation des parcours)), the French lifelong learning system fails to adequately target those most in need. The reform of apprenticeship and lifelong learning aims to address those shortcomings and to revise also the financing system of vocational training. New measures to promote flexibility of adult education for all have been announced or recently adopted (namely the 'compte personnel de formation' for each adult independently of his status). In addition, the planned decentralisation of State's vocational training competences to the Regional Councils aims to reinforce a coherent lifelong guidance (based on the 'compte individuel de formation') and to better adapt the offer of initial and continued training to the needs.

³¹ Eurostat, news release on continuing vocational training, June 2013.

³² Which had the objective to encourage the development of a coordinated national strategy, planned and implemented by national authorities, regions and social partners.

1. Key indicators and benchmarks

	Germany		EU average		Europe 2020 target / Benchmark
	2009	2012	2009	2012	
1. Early leavers from education and training (age 18-24)	11.1%	10.5%	14.2% ^{EU28}	12.7% ^{EU28}	EU target: 10% National target: <10%
2. Tertiary educational attainment (age 30-34)	29.4%	31.9%	32.1% ^{EU28}	35.7% ^{EU28}	EU target: 40% National target: 42% ⁴

ET 2020 Benchmarks

3. Early childhood education and care (4 years old - year before start of compulsory primary)			96.0%	96.4% ¹¹	91.7%	93.2% ¹¹	95%
4. Basic skills Low achievers (15 year-olds; Level 1 or lower in PISA study)	Reading		18.5%	:	19.6%	:	15%
	Mathematics		18.6%	:	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	1.1%	1.1% ¹¹	0.6%	0.7% ¹¹	
		b. Erasmus inbound students as % of student population in host country		0.9% ¹¹		1.1% ¹¹	
	Higher Education	c. Inbound degree mobile students as % of student population in the host country		7.1% ¹¹		7.0% ¹¹	
6. Employment rate of graduates (age 20-34) having left education 1-3 years before reference year			85.3%	87.3%	78.3%	75.7%	82%
7. Adult participation in lifelong learning (age 25-64)			7.8%	7.9%	9.3%	9.0%	15%

Proposed ET 2020 benchmark

8. Foreign languages skills	a. ISCED 2 students at proficiency level B1 or higher in first foreign language ¹	:	:	:	43.5% ¹¹
	b. ISCED 2 students learning two or more foreign languages	:	:	58.6%	60.8% ¹⁰

Other ET 2020 Indicators

9. Investment in education and training	a. General government expenditure on education (% of GDP)		4.4%	4.3% ¹¹	5.5%	5.3% ¹¹
	b. Annual expenditure on public and private educational institutions per pupil/student in € PPS	ISCED 1-2	€ 5,399 ⁰⁸	:	€ 5,732 ⁰⁸	€ 6,021 ¹⁰
		ISCED 3-4	€ 8,031 ⁰⁸	:	€ 6,964 ⁰⁸	€ 7,123 ¹⁰
		ISCED 5-6	€ 12,050 ⁰⁸	:	€ 9,309 ⁰⁸	€ 9,168 ¹⁰
10. Digital competences	a. Pupils in grade 4 (ISCED 1) using computers at school		37.5% ⁰⁷	51.0% ¹¹	60.7% ⁰⁷	64.7% ¹¹
	b. Individuals aged 16-74 with high computer skills ²		28.0%	21.0%	25.0%	26.0%
11. Entrepreneurial competences	Individuals aged 18-64 who believe to have the required skills and knowledge to start a business		40.0%	37.0%	42.3% ^a	42.0% ^a
12. Vocational education and training	Share of vocational students at ISCED 3		53.2%	48.6% ¹¹	49.6%	50.3% ¹¹
13. Skills for future labour markets Projected change in employment 2010-2020 in %	High qualification		:	2.2%	:	19.1% ^{EU28}
	Medium qualification		:	2.0%	:	4.6% ^{EU28}
	Low qualification		:	-4.2%	:	-20.2% ^{EU28}
14. Low-skilled adults	Literacy		:	17.5%	:	19.9% ^{EU17}
	Numeracy		:	18.4%	:	23.6% ^{EU17}
	Problem solving in technology rich environments ³		:	26.0%	:	26.9% ^{EU13}

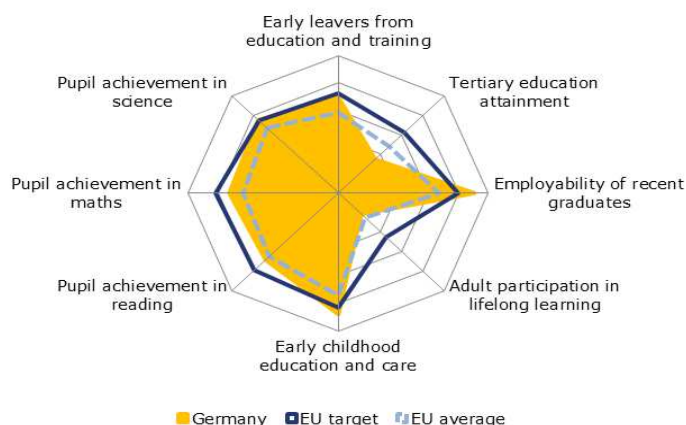
Source: Cedefop: 13 / EAC: 10a,b / European Survey on Language Competences (ESLC): 8a / Eurostat (Government finance statistics): 9a / Eurostat (LFS): 1, 2, 6, 7 / Eurostat (ISS): 10b / Eurostat (UOE): 3, 8b, 9b, 10c, 12 / IEA TIMSS: 10a / Global Entrepreneurship Monitor: 11 / OECD (PIAAC): 14 / OECD (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 ⁴ = Tertiary educational attainment: the national target is defined differently and includes postsecondary attainment qualifications at ISCED level 4/4a (following this national definition, the 2012 value is 43.3%)

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

Participation rates in all types of education and training have to increase in order to tackle the demographic change and to ensure that sufficient numbers of skilled people will enter the labour market. Germany is facing a shrinking workforce and shrinking young age cohort sizes, especially in the eastern parts. Shortage in skilled labour is bound to arise at medium and higher qualifications levels threatening the export oriented and skills intensive economy.

Germany is among those EU countries where the link between educational achievement and socio-demographic background is very strong. Educational failure threatens not only the supply with skilled and highly skilled labour in light of a shrinking workforce, but is considered to cause also huge public follow-up costs due to lower employability, higher costs for health and social transfers etc. Providing more equal access to education is also crucial with a view to more effective integration of people with a migration background and to full use of their human potential for the German society. Many low-achieving youth face difficulties in making a successful transition to initial VET.

The country specific recommendations agreed in the 2013 European Semester call to use the available scope for increased and more efficient growth-enhancing spending on education and research at all levels of government, as well as to raise the educational achievement of disadvantaged people and to increase the availability of fulltime childcare facilities and all-day schools.

3. Investing in skills and qualifications

Investing in education in times of economic crisis

After a period of slow growth³³ the increase of public spending on education in Germany remains at 4.3% in 2011. Spending remains still one percentage point below the EU average of 5.3% (2011).³⁴ Whereas spending on secondary and tertiary education is above the EU average spending, on primary education it is below³⁵.

The federal and Länder governments agreed in 2008 to increase spending on education and research to 10% of GDP by 2015, out of which 7% in education and 3% in research. In this context, the federal government agreed in 2008 to invest 12 billion euros more than previously planned between 2010 and 2013 - 6 billion euros in each of the two areas. Between 2010 and 2013, more than 13 billion additional euros for education and research were included in the budget on federal level. Germany seems to be well on track to achieve the national target and spent 9.5 % of GDP on education and research in 2011 according to the national statistics.

This is a positive development which needs to be continued at federal and Länder levels to ensure that the 10% target will be met. However, a government expert commission considered this target still inadequate to keep

³³ Eurydice identified 8 countries including Germany showing constant slight growth in the period 2000-2010 [Funding of Education in Europe 2000-2012 (2013)].

³⁴ However German figures of public expenditure tend to understate actual spending since not all spending in the context of VET, in particular private spending for dual VET, are registered.

³⁵ Eurydice study on funding (2013) compares on the basis of purchasing power parity and per student.

with current trends of innovation.³⁶ In order to ensure catching up to the most advanced economies all entities available room could be used to set even more ambitious targets and to improve outcomes in education³⁷.

Skills and qualifications

Cedefop forecasts for 2020 foresee that Germany's skills needs for employment are expected to remain oriented towards highly skilled people, with a significant decrease of low qualification jobs (-6 percentage points in volume). One area that is likely to increase are personalized services catering to an aging population.

In terms of basic skills, 15-year olds' performance on PISA tests in reading and mathematics improved and are above the EU average. Results of pupils from disadvantaged backgrounds also improved slowly. In science results have surpassed the EU benchmark. In TIMSS this trend is less pronounced, results in mathematics at 4th grade improved only slightly between 2007 and 2011.

ICT skills of the population are close to the EU average. According to the 2009 PISA survey, 95% of German students have access to computers and the internet at school, and the ratio of computers to students aged 15 is 1 for every 11 students, which is below the OECD average. There is a national strategy on the use of ICT in school education ("*Schulen ans Netz*") which focuses on support and training for teachers and other educational staff, awareness-raising on chances and risks of new media and promotion of e-learning. The general national ICT strategy covers also the topics: e-Learning, ICT in schools, Digital-Media Literacy and e-skills development.

As regards entrepreneurship, due to low unemployment, emerging skill shortages and demographic trends, the number of entrepreneurs is expected to decline further³⁸, which could hamper Germany's future growth and innovation performance. At the same time, the number of individuals who believe to have the required skills and knowledge to start a business has declined between 2009 and 2012 by 2 percentage points. Closer cooperation with schools and universities and a systematic integration of "entrepreneurship" in school curricula could help reverse this trend.

The German national qualifications framework has been introduced in May 2013. A report referencing the German DQR to the European Qualifications Framework was presented on 4 December 2012 and finalised in June 2013. The development of the framework involved a broad range of stakeholders. The framework is comprehensive covering the different education sectors, further evaluations are planned.³⁹

In 2011 the federal government adopted a law introducing a nationally standardized system for the assessment of professional qualifications acquired in foreign countries (Berufsqualifikationsfeststellungsgesetz). Based on individualised reviews EU and non-EU-citizens are entitled to receive a decision of equivalency of their professional qualifications acquired abroad in relation to comparable professions in Germany. In case of partial equivalency a full qualification may be achieved through targeted up-skilling.

The "Anerkennungsgesetz" for qualifications acquired in foreign countries entered into force in April 2012 and is expected to tap hidden human resources in Germany and attract qualified labour from abroad to Germany.

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

Concerning the Europe 2020 targets, the early school leaving rate in 2012 is better than the EU average (10.5% compared to 12.8%). Over the last years, it showed a steady, even if recently rather slow decrease (13.7% in 2006, 11.1% in 2009, and 10.5% in 2012). It is approaching the 10% national target for 2020. There is some progress in tackling educational disadvantage⁴⁰, including of migrants. However, further reducing early school leaving will require continuous efforts and is an important contribution to address the demographic challenge.

The Standing conference of the Länder education ministers (KMK) formulated a strategy to support low achieving pupils. Implementation at Länder-level differs, but there are several activities on-going.

Recent reforms in several Länder include among other reducing the number of educational tracks in lower secondary education from three to two and reducing grade repetition.

³⁶ Expertenkommission Forschung und Innovation (2013), Gutachten zu Forschung, Innovation und Technologischer Leistungsfähigkeit Deutschlands.

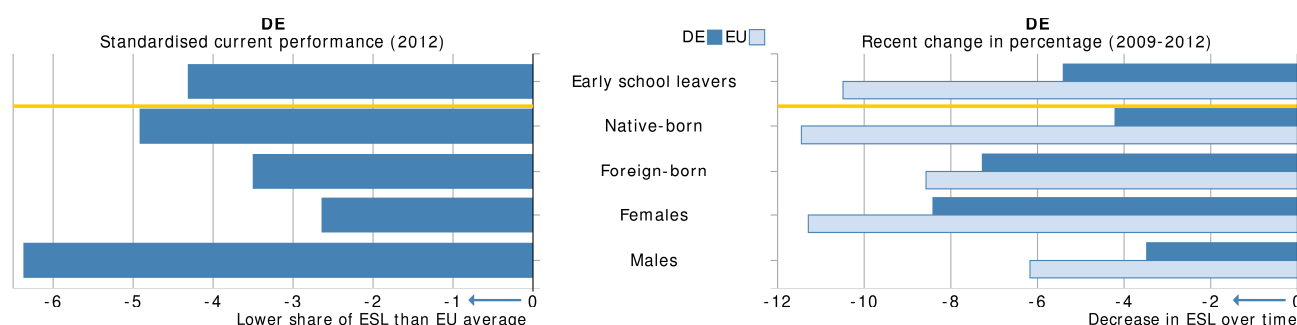
³⁷ SWD 2013, page 12.

³⁸ DIHK Gründerreport 2013: <http://www.dihk.de/themenfelder/gruendung-foerderung/unternehmensgruendung/umfragen-und-prognosen/dihk-gruenderreport>.

³⁹ See : Cedefop Analysis and overview of NQF developments in European countries. Annual report 2012.

⁴⁰ PISA in FOCUS, "Are counties moving towards more equitable education systems?" specifically underlines progress in Germany (11 Feb 2013). The Chancenspiegel of IFS/Bertelsmann sees for all Länder still a clear need to invest in creating more equity while at the same time observing big differences between the different Länder.

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

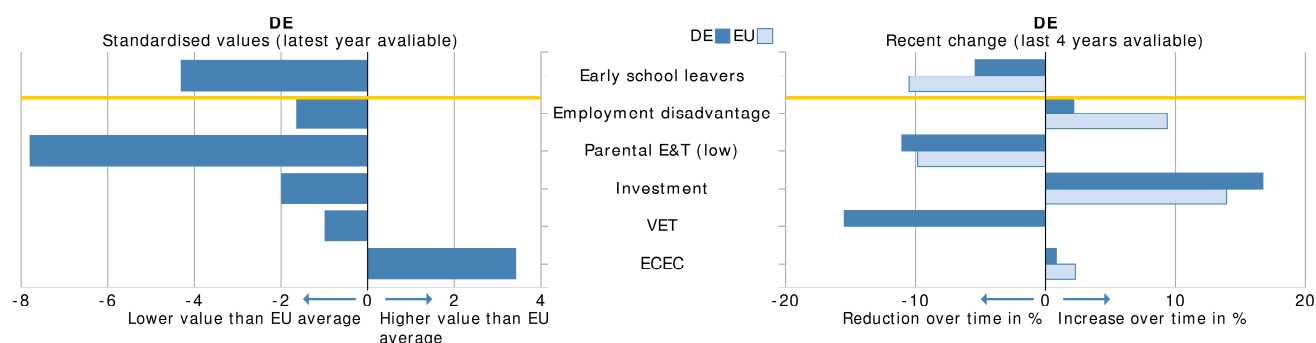


Source: JRC-CRELL. Note: ESL = early school leaving. See Annex 2 for further information.

Participation in early childhood education has increased further over recent years (96.4% in 2011) and has surpassed the EU benchmark (95%). Given the relevance of early childhood education and care to subsequent educational performance, the importance to ensure high-quality early childhood education⁴¹ and care provision by, for example, improving the qualifications of staff, has to be underlined, including the provision of adequate funding.

Foreign-born have a higher chance to leave education early than native-born. This follows generally the European trend, however native-born are about two thirds less likely compared to the EU level. Young participating in VET are less likely to leave education early and the distinct component of VET might explain that the unemployment of early school leavers is 33.7%. This is below the EU level of 40.1%.

Figure 3. Early school leavers and sub-indicators



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

Compared to the total active population Germany has considerably fewer teachers in primary and secondary education (1.6%) referenced to an EU average of 2.1%⁴². Close to 50 per cent of teachers both at primary and at secondary level are 50 years or older, posing a demographic challenge,⁴³ and there are less female teachers in secondary education (63.1%) than in primary education (85.5%) within a predominantly female workforce.

5. Encouraging participation in tertiary education and modernising higher education

As regards tertiary attainment, figures have increased by about 6 percentage points since 2006 to 31.9% (2012)⁴⁴. This remains below the EU average 35.7% (2012), especially for females. However, Germany has

⁴¹ One example on Länder level is the Hamburg initiative "KITA+3 (2013-2014)" that reaches out to all stakeholders including parents providing inclusive pre-school education including language training for socially disadvantaged including migrants. Sachsen promotes in service training (2012-2014) in particular for management staff. Working group "Fachkräfte KITAs (ECEC Specialists)" was created in June 2012 to provide an interdisciplinary platform for the federal, regional (Länder) and local level as well as representative organisations. (All NRP 2013).

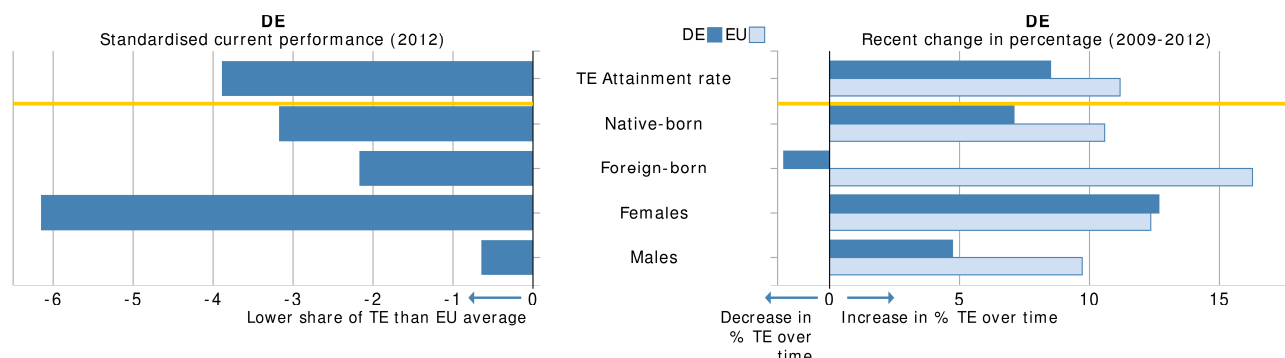
⁴² The lowest participation rate have Germany and Estonia with 1.6% each, compared to the highest in Latvia (3.5%) and Luxembourg (3.6%), Source Eurydice (2013), "Key Data on Teachers and School Leaders in Europe".

⁴³ ISCED 1: 48%, ISCED 2+3: 50% Eurydice, Key Data (2013).

⁴⁴ One reason is the double counting, if one individual holds both a bachelor and a master degree in the context of the Bologna reform.

already achieved its national target set in the Europe 2020 context, as it included in it also post-secondary level ISCED 4 qualifications (total ISCED 4, 5, 6, performance in 2011: 43.3%, above the national target set at 42%).

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

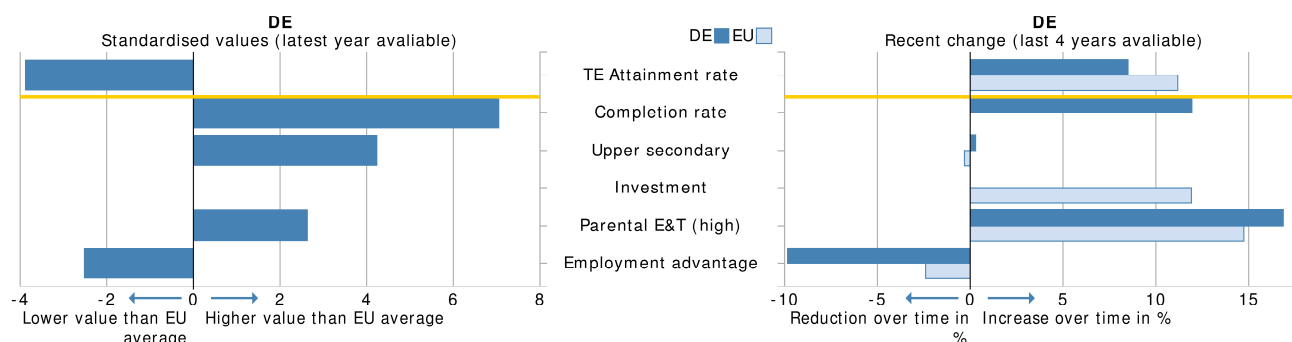


Source: JRC-CRELL. Note: TE = tertiary education. See Annex 2 for further information.

Foreign-born remain at a clear disadvantage at attaining a tertiary education degree as are female graduates compared to the EU level. Germany has increased the completion rate. Employment advantages of tertiary graduates are below EU average and further decreasing, mainly to the the good employment rate of upper-secondary graduates.

Students entering Higher education have increased by 5% in 2010 and by 17% in 2011 to 519.000 and dropped to 493.000 in 2012⁴⁵. Compared to 2005 this is an increase by 39%. The bulk of this increase can be attributed to the fact that a reform of upper secondary education reducing it by one year in most Länder created double graduation cohorts.

Figure 5. Tertiary educational attainment and sub-indicators



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

The Higher Education Pact (Hochschulpakt) aims to provide additional funding to expand study opportunities in reaction to the increasing demand for higher education. In this context the federal government will provide additional 7 bn euros from 2011 to 2015. Through the "Quality Pact for Teaching" (Qualitätspakt Lehre) 2 bn euros are made available until 2020 for improving study and teaching quality. Additional 250 mio euros are provided in the Federal Government-Länder competition "Advancement through Education: Open Universities" ("Aufstieg durch Bildung: offene Hochschulen") to promote the establishment and development of continuing academic education for new target groups at higher education institutions.

In order to open access to higher education more widely, the so-called "*Hochschulzugang für beruflich qualifizierte Bewerber*" now exists in all Länder, and is promoted through providing students the opportunity to obtain also financial support ("career advancement grants"). Though take up is still low at the moment, together with the rapid expansion of dual tertiary VET this may further contribute to increasing permeability between VET and higher education.

⁴⁵ Source Deutscher Bildungsbericht 2012, National Reform Programm (NRP) 2013.

The employment rate of graduates has increased over recent years and is at 87.3% (2012) clearly above EU average 75.7% and is also above the 75% 2020-benchmark.⁴⁶

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

The German VET system in particular dual VET facilitates the transition from education to work and is recognised as a key element contributing to Germany's relatively low youth unemployment rate. The main challenge is to ensure a successful transition between school and initial VET for low achievers. At the same time, the need to provide up to date skills in a context of rapid innovation and globalization for Germany's export oriented and skills intensive economy, requires continuous efforts to maintain the quality and attractiveness of the VET system, including for high achieving young people.

Current lead initiatives are the well- established "Ausbildungspakt" (national training pact), extended until 2014: it is designed to provide yearly 60.000 new apprenticeship places and to improve the transition from school to VET. The 2010 adopted "Bildungsketten" (chains of education) and 'Jobstarter Connect' provide early support and guidance for pupils at risk. They are part of the "Übergangssystem", which shall take care of those who face difficulties in the transition from school to work. However, there is growing awareness among stakeholders of the need to reform this overly complex and inefficient tool for transition. According to studies commissioned by the German trade union confederation⁴⁷, the target set in 2008 to reduce the rate of young adults without professional qualifications from 17% (2008) to 8.5% in 2015 will not be reached. However, the government addresses this shortcoming through a recently launched campaign⁴⁸.

The number of dual tertiary programmes, whereby students can acquire at the same time a VET and an academic qualification through combined in-company training and tertiary studies, are growing quickly and most of the Länder are actively promoting this trend.

7. Upgrading skills through lifelong learning

The Survey of Adult Skills (PIAAC⁴⁹) shows that adults in Germany perform slightly above the EU average in literacy and in particular in numeracy. In problem solving in technology-rich (ICT) environments, German adults (aged 16-65) score close to the EU average.

There is a large age variation in literacy proficiency, with the youngest generation scoring significantly better than the oldest one. The gap in literacy proficiency between the foreign- and native-born is slightly above the EU average. Germany is also one of the countries with the strongest association between socio-economic background (education level of parents) and literacy proficiency among young people.

While at EU level employed people have on average higher skills both in numeracy and literacy than the unemployed, the gap is even more pronounced in Germany. The Survey of Adult Skills also shows that 18% of German adults (aged 16-65) have low skills, close to the EU average in literacy and lower than the EU average in numeracy. However, low skilled adults in Germany are 7 times less likely to participate in job-related learning than high skilled adults⁵⁰.

Participation of adults in lifelong learning is below EU average (7.9% vs. 9% in 2012) but has slightly increased as opposed to the decreasing EU average⁵¹. 73% of enterprises provided training to their employees in 2010. This is above the EU average of 66%. Close to half the staff (47% compared to EU 48%) profited from training with somewhat less training hours per participant compared to the 25 hours EU average.

With a view to basic skills of adults a scientific study revealed that an estimated 7.5 Mio Germans are (functional) illiterates. Bund and Länder have agreed in 2011 to implement a strategy to fight basic skills deficiencies ("*Grundbildungspakt*").

The German national qualification system so far only takes into account the system of formal education in Germany. This creates a huge challenge to non-formal education providers in both youth and adult learning. Therefore there is a drive towards the validation/certification of skills and competences acquired in non-formal and informal contexts.

The "Qualifizierungsinitiative für Deutschland" concluded by the Federal government and the Länder in 2008 to bundle initiative for tackling inequalities and up-skilling vast populations includes benchmarks for all stages of

⁴⁶ Source: CRELL calculations based on Eurostat LFS data.

⁴⁷ DGB, Expertise "Bildungsgipfel-Bilanz 2012 2012 – Die Umsetzung der Ziele des Dresdner Bildungsgipfel vom 22.10. 2008 (December 2012).

⁴⁸ AusBILDUNG wird was – Spätstarter gesucht.

⁴⁹ 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).

⁵⁰ At EU level, low skilled adults are 5 times less likely to participate in job-related learning than high skilled adults.

⁵¹ The national German "Adult Education Survey (AES) indicator" provides additional data.

lifelong learning from early childhood to adult education⁵² and investment in E&T (see section 2). However most of the agreed targets will not be met by 2015⁵³ and also the initiative as such seems to have lost attention on the political stage. Recent initiatives linked to it were: increased cooperation among the German Länder as well as on federal level, recognition of professional foreign qualifications a National Strategy against illiteracy , a quality offensive for teacher training ("Qualitätsoffensive Lehrerbildung") and an initiative to ensure the availability skilled workers for industry ("Fachkräftesicherung" and several actions on federal level only.⁵⁴

⁵² ECEC: 35% of children below 3 should have a place by 1.08.2013; ESL rate should be reduced from 8% (2008) to 4% in 2015; young adults without professional qualifications should be reduced from 17% (2008) to 8.5% in 2015; 40% of an age cohort should start tertiary education by 2015; participation in adult learning should be increased from 43% (2008) to 50%.

⁵³ DGB, Expertise "Bildungsgipfel-Bilanz 2012 2012 – Die Umsetzung der Ziele des Dresdner Bildungsgipfel vom 22.10. 2008 (December 2012).

⁵⁴ "Aufstieg durch Bildung – Die Qualifizierungsinitiative für Deutschland" Bericht zur Umsetzung 2012 by KMK and GWK.

1. Key indicators and benchmarks

	Greece		EU average		Europe 2020 target / Benchmark
	2009	2012	2009	2012	
1. Early leavers from education and training (age 18-24)	14.5%	11.4%	14.2% ^{EU28}	12.7% ^{EU28}	EU target: 10% National target: 9.7%
2. Tertiary educational attainment (age 30-34)	26.5%	30.9%	32.1% ^{EU28}	35.7% ^{EU28}	EU target: 40% National target: 32%

ET 2020 Benchmarks

3. Early childhood education and care (4 years old - year before start of compulsory primary)			70.2% ⁰⁸	74.6% ¹¹	91.7%	93.2% ¹¹	95%
4. Basic skills Low achievers (15 year-olds; Level 1 or lower in PISA study)	Reading		21.3%	:	19.6%	:	15%
	Mathematics		30.3%	:	22.2%	:	15%
	Science		25.3%	:	17.7%	:	15%
5. Learning mobility	Initial vocational training (IVET)	a. Students participating in Leonardo da Vinci programs as a share of vocational students at ISCED 3	1.7% ¹⁰	2.1% ¹¹	0.6%	0.7% ¹¹	
	Higher Education	b. Erasmus inbound students as % of student population in host country		0.4% ¹¹		1.1% ¹¹	
		c. Inbound degree mobile students as % of student population in the host country		5.0% ¹¹		7.0% ¹¹	
6. Employment rate of graduates (age 20-34) having left education 1-3 years before reference year			64.7%	42.9%	78.3%	75.7%	82%
7. Adult participation in lifelong learning (age 25-64)			3.3%	2.9%	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	:	48.0% ¹¹	:	43.5% ¹¹
	b. ISCED 2 students learning two or more foreign languages	97.0%	97.2% ¹⁰	58.6%	60.8% ¹⁰

Other ET 2020 Indicators

9. Investment in education and training	a. General government expenditure on education (% of GDP)		4.3%	4.1% ¹¹	5.5%	5.3% ¹¹
	b. Annual expenditure on public and private educational institutions per pupil/student in € PPS	ISCED 1-2	:	:	€ 5,732 ⁰⁸	€ 6,021 ¹⁰
		ISCED 3-4	:	:	€ 6,964 ⁰⁸	€ 7,123 ¹⁰
		ISCED 5-6	:	:	€ 9,309 ⁰⁸	€ 9,168 ¹⁰
10. Digital competences	a. Pupils in grade 4 (ISCED 1) using computers at school		:	:	60.7% ⁰⁷	64.7% ¹¹
	b. Individuals aged 16-74 with high computer skills ²		13.0%	24.0%	25.0%	26.0%
11. Entrepreneurial competences	Individuals aged 18-64 who believe to have the required skills and knowledge to start a business		:	:	42.3% ^a	42.0% ^a
12. Vocational education and training	Share of vocational students at ISCED 3		30.9% ⁰⁸	31.7% ¹¹	49.6%	50.3% ¹¹
13. Skills for future labour markets Projected change in employment 2010-2020 in %	High qualification		:	9.5%	:	19.1% ^{EU28}
	Medium qualification		:	6.9%	:	4.6% ^{EU28}
	Low qualification		:	-29.9%	:	-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}

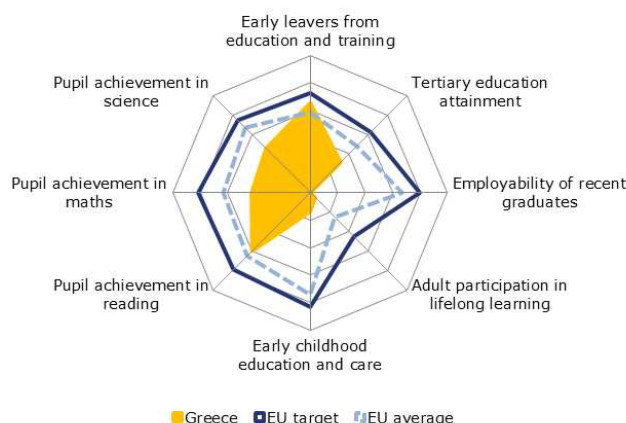
Source: Cedefop: 13 / EAC: 10a,b / European Survey on Language Competences (ESLC): 8a / Eurostat (Government finance statistics): 9a / Eurostat (LFS): 1, 2, 6, 7 / Eurostat (ISS): 10b / Eurostat (UOE): 3, 8b, 9b, 10c, 12 / IEA TIMSS: 10a / Global Entrepreneurship Monitor: 11 / OECD (PIAAC): 14 / OECD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

The Greek education and training system faces serious challenges in terms of its quality, its efficiency and its capacity to ensure a successful transition of young people to employment.

Greece is faced by multiple challenges, in particular the need to ensure wider access and to raise the quality of early childhood education and care (ECEC), to increase adult participation in lifelong learning, to improve equity and to address geographic disparities, to value teachers and trainers more as well as reward them adequately, to improve the quality of initial teacher education and strengthen teachers' and trainers' professional standards, to enhance the quality, attractiveness and relevance of iVET to the labour market, to improve school infrastructures at all levels, and finally to make serious progress in improving the educational situation of disadvantaged groups, including migrants and Roma.

Given a context of strict fiscal consolidation under the current economic adjustment programme the Greek education and training sector is adversely affected by decreasing public spending and important budgetary cuts. However, perhaps more than lack of funds, the effective implementation of systemic reforms (primary, secondary and tertiary education, life-long learning) remains the key issue in the Greek context.

3. Investing in skills and qualifications

Investing in education in times of economic crisis

In the case of Greece the reduction in public spending on education was indeed very important in recent years. In fact the ratio of expenditure to GDP remained stable in Greece throughout the crisis (COFOG data, 4.1% of GDP throughout the period 2008-11), but since the cumulated GDP loss was of ca. 25% during this same time span, the spending on education was reduced virtually in the same proportion. Low public investment makes achievement of national targets (e.g. early school leaving, tertiary attainment) difficult. Investment in this field is crucial to support long-term sustainable growth in Greece. In the current context, however, in which new spending may not be an option, "smart spending" would include taking full advantage of the possibilities of the EU structural funds which can underpin education reforms and also finance educational infrastructure.

As regards education and training, Greece is pursuing the implementation of the provisions of the up-dated Memorandum of Understanding (MoU) on Specific Economic Policy Conditionality, in particular its section 2.11 on the up-grading of the Greek education system, which contains a reference to the Action Plan for the improvement of the effectiveness and efficiency of the education system⁵⁵. Regarding the financing of education, in accordance with the MoU and given the strict fiscal consolidation context Greece is set to proceed with the reduction of spending on education and training by 0.1 of GDP per year throughout the period 2013-15 (in all ca. further 0.3% of GDP), which renders structural reforms particularly difficult and makes necessary efficiency gains a key element.

Skills

School education produces rather weak results in terms of basic skills: the share of low achievers in reading, mathematics and science remains above the EU average, with a persistent achievement gaps between migrants

⁵⁵ Based largely on the 2011 OECD Education Policy Advice for Greece report, see <http://www.oecd.org/greece/48407731.pdf>

and natives. This fact is particularly worrying given the forecasted shift in the employment pattern by qualification for Greece by 2020, with a very strong decrease in low qualifications demand (-29.9% by 2020).

As regards entrepreneurship, the share of the population believing to have the required skills and knowledge to start a business (50%) is among the highest in the EU. Learning of foreign languages starts in primary school and figures indicate above EU average language skills.

ICT skills of the adult population are close to the EU average, with 24% of individuals aged 16-74 in 2012 with high computer skills. The "Digital School" strand of the New School reform is the main vehicle for exploiting the potential of ICT and open education resources. This scheme has been piloted in 800 primary and 1.250 lower secondary schools aiming to provide a platform for digital content and tools and for teacher training, but its future depends on the availability of funding.

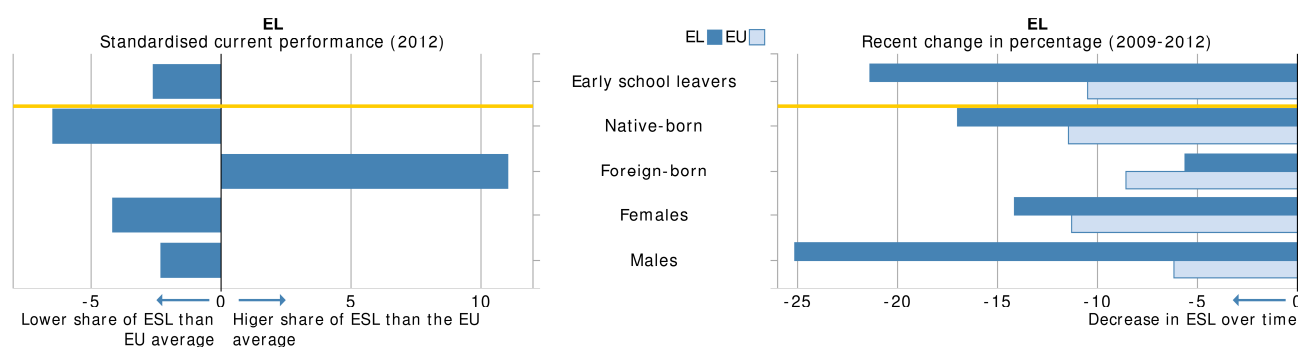
Greece is currently developing an NQF for lifelong learning (Hellenic qualifications framework, HQF), which should include all parts and levels of education, training and qualification and will accommodate non-formal learning. The referencing of the national qualifications system levels to the EQF is scheduled to take place before the end of 2013.

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

Greece performs slightly better than the EU average in early school leaving (11.4% in 2012, having dropped from 15.5% in 2006), in comparison with 12.8% for the EU average in 2012. The national target of 9.7% by 2020 remains an ambitious one. The ESL rate diminished by 1.7 p.p. during the period 2011-12. However the national average masks a significant variation between different geographical areas, types of schools and social groups. For instance, the sub-group of people born-abroad is lagging very significantly behind, with an ESL rate of 42% in 2012 versus 8.3% for the native born student group. The current reduction could also be a side-effect of the economic crisis, hence more needs to be done to sustainably improve education and to prevent ESL.

There is a persistent achievement gap between migrant-background and native pupils as well as inequalities in educational opportunities and outcomes in all levels of education and training; a large share (approx. 15%) of young 15-24 years old are not in employment, education and/or training (NEETs). In addition there are high drop-out rates from education for students from disadvantaged backgrounds. Finally regional disparities in educational opportunities and outcomes are also very visible. Since late 2009, school reforms are aiming to improve compulsory education and to tackle low performance in basic skills. Structured around 20 broad objectives, they put emphasis on foreign languages, revised curricula, all-day provision, a culture of evaluation, teacher education, reform of special needs provision, a pilot scheme of Education Priority Zones and the already previously mentioned "digital school" pilot scheme. Its success hinges on its future co-financing, i.e. from EU structural funds.

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

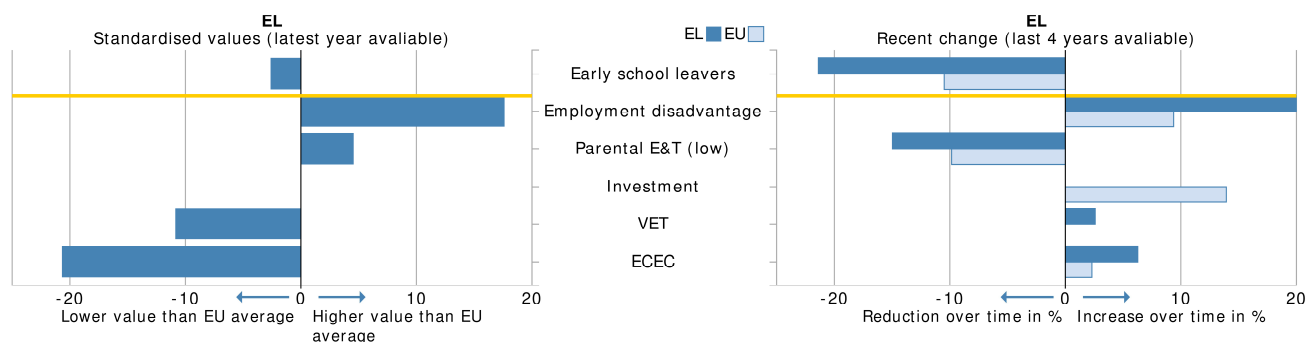


Source: JRC-CRELL. Note: ESL = early school leaving. See Annex 2 for further information.

It is worth noting that the employment disadvantage (incentive to stay in school) is high and increasing while VET and ECEC participation are low but also increasing. In September 2013 a new law reforming upper secondary education and in particular the VET system has been adopted by the Greek Parliament.

Greece performs significantly below the EU average in early childhood education, with a 73.5% participation rate in 2010 as against an EU-27 average of 92.3%. In the future Greece will have to substantially increase access to quality early childhood education and care, especially for disadvantaged families and invest in ECEC infrastructure as well as provision, e.g. through the use of structural funds for the period 2014-20.

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



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

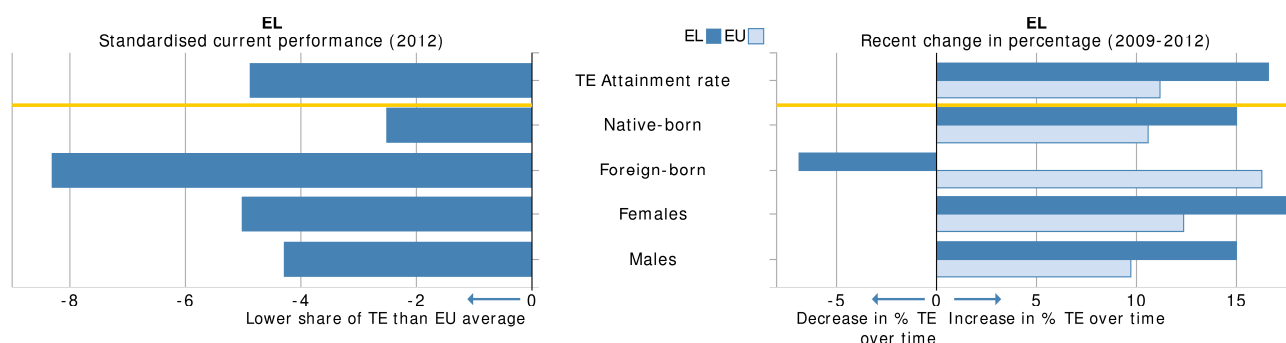
The need to consolidate public finances has led to reductions in the recruitment of teachers and in teacher salaries, although the profession remains relatively attractive. While the Greek authorities argue that the quality of the education provided has not been affected by spending cuts (since some compensating measures have been taken such as extensive school network rationalisation which reduced operating costs) there is a risk that the budgetary measures could potentially hamper progress towards the Europe 2020 targets, e.g. as regards the ESL rate, due to the mergers or/and closures of existing primary and secondary schools. As regards teaching hours Greece is one of the countries in which is the lowest of all OECD member states (400 hours *per annum* in 2009 in comparison to the OECD average of 700 hours this same year)⁵⁶. The recently passed Omnibus Law increased its duration by two hours per week.

There is room for improvement as regards professional and personal support for new teachers: early career support is limited to 100 hours at present, a proposed new system of mentoring has not been implemented yet, and there is no workload reduction for new teachers⁵⁷.

5. Encouraging participation in tertiary education and modernising higher education

Tertiary attainment rate increased in 2012 to 30.9% but it is still lower than the EU average of 35.7% in 2012 and has been increasing relatively slowly over the past decade (25.4% in 2000). Tertiary attainment in Greece increased by as much as 2.0 p.p. during the period 2011-12 and Greece is now close to its national target of 32% set for 2020. Finally, it should be added that tertiary attainment remains very low for the foreign born group, with only 10.3% in 2012.

Figure 4. Tertiary education attainment: sub-groups



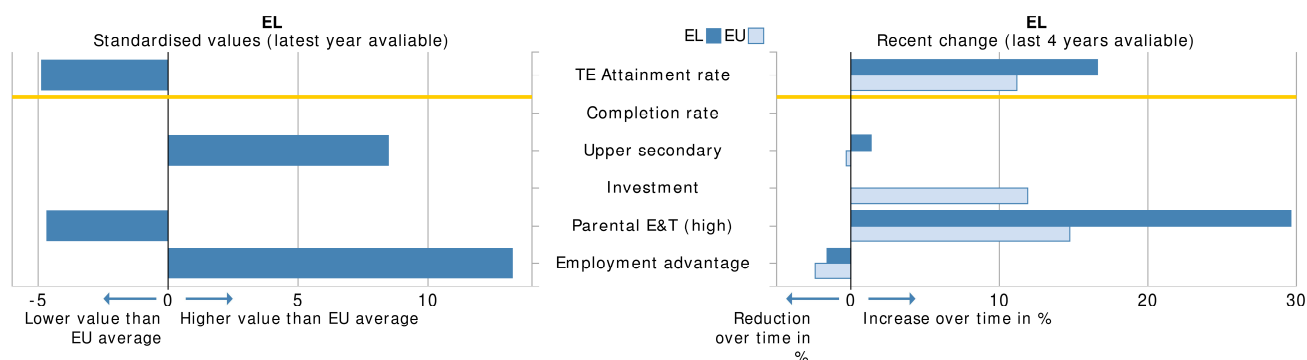
Source: JRC-CRELL. Note: TE = tertiary education. See Annex 2 for further information.

It is worth noting that the tertiary attainment is low despite strong (but somewhat decreasing) employment advantage. Upper secondary supply is large, so opportunity does exist.

⁵⁶ See the OECD study and 2009 figures at <http://www.oecd.org/education/skills-beyond-school/48631419.pdf>.

⁵⁷ Study on Policy Measures to Improve the Attractiveness of the Teaching Profession in Europe, European Commission 2013.

Figure 5. Tertiary education attainment: sub-indicators



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

In the field of tertiary education, structural reform legislation voted through the Greek Parliament in 2011 with a big majority remains only partially implemented. The reform includes, inter alia, changes in the governance and financial autonomy of universities, their re-organisation around "schools" rather than narrowly specialised "departments", mergers and redeployment of institutions to better serve regional development and labour market needs, internationalisation, implementation of a culture of evaluation, better use of universities to provide lifelong learning opportunities to local and regional populations, better monitoring of inputs and outputs. Reform measures are included in the MoU and are on-going, with the majority of them yet to be fully implemented. The rationalisation and evaluation measures are going in the direction of the consolidation of the network of higher education institutions (*Athina* Project) and the improvement of the quality of higher education.

Finally, the appointment in late 2012 of the President and the Governing Body of the Hellenic Quality Assurance and Accreditation Agency (HQAA) took place, *de facto* providing for the effective activation of this important agency, which will be in charge of the external evaluation of universities

6. Facilitating the transition from education to work

The employment rate of graduates suffered hugely from the economic crisis and has decreased alarmingly since 2006, further increasing the gap in relation to the EU average (42.9% vs. 75.7% in 2012).

In Greece more than half of the young people are unemployed (64.9% in the second quarter of 2013). In addition in the Greek case approximately one third of the jobless youth are both low skilled and long-term unemployed. This situation has also a strong impact on emigration of young people, in particular higher education graduates.

In the field of vocational education and training (VET), Greece decided to join the EU Alliance for Apprenticeships and seems to be committed to the establishment of a genuine dual system, drawing on the example of other EU member States (e.g. through a bilateral agreement with Germany). This in turn could provide for a significant reduction in the very high youth unemployment, but will require closer cooperation with social partners as well as the establishment of a functioning governance structure.

A new law has been adopted by Parliament in September 2013 aimed at introducing in the country the notion of dual-VET and more apprenticeships. Its implementation remains a key issue for the future of this sector of education in Greece.

7. Upgrading skills through lifelong learning

Adult participation in lifelong learning has been and still is far below the EU average and one of the lowest in the EU (2.9% in 2012, but with only 1.6% for the foreign born group), with the gap being even more marked for particular population groups such as migrants, low-skilled, unemployed, women and older people⁵⁸. In addition, only one out of five enterprises reports to offer continuing vocational training to their employees (EU: 66%), with only 28% of employee participating in it (EU: 48%) .

The national Lifelong Learning (LLL) Strategy was adopted in 2011 by Greece, with the aim of providing more and better learning opportunities for adults and non-traditional learners. The plan is not however an overarching strategic vision for learning within the meaning of a 'coherent and comprehensive LLL strategy'. It is in fact an

⁵⁸ Eurostat, LFS 2012.

adult education plan with two strands: initial and continuing training for the labour market; and general adult education. The self-imposed national target is to reach 6 % of adult participation in LLL by 2013 and seems indeed very difficult to reach.

In June 2013 the Greek General Secretariat for LLL has published a national LLL strategic document for 2013-15, which is a step in the right direction but whose duration is in fact quite limited .

Annex 1. Summary statistics on the headline target

Early leavers from education and training		OVERVIEW					SUB-GROUPS / EU average (2012)										SUB-INDICATORS / EU average (<i>latest year available</i>)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
		2009 (%)	2012 (%)	Position / EU benchmark (p.p.)		Evolution 2009/2012 (p.p.)	Standardized level values					Graphic display					Standardized level values						Graphic display																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
				Position	EU benchmark (p.p.)		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 disadvantage (low)	Invest. prim-sec educ.	Participation in VET	Particip. early educ.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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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
- ≈ Stable (+/- 0.5 p.p.)
- ▲ Increase
- Highest performers
- Lowest performers

Sub-indicators and standardized level values

For more information, please see Annex 2

ANNEX 1

Tertiary educational attainment		OVERVIEW					SUB-GROUPS / EU average (2012)										SUB-INDICATORS / EU average (latest year available)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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							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	Upper sec. educ. attainment	Invest. tertiary educ.	Parental educ. (high)	Employment advantage																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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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
- Stable (+/- 0.5 p.p.)
- Decrease
- Highest performers
- 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-groups⁵⁹ and sub-indicators are compared to the corresponding EU averages⁶⁰ 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 ⁶¹ .
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 ⁶² .
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).

⁵⁹ 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.

⁶⁰ 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.

⁶¹ 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.

⁶² Ibid.