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Education and Training Monitor 2013

(Volume 2: Country analysis - Part 5 of 7: Lithuania, Luxembourg, Malta, Netherlands)

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1. Key indicators and benchmarks

	Lithuania		EU ave	rage	Europe 2020 target /
Europe 2020 headline targets	2009	2012	2009	2012	Benchmark
1. Early leavers from education and training (age 18-24)	8.7%	6.5%	14.2% EU28	12.7% EU28	EU target: 10% National target: <9%
2. Tertiary educational attainment (age 30-34)	40.6%	48.7%	32.1% EU28	35.7% EU28	EU target: 40% National target: 40%

ET 2020 Benchmarks

3. Early childhood educa (4 years old - year before start	ation and care of compulsory primary)		79.6%	84.2% ¹¹	91.7%	93.2% ¹¹	95%
4 Basic skills	Reading		24.3%	:	19.6%	:	15%
Low achievers (15 year-olds;	Mathematics		26.2%	:	22.2%	:	15%
Level 1 or low er in PISA study)	Science		17.0%	:	17.7%	:	15%
	Initial vocational training (IVET)	a. Students participating in Leonardo da Vinci programs as a share of vocational students at ISCED 3	3.3%	5.0% ¹¹	0.6%	0.7% ¹¹	
5. Learning mobility		 b. Erasmus inbound students as % of student population in host country 		0.8% ¹¹		1.1% ¹¹	
	Higher Education	c. Inbound degree mobile students as % of student population in the host country		1.6% ¹¹		7.0% ¹¹	
6. Employment rate of graduates (age 20-34) having left education 1-3 years before reference year		72.9%	76.0%	78.3%	75.7%	82%	
7. Adult participation in lifelong learning (are 25-64)		4.5%	5.2%	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 	79.6%	79.6% ¹¹	58.6%	60.8% ¹⁰

Other ET 2020 Indicators

	a. General government expenditure on education (% of GDP)		6.8%	5.8% ¹¹	5.5%	5.3% ¹¹
9. Investment in	b. Annual expenditure on	ISCED 1-2	€ 3,164 08	€ 3,295 10	€ 5,732 08	€ 6,021 10
education and training	public and private educational institutions per	ISCED 3-4	€ 3,537 ⁰⁸	€ 3,291 ¹⁰	€ 6,964 ⁰⁸	€ 7,123 10
	pupil/student in € PPS	ISCED 5-6	€ 4,741 ⁰⁸	€ 5,066 ¹⁰	€ 9,309 ⁰⁸	€ 9,168 10
10 Digital compatences	a. Pupils in grade 4 (ISCED	1) using computers at school	21.9% ⁰⁷	37.9% ¹¹	60.7% ⁰⁷	64.7% ¹¹
10. Digital competences	b. Individuals aged 16-74 wi	27.0%	29.0%	25.0%	26.0%	
11. Entrepreneurial competences	Individuals aged 18-64 who skills and knowledge to star	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	s at ISCED 3	26.4%	28.4% ¹¹	49.6%	50.3% ¹¹
13. Skills for future	High qualification		:	-8.8%	:	19.1% EU28
labour markets Projected change in	Medium qualification	:	17.8%	:	4.6% EU28	
employment 2010-2020 in %	Low qualification		:	5.2%	:	-20.2% EU28
	Literacy		:	:	:	19.9% EU17
14. Low-skilled adults	Numeracy		:	:	:	23.6% EU17
	Problem solving in technolo	:	:	:	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

LITHUANIA





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 main education challenge in Lithuania is the skills mismatch and unemployment of initial vocational education and training (VET) graduates and, to a smaller extent, higher education graduates. VET career is still perceived as a second choice by parents and pupils, who tend to choose upper secondary general education instead. The high unemployment rate among graduates, especially VET ones, is due to the low quality of teaching and lack of good practical training. Although Lithuania is one of the EU leaders regarding tertiary attainment rate, having already achieved the EU 2020 target, graduates of law, social science and business and administration have more difficulties in finding a job than graduates of engineering and science studies, because of lower quality teaching and lack of soft skills and practical training. In addition, as participation of adults in lifelong learning is one of the lowest in Europe, there is a challenge to provide low-skilled and older workers the possibility to up-skill or re-skill to respond better to labour market needs.

Therefore the 2013 European Semester country-specific recommendation (CSR) on education focused on two topics: enhancing the implementation and effectiveness of apprenticeship schemes, and addressing persistent skill mismatches.

3. Investing in skills and qualifications

Investing in education and training in a context of economic crisis

General government expenditure on education as a share of GDP in Lithuania is slightly above the EU average (5.8% vs. 5.3% in 2011), although it decreased by one percentage point since 2009. In 2011, the Programme for Target Funding of Study Programmes was approved to support study programmes which are not popular among applicants but key to the Lithuanian economy. The budget estimated for this purpose amounts to LTL 1.1 million (approximately EUR 0.32 million). In 2012, the amount paid as reimbursement of the tuition fee for the best performing students who studied in places not funded by the state totalled LTL 11.6 million (approx. 3.35 million euro). More than 1,700 students were recipients of those reimbursements. Higher education spending in Lithuania remains very low. Data from 2010 show that spending per student in HE in Lithuania was around half the EU average (EUR 4500 per student in PPS). This level is among the lowest in the EU.

<u>Skills</u>

School education produces relatively weak results in terms of basic skills: 15-year olds' performance on PISA tests remains below the EU average in reading (the share of low-achievers is 24.3% vs. the EU average of 19.6% in 2009) and maths (the share of low-achievers is 26.2% vs. the EU average of 22.2% in 2009). So far, there have been no concrete government initiatives to address either the relatively poor performance in basic skills or gender differences in educational performance: boys perform worse than girls in reading (PISA results 2009) In Lithuania 62% of teachers worked in schools, where the school principal reported that the instruction was hindered to some extent by shortage or inadequacy of instructional material¹.

Lithuania is seeking to enhance innovation and creativity aspects of the education system: the General Curriculum Frameworks for Primary, Basic and Secondary Education were updated in 2004. The general curricula focus on the development of key competences and promotion of creative thinking and entrepreneurship.

¹

Source : TALIS Creating Effective Teaching and Learning Environments First Result s from TALIS', 2009

ICT skills of the population are slightly above the EU average, although a lower share of pupils used computers at school in 2007 (21.9% of 4th grade pupils in Lithuania, 60.7% in EU). The Lithuanian Government is currently investing into the expansion of the broadband network in order to improve high-speed internet access in rural areas. As regards entrepreneurship, the share of the population believing to have the required skills and knowledge to start a business (40% in 2012) increased by 5 percentage points since 2011 and is now close to the EU average (42%).

Lithuania has national qualifications frameworks in force and presented their national referencing report to the EQF Advisory Group in 2011. In Lithuania, the Law on Education (2011) states that an individual is free to pursue non-formal education programmes and self-education. No admission requirements are imposed on participants of non-formal adult education.

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

Concerning the Europe 2020 target on early school leaving (ESL), Lithuania performs better than the EU average (6.5% v. 12.8% in 2012) and has achieved the national target (9%), after having witnessed a significant decrease in the share of early school leavers over the past decade (from 13.4% in 2002). However, more boys (8.2%) than girls (4.6%) leave school early.²



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

Lithuania performs clearly below the EU average on participation in early childhood education and care (ECEC), due to the insufficient places in pre-school and early childcare facilities (84.2% as against 93.2% in 2011). In 2011, participation in ECEC amounted to 54.6 per cent of all children in the age group of 1–6 year-olds and older children across the country. The percentage of rural 1–6 year-old and older children participating in pre-school and pre-primary education is three times lower than that of urban children of the same age group.



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

Although the Lithuanian government already initiated some measures to increase the number and type of ECEC facilities, e.g. by implementing the Pre-school and Pre-primary education development programme for the 2011–2013 period approved by a minister of education and science, where the programme is meant to become a measure providing a better access to Pre-school and Pre-primary education, by opening of so called multi-functional centres in rural areas and increasing the access and variety of pre-school providers, especially in rural areas within the EU funded project, there is scope for improving the accessibility of the ECEC facilities, which is still below the EU average.

Since 2012, Lithuania has started the third stage in the development of the school network (the network of general education schools has been under reconstruction since 1998). The network of schools reconstruction has been determined by both implementing the reform of general education, including transfer from a 9-year to a 10-year basic school and establishment of gymnasium and pre-gymnasium type schools, and significantly decreasing number of school children. It is up to the municipalities to prepare and approve plans for the reform of the network of schools of general education in their constituencies for 2012-2015.

5. Encouraging participation in tertiary education and modernising higher education

Lithuania's tertiary attainment rate (48.7% in 2012) is significantly above the EU average of 35.7% and the country already achieved its national 2020 target of 40%. More women (56.4%) than men (40.7%) have tertiary education in the 30-34 age group³. Concerning the distribution of tertiary graduates by field compared with the EU average, Lithuania shows a high share of graduates in social science, business and law (45.8% as against 35.7% in 2011) and a low share of graduates in maths, science and technology (21.2%) and in health and welfare (9.6%), which has a negative impact on the overall labour market integration of graduates and problems with employment. As the sub-indicators below show, in Lithuania tertiary level graduates however still have a relatively high employment advantage compared to graduates at secondary level.



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

Quality of teaching in higher education, the provision of practical skills and competences, such as soft skills, problem solving, critical thinking and teamwork, and an adequate provision of career guidance services to match the labour market needs remain challenges. A complex reform aiming at increasing the quality of higher education, its effectiveness, efficiency and access was launched in 2009. The measures taken include improving the governance of universities, widening access and partnership with business. Further measures focus on creating competition between universities for students and reform of public funding (via a student voucher system) and increasing the quality of study programmes and research. The reform instigated consolidation of some universities and diversification of funding.

In higher education, the strengthening of knowledge triangle (mainly through the development of the "Valleys" – research, education and innovation triangles) should help to develop the high quality base for higher education and research.

One project provided training for 130 career guidance specialists in Higher Education who provided guidance services to more than 5000 students. In 2013, the implementation of projects aimed at the development of career education of students of higher education, and their career tracking and infrastructure will be continued.

LITHUANIA



Figure 5. Tertiary educational attainment and sub-indicators

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

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

Participation of upper secondary students in VET remains markedly below the EU average (28.4% vs. 50.3% in 2011). VET career is still perceived as a second choice by parents and pupils, who tend to choose upper secondary general education instead. Quality and image of VET is still insufficiently taken care of. Appropriate governance structures and conditions and provision of training, including apprenticeships places or work based learning as well as improvements in teacher education and career guidance, are still a challenge. Many vocational schools still do not have adequate equipment or are not using modern pedagogies. Another challenge is how to stimulate social dialogue with employers to find a formula that would suit VET schools, companies' needs and pupils' expectations to offer good quality practical training.

The apprenticeship concept was introduced in 2007, but so far there has been little progress in its implementation. Uptake is low both on company and student level due to a perceived lack of flexibility and quality. To address the challenges in initial VET, in 2011-2012 six vocational education and training schools were merged. Additionally, vocational training establishments have been restructured into public institutions. Lithuania is also modernising its VET system via projects financed by the ESF, e.g. definition of qualifications, preparation of the external evaluation of VET schools and teacher education. Sectoral skills competitions are organised together with sectoral exhibitions to attract young people to VET professions. One project targeted general and vocational education where 700 career coordinators and 70 career consultants were trained to provide and coordinate the services of vocational guidance (career education, information and counselling); models for career education and career education monitoring were prepared. Another project financed under the EU Structural Funds aims at updating technological skills of VET teachers by spending practical time in companies with a well prepared training plan and an individual tutor. So far around 700 teachers took part in the project (around 30% of all VET teachers).

In order to promote apprenticeships, Lithuania has introduced a special apprenticeship project (2013-2015), part of the Practical VET Resources Development Programme, with the objective to strengthen and expand this training form. This effort is complemented by a monitoring system for ensuring quality and efficiency in the provision of career services in general education and in VET. In order to further develop apprenticeship training forms and the arrangement of vocational training in real working conditions, a project financed from the European Social Fund (LTL 2.51 million) will be launched in 2013. Executor of the project will be the Vilnius Jerusalem Labour Market Training Centre with its partners.

Unemployment of VET graduates and, to a lesser extent, higher education graduates remains high and the participation rate is low, due to skills mismatches further aggravated by high emigration and unfavourable demographic developments. The employment rate of recent graduates (age 20-34, who completed upper secondary or tertiary education no more than three years ago) increased by around 3 percentage points between 2011 and 2012, reaching 76%, but was still lower than pre-crisis levels (83.3% in 2006).

At the same time employment rates of initial VET graduates decreased from 72.8% in 2007 to 48.2% in 2011, and the employment rates of higher education graduates (ISCED 5-6) aged 20-34 who have graduated no more than three years ago decreased from 92.5% in 2007 to 86% in 2012. This is a particular challenge as, according to the European Centre for the Development of Vocational Training (Cedefop), employment in medium qualification jobs in Lithuania up to 2020 is forecast to increase faster than the EU average, while the forecast shows a possible decrease of high level qualification jobs (in contrast with an increase in the EU average) and demand for low qualification jobs is expected to grow in Lithuania compared to a big decrease in the EU average. This further accentuates the need for a well-established apprenticeship scheme.

7. Upgrading skills through lifelong learning

Participation of adults in lifelong learning is one of the lowest in the EU (5.2% against 9% in 2012)⁴, further amplifying challenges to equip low-skilled and older workers with the possibility to up-skill or re-skill to better respond to labour market needs.

Companies do not invest sufficiently in employee training, also due to insufficient incentives. In 2010 only 52% of all companies provided continuing vocational education and training in Lithuania (compared with an EU average of 66%) with just half of the average hours per participant compared to the EU (19% vs. 38%). Only 31% of employees working in companies providing continuing education and training participated in training courses, against an EU average of 48%, and 35.4% of employees participated in non-formal and informal education, against an EU average of 47.4%.

The new Education Strategy 2013 – 2020 is expected to be adopted by the Parliament soon. The strategy mainly focuses on VET, adult learning, non-formal learning and the development of the qualifications system. The strategy may be a good base for implementing further measures enhancing the Lithuanian education and training system.

Eurostat, LFS 2012

1. Key indicators and benchmarks

	Luxembourg		EU ave	rage	Europe 2020 target /
Europe 2020 headline targets	2009	2012	2009	2012	Benchmark
1. Early leavers from education and training (age 18-24)	7.7%	8.1%	14.2% EU28	12.7% EU28	EU target: 10% National target: <10%
2. Tertiary educational attainment (age 30-34)	46.6%	49.6%	32.1% EU28	35.7% EU28	EU target: 40% National target: 40%

ET 2020 Benchmarks

3. Early childhood educa (4 years old - year before start	ation and care of compulsory primary)		94.6%	95.6% ¹¹	91.7%	93.2% ¹¹	95%
4. Basic skills	Reading		26.0%	:	19.6%	:	15%
Low achievers (15 year-olds;	Mathematics		23.9%	:	22.2%	:	15%
Level 1 or low er in PISA study)	Science		23.7%	:	17.7%	:	15%
Initial vocational training (IVET)	 a. Students participating in Leonardo da Vinci programs as a share of vocational students at ISCED 3 	1.3%	1.5% ¹¹	0.6%	0.7% ¹¹		
5. Learning mobility		 b. Erasmus inbound students as % of student population in host country 		6.7% ¹¹		1.1% ¹¹	
	Higher Education	 c. Inbound degree mobile students as % of student population in the host country 		40.6% ¹¹		7.0% ¹¹	
6. Employment rate of graduates (age 20-34) having left education 1-3 years before reference year		85.5%	84.6%	78.3%	75.7%	82%	
7. Adult participation in (age 25-64)	lifelong learning		13.4%	13.9%	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 	100.0%	100.0% ¹¹	58.6%	60.8% ¹⁰

Other ET 2020 Indicators

	 a. General government expenditure on education (% of GDP) 		5.3%	,	5.1%	11	5.5%	5.3% 11
9. Investment in	b. Annual expenditure on	ISCED 1-2	€ 12,757	08	€ 15,262	10	€ 5,732 08	€ 6,021 10
education and training	public and private educational institutions per	ISCED 3-4	€ 15,617	08	€ 13,203	10	€ 6,964 ⁰⁸	€ 7,123 10
	pupil/student in € PPS	ISCED 5-6	:	08	:	10	€ 9,309 08	€ 9,168 10
10 Digital compotences	a. Pupils in grade 4 (ISCED	1) using computers at school	:		:		60.7% ⁰⁷	64.7% ¹¹
10. Digital competences	b. Individuals aged 16-74 wi	42.0%	,	40.0%		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	Share of vocational students at ISCED 3		,	61.4%	11	49.6%	50.3% ¹¹
13. Skills for future	High qualification		:		34.3%		:	19.1% EU28
labour markets Projected change in	Medium qualification		:		21.6%		:	4.6% EU28
employment 2010-2020 in %	Low qualification		:		-22.3%		:	-20.2% EU28
	Literacy		:		:		:	19.9% EU17
14. Low-skilled adults	Numeracy		:		:		:	23.6% EU17
	Problem solving in technolo	:		:		:	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





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

A high proportion of immigrants in the population leads to disparities in success rates between native and immigrant students. The fact that Luxembourg is a trilingual country poses additional challenges, in particular for students of migrant background. While Luxembourg has a relatively low overall early school leaving rate (8.1% in 2012, compared to the 12.7% EU average), the rate is high among the migrant population, which requires further measures, notably to improve early childhood education and care, and to increase the resources available for language support and remedial classes. The PISA 2009 results also confirmed the worrying inequities within Luxembourg's school system.

While the employment rate of graduates is good, 84.6% in 2012, the youth unemployment rate is relatively high compared to the low overall rate of unemployment and is often linked to a lack of skills or qualifications. Consequently, the 2013 CSR for Luxembourg related to education points to step up efforts to reduce youth unemployment by improving the design and monitoring of active labour market policies. Luxembourg is also called on to strengthen general and vocational education to better match young people's skills with labour demand, in particular for people with migrant background. Furthermore, to take resolute action to increase the participation rate of older workers, including by improving their employability through lifelong learning.

3. Investing in skills and qualifications

Investing in education and training in a context of economic crisis

Public spending on education is in line with the EU average (5.1% of GDP compared to 5.3% in 2011) but this does not include tertiary education, and combined with a very high GDP per capita, it still leads to high level of spending per pupil/student.

Between 2000 and 2010, the level of public spending on education registered an increase of more than 50% in Luxembourg. A major increase of the budget for human resources in education was registered (almost 4%). Special additional support and funding for adults in education is provided for re-skilling and upgrading the skills of the workforce. The government increased the central funding for training initiatives delivered by businesses for improving skills and language competences among the adult population. In 2011, the direct state aid for these actions was increased from 14.5% to 20%. In Luxembourg, specific target groups are selected for preferential support with the objectives of combating unemployment, and promoting the social integration of migrants. The target groups identified by the authorities are adults without recognised qualifications; those working for more than ten years with the same employer; and the over-45s. For these groups, there has been an increase of 35% in the public contribution towards their salary costs aiming at encouraging greater participation in training.

<u>Skills</u>

PISA performance on basic skills of young people is relatively weak and there has been a negative tendency in reading, mathematics and science since 2003. The fact that Luxembourg is a trilingual country (Luxembourgish, German and French are official languages) poses additional challenges for students, in particular those of migrant background. The Government is pursuing discussions on a future reform of secondary schools that focuses on four major themes: student progression through the school system, preparing students for university studies, language training and the autonomy of secondary schools.

The Luxembourg qualifications framework (CLQ) was adopted in 2010 by the Government Council. It covers all types and levels of qualifications, schools, vocational education and training and higher education as well as adult education and validation of non-formal and informal learning. The CLQ is seen as contributing to the overall modernisation of national education and training. The learning outcomes approach has a prominent place in these reforms. In the second stage of the development of the CLQ, it will be possible to submit requests for linking qualifications that are awarded outside formal education and training systems with the levels of the CLQ. This will be done using an accreditation procedure that still remains to be defined. Being host to a large number of workers from the neighbouring countries Belgium, Germany and France, Luxembourg also sees the development of the NQF and referencing to the EQF as a way to facilitate the comparison and recognition of qualifications.

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

Regarding Europe 2020 targets, Luxembourg had a relatively low early school leaving rate of 8.1% in 2012, compared to the 12.7% EU average. Luxembourg's national target is to maintain the drop-out rate below 10%, however if the rate stabilizes at a lower level than 10%, the target will be modified in 2015. However, early school leaving remains a problem among the migrant population. The figure below shows that there is an increase in early school leavers among native born pupils and males.



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



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

The sub-indicators show that in Luxembourg early school leavers have a much higher employment disadvantage compared to the EU average.

On early school leaving in Luxembourg, the figures resulting from the Labour Force Survey (LFS) are subject to significant annual variations due to the limited size of the sampling. Thus, the LFS does not help in identifying which students are affected or why they drop out. To plug these gaps, in 2003-2004 the Ministry of National Education and Vocational Training developed a nationwide study for monitoring the school dropout phenomenon. The new results of the national study concerning the 2010-2011 academic year demonstrate that the policies and measures currently in place are stabilizing the school dropout rate below 10%. The policies intended to

improve orientation activities and programs for re-integrating education and training will be maintained not only to provide a second chance to dropouts from school but also to contribute to reducing unemployment among the young. Particular emphasis will be placed on promoting academic success as a means for preventing young people from leaving school and to increase young peoples' qualifications levels⁵.

Luxembourg's performance in international comparisons of student outcomes suggests that much can be done to improve the effectiveness of teaching and learning. Despite substantial spending on teachers, there is an important shortage of qualified teachers⁶. The percentage of 15 year-old pupils who are in schools affected by the lack of qualified teachers in core subjects is the highest among European countries⁷. A number of reforms are currently planned or are in progress in order to respond to national particularities as well as to more comprehensive social developments (technical progress, changing family structures, and economic change). A reform of secondary schools is currently being prepared – a project giving rise to lively public debates. The vocational education system is currently undergoing a reform in order to bring jobseekers' qualifications more in line with labour market demands.

5. Encouraging participation in tertiary education and modernising higher education

The tertiary education attainment rate according to the Eurostat methodology was 49.6% in 2012, well above the EU average of 35.7%. This is, however, misleading because Eurostat measures the tertiary attainment based on the working population in Luxembourg, but a high percentage of this population is either not resident in, or not originally from the country. Luxembourg therefore revised its national target⁸ in 2012 and set it at 66% instead of 40%. The figure below shows that in Luxembourg, males have a very high tertiary attainment rate compared to the EU average. Efforts to reach a higher education attainment among residents are important in view of the Europe 2020 benchmark for higher education.



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

The sub-indicators show that parental education and training has an increasing level of influence on tertiary attainment.

Students registering for an approved university training program may obtain financial aid for higher studies, comprising a subsidized loan and a scholarship, the scholarship-loan ratio (weighting) depending on the revenues of the concerned student. The financial aid is moveable in the sense that Luxembourg students are free to choose the location of their studies⁹.

⁵ National plan for smart, sustainable and inclusive growth Luxembourg 2020

Study on Policy Measures to Improve the Attractiveness of the Teaching Profession in Europe. April 2013 contract EAC -2010-1391
 OECD economic Survey Luxembourg

⁸ Luxembourg intends that this indicator provide data on the capacity of the national education system to train young people who can earn post-secondary school diplomas rather than it being a reflection of post-secondary qualifications requirements of the labour markets. In Luxembourg, 30% of people between the ages of 25 and 64 have university degrees. In Luxembourg, there is a large disparity depending on birth country. Among people born in Luxembourg, only 22% have university degrees, while this proportion is 40% among those persons born in other countries. Differences between these two populations are much less marked in bordering countries. Furthermore, in these countries, the proportion of university degrees is higher among natives than among foreign born persons.

⁹ Eurypedia: Financial Support for Learners

LUXEMBOURG

Figure 5. Tertiary education attainment: sub-indicators



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

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

The youth unemployment rate, at 18% in 2012, though still below the EU average, is persistently high when compared to the country's overall unemployment rate. On the other hand, the youth employment ratio is very low, pointing to a low percentage of the active population in this age cohort. Several measures have been set up to help young people to enter or return the labour market, including setting up a career guidance centre, an Employment Observatory, and the "fit4jobs¹⁰" incentives. The government, in collaboration with the national employment agency (Agence pour le développement de l'emploi (ADEM)), is assessing the measures taken to analyse how they could be improved. An ambitious action plan for youth employment has been announced, which envisages a 'Youth Guarantee' (Garantie Jeune): in line with the Council recommendation.

Participation of upper secondary students in vocational education and training is above the EU average (61.4% vs. 50.3% in 2011). The recent reform of VET provides possibilities to bridge the gap between vocational training and higher education. For example, the "Maison de l'Orientation", which provides guidance services and direction, opened in 2012. A key challenge will be to increase the quality and attractiveness of VET studies and to raise them to the 'excellence' level in order to provide a qualified workforce to the labour market and to offer professional perspectives to the learners.

The Ministry of National Education and Vocational Training manages the guidance centre and coordinates the steering committee made up of various heads of departments. Staff from these departments work in close collaboration to produce presentations in schools, assisting with the transition phase from school to work and helping during the systematic monitoring periods of young school dropouts. Individual group workshops involving the different departments are offered to young people so they can set up a new professional project, confirm it and implement it. The guidance centre is also open to adults seeking information, guidance or assistance in authenticating acquired professional experience.

7. Upgrading skills through lifelong learning

Adult participation in lifelong learning is at 13.9% compared to 9% EU average. In Luxembourg already a large proportion of employees in large enterprises participate in training (60% compared to EU average of 48%)¹¹. A law approved on 6 March 2012 aims to motivate small companies to take greater advantage of continuing education programmes, and to get companies in general to extend continuing education programmes to workers with low levels of initial training.

The national strategy for lifelong training, which was adopted in November 2012, specifies measures for meeting the national target of at least 15% of adults to participate in education and training programmes¹². The national strategy is based on cross-sector principles and separate measures for connecting the multiple initiatives and providing better visibility to Luxembourg's national policy. The national qualifications grid will be implemented to facilitate recognition of training programs and to place special emphasis on getting vulnerable groups to participate.

¹⁰ https://www.fit4job.lu/about

Continuing vocational training News Release: http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/3-11062013-AP/EN/3-11062013-AP-EN.PDF

¹² Livre blanc sur la stratégie nationale en matière de Lifelong Learning.

http://www.s3l.lu/livreblanc/Livre%20blanc/Livre%20blanc%20Stratégie.pdf

1. Key indicators and benchmarks

	Malta		EU ave	rage	Europe 2020 target /
Europe 2020 headline targets	2009	2012	2009	2012	Benchmark
1. Early leavers from education and training (age 18-24)	36.8% ^b	22.6%	14.2% EU28	12.7% EU28	EU target: 10% National target: 29%
2. Tertiary educational attainment (age 30-34)	21.0%	22.4%	32.1% EU28	35.7% EU28	EU target: 40% National target: 33%

ET 2020 Benchmarks

3. Early childhood education and care (4 years old - year before start of compulsory primary)		93.9%	100.0% ^{11,b}	91.7%	93.2% ¹¹	95%	
4. Basic skills	Reading		36.3%	:	19.6%	:	15%
Low achievers (15 year-olds;	Mathematics		33.7%	:	22.2%	:	15%
Level 1 or low er in PISA study)	Science		32.5%	: :	17.7%	:	15%
Initial vocational training (IVET)	 a. Students participating in Leonardo da Vinci programs as a share of vocational students at ISCED 3 	0.2%	5.7% ¹¹	0.6%	0.7% ¹¹		
5. Learning mobility		b. Erasmus inbound students as % of student population in host country		8.4% ¹¹		1.1% ¹¹	
	Higher Education	c. Inbound degree mobile students as % of student population in the host country		4.1% ¹¹		7.0% ¹¹	
6. Employment rate of graduates (age 20-34) having left education 1-3 years before reference year		94.1%	91.9%	78.3%	75.7%	82%	
7. Adult participation in (age 25-64)	lifelong learning		6.1%	7.0%	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 language¹ 	:	82.7% ¹¹	:	43.5% ¹¹
	 b. ISCED 2 students learning two or more foreign languages 	95.8% ¹⁰	89.8% ¹¹	58.6%	60.8% ¹⁰

Other ET 2020 Indicators

9. Investment in	a. General government expe GDP)	enditure on education (% of	5.4%	5.8% ¹¹	5.5%	5.3% ¹¹
	b. Annual expenditure on	ISCED 1-2	€ 6,255 08	€ 7,713 10	€ 5,732 08	€ 6,021 10
education and training	public and private educational institutions per	ISCED 3-4	€ 5,372 08	€ 5,444 ¹⁰	€ 6,964 ⁰⁸	€7,123 10
	pupil/student in € PPS	ISCED 5-6	€ 9,688 08	€ 11,719 ¹⁰	€ 9,309 ⁰⁸	€ 9,168 10
10 Digital compotences	a. Pupils in grade 4 (ISCED	1) using computers at school	:	80.3% ¹¹	60.7% ⁰⁷	64.7% ¹¹
10. Digital competences	b. Individuals aged 16-74 wi	th high computer skills ²	20.0%	23.0%	25.0%	26.0%
11. Entrepreneurial competences	Individuals aged 18-64 who skills and knowledge to star	believe to have the required t a business	:	:	42.3% ^a	42.0% ^a
12. Vocational education and training	Share of vocational students	at ISCED 3	58.1%	38.9% ¹¹	49.6%	50.3% ¹¹
13. Skills for future	High qualification		:	20.5%	:	19.1% EU28
labour markets Projected change in	Medium qualification		:	33.5%	:	4.6% EU28
employment 2010-2020 in %	Low qualification		:	-20.9%	:	-20.2% EU28
	Literacy		:	:	:	19.9% EU17
14. Low-skilled adults	Numeracy		:	:	:	23.6% EU17
	Problem solving in technolog	gy 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

MALTA





Malta ■EU target ¹EU average

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

Since Malta has few natural resources, economic growth is overwhelmingly dependent on the skills of its population. The country is faced with a number of challenges: a high - even if declining - rate of early school leaving, a low basic skills achievement, a still modest rate of tertiary education attainment and a vocational training system in need of modernisation. Despite relatively low overall and youth unemployment rates so far, the skills issue is set to become more relevant in the next few years. To properly address it, the 2013 European Semester country-specific recommendation (CSR) on education asks Malta to continue to pursue policy efforts to reduce early school leaving and increase the labour-market relevance of education and training.

3. Investing in skills and qualifications

Investing in education and training in a context of economic crisis

According to the most recent internationally comparable data, in 2011 general government expenditure on education as a share of GDP was somewhat higher than the EU average (5.8% vs. 5.3%). In 2012, Malta increased budget allocations for education by around 7% in real terms¹³ compared to 2011; this appears consistent with the 2013 Annual Growth Survey priorities on strengthening investment in education.

Between 2010 and 2012, the budget allocated to ICT in public schools was increased by slightly more than a third. In recent years, the government has embarked on two European regional development fund projects in order to improve ICT equipment in schools. The first project, which took place between 2008 and 2011, focused on the purchase of science and technology laboratory equipment for public secondary schools, with a total budget of EUR 1.25 million. The second project has been operating in 2011-12 with an investment of EUR 8.6 million, including EUR 2.6 million for the purchase of interactive whiteboards for public primary, secondary and post-secondary schools

<u>Skills</u>

The process to review and update the National Minimum Curriculum was launched in March 2008 and finalised in December 2012 with the formulation of the National Curriculum Framework (NCF). The NCF envisages a paradigm shift away from a prescriptive curriculum towards a framework based on learning outcomes, which allows for more flexibility. It also moves away from stand-alone subjects to learning areas. In the context of NCF implementation, work on the National Literacy Strategy for All (that reviews and widens the scope of the Literacy Policy and Strategy launched in 2009 and focuses on competences in both the Maltese and English languages) was launched for consultation in May 2013. The consolidated draft document is expected to be out for national consultation during the fourth quarter of 2013. The National Youth Employment Strategy also stresses the need to address literacy since this is seen by young people as a major stumbling block when looking for a job.

In terms of basic skills, 15-year olds' performance on PISA 2009+ tests is markedly worse than the EU average in all subjects; girls tend to largely outperform boys also in mathematics. Malta's 10-year old students performed very poorly in science in the 2011 TIMSS study, conducted by the International Association for the Evaluation of Educational Achievement (IEA). According to that study, Malta was also the country which dedicated the least amount of time to teaching science (39 hours per year, compared with an international average of 85). The

13

Data expressed in 2010 constant prices. See European Commission (2013), Recent trends in the funding of education in Europe.

government committed to strongly increasing the allocated time for science in primary schools as from the 2013-14 school year. While ICT skills of the population are close to the EU average, the positive figures for foreign language skills are influenced by the fact that English is Malta's second official language.

Malta has been putting its comprehensive national qualifications framework for lifelong learning (Malta qualifications framework, MQF) in place since June 2007. The MQF was then referenced to European Qualification Framework in 2009. Important developments took place in 2012 with amendments to the Education Act, which established the legal basis for the National Commission for Further and Higher Education (NCFHE), replacing the Malta Qualifications Council and the National Commission for Higher Education. Three legal notices were published: on quality assurance and licensing of further and higher education institutions and programmes; on validation of informal and non-formal learning; and on strengthening the legal basis of the MQF for lifelong learning as a regulatory framework for classification of qualifications and awards.

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

The rate of early school leaving (ESL) has been significantly reduced in recent years, but remains among the highest in the EU (22.6% in 2012)¹⁴, with a significant gender gap: 27.5% for males compared with 17.6% for females in 2012. The analysis of sub-indicators shows that the family educational background is particularly unfavourable.



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

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



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

The measures taken in 2011-12 demonstrate that the government and the educational institutions are aware of the ESL challenge. A national strategy focused on prevention, intervention and compensation measures, in line with the 2011 Council Recommendation on policies to reduce early school leaving¹⁵, has been launched in April 2013. The strategy aims to shed light on the reasons why students leave school at an early age and develop

¹⁴ Time series on early school leaving have been reviewed by the Maltese Statistical Office and Eurostat due to a new classification of certain qualifications at secondary level. According to the new data, the 2012 early school leaving rate is about 10 percentage points lower than with the old methodology. At present, figures according to the new classification are available only after 2010 and are therefore not comparable with those up to 2009. In view of this, the authorities plan to announce a new 2020 target, based on the new data.

¹⁵ 10544/11, 7 June 2011.

policies that motivate them to continue their studies. Prevention measures include implementing the National Curriculum Framework, validating non-formal and informal learning and developing new forms of teaching and learning, such as e-Learning. Intervention measures comprise a multi-stakeholder approach to address the needs of particular groups of students at risk of early school leaving and improving career guidance in compulsory education. A review of second chance and re-integration programmes features among compensation measures. Policy action has thus been relevant. However, a comprehensive monitoring system to collect and analyse information on early school leaving to underpin the national strategy, as recommended to Malta by the 2013 CSR on education, is yet to be put in place.

Participation in early childhood education reached 100% in 2011. New childcare centres administered either directly by public authorities or in partnership with the private sector have been set up and other are in the pipeline. Private childcare facilities are also available. High costs and often inconvenient opening hours, however, seem to hinder the efficiency of these facilities. Afternoon school programmes have been established in a number of localities and it is planned to expand this service to more localities. These programmes provide after-school care services which include extra-curricular activities within school structures, thereby bridging the gap between the school day and parents' regular working hours. Several tax incentives have been put in place for families sending their children to private childcare facilities. There is still room for enhancing the provision and affordability of child-care and out-of-school centres, as recommended to Malta in the 2013 European Semester. A programme to expand the provision of early childhood education and care is foreseen in 2014.

5. Encouraging participation in tertiary education and modernising higher education

The tertiary attainment rate of people aged 30-34 is among the lowest in the EU (22.4% in 2012), has broadly stagnated in recent years and is still far from the 2020 national target of 33%, although it can be expected to increase due to the recent positive trends in participation in and graduation from higher education. As in the case of ESL, the analysis of sub-indicators shows that the family educational background is particularly unfavourable in EU comparison.



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





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

To increase the supply of high-skilled workforce, a new scholarship scheme aims to provide more opportunities to promote further specialisation at a Master level. Targeted areas will be: manufacturing, life sciences, educational services, financial services, transportation and logistics, tourism, creative industries, environment and ICT. EUR 4 million are envisaged to be invested in this scheme over 2013-2014. The scheme is complemented by other scholarship schemes, such as Malta Government Scholarship Scheme (MGSS), Malta Arts Scholarships and Malta Sports Scholarships, which are locally funded.

6. Facilitating the transition from education to work

The relatively mild economic crisis experienced by Malta only had a modest impact on the employment rate of recent graduates, which remains among the highest in the EU (91.9% in 2012). This suggests that there is a substantial pay-off from education in terms of employment opportunities. The need to raise skill levels is set to become more relevant in the future as, according to the European Centre for the Development of Vocational Training (Cedefop), the employment pattern in Malta up to 2020 is forecast to be characterised by a strong increase in medium and high qualification jobs and a marked decline in low qualification ones.

In 2012, a new Euro Plus Pact commitment established a sector skills committee, which will be responsible for examining occupational standards and validation of competences and learning outcomes in order to reduce skills gaps. The committee became operational after the appointment of its members in the second quarter of 2013. This can contribute towards addressing the current lack of a skills matching and forecasting system.

Participation of upper secondary students in vocational education and training is below the EU average (38.9% as against 50.3% in 2011). As regards the two existing apprenticeship schemes, according to the latest tracer study conducted in 2012, 35% of people completing an apprenticeship decided to continue education, while 85% of the rest found a full-time job and 7% a part-time one in the first 3 months after the end of the apprenticeship.

To further improve the efficiency of the system and modernise the vocational training system, the authorities have put forward a reform proposal, with implementation expected to start by end-2013, consisting of creating a single national apprenticeship scheme that would cover more qualification levels and occupations. The reform will also include an increase in apprentices' maintenance grants and a financial incentive for employers. The 2013 CSR on education invites Malta to implement this apprenticeships reform.

The post-secondary vocational education institution, the Malta College for Arts, Science and Technology (MCAST), is currently undertaking an extensive review and update of many of its courses to make them more relevant and attractive to students. The college has also started working to introduce an e-learning component to a number of its course to introduce a blended learning approach. This, together with the development of an accreditation system for prior learning, offers new tools to attract a potential stream of students who have not followed traditional educational routes. These developments are funded through the European Social Fund (ESF).

As part of the national curriculum, Malta has worked on introducing vocational subjects in the secondary school cycle. Four vocational subject areas (Engineering, Health and Social Care, Hospitality, and Information Technology) were identified and scheduled to be piloted in six state colleges and 4 non-state schools from September 2011. From September 2013, the aim is to extend this pilot project to other schools.

7. Upgrading skills through lifelong learning

Participation of adults in lifelong learning remains low in EU comparison (7% vs. 9% in 2012). In 2010, only 54% of Maltese enterprises provided vocational training to their staff, as against an EU average of 66%. Malta is drafting a Lifelong Learning Strategy, which is expected to be launched for public consultation in the fourth quarter of 2013. Several initiatives are planned throughout 2013. The focus is on actions related to identifying low skilled and/or low qualified adults and designing the training needs for them, so as to be able in the coming years to increase the effectiveness of basic skills learning for those groups. Among second-chance opportunities for adult learners, the Adult Learning Classes courses recorded a 38%¹⁶ increase in participation in 2012/13 compared with the previous year, involving more than 9,000 people aged 24-65.

¹⁶

This figure applies only to courses organised by the Directorate for Lifelong Learning within the Ministry for Education and Employment as there are several adult learning courses organised by other entities and institutions.

1. Key indicators and benchmarks

	Nethe	rlands	EU ave	rage	Europe 2020 target /		
Europe 2020 headline targets	2009	2012	2009	2012	Benchmark		
1. Early leavers from education and training (age 18-24)	10.9%	8.8%	14.2% EU28	12.7% EU28	EU target: 10% National target: <8%		
2. Tertiary educational attainment (age 30-34)	40.5%	42.3%	32.1% EU28	35.7% EU28	EU target: 40% National target: >40%		

ET 2020 Benchmarks

3. Early childhood educa (4 years old - year before start	ation and care of compulsory primary)		99.5%	99.6% ¹¹	91.7%	93.2% 11	95%
4. Basic skills	Reading		14.3%	:	19.6%	:	15%
Low achievers (15 year-olds; Level 1 or low er in PISA study)	Mathematics		13.4%	:	22.2%	:	15%
	Science		13.2%	:	17.7%	:	15%
5. Learning mobility	Initial vocational training (IVET)	a. Students participating in Leonardo da Vinci programs as a share of vocational students at ISCED 3	1.3%	1.3% ¹¹	0.6%	0.7% ¹¹	
		b. Erasmus inbound students as % of student population in host country		1.2% ¹¹		1.1% ¹¹	
	Higher Education	c. Inbound degree mobile students as % of student population in the host country		4.9% ¹¹		7.0% ¹¹	
6. Employment rate of g reference year	raduates (age 20-34) having k	eft education 1-3 years before	92.9%	89.3%	78.3%	75.7%	82%
7. Adult participation in (age 25-64)	lifelong learning		17.0%	16.5%	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	:	65.7% ¹¹	:	43.5% ¹¹
	 b. ISCED 2 students learning two or more foreign languages 	78.4%	78.8% ¹¹	58.6%	60.8% ¹⁰

Other ET 2020 Indicators

	a. General government expe GDP)	enditure on education (% of	5.9%	5.8% ¹¹	5.5%	5.3% ¹¹
9. Investment in	b. Annual expenditure on	ISCED 1-2	€ 6,794 08	€ 7,279 10	€ 5,732 08	€ 6,021 10
education and training	public and private educational institutions per	ISCED 3-4	€ 8,851 ⁰⁸	€ 9,048 ¹⁰	€ 6,964 ⁰⁸	€ 7,123 10
	pupil/student in € PPS	ISCED 5-6	€ 13,897 ⁰⁸	€ 13,219 ¹⁰	€ 9,309 ⁰⁸	€ 9,168 10
10 Digital compotences	a. Pupils in grade 4 (ISCED	1) using computers at school	83.2% ⁰⁷	85.6% ¹¹	60.7% ⁰⁷	64.7% ¹¹
To. Digital competences	b. Individuals aged 16-74 wi	ith high computer skills ²	40.0%	30.0%	25.0%	26.0%
11. Entrepreneurial competences	Individuals aged 18-64 who skills and knowledge to sta	believe to have the required rt a business	47.0%	42.0%	42.3% ^a	42.0% ^a
12. Vocational education and training	Share of vocational students	s at ISCED 3	67.1%	69.1% ¹¹	49.6%	50.3% ¹¹
13. Skills for future	High qualification		:	22.8%	:	19.1% EU28
labour markets Projected change in	Medium qualification		:	-4.6%	:	4.6% EU28
employment 2010-2020 in %	Low qualification		:	-13.3%	:	-20.2% EU28
	Literacy		:	11.7%	:	19.9% EU17
14. Low-skilled adults	Numeracy		:	13.2%	:	23.6% EU17
	Problem solving in technolo	gy rich environments ³	:	19.1%	:	26.9% EU13

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

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





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 Netherlands has a well-functioning educational system and is on track to achieving its Europe 2020 targets. This is reflected in good PISA scores, relatively high employment rates and the good international rankings of universities. But the educational system suffers from a few shortcomings. This is particularly evident in primary and secondary education where high-achieving Dutch students score somewhat lower than their international counterparts, whereas students with lower and mediums grades score better than their international peers¹⁷.

As for higher education, it is recognised that there is a need to focus more on a comprehensive increase of excellence. The connection to the labour market is good, with the exception of science and technology graduates who are in persistent shortage. Policies are designed, and measures are planned, to enhance the knowledge and expertise of new and established teachers, strengthen core subjects, increase the hours of teaching, reinforce the focus on the acquisition of knowledge and skills, provide special facilities for high achieving pupils and students, improve the choice of course for students and increase the transparency of educational performance. The challenge is to implement these measures in the context of the budgetary adjustments proposed by the Dutch Government following the economic crisis. Consequently, in the 2013 Europe 2020 Country-Specific Recommendations, the Netherlands was called on to protect expenditure in areas directly relevant for growth such as education, to maintain what has been reached and further improve excellence.

3. Investing in skills and qualifications

Investing in education and training in a context of economic crisis

General government expenditure on education as a share of GDP was 5.8% in 2011 compared to the EU average of 5.3%, with significantly higher levels of public expenditure per student than in other EU Member States.

As regards the study support system for students, the Netherlands plans the replacement of the current partly grant-based system in tertiary education with the introduction of a loan system. Savings resulting from this measure should be re-invested, especially with a view to increase the quality of education.

<u>Skills</u>

Due to a lower number of high achievers in secondary education, the high average of educational performance at the secondary level does not translate into top performance at the tertiary level and the average duration of tertiary study is longer than the EU average¹⁸.

To enhance the knowledge and expertise of teachers, the "Action Plan Teacher 2020" aims at keeping and upgrading the quality of teaching by creating positive career prospects, increasing the educational level of teachers, increasing the number of teachers holding a master degree, fostering self-commitment of teachers to constantly update their knowledge, as well as structurally introducing peer reviews. Concrete agreements have been established for 2012-2015 including, among others, scholarships for teachers and for promotion purposes¹⁹.

¹⁷ NL SWD 2013 Van der Steeg, M., Vermeer, N. and Lanser, D. (2011). Nederlandse Onderwijsprestaties in Perspectief. CPB Policy Brief 05.

¹⁸ NL SWD 2013 : Source: OCW (2011). Key Figures 2006-2010, Education, Culture and Science.

¹⁹ *Teaching 2020* a strong profession! http://cinop.brengtlerentotleven.nl/ECBO/ReferNet/docs/11-0315_Teacher_2020.pdf

The Netherlands has a national ICT strategy covering areas such as e-Government, infrastructure and broadband connectivity, ICT Security, e-Learning and ICT in schools. One of the initiatives is 'Kennisnet', a public educational organisation creating a platform to support and inspire Dutch primary, secondary and vocational institutions in the effective use of ICT, notably by informing them of the opportunities offered by ICT. 'Kennisnet' aims at removing barriers for and between schools and at encouraging interaction within the educational sector.

The Dutch government gave its support to setting up a comprehensive qualifications framework for the Netherlands (NLQF) in September 2011. A strong emphasis on the double character of the national qualifications system – where private and public providers interact and supplement each other – is an important defining feature of the NLQF. A NLQF coordination point is now working in line with these principles and the framework can be considered as having reached an early operational stage.

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

The early school leaving (ESL) rate in the Netherlands fell from 15.4% (2000) to 8.8% (2012), below the European average of 12.7%. Also pupils with a migrant background show lower drop-out rates than the EU-average. The national 2020 target of less than 8% seems realistic. Participation in early childhood education is at 99.6%.

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. Particularly noteworthy for the Netherlands is that the early school leaving rate is lower than the EU average especially for foreign-born pupils.



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



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

Success factors of the Dutch strategy to reduce ESL are the evidence-based and comprehensive approach (realised with the help of agreements between the central government, schools and local authorities), financial incentives to reduce ESL, and strong focus on obtaining correct and timely data: detailed information helps schools, regions and the ministry to target resources aimed at reducing ESL.

Joint action by professionals in schools in each region, municipalities and youth care workers has been vital in tackling the problem of ESL. In particular, the Netherlands has been divided into 39 Registration and Coordination Regions. These regions employ additional officers who keep in touch with 18-23 year old school

leavers without a basic qualification, and try to guide them back to school. In each of these regions the national government has made agreements with schools and municipalities, based on the specific problems that occur in each region. All regions have a "contact municipality" which coordinates notification and registration of early school leavers by school and which coordinates the agreement with the national government. The current ESL approach (2012-2015) involves two kinds of funding: EUR 58 million in the form of performance-related funding for schools and EUR 56 million in funding for the regional programs to prevent pupils leaving school early, based on the regional analysis. The results of the agreements and best practices per school are published online, which motivates and stimulates all parties involved. The regions which receive funding are also obliged to participate in monitoring and evaluation.

5. Encouraging participation in tertiary education and modernising higher education

The proportion of 30 to 34 year-olds with tertiary attainment has risen from 26.5% in 2000 to 42.3% in 2012. The increase has been achieved partly by encouraging students to complete their studies more quickly.



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

The sub-indicators show that the employment advantage for tertiary graduates is below EU average; however this is not due to a problem of performance but to the high employment rate of upper-secondary graduates.



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

With regard to the share of tertiary graduates in science and technology, the Netherlands traditionally scores below the EU average. Skill shortages, especially in engineering and technology related professions, are becoming an increasing concern and a potential bottleneck for growth. In reaction to these challenges, the government has recently announced its strategy 'Techniekpact'²⁰. Concrete measures for better adapting the educational system and the labour market to the changing requirements of the technology sector are currently being developed. Effective implementation of the strategy will be important in order to preserve and enhance the innovative capacity of high-tech companies in the Netherlands.

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http://www.rijksoverheid.nl/documenten-en-publicaties/convenanten/2013/05/13/nationaal-techniekpact-2020.html

As regards the student loan system, arguments presented by the government to introduce the new social lending system refer to better investment in education and research, sharing investments in education, accessible higher education for everyone who can and wants to study, encouragement of conscious study choice and more efficient functioning of the government administration. In the new system, students will have to fully finance their studies privately, but will be able to take loans from the government. Repayment of loans will depend on the student's income after graduation. Students with an underprivileged background (low-income groups) will be compensated by an additional grant. Moreover, the repayment conditions will be means-tested and the repayment period will take, at most, 20 years with a low interest rate. The impact on tertiary enrolment on the level of qualifications on graduation should be closely monitored²¹.

The Netherlands has an "Excellence Policy" in place: "Performance Agreements" are signed with all individual higher education institutions that link additional funding to meeting targets on education quality, study success and the profiling of education and research. This means that performance agreements are concluded with practically every university and institution of professional education to improve the quality of education, to increase the completion rate among students and to promote institutional profiling and greater differentiation of teaching programmes. Meeting the performance targets has an impact on funding.

6. Facilitating the transition from education to work

Wider access to higher education requires a good match between upper secondary vocational education (MBO) and higher professional education (HBO) and a high standard of education at MBO level. The policy to improve the quality of MBO education was laid down in the action plan 'Focusing on Skills' in 2011, in which the focus is on measures to improve the quality of vocational education, reduce the number of qualifications and courses, simplify the system of vocational and adult education and improve the management and operations of schools. This action plan sets out how teachers and principals can be further 'professionalised' with a view to achieving optimum quality within the education sector as a whole. It establishes the government's objectives for the years ahead and presents a longer-term vision for the period to 2020.

The youth unemployment rate in the Netherlands is far below the European average (9.5% in 2012, compared to 22.8%). However, there was a relatively sharp increase in youth unemployment (1.9 p.p.) between 2011 and 2012, and youth unemployment is high compared to the overall unemployment rate of the working age population. The government has earmarked an additional EUR 50 million to provide a boost for regional efforts to tackle youth unemployment and has launched School Ex 2.0, a programme intended to encourage young people in MBO to continue studying longer and to choose a course with greater relevance for the labour market. These measures will build on the positive experience gained with the Youth Unemployment Action Plan in 2009 and the methods and infrastructure developed by the regions at that time. The additional funds will be used to encourage young people in the regions to be in education and to help them in their search for work. The government has chosen a regional approach, where local municipalities along with schools, knowledge centres and the UWV (*Uitvoeringsinstituut Werknemersverzekeringen*, responsible for paying out benefits to the unemployed) cooperate to create job experience schemes, internships and to match companies looking for employees with potential candidates.

The government has also called on the social partners to promote the employment of young people, for example by providing sufficient places for traineeships and work placements. The government has also announced measures to facilitate the creation of work experience places and qualification files²², consisting of so called core tasks and work processes described in competences. From 1 January 2014, the tax credits that employers receive for providing work experience places will be replaced by a more targeted subsidy scheme, which will reduce the costs. The creation of qualification files and a number of other statutory duties of the Centres of Expertise for Vocational Education and Business will be centralised in the Foundation for Cooperation in Vocational Education, Training and the Labour Market (SBB).

7. Upgrading skills through lifelong learning

The Survey of Adult Skills (PIAAC²³) shows that Dutch adults (aged 16-65) have literacy and numeracy skills significantly above the EU average. A large share of the population (more than 40%) shows high problem-solving skills in technology rich (ICT) environments. The youngest generation (aged 16-24) scores better than the overall population in literacy (by 10 points, i.e. equivalent to skills usually acquired with 1 to 2 years of education).

On the one hand, the share of low-skilled adults is comparatively low – below 12% for literacy and around 13% for numeracy (19% and 24% at EU level). On the other hand, the gap between native and foreign-born adults in

The Netherlands Bureau for Economic Policy Analysis (CPB) did research on the possible effects of the system change. According to this research, the Ministry does not expect a major fall in attendance due to this new system (each year, 1,300 students less at higher school (HBO) and 900 college students less at the university).

http://www.s-bb.nl/qualifications-and-examinations.html

²³ 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).

both numeracy and literacy is large compared to the EU average (close to 50 points, i.e. equivalent to skills usually acquired with 7 years of education).

In addition, the participation rate of low-skilled adults in job-related training is one of the highest among EU countries. The difference in participation rates between the lowest- and the highest-skilled people is relatively small in the Netherlands: low-skilled people are 3 times less likely to participate in job-related learning compared to those who are high-skilled²⁴.

The participation of adults in lifelong learning in the Netherlands is close to double that of the current EU average $(16.5\% \text{ compared to } 9.0\% \text{ in } 2012)^{25}$. The Adult and Vocational Education Act contains measures to bring education more in line with the world of work. The centres of expertise on vocational education, training and the labour market form the link between vocational education and the business sector organisations. Organised by sector, their managing boards comprise representatives of employers and employees, and in most cases, educational institutions. Unsurprisingly, in 2010, 79% of enterprises provided vocational training to their staff, as against an EU average of $66\%^{26}$.

Municipalities are responsible for providing courses that meet the demand for adult education. The target groups include illiterate adults, immigrants and elderly people and also specific groups such as young mothers or the long-term unemployed. The municipalities buy in courses from the ROCs (regional training centre), including literacy courses, and report to the Ministry of Education, Culture and Science on their education policy. The Adult and Vocational Education Act identifies four types of courses: adult general secondary education; courses providing a broad basic education; courses in Dutch as a second language; courses aimed at fostering self-reliance. In line with the government's intention to stimulate adults with low literacy to participate in adult education, municipalities receive a yearly budget of EUR 53 million for courses in reading, writing and math skills. Besides this, the national government spends EUR 58 million on secondary general adult education (vavo)²⁷.

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

 ²⁵ Eurostat, LFS 2012
 ²⁶ Eurostat, CVTS 2011

²⁷ http://www.rijksoverheid.nl/onderwerpen/volwassenenonderwijs/onderwijs-voor-volwassenen)

Summary statistics on the headline target Annex 1.

Early leavers from education and training		OVE	RVI	EW		Sta	SUB- ndardi:	GROU zed le	PS / EU vel val	Javera ues	age Gra	(2012) aphic displa	S	SUB-INDICATORS / EU average (latest year available) Standardized level values Graphic display							
European Union (EU 28) EU Benchmark 10 % EU average (2009) 14.2 % EU average (2012) 12.7 % Evolution 2009/12 -1.5 p.p.	(%) 6007	2012 (%)	Position / EU benchmark (p.	Position / EU Average (p.p.)	Evolution 2009/2012 (p.p.)	Early leavers	Nativ e b orn	Foreign-born	Females	Males	Early leavers	Native-born Foreign-born Females	Early leavers	Employment disadvantage (difference low/medium educ)	Parental educ. and training (low)	Investment in prim-sec educ	Participation in VET (ISCED 3 level)	Particip. early childhood educ	Early leavers	Employment disavantage Prental educ. (low)	Invest. prim-sec educ. Participation in VET Particip. early educ.
BE Belgium	11.1	12.0	•	0	▲ 0.9	-1.5	-2.0	-2.0	-3.3	-1.2			-1.5	-4.9	0.8	7.4	13.1	5.3			
BG Bulgaria	14.7	12.5	•	0	▼ -2.2	-0.6	2.0	-17.3	4.4	-4.8	_		-0.6	-13.7	-6.6	-10.1	1.1	-7.4	_		
CZ Czech Republic	5.4	5.5	0	0	≈ 0.1	-13.7	-12.0	-23.5	-13.4	-14.1			-13.7	-20.8	-10.4	-10.3	13.3	-6.1			
DK Denmark	11.3	9.1	ightarrow	0	▼ -2.2	-6.9	-5.1	-10.4	-7.9	-6.8	-		-6.9	0.9	-2.7	12.4	-2.5	5.5			
DE Germany	11.1	10.5 p	•	0	▼ -0.6	-4.3	-4.9	-3.5	-2.6	-6.4	_		-4.3	-1.6	-7.8	-2.0	2.6	3.4			
EE Estonia	13.9	10.5	0	0	▼ -3.4	-4.3	-2.0	-17.3	-8.6	-1.9	_		-4.3	-4.8	-13.5	9.6	-9.3	-4.6			
IE Ireland	11.6	9.7	0	0	▼ -1.9	-5.8	-4.7	-9.0	-6.2	-6.2	-		-5.8	-1.5	-0.6	7.4	-9.5	7.1	-		
EL Greece	14.5	11.4	•	0	▼ -3.1	-2.6	-6.5	11.1	-4.2	-2.3	_		-2.6	17.6	4.6	(:)	-10.9	-20.7	-	_	
ES Spain	31.2	24.9	0	0	▼ -6.3	22.7	19.3	10.2	21.6	21.1			22.7	7.6	11.8	-2.1	-2.9	7.4		_	
FR France	12.2	11.6	0	0	▼ -0.6	-2.3	-1.6	-1.8	-2.6	-2.8	-		2.3	3.2	2.6	-4.3	-3.3	7.4	_		
HR Croatia	3.9	4.2	0	0	≈ 0.3	-16.1	-14.6	-17.3	-16.3	-16.5			-16.1	0.6	-1.2	-12.1	12.4	-25.1			
IT Italy	19.2	17.6	0	0	▼ -1.6	9.0	6.3	9.1	7.7	8.2	-		9.0	2.8	9.8	0.2	5.7	3.9	-	_	
CY Cyprus	11.7	11.4	•	0	≈ -0.3	-2.6	-6.9	-3.3	-8.8	2.0	_		-2.6	8.4	-1.9	14.5	-22.0	-9.2			
LV Latvia	13.9	10.5	0	0	▼ -3.4	-4.3	-2.0	-17.3	-10.6	-1.1	-		-4.3	5.5	-13.7	-1.7	-7.3	-0.7	-		
LT Lithuania	8.7	6.5	0	0	▼ -2.2	-11.8	-10.2	-17.3	-14.1	-10.9	-		-11.8	-12.1	-15.1	-9.9	-12.8	-10.1	-		
LU Luxembourg	7.7	8.1 p		0	≈ 0.4	-8.8	-8.9	-10.1	-12.1	-7.0	-		-8.8	13.8	-0.9	-9.0	6.5	2.5			
HU Hungary	11.2	11.5	•	0	≈ 0.3	-2.4	-0.4	-17.3	-0.7	-4.7	_		-2.4	-10.9	-3.8	-10.0	-14.1	1.3	_		
MT Malta	36.8	22.6	0	0	▼ -14.2	18.4	21.8	-17.3	14.5	19.1			18.4	-9.8	25.9	11.4	-6.7	7.4			
NL Netherlands	10.9	8.8 p		0	▼ -2.1	-7.5	-5.9	-9.0	-8.2	-7.8	-		-7.5	1.3	0.7	-2.8	11.0	7.0	-		_ = =
AT Austria	8.7	7.6	0	0	▼ -1.1	-9.8	-11.0	-5.3	-8.2	-11.3	-		-9.8	-4.9	-2.8	0.3	15.1	1.1			
PL Poland	5.3	5.7 p		0	≈ 0.4	-13.3	-11.6	-17.3	-16.5	-11.5			-13.3	-7.9	-10.3	-3.3	-1.2	-16.5			
PT Portugal	31.2	20.8	0	0	▼ -10.4	15.0	18.3	-3.6	7.3	18.5		-	15.0	16.1	24.6	7.5	-4.6	2.3			
RO Romania	16.6	17.4	0	0	▲ 0.8	8.6	11.4	-17.3	12.6	4.4	_		8.6	7.9	-1.7	-26.7	7.5	-12.5	-		
SI Slovenia	5.3	4.4	0	0	▼ -0.9	-15.8	-14.6	-24.1	-17.2	-15.2	-		-15.8	-4.1	-5.1	9.7	8.8	-0.4			
SK Slovakia	4.9	5.3	0	0	≈ 0.4	-14.1	-12.4	-17.3	-14.1	-14.3	-		-14.1	-24.7	-10.6	-13.8	12.0	-18.1			
FI Finland	9.9	8.9	ightarrow	0	▼ -1.0	-7.3	-5.7	-27.3	-6.4	-8.4	_	-	-7.3	-1.5	-10.1	5.5	11.3	-21.3		_	_
SE Sweden	7.0	7.5	ightarrow	0	≈ 0.5	-9.9	-9.6	-8.6	-10.4	-10.4			-9.9	0.0	-6.1	5.2	3.5	2.2		_	
UK United Kingdom	15.7	13.5		0	▼ -2.2	1.3	4.1	-9.0	3.1	-0.9			1.3	-1.6	-0.8	11.1	-8.4	4.1			

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

Legend:

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

Country position / benchmark and EU average \bigcirc

Country's evolution 2009/2012 + performance

Highest performers

Sub-indicators and standardized level values

For more information, please see Annex 2

Increase

Lowest performers

BELOW or EQUAL to the EU benchmark/average Decrease CLOSE to the EU benchmark/average (0.1 - 1 p.p.) ≈ Stable (+/- 0.5 p.p.) ABOVE the EU benchmark/average (> 1 p.p.)

Tertiary educational attainment							SUB-GROUPS / EU average (2012) Standardized level values Graphic display							SUB-INDICATORS / EU average (latest year available) Standardized level values Graphic display							
European Union (EU 28) EU Benchmark 40 % EU average (2009) 32.1 % EU average (2012) 35.7 % Evolution 2009/12 3.6 p.p.	2009 (%)	2012 (%)	Position / EU benchmark (p.p	Position / EU Average (p.p.)	Evolution 2009/2012 (p.p.)	Tertiary educ. attainment	Native-born	Foreign-born	Females	Males	Rarly leavers Native-born	Females Males	Tertiary educ. attainment	Completion rate at ISCED 5A	Upper sec. educ. attainment	Investment in tertiary educ.	Parental education & training (high)	Employment advantage (difference medium/high educ.)	Tertiary educ. attainment	Completion rate ISCED 5A Upp. sec. educ. attainment	Invest. tertiary educ. Parental educ. (high) Employment advantage
BE Belgium	42.0	43.9	ightarrow	0	▲ 1.9	8.1	9.8	0.2	9.3	5.9			8.1	1.0	-6.1	4.3	6.6	2.3			
BG Bulgaria	27.9	26.9	•	\mathbf{O}	▼ -1.0	-8.9	-9.5	(:)	-5.5	-11.9			-8.9	(:)	12.7	-6.4	6.1	9.3			=
CZ Czech Republic	17.5	25.6	0	\mathbf{O}	▲ 8.1	-10.2	-10.7	-1.8	-9.4	-9.9			-10.2	7.1	15.0	-7.4	-9.8	-7.4			
DK Denmark	40.7	43.0		0	2 .3	7.2	6.9	2.3	10.9	2.3		-	7.2	12.1	0.0	14.9	14.3	-6.7	_		
DE Germany	29.4	31.9	0	•	2 .5	-3.9	-3.2	-2.2	-6.2	-0.6			-3.9	7.1	4.2	(:)	2.6	-2.5	_		
EE Estonia	35.9	39.1	0	0	▲ 3.2	3.3	2.7	1.3	9.0	-3.8		_	3.3	(:)	3.3	-4.3	25.8	-3.8	_		_ 🗖 _
IE Ireland	48.9	51.1	•	0	▲ 2.2	15.3	13.0	8.0	15.5	13.3			15.3	(:)	-1.9	(:)	7.1	10.7			
EL Greece	26.5	30.9	•	•	4 .4	-4.9	-2.5	-8.3	-5.0	-4.3			-4.9	(:)	8.5	(:)	-4.7	13.3	-		=
ES Spain	39.4	40.1			▲ 0.7	4.3	8.8	-3.8	4.6	3.7			4.3	10.1	-21.3	9.2	-3.1	6.3	_		
FR France	43.2	43.6			≈ 0.4	7.8	8.0	1.6	7.5	7.4			7.8	(:)	-6.4	0.5	0.4	-1.1	_		
HR Croatia	20.6	23.7	0	0	▲ 3.1	-12.1	-12.3	-4.0	-9.7	-13.1			-12.1	(:)	22.0	-6.5	-2.5	17.1	-	_	=
IT Italy	19.0	21.7	0		2 .7	-14.1	-12.0	-8.0	-11.9	-15.5			-14.1	(:)	5.6	-7.2	-9.0	-2.5			
CY Cyprus	45.0	49.9		0	4 .9	14.1	19.6	2.4	13.4	12.9			14.1	(:)	-5.8	-6.0	1.8	-4.4			
LV Latvia	30.1	37.0	0	0	▲ 6.9	1.2	0.8	-0.5	7.0	-6.0			1.2	(:)	6.1	-5.5	5.9	19.8	_		■
LT Lithuania	40.6	48.7	0	0	▲ 8.1	12.9	11.5	(:)	14.2	9.8			12.9	(:)	9.2	2.2	11.5	25.5		_	
LU Luxembourg	46.6	49.6		0	3 .0	13.8	5.1	8.1	7.7	20.2			13.8	(:)	-4.8	(:)	3.4	9.9			=
HU Hungary	23.9	29.9	0	0	▲ 6.0	-5.9	-6.6	1.3	-3.9	-7.4			-5.9	-20.2	9.4	(:)	-2.8	6.1	-		
MT Malta	21.0	22.4			1 .4	-13.4	-14.8	1.8	-13.9	-11.7			-13.4	(:)	-7.0	-6.3	-15.0	-2.5			
NL Netherlands	40.5	42.3 p		0	▲ 1.8	6.5	7.6	-0.1	4.2	8.9		_	6.5	4.0	-2.8	3.5	3.6	-9.1	-		
AT Austria	23.5	26.3		0	2 .8	-9.5	-9.5	-4.8	-11.6	-6.0			-9.5	-3.0	14.3	2.5	-7.8	-5.9			
PL Poland	32.8	39.1 p	0	0	▲ 6.3	3.3	2.5	(:)	5.6	0.3			3.3	-6.1	9.7	6.1	-5.4	15.4	_		
PT Portugal	21.1	27.2	0	0	▲ 6.1	-8.6	-8.6	-3.5	-8.6	-7.8			-8.6	-1.0	-11.4	0.8	-8.4	-2.1	-		
RO Romania	16.8	21.8	0	•	▲ 5.0	-14.0	-14.4	(:)	-14.6	-11.9			-14.0	(:)	5.1	-12.9	-12.0	11.2			
SI Slovenia	31.6	39.2	0	\bigcirc	▲ 7.6	3.4	4.7	-7.5	8.3	-2.3			3.4	(:)	15.8	10.0	-1.4	10.3		_	
SK Slovakia	17.6	23.7		0	▲ 6.1	-12.1	-12.5	(:)	-10.2	-13.1			-12.1	3.0	11.3	-10.6	-6.4	-8.2			
FI Finland	45.9	45.8	•	\circ	≈ -0.1	10.0	10.3	0.0	13.3	5.5			10.0	8.1	15.7	27.7	18.3	-1.3			
SE Sweden	43.9	47.9		ightarrow	4 .0	12.1	12.3	4.3	11.9	11.6			12.1	-20.2	6.3	19.4	17.4	-11.8			
UK United Kingdom	41.5	47.1	\circ	\circ	▲ 5.6	11.3	7.7	8.0	8.8	13.3			11.3	0.0	-8.2	4.6	12.1	-9.1	-		

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

Legend:

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

Country position / benchmark and EU average

 \bigcirc ABOVE or EQUAL to the EU benchmark/average ō

CLOSE to the EU benchmark/average (- 1/<0 p.p.)

 \bigcirc BELOW the EU benchmark/average (< -1 p.p.)



Increase ≈ Stable (+/- 0.5 p.p.) Decrease

▼

Highest performers Lowest performers

Sub-indicators and standardized level values For more information, please see Annex 2

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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-groups²⁸ and sub-indicators are compared to the corresponding EU averages²⁹ 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 education³⁰.

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 education³¹.

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).

³¹ Ibid.

²⁸

⁸ 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.

²⁹ 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.

³⁰ 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.