



# Education and Training Monitor 2016

# Lithuania

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

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

*The manuscript was completed on 15 September 2016.*

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

## 1. Key indicators

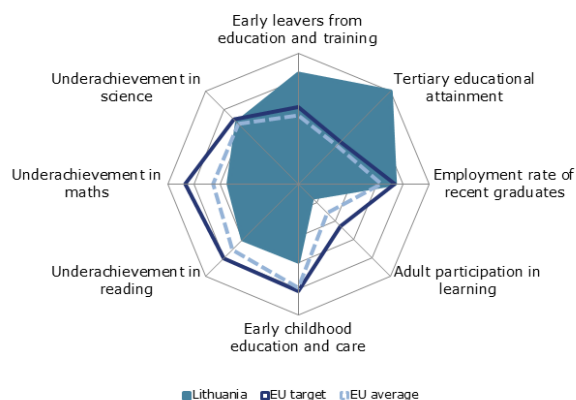
		Lithuania		EU average		
		2012	2015	2012	2015	
<b>ET 2020 benchmarks</b>						
Early leavers from education and training (age 18-24)	Total	6.5%	5.5%	12.7%	11.0%	
Tertiary educational attainment (age 30-34)	Total	48.6%	57.6%	36.0%	38.7%	
Early childhood education and care (ECEC) (from age 4 to starting age of compulsory education)		84.2% <sup>11</sup>	88.8% <sup>14</sup>	93.2% <sup>11</sup>	94.3% <sup>14</sup>	
Proportion of 15 year-olds with underachievement in:	Reading	21.2%	:	17.8%	:	
	Maths	26.0%	:	22.1%	:	
	Science	16.1%	:	16.6%	:	
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-8 (total)	75.6%	82.1%	75.9%	76.9%	
Adult participation in lifelong learning (age 25-64)	ISCED 0-8 (total)	5.4%	5.8%	9.2%	10.7%	
<b>Other contextual indicators</b>						
Education investment	Public expenditure on education as a percentage of GDP	5.8%	5.4% <sup>14</sup>	5.0%	4.9% <sup>14,P</sup>	
	Expenditure on public and private institutions per student in € PPS	ISCED 1-2	€3.569	€1.795 <sup>13</sup>	:	: <sup>13</sup>
		ISCED 3-4	€2.386	€2.226 <sup>13</sup>	:	: <sup>13</sup>
ISCED 5-8		€6.230	€3.320 <sup>13</sup>	:	: <sup>13</sup>	
Early leavers from education and training (age 18-24)	Native-born	6.4%	5.5%	11.6%	10.1%	
	Foreign-born	:	:	24.9%	19.0%	
Tertiary educational attainment (age 30-34)	Native-born	48.2%	57.6%	36.7%	39.4%	
	Foreign-born	:	:	33.8%	36.4%	
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-4	61.3%	72.2%	69.7%	70.8%	
	ISCED 5-8	85.3%	88.5%	81.5%	81.9%	
Learning mobility	Inbound graduates mobility (bachelor)	1.2% <sup>13</sup>	1.5% <sup>14</sup>	5.5% <sup>13</sup>	5.9% <sup>14</sup>	
	Inbound graduates mobility (master)	2.2% <sup>13</sup>	3.3% <sup>14</sup>	13.6% <sup>13</sup>	13.9% <sup>14</sup>	

Sources: Eurostat (see section 9 for more details); OECD (PISA).

Notes: data refer to weighted EU averages, covering different numbers of Member States depending on the source; b = break in time series, d = definition differs, p = provisional, u = low reliability, 11 = 2011, 13 = 2013, 14 = 2014.

Further information can be found in the relevant section of Volume 1 ([ec.europa.eu/education/monitor](http://ec.europa.eu/education/monitor)).

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



Source: DG Education and Culture calculations, based on data from Eurostat (LFS 2015) and OECD (PISA 2012).

Note: all scores are set between a maximum (the strongest performers, represented by the outer ring) and a minimum (the weakest performers, represented by the centre of the figure).

## 2. Highlights

- Lithuania is reforming the teacher profession to improve its attractiveness, the quality of initial teacher training and continuous professional development.
- Lithuania has a very low early school leaving rate, but pupils' reading and maths skills are below the EU average. According to national tests, almost one fifth of 16-year-olds lack basic knowledge and skills.
- The participation rate in early childhood education and care is low when compared to the EU average, and there are significant disparities between urban and rural areas. The Government has taken several measures to increase participation rates and quality.
- Lithuania has the highest tertiary educational attainment rate in the EU. The quality and innovation outcomes of higher education, in particular the quality of teaching and provision of soft skills, and practical training in higher education remain challenges.
- Only a small percentage of adults participate in lifelong learning. As vocational education and training remains an unattractive option for students and their parents, there is a need to improve its quality and cooperation with companies.

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

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

Strengthen investment in human capital and address skills shortages, by improving the labour market relevance of education, raising the quality of teaching and adult learning.

## 3. Investing in education to address demographic and skill challenges

General government expenditure on education as a percentage of GDP steadily decreased in recent years from 6.1 % in 2008 to 5.4 % in 2014 (compared to an EU average of 4.9 %).<sup>1</sup> At the same time, general government expenditure on education as a share of total public expenditure was 12.8 % in 2014, which is slightly higher than in 2008 when it was 12.1 %.<sup>2</sup>

The employment rate for medium-qualified workers in 2015 was somewhat below the EU average (70.8 % in 2015 compared to 73.9 %) and that for low-qualified was significantly lower (45 % compared to 53.2 %). The employment rate for highly qualified people on the other hand was above the EU average (89.6 % compared to 84.1 %).<sup>3</sup>

Lithuania is among the countries that has witnessed considerable emigration in recent years. In 2015, the number of people emigrating was twice that of those immigrating (44 500 compared to 22 100, Statistics Lithuania 2015a).

<sup>1</sup> Source: Eurostat, General government expenditure by function (COFOG) database.

<sup>2</sup> Source: Eurostat, General government expenditure on education as a share of total public expenditure.

<sup>3</sup> Source: Eurostat, Labour Force Survey, online code *lfsa\_ergaed*. Low-qualified = ISCED 0-2; medium-qualified = ISCED 3-4; highly qualified = ISCED 5-8.

At the beginning of 2016, following teacher trade unions strikes, the salaries of teachers were increased for the poorest earners, by raising the minimum coefficient<sup>4</sup> (Ministry of Education and Science 2016d). The Ministry of Education and Science prepared a 5-year programme to increase teacher salaries. According to this programme, the salaries of teachers in early childhood education and care (ECEC) must be increased by 32.6 % compared with 2016 salaries until 2020 (Ministry of Education and Science 2016c). The programme has been presented to the Government for approval.

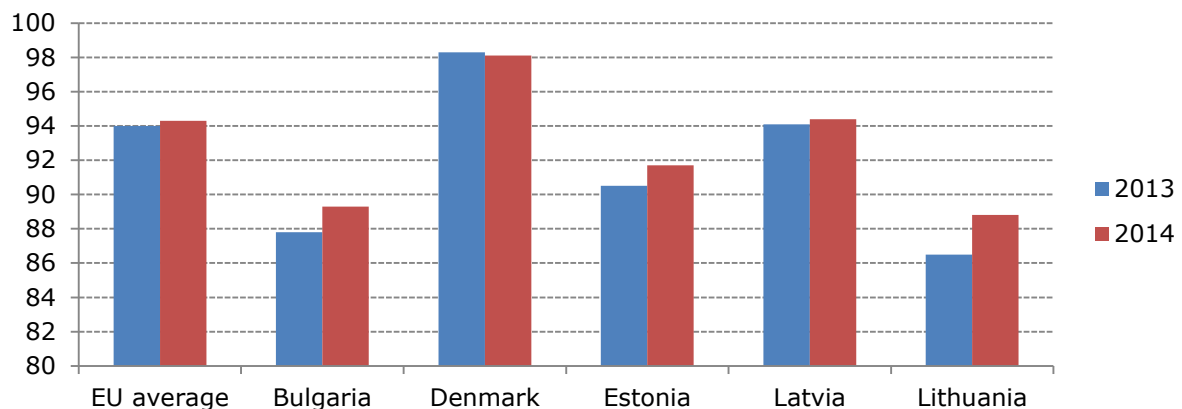
On 1 June 2016 the national human resources monitoring framework plan came into force. This framework lays down the purpose and coordination of the monitoring system, and the institutions responsible. The monitoring system covers all levels of education, including the observation of the labour market outcomes of education graduates and forecasting of future skills needs.

## 4. Tackling inequalities and promoting inclusion

The early school leaving rate remains well below the EU average (5.5 % in 2015 compared with the EU average of 11 %)<sup>5</sup> and has been declining since 2008 when it was 7.5 %. There is a gender gap — the rate is 6.9 % for boys compared with 4 % for girls — but the gap is still one of the lowest rates in the EU.

ECEC participation is low compared to other EU countries.<sup>6</sup> The participation of four-year-olds in ECEC was 86.5 % in 2013, noticeably below the EU average of 93.1 %.<sup>7</sup> The enrolment in ECEC differs greatly between urban and rural areas (97.4 % and 44.5 % respectively for children aged 3-6 in 2014, compared to the total number of children of a particular age) (Statistics Lithuania 2014). One reason for this is a lack of appropriate transport services (Education supply centre 2015).

**Figure 2. Participation in early childhood education and care (2013-2014)**



Source: Eurostat. Online data code: *educ\_uoe\_enra10*.

The most recent results of the Programme for International Student Assessment (PISA 2012) showed that the proportion of low achievers in reading and maths in Lithuania was above the EU-average. The figure was particularly high for boys and for children in rural areas (OECD

<sup>4</sup> In Lithuania, teacher salaries have to be calculated by applying coefficients which vary depending on experience and teaching category. They were increased by 7 % for teachers in early childhood education and care; by 5 % for young teachers, who still do not fall into any pedagogical category; by 3 % on average for other educators; and by 2.5 % for pedagogical employees such as special pedagogues, psychologists and social pedagogues.

<sup>5</sup> Source: Eurostat.

<sup>6</sup> Early childhood education and care covers children from the age of four up to the starting age of compulsory education, which is seven years.

<sup>7</sup> Evidence from the PIRLS survey (IEA 2012) shows that students who have spent longer periods of time in early childhood education and care are better prepared to enter and succeed in primary education.

2013b). The 2015 results of the national test PUPP<sup>8</sup> organised by the National Examination Centre indicated that the proportion of low achievers is 15-20 % and more, i.e. almost one fifth of 10th graders (16-year-olds) lack basic knowledge and skills.<sup>9</sup> The national tests also showed that 4th graders (10-year-olds) have problems in reading and writing and that these problems in mathematics become evident in 8th grade (14-year-olds). Trends over the last four years have been similar (Pukenė R. 2016).

The Government took several measures to increase participation in, and the quality of, early childhood education and care. Pre-primary education became compulsory for all six-year-olds from September 2016. The 'Description of the Achievements of Pre-school Children' was prepared in 2015 in order to renew and improve pre-school education and its curricula (Eurydice 2015). In 2015, 452 new pre-primary groups were founded and it is planned to create over 80 such groups in 2016.

Lithuania intends to increase the diversity and availability of non-formal education for children.<sup>10</sup> In 2015 and 2016, EUR 3.24 million and EUR 9.72 million respectively were allocated to such activities according to the 'basket' principle whereby money follows the pupil (Lithuanian Government 2016b).

In order to improve pupils' writing and reading skills, new programmes for Lithuanian Language Primary Education and Lithuanian Language and Literature Basic Education were approved in January 2016 by the Ministry of Science and Education.<sup>11</sup> Standardised instruments were created and offered to schools to enable them to compare their pupils to pupils across the country, and to receive a detailed analysis of the results of each child. In 2017, a national system for evaluating school students' learning outcomes in general education will be fully rolled out.

It is also intended to gradually reform special education and social institutions with the aim of reducing the number of children educated in special institutions and of creating new models.

## 5. Modernising school education

Reforming the teaching profession is one of the main challenges in Lithuania. There is a need to:

- strengthen the overall quality of teaching (to tackle the low performance in PISA and national tests);
- make the teaching profession attractive to young talented people (due to the low numbers of candidates for initial teacher training); and
- tackle potential teacher shortages in science subjects (Lithuania has the oldest teaching community in mathematics and physics) while at the same time dealing with the overall surplus of teachers (see Box 2 for details).

The 'Concept of Good School' was approved in December 2015. It serves as a guideline to schools in their development and improvement of education quality. The 'Description of Primary, Lower and Upper Secondary Education Programmes' document embodies the agreements on education objectives and learning outcomes of the national education community. The

<sup>8</sup> Pagrindinio ugdymo pasiekimų patikrinimas (Test of Basic Education Learning Achievements). It is organised annually and evaluates learning achievements in lower secondary education and is obligatory for all those who wish to acquire a certificate of basic education.

<sup>9</sup> There were big differences in the results of different schools and of different counties. Girls performed much better than boys, the results of students in urban areas were much better than in rural, and students from gymnasiums performed better than those from basic, secondary or VET schools.

<sup>10</sup> Non-formal children's education is defined in the Law on Education: ([http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc\\_l?p\\_id=407836](http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=407836)). Non-formal education — education whose programmes are varied and geared to satisfying educational needs, providing in-service training and obtaining an additional competency, with the exception of formal education programmes. The purpose of non-formal education of children is to satisfy learners' cognition, development and self-expression needs, and to help them become active members of society.

<sup>11</sup> <http://www.upc.smm.lt/naujienos/lituanistai/programa.php>.

implementation of this document will facilitate the systematic development of teachers' qualification and ensure the creation of a modern educational environment (Ministry of Education and Science 2015b).

In 2015 Lithuania took steps to improve the system of final examination and evaluation of learning achievements at upper secondary level. As from the 2017/2018 school year students will be offered the choice between the *Brandos darbas* ('Matura project') and one of the final examinations. The 'Matura project' will enable key and subject-specific competencies, creativity and responsibility to be evaluated, and will stimulate analytical thinking (Ministry of Education and Science 2016a).

Lithuania plans to establish 10 STEAM (Science, Technology, Engineering, the Arts and Mathematics)<sup>12</sup> education centres with the support of ESF money. The aim is to foster a culture of innovation in education and to respond to local needs. The decision to include the arts is based on an analysis of best practices in foreign countries (Kaunaitė et al. 2015). Partnership between municipalities, science and business is necessary for creating STEAM centres (Ministry of Education and Science 2016b).

## Box 2: Making the teaching profession more attractive

### Main challenges:

- The teacher population is ageing. In primary school, 37.1 % of all teachers are older than 50; in secondary school the proportion is 42.4 %. At the same time, only about 10 % of graduates from pedagogical studies enter the profession. Older teachers do not want to retire because pensions are low and the teaching profession is unattractive to students. Teacher salaries are the lowest in the EU, when compared with GDP per capita (Eurydice 2015).<sup>13</sup> This could result in future shortages of teachers, for example in physics and chemistry (MOSTA 2015, Lithuanian Education Council 2015 a).
- The student-teacher ratio is low for demographic reasons (OECD 2013a). At secondary level there are fewer than eight students per teacher. A review of regional education indicates that the proportion of high quality teachers in large general education schools is considerably greater than in small schools (Ministry of Education and Science 2015c).
- Obligatory teaching practice in schools during teachers' initial training is inadequate, and there is no formal induction programme for newly qualified teachers. Innovative teaching methods remain underutilised, and there are limited rewards for good quality teaching (Nacionalinis egzaminų centras, 2014).
- The current teacher attestation system does not encourage teachers to improve their qualifications, because teachers are not obliged to repeatedly demonstrate their ability in the acquired qualification category (Lithuanian Education Council 2015). There are large discrepancies in the funding of teacher qualification development with some municipalities receiving three times as much as others.
- Most teachers indicate that they need special knowledge to work with children who have special needs and with those who lack the motivation to learn (Ministry of Education and Science 2014). When assessing preparedness for working life, young teachers rate their theoretical knowledge of a particular subject as very good. However, they feel they lack pedagogical competencies, such as the ability to individualise teaching and differentiate education (Ministry of Education and Science 2015a).

### Government measures to improve the attractiveness of the teaching profession:

- *Additional funds for teachers:* The Government has raised salaries for novice teacher, and allocated funding for early retirement compensation in order to create more

<sup>12</sup> STEAM aims to foster a culture of innovation and creativity in education. The arts and design component of STEAM is intended as an interdisciplinary creative process which links creativity, technologies and management.

<sup>13</sup> The basic gross statutory salary of teachers in lower secondary education in Lithuania as a share of GDP per capita was the lowest in the EU in 2014/2015 (minimum salary: 32.3 %, maximum salary: 59.4 %). Between 2009 and 2014, the minimum basic statutory salary of teachers was frozen in real terms.

- vacancies and provide more employment opportunities for young teachers.
- *Support for talented student teachers:* A teacher education scholarship has been created to support the acquisition of teaching qualifications targeted at students who have demonstrating good academic achievement.
  - *Measures to improve the competencies and qualifications of teaching staff:* In 2015, a new set of requirements for initial teacher education were included in the Descriptor of the Study Field of Education and Training. The requirements will be compulsory for all teacher training institutions in higher education from 2017.
  - *Measures to attract graduates to the teaching profession:* A business-initiated programme 'I choose to teach' is being implemented to attract recent university graduates from different disciplines to work in schools.
  - *Initiatives to support young teachers:* A mentoring programme for teachers is being set up.

These measures are comprehensive as they aim to increase both the attractiveness of the teaching profession to young people as well as improve the employment and training conditions for current teachers. The measures are supported by the European Structural Funds. A particular challenge will be to handle disparities between rural and urban areas.

## 6. Modernising higher education

Lithuania's tertiary education attainment rate among 30-34 year olds is the highest in the EU. It increased yet further in 2015 from 51.3 % in 2013 to 57.6 % (compared with an EU average of 38.7 %). However, there is a gender gap — significantly more women (68.4 %) than men (47.2 %) possess a tertiary attainment certificate.

There are weaknesses in the quality and innovation outcomes of higher education. Low salaries, complicated and bureaucratic procurement procedures and language barriers make it difficult to attract foreign experts and steer local talent into academia. Little use is made of innovative teaching methods and low salaries and a high workload affect teaching quality (Aleksandraviciute 2014). There is no systematic development of the competencies of teaching staff (Pauliukaitė et al. 2015a).

Although employment for recent higher education graduates was above the EU average in 2015 (88.5 % compared with 81.9 %),<sup>14</sup> Lithuania's employers report problems in finding job candidates with the necessary or matching skills (Eurofound 2013). In particular, there are significant shortages in the ICT sector, transport and logistics, manufacturing and the health care sector (European Commission 2014). Employers also report that graduates lack soft skills such as critical thinking, problem solving and teamwork (Pauliukaitė 2015b).

A series of measures has been taken recently to improve the quality of higher education and its relevance to the labour market. On 1 October 2015 the Research and Higher Education Monitoring and Analysis Centre (MOSTA) presented the results of its nationwide graduate tracking research. This study shows whether graduates are employed in the first year after finishing their studies, where they are employed and what their salaries are (MOSTA 2015). The 2015 regulation<sup>15</sup> lays down that only graduates who have successfully passed the national mathematics final exam in schools are eligible to receive a government-funded place.

Parliament adopted the new law on higher education and research on 29 June 2016. The law lays down minimum admission standards for all universities and compulsory pre-entry career guidance. Furthermore, it provides for more cooperation on curriculum development with social partners and the expansion of work-based learning opportunities in tertiary education. New pathways from professionally-oriented programmes to traditional master's programmes will be opened up. 2016 will probably see the launch of calls for proposals for improving the qualifications of higher education lecturers.

<sup>14</sup> People aged 20-34 years old having graduated 1-3 years before the reference year.

<sup>15</sup> <https://www.e-tar.lt/portal/en/legalAct/25381bf045a611e5a38cd6cdb94b0c51>.



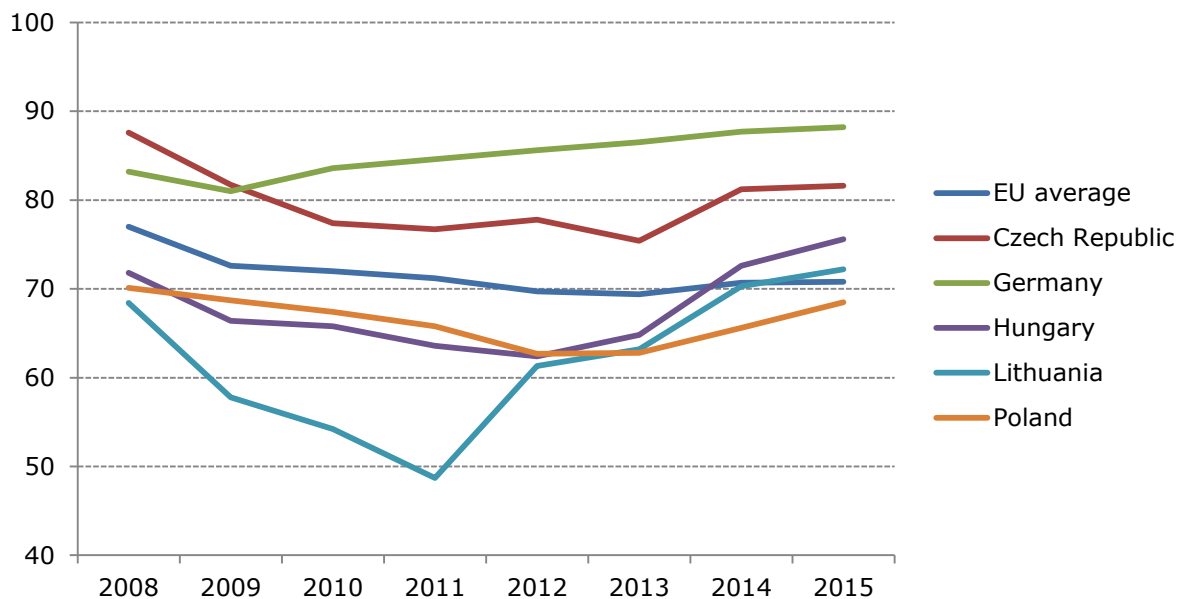
## 7. Modernising vocational education and training and promoting adult learning

While the total number of students admitted to VET has increased from 20 000 in the 2011-2012 school year to 23 000 in 2014-2015<sup>16</sup> (Statistics Lithuania 2015b), the proportion of upper secondary<sup>17</sup> VET students in Lithuania has remained low and decreased yet further in 2014 to 26.7 % from 27.6 % in 2013. Despite the relatively low national early school leaving rate, national statistics show that the proportion of students who drop out of VET is high (Qualifications and Vocational Education and Training Development Centre 2014).

The employment of recent upper secondary graduates<sup>18</sup> is returning to pre-crisis levels (72.2 % in 2015 compared to an EU average of 70.8 % in 2015 and 48.7 % in 2011). The employment rate for recent VET graduates is also quite strong, standing at 75.6 % compared to an EU average of 73 % in 2015. By comparison, the employment rate for recent general education graduates with an upper secondary and post-secondary non-tertiary qualification is 67.2 % while that for recent higher education graduates is 88.5 %.

Despite a small increase in participation in adult learning compared to 2014, the rate remains low (5.8 % compared with the EU average of 10.7 % in 2015). Recent results from the OECD survey on adult skills (PIAAC) show that adults in Lithuania have average proficiency in literacy, above-average proficiency in numeracy and below-average proficiency in problem solving in technology-rich environments compared with adults in participating OECD countries. Proficiency in literacy among young adults aged 16-24 in Lithuania is higher than that for the total adult population. They have above-average proficiency compared with young adults in participating OECD countries (OECD 2016).

**Figure 3. Evolution of the employment rate of upper secondary graduates (ISCED 3-4)**



Source: European Commission elaboration on Eurostat data. Online data code: *edat\_ifse\_24*.

Measures to improve the labour-market relevance of VET include adopting 17 sectoral qualifications standards and setting up modular VET programmes in accordance with these

<sup>16</sup> The number of students admitted to higher education in the same period has been steadily decreasing, i.e. in universities it decreased from 33,400 in 2011-2012 to 29,700 in 2014-2015 and in colleges it decreased from 16,400 to 13,600 in the same period.

<sup>17</sup> ISCED level 3.

<sup>18</sup> People aged 20-34 who left upper secondary and post-secondary non-tertiary education (levels 3 and 4) 1-3 years before the reference year.

standards, which will be implemented up to 2022. An action plan for developing and implementing apprenticeships will be prepared at the end of 2016. The provision of counselling and guidance services in real and virtual environments will be developed further.

The main aims of adult education development in the period 2016-2023 are to create a sustainable adult education system and to adapt lifelong learning to the needs of the national economy and society. A methodology to finance non-formal adult education and the long-term programme for developing non-formal adult education will provide the basis for further improvements in the field. The Government also announced that it will be amending the law on non-formal adult education and continuing training (Lithuanian Government 2016a, 2016b).

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## 9. Annex. Key indicator sources

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

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