



Education and Training Monitor 2016

Portugal

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)

1. Key indicators

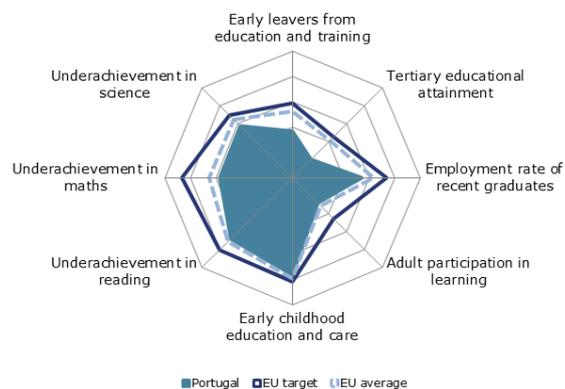
		Portugal		EU average		
		2012	2015	2012	2015	
ET 2020 benchmarks						
Early leavers from education and training (age 18-24)	Total	20.5%	13.7%	12.7%	11.0%	
Tertiary educational attainment (age 30-34)	Total	27.8%	31.9%	36.0%	38.7%	
Early childhood education and care (ECEC) (from age 4 to starting age of compulsory education)		93.8% ¹¹	93.5% ¹⁴	93.2% ¹¹	94.3% ¹⁴	
Proportion of 15 year-olds with underachievement in:	Reading	18.8%	:	17.8%	:	
	Maths	24.9%	:	22.1%	:	
	Science	19.0%	:	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)	67.5%	72.2%	75.9%	76.9%	
Adult participation in lifelong learning (age 25-64)	ISCED 0-8 (total)	10.5%	9.7%	9.2%	10.7%	
Other contextual indicators						
Education investment	Public expenditure on education as a percentage of GDP	6.2%	6.2% ¹⁴	5.0%	4.9% ^{14,P}	
	Expenditure on public and private institutions per student in € PPS	ISCED 1-2	€5.628	€6.081 ¹³	:	: ¹³
		ISCED 3-4	€6.946	€7.852 ¹³	:	: ¹³
ISCED 5-8		€7.444 ^d	€8.302 ¹³	:	: ¹³	
Early leavers from education and training (age 18-24)	Native-born	20.5%	13.5%	11.6%	10.1%	
	Foreign-born	20.0%	16.2%	24.9%	19.0%	
Tertiary educational attainment (age 30-34)	Native-born	28.4%	32.0%	36.7%	39.4%	
	Foreign-born	23.0%	31.8%	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	65.4%	68.6%	69.7%	70.8%	
	ISCED 5-8	69.9%	75.5%	81.5%	81.9%	
Learning mobility	Inbound graduates mobility (bachelor)	1.7% ¹³	1.9% ¹⁴	5.5% ¹³	5.9% ¹⁴	
	Inbound graduates mobility (master)	5.5% ¹³	6.7% ¹⁴	13.6% ¹³	13.9% ¹⁴	

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).

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

- The Portuguese Government has announced a series of measures to improve equity in education and fight school failure.
- The 2016 budget for education does not provide for significant increases from the previous year: it is envisaged that financial support for the reforms will come from increased expenditure efficiency and a decline in grade repetition.
- Citizenship and intercultural education are becoming more relevant in the school curricula and the integration of migrants into the education system is being strengthened.
- The downward trend in university enrolment, together with the high rate of highly qualified Portuguese nationals migrating to other European countries, is aggravating the country's demographic crisis and could hamper its competitiveness.
- The new higher education technical vocational courses are raising enrolment in polytechnic institutes and opening up new avenues of cooperation with the business sector.

3. Investing in education to address demographic and skill challenges

General government expenditure on education as a proportion of GDP remained unchanged at 6.2 % from 2012 to 2014.¹ GDP increased during the same period but remains below its 2011 level. Education expenditure as a proportion of total general government expenditure fell by 0.5 percentage point (pp.) to 12 % from 2013 to 2014.

During the past mandate, the Government took a number of measures to increase the efficiency of spending on education (European Commission 2015a). These included rationalising the schools network, reducing the number of teachers not dedicated to teaching activities and introducing a new funding formula for schools that includes performance criteria.

The Government in office since December 2015 has proposed an ambitious plan to foster social equality in education and improve students' performance. However, the 2016 budget for basic and secondary education will be 4.2 % lower than in 2015². The resources needed to foster equality and improve students' performance would be provided by the savings from reducing the costly rate of grade repetition and school failure. The plan provides for measures such as expanding public provision of pre-school education, reducing the number of students per class, increasing tutoring and school opening times, and increasing support to socially vulnerable families. The budget allocated to the latter (in the form of books, school meals, family allocations and scholarships) will increase by 31.1 % and the budget dedicated to pre-school education will increase by 0.8 %. Regarding the financial allocation to private schools (*contratos de associação*), the Government has announced it will stop financing these in areas serviced by public schools.

Expenditure on higher education in the 2016 budget is increased by 2.6 %³ compared to the 2015 budget. The financial allocation to universities and polytechnic institutes will rise by around 3 % while scholarships will see an increase of around 15 %. The budgetary plan announces a modernisation and diversification plan for higher education that aims to expand higher education institutions' capacity to attract new funds and diversify existing resources. The plan also encourages the creation of consortia to allow collaborative use of resources and foster teachers' mobility in order to eventually improve financial efficiency.

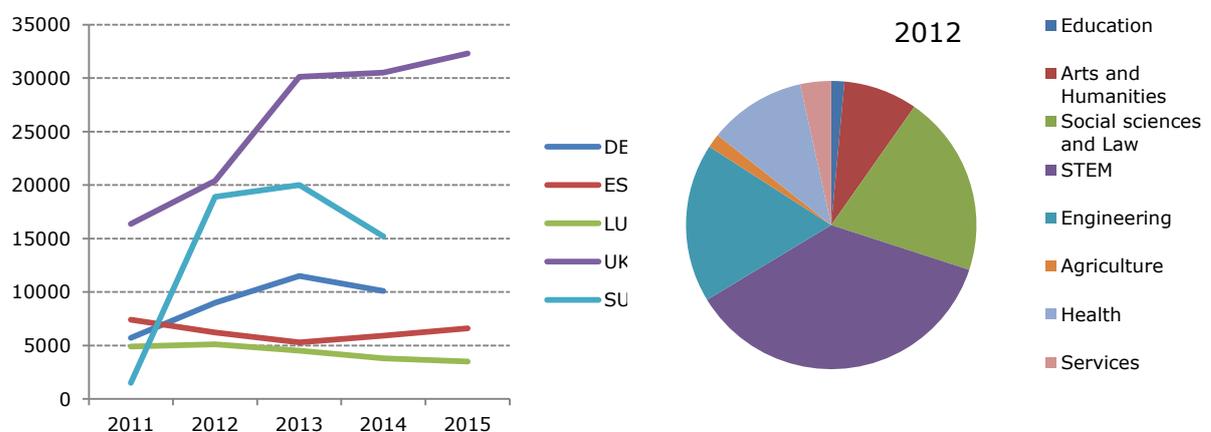
¹ Source: Eurostat, General government expenditure by function (COFOG) database.

² Source: Orçamento do Estado 2016 'Ensino Básico e Secundário a Administração Escolar'.

³ Source: Orçamento do Estado 2016 'Ciência, tecnologia e Ensino Superior'.

Portugal is one of the European countries with the highest rate of highly qualified individuals who emigrate (11 %). From 2001 to 2011, the proportion of Portuguese citizens with a tertiary education degree leaving the country increased by 87.5 %.⁴ The number of highly qualified emigrants increased further by 40 000 between 2012 and 2014. 63.1 % of the highly qualified⁵ Portuguese nationals registered as residents in other European countries emigrated between 2011 and 2014. The main reasons for emigrating are the low employment rate in Portugal during the economic crisis, low domestic salary levels,⁶ insufficient opportunity to adequately use their skills in the national working environment, and limited career prospects at home. Almost 20 % of the highly qualified Portuguese emigrants estimate their time abroad will last 6 to 10 years and 43 % assume it will last over 10 years (Rui Gomes 2016). If not compensated by inflows of equally qualified people, this 'brain drain' could hinder Portugal's competitiveness.

Figure 2. Destination countries for Portuguese migrants – Education background of qualified migrants (higher education)



Source: Observatório de Emigração.

Source: Projeto BRADAMO.

4. Tackling inequalities and promoting inclusion

Portugal has significantly reduced its early school leaving⁷ (ESL) rate: it fell from 30.9 % in 2009 to 13.7 % in 2015, getting closer to the Europe 2020 national target of 10 %. This positive trend gained speed with a decrease of 3.7 pp. from 2014 to 2015. The difference in ESL rates between students born in Portugal and students born outside the country is only 2.7 pp. in favour of the former. In contrast, there is a wider gender gap, with ESL rates of 11 % for women and 16.4 % for men.

The country continues to struggle with high levels of grade repetition and significant performance gaps within age groups, linked to the socioeconomic background of students (OECD 2013). The average rate of grade repetition increased by 50 % between 2011 and 2014. It is currently at 5 %, 11.4 % and 13.3 % respectively from the first to the third cycle of basic education⁸ (European Commission 2016b).

⁴ Source: Observatório da Emigração, 'Emigração Portuguesa, relatório Estatístico 2014.'

⁵ 43 % have a Master's degree and 22.3 % completed a PhD. 35.2 % have studies in STEM and ICT, 19.4 % in engineering and 18.5 in law, trade and social sciences.

⁶ More than 60 % of the highly qualified individuals who have left the country earned less than EUR 1 000 in Portugal, and just 5 % earned more than EUR 2 000. While working abroad, 50 % of them earned between EUR 1 000 and 3 000 and 26.5 % earned more than EUR 3 000 (Rui Gomes 2016).

⁷ 18- to 24-year-olds who have not completed upper secondary education and are no longer in education and training.

⁸ Basic education lasts 9 years for students aged from 6 to 14 years and is divided into three cycles: 4 years + 2 years + 3 years.

Participation in early childhood education and care (ECEC) has increased dramatically over the last decade, for both the 0-3 and 4-5 age groups⁹ (European Commission 2015). However, this upward trend has been reversed since 2013, as the participation of children aged 4-5 in ECEC fell from 93.9 % in 2013 to 93.5 % in 2014, just below EU average of 94.3 %. The network of public pre-schools offering ECEC has shrunk due to the recent budget cuts. It covered only around 50% of the enrolment of children aged 3-5 in 2014-2015, while 30 % were enrolled in publicly funded organisations, and a growing proportion relied on private centres.¹⁰ This situation is worse in urban areas.

Since 2012 Portugal has been implementing a comprehensive policy to tackle ESL that has proven effective. The strategy encompasses the continuation of proven initiatives such as the TEIPs¹¹ (programmes targeted at priority regions), the introduction of a new student monitoring system, and the launch in 2012 of pilot programmes proposing alternative education paths in lower and upper secondary education to students at risk of dropping out (*Cursos Vocacionais*).¹² The increase in the length of compulsory education to 12 school years in 2009 has generated favourable conditions as well. The current Government proposes to address grade repetition and performance gaps by improving tutoring support to students, reasserting the value of transversal skills in the curricula and reducing the number of students per class¹³. The 2012 early tracking system in lower secondary education will be terminated in 2016/2017 because it is considered discriminatory and ineffective in preventing ESL. The provision of sufficient support earlier in the education system will thus be crucial to reducing the existing performance gaps in mainstream education and avoiding an increase in school dropout.

The national examination to assess students' learning progress was extended in 2012 to grades 4 and 6 of basic education (9- and 11-year-old students respectively). At the beginning of 2016, the Ministry of Education replaced these summative assessments by new tests in the 2nd, 5th and 8th grades (7-, 10- and 13-year-old students) for Portuguese and mathematics with a higher formative value.¹⁴ The first ones took place in a number of schools in May 2016. The performance will not affect the student's final grade but will be used by schools and families to assess the level of completion of the student's learning process in an effort to address deficiencies and reduce school failure. For the first time in such national evaluations, oral communication skills are also assessed.

The new Government has made ECEC a key element to prevent school failure; it has set an ambitious objective to ensure public provision of pre-school education for all children aged 3-5 years in 2019. In the pedagogical field, it has launched the revision of the curriculum guidelines for pre-school education (*OCEPE*). This follows up on the working group created under the previous government to set the guidelines for nurseries and childcare centres.

Portugal is one of the EU countries with the lowest proportion of residents from foreign countries (4 %). Its immigrant population is mostly from its former colonies, eastern European countries and China, and more than 51 % is settled in Lisbon. In 2014 Portugal received 442 asylum requests. The Government has expressed its readiness to welcome refugees to help alleviate the current migration crisis and the country's migration and demographic deficit. Portugal has a legal framework that guarantees the integration of immigrants and their access to the national education system.

⁹ Compulsory education starts at 6 in Portugal.

¹⁰ Source: Direção Geral de Estatísticas de Educação Ciências.

¹¹ The present TEIP (educational territories of priority intervention) were launched in 1996, inspired by the French ZEPs (priority intervention zones). Schools with a high percentage of students from a vulnerable socioeconomic background are entitled to benefit from additional funding and support through 'improvement contracts'.

¹² VET paths for students having repeated a grade twice in lower and upper secondary education.

¹³ The reduction of class sizes will not be systematic but agreed on the basis of each school pedagogical project.

¹⁴ Summative assessments aim to measure the level of success or proficiency that has been obtained at the end of an instructional unit, by comparing it against some standard or benchmark. Formative assessments aim to gather feedback that can be used by the instructor and the students to guide improvements in the ongoing teaching and learning context.

Since January 2016 the MEC has launched new measures to strengthen support for migrant students, such as introductory classes, language mediators and awareness campaigns. It has also reinforced citizenship education in the curricula from pre-school to secondary education by proposing several guidelines on related subjects. These include 'education for development' and 'media education' which aim, respectively, at improving children's civic and intercultural competences and at enhancing critical thinking and media literacy, particularly for social media. The 'intercultural school' label encourages schools to commit further with intercultural dialogue and education. The next step envisages the establishment of a network of intercultural schools. Since this year a dedicated working group is preparing a comprehensive strategy to promote citizenship in education that should bring together in a coherent way the many different initiatives launched so far.

5. Modernising school education

Recruitment of fewer teachers over the past five years due to budget constraints has led to a significant fall in total teacher numbers and has contributed to an increase in teachers' average age. 41 % of the teaching force in public education is over 50, against only 17.3 % in private education where the highest proportion of teachers are 30 to 39 (Conselho Nacional de Educação 2015).

The 2011-2015 Government initiated a reform of the teachers' initial training system to improve the quality of teaching staff. The MEC increased the entry requirements to initial teacher training and revised its content. It also established a new entry exam to the profession that was largely contested by the teachers' associations and was finally suspended by the Constitutional Court. The way the exam was devised and set up had flaws that explain the strong controversies around it. However, it rightly intended to address a perverse effect of the current system. Permanent teachers are recruited solely on the basis of their final marks in the teacher training programme. The supply of these programmes is quite high, so teacher training institutions tend to inflate grades to increase their students' chances of finding a job (Conselho Nacional de Educação 2014). The current Government has announced its readiness to establish a regular dialogue with the unions and professional associations and to rethink the teacher recruitment policy. The professional development of teachers is also expected to be revised, as is the role of school management, which should give greater attention to developing teaching and learning.

As part of the strategy to address students' low performance, the MEC will provide schools with more pedagogical autonomy so that they can support experimental teaching projects and promote greater involvement of parents and local communities. To modernise learning models and tools, the MEC will launch a 'competitiveness and technology cluster' that will provide a collaborative platform for schools, businesses and civil society to support innovation in education.

Entrepreneurship in education is also supported through the Strategic Programme for Entrepreneurship and Innovation created in 2011 and the 'Youth Start' programme launched in 2015. The INOVA 'ideas competitions' in four areas – attitude, creativity, business and social – were its flagship initiative until the fourth edition in 2014-2015. The 2016 edition has not taken place.

Information and communication technology (ICT) is taught and assessed as a subject in its own right only in grades seven and eight, and in some ICT-specific subjects in grades 10 to 12 depending on the study area. Since 2012, budget constraints have slowed the continuous and significant increase in the use of computer facilities in compulsory education.¹⁵ However, 2014 and 2015 saw increasing support for the use of mobile technologies in schools and other contexts (Eurydice 2015c), through a number of initiatives such as the Creative Classrooms Lab project. Today, the new Digital Competences Initiative proposes to upskill the ICT competences of 20 000 people up to 2020 and to provide digital education resources to modernise teaching methods and the training of trainers.

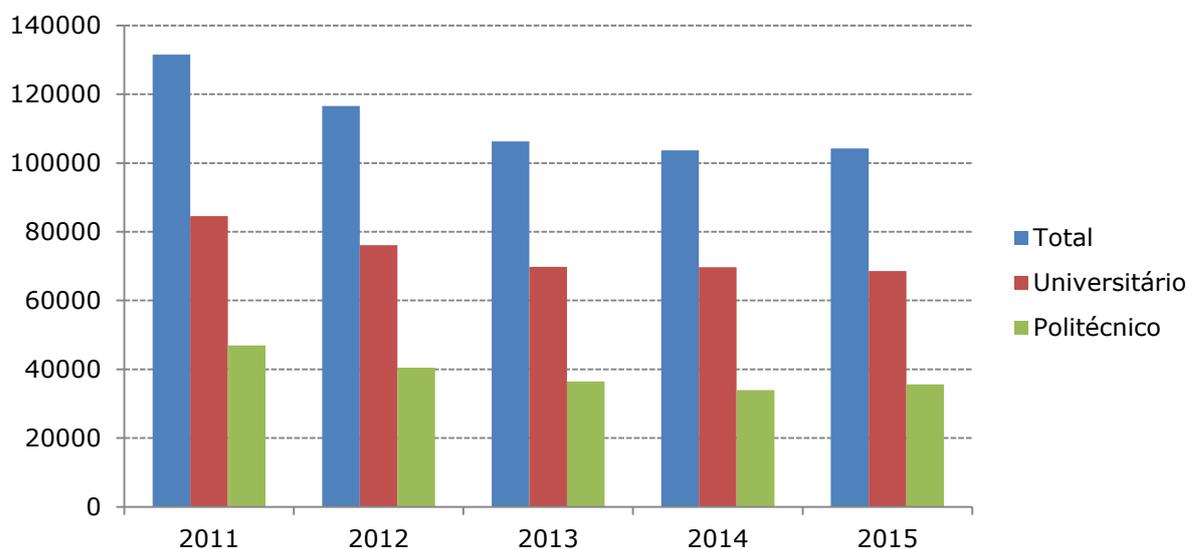
¹⁵ The student/computer ratio has gone from 19.1 in 2001/02 to 1.9 in 2010/11 and to 3 in 2013/14.

6. Modernising higher education

Portugal's tertiary education attainment rate for 30-34-year-olds has steadily increased over the past 8 years, from 21.6 % in 2008 to 31.9 % in 2015. However, it remains below the EU average of 37.9 % and the country's Europe 2020 national target of 40 %. Completion rates at 67 % are slightly below the OECD average. Women have a significantly better rate of completing their studies than men, at 73 % to 59 %, respectively (European Commission 2015b).

Since 2008, the economic crisis has dragged down the employability rate of recent tertiary graduates¹⁶ by almost 10 pp. In 2015 it was 75.5 %, below the EU average of 81.9 %. This downward trend has nonetheless been reversed since 2012 following the progressive fall in unemployment in Portugal. Tertiary-qualified individuals have kept their competitive advantage in the labour market over upper secondary graduates, who have a lower employability rate of 68.6 %. However, tertiary graduates are often faced with low salary prospects and inadequate use of their skills. This situation has contributed to sharp falls in higher education enrolment between 2011 and 2014: the decrease was 23 % for first university enrolments (28 % for the first cycle) and 30 % in the polytechnic institutes¹⁷, beyond the demographic decline. In 2015, however, enrolment stabilised.

Figure 3. Students' first enrolment in higher education



Source: DGEEC/MEd – MCTES, PORDATA.

Moreover, the weak ability of the national labour market to retain talents has encouraged the emigration of highly skilled people (see section 3). Since higher education institutions in Portugal are mainly state-funded, the return on public investment in terms of skills and competitiveness is a challenge. To attract a higher number of non-EU students to Portuguese universities, the Ministry of Education has amended the international student statute to make university entry requirements more flexible.

The new Government has also announced a set of new measures to increase the attractiveness of higher education and pick up speed towards the Europe 2020 national target of 40 %. To expand access they will increase social support to students through scholarships. At the international level, they will support thematic networks between universities and international partners and foster student mobility. To improve performance and completion rates they are proposing more curricular flexibility and to contract young PhDs to diversify the teaching profession and support new pedagogical and scientific projects.

¹⁶ People aged 20-34 who left education between one and three years before the reference year.

¹⁷ PORDATA 2016, Base de dados Portugal Contemporâneo.

The polytechnic institutes were at the centre of the strategy to modernise higher education over the past mandate and have finally experienced an upturn in enrolment since 2015. The launch of the new higher education technical vocational courses (*Cursos Técnicos Superiores Profissionais, CTeSP*) sector is expected to consolidate this new upward trend (see box below).

Since 2015, the MEC has been supporting the creation of regional clusters to rationalise the overly scattered education offer provided by higher education institutions. It also aims at improving financial efficiency and encouraging the exchange of best practices. So far two major state-funded universities in Lisbon have merged and three universities in the north have created the UniNord consortium. The proposal of a new funding formula based on a set of different criteria to promote higher institutional differentiation has been abandoned in 2016. However, the new Government acknowledges the need to keep pursuing greater financial efficiency. Its budgetary plan provides for incentives to create consortia but also greater autonomy for higher education institutions to look for non-state additional funding. All the new proposals should be included in a new multiannual financing framework for higher education for 2017-2019.

Box 2: Cooperation between higher education institutions and the business sector

Increasing cooperation between universities and businesses is important for improving the employability of graduates in all sectors and fostering innovation (European Commission 2016a). Current university governance and finance systems, as well as the academic career path, do not provide a favourable environment to foster university-business cooperation.

Portuguese academic and university representatives assess the barriers to such cooperation as being among the highest in Europe. The biggest barriers identified are the lack of either public or private funding, or excessive and too rigid bureaucracy (European Commission 2014). Academics claim not to know about the various cooperation arrangements, while universities consider that businesses are the only beneficiaries of these efforts. On the other hand, businesses often lack the capacity to take on internships or projects and perceive universities as being too bureaucratic to invest in.

The polytechnic institutes have started to open new paths to engage with local businesses, namely through the proposal of the new CTeSPs. These 4-semester courses include 6 months on-the-job training and propose programmes due to be embedded in the local economic growth strategy. So far, Over 7 900 companies, mostly small businesses, have proposed more than 19 500 internships. The number of CTeSPs proposed by public or private institutions increased from 92 in 2014 to 539 in June 2016, with a total of 16 771 students. The highest proportion has enrolled in business administration (24 %), engineering (16 %) and ITC (12 %).

The courses, situated at level 5 of the national qualifications framework and European qualifications framework, award 120 ECTS¹⁸ credits. The Ministry of Science and Higher Education proposes that completion of CTeSPs will allow access to university, which could provide a new stimulus to cooperation between university students and the business sector. Moreover, the new budgetary plan envisages specific support for the polytechnic institutes to strengthen their action in research and innovation. This would be done through the Foundation for Science and Technology and by developing closer relations with the local business network.

Despite this progress, Portugal does not have a comprehensive set of measures or a strategy to address the economic and institutional barriers to university-business cooperation. Although the government has announced measures to make the recruitment of teachers more flexible and competitive and to increase public universities' freedom to attract private funding, no concrete incentives are anticipated to encourage academics to engage in cooperation with industry. Moreover most existing efforts are geared towards PhD programmes and ignore the need to better link graduate programmes to the economic environment.

The implementation of the second phase of the OECD-coordinated project to build a national skills strategy for Portugal could create a good opportunity to explore new avenues to encourage cooperation between universities and business.

¹⁸ European Credit Transfer and Accumulation System.

7. Modernising vocational education and training and promoting adult learning

Upper secondary students' participation in vocational education and training (VET) in 2015 was 45.8 %, below the EU average of 48.9 %. Adult participation in lifelong learning in Portugal has remained stable over the past 3 years at 9.7 %, just below the EU average of 10.7 % in 2015. The employment rate for upper secondary education graduates¹⁹ increased from 65.2 % in 2014 to 68.6 % in 2015.

The new VET strategy aims to mainstream the national offer in order to address duplications and increase efficiency. Since January 2016, the National Agency for Qualifications and VET (ANQEP) has been updating²⁰ the National Qualification Catalogue²¹ through the reactivation of the 16 Sector Councils.²² The integration of upper secondary VET (*Cursos Profissionais*) in the National Qualification Catalogue has enabled schools to propose a new set of VET qualifications this year.

The national qualifications system created in 2007 establishes the principle of double certification.²³ This enables transitions between academic and VET pathways, including in higher education, based on a national qualification framework and a national credit system. The ANQEP started developing such a system in 2013; it is expected to be approved at the end of 2016 and should eventually allow the national qualification framework to be completed. The ANQEP is also implementing a programme to help 231 training providers²⁴ design their quality assurance systems and align them with European Quality Assurance for VET. The VET Ambassadors initiative involves road shows and VET fairs in an effort to make VET more attractive.

On adult learning, the network of Qualification and VET Centres (CQEP) will be terminated and replaced by 270 'Qualifica' Centres in 2016 with additional and upskilled staff. In 2017/2018 the Government will also launch the 'Qualifica passport'. This new online tool and platform is meant to upgrade the system for recognising, validating and certifying competences and helping people not in education to access adult learning programmes.

8. References

Conselho Nacional de Educação (2014), Estado da Educação 2013, http://www.cnedu.pt/content/edicoes/estado_da_educacao/Estado_da_Educação_2013_VF.pdf

Conselho Nacional de Educação (2015), Estado da Educação 2014, http://www.cnedu.pt/content/edicoes/estado_da_educacao/Estado_da_Educação_2014_VF.pdf

European Commission (2014), Report on the State of European University Business Cooperation, 2013, <http://www.ub-cooperation.eu/pdf/portugal.pdf>

European Commission (2015a), Education and Training Monitor — Volume 2, Portugal, http://ec.europa.eu/education/tools/docs/2015/monitor2015-portugal_en.pdf

European Commission (2015b), The European Higher Education Area in 2015: Bologna Process. Implementation Report, http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/182EN.pdf

European Commission (2016a), Country Report Portugal, http://ec.europa.eu/europe2020/pdf/csr2016/cr2016_portugal_en.pdf

¹⁹ People aged 20-34 who left upper secondary education between one and three years before the reference year.

²⁰ 10 new qualifications created, 10 qualifications restructured and 2 qualifications deleted.

²¹ The NQC has 40 areas of education and training.

²² The Sector Councils for Qualifications are working groups with technical and advisory competences created to ensure the link between qualifications and labour market needs in terms of skills.

²³ Double certification means that students have a school certification and professional qualification.

²⁴ 174 professional schools, 15 secondary education schools, 5 private schools, 10 tourism schools, 4 IEFP and 23 DGERT.

European Commission (2016b), Education policies and practices to foster tolerance, respect for diversity and civic responsibility in children and young people in the EU,
http://ec.europa.eu/education/library/study/2016/neset-education-tolerance-2016_en.pdf

Eurydice (2014), Key data on early childhood education and care education in Europe,
http://eacea.ec.europa.eu/education/eurydice/documents/key_data_series/166en.pdf

Eurydice (2015a), Tackling Early Leaving from education and Training,
http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/175en.pdf

Eurydice (2015b), The European Higher Education Area in 2015: Bologna Process Implementation Report,
http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/182EN.pdf

Eurydice (2015c), Country Report on ICT in education, Portugal,
http://www.eun.org/c/document_library/get_file?uuid=72187cdf-a487-42d3-9525-5c7d7bb14318&groupId=43887

Eurydice (2016), Promoting citizenship and the common values of freedom, tolerance and non-discrimination through education,
http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=EC0216217

OECD (2014a), Education Policy Outlook Portugal,
http://www.oecd.org/education/EDUCATION%20POLICY%20OUTLOOK_PORTUGAL_EN.pdf

OECD (2014b), Are disadvantaged students more likely to repeat grades?,
<http://www.oecd-ilibrary.org/docserver/download/5jxwwfp1ngr7.pdf?expires=1464360815&id=id&accname=guest&checksum=52A61CF806CEE4903E1E26C19B899048>

OECD (2015), Portugal Skills Strategy Diagnostic Report,
<http://www.oecd.org/skills/nationalskillsstrategies/Diagnostic-report-Portugal.pdf>

Rui Gomes (2016), Projeto BRADRAMO, Brain Drain and Academic Mobility from Portugal to Europe (Universidade de Porto, universidade de Lisboa, Universidade de Coimbra),
<http://www.bradramo.pt>

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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