

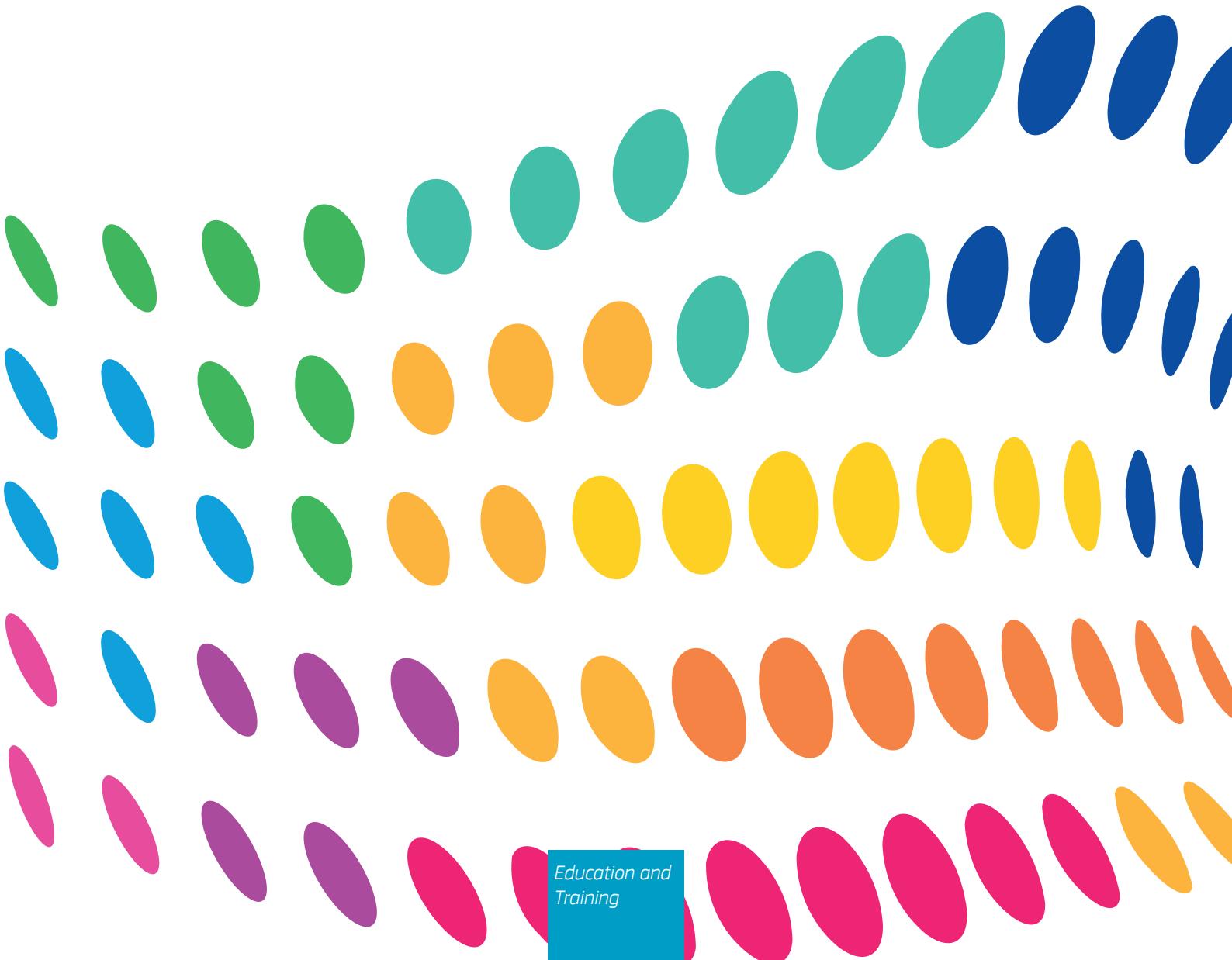


EUROPEAN
Higher Education Area



The European Higher Education Area in 2018

*Bologna Process
Implementation Report*



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Implementation Report**

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FOREWORD



The Bologna Process has brought us a long way towards achieving the goals for European higher education set two decades ago. This third edition of the Bologna Process Implementation Report provides clear evidence of change in the higher education landscape. It shows where progress has been made, but also points to the gaps that need to be filled if we are to strengthen European higher education cooperation on the basis of quality and mutual trust.

Higher education has been evolving rapidly to respond to fast changing demands. Overall in Europe, we are becoming better educated, as more students have the opportunity to develop the high-level skills and knowledge that our societies require. Thanks to the Bologna Process and the Erasmus+ programme, students have become more mobile, and can benefit from study and employment opportunities abroad. Yet we also face challenges in this changing environment: How do we recognise and reward good teaching as well as good research? How do we ensure that young people from disadvantaged backgrounds can access and successfully complete higher education? How do we remove burdensome recognition procedures to ensure that students and graduates can be mobile? And how do we increase the relevance of higher education programmes for a labour market that is in a state of permanent transformation? The Bologna Process provides a space for countries to discuss these challenges, and this dialogue remains critical.

Twenty years ago four countries signed the Sorbonne Declaration, initiating a wave of coordinated higher education reform through the Bologna Process. Now ministers from 48 European countries will gather in Paris to take stock of our current situation, and to discuss the path forward. This geographical evolution illustrates the impact the Bologna Process has had – and it highlights Europe's potential to set high standards for modern and relevant educational provision. The Bologna Process has not only inspired change within European higher education, but also across other world regions. This is important to recognise, as today, more than ever, Europeans have to embrace an increasingly complex and inter-connected global reality.

We should of course be proud of our achievements. But we must not be complacent. We need to redouble our efforts to bring Europe's higher education institutions, researchers and students even closer together. The technical goals of the Bologna Process – converging degree structures, shared standards for quality assurance and common recognition practice – were never ends in themselves. Rather they were the preconditions for ensuring that we understand and trust each other's higher education provision, enabling us to work together in a more seamless way. This is what our young people demand, this is what our economies require and this is what our societies need.

The European Commission's role is to support, but also to drive positive change. And this is why we have been working on proposals to create a European Education Area by 2025. Our ambition is to

enable EU Member States to intensify and accelerate their cooperation in areas such as mobility, multilingualism, innovation and mutual recognition of diplomas, and thus also to provide inspiration to non-EU countries to follow. Our vision for 2025 is of a Europe in which learning, studying and doing research will not be hampered by borders and in which people have a strong sense of their identity as Europeans.

Where the Bologna Process has provided stable foundations, we must now build on them. Yet where the foundations are still not stable, we must secure them. The Commission's actions will aim both at working jointly with the EU Member States towards the European Education Area and at strengthening the Bologna process with all partner countries.

Tibor Navracsics

Commissioner for
Education, Culture, Youth and Sport

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EXECUTIVE SUMMARY

The Bologna Process Implementation Report provides a wide-ranging and detailed picture of how the European Higher Education Area (EHEA) has been moving forward since the Yerevan Conference in 2015. This has not been a period of radical change. Instead, for most countries, the recent years have focused on consolidating the implementation of reforms.

The Bologna Follow Up Group has identified **three key commitments** that underpin the EHEA. These commitments concern the implementation of the three-cycle degree structure, recognition of qualifications and quality assurance. They can be considered as the foundations of the EHEA: if these foundations are not in place, further European higher education cooperation is undermined.

In addition to the implementation of these commitments, the priorities of the Bologna Process as set out in the Yerevan Communiqué are learning and teaching, social inclusion and employability – all topics addressed centrally in this report. In Yerevan, ministers also pledged to continue to foster mobility and internationalisation, and called for attention to the values of the EHEA.

Three-cycle degree structures

Implementation of the Bologna three-cycle degree commitments is improving, with most countries having made the necessary reforms in line with Bologna guidelines. The main Bologna tools – ECTS, Diploma Supplement and national qualifications frameworks – are also well implemented in most countries. Nevertheless, there remains a minority of countries where this is not the case. These countries still need to implement further reforms to ensure that their degree programmes are coherent with those in other EHEA countries.

The dominant European model is now a clearly structured three-cycle degree system. However, although Bologna commitments have mostly been met, there remain significant differences in degree structures across the EHEA as a whole.

In around half of the EHEA countries, the majority of first-cycle graduates continue to study in a second-cycle programme while in a quarter of countries it is less than 25 % that move directly into the second cycle. This may suggest significant differences in labour market recognition of first-cycle qualifications across the EHEA.

Alongside the three main cycles, around half of all EHEA countries offer short-cycle higher education programmes. These programmes are usually vocational, offered at ISCED 5 level, and most often have a workload of 120 ECTS. In around half of the countries with such programmes, learning achievements can be fully recognised within first-cycle studies in the same field, while in the other half recognition is less substantial. Comparing short-cycle higher education programmes across the EHEA is further complicated by the existence in many countries of 'short-cycle tertiary education' programmes, which are not recognised within the national higher education systems.

Most EHEA countries also offer other programmes outside the three-cycle-degree structure. 'Integrated' or 'long' programmes of at least five years duration leading directly to a second-cycle degree exist in most EHEA countries, usually in regulated professional fields. They involve fewer than 5 % of students in some countries, but more than 20 % in others. In around a quarter of EHEA countries, there are also other programmes outside the main three-cycle degree framework.

There has been good progress since 2015 in the implementation of the Diploma Supplement. Indeed, most EHEA countries now comply with all the commonly agreed principles. The Diploma Supplement

is also commonly issued after short-cycle higher education programmes, but is far from being the norm in the third cycle.

Good progress can also be observed in the implementation of national qualifications frameworks (NQFs). Most countries have established a national qualifications framework for higher education, self-certified it to the Framework for Qualifications of the European Higher Education Area (QF-EHEA) and it is used by national authorities in public policy. In most countries, NQFs for higher education are integrated into NQFs for lifelong learning, which suggests widespread efforts in using NQFs for coordinating qualifications across sectors and levels of education.

Although many countries have now completed their NQF, there remain a few where development is slow or not moving. These countries are missing the opportunity to increase the transparency of their qualifications system both within and outside the country.

Recognition of qualifications

Formal compliance with most aspects of the Lisbon Recognition Convention (LRC) at national level is well established across the EHEA, as the content of national legislation and regulations is generally coherent with the international legal framework. However, work still needs to be done to ensure that appropriate procedures are established and followed for recognition of qualifications of refugees, displaced persons and persons in a refugee-like situation as specified in Article VII of the LRC.

Nevertheless recognition problems are reported to be still prevalent. This could be because higher education institutions, who are usually responsible for recognition decisions for academic purposes, may not always follow all the required principles of good recognition practice.

With regard to the goal of securing more 'automatic recognition' – understood as system-level recognition for the purposes of further academic study – considerable effort is still required to agree on a common understanding of the concept, and to make it a reality.

Quality assurance

Quality assurance continues to be an area of dynamic development in European higher education. The requirement for higher education institutions to develop and publish quality assurance strategies and evaluation reports is becoming increasingly established, while external quality assurance is almost always undertaken by independent agencies working in line with the Standards and Guidelines for European Quality Assurance (ESG). Indeed the adoption and integration of the ESG in national practice has been widely addressed and achieved.

Nevertheless, there are still areas where attention is needed. Some countries still need to take action to ensure that students are fully involved in all quality assurance processes as equal partners. It is also worth noting that improvement-oriented models of external quality assurance are far less prevalent in the EHEA than supervisory models. Higher education institutions in many countries are also restricted to using national quality assurance agencies to fulfil their external quality assurance obligations, rather than benefitting from the work of other suitable EQAR-registered European agencies. In addition, the European Approach to the Quality Assurance of Joint Programmes, although adopted in Yerevan, has hardly been implemented. Indeed it is not yet permitted by national legislation in many countries, and in particular in those where programme accreditation is required. These are precisely the countries where the European Approach to the Quality Assurance of Joint Programmes potentially offers the greatest potential benefit as a more appropriate, effective and efficient form of quality assurance.

Learning and teaching

Improving learning and teaching is among the most fundamental objectives of the Bologna Process. Strategies to achieve this objective are now quite widespread across the EHEA, both at national level and within higher education institutions. Steering commonly promotes the development of international opportunities, academic staff development and measures to improve teaching. Digitally enabled teaching and learning is also increasingly addressed strategically at national and institutional levels.

In most countries ECTS has been integrated as both a credit accumulation and transfer system, with learning outcomes and student workload increasingly used as the basis for credit allocation. This provides common foundations for the understanding of European higher education programmes. However, there is a need to ensure that the 2015 ECTS Users Guide adopted by ministers is the basis for correct implementation of the system. To this end, around a third of the countries could take action to encourage quality assurance processes to pay attention to this issue.

Higher education teachers are the key players in enabling students' learning, and appropriate training in teaching skills both before being employed and throughout careers is an essential pre-requisite for a high quality system. Yet, regulations rarely require academics to hold a teaching qualification, and the development of teaching skills is often left to ad hoc measures.

Opening higher education

Social dimension challenges have accompanied the Bologna Process throughout its existence. Yet, disadvantaged learners still face access barriers to higher education: students from low and medium-educated families are strongly under-represented, and are more likely to enter higher education with a delay; gender imbalances, if improving slightly, still persist and remain marked in some discipline areas with significant implications for the labour market and society; and life-long learning is not a reality for learners in many countries.

In addition to barriers to access, disadvantaged students also face difficulties in completing higher education, dropping out in higher proportions. Despite evidence of these trends over a number of years, and commitments re-iterated in several ministerial communiqués, only a few countries have introduced measures in recent years to improve the conditions for under-represented groups to access and complete higher education.

Employability

Employment of recent graduates has improved as countries recover from the economic crisis. Nevertheless, graduate unemployment remains a significant problem in some parts of Europe, as not all countries have recovered to the same extent and at the same speed. There is also a gender aspect to employment issues, as in some countries women face more difficulties than men in finding employment after graduation.

Systematic efforts to improve the relationship between higher education and the labour market still need to be better developed and implemented. Action could include using labour market forecasts, involving employers in curriculum planning and higher education governance, providing incentives to include work placements in higher education programmes, improving career guidance services, as well as encouraging student mobility.

Internationalisation

The trend for internationalisation is growing across the EHEA. However, mobility flows and the level of engagement in internationalisation activities vary considerably from country to country. There has been a significant increase in the use of targets to support and monitor progress in student mobility with only one quarter of all countries now having no targets for either incoming or outgoing student mobility.

There continue to be substantial differences between countries with regard to portability of domestic student financial support. Only around one-third of EHEA countries enable domestic financial support to be portable for credit and degree mobility. Moreover there is almost no support facilitating the mobility of students from under-represented groups in the majority of countries. Staff mobility targets are also reported by almost half of all EHEA countries, but often refer only to a general objective of increasing the numbers of mobile staff.

Values

The Yerevan Communiqué emphasises shared values as the foundation of a renewed vision of the European Higher Education Area. Specifically, the ministers highlight academic freedom and autonomy of higher education institutions, while EHEA values also include student and other stakeholder participation in the democratic governance and management of higher education.

While concerns have been raised about violations of values in some EHEA countries, it is difficult to find causal explanations related to the different systems of higher education governance in operation across the EHEA. There is nevertheless a continuing need to discuss the values that unite higher education systems, and to be vigilant that robust legal protection is in place – including defining and limiting the role of governments in the organisation and management of higher education institutions.

INTRODUCTION

The Bologna Process

The Bologna Declaration was signed in 1999 by ministers responsible for higher education from 29 European countries. However its origins lie a year further back in the Sorbonne Conference and Declaration of 1998. These events and texts set in motion a European cooperation process that has radically changed higher education. Reforms have affected countries within and beyond Europe, and the number of official signatory countries has risen to 48, with Belarus the most recent state to join in 2015.

The chart below outlines the main milestones and commitments of the ministerial conferences within the Bologna Process up to 2015. It illustrates that several main themes can be followed throughout the process – mobility of students and staff, a common degree system, the social dimension, lifelong learning, a European system of credits, quality assurance and the development of Europe as an attractive knowledge region. Learning and teaching was added as an explicit priority in the Yerevan Communiqué.

The Yerevan Communiqué sets out a streamlined and updated policy agenda focusing on four key policy areas: implementation of key commitments; learning and teaching; employability; and social inclusion. These goals and objectives are all addressed in the report, and the combined analysis across the seven chapters aims to present a picture of the current reality of the European Higher Education Area (EHEA).

The Bologna Process: from Sorbonne to Yerevan, 1998-2015

Mobility of students and teachers	Mobility also for researchers and administrative staff	Social dimension of mobility	Portability of loans and grants	Attention to visa and work permits	Attention also to pension systems and recognition	Benchmark of 20 % by 2020 for student mobility	Explore path to automatic recognition of academic qualifications	Implementation of key commitments
A common two-cycle degree system	Easily readable and comparable degrees	Fair recognition Development of joint degrees	Inclusion of doctoral level as third cycle	QF-EHEA adopted National Qualifications Frameworks (NQFs) launched	NQFs by 2010	NQFs by 2012	Roadmaps for countries without NQF	Implementation of key commitments
		Social dimension	Equal access	Reinforcement of the social dimension	Commitment to national action plans	National targets for the social dimension to be measured by 2020	Widening access and completion rates	Social inclusion
		Lifelong learning (LLL)	Alignment of national LLL policies Recognition of Prior Learning (RPL)	Flexible learning paths	Partnerships to improve employability	LLL as a public responsibility Focus on employability	Enhance employability, LLL and entrepreneurial skills through cooperation with employers	Employability
Use of credits	A system of credits (ECTS)	ECTS and Diploma Supplement (DS)	ECTS for credit accumulation		Coherent use of tools and recognition practices	Implementation of Bologna tools	Ensure that Bologna tools are based on learning outcomes	Adoption of ECTS Users Guide
	European cooperation in quality assurance (QA)	Cooperation between QA and recognition professionals	QA at institutional, national and European level	European Standards and Guidelines for quality assurance (ESG) adopted	Creation of the European Quality Assurance Register (EQAR)	Quality as an overarching focus for EHEA	Allow EQAR registered agencies to perform their activities across the EHEA	Adoption of revised ESG and European Approach to QA of joint programmes
Europe of Knowledge	European dimensions in higher education	Attractiveness of the EHEA	Links between higher education and research areas	International cooperation on the basis of values and sustainable development	Strategy to improve the global dimension of the Bologna Process adopted	Enhance global policy dialogue through Bologna Policy Fora	Evaluate implementation of 2007 global dimension strategy	
								Learning and Teaching: Relevance and quality

1998	1999	2001	2003	2005	2007	2009	2012	2015
Sorbonne Declaration	Bologna Declaration	Prague Communiqué	Berlin Communiqué	Bergen Communiqué	London Communiqué	Leuven/ Louvain-la-Neuve Communiqué	Bucharest Communiqué	Yerevan Communiqué

Report outline

This report has been prepared for the European Ministerial Conference in Paris, France, on 24-25 May 2018. It provides a snapshot of the state of implementation of the Bologna Process from various perspectives using data collected mostly in the first half of 2017. It provides both qualitative information and statistical data, and covers all main aspects of higher education reforms aiming at a well-functioning EHEA.

The report is a successor to the two Bologna Process Implementation Reports (2012 and 2015) and has been developed through collaboration between the Bologna Follow-up Group (BFUG) and Eurostat, Eurostudent and Eurydice. For the first time, it also includes some indicators collected by the European Students Union (ESU), the European University Association (EUA), and the European Quality Assurance Register for higher education (EQAR).

The development of the report has been overseen by the Bologna Follow-up Group (BFUG), and specifically by a working group established to guide all aspects of the reporting process. The group was co-chaired by Tone Flood Strøm (Norway), Andrejs Rauhvargers (Latvia) and David Crosier (Eurydice). Close collaboration was also established with all BFUG advisory and working groups.

Qualitative information was gathered through two extensive questionnaires (an Excel questionnaire and an on-line questionnaire) addressed to BFUG members. These were submitted, after consultation with all relevant national actors, by the Bologna representatives in all 48 countries between March and December 2017. For the United Kingdom and Belgium, two responses each were submitted. The United Kingdom (England, Wales and Northern Ireland) is therefore treated as a separate higher education system to that of Scotland, while the Flemish and French Communities of Belgium are also considered as distinct higher education systems. However where statistical data is combined for Belgium and the United Kingdom in Eurostat's database, it is presented in a combined form in this report.

The qualitative data is based mainly on official information about legislation, regulations and national policies, and in some cases country representatives are asked to report on their perception of specific aspects of higher education reality. The data refers to higher education institutions that are directly or indirectly administered by a public education authority, which means public and publicly-subsidised private higher education institutions.

With regard to statistical data, the European Union's Education, Audiovisual and Culture Executive Agency (EACEA), working through a consortium led by Sogeti, Luxembourg, undertook a specific data collection in 2017 for the EHEA countries that are not part of regular Eurostat data gathering exercises.

The report draws upon a number of additional data sources. Eurostudent data is provided by the Eurostudent VI survey and focuses on the social and economic conditions of student life in Europe. The reference year for the data is 2016/17, and the report covers 28 of the 48 EHEA countries.

Information from the European University Association's Trends 2018 report is used substantially in Chapter 2 on learning and teaching. This report provides an institutional perspective on higher education developments in Europe. The reference year for this survey is 2017, and it involves 303 higher education institutions from 43 of the EHEA systems.

Certain indicators throughout the report are provided by the European Student Union (ESU) member organisations. This data was collected through an online survey to European student unions in the second half of 2017, and will also be used in ESU's 2018 edition of Bologna with Student Eyes.

The European Quality Assurance Register (EQAR) also hosted a short survey on cross border higher education quality assurance, and the responses to this questionnaire are used for the report's information on cross border quality assurance.

The reference year 2016/17 is applicable for qualitative data throughout the report, as well as for Eurostudent indicators. Eurostat statistical indicators generally use 2015 as the most recent reference year, with other years shown where relevant to provide a picture of trends.

The report is divided into seven thematic chapters, with a structure that aims to maintain coherence with the previous Bologna Process Implementation Reports, but also to reflect the most recent political priorities set in Yerevan in 2015. Each chapter has an introduction presenting the relevance of the topic in the Bologna Process, the commitments made in the Yerevan Communiqué, and the main findings of the 2015 Bologna Process Implementation Report, where relevant. The chapter then presents information through comparative indicators whose purpose is to describe the state of implementation in all countries from various perspectives. The text explains main developments, highlights issues regarding implementation, and provides examples of practice that may be of general interest.

The majority of indicators were developed for the 2012 Bologna Process Implementation Report, were updated in 2015 and have again been updated in this report, sometimes with substantial modification. A number of new indicators have also been developed, particularly to investigate more recent policy priorities.

Among the indicators presented in the report are 13 'scorecard indicators' that are designed to track country progress in implementing Bologna Process policy commitments. These scorecard indicators were already used in the 2015 edition of the Bologna Process Implementation Report to cover all but one of the issues assessed, although in some cases there have been significant revisions to the indicators for this edition. The new scorecard indicator in this report focuses on system level (automatic) recognition for academic purposes.

CHAPTER 1:

THE EUROPEAN HIGHER EDUCATION AREA LANDSCAPE

The Yerevan Communiqué

The Yerevan Communiqué presents the diversity of countries in the European Higher Education Area (EHEA) by recognising that, '47 countries with different political, cultural and academic traditions cooperate on the basis of open dialogue, shared goals and common commitments' ⁽¹⁾.

While acknowledging the differences between countries, the Communiqué also emphasises the common goals and the basis for common reforms:

Together we are engaged in a process of voluntary convergence and coordinated reform of our higher education systems. This is based on public responsibility for higher education, academic freedom, institutional autonomy, and commitment to integrity. It relies on strong public funding, and is implemented through a common degree structure, a shared understanding of principles and processes for quality assurance and recognition, and a number of common tools ⁽²⁾.

The 2015 Bologna Process Implementation Report

The 2015 Implementation Report provided information on the framework conditions for higher education in the different countries of the European Higher Education Area (EHEA). These conditions vary enormously across the EHEA. In terms of student population, countries differ in the total number of tertiary education students, enrolment rates of eligible students, and the distribution of students among different levels of higher education. Countries also differ in changes of these indicators across time. In nearly one third of countries the student population was lower in 2012 than it was in 2006, but at the same time the enrolment rate for 18-34 year-olds increased in half of the EHEA countries.

The 2015 Implementation Report identified 60 % of EHEA countries that take into account demographic projections in their steering documents for higher education. Countries varied tremendously also in the number of higher education institutions – from over 200 in France, Germany, Poland and Russia to under ten in Andorra, Iceland, Liechtenstein, Luxembourg and Malta. There is great divergence also in the economic capacity of countries and in the portion of their resources they dedicate to higher education. Four EHEA countries (Ireland, Luxembourg, Norway and Switzerland) are among the ten wealthiest nations based on GDP per capita, while five other countries (Albania, Bosnia and Herzegovina, Georgia, Moldova and Ukraine) rank in the bottom half of the table (World Bank, 2016). Even when the different levels of wealth and prices are taken into account, there are vast differences in the amount countries spend per student: some countries spend five times more than others. With such economic diversity, it is clear that the structural conditions for higher education reform are very different from country to country.

However, the 2015 Implementation Report also provided strong evidence that public spending on higher education had been placed under considerable strain following the global economic crisis beginning in 2008.

⁽¹⁾ Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 1.

⁽²⁾ Ibid.

Chapter outline

This first chapter of the report sets the scene in which the higher education systems evolve across the EHEA. It provides insights into the student population in the EHEA area (Section 1.1), the structure of higher education systems in terms of institutions and staff (Section 1.2), and on higher education expenditure throughout the EHEA (Section 1.3). Where applicable, the chapter provides comparisons with the 2015 Implementation Report and notes continuing trends and new developments. The chapter ends with an exploration of values and governance in the EHEA. Section 1.4 considers values and governance, looking specifically at issues related to how academic freedom and institutional autonomy are understood and fostered.

1.1. Student population

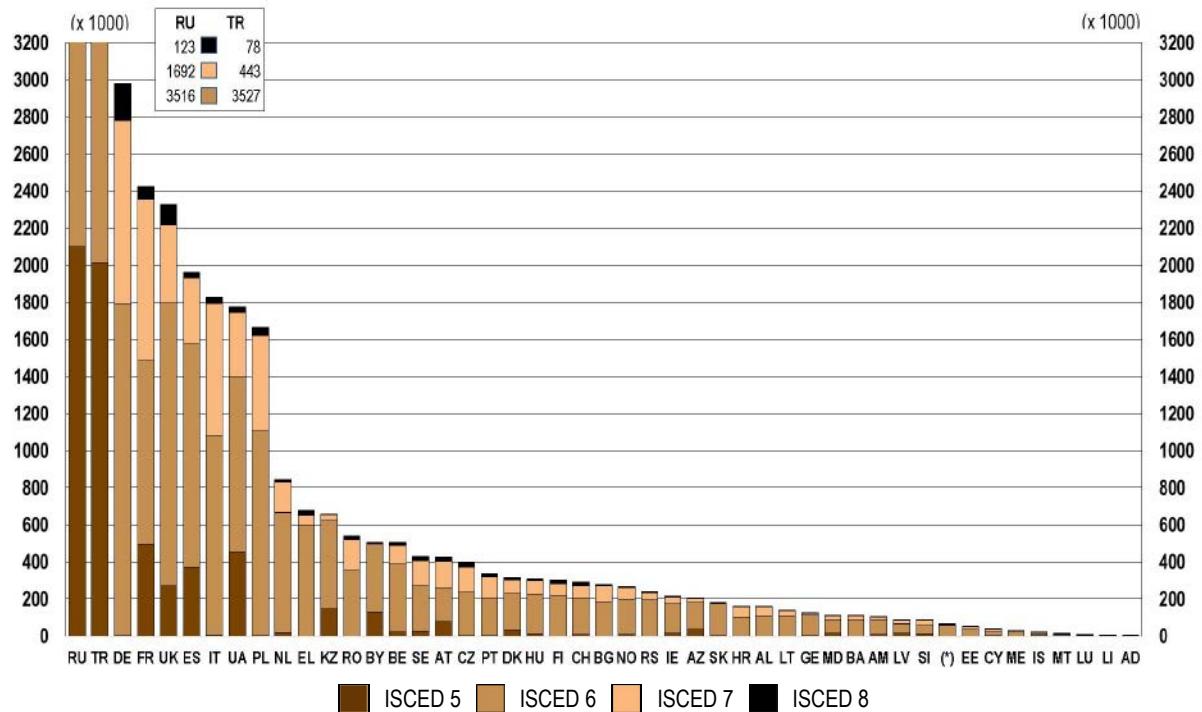
There were around 37.7 million tertiary students in the EHEA in the academic year 2014/15 (see Figure 1.1) ⁽³⁾. The number of students enrolled in tertiary education (ISCED levels 5-8) varies between 457 in Andorra to more than 7 million in Russia, a country which accounts for 19.7 % of the tertiary student population in the EHEA. Turkey is the country with the second largest tertiary student population, with just over 6 million or 16 % of the total. Compared to the 2015 Bologna Process Implementation Report, the difference between the total number of tertiary education students in Turkey and Germany – the country with the third biggest student population – has more than doubled. This is mostly due to the sharp increase in the number of students in Turkey: from 4.35 million in 2011/12 to 6.06 million in 2014/15 (39 % of them enrolled in distance education programmes, mostly in Open Education Faculties). Meanwhile there has also been a slow increase in student numbers in Germany – from 2.94 million in 2011/12 to 2.98 million in 2014/15 (see Chapter 2 for discussion of learning in digital environments in the EHEA). Students in the five countries with the highest number of tertiary education students (Russia, Turkey, Germany, France and the United Kingdom) amount to 56.3 % of the total. Spain, Italy, Ukraine and Poland have more than 1 500 000 tertiary students each, while there are fewer than 1 000 000 students per country in 38 EHEA countries analysed.

Most of the tertiary education students (58.8 %) are enrolled in first-cycle programmes (Bachelor's or equivalent level); 21.7 % are enrolled in second-cycle programmes (Master's or equivalent level); and 16.8 % are enrolled in short-cycle tertiary education. Only 3 % of students are enrolled in third-cycle programmes (doctoral or equivalent level) ⁽⁴⁾.

⁽³⁾ This number is not directly comparable to the 2015 report due to the introduction of the International Standard Classification of Education 2011 (ISCED 2011; see the Glossary and Methodological Notes for description) and the different set of countries included in the two reports.

⁽⁴⁾ For further discussion of the distribution of students in ISCED 2011 levels, see Chapter 3.

Figure 1.1: Number of students enrolled in tertiary education by ISCED level, 2014/15



(*): the former Yugoslav Republic of Macedonia

	RU	TR	DE	FR	UK	ES	IT	UA	PL	NL	EL	KZ
Total	7 435 216	6 062 886	2 977 781	2 424 158	2 330 334	1 963 924	1 826 477	1 776 190	1 665 305	842 601	677 429	658 413
ISCED 5	2 103 125	2 013 762	394	495 472	272 487	372 356	6 548	452 292	2 721	18 687	:	146 436
ISCED 6	3 516 093	3 527 649	1 792 434	991 175	1 523 902	1 204 409	1 076 667	947 210	1 104 364	646 851	598 990	477 387
ISCED 7	1 692 926	443 252	988 753	868 904	421 145	355 097	710 487	346 657	514 821	162 585	54 558	32 527
ISCED 8	123 072	78 223	196 200	68 607	112 800	32 062	32 775	30 031	43 399	14 478	23 881	2 063
	RO	BY	BE	SE	AT	CZ	PT	DK	HU	FI	CH	BG
Total	541 653	505 637	504 745	428 557	425 972	395 529	337 507	313 756	307 729	302 478	294 450	278 953
ISCED 5	:	128 975	24 414	25 244	77 877	994	395	34 973	11 655	:	10 280	:
ISCED 6	354 186	362 907	365 925	246 400	183 768	236 887	203 836	195 054	214 737	219 370	195 437	186 702
ISCED 7	168 152	8 855	97 920	135 555	140 269	133 066	113 966	73 790	74 113	63 239	65 036	85 634
ISCED 8	19 315	4 900	16 486	21 358	24 058	24 582	19 310	9 939	7 224	19 869	23 697	6 617
	NO	RS	IE	AZ	SK	HR	AL	LT	GE	MD	BA	AM
Total	268 231	241 054	214 632	204 152	184 390	162 022	160 527	140 629	127 640	109 395	108 714	103 672
ISCED 5	9 836	:	16 505	38 816	2 847	118	:	:	2 328	15 468	:	8 304
ISCED 6	188 823	194 696	161 302	143 620	102 434	100 879	110 159	108 083	109 424	71 071	87 926	79 623
ISCED 7	62 109	37 803	28 621	18 781	70 038	57 895	46 423	29 911	12 471	20 923	19 964	14 476
ISCED 8	7 463	8 555	8 204	2 935	9 071	3 130	3 945	2 635	3 417	1 933	824	1 269
	LV	SI	(*)	EE	CY	ME	IS	MT	LU	LI	AD	
Total	85 881	85 616	63 543	55 214	37 166	26 580	18 940	13 216	6 896	750	457	
ISCED 5	16 105	11 485	:	:	3 128	:	485	2 537	587	:	24	
ISCED 6	50 634	48 893	59 359	36 299	19 994	25 462	13 393	7 026	3 231	393	418	
ISCED 7	16 942	22 594	3 891	16 012	12 935	1 068	4 543	3 540	2 509	243	5	
ISCED 8	2 200	2 644	293	2 903	1 109	50	519	113	569	114	10	

Source: Eurostat, UOE and additional collection for the other EHEA countries.

Notes:

Countries are arranged by total number of students in tertiary education. The graph is scaled to 3 million for readability.

The size of the student population varies greatly among the 48 countries of the EHEA and depends on a number of factors that this report examines in detail in the following chapters. Demographic conditions (i.e. the size of young age cohorts) of course have a crucial impact on student enrolment. And it should be borne in mind that demographic changes (e.g. an increase or a decrease of a cohort)

only gradually affect the higher education system because of the 'continued impact of past cohorts' (Vincent-Lancrin, 2008). However, institutional factors and economic conditions determine the desire and ability of young people to enrol in higher education and the time it takes them to complete their degrees.

Some of these factors are:

- Admissions rules and procedures such as the qualifications required to enter tertiary education and the selection criteria for admission (see Chapter 5 for discussion of access to higher education);
- The costs and benefits of acquiring higher education such as tuition fees, employability of graduates, and alternative opportunities in the labour market (see Chapter 5 for discussion of fees and support, and Chapter 6 for discussion of employability);
- The length of studies which in turn depends on the structure of the programmes, the ability to attend part-time, etc. (see Chapter 3 for discussion of programme structures).

Figure 1.2 demonstrates the growth rate of the tertiary student population between some of the recent reference points of the Bologna Process (i.e. between 2009/10 and 2011/12, and between 2012/13 and 2014/15) as well as when considering this entire time period ⁽⁵⁾. In the majority of countries in the EHEA, growth in tertiary education participation is slowing down. In the first period – between 2009/10 and 2011/12 – 25 countries recorded increases in their tertiary student population and 18 countries recorded decreases. In the second period – between 2012/13 and 2014/15 – 19 countries recorded increases and 26 countries recorded decreases. Only 15 of the 44 EHEA countries for which data is available for both periods recorded two consecutive increases. The countries on the top left-hand side of the graph have experienced an increase in their student population from 2012/13 to 2014/15, and the countries on the bottom row of the graph have experienced a decrease in the same time period. The fastest annual growth in enrolment was recorded in Albania, with a 30.1 % increase from 2009/10 to 2011/12. Romania experienced the sharpest annual decline in enrolment in the same time period, with a 29.4 % decrease.

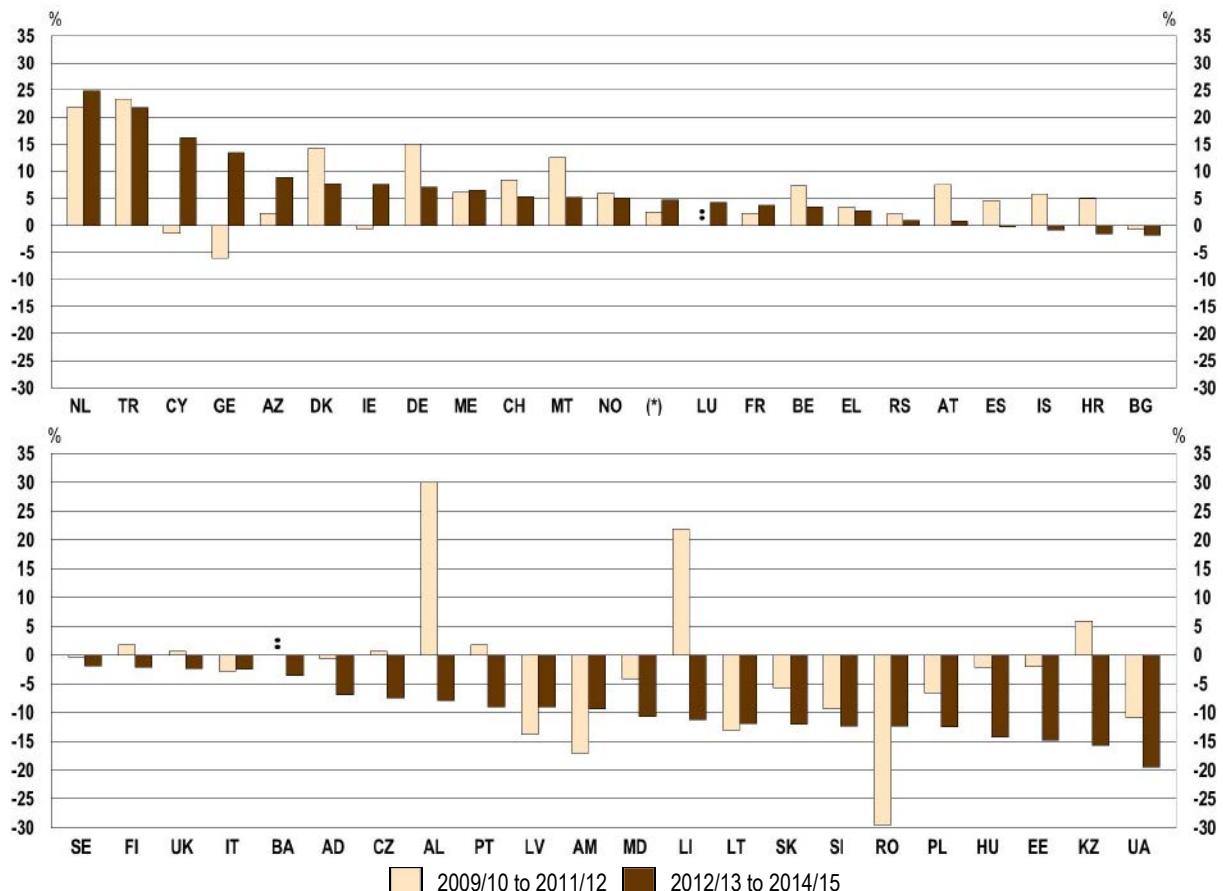
Compared to the change in tertiary enrolment in the earlier period (2009/10 to 2011/12), nine countries (Turkey, Germany, Switzerland, Malta, Norway, Belgium, Greece, Serbia and Austria) have experienced a slower increase in enrolment in the later period (2012/13 to 2014/15), and 11 countries (Spain, Iceland, Croatia, Finland, the United Kingdom, the Czech Republic, Albania, Portugal, Liechtenstein, Belarus and Kazakhstan) have shifted from an increase to a decrease in tertiary enrolment in the second reference period. In five countries (Romania, Lithuania, Armenia, Latvia and Italy), the decrease in enrolment has slowed down. Only three countries – Cyprus, Georgia and Ireland – have shifted from a decrease in enrolment in the first reference period to an increase in enrolment in the second.

Looking at the entire period from 2010 to 2015, the total number of students enrolled in tertiary education is lower in 2014/15 than in 2009/10 in almost half of the EHEA countries for which data is available. The decrease was most pronounced in Romania (45.8 %), but in two more countries the decrease was higher than 30 % (Lithuania and Ukraine) and in seven other countries the decrease ranges between 20 % and 30 % (Latvia, Armenia, Slovakia, Slovenia, Poland, Hungary and Estonia). This marks a noteworthy change from the 2015 Bologna Process Implementation Report when only one country (Georgia) recorded a decrease higher than 30 % and one country (Latvia) reported a decrease between 20 % and 30 %.

⁽⁵⁾ It is important to note that ISCED 2011 (International Standard Classification of Education 2011) was introduced in the middle of the analysed time period. Some of the changes in student enrolment may be due to the different classification of students before and after 2011, but this is unlikely to affect the overall trend or direction of change for particular countries.

On the other hand, the total number of students enrolled in tertiary education is higher in 2014/15 than in 2009/10 in half of the EHEA countries for which data is available. The sharpest increase was recorded in Turkey (71.8 %), and Turkey is the only country which experienced an increase higher than 50 %. Denmark is the only country to report an increase between 30 % and 50 %. Here again, there is noteworthy change from the 2015 Bologna Process Implementation Report, when there were four countries reporting increases above 50 % and six countries reporting increases between 30 % and 50 %.

Figure 1.2: Percentage change in the total number of students enrolled in tertiary education between 2009/10 and 2011/12 and between 2012/13 and 2014/15



(*): the former Yugoslav Republic of Macedonia

%	NL	TR	CY	GE	AZ	DK	IE	DE	ME	CH	MT	NO	(*)	LU	FR	BE
2009/10 to 2011/12	21.9	23.4	-1.4	-6.0	2.3	14.3	-0.7	15.0	6.2	8.4	12.6	6.0	2.5	:	2.3	7.3
2012/13 to 2014/15	24.9	21.9	16.3	13.4	8.8	7.8	7.6	7.1	6.5	5.2	5.1	5.0	4.7	4.2	3.7	3.3
2009/10 to 2014/15	29.5	71.8	15.3	20.8	13.0	30.4	10.6	16.5	11.5	18.4	21.9	19.4	2.9	:	8.0	13.3
%	EL	RS	AT	ES	IS	HR	BG	SE	FI	UK	IT	BA	AD	CZ	AL	PT
2009/10 to 2011/12	3.4	2.2	7.5	4.6	5.8	5.0	-0.7	-0.4	1.8	0.7	-2.8	:	-0.8	0.7	30.1	1.7
2012/13 to 2014/15	2.8	0.9	0.8	-0.3	-0.8	-1.6	-1.8	-1.8	-2.1	-2.3	-2.5	-3.6	-6.9	-7.5	-7.9	-9.0
2009/10 to 2014/15	5.5	6.3	21.6	4.5	4.9	8.1	-2.8	-5.8	-0.4	-6.0	-7.8	:	-12.8	-9.6	31.4	-12.0
%	LV	AM	MD	LI	LT	SK	SI	RO	PL	HU	BY	EE	KZ	UA		
2009/10 to 2011/12	-13.8	-17.1	-4.1	22.0	-13.1	-5.7	-9.5	-29.4	-6.6	-2.1	3.6	-2.0	6.0	-10.9		
2012/13 to 2014/15	-9.1	-9.4	-10.7	-11.2	-11.9	-12.0	-12.4	-12.4	-12.5	-14.3	-14.6	-14.8	-15.7	-19.5		
2009/10 to 2014/15	-23.7	-28.8	-16.0	-4.7	-30.2	-21.4	-25.5	-45.8	-22.5	-20.9	16.3	-20.0	-13.0	-32.6		

Source: Eurostat, UOE and additional collection for the other EHEA countries.

Notes:

Countries are arranged by the rate of change in total number of students enrolled in tertiary education between 2012/13 and 2014/15.

As mentioned above, the changes over time in the total number of students enrolled in tertiary education shown in Figure 1.2 can be a product of both demographic changes and changes in the economic and institutional conditions that may make entry into tertiary education more/less desirable and more/less difficult. Therefore, in order to evaluate the capacity of the education system to enrol students eligible for tertiary education, it is important to analyse the enrolment rate relative to the total population in that age group.

Figure 1.3 shows the enrolment rate for 18-34 year olds, the typical age for attending higher education, and how this enrolment rate changes over time. There are a variety of factors that affect the enrolment rate such as the age at which students complete secondary general education, the length of tertiary education programmes, and the actual time students spend in tertiary education.

In the majority of EHEA countries, the tertiary education enrolment rate for 18-34 year olds has stabilised (see Figure 1.3). The median in the EHEA was 15.9 % in 2015, which means that in half of the countries in the analysis this enrolment rate is above 15.9 %. This is virtually the same as the median in 2012, 16.2 %. The enrolment rate of 18-34 year olds increased in 2015 compared to 2009 and 2012 in 14 of the 38 EHEA countries for which data is available for all three years. Analysing only the countries for which data is available for all three reference years, median enrolment in the EHEA stabilised at 16 % in 2015, after a series of increases (13.5 % in 2006; 14.3 % in 2009; and 16.1 % in 2012). In 13 countries, there is a continued trend of increase in the enrolment rate (Turkey, Denmark, the Netherlands, Austria, Spain, Norway, Ireland, Croatia, Bulgaria, Serbia, the Czech Republic, Switzerland and Malta). The sharpest increases were recorded in Georgia (5.8 percentage points in 2015) and Turkey (5.7 percentage points in 2012 and 6.3 percentage points in 2015). In six countries, there is a continued decreasing trend in the enrolment rate (Lithuania, Latvia, Slovakia, Romania, Moldova and Azerbaijan).

There is wide variation between the countries with the highest and lowest enrolment rates for 18-34 year olds. Turkey had the highest enrolment rate in 2015, at 25 %, followed by Denmark, the Netherlands, Greece, Finland and Lithuania, all above the 20 % mark. At the other end of the spectrum, the enrolment rate in Moldova, Armenia, Liechtenstein, Azerbaijan, Luxembourg and Andorra is below 10 %. It is important to note that most tertiary students from Liechtenstein (around 95 %) are enrolled abroad mainly in Switzerland and Austria, while around 80 % of students from Luxembourg are also enrolled in higher education institutions abroad, mainly in Germany, Belgium and France; these students are therefore not captured in these enrolment rate statistics ⁽⁶⁾.

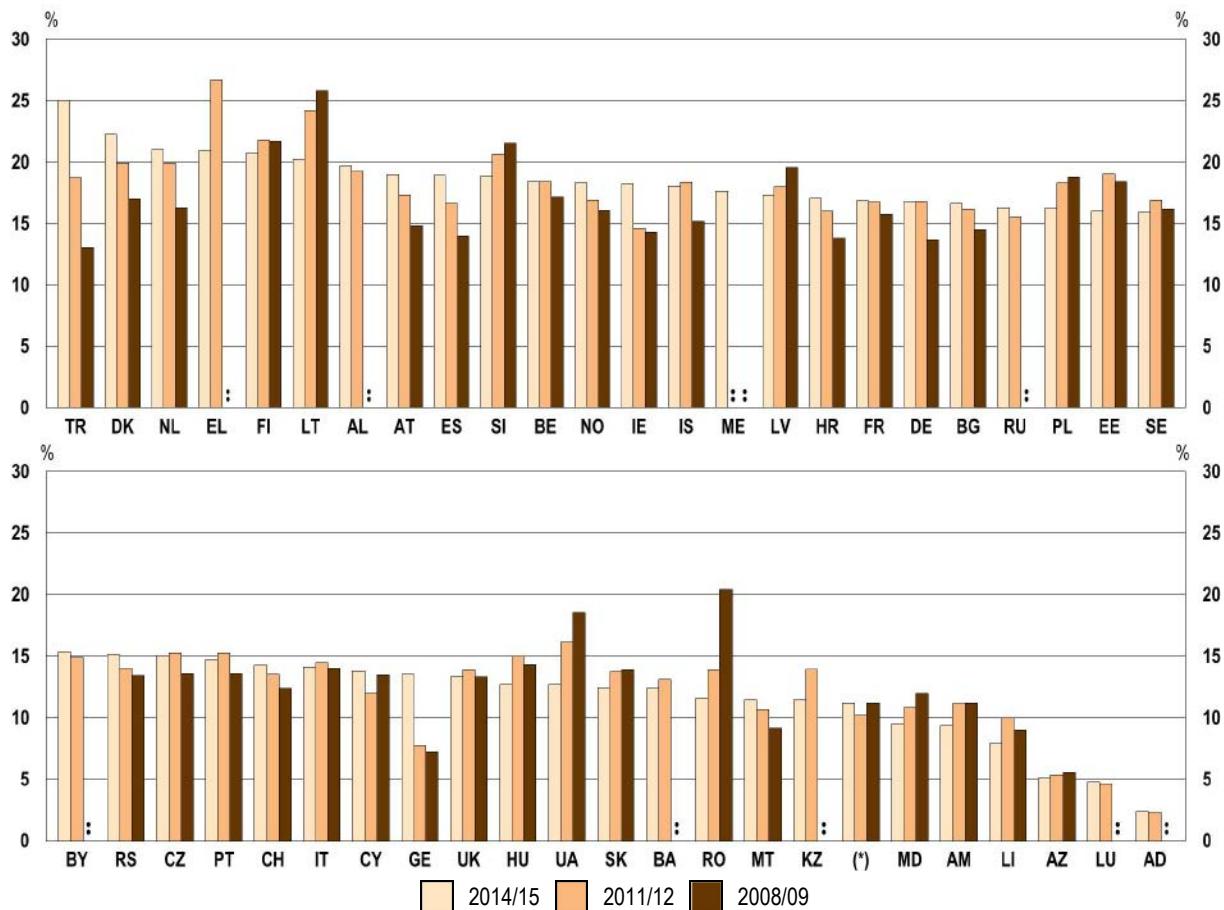
Taking the data in Figures 1.2 and 1.3 together, it is clear that in some countries, the increase in total enrolment is slowing down (e.g. Turkey, Denmark, Germany, Switzerland, Malta, Norway and Serbia) but there is an increase in the enrolment rate of people 18-34, pointing to an increase in the capacity of these tertiary education systems to enrol students in this age group. This could be a product of a number of different factors: a time-lagged effect of changes in cohort size; changes in labour market conditions that make enrolment in tertiary education preferable to employment ⁽⁷⁾; and/or changes in the tertiary education institutions that allow for more students to enrol and/or stay longer in tertiary education ⁽⁸⁾. In Kazakhstan, Poland, Moldova, Hungary and Estonia, where total enrolment decreased, the enrolment for people aged 18-34 decreased as well.

⁽⁶⁾ See Chapter 7 for further discussion of internationalisation and mobility.

⁽⁷⁾ See Chapter 6 for discussion of employability of graduates.

⁽⁸⁾ See Chapter 5 for discussion of the policy frameworks some countries have adopted to widen access to their higher education systems.

Figure 1.3: Enrolment rates in tertiary education for the 18-34 years old (% of the total population aged 18-34), 2008/09, 2011/12 and 2014/15



(*): the former Yugoslav Republic of Macedonia

%	TR	DK	NL	EL	FI	LT	AL	AT	ES	SI	BE	NO	IE	IS	ME	LV
2014/15	25.0	22.3	21.0	20.9	20.7	20.2	19.7	18.9	18.9	18.8	18.4	18.3	18.2	18.0	17.6	17.3
2011/12	18.7	19.9	19.9	26.7	21.7	24.1	19.2	17.3	16.6	20.6	18.4	16.9	14.6	18.3	:	18.0
2008/09	13.0	17.0	16.3	:	21.7	25.8	:	14.8	14.0	21.5	17.2	16.0	14.3	15.2	:	19.6
%	HR	FR	DE	BG	RU	PL	EE	SE	BY	RS	CZ	PT	CH	IT	CY	GE
2014/15	17.0	16.8	16.7	16.6	16.2	16.2	16.0	15.9	15.3	15.1	15.0	14.7	14.3	14.1	13.8	13.5
2011/12	16.0	16.8	16.8	16.1	15.5	18.3	19.0	16.9	14.9	14.0	15.2	15.3	13.5	14.5	12.0	7.7
2008/09	13.8	15.7	13.6	14.5	:	18.8	18.4	16.1	:	13.4	13.6	13.6	12.4	14.0	13.4	7.2
%	UK	HU	UA	SK	BA	RO	MT	KZ	(*)	MD	AM	LI	AZ	LU	AD	EHEA
2014/15	13.3	12.7	12.7	12.4	12.4	11.6	11.4	11.4	11.1	9.5	9.4	7.9	5.1	4.8	2.4	15.9
2011/12	13.9	15.0	16.1	13.7	13.1	13.9	10.7	13.9	10.2	10.8	11.1	10.0	5.3	4.6	2.3	
2008/09	13.3	14.3	18.5	13.9	:	20.4	9.1	:	11.1	12.0	11.2	9.0	5.5	:	:	

Source: Eurostat, UOE and additional collection for the other EHEA countries.

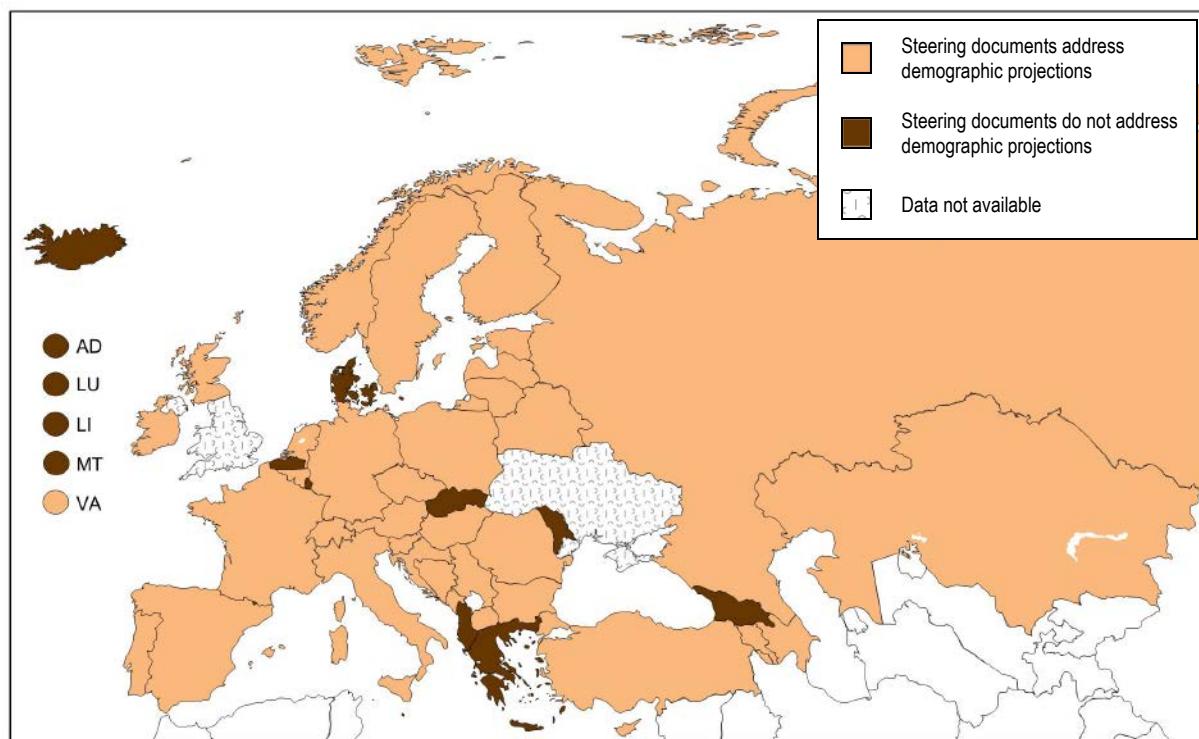
Notes:

EHEA refers to the EHEA median.

Countries are sorted by the enrolment rate in academic year 2014/15.

Demographic changes affecting the number of students have to be taken into consideration when designing higher education policies and goals. Many countries are concerned about the decreasing number of young people and how such changes will affect higher education participation and funding. Figure 1.4 shows that in 2016/17 in around three-quarters of countries, steering documents for higher education explicitly take into account demographic projections. This is a slight increase compared to 2015. Only 12 countries do not address demographic projections in their steering documents, four fewer than in 2013/14. Since the 2015 Bologna Process Implementation Report, three systems have introduced demographic projections in their steering documents (Bulgaria, Portugal and Romania).

Figure 1.4: Demographic projections in steering documents for higher education policy, 2016/17

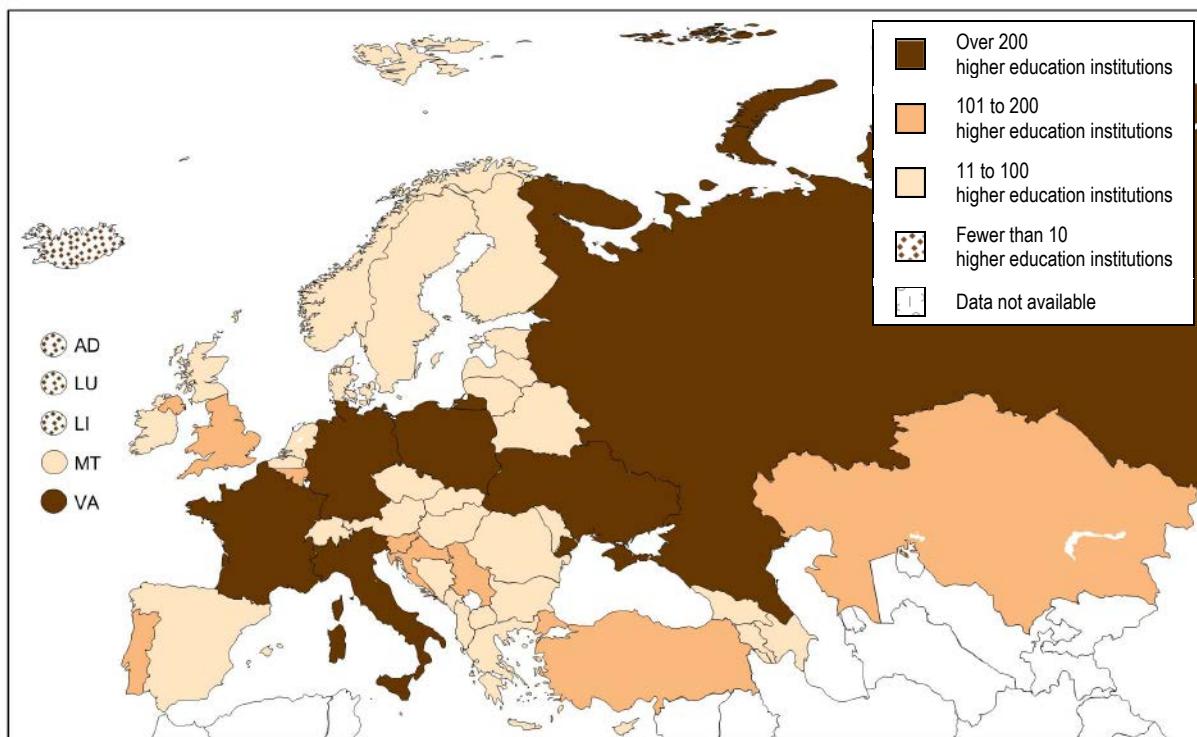


Source: BFUG data collection.

1.2. Higher education institutions and staff

Figure 1.5 shows the total number of recognised higher education institutions in EHEA countries. Most commonly, there are between 11 and 100 higher education institutions (30 systems). Eight systems have between 101 and 200 higher education institutions, and seven have over 200.

Figure 1.5: Number of higher education institutions in the EHEA, 2016/17

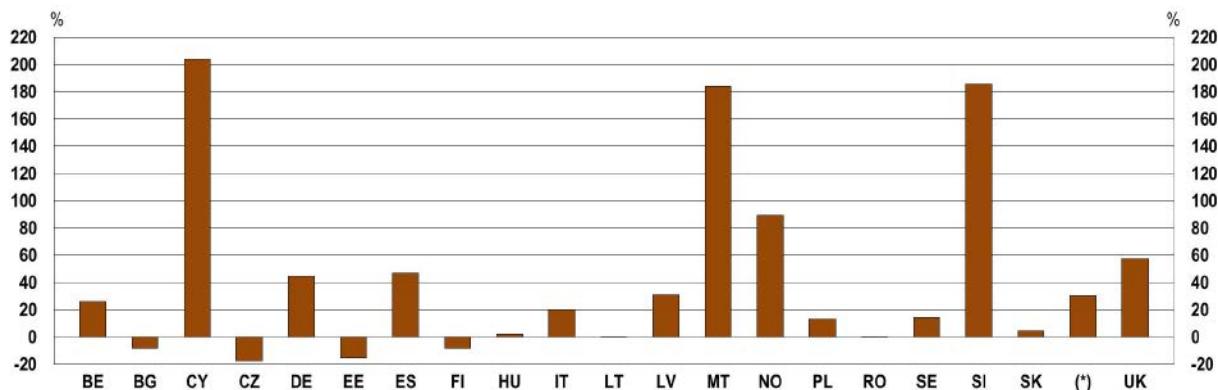


Source: BFUG data collection.

Figure 1.6 demonstrates the percentage change in the number of academic staff between 2000 and 2016. It shows that in most of the countries for which data is available there has been an increase in the number of academic staff. The most notable increases occurred in Cyprus (204 % increase), Malta (184 %), and Slovenia (186 %). In five countries – Bulgaria, the Czech Republic, Estonia, Finland and Romania – the number of academic staff decreased between 2000 and 2016. The evolution of staff numbers during the three sub-periods – 2000-2005, 2005-2010, 2010-2016 – shows that most of the decreases in academic staff occurred in the latter two periods. Seven countries report a decrease in 2005-2010, and 14 countries report a decrease in 2010-2016.

Even though data is not available for all countries and all corresponding years in both indicators, analysing changes in staff numbers alongside information on changes in the total number of student enrolment (see Figure 1.2 in this report and Figure 1.3 in the 2015 report) shows that changes in academic staff numbers do not necessarily follow changes in student enrolment. The staff increases from 2005 to 2016 in Cyprus and Malta correspond to student enrolment increases in the same time period. In Romania and Finland, the decrease in faculty numbers between 2010 and 2016 corresponds to a decrease in student enrolment. The sharp increase in staff in Slovenia, however, occurred alongside a series of consecutive decreases in student enrolment since 2005. Indeed, in seven of the countries for which data is available (Belgium, Bulgaria, Ireland, Slovenia, Sweden, Switzerland and the United Kingdom), the changes in staff and student numbers move in opposite directions for the 2010-2016 period.

Figure 1.6: Percentage change in the total number of academic staff between 2000 and 2016



(*): the former Yugoslav Republic of Macedonia

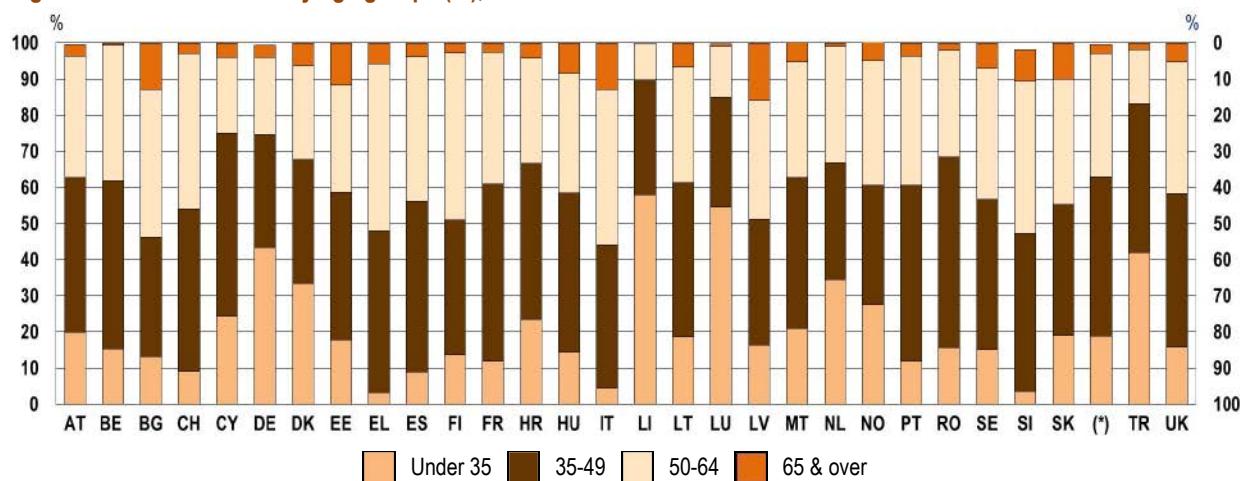
	%	AT	BE	BG	CH	CY	CZ	DE	EE	ES	FI	FR	HR	HU	IE	IS	IT
2000-2016	:	25.8	-8.2	:	204.3	-17.5	44.5	-15.3	46.7	-7.9	:	:	2.1	:	:	19.8	
2000-2005	:	13.3	-14.3	:	34.1	21.4	4.8	:	35.4	14.7	16.3	:	19.6	:	6.8	25.7	
2005-2010	:	12.3	-1.2	16.9	75.9	-31.5	28.3	:	7.1	-17.2	-17.5	79.4	-3.2	8.4	18.2	12.4	
2010-2016		25.3	-1.2	8.4	-16.5	28.9	-0.85	7.5	:	1.1	-3.2	:	2.5	-11.8	-26.7	:	-15.2
	%	LT	LU	LV	MT	NL	NO	PL	PT	RO	SE	SI	SK	(*)	TR	UK	
2000-2016		0.1	:	31.2	183.9	:	89.6	13.3	:	-0.1	14.3	185.7	4.6	30.4	:	57.4	
2000-2005		3.4	:	20.2	39.6	:	:	10.7	:	14.4	26.2	79.6	4.1	5.3	:	29.6	
2005-2010		7.3	:	10.5	46.3	15.7	:	7.8	-1.5	0.8	-22.6	55.2	4.9	18.5	28.4	14.8	
2010-2016		-9.7	-23.0	-1.3	39.0	25.8	27.0	-5.1	-10.7	-13.4	17.0	2.4	-4.2	4.4	:	5.8	

Source: Eurostat, UOE.

Figure 1.7 distributes academic staff into four age groups: those under 35, between 35 and 49, between 50 and 64, and 65 and over. It shows a heterogeneous distribution of these age groups in the countries for which data is available.

In most EHEA countries analysed, the largest share of academic staff is concentrated in the 35-49 age group. This group represents, depending on the country, between around one third and a half of all academics. In half of the countries, academic staff under 35 (the youngest age group) account for 17 % of all staff. In Switzerland, Spain, Italy and Slovenia less than 10 % of staff falls into this age group. While in Germany, Liechtenstein, Luxembourg and Turkey young academics represent a substantial proportion of the staff body (between 42 % and 58 %). The 50-64 age group is bigger than the under 35-year-olds in most countries (23 of 30 countries in the analysis), but smaller than the 35-49 age group in 25 countries. Yet, the share of the 50-64 year olds is still relatively high (40 % or more) in Bulgaria, Switzerland, Greece, Spain, Finland, Italy and Slovenia. The share of the oldest academic staff – those 65 and over – is relatively small overall. In half of the EHEA countries in the analysis, their share is under four percent. However, in five countries – Bulgaria, Estonia, Italy, Latvia and Slovakia – the proportion is equal to or exceeds 10 %. If academic staff under or above 50 years old are compared, in Bulgaria, Greece, Italy and Slovenia more than 50 % of staff is above 50.

Figure 1.7: Academic staff by age groups (%), 2015



(*): the former Yugoslav Republic of Macedonia

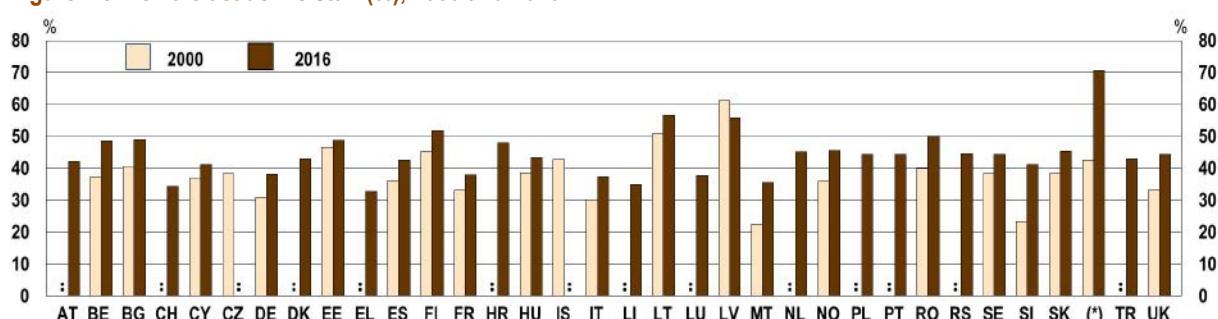
%	AT	BE	BG	CH	CY	DE	DK	EE	EL	ES	FI	FR	HR	HU	IT
<35	20.0	15.4	13.3	9.1	24.4	43.4	33.4	17.8	3.3	8.9	13.8	12.0	23.5	14.4	4.6
35-49	42.8	46.6	33.0	45.0	50.6	31.3	34.4	40.9	44.7	47.3	37.3	49.1	43.2	44.1	39.6
50-64	33.5	37.4	40.9	43.0	21.0	21.3	25.8	29.8	46.2	39.9	46.3	36.3	29.1	33.1	43.0
65 and over	3.2	0.6	12.8	2.8	3.9	3.4	6.3	11.5	5.7	3.8	2.6	2.5	4.2	8.4	12.8
%	LI	LT	LU	LV	MT	NL	NO	PT	RO	SE	SI	SK	(*)	TR	UK
<35	58.0	18.7	54.6	16.4	21.1	34.6	27.5	11.9	15.8	15.2	3.6	19.1	18.8	42.0	15.9
35-49	31.9	42.7	30.5	34.8	41.7	32.3	33.1	48.7	52.7	41.6	43.8	36.2	44.1	41.4	42.5
50-64	10.1	32.0	14.0	32.8	32.0	32.3	34.5	35.8	29.6	36.2	42.0	34.6	34.2	14.8	36.4
65 and over	0.00	6.6	0.6	15.8	5.2	0.9	7.8	3.5	1.9	7.0	8.8	10.0	2.5	1.8	5.2

Source: Eurostat, UOE.

Figure 1.8 shows the gender distribution among academic staff. In 2016, in half of the EHEA countries for which data is available, 44.4 % of academic staff identified as female. The countries with the lowest proportion of female academic staff are Greece (32.7 %), Switzerland (34.3 %), Liechtenstein (35 %), and Malta (35.4 %). In only five countries, female academic staff accounts for 50 % or more of all academic staff: Romania (50 %), Finland (51.7 %), Latvia (55.7 %), Lithuania (56.5 %) and the former Yugoslav Republic of Macedonia (70.7 %).

Looking at the change since 2000, in all but one country (Latvia) there has been an increase in the share of female academic staff. The countries with the highest relative change are the former Yugoslav Republic of Macedonia (28.2 percentage points), Malta (12.9 percentage points) and Slovenia (18 percentage points). In Latvia, the share of female academic staff decreased by 5.5 percentage points between 2000 and 2016. It should be noted, however, that Latvia already has a relatively high proportion of female staff (62.1 % in 2000 and 55.7 % in 2016).

Figure 1.8: Female academic staff (%), 2000 and 2016



(*): the former Yugoslav Republic of Macedonia

Source: Eurostat, UOE.

Data Figure 1.8

%	AT	BE	BG	CH	CY	CZ	DE	DK	EE	EL	ES	FI	FR	HR	HU	IS	IT
2000	:	37.4	40.5	:	37.0	38.4	31.0	:	46.4	:	36.0	45.3	33.0	:	38.5	42.6	30.0
2016	42.1	48.6	48.9	34.3	41.2	:	38.2	42.8	48.7	32.7	42.5	51.7	38.0	48.0	43.2	:	37.3
%	LI	LT	LU	LV	MT	NL	NO	PL	PT	RO	RS	SE	SI	SK	(*)	TR	UK
2000	:	50.8	:	61.2	22.5	:	35.9	:	:	39.8	:	38.3	23.1	38.4	42.5	:	33.1
2016	35.0	56.5	37.8	55.7	35.4	45.2	45.5	44.4	44.4	50.0	44.6	44.3	41.1	45.4	70.7	42.8	44.4

(*): the former Yugoslav Republic of Macedonia

Source: Eurostat, UOE.

1.3. Expenditure on higher education

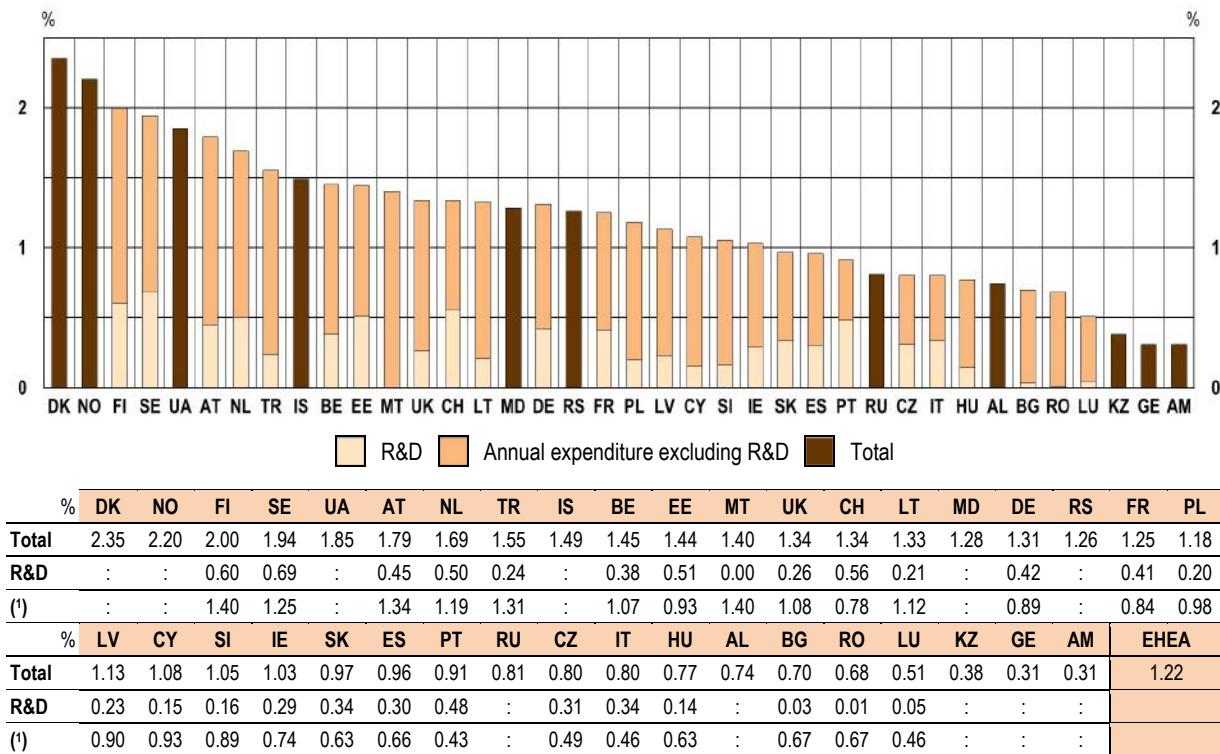
European higher education institutions are funded predominantly from public sources. This section compares public expenditure on higher education in the EHEA based on Eurostat indicators: public expenditure as percentage of GDP and as percentage of total public expenditure, yearly changes in real public expenditure, and total public and private expenditure per student in purchasing power standard (PPS). Alone, none of the indicators presented below can provide a sufficient basis for comparing EHEA countries; but taken together they provide a broad overview of similarities and differences between them. The 2008 global economic crisis had a strong impact on the level of public funding of education and higher education systems. The data presented in this chapter shows that up until 2014 higher education systems were still dealing with the reverberations of the crisis.

Annual public expenditure on tertiary education as a percentage of GDP is often used as an indicator of a country's public financial effort in supporting its higher education system. It is appropriate for comparative analysis because it takes into account the relative size of the country's economy. Annual public expenditure on tertiary education includes spending from all levels of government and covers both direct funding for higher education institutions and funding for all other institutions providing tertiary education-related services. The former includes expenditure that is directly related to instruction and research such as faculty and staff salaries, research grants, university and institutions' buildings, teaching materials, laboratory equipment, etc. The latter includes funding for entities that administer higher education (e.g. ministries or departments of education), that provide ancillary services (i.e. services provided by educational institutions that are peripheral to the main educational mission), and entities that perform educational research, curriculum development and educational policy analysis.

Annual public expenditure on tertiary education also includes public transfers and payments to private entities such as public subsidies to households (including scholarships and grants, public loans to students, specific public subsidies in cash or in kind for transport, medical expenses, books and other materials, etc.). However, annual public expenditure does not include tuition fees that are not covered by scholarships, grants or loans, and that are directly paid by households.

Figure 1.9 shows annual public expenditure on tertiary education as % of GDP and how much of that is spent on research and development. In 2014, half of the countries in the EHEA spent more than 1.2 % of GDP on tertiary education. The three countries with the highest spending were Denmark (2.3 %), Norway (2.2 %) and Finland (2 %). Sweden, Ukraine, Austria, the Netherlands and Turkey spend more than 1.5 % of GDP on tertiary education. These eight countries spending the most on tertiary education relative to the size of their economies also have tertiary education enrolment rates for 18-34 years olds above the median for the EHEA (15.9 %). All except Sweden are among the twelve countries with the highest enrolment rates in 2014/15 (see Figure 1.3). Annual public expenditure on tertiary education is the lowest and below 1 % of GDP in Slovakia, Spain, Portugal, Russia, the Czech Republic, Italy, Hungary, Albania, Bulgaria, Romania, Luxembourg, Kazakhstan, Georgia and Armenia. Almost all of the countries in this latter group (except Georgia and Luxembourg) have experienced a decline in tertiary student enrolment from 2012/13 to 2014/15 (see Figure 1.2).

Figure 1.9: Annual public expenditure on tertiary education as a % of GDP, total with R&D and total without R&D, 2014



(¹) Annual public expenditure excluding R&D

Source: Eurostat, UOE and additional collection for the other EHEA countries.

Notes:

EHEA refers to the EHEA median.

Countries are arranged according to total annual public expenditure.

Figure 1.9 also shows how much of a country's annual public expenditure is directed to research and development. There is wide variation in R&D spending in the EHEA. Such direct R&D expenditure might be funded through different modes: institutional funding and/or project-based funding and depends on the overall institutional setting of EHEA countries' research systems. Sweden and Finland both spend about 0.6 % of GDP on R&D. Bulgaria and Romania spend the lowest among EHEA countries on R&D, 0.03 % and 0.01 % of GDP respectively. It is important to also consider R&D spending as a share of total public expenditure on tertiary education as this is where there is the most variation between countries. Portugal dedicates more than half (53 %) of its tertiary education spending to R&D. Switzerland, Italy, the Czech Republic, Sweden, Estonia and Slovakia all spend above 35 % (but under 50 %) of total tertiary education expenditure on R&D. At the other end of the spectrum, Bulgaria and Romania spend 4.3 % and 1.5 % respectively on R&D as a share of total tertiary education spending.

The public financial effort directed to tertiary education can also be expressed as a share of total public expenditure. Indeed, in periods of public budget rationalisation and constraint, the analysis of annual public expenditure on tertiary education as a share of the total public expenditure indicates the relative priority attached to tertiary education compared to other levels of education and to other functions of public funding (e.g. health care, pensions, infrastructure, police forces, etc.). Figure 1.10 shows that in 2014, half of the EHEA countries for which data is available spent more than 2.6 % of their total public expenditure on tertiary education. The countries allocating the highest share of public expenditure to tertiary education were Norway (4.8 %), Denmark (4.2 %) and Switzerland (4 %). Eight countries spent less than 2 % of total public expenditure on tertiary education in 2014 – the Czech Republic, Portugal, Bulgaria, Italy, Hungary, Armenia, Luxembourg and Georgia.

In eight countries, there is a continued trend of increase in the share of public spending on tertiary education as a percentage of total public expenditure over the three reference years: Estonia, the Netherlands, Malta, Austria, Iceland, Latvia, the United Kingdom and Poland. These eight countries are already spending above the EHEA median. In another eight countries there is a continued trend of decrease: Ireland, Belgium, Spain, France, Romania, Portugal, Bulgaria and Italy. The latter six spend below the EHEA median, and three of them (Portugal, Bulgaria and Italy) also spend under 2 % of total public expenditure. In 2014, there was a sharp decline – more than half – in the share of public expenditure on tertiary education in Cyprus, even though Cyprus also reports a 16.3 % increase in total tertiary enrollment and a 13.8 % increase in the tertiary enrolment rate for 18-34 year olds in 2014/15.

As this indicator is a ratio between two indicators, changes over time can be produced by an increase or decrease in the amount spent on tertiary education, by an increase or decrease in the amount of total public expenditure, or (and most likely) by increase or decrease in both. A constant ratio through time indicates that both public expenditure on tertiary education and total public expenditure grew or diminished at the same rate. It suggests that tertiary education is given the same relative public financial priority over time.

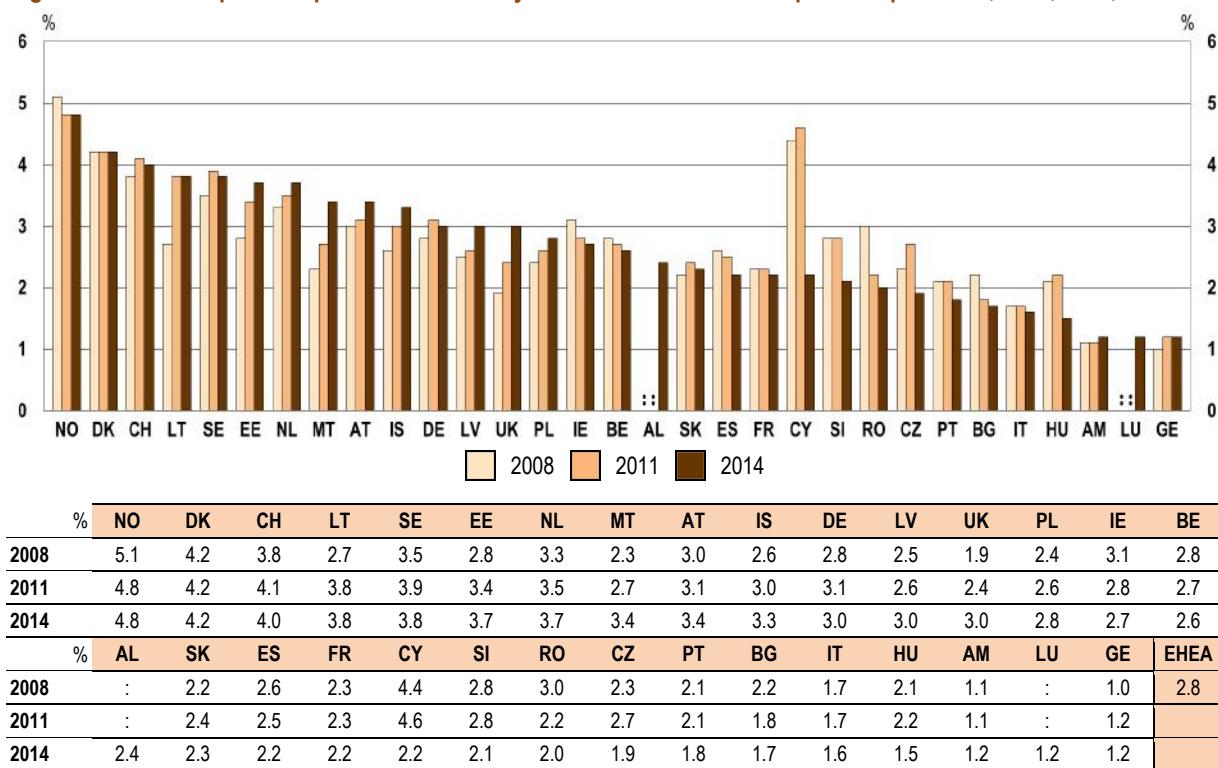
The ratio increases when public expenditure on tertiary education grows more rapidly (or declines less rapidly) than total public expenditure. Such a situation indicates that tertiary education is given higher priority compared to other public expenditure or that it has been less severely hit by budgetary cuts than other areas of public expenditure. The ratio decreases when public expenditure on tertiary education grows more slowly (or declines more rapidly) than total public expenditure. In such a case tertiary education is given lower priority compared to other public expenditure categories.

Two groups of countries are identified when analysing the evolution of the share of public expenditure directed to tertiary education between 2008, 2011 and 2014. In the first group of countries (nearly half of the EHEA countries for which data is available), the percentage of total public expenditure devoted to tertiary education is higher in 2014 than in 2008. In these countries – Switzerland, Lithuania, Sweden, Estonia, the Netherlands, Malta, Austria, Iceland, Germany, Latvia, the United Kingdom, Poland and Georgia – annual public expenditure on tertiary education increased faster than the total public expenditure (or decreased at a slower pace than the total public expenditure). Eight of them (Estonia, the Netherlands, Malta, Austria, Iceland, Latvia, the United Kingdom and Poland) reported three consecutive increases in the years between 2008, 2011 and 2014. The sharpest increase in annual public expenditure on tertiary education as percent of total public expenditure in this period was observed in the United Kingdom – from 2.7 % in 2008 to 3.8 % in 2011.

In the second group of countries (nearly half of the EHEA countries for which data is available), the percentage of total public expenditure devoted to tertiary education was lower in 2014 than in 2008. In these countries – Norway, Ireland, Belgium, Spain, France, Cyprus, Slovenia, Romania, the Czech Republic, Portugal, Bulgaria, Italy and Hungary – public expenditure on tertiary education increased at a slower pace than public expenditure (or decreased more rapidly than public expenditure). Six of them (Ireland, Belgium, Spain, Romania, Portugal and Bulgaria) reported three consecutive decreases in 2008, 2011 and 2014. The sharpest decline in annual public expenditure on tertiary education as a percentage of total public expenditure in this period was observed in Cyprus – from 4.56 % in 2011 to 2.2 % in 2014.

In only five countries – Denmark, Slovakia, France, Italy and Armenia – the ratio between public spending on higher education and total public spending remained roughly unchanged in 2014 relative to 2008, changing by a maximum 0.1 percentage points in 2014 compared to 2008. In these countries, public expenditure on higher education grew or decreased more or less at the same pace as total public expenditure.

Figure 1.10: Annual public expenditure on tertiary education as a % of total public expenditure, 2008, 2011, 2014



Source: Eurostat, UOE and additional collection for the other EHEA countries.

Notes:

EHEA refers to the EHEA median.

Figure 1.11 shows yearly changes in real public expenditure on tertiary education. Expressing public expenditure on tertiary education at constant prices allows price inflation to be taken into account over time. Only two countries in the EHEA (Luxembourg and Denmark) increased public expenditure for tertiary education at a constant price in all four years between 2011 and 2015. In Luxembourg, the lowest yearly change in public expenditure for tertiary education at a constant price was 3.8 % over this period. In Denmark, over the same period, the lowest yearly change at constant prices was 3.1 %, and the highest yearly change was 10.8 %. Kazakhstan, Armenia and Iceland also report only yearly increases in the same period, but data is missing for some of the four years for these countries.

In a second set of 16 (⁹) countries, there were small yearly decreases (under 5 %) in public spending on tertiary education. The Czech Republic is the only country in this group recording three consecutive yearly decreases on tertiary education spending at constant prices.

The third set of 19 (¹⁰) countries for which data is available experienced yearly decreases of over 5 % in public spending on tertiary education. In this group, Slovenia and Albania report three consecutive years of decreases in tertiary education expenditure at constant prices.

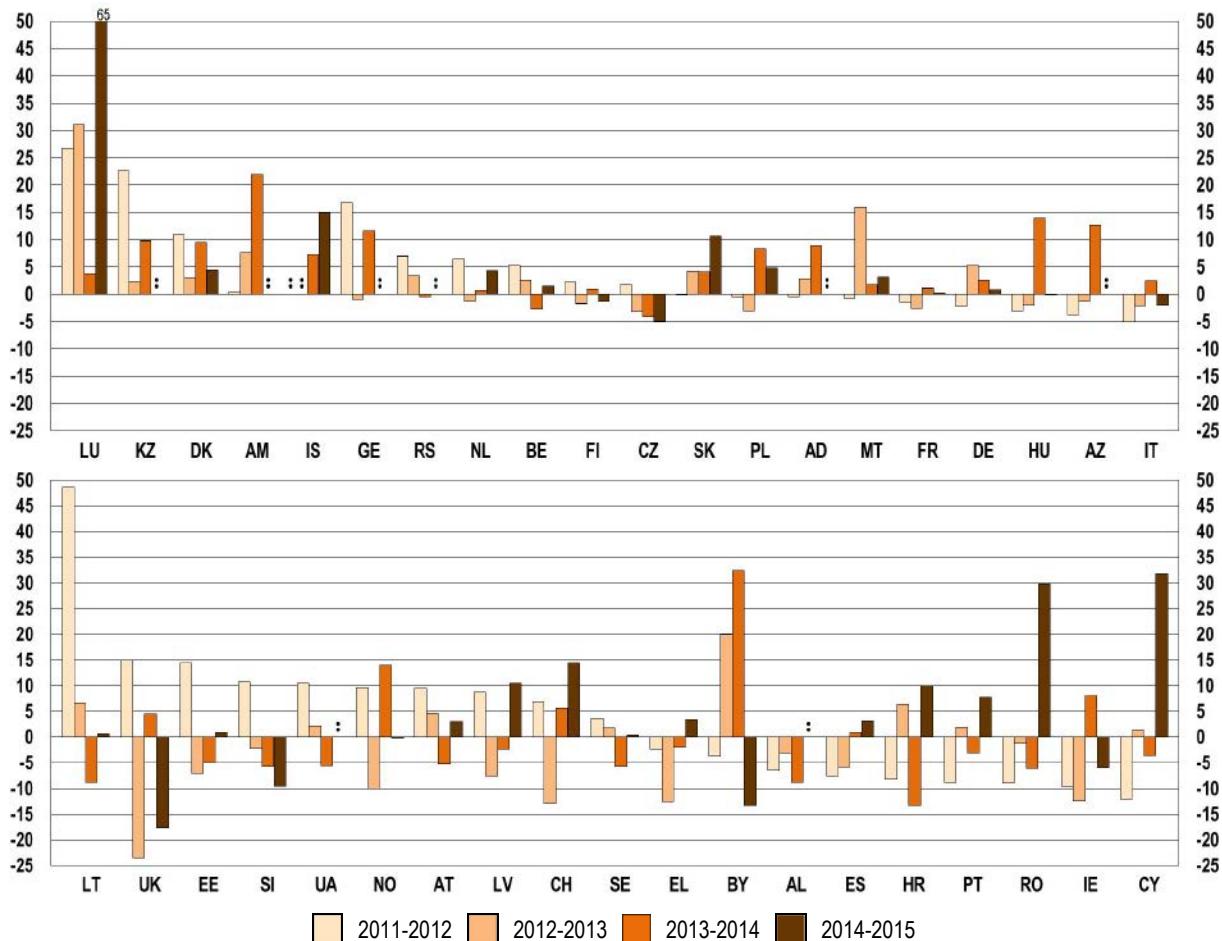
Direct comparison with the 2015 Bologna Process Implementation Report is not possible because a different set of countries is included in the two reports. However, it should be noted that in the previous report four countries (Luxembourg, France, Denmark and Germany) had increased public expenditure on tertiary education as a constant price in the analysed time period, while in the current report there are only two countries with yearly increases in all four years in the analysed time period (Luxembourg

(⁹) Georgia, Serbia, the Netherlands, Belgium, Finland, Czech Republic, Slovakia, Poland, Andorra, Malta, France, Germany, Hungary, Azerbaijan, Italy and Bulgaria

(¹⁰) Lithuania, the United Kingdom, Estonia, Slovenia, Ukraine, Norway, Austria, Latvia, Switzerland, Sweden, Greece, Belarus, Albania, Spain, Croatia, Portugal, Romania, Ireland and Cyprus

and Denmark). France and Germany have joined the second set of countries with small yearly decreases in spending. Slovenia, Norway, Sweden and Spain have shifted from the group with yearly decreases in spending below 5 % to the group with yearly decreases over 5 %. And only three countries – the Czech Republic, Poland and Bulgaria – have shifted in the opposite direction from the group with larger yearly decreases to the group with yearly decreases under 5 %. Bulgaria barely makes it under the 5 % mark in 2011-2012.

Figure 1.11: Yearly changes in real public expenditure on tertiary education between year 2011 and year 2015 (price index 2010=100)



	LU	KZ	DK	AM	IS	GE	RS	NL	BE	FI	CZ	SK	PL	AD	MT	FR	DE	HU	AZ	IT	
2011-2012	26.8	22.6	10.8	0.5	:	16.7	6.9	6.5	5.3	2.2	1.7	-0.2	-0.5	-0.5	-0.5	-0.7	-1.4	-2.2	-3.0	-3.8	-5.0
2012-2013	31	2.3	3.1	7.6	:	-1.0	3.5	-1.4	2.6	-1.7	-3.2	4.2	-3.0	2.9	15.8	-2.6	5.2	-1.9	-1.3	-2.1	
2013-2014	3.8	9.8	9.5	21.9	7.3	11.5	-0.5	0.7	-2.7	1.0	-4.1	4.0	8.3	8.9	1.7	1.0	2.6	14.0	12.7	2.4	
2014-2015	64.1	:	4.5	:	14.9	:	:	4.3	1.5	-1.3	-4.8	10.7	4.8	:	3.3	0.3	0.9	0.0	:	-1.9	
	BG	LT	UK	EE	SI	UA	NO	AT	LV	CH	SE	EL	BY	AL	ES	HR	PT	RO	IE	CY	
2011-2012	-5.0	48.7	15.1	14.5	10.7	10.5	9.6	9.5	8.8	6.8	3.6	-2.3	-3.7	-6.5	-7.6	-8.2	-8.8	-8.9	-9.5	-12.2	
2012-2013	6.6	6.6	-23.4	-7.1	-2.3	2.2	-10.1	4.6	-7.5	-12.9	1.8	-12.6	19.9	-3.0	-5.9	6.3	2.0	-1.2	-12.4	1.4	
2013-2014	15.6	-8.8	4.5	-5.1	-5.8	-5.7	13.9	-5.3	-2.3	5.6	-5.8	-2.0	32.4	-8.8	0.9	-13.3	-3.1	-6.1	8.1	-3.5	
2014-2015	-0.7	0.7	-17.6	0.9	-9.4	:	-0.2	3.1	10.5	14.4	0.4	3.4	-13.2	:	3.3	10.1	7.8	29.8	-5.9	31.8	

Source: Eurostat, COFOG and additional collection for the other EHEA countries.

Notes:

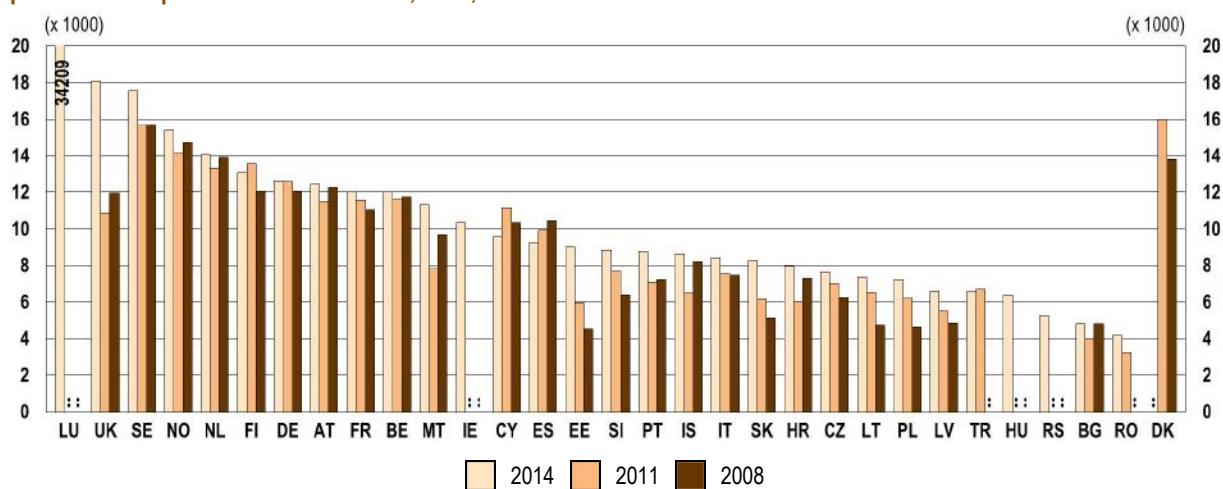
Within each group, countries are arranged according to the magnitude of change between 2011 and 2012.

As discussed in section 1.1, the countries in the EHEA vary tremendously in terms of the total number of tertiary students and the tertiary enrolment rate for 18-34 year olds. Therefore, it is important to take into account the size of a country's student population in the comparison of expenditure indicators. Figure 1.12 shows total public and private expenditure on tertiary education per full-time equivalent

student in PPS. This indicator is different from the previously discussed indicators in three ways. It covers both public and private spending on tertiary education, and in that sense captures countries' total financial investment on tertiary education. It takes into account the size of the student population in a country by showing spending per full-time equivalent student. And it takes into account the different price levels in each country, and therefore it allows for meaningful comparisons across countries with very different price levels (see the Glossary and Methodological Notes for an explanation of how PPS and full-time equivalent student measures are calculated).

In 2014, the median public and private expenditure on tertiary education per full-time equivalent student in PPS for countries in the EHEA area was 8 900. This means that half of the EHEA countries spent more than PPS 8 900 per student, and the other half of countries spent less than PPS 8 900 per student. There are wide disparities between countries in the EHEA: from PPS 34 209 in Luxembourg to PPS 4 180 in Romania. The highest level of expenditure per full-time equivalent student in Luxembourg is more than eight times higher than the lowest one in Romania.

Figure 1.12: Annual public and private expenditure on public and private tertiary education institutions, per full-time equivalent student in PPS, 2008, 2011 and 2014



Source: Eurostat, UOE and additional collection for the other EHEA countries.

Notes:

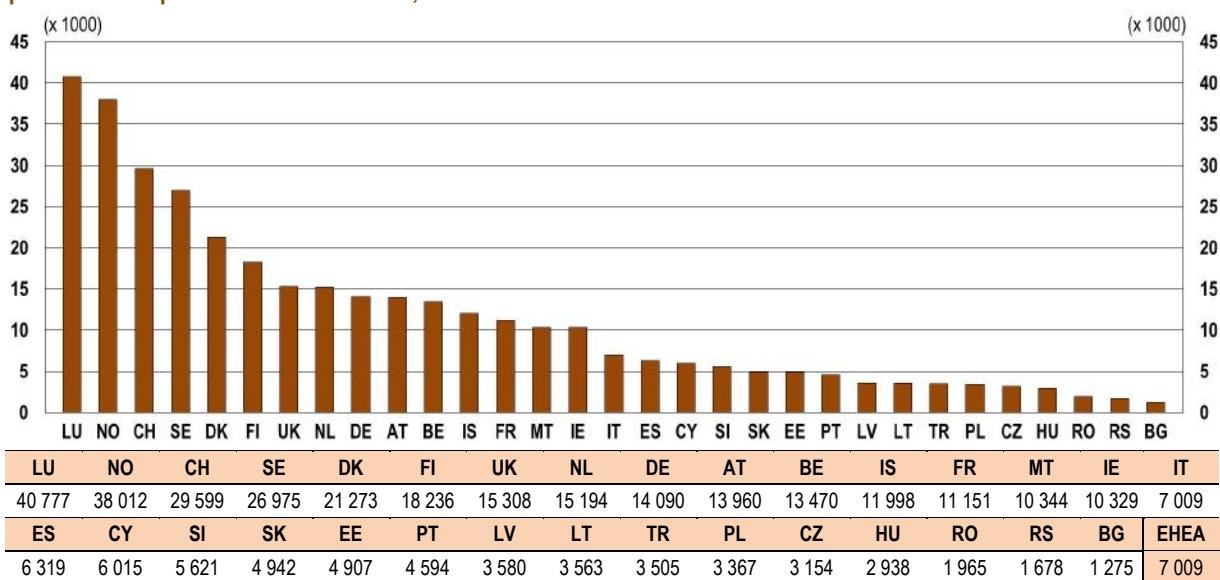
EHEA refers to the EHEA median.

The difference observed in terms of annual expenditure per full-time equivalent student should also be considered in relation to how spending changes across time. Ten countries show three consecutive increases in annual expenditure on tertiary education per full-time equivalent student in PPS in 2008, 2011, and 2014. Annual expenditure per full-time equivalent student in Estonia doubled from 2008 and 2014. Such a large increase may be caused by more investment in tertiary education but it may also be amplified by a decrease or a slower growth in the student population. There is evidence in the data for both of these explanations. Estonia recorded an increase in annual public expenditure in tertiary education as percent of total public expenditure, but also a decrease in the number of enrolled tertiary students (see Figures 1.2 and 1.10). Other big increases in annual public and private expenditure on tertiary education in the same time period were recorded in Slovakia (62 %), Poland (56 %), Lithuania

(55 %) and the United Kingdom (52 %). The smallest increases took place in the Netherlands (1 %), Austria (1 %) and Belgium (2 %). Compared to the years analysed in the 2015 Bologna Process Implementation Report (i.e. 2005 – 2011), there were fewer significant increases in annual spending in this reference period (2008 – 2014), but there were also fewer decreases. When comparing 2008 and 2014 only two EHEA countries – Cyprus (7 %) and Spain (11 %) – decreased annual expenditure.

Luxembourg, Switzerland and the Nordic countries spend the most per full-time equivalent student in absolute terms. At the other end of the spectrum, East European countries spend the least per student. The difference of spending varies considerably with the three highest spenders reaching more than 25 000 euros per student and the ten lowest countries spending less than 5 000 euros per student. Figure 1.12 above provides a more meaningful comparison between countries as the measure of spending takes into account the difference in price levels across the EHEA.

Figure 1.13: Annual public expenditure on public and private tertiary education institutions, per full-time equivalent student in euro, 2014



Source: Eurostat, UOE and additional collection for the other EHEA countries.

Notes:

EHEA refers to the EHEA median.

A comparative analysis of the expenditure on tertiary education should also take into account the wealth of each country. The level of the GDP per capita could be considered as the country's ability to pay for the tertiary education of its population. Cross-country comparison of this indicator is easier for primary and secondary education as enrolment rates across countries show similar levels. Indeed, in countries where primary and secondary education is nearly universal, this indicator informs about the amount spent per pupil. For higher education, cross-country comparison is more complex as enrolment rates vary in greater proportions (see Figure 1.3): countries where the enrolment rate is low could show higher expenditure per full-time equivalent students than countries with higher enrolment rates.

A positive relationship between the wealth of a country (expressed as GDP per capita) and the investment per student (expressed as annual expenditure on public and private tertiary education institutions per full-time equivalent student) is expected, and clearly identifiable in Europe (see Figure 1.14). However, this correlation does not imply a direct causal relationship between the two variables in the short term. Indeed, public expenditure (i.e. the major part of total expenditure on tertiary education) involves long-terms commitments (e.g. capital expenditure or staff salaries) and

cannot be adjusted rapidly to unexpected changes in economic conditions; the number of students is the result of multi-cohorts behaviors and their attitudes towards tertiary education.

In all reference years, there was higher expenditure on tertiary education institutions and higher GDP per capita in the Nordic countries, and there was lower expenditure on tertiary education institutions and lower GDP per capita in East European countries. Norway was identified as a clear outlier in the 2015 Bologna Process Implementation Report, and the situation has not changed as demonstrated by the three graphs below. It spends less per student than expected for its level of GDP per capita; it spends at the same rate as the other Nordic countries which have lower GDP per capita levels.

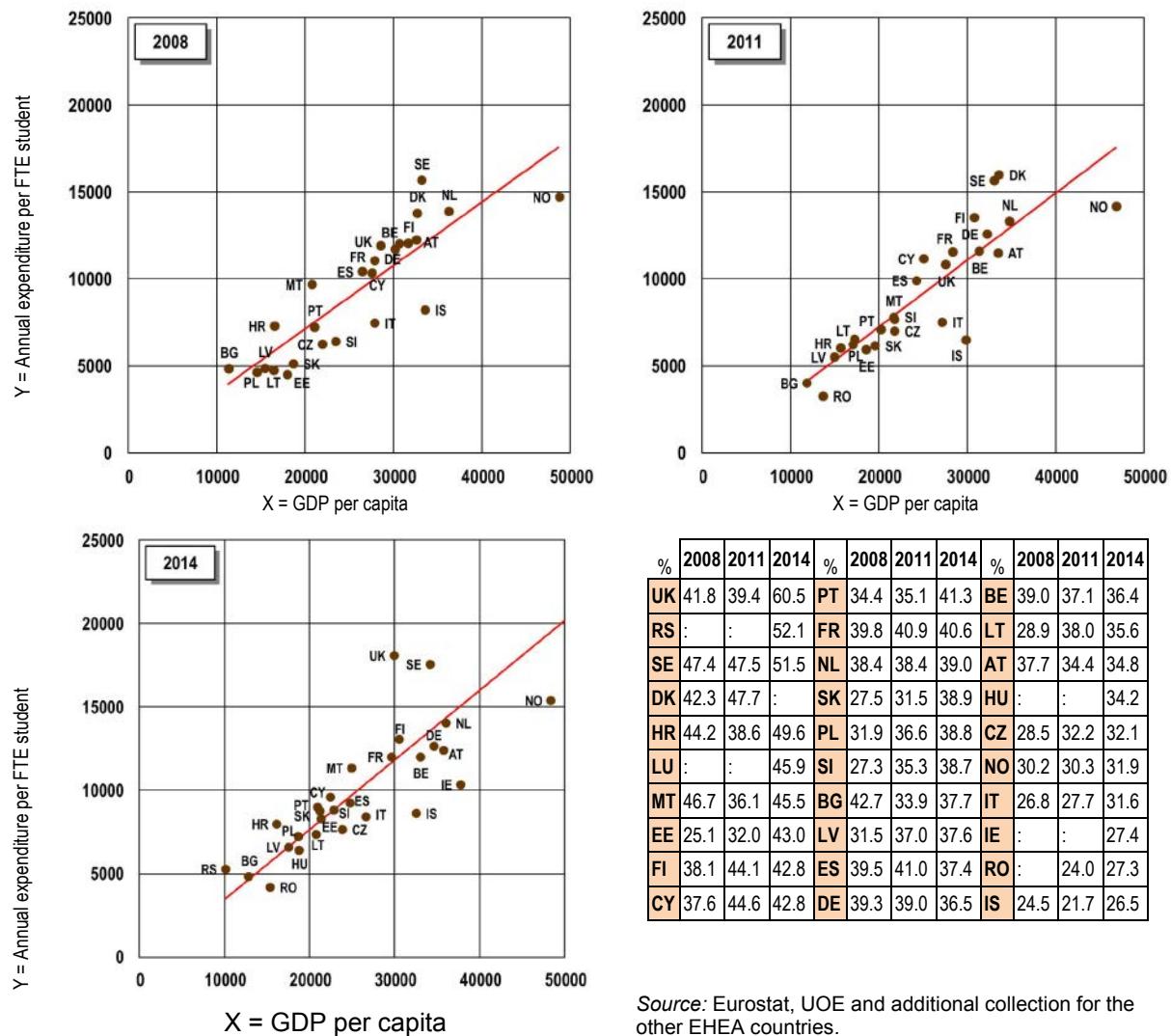
It is also important to note the United Kingdom's drastic shift in spending per student in the graph for 2014. Without any substantial increase in GDP per capita between 2011 and 2014 (from PPS 27 500 to PPS 29 900), spending on tertiary education per full-time equivalent student increased from PPS 10 832.1 to PPS 18 093.1, or a 67 % increase. Since this increase could have occurred in 2012, 2013 and/or 2014, it is impossible to pinpoint the cause with certainty. One likely explanation, however, is the increase of fees to £ 9 000 per year in 2012.

The table below the first graph shows how much of GDP per capita is spent on each tertiary student. This can be understood as a measure of public and private investment in higher education. The table reveals that countries with different levels of wealth and annual expenditure per student make a similar relative financial effort towards tertiary education. For example, in 2014 Serbia and Croatia spent about 50 % of their GDP per capita on each tertiary student which is very similar to the share Sweden spent, while the Nordic countries' GDP per capita and annual expenditure per student are more than double those of Serbia and Croatia.

It is important to consider also how the ratio of public and private expenditure on tertiary education per full-time equivalent student and GDP per capita changes over time. Changes in this ratio result from the combination of two trends and their respective rate of change: the first is total (public and private) expenditure on tertiary education per full-time student, and the second is GDP per capita. A constant ratio across the three years indicates that both spending per student and GDP per capita grew or diminished at the same rate. It suggests that investment in tertiary education is given the same priority over time. It is important to note that this measure of expenditure includes both public and private spending, so it is impossible to tell from this particular indicator how public expenditure reacts to changes in the GDP per capita. As the discussion of the United Kingdom above demonstrates, it is possible to achieve an increase in the ratio even when public spending decreases if private spending on tertiary education increases at the same time (see Figures 1.9, 1.10 and 1.11 for discussion of changes in public expenditure only).

Of the 24 EHEA countries for which data is available for all three reference years, the ratio of public and private expenditure per full-time equivalent student and GDP per capita decreased in six countries (Malta, Bulgaria, Spain, Germany, Belgium and Austria). This means that in these countries public and private investment in higher education declined relative to the country's wealth. In Malta, Bulgaria, Germany, Belgium and Austria expenditure on tertiary education per student grew slower than GDP per capita. In Spain, expenditure declined at a faster rate than GDP per capita declined over this time period.

Figure 1.14: Annual public and private expenditure on public and private education institutions on tertiary education, per full-time equivalent student in PPS relative to the GDP per capita in PPS, 2008, 2011 and 2014



Source: Eurostat, UOE and additional collection for the other EHEA countries.

1.4. Values and governance

In the Yerevan Communiqué, Ministers reaffirmed their common conviction that the EHEA 'is based on public responsibility for higher education, academic freedom, institutional autonomy, and commitment to integrity' ⁽¹¹⁾. The Communiqué commits Ministers to take action to support and protect values. More precisely, through the Communiqué, Ministers specify that they will:

support and protect students and staff in exercising their right to academic freedom and ensure their representation as full partners in the governance of autonomous higher education institutions. We will support higher education institutions in enhancing their efforts to promote intercultural understanding, critical thinking, political and religious tolerance, gender equality, and democratic and civic values, in order to strengthen European and global citizenship and lay the foundations for inclusive societies ⁽¹²⁾.

This strong emphasis on shared values is the foundation of a renewed vision of European higher education, and it comes at an important time. The EHEA is comprised of very diverse countries in

⁽¹¹⁾ Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 1.

⁽¹²⁾ Ibid., p. 2.

almost all aspects – size, socio-economic conditions, history, culture, etc. And yet these very diverse countries have agreed to work together in the larger interest of constructing an open and inclusive higher education area on the basis of shared values.

Academic freedom and institutional autonomy: legal protection and other measures

Academic freedom, institutional autonomy and respect for the rule of law in relations between public authorities, higher education institutions and students are essential to democratic societies, and can be considered as the fundamental values of the EHEA.

The UNESCO Recommendation concerning the Status of Higher-Education Teaching Personnel, 1997 (UNESCO, 1997a) provides the following definitions of academic freedom and institutional autonomy:

Academic Freedom:

Higher-education teaching personnel are entitled to the maintaining of academic freedom, that is to say, the right, without constriction by prescribed doctrine, to freedom of teaching and discussion, freedom in carrying out research and disseminating and publishing the results thereof, freedom to express freely their opinion about the institution or system in which they work, freedom from institutional censorship and freedom to participate in professional or representative academic bodies. All higher-education teaching personnel should have the right to fulfil their functions without discrimination of any kind and without fear of repression by the state or any other source. Higher-education teaching personnel can effectively do justice to this principle if the environment in which they operate is conducive, which requires a democratic atmosphere; hence the challenge for all of developing a democratic society. (Article 27)

Institutional autonomy:

Autonomy is that degree of self-governance necessary for effective decision making by institutions of higher education regarding their academic work, standards, management and related activities consistent with systems of public accountability, especially in respect of funding provided by the state, and respect for academic freedom and human rights. However, the nature of institutional autonomy may differ according to the type of establishment involved. (Article 13)

Autonomy is the institutional form of academic freedom and a necessary precondition to guarantee the proper fulfilment of the functions entrusted to higher-education teaching personnel and institutions. (Article 14)

These UNESCO definitions are particularly useful in bringing out the link between the concepts of academic freedom and institutional autonomy. Academic freedom can be understood as the conviction that freedom of enquiry is a fundamental principle of the higher education mission, and that academic staff should have freedom to teach and research ideas and facts (including those that are inconvenient to external political groups or to authorities). Institutional autonomy, encompassing the autonomy of teaching and research as well as financial, organisational and staffing autonomy, is a necessary condition to ensure that academic freedom can operate.

The question remains, however, as to what guarantees can be provided that these shared values are genuinely supported and protected. This is a difficult topic to explore, and it may be easier to recognise threats to values than to identify clear safeguards. For example, since the Yerevan Communiqué was signed, there have been several cases which, at the very least, raise serious questions about commitment to these values in the respective countries. These cases have all been reported by the Magna Charta Observatory and Scholars at Risk – two international network organisations whose mission to promote and enhance academic freedom and institutional autonomy includes drawing attention to perceived violations. They include:

- 1) The decree ⁽¹³⁾ of 23 July 2016 by the Turkish government that ordered the closure of 15 higher education institutions after the failed coup attempt in the country ⁽¹⁴⁾;

The Council of the Magna Charta Observatory issued a statement on 25 July 2016 which states that it 'views the treatment of Turkish universities and academics by the Higher Education Council in the aftermath of the failed coup of July 15th with increasing concern. The latest reports refer to the forced resignation of 1577 university deans, and to suspensions and travel bans affecting many more academics and student' ⁽¹⁵⁾.

- 2) The revoking of the license of the European University in St Petersburg in March 2017 by Russian authorities ⁽¹⁶⁾;

The European University in St Petersburg (EUSP) is a research university known for graduate programmes in the social sciences and humanities. In June 2016, Vitaly Milonov, a prominent Member of Parliament, lodged an official complaint against the university related to the teaching of gender studies. Russia's Federal Service for Supervision in Education and Science (Rosobrnadzor), along with other government agencies, conducted investigations into the university over the summer and fall of 2016. On 12 December 2016, the school's licence was suspended, and revoked on 20 March 2017 ⁽¹⁷⁾. Following unsuccessful appeals, EUSP has applied for a new licence.

- 3) Hungary's act on higher education of 4 April 2017 ⁽¹⁸⁾

On 4 April 2017, the Hungarian Parliament adopted a new act amending the Higher Education Act of 2011. The changes added new requirements as regards the name of foreign higher education institutions, the need for bilateral agreements between Hungary and a non-European Economic Area (EEA) country of origin of the foreign higher education institution, the need to provide higher education services also in the country of origin as well as additional requirements for the registration and authorisation of higher education services in Hungary. Foreign higher education institutions must meet the new conditions by 1 January 2019.

Upon assessment of the law, the European Commission took the view that it is not compatible with EU law and launched infringement proceedings against Hungary. The stated rationale of the amendment was to strengthen quality assurance of foreign providers. However the new requirements appear to unreasonably restrict the rights of foreign education and to affect a single institution, the Central European University (CEU).

The task of the following section is to make a first attempt at analysing how values are protected and supported. Although academic freedom and institutional autonomy are essential, they are neither absolute nor static concepts. Both need to be considered in the light of evolving societal needs and developments, contextualised, and broken down into different dimensions.

Legal basis for academic freedom

EHEA country representatives reported on whether or not the concept of academic freedom is mentioned in national legislation. It is indeed mentioned in the legislation of all but four systems – the Flemish Community of Belgium, Belarus, Hungary and Malta. However, there is substantial variation in

⁽¹³⁾ Kanun Hükümde Kararname KHK/667: <http://www.resmigazete.gov.tr/eskiler/2016/07/20160723-8.htm>; English translation: <https://rm.coe.int/168069661d>

⁽¹⁴⁾ <https://www.scholarsatrisk.org/2016/07/15-universities-shut-connection-state-emergency/>

⁽¹⁵⁾ <http://www.magna-charter.org/publications-and-documents/observatory-publications/statement-concerning-universities-in-turkey>

⁽¹⁶⁾ <http://monitoring.academicfreedom.info/reports/2017-03-20-european-university-st-petersburg>

⁽¹⁷⁾ <http://isga.obrnadzor.gov.ru/lic/detials/e349be5359314960a144896bc296aac8/>

⁽¹⁸⁾ No T/14686, amending Act No 204 of 2011 on higher education

how and to what degree the concept is specified. Most commonly academic freedom is defined in legislation as the freedom to organise teaching (e.g. choice of pedagogical approach, textbooks), research (e.g. choice of topic, methodology) and artistic activities, and for higher education institutions to be self-governing/autonomous.

In some countries, the concept extends more broadly to embrace the notion of access to higher education and the right to learn (e.g. Bulgaria, the Czech Republic, Georgia, Latvia, Russia, Slovakia and the former Yugoslav Republic of Macedonia).

Composition of governing bodies

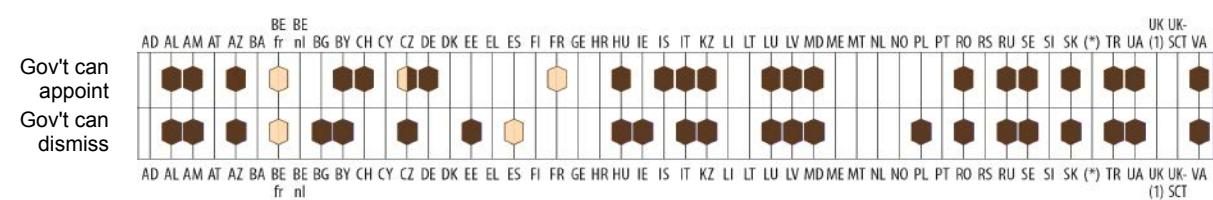
There is substantial variation in how institutions of higher education are governed and in how the membership of the governing bodies is (s)elected. In one third of the higher education systems in the EHEA there are different types of governing bodies for different types of public higher education institutions (e.g. universities, universities of applied sciences, etc.). In almost all systems, the membership/composition and the decision-making responsibilities of these governing bodies is regulated in legislation. The exceptions are the United Kingdom (England, Wales, Northern Ireland and Scotland) where the decision-making responsibilities are set out in the Higher Education Code of Governance 2014 and the Scottish Code of Good Higher Education Governance, and Russia where neither the membership/composition nor the decision-making responsibilities are regulated in legislation but are decided by the higher education institution.

The requirements for the composition of governing bodies vary across countries in the EHEA. In half of the education systems, there is a requirement for the governing bodies of higher education institutions to include a government representative. Almost all education systems require student and staff representatives, and about two thirds of the systems require other representatives (e.g. local authorities, unions, business/industry, science councils). In two thirds of the education systems, there is a legislative framework for the organisation of academic structures for teaching and research within higher education institutions.

Appointment and dismissal of higher education executive heads

There is more uniformity among EHEA countries when it comes to the appointment and dismissal of higher education institution executive heads (rectors) and staff (e.g. professors). Figure 1.15 shows the legal authority to appoint and/or dismiss rectors and academic staff. In 18 education systems, the government (Ministry or Head of State) can both appoint and dismiss rectors: Albania, Armenia, Azerbaijan, Belarus, the Czech Republic, Hungary, Italy, Kazakhstan, Luxembourg, Latvia, Moldova, Romania, Russia, Sweden, Slovakia, Turkey, Ukraine and the Holy See.

Figure 1.15: Legal authority to appoint and/or dismiss higher education institution executive heads (rectors) and some categories of higher education staff (e.g. professors), 2017



(*): the former Yugoslav Republic of Macedonia; UK (1): UK-ENG/WLS/NIR

■ Rector ■ Professor

Source: BFUG data collection.

In Germany and Iceland, the government can only appoint rectors, and in Bulgaria the government can only dismiss rectors.

It should be noted that in many countries in which the government formally appoints rectors, they are first elected or selected by the higher education institution's governing body (e.g. this is the case in Romania and Sweden).

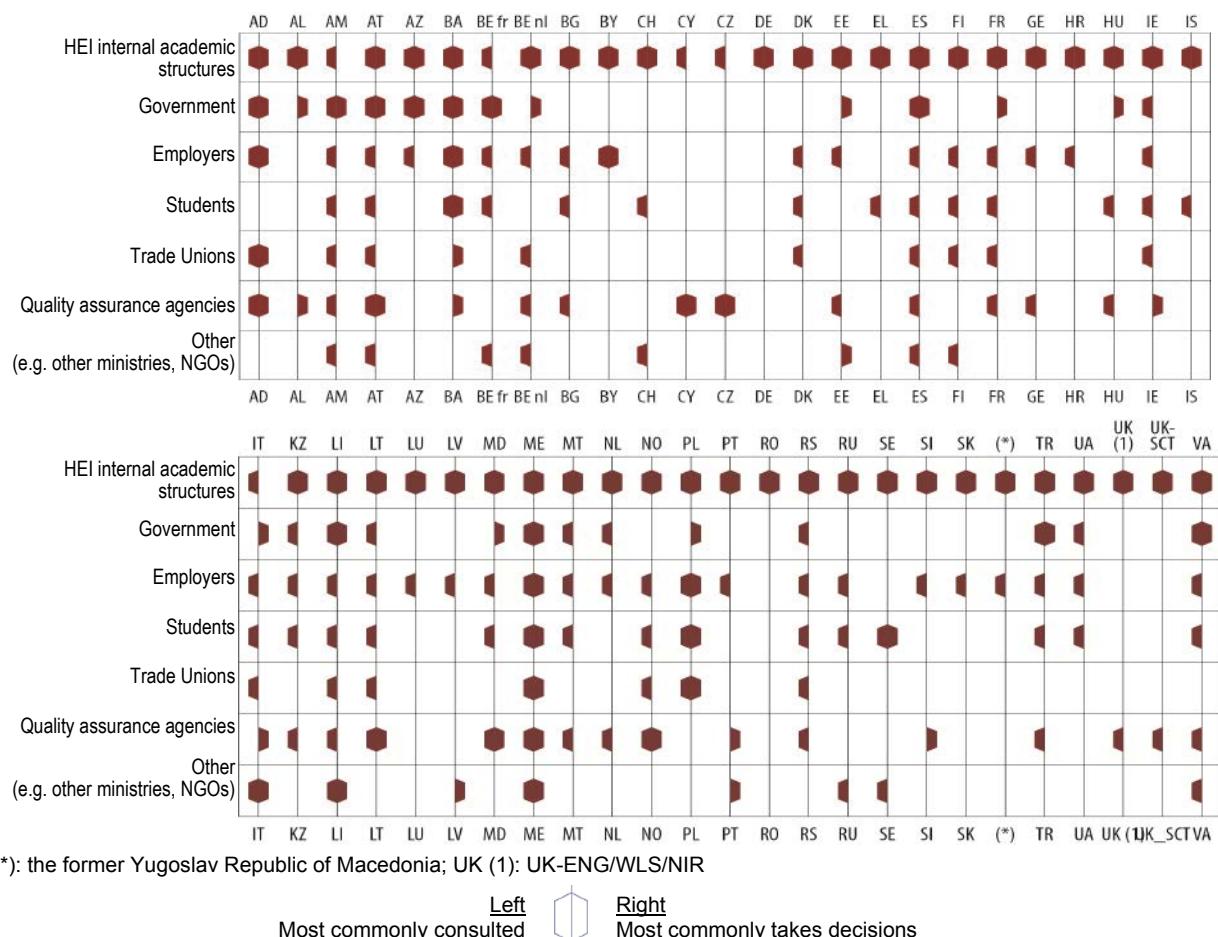
In only three education systems can the government appoint professors: the French Community of Belgium, the Czech Republic and France. And in only two higher education systems can the government dismiss professors: the French Community of Belgium and Spain.

Decision-making responsibility for new study programmes

Figure 1.16 shows the social actors most commonly consulted and/or most commonly making decisions regarding the development of new higher education programmes. In all 50 education systems, higher education institution internal academic structures are most commonly consulted regarding the development of new study programmes. This is followed by employers – in 38 systems; students – in 29; quality assurance agencies in 26; the government in 17; and trade unions in 16.

A similar pattern applies to decision-making on the development of new study programmes. In 45 systems, higher education institution internal academic structures make these decisions (except in Armenia, the French Community of Belgium, Cyprus, the Czech Republic and Italy). In slightly more than one-third (19) of the systems governments are also involved in decision-making. Employers are involved in the decision-making in only five of the systems (Andorra, Bosnia and Herzegovina, Belarus, Montenegro and Poland). Quality assurance agencies are involved in 14 systems. Unions are involved in four systems, while students are involved in the decision-making in only three systems.

Figure 1.16: Decision making regarding the development of new higher education programmes, 2017



Source: BFUG data collection.

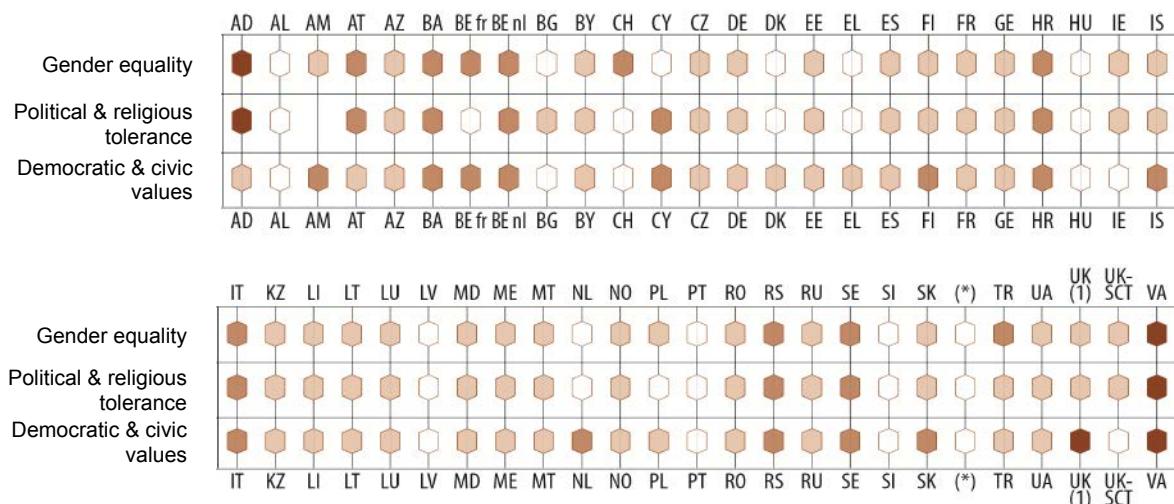
Consultation on top level action to implement higher education reforms

When planning top-level action to implement higher education reforms – including those committed to the Bologna process – there is a requirement to consult higher education institutions in only 22 of the 48 EHEA education systems. It must be noted, however, that they are commonly consulted even if there is no formal requirement. In 17 systems, there is a requirement to consult students on higher education reform, but again they are commonly consulted even if it is not required. In 14 systems staff, trade unions are mandatorily consulted. In 12 systems there is a requirement to consult employers, and in 14 there is a requirement to consult quality assurance agencies.

In more than half (26) of the EHEA education systems, there is no structural organisation overseeing and coordinating the implementation of commitments made in the Bologna Process. In these countries, the ministry responsible for higher education has the task of following up Bologna Process commitments.

In more than half of the EHEA systems, higher education institutions are supported to promote gender equality, political and religious tolerance, and democratic and civic values by top-level legislation. In about a quarter of the systems, there is specific higher education legislation supporting institutions in the promotion of these societal goals and values. And in another quarter of education systems, higher education systems are left to decide their own actions regarding the promotion of these values. The most common requirements listed in such legislation regarding the promotion of gender equality, political and religious tolerance, and democratic and civic values are anti-discrimination measures in appointment and promotion of staff and equal access to education and learning.

Figure 1.17: Support for higher education institutions to promote gender equality, political and religious tolerance, and democratic and civic values, 2017



(*): the former Yugoslav Republic of Macedonia; UK (1): UK-ENG/WLS/NIR

Top level legislation Specific HE legislation Other forms of support HEIs decide on their own

Source: BFUG data collection.

1.5. Conclusions

The framework conditions for higher education in the different countries of the EHEA vary enormously. Student populations vary dramatically in size, with 56 % of the 37.7 million students studying in the five largest countries. Most students (58.8 %) are enrolled in first-cycle programmes (Bachelor's or equivalent level), while 21.7 % are enrolled in second-cycle programmes (Master's or equivalent level), and 16.8 % are enrolled in short-cycle tertiary education. Only 3 % of students are enrolled in third-cycle programmes (doctoral or equivalent level).

Numbers of higher education institutions also mirror the diversity in the student population. Thirty systems have between 11 and 100 higher education institutions, eight systems have between 101 and 200 institutions, and seven now have over 200. Most countries with available data have also seen an increase in the number of academic staff, although this does not correlate clearly to changes in the student population. Some countries also have a sizeable share of academic staff over the age of 50 (in five cases over 50 %), and may now be facing challenges in renewing this population.

European higher education institutions continue to be funded predominantly from public sources. Nevertheless there are major differences in the economic capacity of countries, and in the share of their resources that they dedicate to higher education. Analysis of recent trends (2011 – 2015) shows that most countries have experienced decreases in public expenditure on higher education.

While the conditions for higher education are very different from country to country, the Yerevan Communiqué emphasises the shared values that underpin the EHEA. Specifically, the ministers highlight academic freedom and autonomy of higher education institutions, while EHEA values also include student and other stakeholder participation in the democratic governance and management of higher education. While concerns have been raised about violations of values in some EHEA countries, it is difficult to find causal explanations related to the different systems of higher education governance in operation across the EHEA. There is nevertheless a continuing need to be vigilant that robust legal protection is in place – including defining and limiting the role of governments in the organisation and management of higher education institutions.

CHAPTER 2:

LEARNING AND TEACHING

The Yerevan Communiqué

The 2015 Yerevan Communiqué stresses that 'enhancing the quality and relevance of learning and teaching is the main mission of the EHEA' (19). Regarding learning, ministers acknowledge that study programmes should enable students to develop the competences that can best satisfy personal aspirations and societal needs, through effective learning activities. Such student-centred learning 'should be supported by transparent descriptions of learning outcomes and workload, flexible learning paths and appropriate teaching and assessment methods' (20). Benefits of digital technologies should also be fully exploited in this context. The Yerevan Communiqué also stresses that it is necessary to 'actively involve students, as full members of the academic community, as well as other stakeholders, in curriculum design and in quality assurance' (21). In relation to teaching, the Communiqué notes that '[i]t is essential to recognize and support quality teaching, and to provide opportunities for enhancing academics' teaching competences' (22). It also highlights a need to 'promote a stronger link between teaching, learning and research at all study levels, and provide incentives for institutions, teachers and students to intensify activities that develop creativity, innovation and entrepreneurship' (23).

The 2015 Bologna Process Implementation Report

The 2015 Bologna Process Implementation Report (European Commission/EACEA/Eurydice, 2015), did not comprise a chapter dedicated specifically to learning and teaching. However, it provided a mapping of several policy areas directly related to the 2015 ministerial engagements. For example, like the previous mappings, the 2015 report examined the implementation of ECTS, learning outcomes and student-centred learning. It recognised progress in all these areas but still highlighted a need for additional efforts. The report also looked at policy approaches targeting flexible delivery of higher education programmes, noticing that in many countries, higher education institutions have a well-established flexible course provision, offering various types of distance and e-learning studies, in addition to part-time studies.

Chapter outline

Following the 2015 Yerevan Communiqué, this newly created chapter examines learning and teaching in higher education in five sections. The first section provides a general frame for the chapter, looking at the place of learning and teaching in higher education strategies and policies (Section 2.1). The two sections that follow build on previous Bologna mappings, providing information on the implementation of credits and learning outcomes (Section 2.2) and flexible study options, in particular part-time studies (Section 2.3). The fourth newly created section looks at learning in digital environments (Section 2.4), while the final section, which is also a new element of the Bologna mapping, examines teaching in new learning environments (Section 2.5).

(19) Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 2.

(20) Ibid.

(21) Ibid.

(22) Ibid.

(23) Ibid.

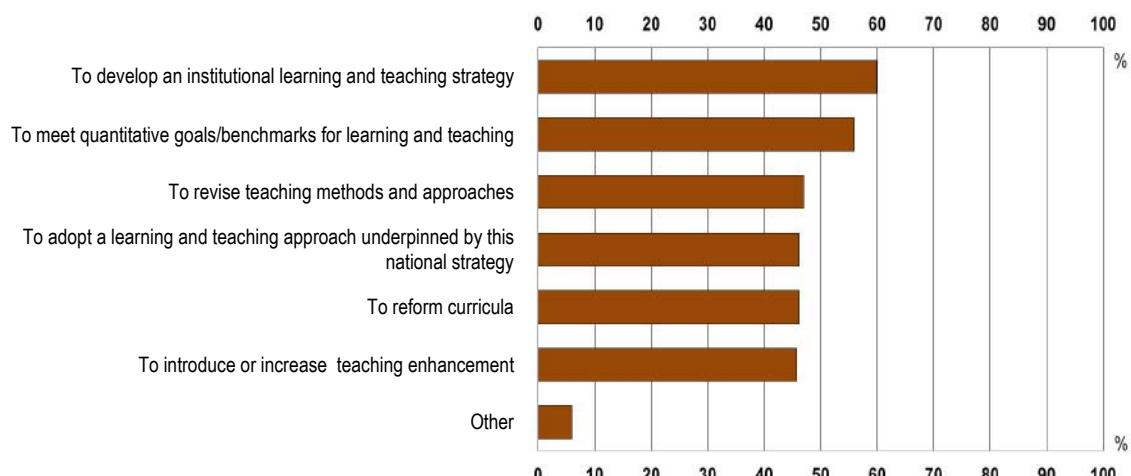
2.1. National and institutional strategies

The Bologna Process recognises learning and teaching as a key area of higher education reforms. In this context, the question can be raised as to whether and to what extent national and institutional strategies cover this field.

Within a survey conducted in 2017 by the European University Association (EUA)⁽²⁴⁾, higher education institutions were asked to indicate the presence of a national strategy for higher education learning and teaching. Among around 300 participating institutions, the vast majority – 78 % – replied positively, indicating either a strategy dedicated to learning and teaching in higher education or a wider higher education strategy including learning and teaching among other matters⁽²⁵⁾.

Figure 2.1 shows that national strategies formulate various expectations towards higher education institutions. Commonly, top-level authorities ask institutions to develop their own learning and teaching strategy (60 % of institutions indicating a national strategy reported this expectation) and/or to meet specific benchmarks for learning and teaching (an expectation reported by 56 % of institutions). National strategies also often promote the revision of teaching methods and approaches (reported by 47 % of institutions) as well as various teaching enhancement initiatives (46 %). Moreover, they commonly provide support for both curricular reforms (46 %) and the development of specific learning and teaching approaches (46 %).

Figure 2.1: Expectations towards higher education institutions specified in national learning and teaching strategies (% of institutions reporting that there is a national strategy in place), 2017



Source: EUA.

Notes:

The figure takes into consideration only those respondents (78 % of higher education institutions) that indicated the presence of a national strategy dedicated to learning and teaching in higher education or a wider higher education strategy including learning and teaching among other matters.

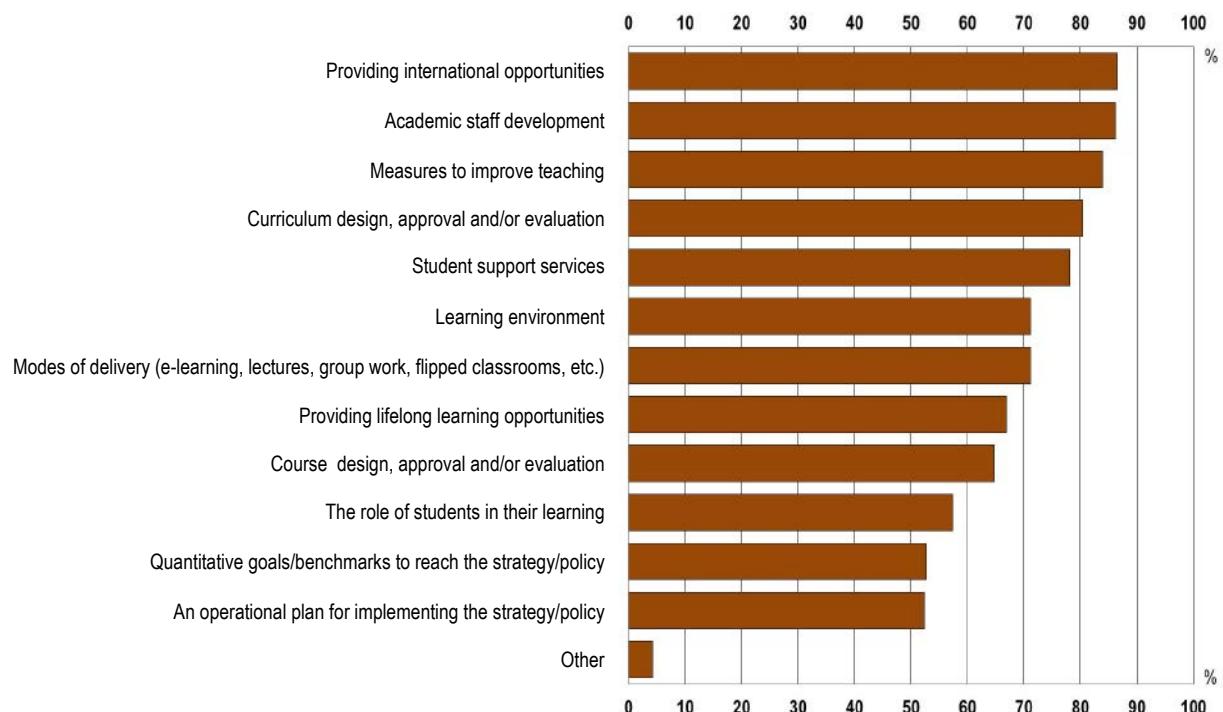
Taking into consideration the content of national strategies, it is not surprising that most higher education institutions – 86 % – have developed a learning and teaching strategy or policy.

⁽²⁴⁾ The EUA Trends 2018 survey (for more details, see the Glossary and Methodological Notes).

⁽²⁵⁾ However, it must be noted that there is often no consensus among higher education institutions in the same country on whether or not there is a national strategy on learning and teaching. Additional interviews conducted by EUA suggest that this might be due to various interpretations that higher education institutions have of what a national strategy is.

As Figure 2.2 indicates, institutional strategies most commonly target the development of international opportunities (reported by 87 % of institutions), academic staff development (86 % of institutions) and measures to improve teaching (84 % of institutions). Other common topics include curriculum design, student support services, learning environments and modes of delivery (elements reported by 70-80 % of institutions). Slightly less common but still widespread areas are lifelong learning, course design and students' role in learning. However, benchmarks to reach strategies and operational plans for their implementation are the least frequently cited areas (reported by only around 50 % of institutions), which may raise some concerns regarding the actual implementation and/or evaluation of institutional strategies.

Figure 2.2: Elements included in institutional learning and teaching strategies (% of institutions reporting that there is an institutional strategy in place), 2017



Source: EUA.

Notes:

The figure takes into consideration only those respondents (86 % of higher education institutions) that indicated the presence of an institutional strategy on learning and teaching, including respondents referring to strategies at faculty/department level.

Overall, the EUA Trends 2018 survey suggests that teaching and learning in higher education is now commonly embedded in both national and institutional higher education policies and strategies. Keeping this in mind, the sections that follow look at four distinct areas related to learning and teaching in higher education, namely credits and learning outcomes, modes and forms of study, learning in digital environments and teaching. Each of these areas is closely linked to the concept of student-centred learning, defined as 'both a mindset and a culture [...] characterised by innovative methods of teaching which aim to promote learning in communication with teachers and other learners and which take students seriously as active participants in their own learning, fostering transferable skills such as problem-solving, critical thinking and reflective thinking' (ESU 2015, n.p.).

2.2. Credits and learning outcomes

Effectively supporting students in acquiring knowledge, skills and competences that best meet their self-development goals and social needs is at the centre of the Bologna Process. The development and continuous improvement of the structural reform tools – such as the degree structures, qualifications frameworks (see Chapter 3), credit systems or quality assurance (see Chapter 4) – aim to enable a better learning experience for students, promoting mobility and improving the quality of higher education.

The transparent and systematic use of European Credit Transfer and Accumulation System (ECTS) and its inherent principles in higher education institutions across Europe can make an important contribution to student centred teaching and learning. Using a combination of the learning outcomes approach and student workload in programme design and delivery puts the student in the centre of the teaching and learning process. Such an approach, on the one hand, makes it clearer both to academic staff and students what they need to achieve, and, on the other hand, it also helps in monitoring and, eventually, adapting programmes, teaching material and methods to different modes of delivery and student populations.

In addition, ECTS as a credit transfer and accumulation mechanism has the potential to offer significant flexibility to learners to plan their own learning paths. For example, it enables combining learning experiences within an institution, recognising mobility experience between higher education institutions, valuing prior learning, adapting to the specific pace of studies, or completing only certain components of programmes.

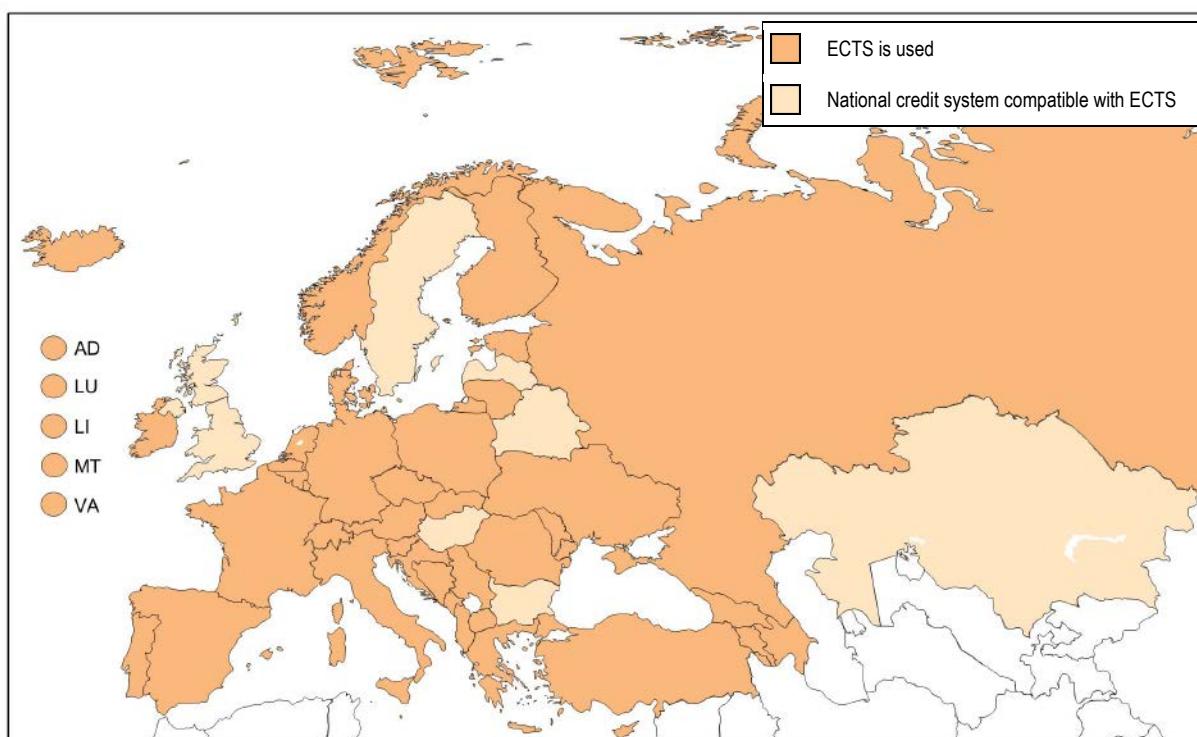
When in 2015 ministers endorsed the ECTS Users Guide (European Commission, 2015) in Yerevan as an official EHEA document, they acknowledged that ECTS can only foster student centred learning and collaboration between higher education institutions if all its elements are fully and correctly implemented. In order to improve the coherent use of the main elements of ECTS, ministers formally committed themselves to systematically using the ECTS Users' Guide at policy level and to supporting higher education institutions in the correct implementation of ECTS. This part of the report will take stock of the progress made in the implementation of ECTS since 2015.

2.2.1. Implementation of ECTS – state of play

As shown in Figure 2.3, ECTS is used as a national credit transfer and accumulation system in most countries in the EHEA. There are eight countries where a national credit system is used for the accumulation and transfer of credits.

Belarus, Bulgaria, Kazakhstan, Latvia, Sweden and the United Kingdom (Scotland) require the use of a national credit system and determine specific conversion rules between the national system and ECTS. In the Czech Republic and the United Kingdom (England, Wales and Northern Ireland), there are no formal requirements to use any credit systems in higher education. Nevertheless, in all countries, including those having national systems, ECTS is used in practice by all or most higher education institutions at least in the context of international mobility. Some countries indicate that ECTS is not used for accumulation within higher education institutions or for credit transfer between institutions at national level.

Figure 2.3: Credit system used for the accumulation and transfer of credits, 2016/17



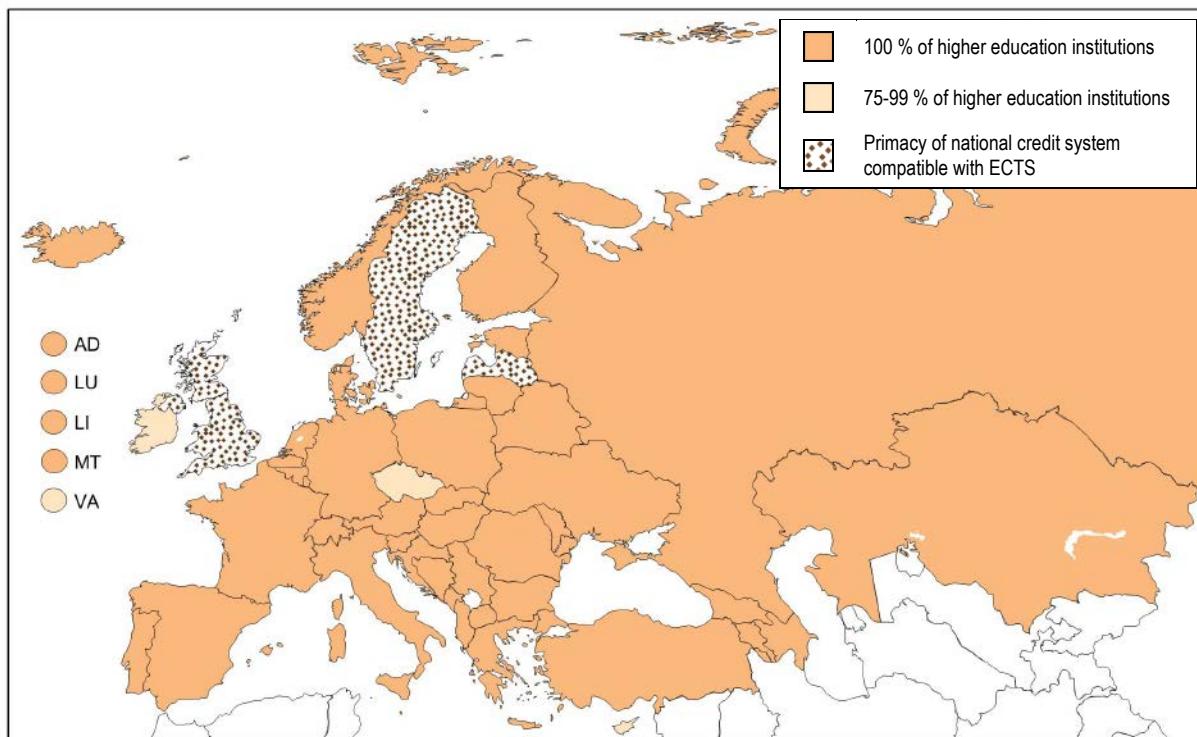
Source: BFUG data collection.

Figures 2.4 and 2.5 broadly present the proportion of higher education institutions and higher education programmes which use ECTS for credit accumulation and transfer. 45 systems indicate that all of their first- and second-cycle higher education programmes use ECTS compared to 36 countries in 2013/14. Since the 2015 report, progress has been reported in Kazakhstan, the former Yugoslav Republic of Macedonia and Russia – countries where all programmes now use ECTS for credit transfer.

In Cyprus, the Czech Republic, the Holy See and Ireland, neither all programmes nor all institutions use ECTS. In the Flemish Community of Belgium, pre-Bologna programmes are gradually rewritten in terms of learning outcomes and ECTS credits are allocated to the revised programmes.

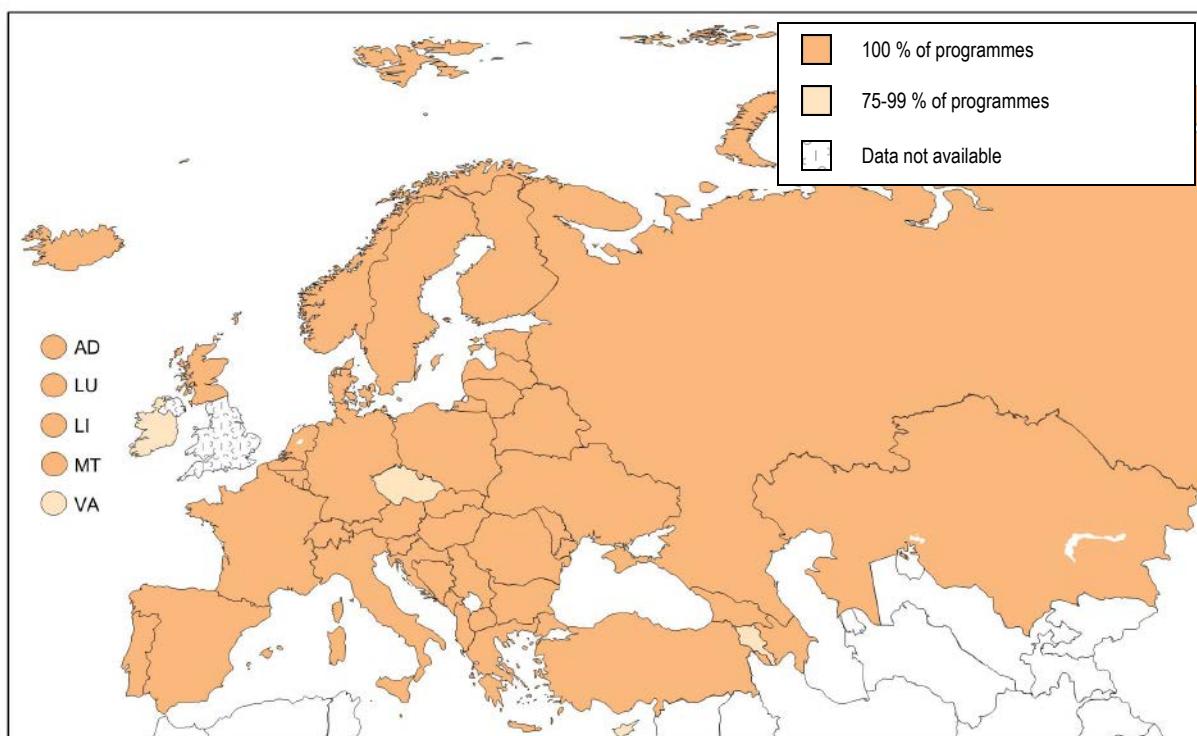
Overall, however, both figures suggest that the use of ECTS for the accumulation and transfer of credits is gaining ground across Europe.

Figure 2.4: Share of higher education institutions using ECTS credits for accumulation and transfer, first- and second-cycle programmes, 2016/17



Source: BFUG data collection.

Figure 2.5: Share of first- and second-cycle programmes using ECTS credits for accumulation and transfer for all elements of study programmes, 2016/17

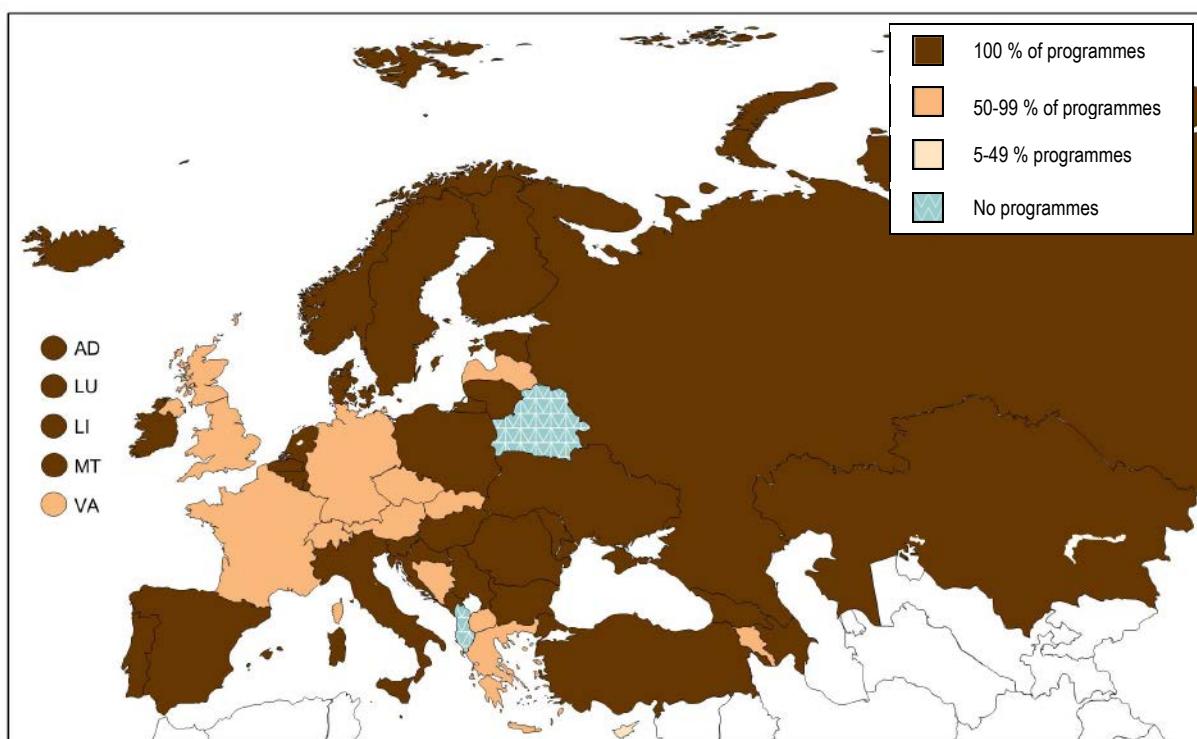


Source: BFUG data collection.

An important element of ECTS is the learning outcomes approach. Programmes and their components have to be described in terms of learning outcomes: what students need to know, understand and be able to do by the end of the learning process. To correctly implement the system, it is essential that all credits are linked to programme components which are described in learning outcomes. This is important to maintain trust in ECTS.

Figure 2.6 depicts the extent to which ECTS credits are linked to learning outcomes in higher education programmes in the EHEA. Significant progress has been made in this area compared to the situation in 2013/14. Eleven additional countries (Azerbaijan, Bulgaria, Croatia, Hungary, Kazakhstan, Liechtenstein, Malta, Montenegro, Portugal, Romania and Ukraine) now describe all programmes and their components in terms of learning outcomes, while the Czech Republic does so for more than half. However, in 14 countries, ECTS credits are still not linked to learning outcomes in between 1-49 % of programmes, and in more than half of the programmes in Cyprus. Albania and Belarus have not started implementing the learning outcomes approach in their higher education programmes. The current data collection does not provide sufficient information on the challenges these countries face in progressing further.

Figure 2.6: Extent to which ECTS credits are linked with learning outcomes in higher education programmes, 2016/17



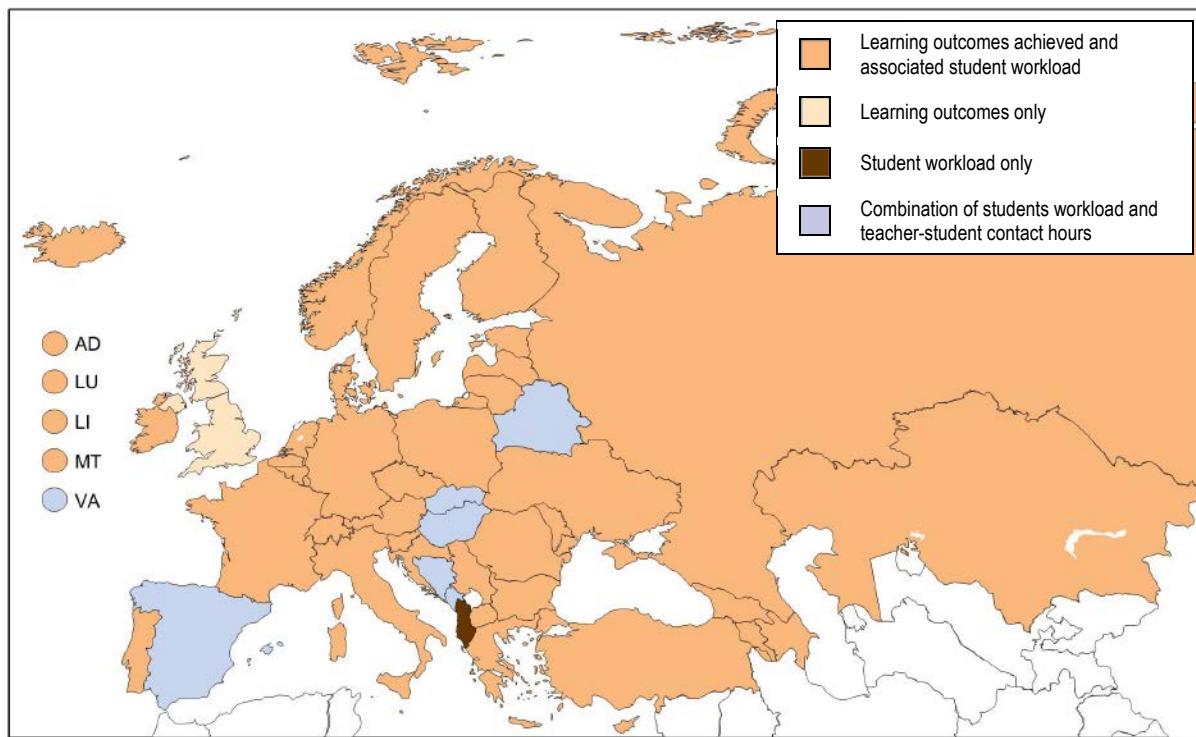
Source: BFUG data collection.

Programme components to which ECTS credits are allocated may have different weight and may require different time and work investment from students. For this reason, describing all components of higher education programmes in terms of learning outcomes and indicating the workload that students typically invest to achieve the intended learning outcomes provide an important basis for making programme delivery more student-centred. Fully understanding what knowledge, skills and competences they need to acquire, students can take more ownership for their own learning and be even more active partners in the process. Teachers can better plan and adapt teaching material and learning support to meet the needs of the specific groups with whom they work. Equally, when it comes to the assessment of student achievement, evaluating the extent to which intended learning outcomes have been acquired makes evaluations and ultimately the award of credits more transparent. In addition, linking credits to learning outcomes and workload also facilitates the monitoring of programmes. For example, constructive dialogue and reflective feedback between students, teachers and other staff can focus on whether the expected learning outcomes can be achieved within the given timeframe or whether workload needs to be revised.

For this reason, in 2015 in Yerevan, ministers agreed that the common approach to ECTS is to allocate credits based on the learning outcomes achieved and the associated student workload.

Figure 2.7 shows to what extent this agreement is put into practice and presents the most common approaches taken by countries in allocating ECTS credits. The majority of countries report that ECTS are allocated on the basis of learning outcomes and associated student workload. In addition to the countries that already used this approach in 2015, the Czech Republic and Liechtenstein now also require their higher education institutions to use this combination. This is in line with the Yerevan commitments.

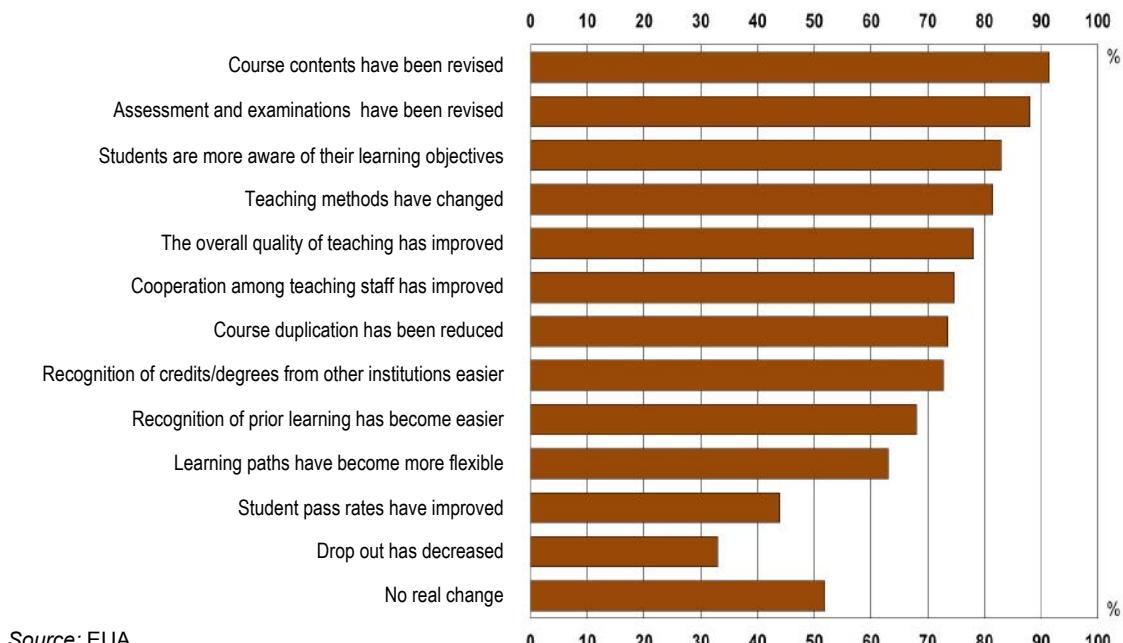
Figure 2.7: Basis to allocate ECTS credits in the majority of higher education institutions, 2016/17



The United Kingdom remains the only country that uses only learning outcomes for the allocation of credits, and does not take into account the required student workload. Albania is the only country referring to student workload only. Seven countries (Belarus, Bosnia and Herzegovina, Holy See, Hungary, Montenegro, Slovakia and Spain) allocate credits to programme components based on a combination of student workload and teacher-student contact hours. These approaches take into account input – the time factor – but fail to make explicit what should be learnt within the indicated timeframe. In such systems that do not link ECTS credits to learning outcomes and student workload, the risk is higher that students may not acquire the same level of learning outcomes as others who gain the same number of credits, or that they may be overloaded with tasks to obtain these credits. Systems that do not require learning outcomes to be specified also create a difficulty for the whole EHEA, as the objective of transferring credits across countries in a transparent and equitable way is undermined. Indeed, no student should face difficulties in the recognition of his/her learning outcomes when participating in credit mobility.

Responses from higher education institutions to the EUA Trends 2018 survey suggest that the learning outcomes approach is having an impact on life in higher education. 76 % of higher education institutions reported that learning outcomes have been developed for all of their programmes, and a further 16 % reported that some courses are described in learning outcomes. Figure 2.8 shows the areas where higher education institutions perceive most strongly that the introduction of the learning outcomes approach has had an impact.

Figure 2.8: Impact of the learning outcomes approach in higher education institutions (% of institutions), 2017



Source: EUA.

Most institutions report that course contents (91 %) and assessment and examination requirements (88 %) have been revised to be compatible with the learning outcomes approach. These two direct impacts are in line with the policy steering that national authorities provide. 83 % of institutions reported that students are more aware of their learning objectives and 81 % feel that teaching methods have changed due to the introduction of the learning outcomes approach. The learning outcomes approach seems to have had less impact on student pass rates and drop-out rates. This perception is not surprising. On the one hand, there are multiple factors that influence pass and drop-out rates, and student performance in general, and institutions do not associate it with the learning outcomes approach. On the other hand, the learning outcomes approach has not yet been used long enough for institutions to have data on its impact on student performance.

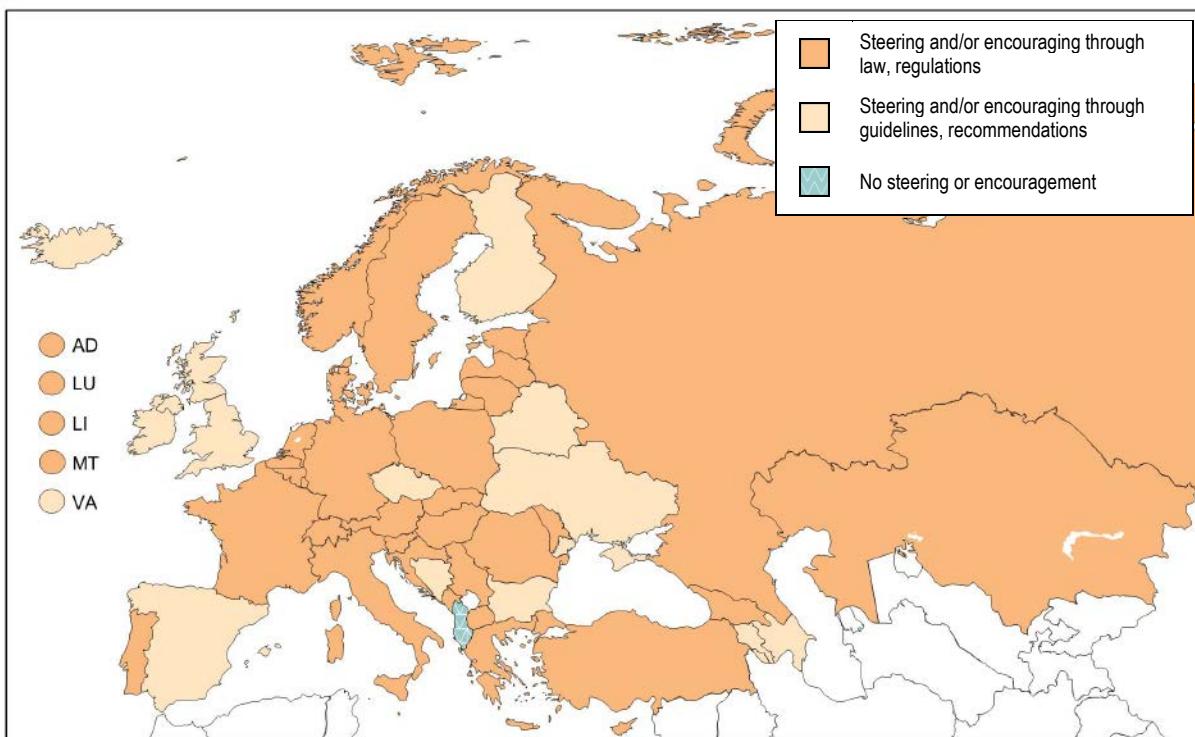
In contrast, a little more than half of the institutions reported that the learning outcomes approach has not resulted in real change. A deeper analysis of institutional responses may shed light on the reasons for the lack of impact and how institutions concerned fare on other questions related to the learning outcomes approach.

2.2.2. Policy guidance for the implementation of the learning outcomes approach

Previous Bologna implementation reports showed that the coherent implementation of the learning outcomes approach and related credit allocation has not been attained across higher education institutions even within individual countries, often not even across faculties within individual institutions. Responses from higher education institutions to the recent EUA Trends 2018 survey also suggest that while many institutions are becoming more confident about designing curricula based on learning outcomes and revising student assessment to align to the learning outcomes approach, to one fifth of the institutions (58 of 263 responding to a specific question) expressing the intended learning outcomes in curricula still causes problems. In Portugal, more than half of the responding institutions reported that this is still a challenge. About a third of higher education institutions (84 of 263 responding to the question) find it difficult to revise student assessment to focus on learning outcomes, i.e. whether students have achieved the intended knowledge, skills and competences, (more than half of the participating institutions reported this in Austria and Portugal). Finally, 39 % of institutions report that resources are not sufficient to support staff in implementing learning outcomes (more than 50 % in Austria, France, Italy, Portugal and Romania).

In most countries higher education institutions have the competence to develop programmes and allocate credits. Responsible staff, thus, needs to acquire expertise in this domain. Through their important role in the governance of higher education systems, national authorities have the capacity to provide framework conditions that guide and support institutional change to coherently implement the learning outcomes approach throughout the system. Figure 2.9 depicts to what extent national level steering exists for this purpose.

Figure 2.9: Steering and/or encouraging use of learning outcomes in national policy for programme development, 2016/17

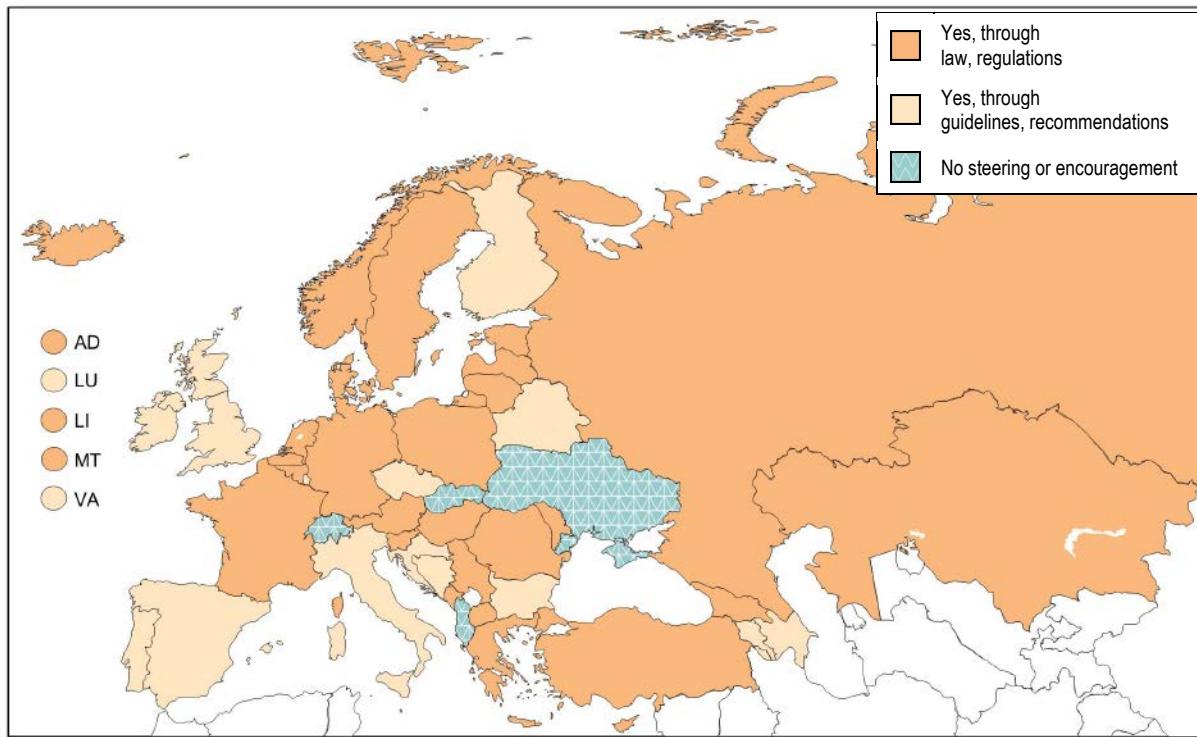


Source: BFUG data collection.

There has been little change in the EHEA since 2015 with regard to the steering tools used by national authorities to encourage higher education institutions to use learning outcomes in programme development. As Figure 2.9 depicts that most countries use laws or regulations. In 2015, Cyprus also adopted a law which makes the use of ECTS obligatory for all higher education institutions within a certain transition period. The use of learning outcomes is often regulated as part of the legislation on the implementation of the national qualifications framework – making the use of learning outcomes an explicit condition for the inclusion of qualifications in the framework (Croatia, France, Hungary, Ireland, Liechtenstein, Malta and Montenegro). Higher education programme accreditation rules (Malta), or quality assurance standards or guidelines (Portugal, the United Kingdom – Scotland) may also require the use of learning outcomes in programme descriptions. In Kazakhstan, Russia and Ukraine, national higher education standards provide orientation for defining learning outcomes for programmes and their components. In Albania, the only country without policy steering in 2016/17, a working group is currently working on new legislation which will introduce learning outcomes in the higher education system.

In student-centred teaching, assessing to what extent students have achieved the intended learning outcomes provides essential feedback to the students as well as to the teacher. However, the learning outcomes approach requires new ways of student assessment. In order to trigger change in the area of assessment, public authorities also have responsibility to encourage student assessment that increasingly focuses on learning outcomes – measuring to what extent intended knowledge, skills and competences are acquired – rather than on input or other dimensions. Figure 2.10 shows that together with the countries that already had steering in 2015, now Hungary and Portugal have adopted regulations and guidelines, respectively, for this purpose. In four countries (Albania, Slovakia, Switzerland and Ukraine), no steering is provided and the countries do not signal developments in this area.

Figure 2.10: Steering and/or encouraging student assessment procedures to focus on learning outcomes, 2016/17

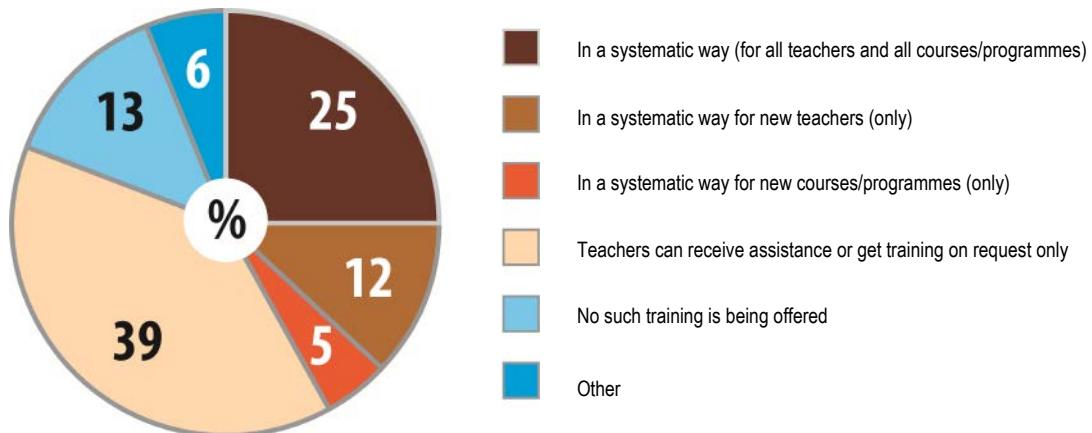


Source: BFUG data collection.

Besides formal steering on the use of learning outcomes, a few countries report that they have put in place other support measures or incentives for higher education institutions to foster the correct use of ECTS for credit accumulation and transfer. Some of the support and monitoring measures mentioned that could have a multiplier effect are: training to higher education staff (Armenia), guidelines or recommendations on how to use ECTS in higher education institutions (Armenia, Austria, Belarus and the Czech Republic), monitoring (Armenia and Bosnia and Herzegovina), project funding or pilot projects (Germany and Norway) and Bologna experts or policy advisors providing expertise to higher education institutions (Austria, France and Malta).

Responses to the EUA Trends 2018 survey also demonstrate that large-scale systematic training for higher education staff is not a frequent phenomenon across the EHEA (see Figure 2.11).

Figure 2.11: Training for higher education teaching staff in developing learning outcomes (% of institutions), 2017



Source: EUA.

Figure 2.11 shows that only in a quarter of the higher education institutions that responded to a specific question is there systematic training for all teachers and in all programmes on developing learning outcomes. Austria, Kazakhstan, Russia and Ukraine are the countries where a somewhat higher share of institutions report systematic trainings. About 39 % of the institutions reported that teachers can receive assistance or training on developing learning outcomes only if they request it. Finally, 13 % of the institutions across the EHEA report that no such training is organised.

2.2.3. Monitoring the implementation of ECTS

In addition to legislative frameworks, funding and other incentives, national authorities may use systematic monitoring to support the implementation of the learning outcomes approach and ECTS. Monitoring efforts send a signal to stakeholders that national authorities pay specific attention to the implementation of a policy, gather information on the progress and seek to identify challenges. National authorities and institutions themselves can use monitoring information for reviewing and eventually revising their policies.

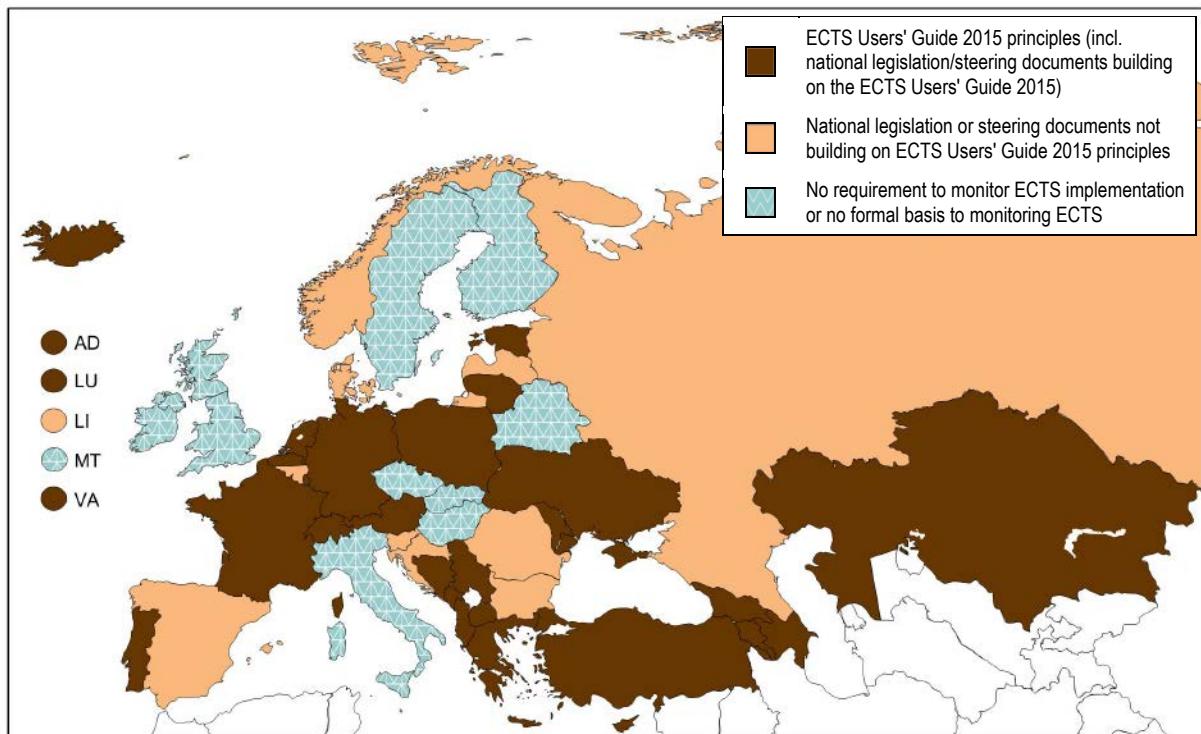
The ECTS Users' Guide 2015 explicitly suggests that ECTS should be quality assured through appropriate evaluation processes (e.g. monitoring, internal and external quality reviews and students' feedback) and continuous quality enhancement. The Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG, 2015)⁽²⁶⁾ also refer to areas that are related to ECTS. At national and European levels, external quality assurance systems are best placed to monitor whether higher education institutions have the necessary procedures and practice in place to ensure the correct implementation of ECTS.

In order to assess the extent to which ECTS implementation at national level takes into account the principles presented in the ECTS Users' Guide 2015, two aspects are considered in this report: first, the basis for external quality assurance to monitor ECTS; and second, the monitoring of ECTS key principles.

⁽²⁶⁾ http://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf

Figure 2.12 shows whether or not there is a requirement to monitor ECTS implementation in external quality assurance procedures, as well as pointing out the main reference point for external quality assurance.

Figure 2.12: Basis for external quality assurance to monitor ECTS implementation in higher education, 2016/17



Source: BFUG data collection.

Over the last three years, 28 of the 50 systems managed to incorporate the ECTS Users' Guide 2015 principles into their quality standards or legislation on external quality assurance as the basis to monitor ECTS. In another 11 systems, monitoring is based on national legislation, quality standards or steering documents, but not on the ECTS Users' Guide 2015 principles. This mainly means that these countries did not yet review their national regulations or steering documents and the ECTS Users' Guide 2015 is not yet reflected in their external quality assurance framework⁽²⁷⁾. Finally, in 11 systems, monitoring is not requested by public authorities. In two systems among these (Ireland and Finland), such monitoring may, however, happen in practice. In these cases, lack of formal basis for external quality assurance to monitor ECTS may mean, on the one hand, that ECTS is not on the radar of external quality assurance agencies, or, on the other hand, it may suggest that the system is not prescriptive about external quality assurance. For example, ECTS is monitored as part of internal quality assurance in Finland.

⁽²⁷⁾ In Croatia, the external quality assurance agency applies new standards and criteria from 2018, which build on the 2015 ECTS Users' Guide.

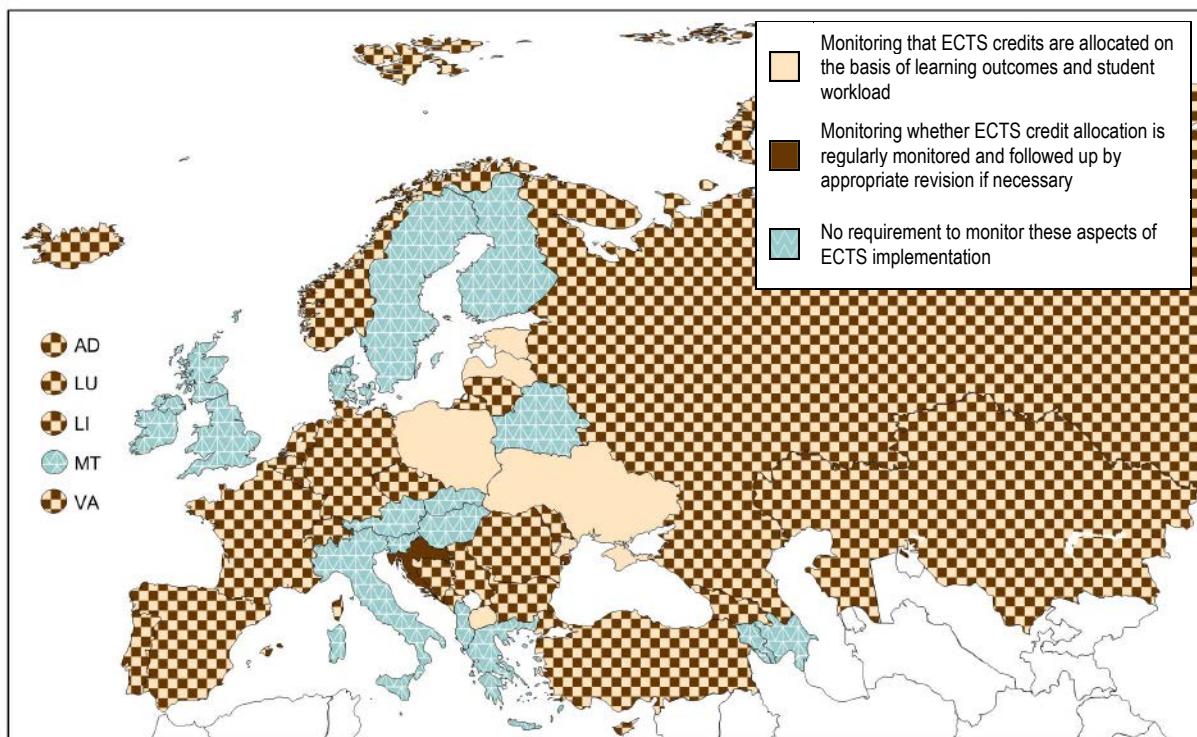
Figure 2.13 looks at the monitoring of some key principles of ECTS. Those features considered are of particular importance for the systemic implementation of ECTS as a credit system for the accumulation and transfer of credits. The figure shows the extent to which external quality assurance monitors whether higher education institutions have integrated the following six features of ECTS into their procedures and practice:

- ECTS credits are awarded on the basis of learning outcomes and student workload;
- ECTS credit allocation is regularly monitored and followed up by appropriate revision if necessary;
- ECTS is used as a credit system for the accumulation of credits acquired within higher education institutions;
- ECTS is used as a credit system for the transfer of credits for student learning outcomes acquired in another institutions within the country;
- ECTS is used as a credit system for the transfer of credits for student learning outcomes acquired during periods of study abroad;
- Appropriate appeals procedures are in place to deal with problems of credit recognition.

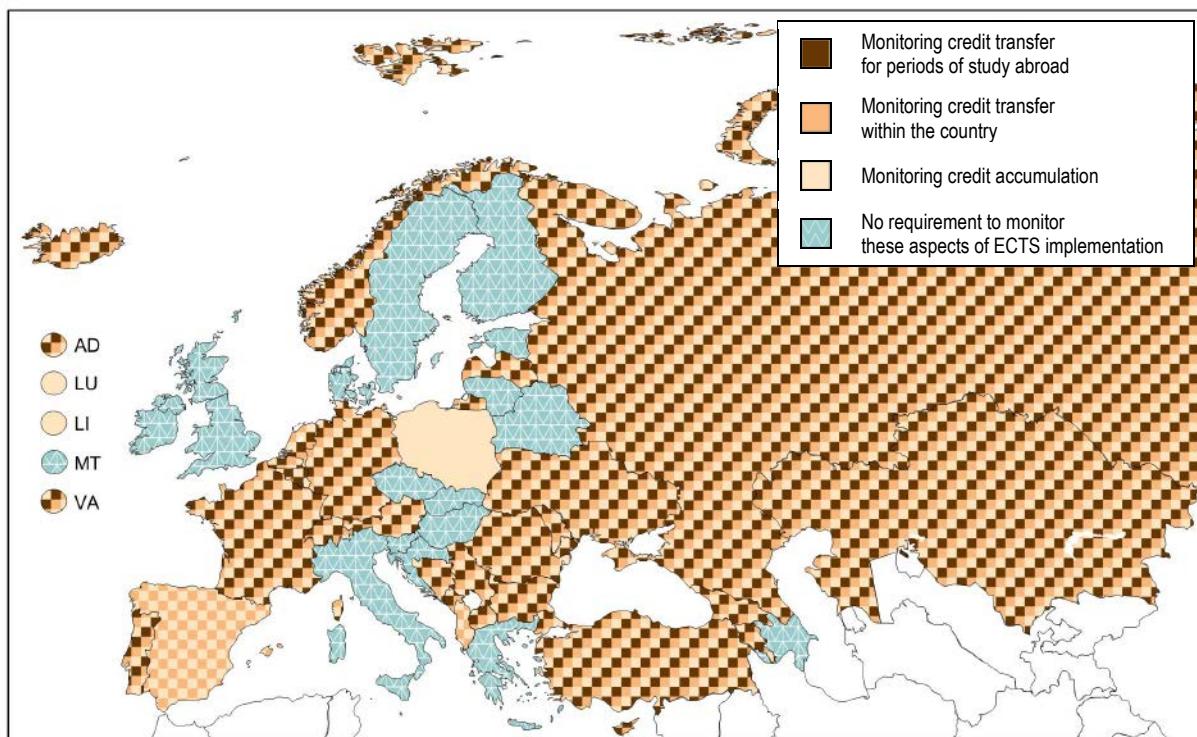
Figure 2.13 is comprised of three parts. The first part focuses on credit allocation and credit monitoring. As discussed above, these two features – awarding ECTS credits based on learning outcomes and student workload, and regularly checking if the intended learning outcomes can be achieved with the foreseen time – are fundamental for the full roll-out of ECTS. The second part of the figure depicts whether the correct use of ECTS in credit accumulation and credit transfer is monitored. Finally, the third part presents whether external quality assurance checks the existence of appropriate appeals procedures for problems in credit recognition.

Figure 2.13: Monitoring key aspects of ECTS implementation by external quality assurance, 2016/17

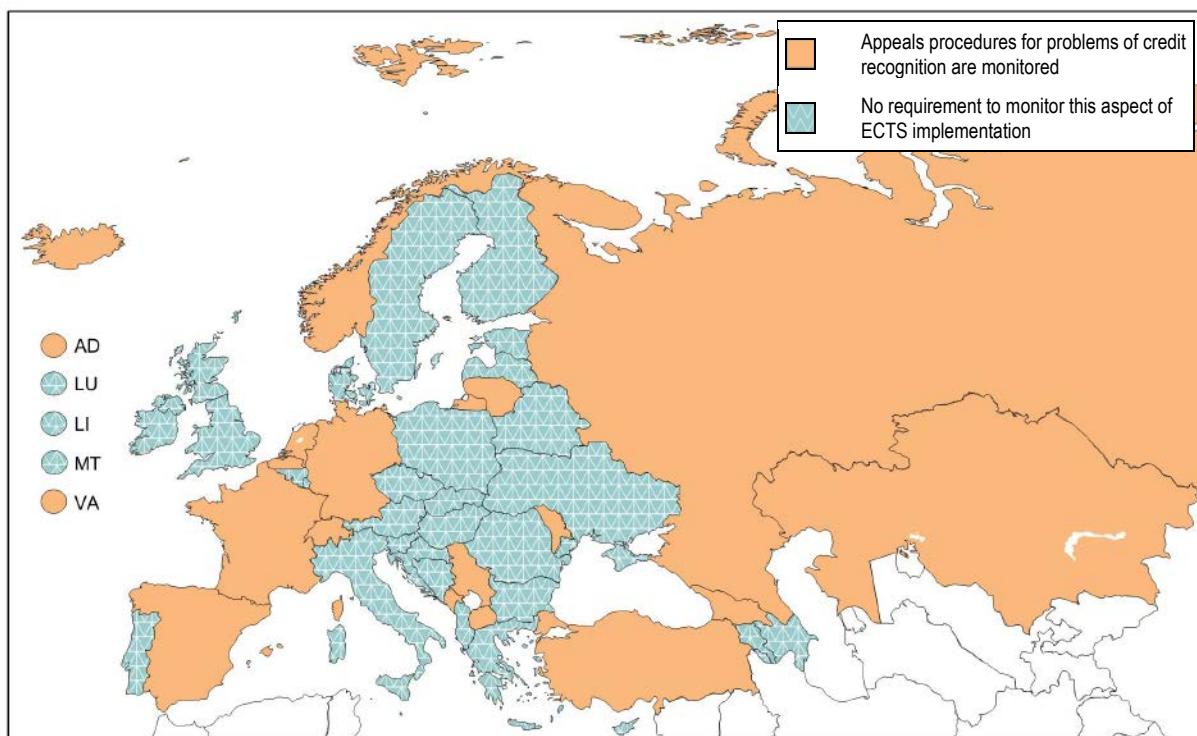
A) Requirement to monitor learning outcomes and credit allocation



B) Requirement to monitor credit accumulation and transfer



C) Requirement to monitor appeals procedures for problems of credit recognition



Source: BFUG data collection.

Figure 2.13 shows that 16 higher education systems require all the above six features of ECTS implementation to be monitored. At the same time, 14 systems have no requirement for monitoring any of these features. However, as indicated before, in five countries among these (Azerbaijan, Denmark, Finland, Greece and Ireland) all features may still be monitored in practice.

Some other countries report that they monitor some ECTS features in practice although there is no clear pattern as to which ECTS features they most commonly monitor. The Czech Republic, Estonia, Liechtenstein, Luxembourg and Poland monitor credit allocation and sometimes credit accumulation

within institutions, but do not require the use of ECTS for credit transfer to be monitored. In contrast, Albania, Armenia and Austria do not require monitoring of the basis to award credits, but do require monitoring of credit accumulation and transfer.

One finding, however, is more widespread. 31 countries do not require monitoring of whether there are procedures that make it possible for students to appeal if they face problems in the recognition of their acquired credits. A third of these countries report that monitoring appeals procedures would even be an unusual practice. This is an important lacking element since national authorities will not have information on whether students have guarantees that ECTS is applied correctly and their credits are recognised. This may result in missing the opportunity to provide students' feedback and improve the system across the country and Europe.

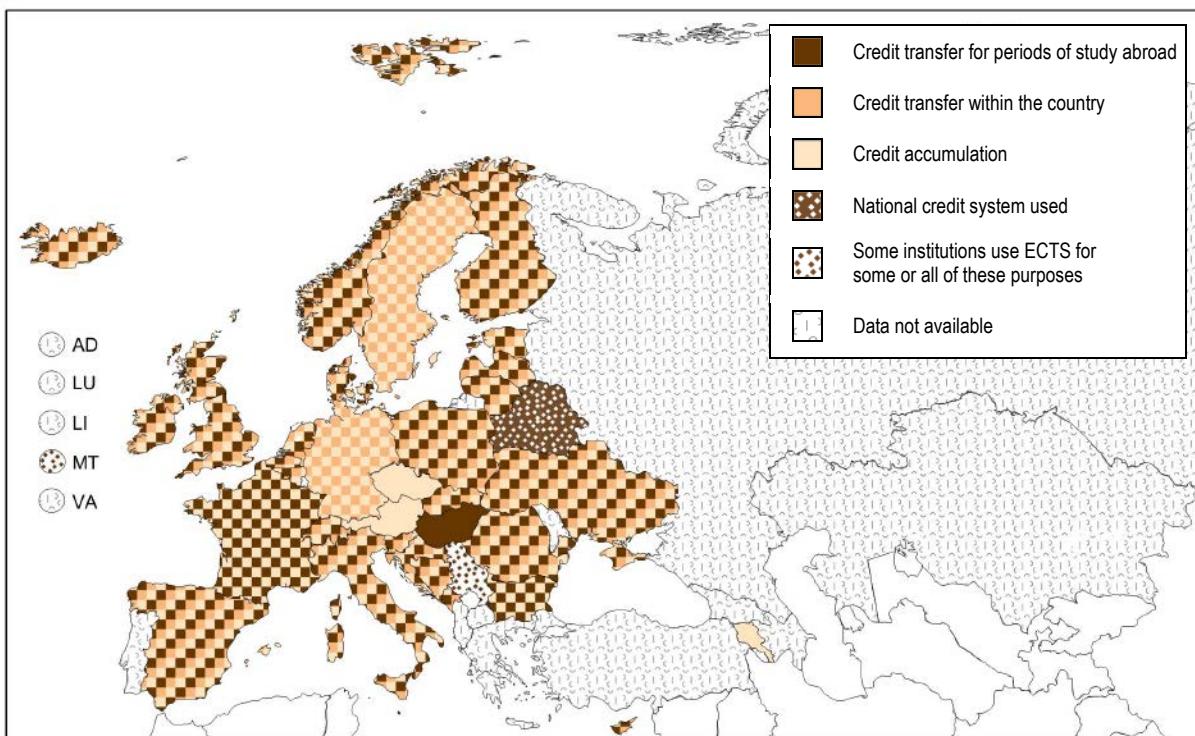
2.2.4. Students' perspective on the implementation of ECTS

The main goal of ECTS is to promote the transparent recognition of learning outcomes and flexible pathways during students' learning career in higher education. Thus, students' experiences and perceptions about the use of ECTS provide key feedback in assessing the maturity of ECTS in the EHEA.

In its survey to the 2018 Bologna Ministerial Conference, the European Students' Union (ESU) asked its members in EHEA countries whether ECTS was used for credit accumulation and transfer, what the basis was for the calculation of credit points and whether higher education institutions worked in accordance with the ECTS Users' Guide 2015.

Figure 2.14 shows that students' unions in 23 of the 36 countries participating in the survey reported that all higher education institutions use ECTS for credit accumulation and credit transfer between institutions in their countries and equally for recognising periods of study abroad. In seven additional countries, ECTS is used for one or two of these purposes in all higher education institutions.

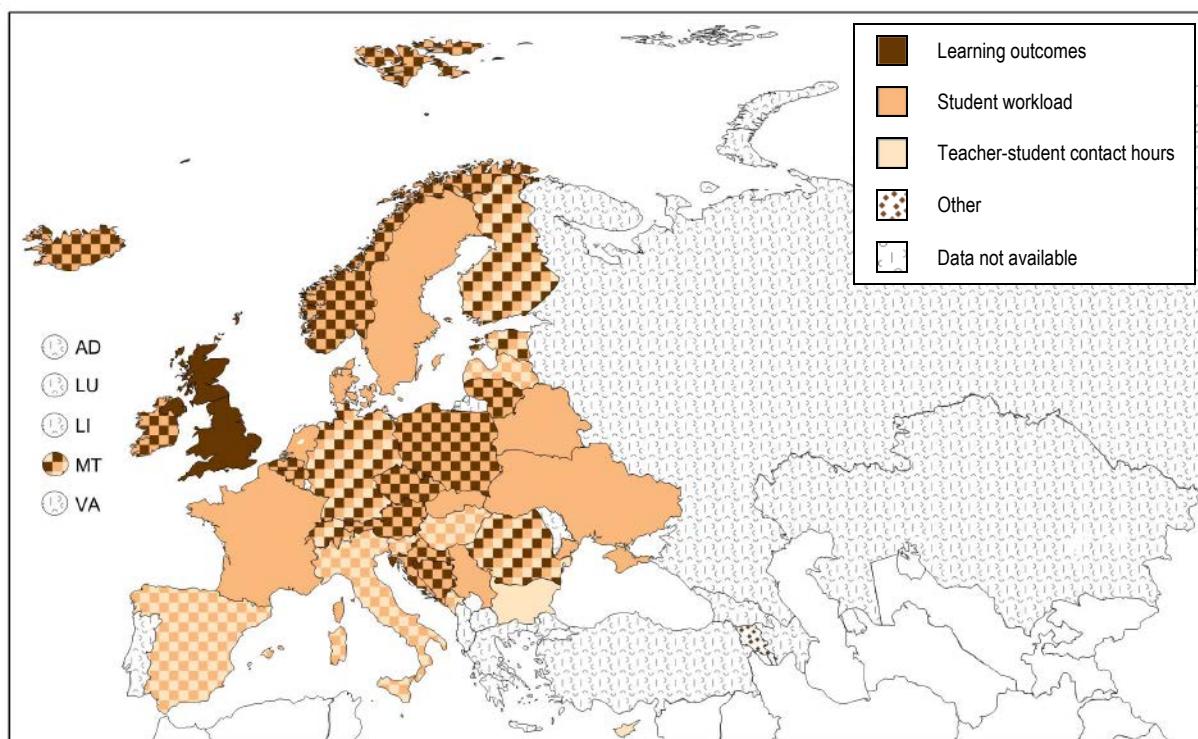
Figure 2.14: Use of ECTS for credit accumulation and transfer by all higher education institutions, first- and second cycle programmes, students' perspective, 2016/17



In Armenia, Austria, the Czech Republic, France, Germany and Sweden, students claim that ECTS is used for credit accumulation in all higher education institutions, and not all (some) institutions use it as a credit transfer system (within the country and/or for study periods abroad). In Malta and Serbia, according to students' perceptions, some institutions use ECTS. In Hungary, students indicate that a national credit system is used for credit accumulation and credit transfer between institutions within the country and ECTS is used in the context of study periods abroad. In Belarus, a national credit system is used for credit accumulation and transfer. Finally, a national credit system and ECTS are simultaneously in use in Latvia and the United Kingdom.

Students' experience points to more varied approaches to ECTS credit allocation at the level of higher education institutions. Figure 2.15 depicts what elements are used for the calculation of ECTS points according to student unions. Student responses from only nine countries (Austria, Belgium, the Czech Republic, Hungary, Iceland, Ireland, Lithuania, Norway and the United Kingdom) confirm the approach shown in Figure 2.7. In Estonia, Finland, Germany, Malta, Romania and Switzerland, students report that learning outcomes, student workload and teacher-student contact hours are equally taken into account in the calculation of ECTS credit points.

Figure 2.15: Elements used for the calculation of ECTS points in public higher education institutions, students' perspective, 2016/17



Source: ESU data collection.

In Armenia, Bulgaria, Denmark, France, Italy, Latvia, the Netherlands, Sweden and Ukraine, where national legislation or recommendations foresee the use of learning outcomes achieved and associated student workload in credit allocation, students report only about the use of student workload or teacher-student contact hours. There may be various reasons for the differences between legislation/recommendations and students' reporting. However, this difference suggests that there is a need for more coordination and information among stakeholders. This is also confirmed by student unions' response to the question on whether they were involved in any activity related to the implementation of the ECTS Users' Guide 2015. Only seven (Austria, Cyprus, Germany, Lithuania, the Netherlands, Switzerland and Norway) of the 36 unions responded positively.

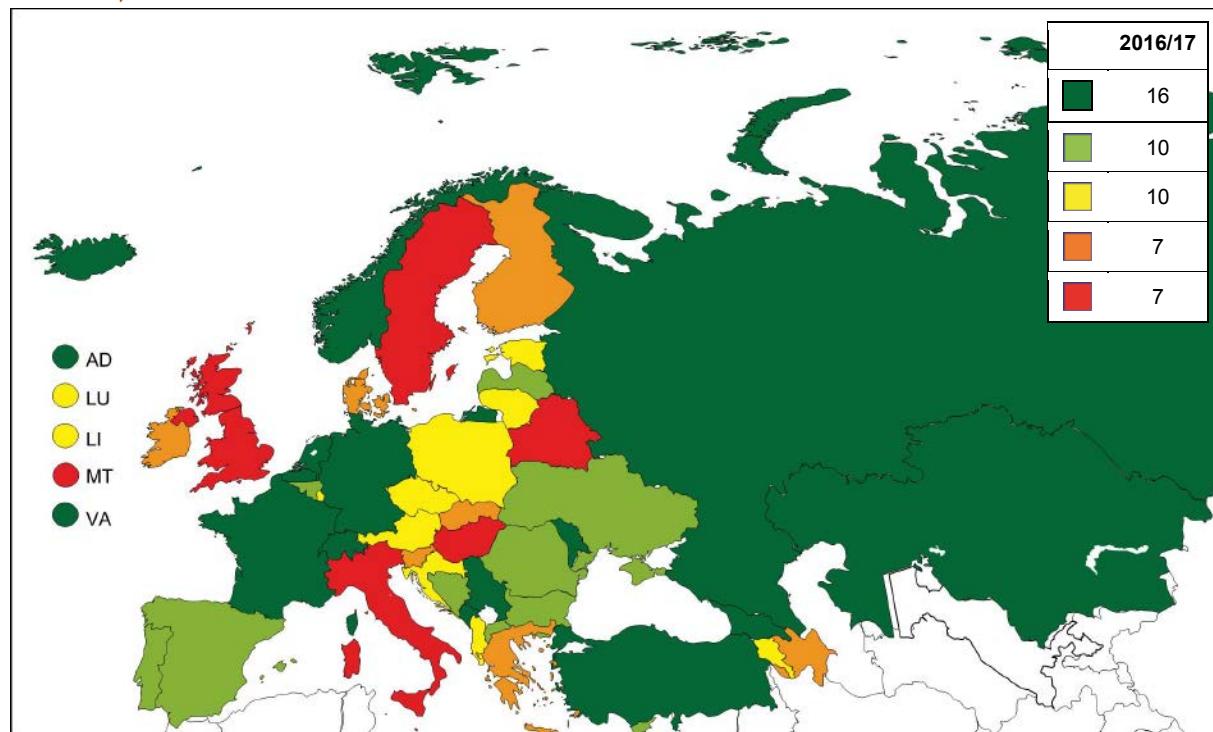
2.2.5. Stage of implementation of ECTS: summary of the main criteria for the assessment of the implementation of ECTS by external quality assurance agencies

Scorecard indicator n°1 (Figure 2.16) summarises the main ECTS elements that are required to be monitored by external quality assurance agencies. All elements discussed under 'Monitoring the implementation of ECTS' are taken into account: the basis for the implementation of ECTS and whether monitoring is required to take into account the issues such as credit allocation based on learning outcomes and student workload, regular monitoring of ECTS credit allocation; the use of ECTS in credit accumulation and credit transfer between institutions within the country and for periods of study abroad; and requirements to monitor student appeals procedures.

The Scorecard indicator is not comparable with the Scorecard indicator n°4 (see Figure 2.21) in the Bologna Process Implementation Report 2015. In 2015, the scorecard indicator on ECTS implementation built on the information on the share of higher education programmes to which ECTS credits are allocated and the use of learning outcomes in ECTS. In 2018, the scorecard indicator focuses, as explained above, on monitoring ECTS implementation. The reason for this change is two-fold. Firstly the data on the share of institutions implementing ECTS provided by national authorities was mainly based on perceptions. The second reason is the understanding that in a policy implementation cycle, national authorities and all other stakeholders can acquire real insights into the implementation of a policy by monitoring how effectively it is taking place. In higher education, external quality assurance is best placed to provide macro level information on the level of ECTS implementation in higher education institutions, while respecting institutional autonomy. It is foreseen that in higher education systems where external quality assurance is required to monitor ECTS implementation, national authorities and stakeholders will have access to sufficiently reliable data on the state of play of ECTS implementation, challenges and good practices in the coming years.

As Figure 2.16 shows the majority of countries requires external quality assurance agencies to monitor at least one key aspect of the implementation of ECTS. In 16 systems, external quality assurance uses the ECTS Users' Guide 2015 principles as a basis and monitors all six issues listed below. Seven systems do not require ECTS implementation to be monitored by external quality assurance, but it often happens in practice. These systems also include less prescriptive systems where formal requirements are not made; however, in practice such monitoring may take place. In seven systems, the ECTS Users' Guide principles are not required to be used by external quality assurance and are typically not used in practice. Overall, the scorecard indicator suggests that there is still much to be done to ensure the full implementation of ECTS.

Figure 2.16: Scorecard indicator n°1: Monitoring the implementation of the ECTS system by external quality assurance, 2016/17



Source: BFUG data collection.

Scorecard categories

█	<p>The ECTS Users' Guide 2015 principles are required to be used by external quality assurance as a basis to assess the implementation of ECTS in all higher education institutions.</p> <p>All the following issues are monitored specifically:</p> <ul style="list-style-type: none"> <input type="radio"/> ECTS credits are allocated on the basis of learning outcomes & student workload; <input type="radio"/> ECTS credit allocation is regularly monitored and followed up by appropriate revision if necessary; <input type="radio"/> ECTS is used as a credit system for the accumulation of credits acquired within higher education institutions; <input type="radio"/> ECTS is used as a credit system for the transfer of credits for student learning outcomes acquired in another institution in the country; <input type="radio"/> ECTS is used as a credit system for the transfer of credits for periods of study abroad; <input type="radio"/> The higher education institution has an appropriate appeals procedure to deal with problems of credit recognition.
█	<p>The ECTS Users' Guide 2015 principles are required to be used by external quality assurance as a basis to assess the implementation of ECTS in all higher education institutions.</p> <p>Four or five of the above issues are monitored specifically.</p>
█	<p>The ECTS Users' Guide 2015 principles are required to be used by external quality assurance agencies as a basis to assess the implementation of ECTS in all higher education institutions.</p> <p>One to three of the above issues are monitored specifically.</p>
█	<p>The ECTS Users' Guide 2015 principles may in some cases be used by external quality assurance as a basis to assess the implementation of ECTS.</p>
█	<p>The ECTS Users' Guide 2015 principles are not required to be used by external quality assurance agencies as a basis to assess the implementation of ECTS in higher education institutions.</p>

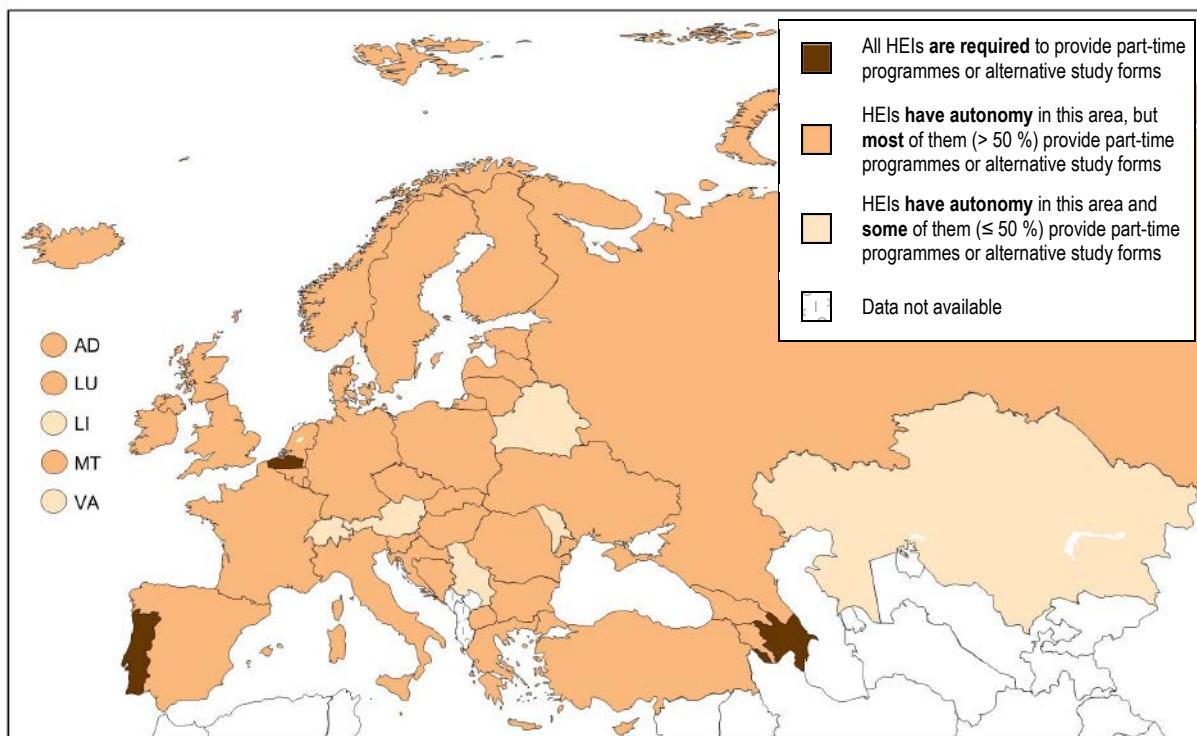
2.3. Modes and forms of study

The pace of study varies from one student to another. This goes hand in hand with the fact that some students can allocate most of their time to studies, whereas other students have to reconcile several engagements, including, for instance, their higher education programme and employment. Thus, the challenge for higher education systems is to adapt to different categories of learners, providing adequate learning opportunities for as many as possible. One way to achieve this is to provide flexible forms of study, for example, part-time studies. This theme is examined here through a selection of qualitative and quantitative indicators.

2.3.1. Provision of flexible study programmes by higher education institutions

Figure 2.17 depicts the provision of part-time programmes (or other alternative study forms) by higher education institutions. It shows that higher education institutions are generally autonomous in this area, meaning they can decide whether and to what extent they offer such studies.

Figure 2.17: Provision of part-time programmes or other alternative study forms by higher education institutions, 2016/17



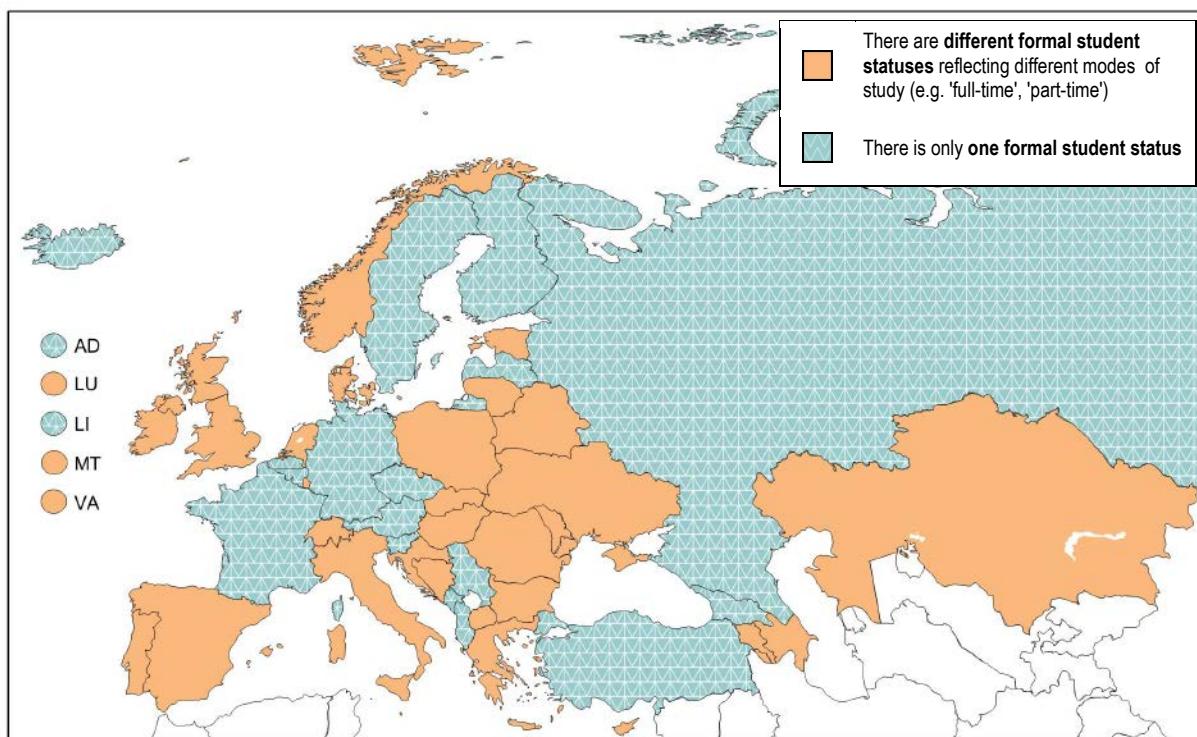
Source: BFUG data collection.

In more than two-thirds of all EHEA systems (37 systems), most higher education institutions ensure part-time or alternative forms of study, and in a further eight systems, such provision can be found in some institutions. The programmes in question are offered under various labels, including part-time studies, 'evening education' (Turkey), 'external studies' (Slovakia), etc. In three higher education systems – Azerbaijan, the Flemish Community of Belgium and Portugal – all institutions are required to provide part-time studies or other alternative forms of study. In Portugal, for instance, legislation stipulates that higher education institutions must provide part-time studies if the student opts for this regime.

2.3.2. Formal student statuses reflecting modes of study

Figure 2.18 shows that in around two-thirds of all EHEA systems (31 systems), different modes of study are linked to different student statuses.

Figure 2.18: Existence of different formal student statuses related to modes of study, 2016/17



Source: BFUG data collection.

Most commonly, the alternative student status is a 'part-time' status, which can be defined in many ways. Indeed, as the 2012 Bologna Process Implementation Report explains (European Commission/EACEA/Eurydice, Eurostat and Eurostudent 2012), the distinction between different student statuses is often based on the workload of students, measured either in ECTS credits or hours/weeks. In some countries, however, the definition does not refer to the workload, but to a limited participation in study sessions. This means that part-time students should in principle achieve the same number of credits as full-timers, but they are expected to dedicate more time to self-study activities.

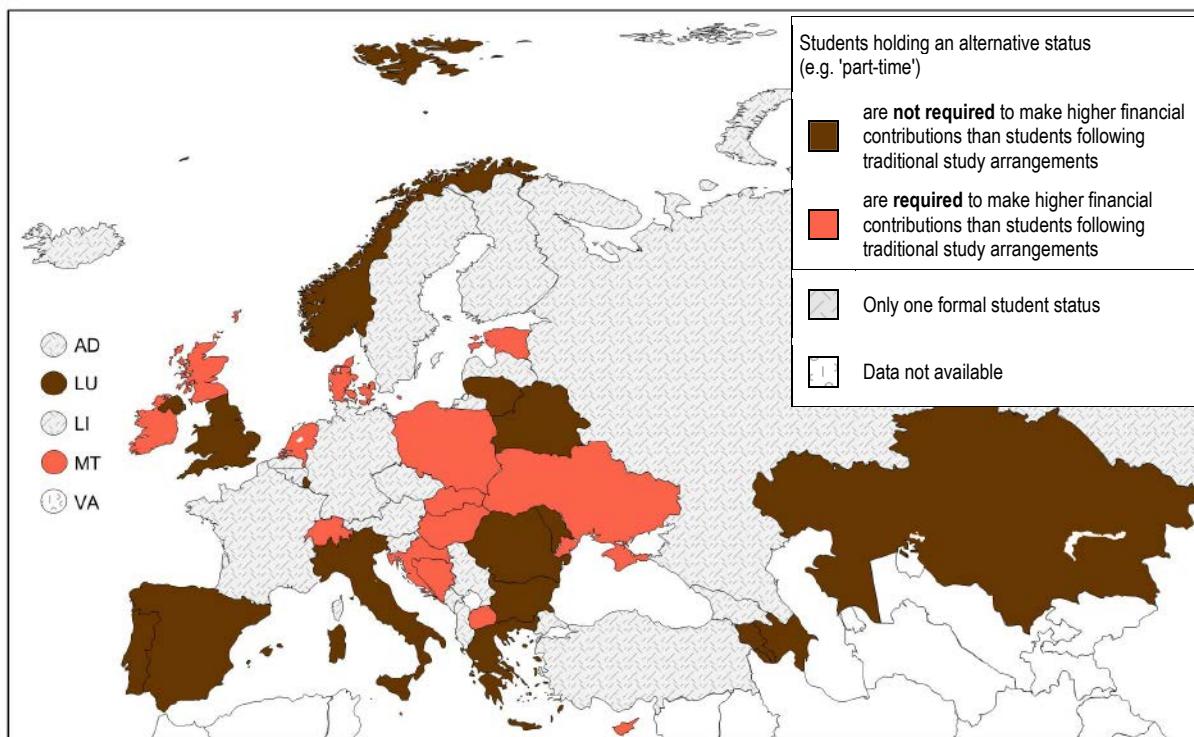
Some higher education systems offer alternative modes of study, but they do not formally recognise different student statuses. For example, in Slovenia, according to the Higher Education Act, students can opt for 'full-time' or 'part-time' studies, but the study mode does not translate into distinct student statuses (i.e. there is only one formally recognised student status). In the Czech Republic, the Higher Education Act recognises three study modes – 'on-site', 'distance' and 'combined' –, but it does not refer to different student statuses. Turkey offers 'evening education', but, like the two previous countries, recognises only one student status (²⁸).

When an alternative student status (e.g. 'part-time') is formally recognised, students holding such a status may be required to pay higher fees for the same volume of study (i.e. the same number of credits) than students following traditional study arrangements (see Figure 2.19). This is the case in half of the systems that recognise several student statuses, namely Bosnia and Herzegovina, Croatia, Cyprus, Denmark, Estonia, Hungary, Ireland, the former Yugoslav Republic of Macedonia, Malta,

⁽²⁸⁾ However, as the Eurostudent survey shows (see Figure 2.24), a substantial proportion of students in the Czech Republic, Slovenia and Turkey indicate that they have a part-time or other alternative status. This suggests that the regulatory perspective does not always overlap with students' perceptions.

the Netherlands, Poland, Slovakia, Switzerland, Ukraine and the United Kingdom (Scotland). The remaining systems either do not recognise different student statuses or, if they do, the financial investment required from different categories of students is calculated proportionally to the volume of study or credits.

Figure 2.19: Impact of formal student status on financial contributions related to higher education studies, 2016/17



Source: BFUG data collection.

Notes:

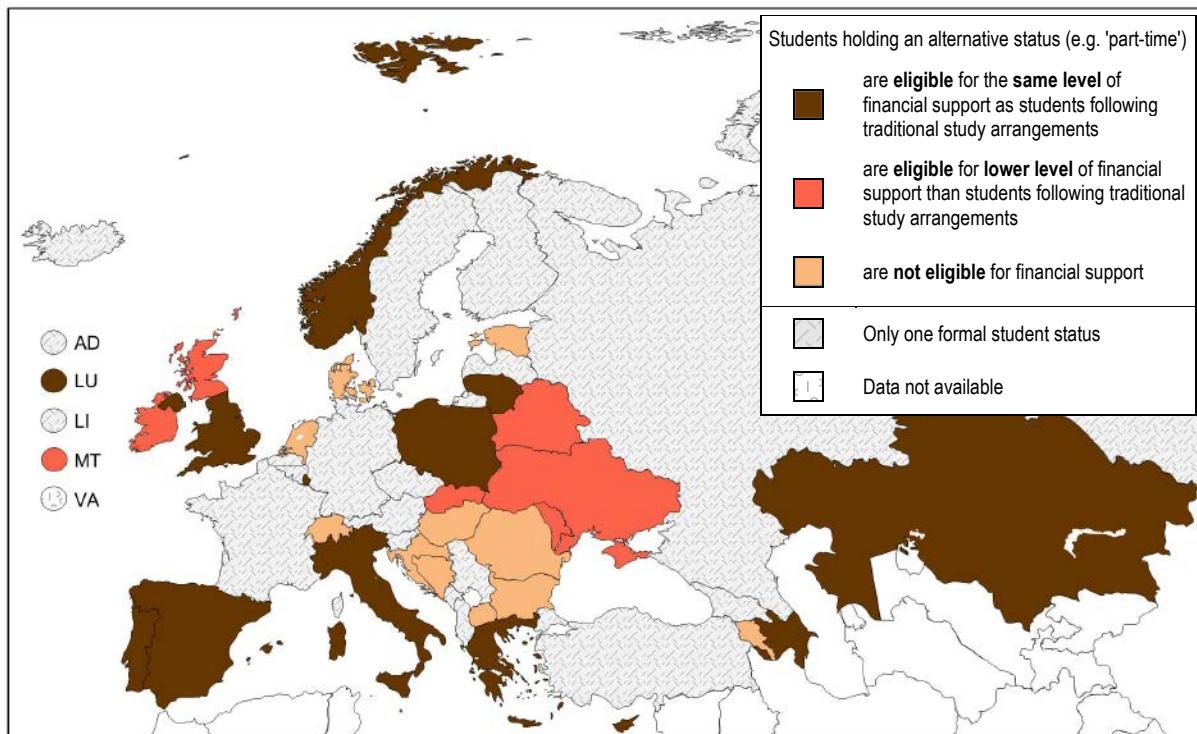
When students holding an alternative status (e.g. part-time students) are **required** to make higher contributions, it means that they pay higher fees for the same volume of study than students following typical/traditional study arrangements. When students holding an alternative status are **not required** to make higher contributions, it means that they pay the same amount of fees for the same volume of study as students enrolled in typical/traditional study arrangements.

Countries where alternative study forms go hand in hand with higher financial contributions do not refer to the same arrangements and/or the same student statuses. For example, in Slovakia, students following so-called 'external studies' are expected to pay fees, while this expectation does not apply to full-time students who do not exceed the regular length of study. In Denmark, there are generally no fees for studying in higher education, except for programmes designed specifically for adults. In the United Kingdom (Scotland), tuition fees related to first-cycle full-time studies are centrally regulated, whereas fees related to part-time studies are unregulated and can be set by higher education institutions themselves. It follows that students may be required to make higher contributions if studying part-time, but it is not a rule. In Hungary, higher education institutions can charge fees for part-time studies, and these may correspond to the full cost of training.

As mentioned previously, some higher education systems offer alternative modes of study, but do not recognise different student statuses (see the analysis related to Figure 2.18). In these systems, students following flexible study forms may still be required to make higher financial contributions. For example, in Slovenia, students following full-time studies pay only small fees (registration, and field work or excursions if required by study programme), whereas part-timers pay fees set by higher education institutions. In Turkey, daytime students do not pay fees, whereas students in evening programmes may pay fees. In contrast, in the Czech Republic, fees are not differentiated by study modes.

The picture regarding the financial support 'part-time' students receive compared to 'full-time' students for the same volume of study (i.e. the same number of credits) is also varied (see Figure 2.20). In 12 higher education systems, students with an alternative status are eligible for the same amount of support as students following traditional study arrangements; in seven systems, they receive lower support, while in 11 systems, they are not eligible for financial support.

Figure 2.20: Impact of formal student status on eligibility to financial support for students, 2016/17



Source: BFUG data collection.

Notes:

When students holding an alternative status (e.g. part-time students) are eligible for the **same level** of support, it means that they receive the same amount of support for the same volume of study as students enrolled in typical/traditional study arrangements. When students holding an alternative status are eligible for **lower level** of support, it means that they receive a lower amount of support for the same volume of study than students following typical/traditional study arrangements.

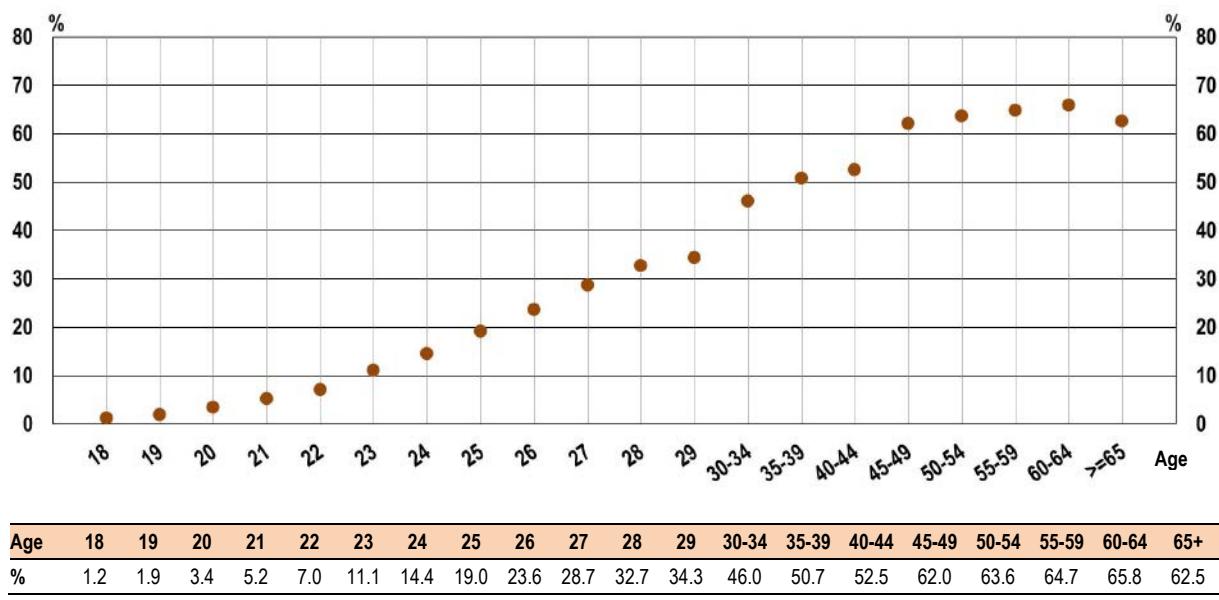
When examining the two previous figures in a combined perspective, some clusters of countries with different relationships between students' financial contributions and the support they receive can be identified. A first group can be characterised as offering 'equal treatment', since students with an alternative status do not have to pay higher fees, and are eligible for the same level of support as students following traditional study arrangements. This group consists of Azerbaijan, Greece, Italy, Kazakhstan, Lithuania, Luxembourg, Norway, Portugal, Spain and the United Kingdom (England, Wales and Northern Ireland). In an opposing group, 'part-timers' are required to make higher contributions than 'full-time' students, and they are not eligible for financial support. This group includes Bosnia and Herzegovina, Croatia, Denmark, Estonia, Hungary, the former Yugoslav Republic of Macedonia, the Netherlands and Switzerland. While this combined perspective should be interpreted with caution (e.g. it does not consider the actual levels of support in relation to financial contributions), data suggest that financial attractiveness of alternative modes of study varies across the EHEA.

2.3.3. Student participation in part-time studies

Looking at alternative study forms from another perspective, the following indicators examine the participation of students in part-time studies. The analysis starts with Eurostat data (the UOE data collection complemented by an additional EHEA data collection), followed by the Eurostudent survey.

Figure 2.21 looks at the median of country percentages for students enrolled as part-timers by age. It shows that age influences part-time studying, and that older students are much more likely to study part-time than their younger peers. More specifically, the median of country percentages for part-time students aged 22 is only 7 %, meaning that in half of the countries for which data is available, 7 % or less students aged 22 study part-time. In contrast, starting from the late thirties (age range 35-39), the majority of students are part-timers in half of the EHEA systems. In older age groups (45+), the median of country percentages for students studying part-time is more than 60 %, i.e. at least two-thirds of students in half of the countries study part-time.

Figure 2.21: Median of country percentages of students enrolled as part-timers in tertiary education, by age, 2014/15

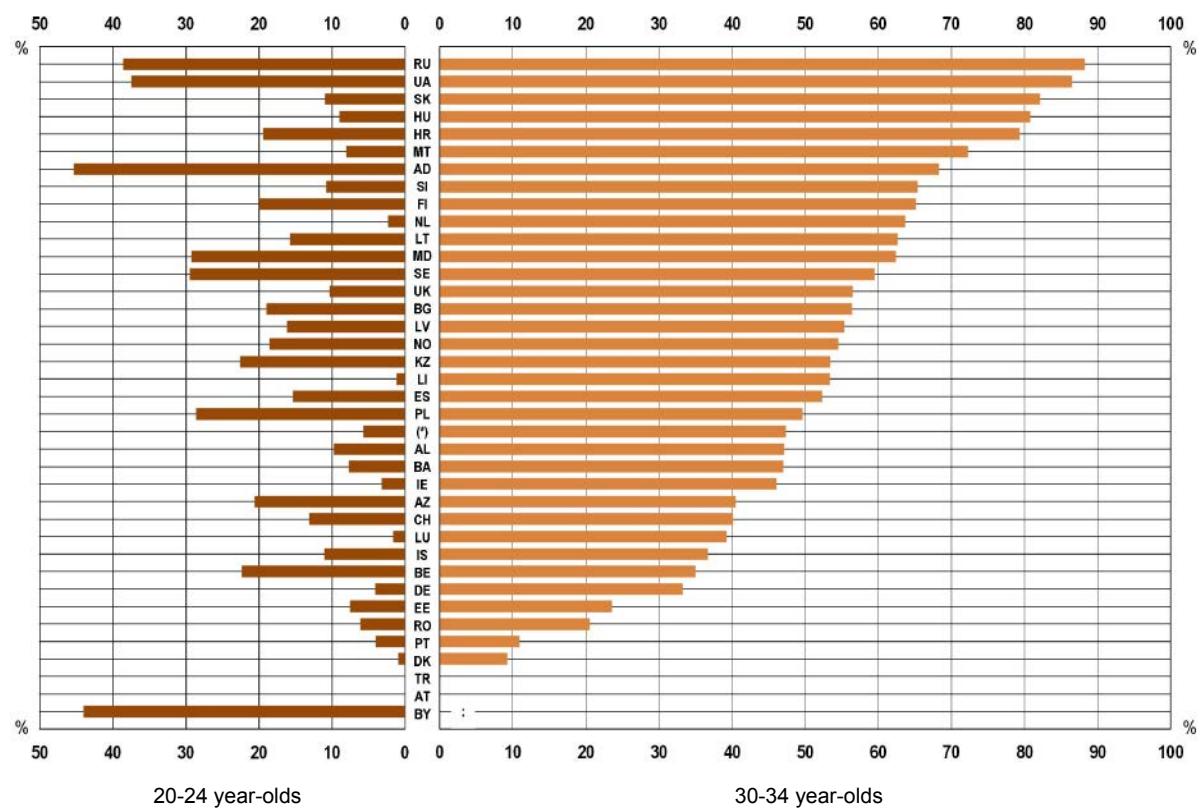


Source: Eurostat, UOE and additional collection for the other EHEA countries.

Figure 2.22 looks at the percentage of students enrolled as part-timers among students of age groups 20 to 24 and 30 to 34. It illustrates, once again, that the older the students are, the more likely they are to study part-time. Indeed, the share of part-time students in the older age group is more than twice as high as in the younger age group in virtually all EHEA systems for which data is available. In Denmark, Ireland, Liechtenstein, Luxembourg and the Netherlands, the share of part-timers in the older age group is more than ten times higher than among younger students.

Behind the above general pattern, there are substantial differences between countries when each of the two age groups is considered separately. The share of part-time students in the age group 30-34 varies from 9 % (Denmark) to 88 % (Russia). Part-time students represent a substantial proportion of older students (more than 50 %) in around half of all EHEA systems analysed. In four systems – Russia, Ukraine, Slovakia and Hungary – more than 80 % of students aged 30-34 are part-timers. The systems with the highest proportion of young part-timers (aged 20-24) are Andorra (45.4 %), Belarus (44 %), Russia (38.6 %), Ukraine (37.5 %), Sweden (29.5 %), Moldova (29.2 %) and Poland (28.6 %).

Figure 2.22: Students enrolled as part-timers in tertiary education, by country and by age (%), 2014/15



(*): the former Yugoslav Republic of Macedonia

%	RU	UA	SK	HU	HR	MT	AD	SI	FI	NL	LT	MD	SE	UK	BG	LV	NO	KZ	LI
20-24 years	38.6	37.5	11.0	9.0	19.5	8.0	45.4	10.8	20.0	2.3	15.7	29.2	29.5	10.3	19.0	16.2	18.5	22.6	1.2
30-34 years	88.3	86.5	82.1	80.8	79.3	72.3	68.3	65.4	65.1	63.7	62.7	62.4	59.5	56.5	56.4	55.3	54.6	53.4	53.4
%	ES	PL	(*)	AL	BA	IE	AZ	CH	LU	IS	BE	DE	EE	RO	PT	DK	AT	TR	BY
20-24 years	15.3	28.6	5.7	9.8	7.6	3.2	20.6	13.1	1.6	11.0	22.4	4.1	7.6	6.1	4.0	0.9	0.0	0.0	44.0
30-34 years	52.3	49.6	47.4	47.2	47.0	46.0	40.5	40.1	39.3	36.7	35.0	33.3	23.6	20.5	10.9	9.2	0.0	0.0	:

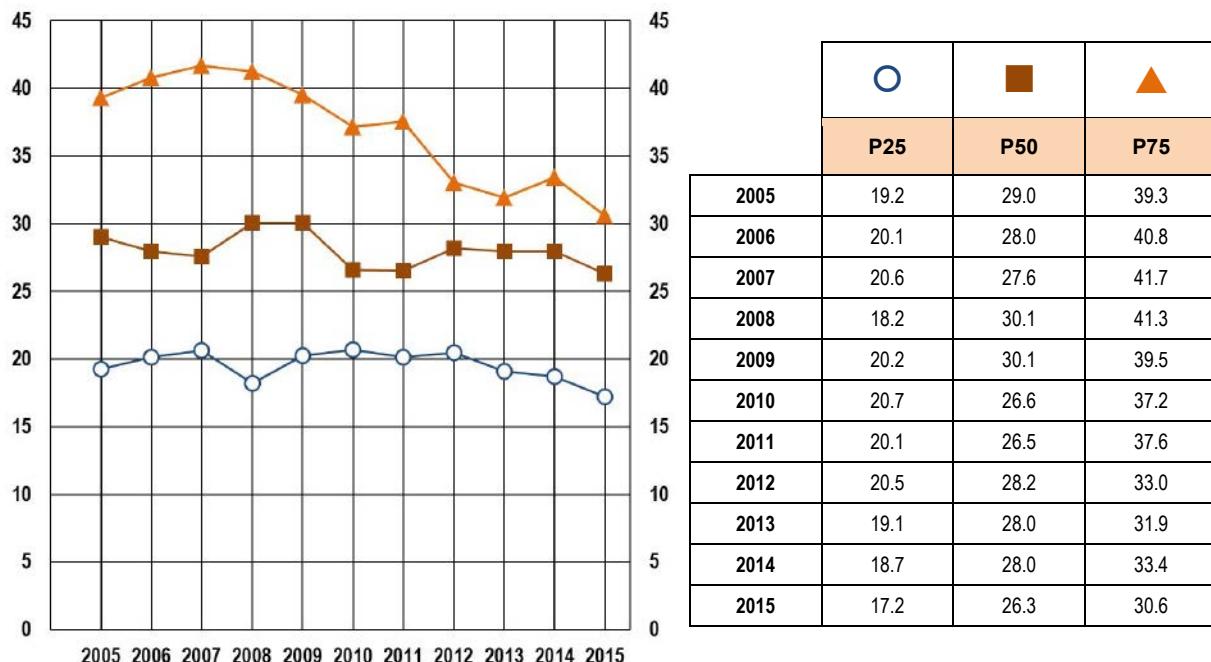
Source: Eurostat, UOE and additional collection for the other EHEA countries.

Notes:

Countries are arranged by the participation of mature students (30-34 year-olds) in part-time studies.

Figure 2.23 shows trend data covering all age categories. It indicates that in 2014/15, more than 26.3 % of all students are part-timers in half of the EHEA countries. Between 2008/09 and 2010/11, the proportion of part-time students declined, but rose again for the academic year 2011/12. Following the later academic year, it has been declining. A decline is also observed when considering the top as well as bottom quartile of the distribution of the EHEA countries. Regarding the top quartile, in 2006/07, part-time students accounted for more than 41.7 % in a quarter of the EHEA countries before falling to 30.6 % in 2014/15.

Figure 2.23: 25, 50 and 75 percentile of countries according to the percentage of students enrolled as part-timers in tertiary education, by year, 2005-2015



Source: Eurostat, UOE and additional collection for the other EHEA countries.

The Eurostudent survey complements all the previously presented indicators, by looking at the participation in different forms of study from students' perspective (self-reported data) ⁽²⁹⁾.

As Figure 2.24 shows, in five countries – Austria, Denmark, France, Georgia and Serbia –, all students qualify themselves as 'full-timers'. At the other end of the scale are ten countries – Croatia, the Czech Republic, Hungary, Lithuania, Malta, Norway, Poland, Slovakia, Sweden and Turkey – where at least 20 % of students report a student status other than 'full-time'.

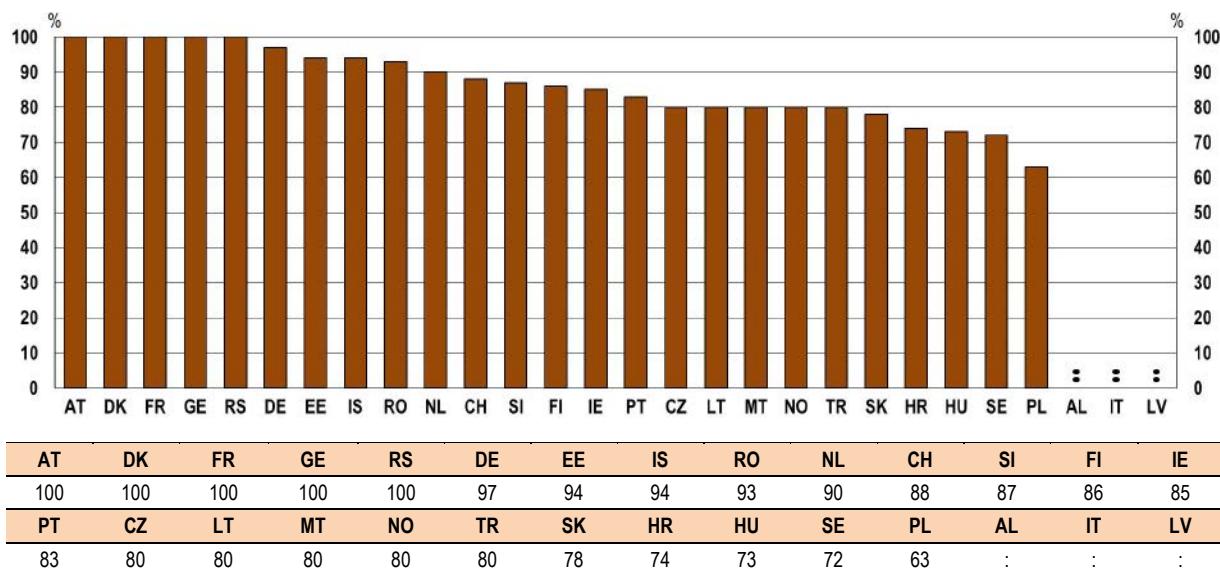
A comparison between Figure 2.24 and BFUG data (see Figure 2.18) shows that the self-reported student status is not always aligned with the information provided by top-level authorities. For example, in Sweden, despite the fact that top-level authorities report only one formal student status (see Figure 2.18), almost 30 % of students indicate that they are formally 'part-timers' (see Figure 2.24). A further six countries – the Czech Republic, Finland, Germany, Iceland, Slovenia and Turkey – also report only one formal student status (see Figure 2.18), whereas some of their students – between 3 % and 20 % – indicate alternative statuses (see Figure 2.24). In contrast, Denmark reports the existence of different student statuses (see Figure 2.18), but all students indicate being full-timers. One explanation for this could be that the concept of 'formal student status' offers some space for interpretation: top-level authorities are likely to interpret it based on regulatory frameworks,

⁽²⁹⁾ Within the Eurostudent survey, students are asked to indicate their formal student status, which should be assessed on the basis of their official registration. For more detailed description of 'formal student status', see the Glossary and Methodological Notes (Section III).

whereas students may evaluate it based on other criteria, including alternative forms of study offered by their higher education institution ⁽³⁰⁾.

While not depicted on a specific figure, most students with an alternative status qualify themselves as 'part-timers'. Yet, in Turkey, all students who do not fall under the category 'full-time' (i.e. 20 % of students) refer to other student statuses. As mentioned previously (see the analysis related to Figures 2.17 and 2.18), higher education institutions in Turkey do not provide 'part-time' studies, but they offer 'evening education' programmes leading to formal higher education qualifications. In Norway and Romania, most students who report an alternative status qualify themselves as 'part-timers', while a small proportion – 1 % and 2 %, respectively – refer to other statuses.

Figure 2.24: Students qualifying themselves as full-timers (%), 2016/17



Source: Eurostudent.

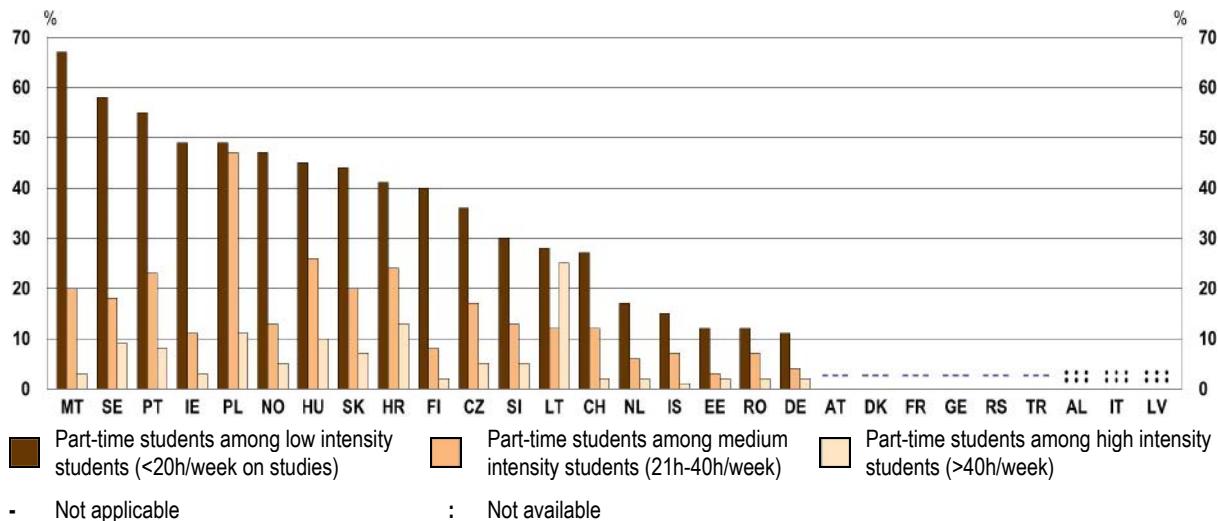
The Eurostudent survey also provides details on the meaning of 'full-time' and 'part-time' studies in terms of study intensity. As Figure 2.25 shows, part-time students can commonly be found among low intensity students, i.e. students who dedicate less than 20 hours per week to their studies. For example, in Malta, Sweden and Portugal, among students reporting low study intensity, more than half are part-timers, whereas the proportion of part-time students in these countries does not exceed 30 %. Part-time students also form a substantial proportion of the low study intensity group (between 40 % and 50 %) in Ireland, Poland, Norway, Hungary, Slovakia, Croatia and Finland. In contrast, they represent less than 20 % of students reporting low study intensity in the Netherlands, Iceland, Estonia, Romania and Germany. Yet, in the latter group of countries, the proportion of part-timers in the student population is relatively small.

As might be expected, part-timers are not often found in the high study intensity group, i.e. among students who dedicate more than 40 hours per week to their studies. In most countries for which data is available, they represent less than 10 % of all high intensity students. In Lithuania, however, a relatively high proportion of high intensity students – 25 % – are part-timers. Differences between countries can partly be explained by the fact that part-time studies have different meanings and follow different organisational patterns (see the analysis related to Figure 2.18).

⁽³⁰⁾ For example, in the Czech Republic, the Higher Education Act refers to three study modes – 'on-site', 'distance' and 'combined' –, but not to different student statuses. It is therefore likely that students qualifying themselves as 'part-timers' refer to 'distance' or 'combined' studies (see also the analysis related to Figure 2.18).

Overall, Figure 2.25 indicates that part-time students are often – but not always – low study intensity students. At the same time, low intensity students can also be found among those who are formally considered as studying 'full-time'. Thus, the link between official student status and hours devoted to studying is not always straightforward.

Figure 2.25: Part-time students according to their study intensity (self-reported) as % of students in different study intensity groups, 2016/17



%	MT	SE	PT	IE	PL	NO	HU	SK	HR	FI	CZ	SI	LT	CH
Low	67	58	55	49	49	47	45	44	41	40	36	30	28	27
Medium	20	18	23	11	47	13	26	20	24	8	17	13	12	12
High	3	9	8	3	11	5	10	7	13	2	5	5	25	2
%	NL	IS	EE	RO	DE	AT	DK	FR	GE	RS	TR	AL	IT	LV
Low	17	15	12	12	11	-	-	-	-	-	-	:	:	:
Medium	6	7	3	7	4	-	-	-	-	-	-	:	:	:
High	2	1	2	2	2	-	-	-	-	-	-	:	:	:

Source: Eurostudent.

2.4. Learning in digital environments

As part of the efforts in enhancing the quality and relevance of learning and teaching in higher education, ministers of higher education in Yerevan called for exploiting better the potential benefits of digital technologies.

This commitment responds to various challenges that higher education systems currently face and embraces new opportunities that new technologies offer. Technology, in particular digital technology, is evolving fast. Failing to jump on the train may result in graduates whose skills are not fully relevant in the labour market, less opportunities in research, significant back-lag in innovation within higher education institutions and in the economy. All generations are now using popular new technologies in their lives. The user-experience that new technologies provide has proved to have the capacity to deepen and accelerate learning (European Commission, 2014), for example, adaptive learning technologies adjust to the learners' needs and pace; but much depends on how technology is actually used. Furthermore, higher education is expanding and more people study in different phases of their adult life, but not everywhere yet in the EHEA. Digital technologies potentially may broaden access to higher education and to lifelong learning. They give learners the opportunity to participate in education in a more flexible way – both in time and in space. Finally, digital technologies, for example through

Massive Open Online Courses (MOOCs), open up the possibility of linking informal, non-formal and formal education.

But to what extent is the integration of new technologies in teaching and learning in higher education present on national policy agendas in the EHEA? How is their mainstreaming supported by national policies? Do higher education institutions receive guidance and incentives to install appropriate technology? In particular, do national authorities help prepare and motivate higher education staff and teachers to use technology in improving the quality of teaching and learning? To what extent do the regulatory and funding conditions promote online provision and certification? What steps are made to increase trust towards online programmes and learning acquired there?

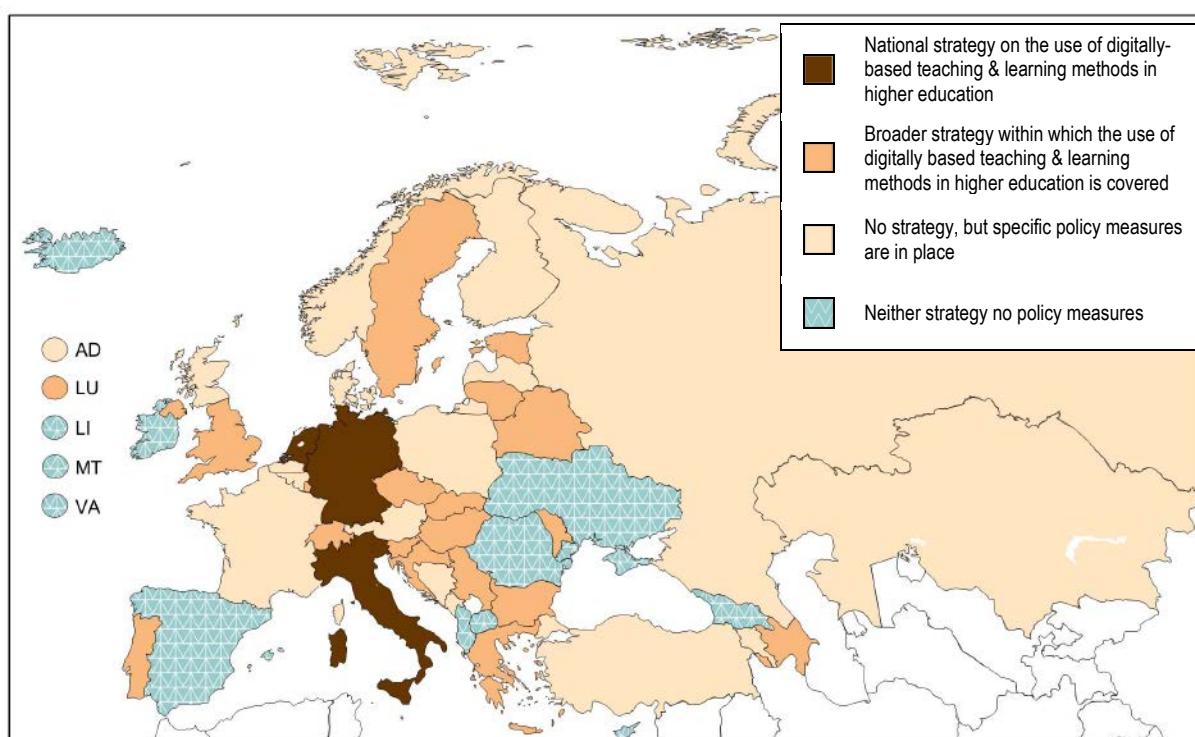
This part of the report aims to explore to what extent digital environments are becoming a reality in learning and teaching in higher education. The difficulty in getting full grasp on the developments in this area is that they mainly take place in autonomous higher education institutions. The data discussed below focuses on national policies, the steering and support effort that national authorities provide to higher education institutions in making full use of digital technologies.

2.4.1 Steering and support to higher education institutions in using digital technologies

For new technologies to be used in an effective, efficient and trustful way in teaching and learning in higher education, certain framework conditions need to be met. New technologies need resources, infrastructure and human resources to use them. They equally need to be integrated into curricula, while learning outcomes acquired through using new tools need to be assessed and trusted at national level and abroad. Action required for the implementation of these changes needs long-term strategic planning, changes in the legal environment and financial resource allocation.

Figure 2.26 provides an overview of the situation regarding national strategies and policies on the use of new technologies in teaching and learning across the EHEA. Most systems (38 of 50) have such a strategy or policies in place.

Figure 2.26: National strategies on the use of new technologies in teaching and learning in higher education, 2016/17



Source: BFUG data collection.

Three countries have a strategy on the use of new technologies in teaching and learning specifically for higher education. Eighteen systems have broader national strategies which include new technologies in higher education. Three main types of broad strategic approaches can be observed. A first group of countries – Belarus, the Czech Republic, Hungary and Slovakia – have adopted strategies for the digitalisation of education addressing the different levels and sectors of the education system. A second group of countries integrate the use of new technologies in specific education strategies. For example, Bulgaria refers to new technologies in its higher education development strategy; Croatia and Portugal in their strategies for education, science and technology; Estonia, Moldova, Russia and Serbia integrate strategic planning on new technologies in their strategies for education or for lifelong learning. A third group of systems (Azerbaijan, Greece, Lithuania, Luxembourg, Serbia, Sweden, Switzerland and the United Kingdom – England, Wales and Northern Ireland) have adopted digital society strategies which discuss broader strategic considerations. Seventeen systems report not to have a strategy document, but they do have policy measures to encourage progress in this field. In this context, Kazakhstan, Russia and Turkey specifically focus on enabling digitally provided distance education programmes in their national legislation. About a quarter of the countries (12), however, have neither strategies nor policies in this area.

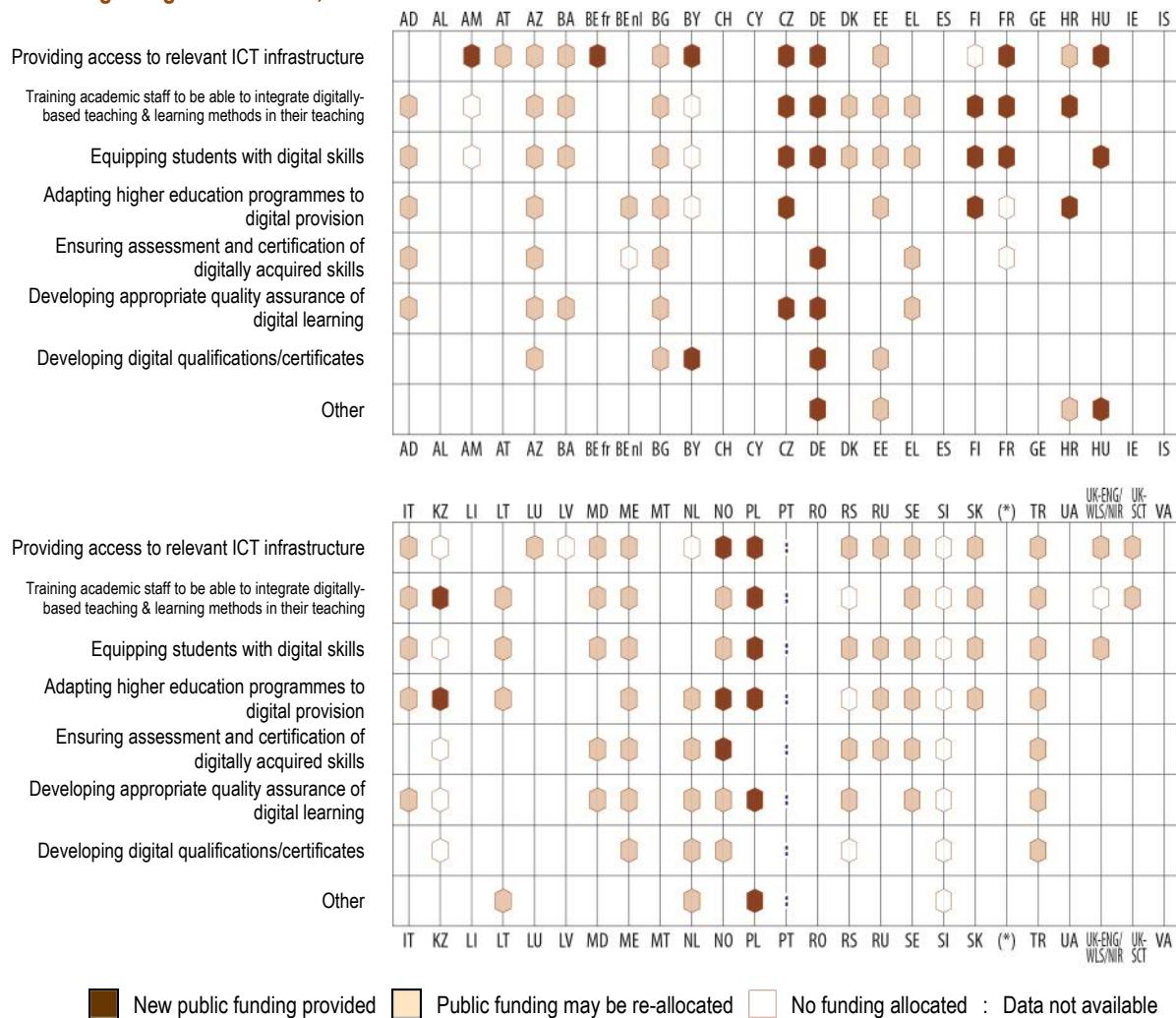
A strategic document, action plan and policy measures at national level indicate a (long-term) commitment from national authorities. They usually outline strategic objectives to be achieved, and sometimes they set measurable targets. None of the countries participating in this report set quantitative targets for their strategies. Many of them, however, do identify general objectives and priority areas for action and also allocate public funding to these.

Figure 2.27 depicts the main areas where policy objectives have been set or major policy interventions have been carried out by national authorities. The figure also shows whether the top-level injects additional (new) funding for implementation, whether authorities reallocate or higher education institutions can redistribute existing financial resources, or if there is no funding planned for this purpose in the public higher education budget.

From the 38 systems that have strategies or policies on the use of new technologies, all, except Portugal and Switzerland, identified specific objectives related to the use of these new technologies in teaching and learning in higher education. The most commonly set objectives are in the area of providing access to ICT infrastructure. This confirms that availability of broadband access and digital tools are considered as essential. Infrastructure is the field to which eight systems (Armenia, Belgium – French Community, Belarus, the Czech Republic, Germany, France, Hungary and Norway) allocate additional (new) resources in public funding to higher education. Eighteen countries allow the reallocation of higher educational funding for this purpose. There are also countries which, while identifying this area as a priority, do not earmark funds for it.

The other two fields which most countries identify as important are developing the skills of higher education staff to use digitally-based methods in their teaching and improving students' digital skills. These are essential in a digitally enabled learning environment as well as in the labour market. For example, in Hungary, the learning outcomes descriptions of all higher education programmes systematically include digital competences as part of the generic competences that all graduates need to acquire by the end of their studies. From the 25 countries that prioritise work on skills development only seven provide 'new' resources for these purposes. The Czech Republic, Finland, France and Germany and provide additional financial resources both for staff and students' digital skills development.

Figure 2.27: National policies and allocated funding for promoting the use of new technologies in teaching and learning in higher education, 2016/17



(*): the former Yugoslav Republic of Macedonia

Source: BFUG data collection.

Recognising the potential of digital learning materials and courses in providing more opportunities also for students from under-represented groups, some countries report mainstream or targeted measures reaching out to these students. In Romania, socially disadvantaged students can obtain subsidies to buy computers. Finland and Norway make digital learning material widely available and Norway encourages their adaptation for students with special learning needs: for example, software adapted for the use of dyslectic students. In the Flemish Community of Belgium, blended learning opportunities are open for working students. In Georgia, a learning management system processes data on on-line student learning which teaching staff can use to adapt their teaching material and methodologies. In France and Italy, digital courses are available for refugees. In France, the 'FUN-MOOC' platform offers online language courses for those refugees who wish to enter higher education. In Italy, the Telematic University Uninettuno provides a 'University for Refugees', which offers on-line courses for refugees.

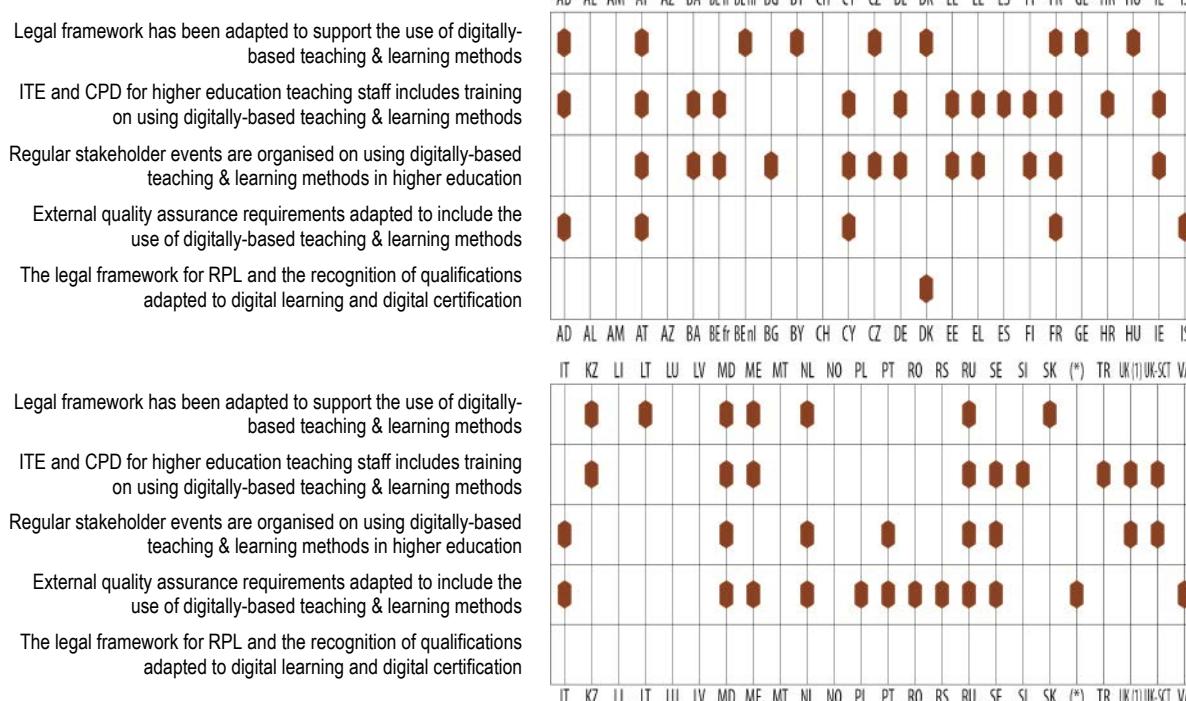
While using ICT tools in teaching and learning and skills development are on the policy agenda in the majority of countries, significantly fewer countries prioritise adapting programmes to digital provision and related certification processes. Hardly any countries invest in additional resources for these purposes (see Figure 2.27). Twenty-three countries work on adapting higher education programmes to digital provision, only 17 and 18, respectively, mention assessment and certification or quality assurance of these courses as priority. In Andorra, all distance education programmes have been adapted for digital provision. In Croatia, higher education institutions are financially supported through

calls for proposals for the development of new, innovative approaches to teaching. In Austria and the United Kingdom – Scotland, project funding is secured for staff for the development and certification of open education resources.

The funding mechanisms used for financing this area also vary. In Finland and Italy, higher education institutions have access to additional funding for digitally enabled learning and teaching through performance agreements; in Hungary and Slovenia, higher education institutions can apply for funds co-financed from the European Social and Investment Funds (ESIF). In the Flemish Community of Belgium, higher education institutions receive extra funding for a quota of students who combine study and work, which institutions can invest in developing and providing blended courses or open and online degree programmes.

Next to targeted financial support, national authorities have other means of encouraging and mainstreaming the modernisation of teaching and learning at higher education institutions. These include the review and revision of the legal framework in which higher education institutions work, provision of training to staff, and exchange of good practices (see Figure 2.28).

Figure 2.28: Incentives/support to the use of new technologies in teaching and learning in higher education (other than direct public funding), 2016/17



(*): the former Yugoslav Republic of Macedonia; UK (1): UK-ENG/WLS/NIR

Source: BFUG data collection.

As Figure 2.28 demonstrates, reflecting the strategic priority for the development of academic staff's skills in using digitally based teaching and learning methods, most systems (21) support higher education institutions in mainstreaming the use of new technologies by providing methodological training in initial teacher education (ITE) and in continuous professional development (CPD) of academic staff. In France and Germany, for example, there are support centres for higher education didactics, and in the United Kingdom, CPD providers for higher education staff offer courses on digitally enabled teaching.

Less than half of the countries (16) have adapted their legal framework and external quality assurance procedures to facilitate and monitor digital provision. Finally, only very few systems, the Flemish Community of Belgium, Denmark and Norway, adapted their legal frameworks for recognition of prior

learning (RPL) and the recognition of qualifications to digital courses. None of the countries adapted its higher education admission system to recognise digital certification.

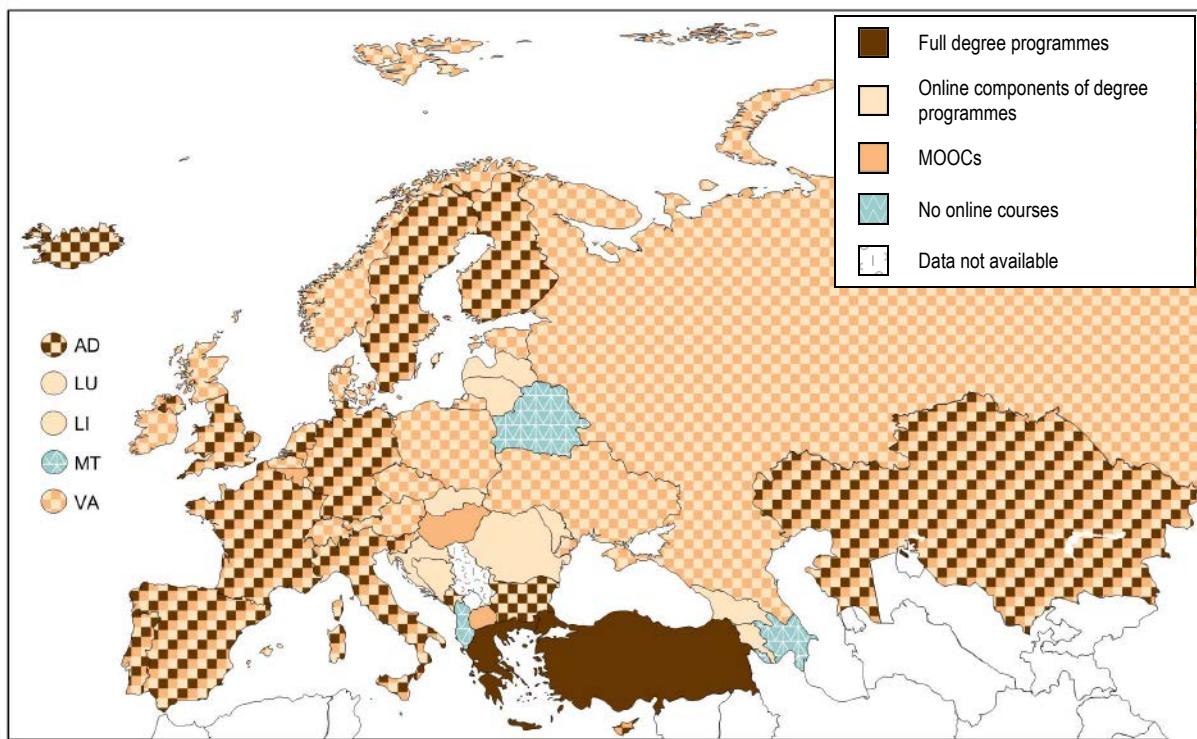
This data collection suggests that national strategic frameworks across the EHEA currently focus rather on promoting digitally enabled provision on campus and blended learning. Only few work towards extending the scope for fully digital provision, digital certification and MOOCs. Importantly, 18 systems among those that have national strategies carry out some sort of monitoring on the implementation of their strategies. These, mainly annual, monitoring data are likely to provide interesting information on the evolution of national policies in this area.

2.4.2 Online courses in higher education

Besides presenting an overview of national strategic approaches to the use of new technologies in teaching and learning in higher education, this report also intends to provide a rough picture of the digital provision landscape in higher education. Online courses are increasingly part of the higher education reality and the variety of courses offered is broad. This section distinguishes between three types of provision. First, the section looks at online components of degree programmes, which are traditional campus-based programmes and have some components that are delivered online. These are often called blended programmes. Second, full degree programmes which are fully provided online are looked at. These may be short, first, second, integrated or third cycle programmes which lead to qualifications corresponding to these levels. Third, the existence of MOOCs is explored. MOOCs are courses which allow open entry, are free, and are delivered online usually with peer or automated support. For the purposes of this report, MOOCs are considered as (usually shorter) online courses offered by higher education institutions and which do not result in a degree qualification.

Figure 2.29 shows which of the above mentioned three types of courses are offered most commonly across the EHEA. Online components of degree programmes (blended programmes) are by far the most widespread provision in European countries (39 systems). In contrast, only 18 systems offer online degree programmes. Finally, higher education institutions in more than half of the countries (28) also provide courses as MOOCs. Only 11 systems' institutions offer all three types of course. The figure needs to be interpreted with caution as while such programmes are part of the higher education reality of these countries, they are usually offered by not all but only a few higher education institutions. Exceptions are Andorra, Denmark, Estonia, Finland, France, the Netherlands, Norway and the United Kingdom (Scotland), where all higher education institutions have online programme components in degree programmes. In contrast, in Albania, Azerbaijan, Belarus, Georgia and Malta, no online course is provided in higher education.

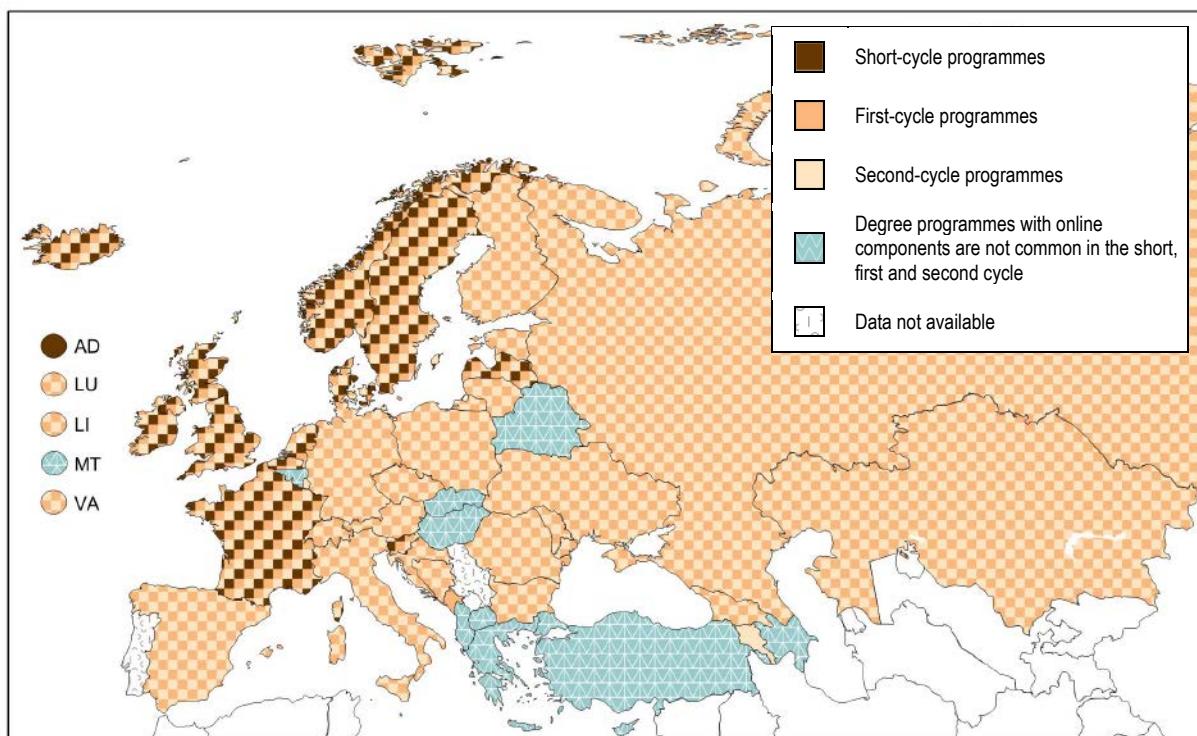
Figure 2.29: Most commonly offered online courses by higher education institutions, 2016/17



Source: BFUG data collection.

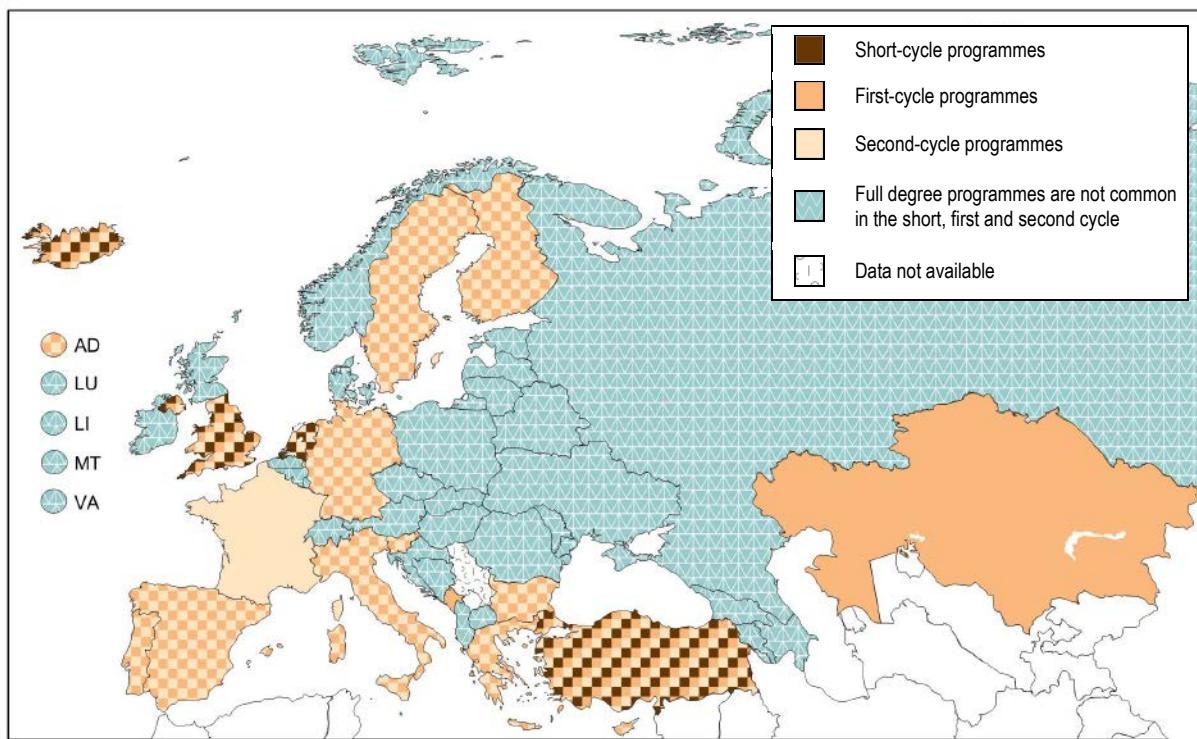
Degree programmes with online components and degree programmes that are fully delivered online may be offered at any cycle of higher education: in the short cycle, first, second or third cycle, integrated/long programmes. Figures 2.30 and 2.31 show where traditional degree programmes incorporating online components (blended courses) and fully online degree programmes can be found, and at which higher education levels such programmes are offered.

Figure 2.30: Level of degree programmes with online components, most commonly offered, 2016/17



Source: BFUG data collection.

Figure 2.31: Level of most commonly offered online degree programmes, 2016/17



Source: BFUG data collection.

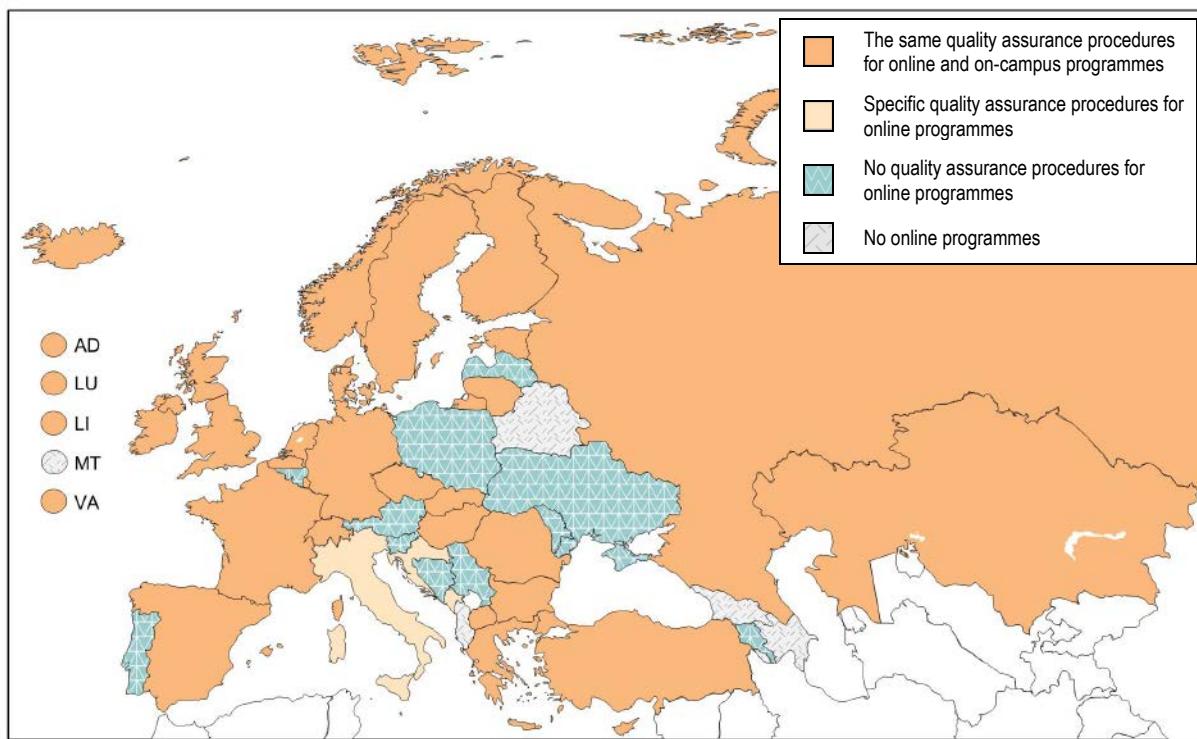
Figure 2.30 shows that the majority of higher education systems have degree programmes with some online components in the first and second cycles. Online components are less widespread at other levels of higher education. Twelve systems have online components in short-cycle programmes and 17 in doctoral programmes. Programmes outside the Bologna cycles, including integrated/long programmes, have online components in 15 systems. However, when it comes to entire degree programmes online (see Figure 2.31) only 16 systems provide such programmes at the first and second cycles, while four systems offer online short cycle programmes.

Similarly to traditional on-campus programme delivery, it is necessary to monitor the quality of online courses and ensure trust towards this type of provision among students, those working on credit or degree recognition, employers and other stakeholders. For this reasons, the ESG (Standards and Guidelines for Quality Assurance in the European Higher Education Area, 2015⁽³¹⁾) provide recommendations that external and internal quality assurance should equally apply to programme design, delivery, assessment and certification of traditional and online programmes.

Figure 2.32 shows that most countries that have online courses apply the same quality assurance procedures for online programmes as for face-to-face programme provision and three have specific quality arrangements for online courses. Eleven countries have no quality assurance procedures for online programmes. For these latter countries it may prove challenging to maintain trust in their online provision. They may also fail in meeting their commitments to implementing all provisions of the ESG (see Chapter 4 on quality assurance).

⁽³¹⁾ http://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf

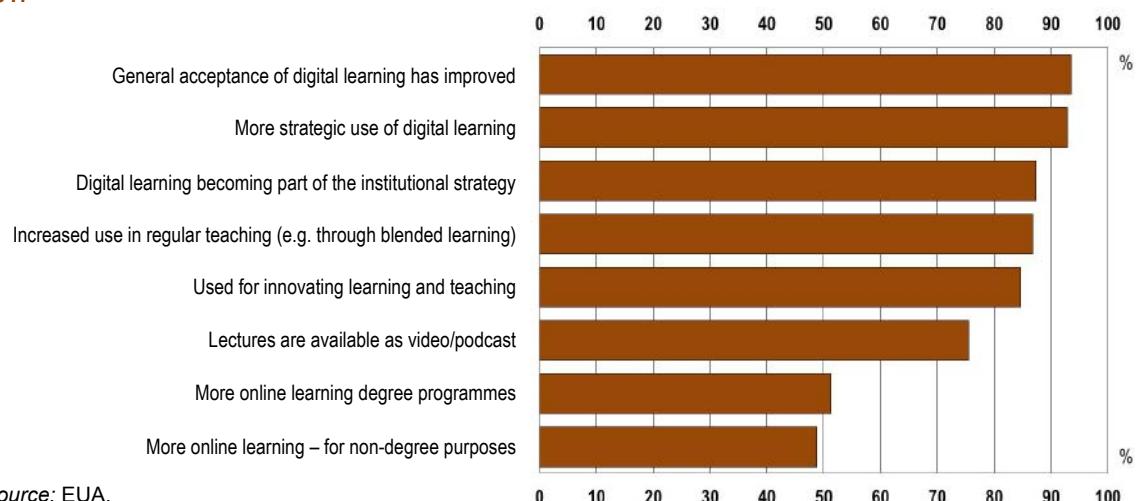
Figure 2.32 Quality assurance of online programmes, 2016/17



Source: BFUG data collection.

The EUA Trends 2018 Survey also examined the latest trends regarding digital learning in higher education institutions. As depicted in Figure 2.33, the findings of the survey seem to confirm that digital learning is on the higher education agenda and there has been a move towards the more strategic use of digital tools and digitally enabled learning and teaching in higher education. More than three quarters of the responding institutions declared that the general acceptance of digital learning has improved over the last years, and there is a more strategic use of digital learning. Similarly, digital tools are increasingly used in regular teaching (e.g. through blended learning), and they are seen as bringing innovation into the learning and teaching process.

Figure 2.33: Trends in higher education institutions regarding digital learning, last three years, (% of institutions), 2017



Source: EUA.

These findings suggest that digital learning is becoming part of campus-based degree programmes, and maintaining attention to the quality of digitally provided components will require even more attention in the future. About half of the institutions also report about the launch of more online degree and non-degree programmes over the last three years. This is, however, a less significant phenomenon compared to developments related to the modernisation of more traditional provision.

2.5. Teaching in new learning environments

The 2015 Yerevan Communiqué places teaching at the top of the Bologna Process agenda, considering the development of teaching relevance and quality as one of the main missions of the EHEA⁽³²⁾. The communiqué puts emphasis on various aspects related to teaching, promoting, in particular, pedagogical innovation in student-centred learning environments and opportunities for the development of academics' teaching competences.

This section explores teaching in higher education from several perspectives. It starts with the top-level and institutional perspective, enquiring about qualification requirements for higher education teachers, opportunities for the development of teaching skills and the role of teaching in career advancement of academics. The second part addresses teaching from the student perspective, exploring students' satisfaction with the quality of teaching.

The section is based on several data sources, including the BFUG data collection, the European University Association (EUA) survey on learning and teaching in higher education⁽³³⁾ and the Eurostudent survey.

2.5.1. Teaching in higher education: top-level and institutional perspective

As the EUA Trends 2018 survey on learning and teaching in higher education shows, national strategies for higher education learning and teaching are now quite widespread across the EHEA (see Section 2.1). The same survey reveals that these strategies commonly address the revision of teaching methods and approaches (reported by 47 % of institutions indicating a national strategy) and/or promote teaching enhancement initiatives (46 % of institutions). Besides national strategies, most higher education institutions have put in place an institutional strategy or policy for learning and teaching, and these strategies commonly refer to measures to improve teaching (reported by 84 % of institutions indicating an institutional strategy or policy). The enhancement of teaching therefore appears as a topic widely embedded in both national and institutional higher education policies and strategies.

Building on this background, the sections that follow provide details on qualification requirements towards academics with teaching responsibilities, teaching components in academics' education, opportunities for the development of teaching skills and the role of teaching in academic careers.

2.5.1.1. Requirements for teaching in higher education

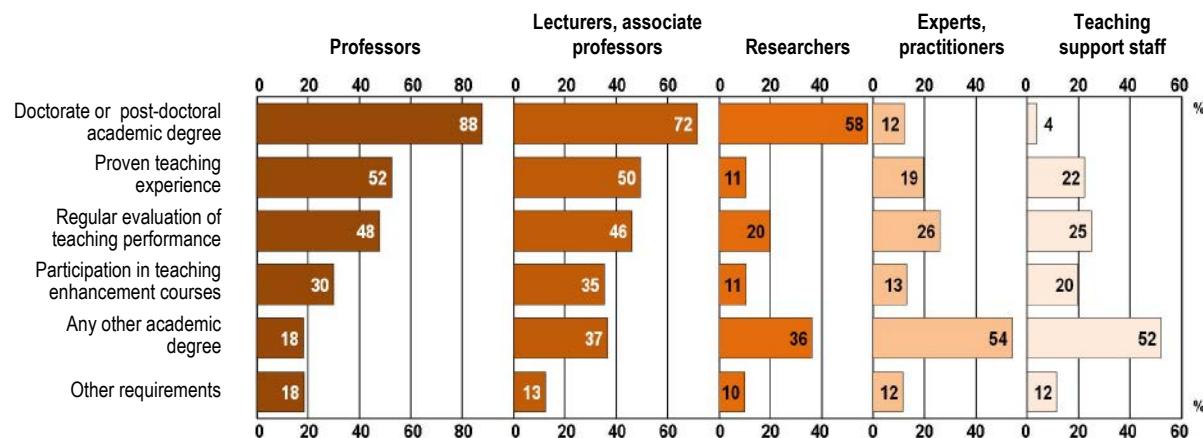
One key question related to teaching in higher education is whether and to what extent academics are equipped to teach. Indeed, while it is commonly expected that teachers at levels below higher education possess a degree or a diploma in teaching, the question may be raised as to whether the same applies to higher education staff with teaching responsibilities. This section provides some insight into this area.

Starting from the institutional perspective, Figure 2.34, which is based on the EUA Trends 2018 survey, captures requirements for different academic positions. Within the survey, higher education institutions were asked to indicate formal or most common requirements for holding positions with teaching responsibilities.

⁽³²⁾ Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 2.

⁽³³⁾ The EUA Trends 2018 survey.

Figure 2.34: Formal or most common requirements for holding higher education positions with teaching responsibilities (% of institutions), 2017



Source: EUA.

As the figure shows, the doctorate or a post-doctoral degree is commonly required for professors (indicated by almost 90 % of responding institutions), associate professors and lecturers (around 70 % of institutions), and researchers (around 60 % of institutions). In the case of experts, practitioners and other teaching support staff, the doctorate or a post-doctoral degree is less frequently required, but an academic degree other than the PhD is often needed.

There are also other formal or common requirements. For example, proven teaching experience and/or regular evaluation of teaching performance are commonly requested in the case of professors, lecturers and associate professors (around 50 % of institutions reported these requirements), but less often required for other teaching staff. Academics may also be requested to participate in teaching enhancement courses, although this is less common compared to the above requirements.

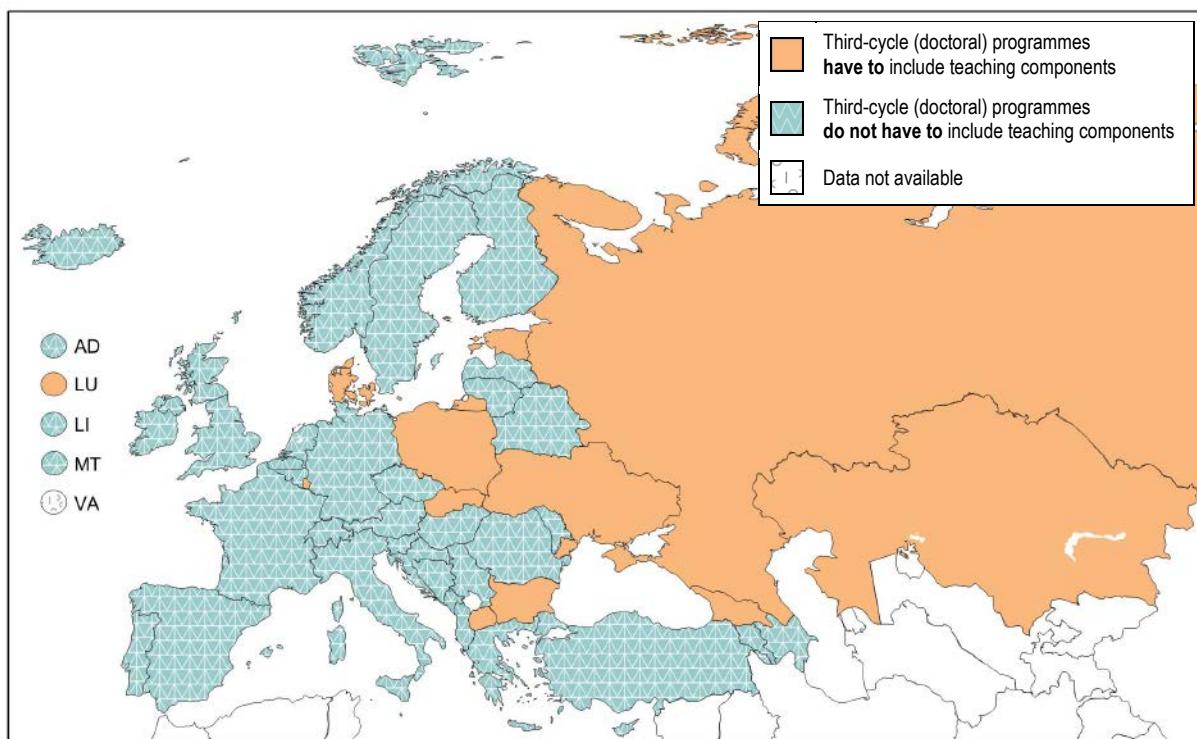
Although not depicted on a specific figure, the EUA Trends 2018 survey points to substantial differences between countries in requirements for distinct academic positions. For example, all responding institutions in Greece, Poland, Portugal, Romania, Russia, Switzerland and Ukraine report the doctorate or a post-doctoral degree as a formal or most common requirement for professorial positions, whereas their share is significantly lower in the Netherlands, Austria and the Czech Republic (43 %, 63 % and 67 %, respectively) (³⁴). Proven teaching experience is commonly required for professors in Ukraine (all responding institutions reported this requirement), Russia (92 % of institutions) and Austria (75 %), and less frequently requested in Romania (13 %), Italy (23 %), Turkey (27 %) and Ireland (29 %). Regular evaluation of teaching performance is a requirement for professors in all responding institutions in Ukraine, 80 % of institutions in Kazakhstan and 77 % in Russia. In contrast, in the Czech Republic, France, Ireland, Italy and Sweden, the same requirement is reported by less than 15 % of institutions. Participation in teaching enhancement courses as a requirement for professors is relatively common in Kazakhstan, Romania, Russia, Ukraine and the United Kingdom (reported by at least half of all surveyed institutions), but quite uncommon in France, Italy, Poland and Portugal and Turkey (less than 10 % of institutions).

Since the doctorate or a post-doctoral degree is commonly expected for various categories of staff with teaching responsibilities – in particular professors, associate professors and lecturers (see the previous figure) – one key question is whether and to what extent programmes leading to these qualifications include teaching components, i.e. courses in teaching or teaching practice. Figure 2.35

(³⁴) These findings are partly consistent with a recent Eurydice report on academic staff (European Commission/EACEA/Eurydice, 2017a) showing that in Austria, the Czech Republic and the Netherlands, the doctorate is not legally required for professors (*ibid.*, pp. 112, 128-129). However, while not legally required, it is still commonly expected for professorial positions (*ibid.*, pp. 32-34).

addresses this question by looking at whether top-level regulations require doctoral programmes to include such components.

Figure 2.35: Top-level requirements for third-cycle (doctoral) programmes to include teaching components, 2016/17



Source: BFUG data collection.

Notes:

Teaching components in third-cycle programmes refer to courses in teaching or teaching practice.

As the figure indicates, only in a minority of EHEA systems (11 systems out of 49 for which data is available) do regulations specify that doctoral programmes have to include teaching components. Most of these systems are situated in the eastern part of the EHEA.

The requirement to include teaching components in doctoral programmes is often formulated in a flexible way, providing a high degree of autonomy to higher education institutions. For example, in Bulgaria, Georgia, Kazakhstan and Russia, regulations require doctoral programmes to include teaching components, but it is up to programme providers to specify their exact volume. A comparable situation can be observed in Denmark, where doctoral programmes have to include a course in university teaching, but the exact number of teaching hours is set individually, within the overall programme workload of 840 hours. In the former Yugoslav Republic of Macedonia, regulations refer to several competence areas to be included in doctoral programmes, one of them being 'lectures and other communication activities'. Regulations in Estonia are even more generic, defining teaching skills among the expected outcomes of doctoral programmes, but providing no details on teaching components to be incorporated into doctoral curricula.

In contrast to previous examples, there are also regulatory frameworks defining quite precisely the volume of teaching components to be included in doctoral programmes. In Poland, for instance, doctoral-degree programmes provided by universities (i.e. the vast majority of doctoral programmes⁽³⁵⁾) should include a module of at least five ECTS credits targeting the development of teaching skills and they should also comprise an internship (practical training) corresponding to no less than 10 hours and no more than 90 hours per year.

⁽³⁵⁾ Programmes provided by institutes of the Polish Academy of Sciences and research institutes are not concerned.

Teaching components – when indicated in regulations – sometimes apply only to specific doctoral programmes and/or to some categories of doctoral candidates. This is the case in Slovakia, where the requirement to teach applies only to full-time doctoral programmes and candidates, the extent of teaching being limited to an average of four hours per week. In Luxembourg, doctoral candidates employed at the university (i.e. around 80 % of all doctoral candidates) have a contractual obligation to carry out one to four teaching units per week. In Ukraine, the requirement applies to the degree 'doctor of philosophy', which includes courses in teaching corresponding to 30-60 ECTS and a mandatory teaching practice.

Even when not required by regulations, teaching components may still be commonly included in doctoral programmes. This is the case in Hungary and Latvia, both reporting that most doctoral programmes include teaching practice. The Netherlands indicates that all higher education institutions offer a range of courses and training programmes for higher education teachers, including introductory courses that can be followed by doctoral candidates. Still, around one-quarter of EHEA countries specify that doctoral programmes generally do not include teaching components.

The rather limited extent to which regulations require teaching components to be included in doctoral programmes can be partly explained by the fact that the doctorate opens employment opportunities that are wider than academia. In other words, only some doctoral degree holders stay in academia and, among those in academia, only some teach. Thus, it is important to look specifically at academic staff, enquiring about the extent to which those with teaching responsibilities are qualified to teach.

The BFUG data collection indicates that top-level regulations rarely require academics with teaching responsibilities to hold a teaching qualification, i.e. a degree, diploma or a certificate that validates a programme targeting the development of teaching skills.

The rare regulations requiring a teaching qualification generally do not concern all staff with teaching responsibilities. For example, in segmented higher education systems (i.e. systems with several higher education sectors), the requirement to hold a teaching qualification commonly applies only to one higher education sector, usually the professional higher education sector. This is the case in the French Community of Belgium, where academics teaching in professional higher education institutions have to hold a second-cycle degree qualification (master) and a certificate of capacity for teaching in higher education (*certificat d'aptitude approprié à l'enseignement supérieur* – CAPAES). A comparable situation can be observed in Switzerland, where academics teaching in universities of applied sciences and universities of teacher education are required to possess a 'teaching diploma', i.e. a diploma obtained from a university of teacher education, a diploma in adult education or a qualification in higher education pedagogy. In the Netherlands, universities of applied sciences have made it obligatory for all staff with teaching responsibilities of more than 0.4 FTE (full-time equivalent) to obtain a basic qualification in teaching (*Basis Didactische Bekwaamheid* – BDB). Another approach is observed in Denmark, where regulations differentiate between permanent and temporary positions. At universities, all permanent teaching staff must complete a course in university pedagogy.

When top-level regulations do not require teaching qualifications, holding such a qualification may still be a common practice for academics. For example, in Finland, most academics with teaching responsibilities possess a teaching qualification, although there are no regulations requiring it. In the Netherlands, the university sector agreed, in 2008, on the content and features of the University Teaching Qualification (UTQ). As a result, all universities have included these features in their own qualifications, and certified teachers are now recognised as qualified teachers in academic education by all participating institutions.

Practice reported by some other top-level authorities refers to 'training in teaching' rather than 'teaching qualifications'. In Ireland, for instance, professional development of certain academic staff categories (e.g. teaching fellows) generally includes the attainment of additional training in teaching.

In Romania, higher education institutions commonly require psycho-pedagogical training at entry to the academic career.

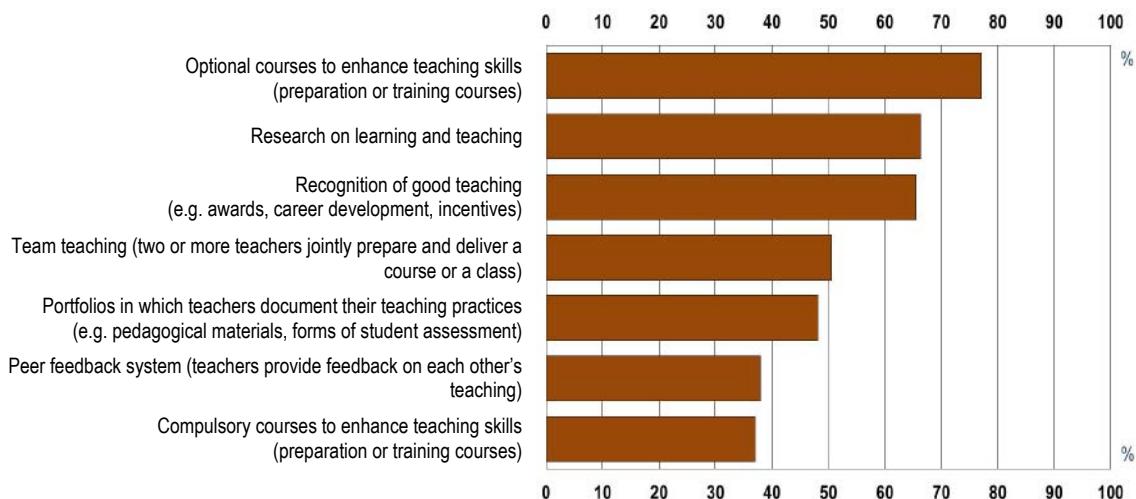
While academics in most countries do not have to possess a teaching qualification or undergo training in teaching, they are often requested by law to demonstrate teaching skills, especially when higher academic ranks or permanent positions are concerned. For example, in Estonia, regulations specify that academics who wish to fulfil a position of professor, associate professor (docent) or lecturer, should possess teaching skills and experience. A comparable situation can be observed in Kazakhstan, where the regulatory framework requires university professors to possess a higher education title in the profile of the subjects taught as well as research and teaching experience. In Germany, it is a pre-condition to have teaching experience to be hired by higher education institutions as an academic with teaching responsibilities. In Norway, all academics with teaching responsibilities are required to prove their teaching competence, following procedures defined by each higher education institution. In the former Yugoslav Republic of Macedonia, teaching skills of academics are assessed by a peer review panel within the process of appointment to academic positions, and by the Higher Education Accreditation and Evaluation Board within the process of accreditation or evaluation.

2.5.1.2. Opportunities for the development of teaching skills

Data presented in the previous section suggest that teaching development in academia essentially consists of 'learning on the job'. Consequently, it is important to examine in more detail the extent and nature of the provision allowing academics to continuously develop their teaching skills.

Based on the EUA Trends 2018 survey, Figure 2.36 shows that higher education institutions commonly offer optional courses targeting the enhancement of teaching skills (77 % of responding institutions reported the presence of such provision) ⁽³⁶⁾. Optional courses are followed by research activities in learning and teaching, and various initiatives to promote good teaching (both 66 % of institutions). Other types of activities promoting or developing teaching skills – e.g. compulsory teaching courses, peer feedback or team teaching – are less common, but they are still provided by a substantial share of higher education institutions (between 37 % and 51 %).

Figure 2.36: Measures to promote and develop teaching skills of academics (% of institutions), 2017



Source: EUA.

⁽³⁶⁾ The survey, however, does not capture the extent of the existing provision, i.e. whether all interested academics can easily participate in such courses.

When focusing on compulsory courses to enhance teaching skills – which are provided by 37 % of responding institutions (see Figure 2.36) –, some differences between countries can be observed. The share of higher education institutions reporting the existence of such courses is clearly above the average in Kazakhstan (93 % of responding institutions), Sweden (88 %), the United Kingdom (78 %), the Netherlands (67 %) and Russia (62 %). In contrast, compulsory courses to enhance teaching skills seem to be quite uncommon in Portugal (no responding institution reported this type of provision), Turkey (9 %), Italy (11 %), France (13 %), Spain (15 %) and Greece (17 %).

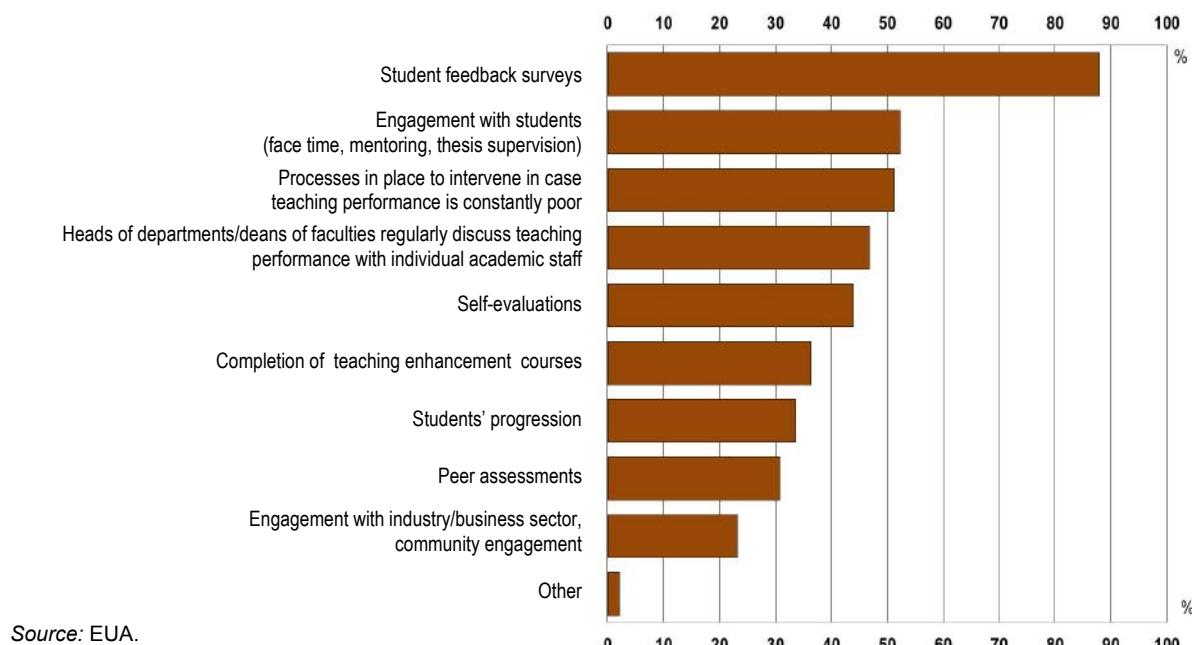
The EUA Trends 2018 survey also shows that compulsory courses to enhance teaching skills are not necessarily obligatory for all teaching staff. Most commonly, this type of provision is foreseen for newly hired staff (50 % of institution reporting compulsory courses indicated this staff category), followed by young teachers and early stage researchers (35 %). Still, 32 % of institutions providing compulsory courses reported that all teaching staff is expected to take part.

According to the above survey, compulsory courses in teaching cover a range of topics, some being more common than others. Often, these courses cover pedagogy and didactics (77 % of institutions reporting compulsory courses indicated these areas), student-centred learning (67 % of institutions), development of learning outcomes (62 %), teaching in an ICT environment and assessment of intended learning outcomes (both 60 %). Less common content areas include the integration of citizenship or entrepreneurship skills into teaching, or the development of social engagement initiatives as part of the curriculum (20-30 %).

2.5.1.3. Assessment of teaching performance and role of teaching in academic careers

Higher education institutions may use various approaches to assess and/or enhance the quality of teaching. According to the EUA Trends 2018 survey, student feedback surveys represent the most common means of teaching assessment. Indeed, as Figure 2.37 shows, these surveys are in place (throughout the institution) in almost 90 % of responding institutions.

Figure 2.37: Means of assessment/enhancement of teaching in place throughout the institution (% of institutions), 2017



Source: EUA.

Other assessment approaches are noticeably less common. For example, self-evaluations are in place in 44 % of institutions and peer assessment in around 30 % of institutions. A relatively high share of responding institutions (around 50 %) report approaches related to teaching enhancement (rather than teaching assessment), such as interventions in case of constantly poor teaching performance or performance discussions between faculty management and academics.

While not presented on a specific figure, there are differences between countries in the use of teaching assessment methods. For example, all responding institutions in Austria, Ireland, Kazakhstan, the Netherlands, Romania, Sweden, Switzerland and the United Kingdom reported the use of student feedback surveys throughout the institution, compared to only around 60-70 % in France, Russia, Turkey and Ukraine. Another assessment approach – self-evaluation – is common in Kazakhstan (in place throughout the institution in 93 % of responding institutions) as well as in the Netherlands, Romania, Russia, Ukraine and the United Kingdom (around 60-70 % of institutions), but less common in Austria, Ireland and Sweden (around 25-30 % of institutions). Peer assessment is relatively common in Kazakhstan, the Netherlands, Portugal, Romania, Ukraine and the United Kingdom (50 % or more responding institutions use it throughout the institution), but rather uncommon in Germany and Italy (around 10 % of institutions).

The EUA Trends 2018 survey also suggests that teaching performance evaluations play a non-negligible role in the promotion and career development of teaching staff. Indeed, among around 300 responding institutions, almost 90 % reported that these evaluations play either an *important role* or an *important role to some extent*. However, behind the average figure lie variations between countries. In Austria, Kazakhstan, Romania, Russia, Switzerland, Ukraine and the United Kingdom, all responding institutions indicated that teaching performance evaluations play an important role (at least to some extent) in the promotion and career development of teaching staff. In contrast, in France, only around half of all respondents reported an *important role to some extent*, whereas another half indicated that these evaluations do not play any substantial role in the promotion and career development of teaching staff. France was followed by Ireland, Italy and Turkey, where between 25 % and 30 % of responding institutions indicated no substantial role.

The EUA survey findings can be complemented by outcomes of the BFUG data collection that asked top-level authorities to ponder the role of research and teaching in career progression of academics. While answers provided have to be seen as estimates, they point to a rather clear pattern: around three-quarters of respondents (34 higher education systems) indicated that research is in general a stronger component than teaching in career progression of academics; around a quarter (12 systems) stated that teaching and research are equally important; and only one respondent reported that teaching is in general a stronger component than research⁽³⁷⁾. This finding combined with the previously analysed EUA data suggests that while teaching performance plays a non-negligible role in academic careers, research is still the key career component in most higher education systems.

2.5.2. Teaching from students' perspective

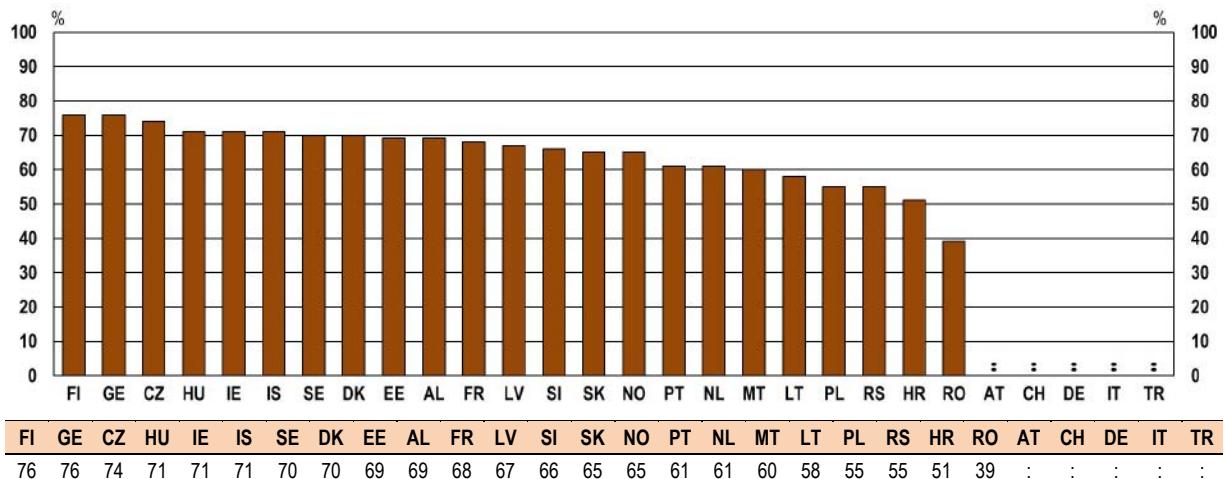
One aspect to consider when analysing teaching quality is the students' point of view. Are students satisfied with their teachers? Are they inspired by them? Questions such as these are included in the Eurostudent survey providing data for around half of all EHEA countries.

The survey shows that the satisfaction of students with the quality of teaching is overall quite high (see Figure 2.38). Indeed, in virtually all the countries analysed, more than half of all students are satisfied or very satisfied with the quality of teaching in their current study programme. The highest level of satisfaction – 70 % of students or above – is recorded in Finland, Georgia, the Czech Republic,

⁽³⁷⁾ Respondents from further three systems stated that they had no access to information on these aspects.

Hungary, Ireland, Iceland, Sweden and Denmark. In contrast, in Romania, only 39 % of students are satisfied or very satisfied with teaching quality.

Figure 2.38: Students' satisfied with quality of teaching in their current study programme (%), 2016/17



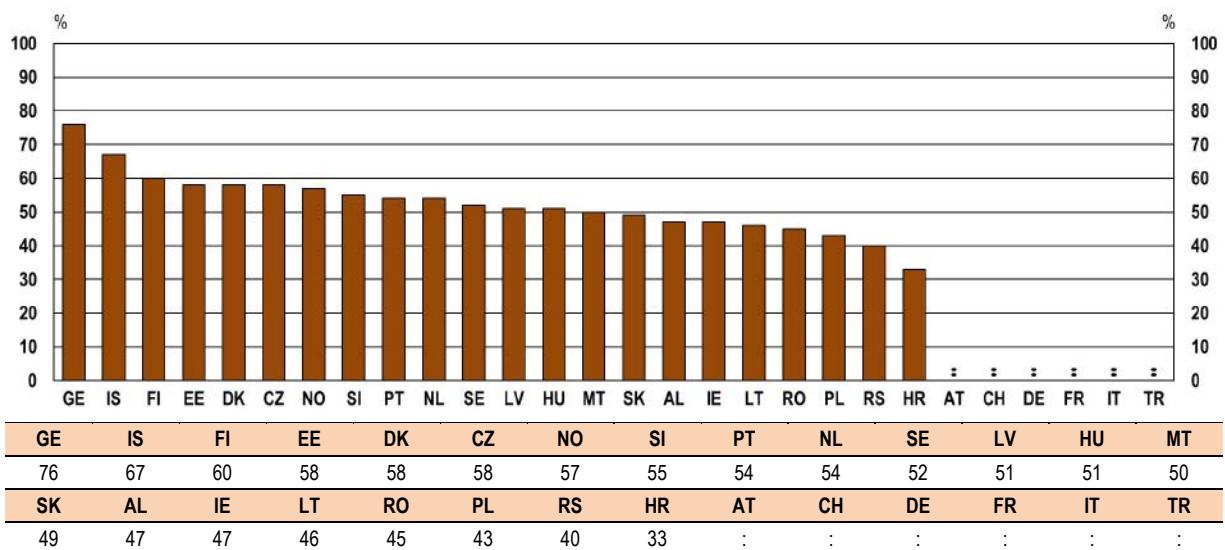
Source: Eurostudent.

Notes:

Students rated their satisfaction on a five-point scale ranging from 'very satisfied' to 'not at all satisfied'. The figure shows the two highest levels of satisfaction that were aggregated.

In almost two-thirds of the countries for which Eurostudent data is available, at least half of all students agree or strongly agree with the statement that their teachers inspire them (see Figure 2.39). The highest proportion of students considering their teachers as 'inspiring' – 60 % or above – is observed in Georgia, Iceland and Finland. In contrast, Croatia and Serbia record the lowest share of students agreeing with the statement that their teachers inspire them (33 % and 40 %, respectively).

Figure 2.39: Students agreeing with the statement that their teachers inspire them (%), 2016/17



Source: Eurostudent.

Notes:

Students rated their agreement on a five-point scale ranging from 'strongly agree' to 'do not agree at all'. The figure shows the two highest levels of agreement that were aggregated.

When considering different elements presented in sections 2.5.1 and 2.5.2 in a combined perspective, some concordant – and rather positive – findings emerge. Teaching in higher education appears as an area of policy interest in both national and institutional strategies, courses for academics targeting the enhancement of teaching skills seem to be quite widespread and students' satisfaction with the quality of teaching is overall quite high. At the same time, requirements for teaching in higher education are still less clearly defined compared to other educational levels, and research performance of academics remains the key career component in most higher education systems.

2.6. Conclusions

Improving the quality and relevance of teaching and learning in higher education has always been at the centre of the Bologna Process. This dimension was further strengthened in the Yerevan Communiqué, which calls for better visibility of this policy area. This chapter examined learning and teaching in higher education in five interlinked parts, covering, respectively, national and institutional strategies on promoting learning and teaching, the implementation of ECTS and the learning outcomes approach, flexible modes of study, learning in digital environments and, finally, teaching in new learning environments.

National strategies for higher education learning and teaching are now quite widespread across the EHEA, and they formulate various expectations towards higher education institutions. Commonly, top-level authorities ask institutions to develop their own learning and teaching strategy and/or to meet specific benchmarks for learning and teaching. National strategies also often promote the revision of teaching methods and approaches, as well as various teaching enhancement initiatives. Alongside national strategies, most higher education institutions have put in place an institutional strategy or policy for teaching and learning. This type of steering commonly promotes the development of international opportunities, academic staff development and measures to improve teaching. Overall, the enhancement of learning and teaching in higher education appears as a priority topic.

ECTS is one of the tools that is also having an impact on the modernisation of teaching and learning in the EHEA. There has been important progress in linking ECTS credits to learning outcomes; however, in a third of countries still not all first-and second-cycle programmes are described using this approach. Learning outcomes and associated student workload together are becoming the basis for credit allocation across the EHEA, except in ten countries. This difference in credit allocation approaches can have a negative impact on credit transfer of mobile students. New information compared to previous reports, and shown in Scorecard indicator n 1, is that in a third of the EHEA countries, external quality assurance is required to monitor six key principles of ECTS. In contrast, national authorities in another third of the countries do not provide policy steering for external quality assurance in this area.

The flexibility of higher education studies can be enhanced by the provision of alternative modes of study, e.g. 'part-time' studies. The majority of EHEA countries report that most of their higher education institutions ensure part-time or alternative forms of study. In around two-thirds of the countries, different modes of study go hand in hand with different student statuses (e.g. 'full-time'/'part-time'). Yet, studying with a formal status other than 'full-time' often requires higher private financial investment.

The provision of part-time (or other alternative) forms of study is particularly important for mature students. In virtually all EHEA countries, the share of part-timers among older students (aged 30-34) is more than twice as high as in a younger age group (aged 20-24) and, in some countries, it is more than ten times higher.

Since part-timers commonly combine studies with other engagements, they are often found among low intensity students, i.e. students who dedicate less than 20 hours per week to their studies. However, low intensity students can also be found among those who are formally considered as studying 'full-time'. Thus, the link between official student status and hours devoted to studying is not always straightforward.

Digitally enabled teaching and learning is increasingly addressed strategically at national and institutional levels. Most countries have strategies or policies in this area, with the main priority often on using digital technology in enhancing teaching and learning in on-campus programmes and, although to a lesser degree, on developing blended programmes. While online degree programmes (in particular in the first and the second cycles) and Massive Open Online Courses (MOOCs) are now part of the higher education courses landscape, they are less widespread. Importantly, the majority of countries invest in providing access to technology and equipping staff and students with digital skills. Nevertheless, framework conditions, encompassing for example, the legal framework, quality assurance and the certification of digital learning, are adapted to digital provision in around a third of the countries.

Higher education teachers are the key players in enabling students' learning. However, while some academic staff categories – in particular professors, associate professors, lecturers and researchers – are commonly required to hold the doctorate or a post-doctoral degree, programmes leading to these qualifications do not necessarily include courses in teaching or teaching practice. Moreover, regulations generally do not require academics with teaching responsibilities to hold a teaching qualification, i.e. a degree, diploma or a certificate that validates a programme targeting the development of teaching skills. This suggests that the development of teaching skills in academia essentially consists of 'learning on the job'.

Higher education institutions commonly offer optional courses targeting the enhancement of teaching skills. Optional courses are followed in frequency by research activities in learning and teaching, and various initiatives to promote good teaching. Other types of activities promoting or developing teaching skills – e.g. compulsory teaching courses, peer feedback or team teaching – are less common, but they are still provided by a substantial share of higher education institutions.

Teaching performance of academics – which is most commonly assessed through student feedback surveys – seems to play a non-negligible role in promotion and career development. However, when asked to ponder the role of research and teaching in career progression of academics, around three-quarters of EHEA countries indicated that research is in general a stronger component than teaching.

The reported satisfaction of students with the quality of teaching is overall quite high. In virtually all the countries for which data is available, more than half of all students are satisfied or very satisfied with the quality of teaching in their current study programme. Moreover, in almost two-thirds of countries with data, at least half of all students agree or strongly agree with the statement that their teachers inspire them.

When considering different elements related to teaching in a combined perspective, some rather positive findings emerge. Teaching in higher education appears as an area of policy interest in both national and institutional strategies, courses for academics targeting the enhancement of teaching skills seem to be quite widespread and students' satisfaction with the quality of teaching is overall quite high. However, requirements for teaching in higher education are still less clearly defined compared to other educational levels and research performance of academics remains the key career component in most higher education systems.

CHAPTER 3: DEGREES AND QUALIFICATIONS

The Yerevan Communiqué

In the 2015 Yerevan Communiqué, ministers responsible for higher education reaffirmed their collective ambition to implement the agreed structural reforms. They noted that 'implementation of the structural reforms is uneven and the tools are sometimes used incorrectly or in bureaucratic and superficial ways' ⁽³⁸⁾. Alongside the three-cycle degree structure, the ministers confirmed their willingness to include short-cycle qualifications in the overarching framework of qualifications for the European Higher Education Area (QF-EHEA). The objective is to facilitate the recognition of short-cycle qualifications not only in higher education systems where such qualifications exist, but also in those that do not comprise them ⁽³⁹⁾. The ministers have also agreed to 'review national qualifications frameworks, with a view to ensuring that learning paths within the framework provide adequately for the recognition of prior learning' ⁽⁴⁰⁾.

The 2015 Bologna Process Implementation Report

The 2015 Bologna Process Implementation Report (European Commission/EACEA/Eurydice, 2015) provided an overview of progress made towards the implementation of a common degree structure since 2012. In relation to the first cycle, the report confirmed that most countries combine programmes of 180 ECTS and 240 ECTS. In the second cycle, the most common model is 120 ECTS – two-thirds of programmes following this workload. However, when taking into consideration all credit models that coexist in the EHEA, the report concluded that the total workload of the first and second cycles combined may vary by up to 120 ECTS, which can potentially cause recognition problems.

Regarding short-cycle qualifications, the report identified substantial differences across the EHEA, noticing that short-cycle qualifications can be part of higher education, part of post-secondary vocational education or even part of secondary education. Moreover, when continuing in the first cycle, short-cycle graduates gain different numbers of credits: from full credit, down to zero credits. Based on these observations, the report called for improved readability and international comparability of short-cycle qualifications.

In relation to the Bologna tools, the report recognised substantial developments as well as remaining challenges. For example, the Diploma Supplement – now a widely used instrument – is not always issued according to the agreed principles, i.e. to every graduate, automatically, in a widely spoken European language and free of charge. The report also noted substantial progress regarding the implementation of national qualifications frameworks, but at the same time, it acknowledged that most countries still face challenges in including non-formal qualifications in national frameworks self-certified against the Framework for Qualifications of the European Higher Education Area (QF-EHEA).

⁽³⁸⁾ Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 1.

⁽³⁹⁾ Ibid.

⁽⁴⁰⁾ Ibid., p. 4.

Chapter outline

This chapter discusses Bologna structures and selected tools in two parts. The first part is devoted to the implementation of a common degree structure. The second part concentrates on two Bologna tools: the Diploma Supplement and national qualifications frameworks. The implementation of another key Bologna tool – the European Credit Transfer and Accumulation System (ECTS) – is discussed in Chapter 2 that focuses on learning and teaching.

3.1. Implementation of a common degree structure

One of the key commitments of the 1999 Bologna Declaration (⁴¹) was the adoption of a system based on two main cycles: undergraduate and graduate. In 2003, ministers expressed a further commitment: the inclusion of the doctoral level as the third cycle in the Bologna Process (⁴²). During the same year, they also invited the Bologna Follow-up Group (BFUG) to explore whether and how shorter higher education could be linked to first-cycle higher education programmes (⁴³). Hence, the Bologna Process has been promoting a three-cycle structure consisting of undergraduate (first-cycle), graduate (second-cycle) and doctoral (third-cycle) programmes, with the possibility of intermediate (short-cycle) qualifications linked to the first cycle.

Following the above, this section starts by looking at the implementation of the three-cycle structure, outlining also the presence of intermediate qualifications linked to first-cycle higher education. It then considers programmes outside the commonly agreed degree structure, namely integrated (long) higher education programmes and other programmes not falling under the Bologna framework.

3.1.1. The Bologna three-cycle system and intermediate (short-cycle) qualifications

Figure 3.1 depicts the distribution of students across the three main cycles, corresponding to ISCED levels 6-8 (bachelor, master and doctoral or equivalent programmes (⁴⁴)). It also indicates the proportion of students participating in ISCED 5 programmes (short-cycle tertiary education), where such programmes exist.

In 2014/15, in virtually all EHEA countries, more than half of all students participated in a bachelor or equivalent programme (ISCED 6). The highest proportion – more than 80 % – was registered in Andorra, Bosnia and Herzegovina, Georgia, Greece, the former Yugoslav Republic of Macedonia, Montenegro and Serbia. In contrast, in Austria, France, Luxembourg and Russia, the proportion of students in ISCED 6 programmes was relatively low – situated between 40 % and 50 %. This can be explained both by the presence of ISCED 5 programmes in the latter group of countries and by a relatively high proportion of students in ISCED 7 programmes.

There are significant differences between countries in terms of the participation in master or equivalent programmes. The lowest share – less than 10 % – is observed in Andorra, Azerbaijan, Belarus, Georgia, Greece, Kazakhstan, the former Yugoslav Republic of Macedonia, Montenegro and Turkey. At the other end of the scale are countries where more than 30 % of all higher education students can be found in ISCED 7 programmes, namely Austria, Bulgaria, Croatia, the Czech Republic, Cyprus, France, Germany, Italy, Liechtenstein, Luxembourg, Poland, Portugal, Romania, Slovakia and Sweden.

(⁴¹) The Bologna Declaration of 19 June 1999.

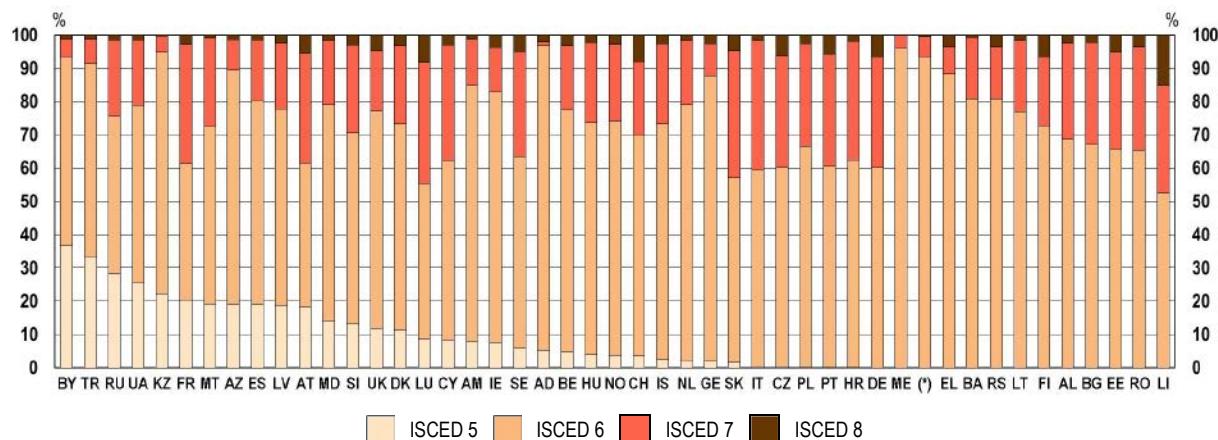
(⁴²) Realising the European Higher Education Area. Communiqué of the Conference of Ministers responsible for Higher Education, Berlin, 19 September 2003.

(⁴³) Ibid.

(⁴⁴) For more details on the ISCED classification, see the Glossary and Methodological Notes.

Doctoral or equivalent programmes (ISCED 8) generally involve only a small proportion of all students; in most countries, it is less than 5 % of the student population. The lowest share – below 1 % – is observed in Bosnia and Herzegovina, Kazakhstan, the former Yugoslav Republic of Macedonia, Malta and Montenegro. The highest proportion – above 6 % – is registered in Liechtenstein (15.2 %⁽⁴⁵⁾), Luxembourg (8.3 %), Switzerland (8 %), Germany, Finland (both 6.6 %) and the Czech Republic (6.2 %).

Figure 3.1: Distribution of students enrolled in ISCED 5-8 programmes, 2014/15



(*): the former Yugoslav Republic of Macedonia

%	BY	TR	RU	UA	KZ	FR	MT	AZ	ES	LV	AT	MD	SI	UK	DK	LU	CY	AM	IE	SE	AD	BE	HU	NO
ISCED 5	36.7	33.2	28.3	25.5	22.2	20.4	19.2	19.0	19.0	18.8	18.3	14.1	13.4	11.7	11.1	8.5	8.4	8.0	7.7	5.9	5.3	4.8	3.8	3.7
ISCED 6	56.8	58.2	47.3	53.3	72.5	40.9	53.2	70.3	61.3	59.0	43.1	65.0	57.1	65.4	62.2	46.9	53.8	76.8	75.2	57.5	91.5	72.5	69.8	70.4
ISCED 7	5.4	7.3	22.8	19.5	4.9	35.8	26.8	9.2	18.1	19.7	32.9	19.1	26.4	18.1	23.5	36.4	34.8	14.0	13.3	31.6	1.1	19.4	24.1	23.2
ISCED 8	1.2	1.3	1.7	1.7	0.3	2.8	0.9	1.4	1.6	2.6	5.6	1.8	3.1	4.8	3.2	8.3	3.0	1.2	3.8	5.0	2.2	3.3	2.3	2.8
%	CH	IS	NL	GE	SK	IT	CZ	PL	PT	HR	DE	ME	(*)	EL	BA	RS	LT	FI	AL	BG	EE	RO	LI	
ISCED 5	3.5	2.6	2.2	1.8	1.5	0.4	0.3	0.2	0.1	0.1	0.0	:	:	:	:	:	:	:	:	:	:	:	:	
ISCED 6	66.4	70.7	76.8	85.7	55.6	58.9	59.9	66.3	60.4	62.3	60.2	95.8	93.4	88.4	80.9	80.8	76.9	72.5	68.6	66.9	65.7	65.4	52.4	
ISCED 7	22.1	24.0	19.3	9.8	38.0	38.9	33.6	30.9	33.8	35.7	33.2	4.0	6.1	8.1	18.4	15.7	21.3	20.9	28.9	30.7	29.0	31.0	32.4	
ISCED 8	8.0	2.7	1.7	2.7	4.9	1.8	6.2	2.6	5.7	1.9	6.6	0.2	0.5	3.5	0.8	3.5	1.9	6.6	2.5	2.4	5.3	3.6	15.2	

Source: Eurostat, UOE and additional collection for the other EHEA countries.

Notes:

Countries are arranged by the participation in ISCED 5 programmes. Countries without ISCED 5 are sorted according to the participation in ISCED 6 programmes. Germany, where ISCED 5 concerns only 394 students (see Chapter 1, Figure 1.1), is still sorted by the participation in ISCED 5.

Alongside the three main cycles, around two thirds of all EHEA countries offer programmes categorised under 'short-cycle tertiary education' (ISCED 5). However, in a number of countries, ISCED 5 programmes involve only a small proportion of all students (e.g. less than 1 %). The highest share of students in these programmes – above 20 % – is observed in Belarus, France, Kazakhstan, Russia, Turkey and Ukraine. Yet, as discussed further in the text (see Figure 3.7 and related analysis), ISCED 5 programmes are not always recognised as part of higher education systems.

⁽⁴⁵⁾ It must be noted that around 95 % of students from Liechtenstein study abroad, mainly in Switzerland and Austria. The high percentage of third-cycle students is closely related to the existence of two private universities that only offer doctoral and post-graduate programmes.

3.1.1.1. First and second cycle

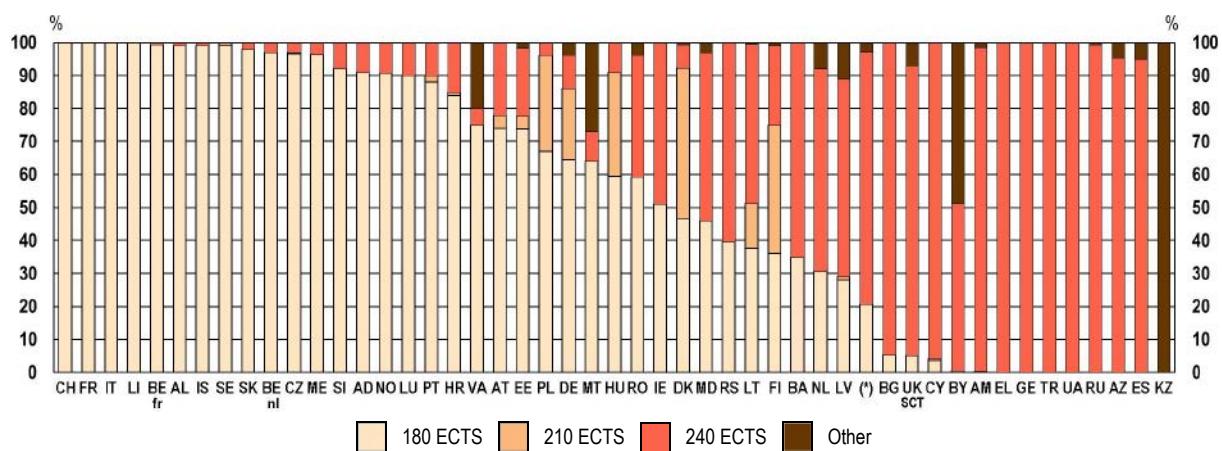
Moving from a quantitative overview to a qualitative analysis, Figures 3.2 and 3.3 depict the workload of first- and second-cycle programmes expressed in ECTS credits. Both figures indicate that different credit models often coexist within the same system, even though in most systems one credit model clearly dominates.

In the first cycle (see Figure 3.2), the 180 ECTS workload is the most widespread, characterising the majority of programmes in more than half of all EHEA countries. In France, Italy, Liechtenstein and Switzerland, this model applies to all first-cycle programmes, and in further 12 systems, 90 % or more of first-cycle programmes are concerned. Another quite widespread model is the 240 credits model, which applies to most first-cycle programmes in around one-third of all EHEA countries. Georgia, Greece, Turkey and Ukraine apply this model to all first cycle programmes, whereas in Armenia, Azerbaijan, Bulgaria, Cyprus, Russia and Spain, it characterises more than 90 % of programmes. The geographical distribution of the two main models suggests that in south-eastern Europe and in a number of post-Soviet states, first-cycle programmes have generally more substantial workload compared to other parts of the EHEA.

The existence of the 210 ECTS first-cycle model is reported only from around a quarter of all EHEA countries, but in most of them, this model is not very widespread and concerns only up to 5 % of all first-cycle programmes. Denmark, Finland, Germany, Hungary and Poland are exceptions to this pattern, with more than 20 % of all first-cycle programmes applying this pattern.

Other workload models are relatively uncommon in the first cycle, either non-existent or concerning less than 10 % of all first-cycle programmes. In Kazakhstan, however, all first-cycle programmes fall under this category, since their workload corresponds to at least 146 national credits, which is equal to 231 ECTS credits. In Belarus, almost half of all first-cycle programmes apply an 'other' workload, mostly 300 ECTS (28 %) and 270 ECTS (18 %). Further systems reporting a relatively high proportion of other first-cycle workload patterns (20 % or more programmes) are Malta and the Holy See.

Figure 3.2: Share of first cycle-programmes with a workload of 180, 210, 240 or another number of ECTS credits, 2016/17



(*): the former Yugoslav Republic of Macedonia

Source: BFUG data collection.

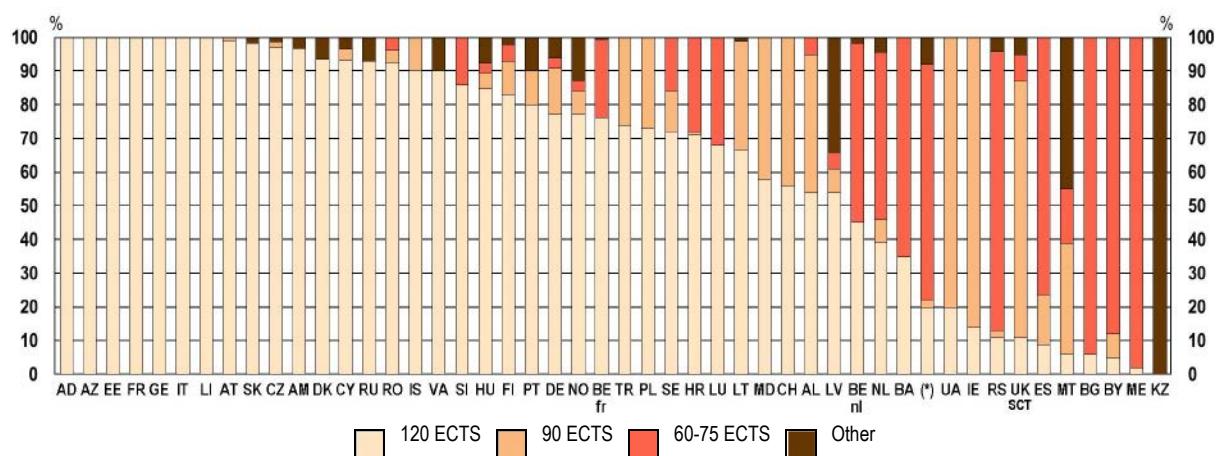
The comparison with the previous reporting shows only minor variations in the use of different workload models in the first cycle (up to ten percentage points). The most substantial changes are noted in Andorra, Kazakhstan, Malta and the Netherlands. In the last two countries, the 180 ECTS model has decreased in favour of other credit patterns, whereas in Andorra it has increased. In Kazakhstan, all first-cycle programmes now fall under the category 'other', whereas previously, all programmes were reported under the 240 ECTS model.

In the second cycle (see Figure 3.3), the 120 ECTS model is by far the most widespread, being present in virtually all EHEA systems. It is the sole second-cycle model in Andorra, Azerbaijan, Estonia, France, Georgia, Italy and Liechtenstein, and it applies to most second-cycle programmes in around three-quarters of all EHEA countries. The 60-75 ECTS model is present in around a half of all countries, dominating in Belarus, Bosnia and Herzegovina, Bulgaria, the Flemish Community of Belgium, the former Yugoslav Republic of Macedonia, Montenegro, Serbia and Spain. The 90 ECTS model is less widespread, but still present in around a half of all EHEA countries, and dominating in Ireland, Ukraine and the United Kingdom (Scotland).

The share of second-cycle programmes with a workload outside the 60-120 ECTS interval generally does not exceed 10 %. In Kazakhstan, however, all second-cycle programmes fall under this category, since their workload corresponds to either 119 ECTS credits (around 60 % of programmes) or 93 ECTS credits (around 40 % of programmes) ⁽⁴⁶⁾. The share of second-cycle programmes with an 'other' workload is also relatively high in Malta (45 %), Latvia (34 %) and Norway (13 %).

Changes since the last reporting are not very substantial. Some countries indicate a higher share of the 120 ECTS model (e.g. Andorra, Estonia, Germany and Iceland), while in other instances, the 120 ECTS pattern has decreased either in favour of the 60-75 ECTS model (e.g. Bulgaria and Luxembourg) or in favour of other credit patterns (e.g. Latvia). In Kazakhstan, all second-cycle programmes now fall under the category 'other', whereas previously, all programmes were reported under the three credit models. It must be noted, however, that several countries reporting changes acknowledge issues with previously provided data, meaning that variations do not reflect any major reforms of second-cycle programmes.

Figure 3.3: Share of second-cycle programmes with a workload of 60-75, 90, 120 or another number of ECTS credits, 2016/17



(*): the former Yugoslav Republic of Macedonia

Source: BFUG data collection.

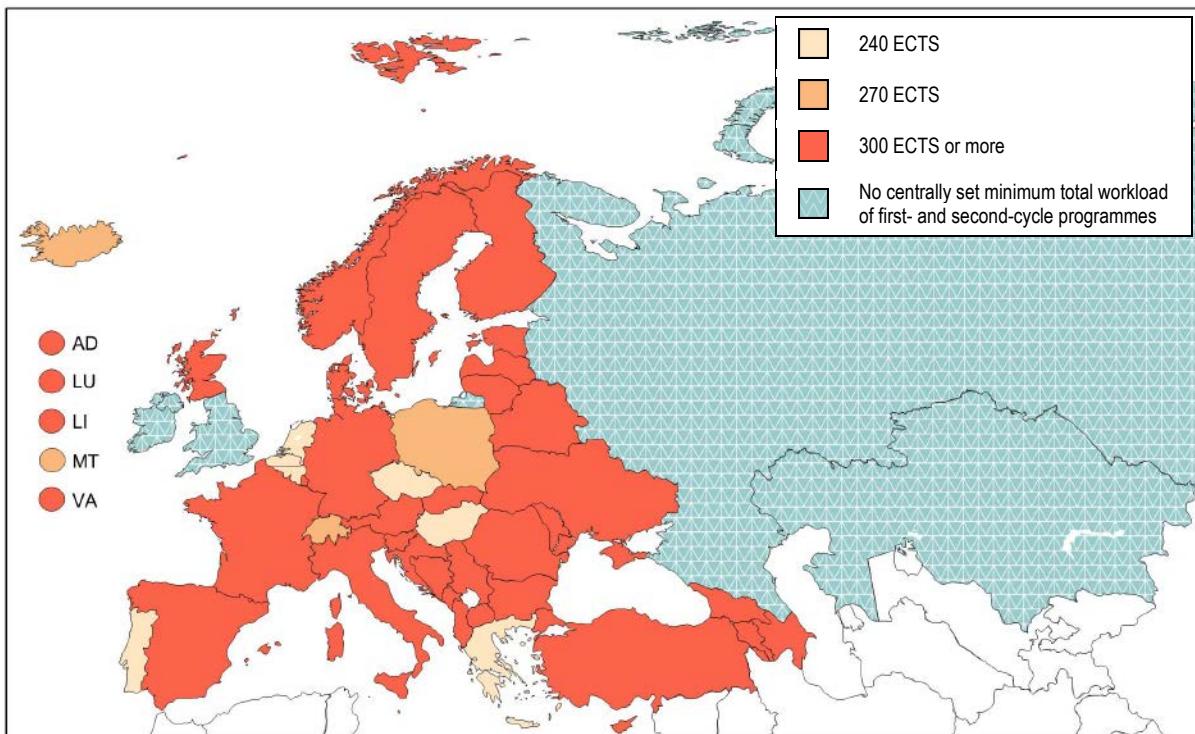
Based on the above indicators, the 2015 Bologna Process Implementation Report provided an overview of different workload models of first- and second-cycle studies combined together (European Commission/EACEA/Eurydice 2015, p. 54). The report identified a range of possible groupings, noticing that the difference between the extremes is 120 ECTS credits or two nominal years of study.

Building on the 2015 analysis, Figure 3.4 looks at the combined workload of first- and second-cycle programmes from the regulatory perspective, providing information on the centrally set minimum. It shows that virtually all EHEA countries regulate the minimum workload of the first and second cycle,

⁽⁴⁶⁾ Higher education institutions in Kazakhstan can also offer second-cycle programmes with a workload of 61 ECTS credits. However, during the academic year 2016/17, no such programmes were funded from the state budget.

and that the minimum workload of both cycles combined is commonly set at 300 ECTS or more. In some higher education systems, the centrally set minimum is lower, corresponding either to 240 or to 270 ECTS credits. However, the minimum, in particular when relatively low, does not necessarily apply to all higher education programmes. For instance, in the Czech Republic, the minimum of 240 ECTS applies only to some remaining four-year master degrees. Therefore, the regulatory perspective has to be complemented by data on the most common combined workload – the topic covered by Figure 3.5.

Figure 3.4: Centrally set minimum total workload of first- and second-cycle programmes, 2016/17



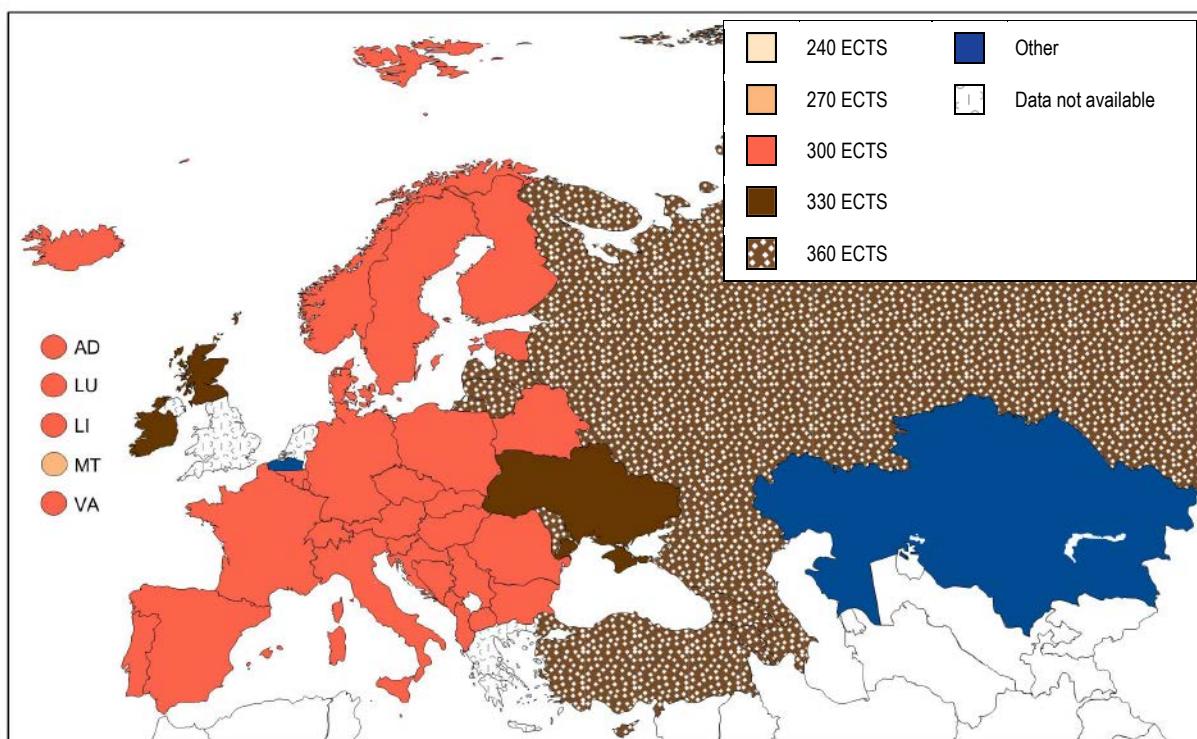
Source: BFUG data collection.

Notes:

Centrally set minimum can be defined either together for the first and the second cycle, or separately for each of the two cycles. In the latter case, the two minimum values are added.

While in several countries the minimum total workload of first- and second-cycle programmes combined is set at 240 credits (see Figure 3.4), no country reports this workload as the most common one. Indeed, the most common combined workload in three-quarters of EHEA countries is 300 ECTS (see Figure 3.5). In the eastern part of the EHEA, the most common workload is generally higher, corresponding to 360 ECTS, which is mainly due to a more substantial workload of first-cycle programmes (see Figure 3.2). There are only few exceptions to the 300 and 360 ECTS patterns. These are Ireland, Ukraine and the United Kingdom (Scotland), where the most common combined workload corresponds to 330 ECTS, the Flemish Community of Belgium, where the combined workload of around half of all programmes corresponds to 240 ECTS and of another half to 300 ECTS (some programmes also follow the 360 ECTS model), Kazakhstan (350 ECTS or 205 national credits) and Malta (270 ECTS).

Figure 3.5: Most common total workload of first- and second-cycle programmes, 2016/17



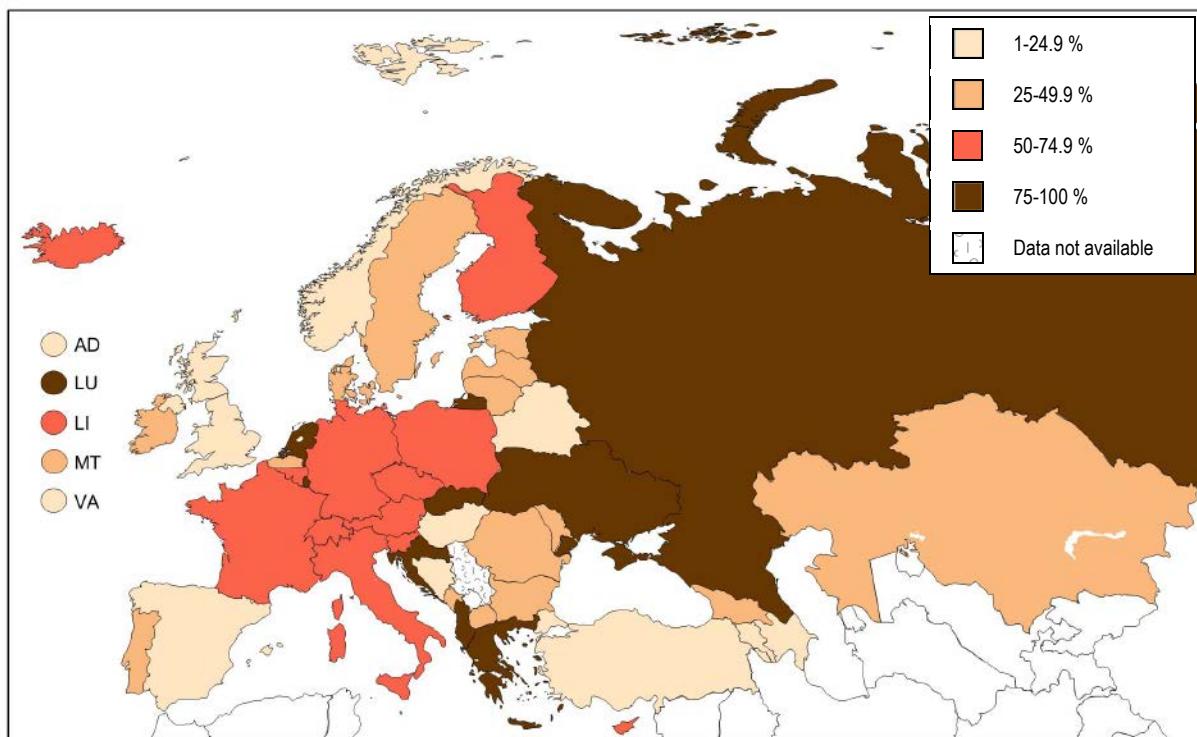
Source: BFUG data collection.

The combined workload of first- and second-cycle programmes does not imply that students necessarily study in a second-cycle programme once they complete a first-cycle degree. Indeed, the Bologna Declaration (47), as well as several subsequent ministerial communiqués, emphasises that the degree awarded after the first cycle shall be relevant not only to second-cycle studies, but also to the European labour market. In other words, first-cycle graduates should have a choice between pursuing their studies and starting out in employment.

Figure 3.6 examines the proportion of first-cycle graduates entering a second-cycle programme within one year after graduation. It shows that in eight countries (Albania, Croatia, Greece, Luxembourg, the Netherlands, Russia, Slovakia and Ukraine), between three-quarters and all first-cycle graduates enter a second-cycle programme within one year. This figure is slightly higher compared to the 2015 report (which identified six higher education systems in this situation), but lower compared to 2012 (which reported 13 systems). The proportion of first-cycle graduates progressing directly to the second cycle is also relatively high (50-74.9 %) in a further 13 systems, several of which are situated in central Europe. In contrast, in a dozen EHEA systems, less than one-quarter of all first-cycle graduates enter a second-cycle programme within one year of graduation. It is likely that in these countries – which can be found in different parts of Europe – first-cycle qualifications benefit from high labour market recognition.

(47) The Bologna Declaration of 19 June 1999.

Figure 3.6: Proportion of first-cycle graduates entering a second-cycle programme within one year after graduation, 2016/17



Source: BFUG data collection.

3.1.1.2. Short-cycle programmes and qualifications

Discussions around 'intermediate' or 'short-cycle' qualifications have been an integral part of the Bologna Process from its early stage. Already in 2003, ministers responsible for higher education invited the Bologna Follow-up Group to explore whether and how shorter higher education could be linked to first-cycle qualifications⁽⁴⁸⁾. The higher education level descriptors known as Dublin Descriptors – which were presented in 2003 and adopted in 2005 – make an explicit reference to 'short-cycle qualifications within or linked to the first cycle'. However, as the 2015 Bologna Process Implementation Report notes, this wording had not fully clarified or solved the issue of intermediate programmes shorter than the first cycle. More recently, ministers re-opened this question, taking a commitment to include short-cycle qualifications in the overarching framework of qualifications for the European Higher Education Area (QF-EHEA)⁽⁴⁹⁾.

The following analysis attempts to clarify the situation regarding short-cycle studies. As Figure 3.7 indicates, in 2016/17, short-cycle programmes considered as part of higher education exist in around half of all EHEA systems.

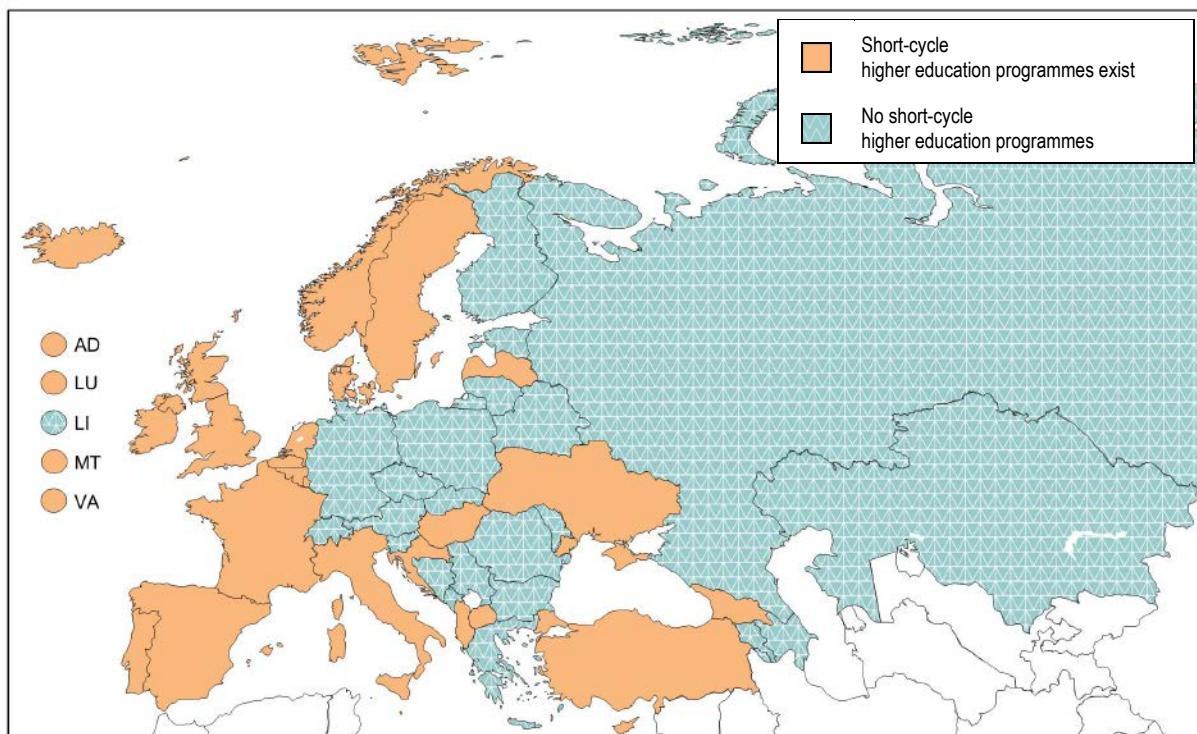
The comparison between Figures 3.7 and 3.1 suggests that the concept of 'short-cycle higher education' is significantly different to 'short-cycle tertiary education' (ISCED 5). Indeed, around a quarter of all EHEA countries do not report the existence of short-cycle higher education programmes (see Figure 3.7), but available Eurostat data indicate the presence of ISCED 5 programmes (see Figure 3.1). In some of these countries, ISCED 5 programmes involve only a small proportion of all ISCED 5-8 students (less than 0.1 % in Germany, 0.2 % in Poland, 0.3 % in the Czech Republic, 1.5 % in Slovakia, 3.5 % in Switzerland; see Figure 3.1), whereas in other instances the proportion is

⁽⁴⁸⁾ Realising the European Higher Education Area. Communiqué of the Conference of Ministers responsible for Higher Education, Berlin, 19 September 2003.

⁽⁴⁹⁾ Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015.

substantial (37 % in Belarus, 28 % in Russia, around 20 % in Austria, Azerbaijan and Kazakhstan, 14 % in Moldova, 13 % in Slovenia, 8 % in Armenia) (50).

Figure 3.7: Presence of short-cycle programmes considered as part of higher education, 2016/17



Source: BFUG data collection.

Notes:

The presence of short-cycle programmes considered as part of higher education refers to situations where national qualifications frameworks and/or top-level steering documents recognise the short cycle (or short-cycle qualifications) as part of the higher education system.

Short-cycle tertiary education (ISCED 5) not recognised as higher education commonly comprises vocational programmes. In Slovenia, for instance, tertiary education consists of short-cycle higher vocational education regulated by the Higher Vocational Education Act, and higher education regulated by the Higher Education Act. The latter act defines the concept of higher education as the first-, second- and third-cycle, which implies that short-cycle vocational higher education is not considered as part of the higher education system. A comparable situation can be observed in Switzerland, where ISCED 5 covers a few professional education and training programmes not regulated on the federal level that are outside the higher education three-cycle system. In Armenia and Moldova, ISCED 5 includes advanced vocational educational programmes that build on upper secondary education.

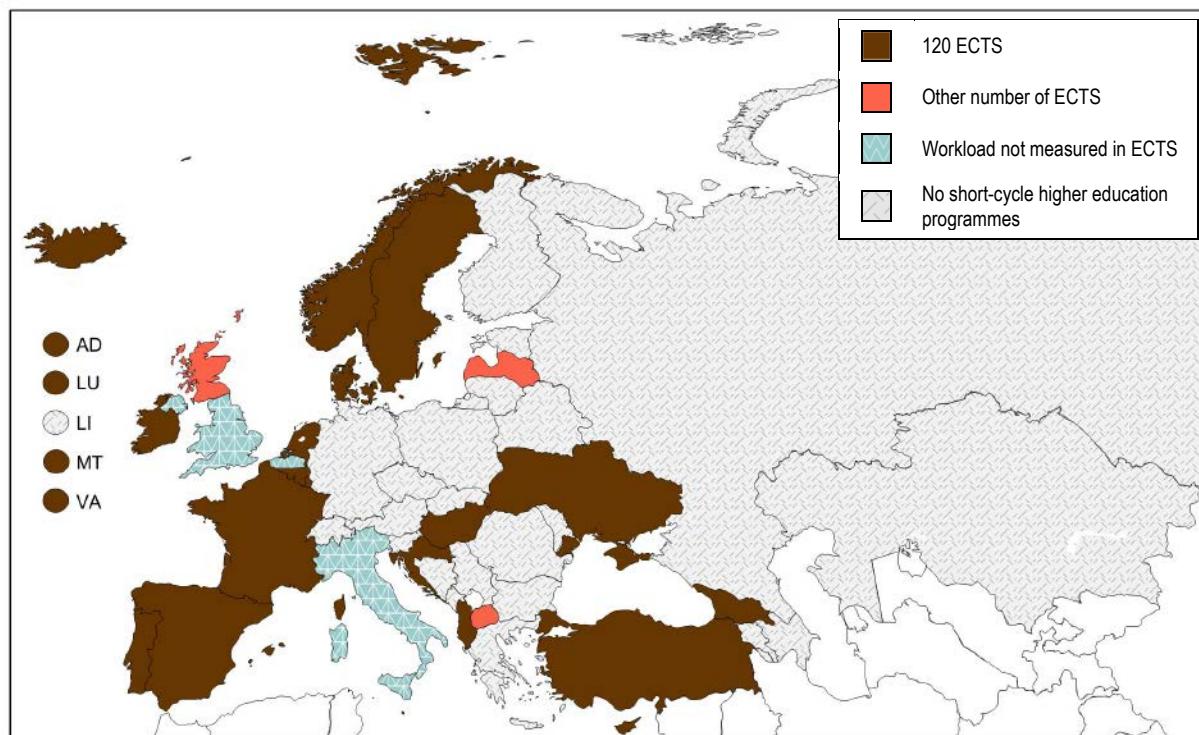
When not recognised as part of higher education, short-cycle tertiary education (ISCED 5) sometimes covers advanced years of upper secondary vocational training. This is the case in Austria, where ISCED 5 includes the fourth and the fifth year of upper secondary vocational studies. In the Czech Republic and Slovakia, the two last years of conservatories (i.e. professionally-oriented art education) are classified as ISCED 5, but are not recognised as higher education.

When considering short-cycle programmes regarded as higher education, top-level authorities were asked to indicate how the workload of these programmes is measured, and to quantify the most

(50) The discrepancy between the two data sets can partly be explained by wording of ISCED level 5, which can be associated with a wide range of programmes. More specifically, the classification states that '[p]rogrammes classified at ISCED level 5 may be referred to in many ways, for example: higher technical education, community college education, technician or advanced/higher vocational training, associate degree, bac+2' (UNESCO-UIS, OECD and Eurostat 2015, p. 73).

common workload. As Figure 3.8 shows, most countries with short-cycle higher education measure the workload of these programmes in ECTS, the most common workload corresponding to 120 credits. Other numbers of ECTS are reported only by Latvia (120 or 180 ECTS), the former Yugoslav Republic of Macedonia (60 or 120 ECTS) and the United Kingdom – Scotland (48, 60 or 120 ECTS, depending on the qualification). The Flemish Community of Belgium, Italy and the United Kingdom (England, Wales and Northern Ireland) refer to other measures than ECTS. For example, in the Flemish Community of Belgium, where short-cycle higher education corresponds to programmes provided by centres for adult education and some secondary schools, the workload is measured in hours, the minimum corresponding to 900 'teaching hours'. In Italy, the workload is measured in years/semesters and it corresponds to two years (four semesters). In the United Kingdom (England, Wales and Northern Ireland), where short-cycle higher education is provided by so called 'alternative providers' (e.g. private providers accredited by universities), the system is based on learning outcomes, rather than the workload expressed in credits or years/semesters. Yet, short-cycle higher education programmes commonly last two years, with some accelerated courses that are shorter.

Figure 3.8: Typical (most common) workload of short-cycle higher education programmes, 2016/17



Source: BFUG data collection.

Notes:

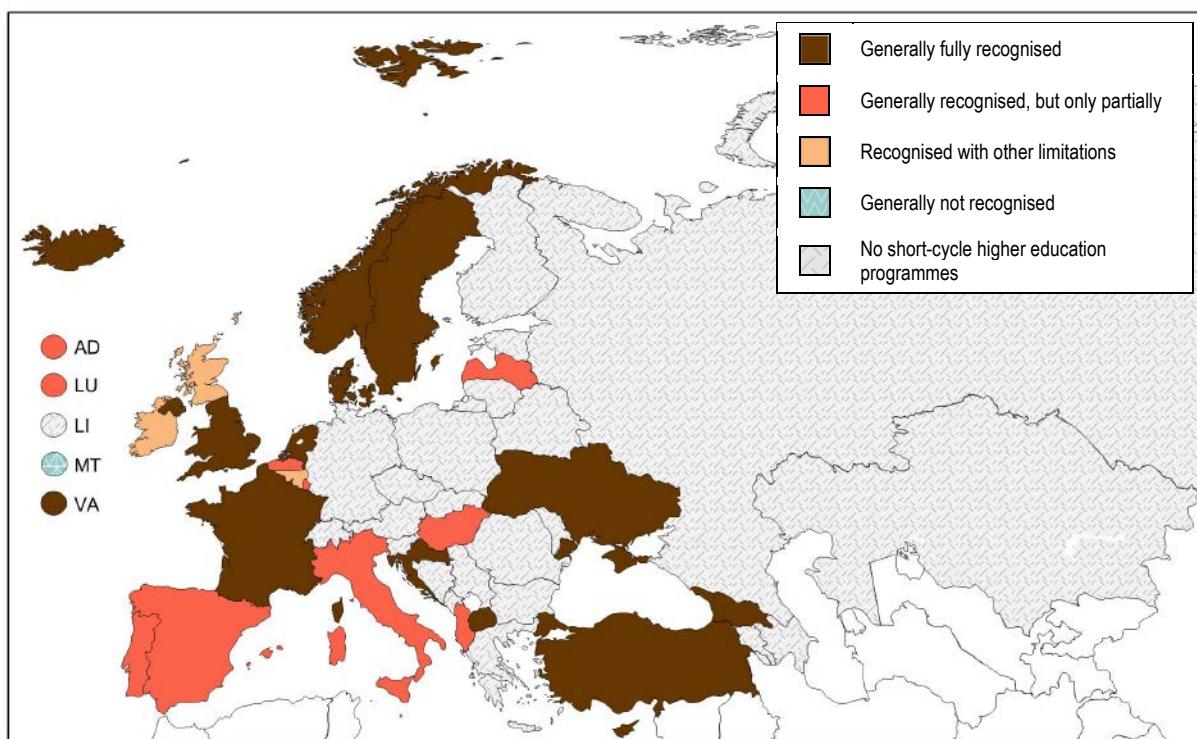
Countries expressing the workload of short-cycle higher education programmes in ECTS sometimes use also additional measurements (e.g. years, semesters). These are not considered in the figure.

According to the Bologna communiqués, countries that offer the short cycle should ensure its proper recognition, in particular when graduates progress to the next cycle of higher education (bachelor programmes). Countries where the short cycle does not exist are not obliged to introduce it, but they should establish mechanisms allowing the recognition of short-cycle qualifications from other EHEA systems. The use of ECTS, the Diploma Supplement, the use of learning outcomes and a system of quality assurance in line with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) are regarded as tools that can foster the recognition (⁵¹).

⁽⁵¹⁾ Final report of the 2015-2018 BFUG Working Group on Fostering implementation of agreed key commitments.

As Figure 3.9 shows, among countries reporting the existence of short-cycle higher education, around half (14 systems) indicate that short-cycle programmes are generally fully recognised within first-cycle studies in the same field. In nine higher education systems, the recognition is only partial, and in a further three systems (Belgium – French Community, Ireland and the United Kingdom – Scotland), there are other limitations. More specifically, in the French Community of Belgium, short-cycle higher education – which corresponds to adult education programmes known as 'social promotion' (*enseignement supérieur de promotion sociale*) – may be recognised within professionally-oriented first-cycle programmes. However, it is up to higher education institutions to define the extent of the recognition. In the United Kingdom (Scotland), the recognition depends partly on the type of short-cycle degree. While some degree programmes at some universities accept Higher National Certificates (HNC) and Higher National Diplomas (HND) – i.e. two types of short-cycle qualifications – for advanced entry (ie entry during the programme), a number of programmes at some universities do not, and accept these only as an entry requirement for studies. Two additional short-cycle qualifications that exist in Scotland – Certificate of Higher Education (CertHE) and Diploma of Higher Education (DipHE) – may be used towards the future completion of first-cycle degrees (bachelors). In Ireland, the short cycle ('Higher Certificate') is commonly recognised within the first cycle in Institutes of Technology, but less so in universities. Malta is the only country reporting that short-cycle programmes are generally not recognised within first-cycle studies, meaning that short-cycle graduates are always expected to start their first cycle from the beginning.

Figure 3.9: Recognition of short-cycle higher education within first-cycle studies in the same field, 2016/17



Source: BFUG data collection.

Only a dozen countries were able to supply national statistics (including estimates) on the proportion of short-cycle graduates continuing their studies in the first cycle. The highest proportion – between 50 % and 74.9 % – is reported by Andorra, France and Portugal. In Cyprus, Denmark, Ukraine and the United Kingdom (Scotland), the proportion is situated between 25 % and 49.9 %; while in Hungary, Italy, Norway, Sweden and Turkey, only up to 25 % of short-cycle graduates continue their studies in the first cycle. Sweden in this context notes that short-cycle programmes – although generally fully recognised within first-cycle studies – are normally not used as the first step towards a bachelor degree.

The above data suggest different degrees of integration of short-cycle higher education within first-cycle studies. This may reflect the fact that the short cycle comprises a range of programmes that differ in terms of content, orientation and purpose – the aspect emphasised in the final report of the working group on Fostering implementation of agreed key commitments⁽⁵²⁾, which recognises a huge diversity of short-cycle qualifications in terms of drivers, rationales and purposes. It is therefore difficult to establish an 'ideal' progression rate between short-cycle higher education and the first cycle, although, as the above report notes, it is necessary to avoid the short cycle becoming a dead end for students.

Finally, building on the analysis related to Figure 3.7, it would also be possible to enquire about the recognition of those ISCED 5 programmes (short-cycle tertiary education) that are not regarded as higher education. However, this aspect is not covered by this report.

3.1.1.3. Third-cycle programmes

In 2003, ministers responsible for higher education expanded the scope of their discussions to doctoral-degree programmes. Two years later, they adopted the overarching framework for qualifications in the EHEA, recognising doctoral programmes as the third cycle of higher education studies. However, while being part of the Bologna-degree structure, doctoral training differs from first- and second-cycle studies by its intensive research practice. For this reason, the third cycle is covered by specific policy guidelines known as 'Salzburg Principles'⁽⁵³⁾ and 'Salzburg II Recommendations' (EUA, 2010), and doctoral candidates are widely recognised as early (or first stage) researchers (EUA, 2010; European Commission, 2011). Taking into account these specificities, the indicators that follow provide a comparative overview of doctoral training across the EHEA.

As discussed previously (see Figure 3.1), doctoral or equivalent programmes (ISCED 8) generally involve only a small proportion of all students, less than 5 % in most countries. The lowest share of doctoral candidates – below 1 % – is recorded in Bosnia and Herzegovina, Kazakhstan, the former Yugoslav Republic of Macedonia, Malta and Montenegro, while the highest – above 6 % – is observed in the Czech Republic, Germany, Finland, Liechtenstein, Luxembourg and Switzerland.

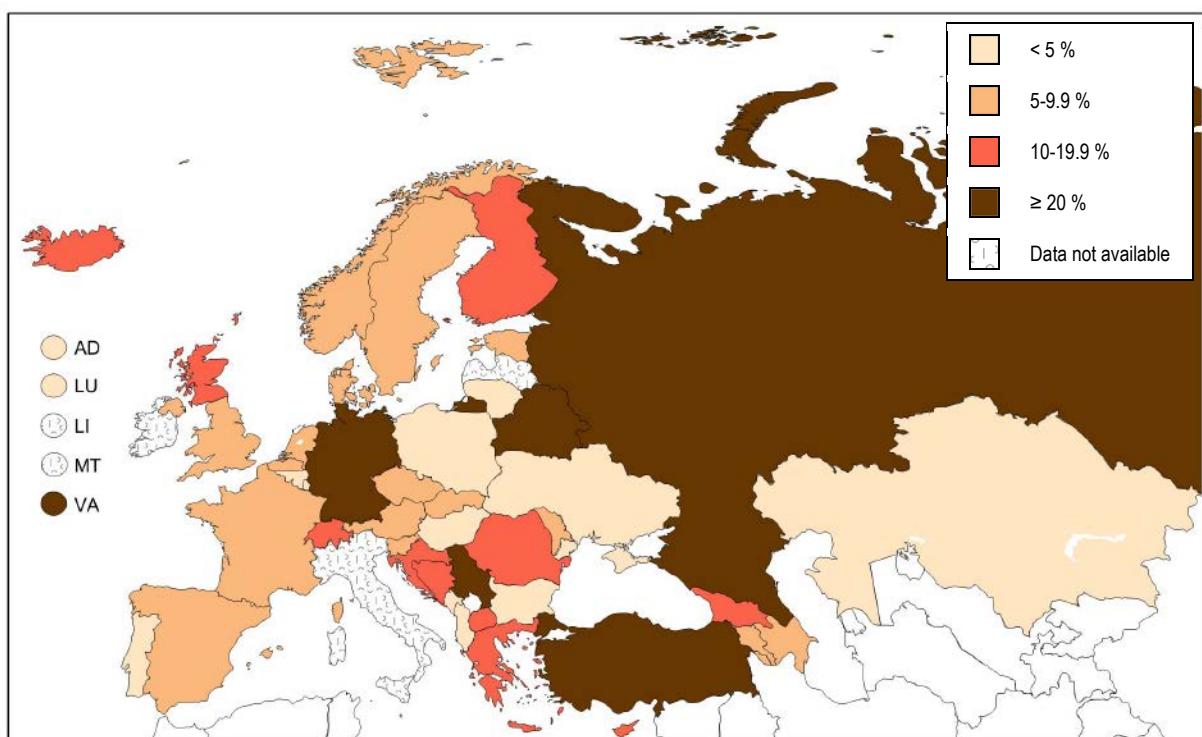
⁽⁵²⁾ Ibid.

⁽⁵³⁾ Bologna Seminar on 'Doctoral Programmes for the European Knowledge Society', Salzburg, 3-5 February 2005. Conclusions and Recommendations. [pdf] Available at: http://www.eua.be/Libraries/cde-website/Salzburg_Conclusions.pdf?sfvrsn=0 [Accessed 27 March 2018].

Using data provided by national authorities, Figure 3.10 looks at the proportion of second-cycle graduates eventually entering a third-cycle programme. The greatest movement – 20 % and above – is reported by Belarus, Germany, Russia, Serbia, Turkey (all between 20 % and 29.9 %) and the Holy See (30 % and above). In contrast, in 12 higher education systems (Albania, Andorra, Belgium – French Community, Bulgaria, Hungary, Kazakhstan, Lithuania, Luxembourg, Montenegro, Poland, Portugal and Ukraine), less than 5 % of second-cycle graduates eventually enter a doctoral-degree programme. In around half of all EHEA countries, the proportion is situated between 5 % and 20 %.

The comparison with the 2015 Bologna Process Implementation Report suggests a decreasing proportion of second-cycle graduates eventually entering a third-cycle programme. More specifically, the percentage has decreased in around a quarter of all EHEA countries, while it has increased only in a few countries. However, the reported changes are most often relatively minor, fluctuating between neighbouring categories of Figure 3.10. Moreover, data should be interpreted with caution, since countries commonly refer to estimates.

Figure 3.10: Proportion of second-cycle graduates eventually entering a third-cycle programme, 2016/17



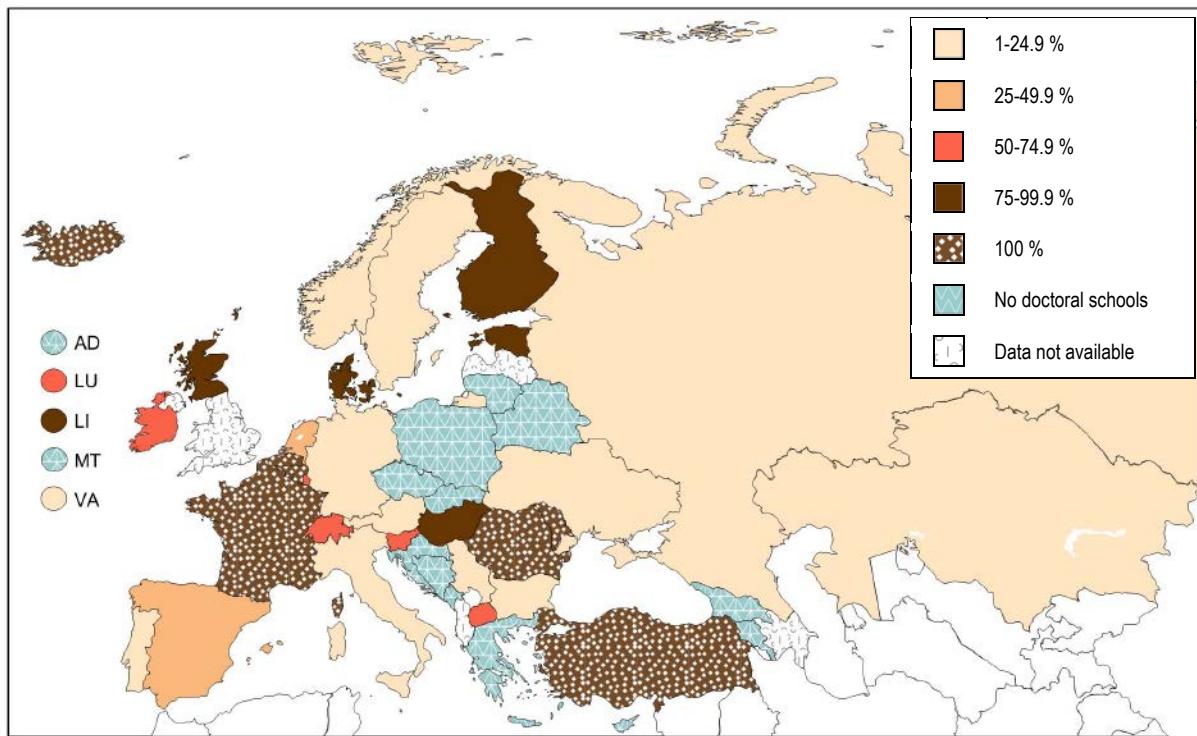
Source: BFUG data collection.

According to the 2005 Salzburg Principles, doctoral programmes 'should draw on different types of innovative practice being introduced in universities across Europe, bearing in mind that different solutions may be appropriate to different contexts [...]. These range from graduate schools in major universities to international, national and regional collaboration between universities' (⁵⁴). When considering the evolution between 2005 and 2010, the Salzburg II Recommendations (EUA, 2010) noted wide-ranging reforms in the organisation of doctoral training across Europe, most notably the establishment of doctoral (or graduate) schools.

⁽⁵⁴⁾ Ibid.

In 2016/17, doctoral schools exist in around three-quarters of all EHEA countries (see Figure 3.11) – the situation comparable to the previous Bologna implementation mapping. However, in a number of higher education systems (12 systems), only up to 25 % of all doctoral candidates follow their programme within these structures. In contrast, in six countries (Belgium, France, Iceland, Moldova, Romania and Turkey), all doctoral candidates are integrated in a doctoral school.

Figure 3.11: Percentage of third-cycle candidates in doctoral schools, 2016/17



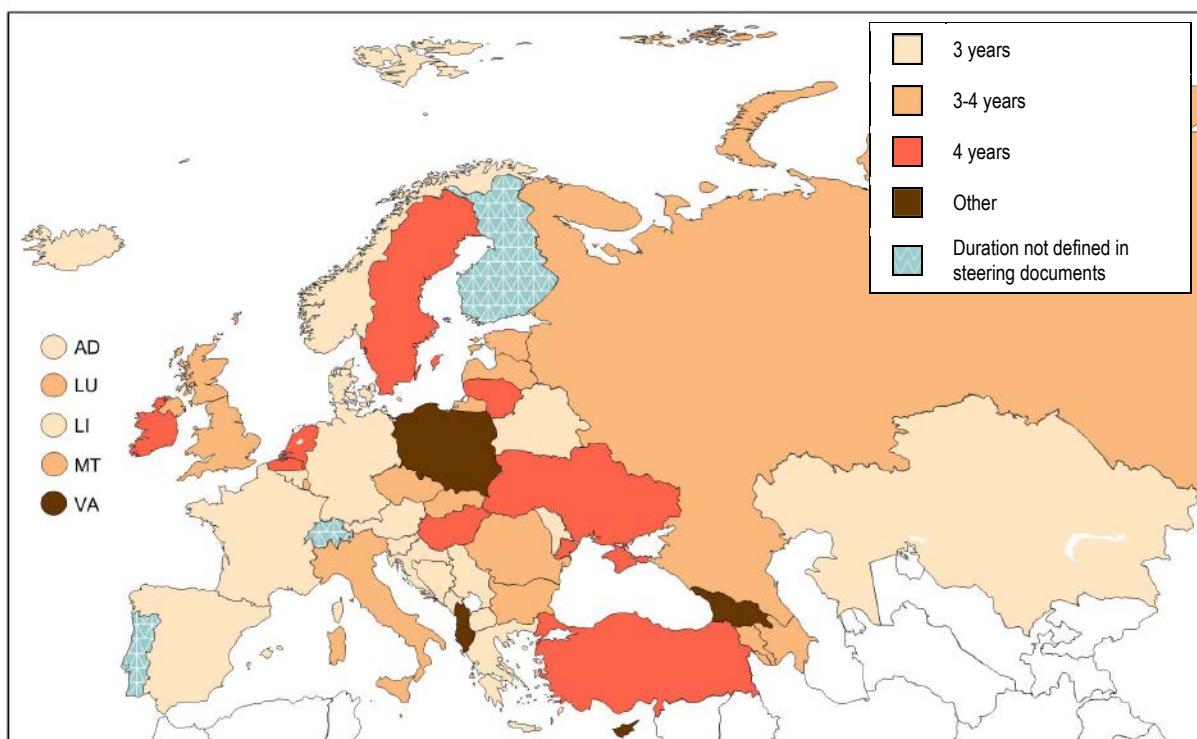
Source: BFUG data collection.

The Salzburg Principles⁽⁵⁵⁾ stipulate that doctoral programmes should operate within an appropriate duration, defined as three to four years full-time. Following this principle, Figure 3.12 depicts the duration of doctoral programmes as defined in top-level steering documents. It shows that virtually all EHEA countries define the duration of doctoral programmes, and that the foreseen duration generally complies with the Salzburg Principles. Indeed, in 20 EHEA systems, the duration is set to three years, in eight systems to four years, and in further 14 systems, regulations refer to a duration situated between three and four years. Among the latter group, the Czech Republic specifies that doctoral studies should last no less than three years and no more than four years. In Luxembourg, the doctorate should, in principle, be completed in three years but, if necessary, PhD candidates can apply for one supplementary year. In Malta, regulations refer to 'three to four years', specifying that the duration and the content of doctoral training should take into account the research project of each candidate. In Russia, the duration – that is situated between three and four years – depends on the field of study.

In a few countries, regulations either refer to a length situated outside the Salzburg Principles or they mention measures other than the length in years. In Poland, for instance, doctoral training should last between two and four years, while in Albania the range is situated between three and five years. In Cyprus and Georgia, doctoral programmes are defined in ECTS credits rather than years, their workload being set to no less than 180 credits. The Holy See indicates that the main measure that applies to doctoral training are learning outcomes, meaning that the doctorate should be conducted during an appropriate period of time, defined as usually no less than three years.

⁽⁵⁵⁾ Ibid.

Figure 3.12: Duration of full-time third-cycle programmes as defined in top-level steering documents, 2016/17



Source: BFUG data collection.

Finland, Portugal and Switzerland do not define the duration of doctoral studies in their steering documents. However, in Finland, there are ongoing discussions aiming to set the duration of doctoral training at four years. Portugal indicates that while not stipulated in steering documents, the most common duration is aligned with the Salzburg Principles. In Switzerland, each university is responsible to define autonomously the duration of doctoral training, but in general it lasts three to four years.

While the overall regulatory picture is almost perfectly aligned with the Salzburg Principles, countries' comments suggest that doctoral studies may exceed the expected duration. For instance, in the Netherlands, despite the formal duration being set to four years, doctoral training is commonly completed in no less than five years. In Finland, third-cycle studies generally take four to eight years to complete. In Croatia, regulations set the standard duration of the third cycle to three years, but individual doctoral candidates may complete their studies outside this time limit. In Spain, where the standard duration is also set to three years, candidates may be authorised to extend their programme for a further year, which could exceptionally be extended for another additional year.

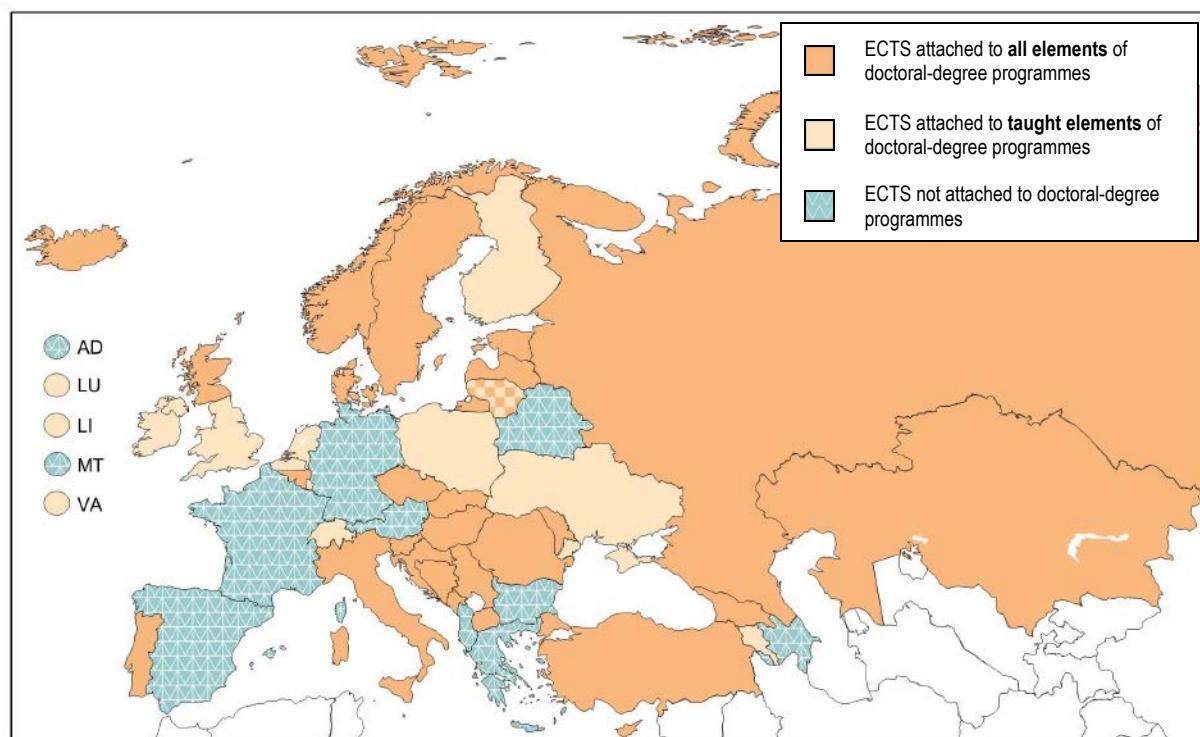
Looking at the implementation of ECTS, Figure 3.13 shows a relatively widespread use of credits in doctoral-degree programmes. During the academic year 2016/17, around half of all EHEA systems attach ECTS credits to all elements of doctoral programmes and around a quarter of the systems to taught elements only. In 11 higher education systems, ECTS credits are not used in doctoral programmes.

While credits are now linked to doctoral-degree programmes in most EHEA countries, they are used in many different ways. In some higher education systems, regulations define the exact amount of ECTS related to doctoral programmes. In Denmark, for instance, steering documents specify that three-year doctoral studies are equivalent to 180 ECTS and, out of this amount, 30 ECTS must be completed as taught courses. In Estonia, the overall workload of doctoral programmes corresponds to 240 ECTS; 60 ECTS covering taught courses and 180 ECTS the doctoral thesis. Estonia and Hungary also report the overall workload of 240 ECTS, but without quantifying taught elements. In Lithuania, two separate frameworks refer to this area: one covering research doctorates and another one covering art

doctorates. The first framework quantifies only taught elements (at least 30 credits), whereas the second refers to all elements (240 credits in total, including at least 40 credits completed as taught courses, and at least 80 credits for an internship and 80 credits for research). Ukraine, where ECTS credits cover taught elements only, refers to the amount situated between 30 and 60 ECTS. Moldova quantifies the overall workload of doctoral-degree programmes at 180 ECTS, whereas in Kazakhstan, regulations refer to no fewer than 216 credits. In Russia, steering documents stipulate that one academic year corresponds to 60 ECTS – the approach that applies to all study cycles, including doctoral programmes. This is similar to the approach used in Slovakia, where full-time third-cycle programmes include either 180 credits (if lasting three years) or 240 credits (if lasting four years).

A number of higher education systems use a flexible approach to ECTS in doctoral programmes. For example, in Finland, there are no regulations on the length or workload of third-cycle programmes, but ECTS credits commonly cover taught elements. In Croatia, the Czech Republic, Liechtenstein, Portugal and Romania, regulations do not have a prescriptive character regarding the use of ECTS in doctoral programmes. This means that higher education institutions can decide autonomously whether and to what extent they use ECTS. Among these countries, the Czech Republic indicates that credits are generally allocated to both research and taught elements, although there are ongoing discussions on the transformation of research activities into credits. In contrast, Romania reports that credits are not yet commonly used by universities and there is no general provision or practice specifying which parts of doctoral programmes (all elements or taught elements) ECTS can be used.

Figure 3.13: Use of ECTS in third-cycle programmes, 2016/17



Source: BFUG data collection.

Notes:

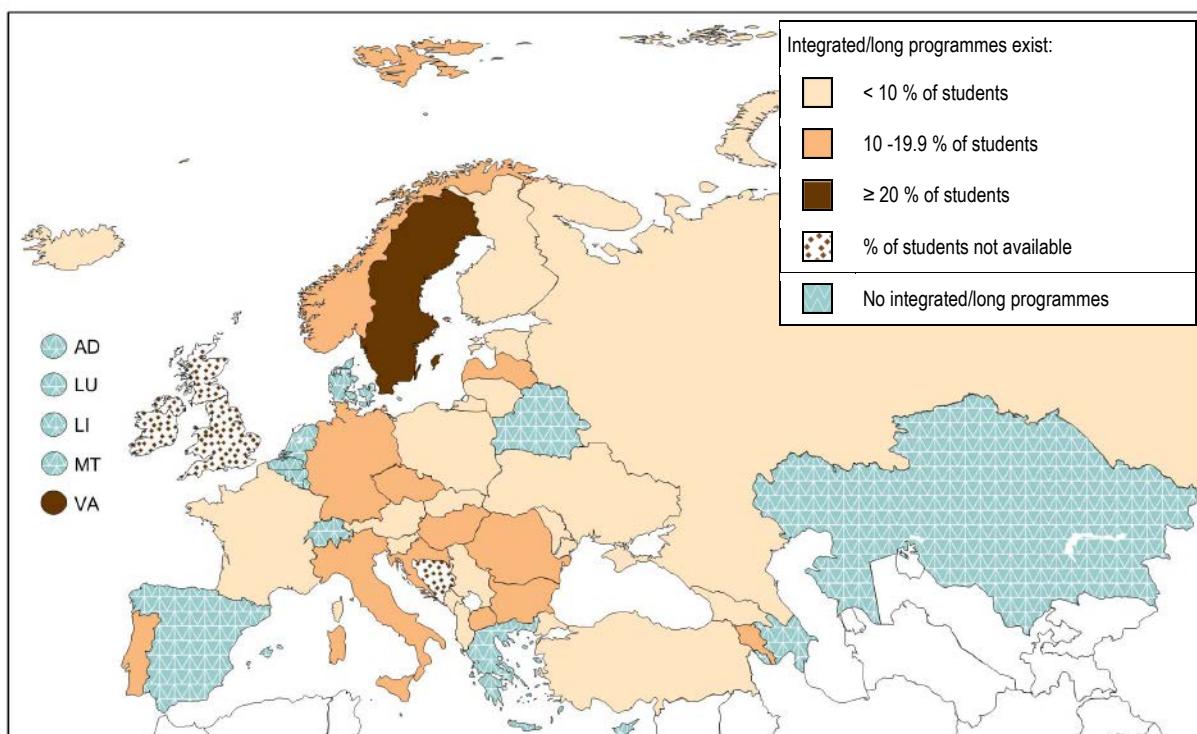
The figure primarily refers to the content of top-level regulations. In countries with no regulations on the use of ECTS in the third cycle, the figure takes into account common practice.

3.1.2. Integrated (long) programmes and programmes outside the Bologna-degree structure

After having examined programmes and degrees that comply with the Bologna-degree structure, this section looks at degrees and qualifications outside the Bologna framework.

Figure 3.14 depicts integrated/long programmes leading directly to a second-cycle degree. In 2016/17, these programmes exist in most EHEA systems; yet, they involve different proportions of students. In 17 systems, only up to 10 % of all first- and second-cycle students are enrolled in integrated/long programmes. Finland, Iceland, Moldova, Russia and Turkey report the lowest percentages (less than 5 %). In 12 systems, the proportion is situated between 10 % and 19.9 %. Sweden and the Holy See indicate the highest share of students in integrated/long programmes: 20 %, and 30 % and more, respectively.

Figure 3.14: Presence of integrated/long programmes leading to a second-cycle degree and the percentage of students in these programmes, 2016/17



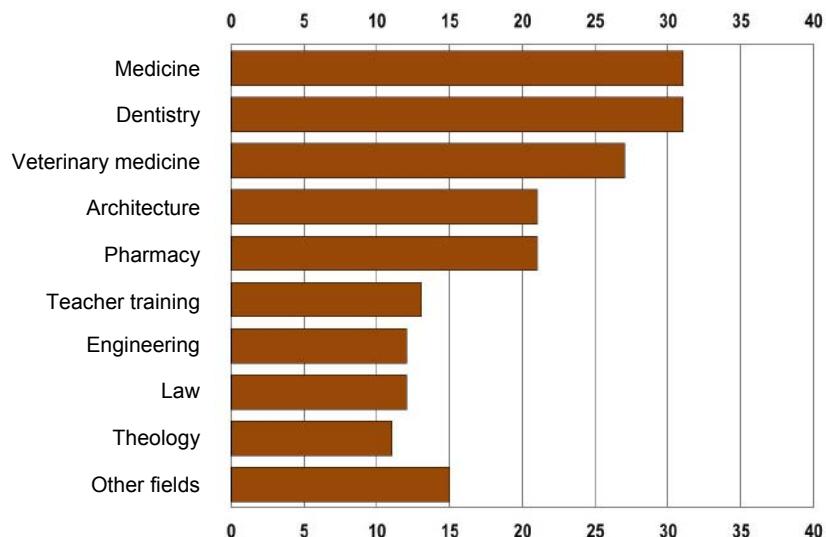
Source: BFUG data collection.

Notes:

Integrated/long programmes refer to programmes including both the first and the second cycle, and leading to a second-cycle qualification.

As Figure 3.15 shows, integrated/long programmes commonly exist in the field of medicine (reported by 31 systems out of 35 in which integrated programmes exist), dentistry (31 systems) and veterinary medicine (27 systems). These fields are followed by architecture and pharmacy (both 21 systems), teacher training (13 systems), engineering and law (both 12 systems), and theology (11 systems). Other reported fields (15 systems) include psychology, speech and language therapy, massage therapy, nursing and midwifery, fine arts, chemistry, physics, biology, mathematics, statistics, computer science, agriculture, horticulture, forestry, fish science, landscape architecture, and conservation and restoration of cultural heritage.

Figure 3.15: Number of higher education systems reporting integrated/long programmes in defined fields, 2016/17



Source: BFUG data collection.

Notes:

The figure is based on data supplied by 50 higher education systems.

There seems to be a close link between the number of fields reported by countries (see Figure 3.15) and the percentage of students in integrated/long programmes (see Figure 3.14). For example, Sweden, where the percentage of students in integrated programmes is among the highest (20 %), reports integrated programmes in all the fields depicted by Figure 3.15 except theology, and in a number of additional fields, including psychology, agriculture, horticulture, forestry and landscape architecture. Croatia, the Czech Republic, Germany, Italy, Lithuania, Norway and Portugal also report a substantial number of fields in which integrated programmes exist (all, or almost all fields depicted by Figure 3.15) and, at the same time, almost all these countries (except Lithuania) register a relatively higher proportion of students in integrated programmes.

Among 35 top-level authorities indicating the presence of integrated/long programmes, around one third report that all of these programmes were established prior to 2000 (i.e. prior to the Bologna Process), whereas another third indicate that some were established prior to 2000, while others after 2000. Representatives of the remaining systems specify that all integrated programmes were established after 2000, i.e. following the launch of the Bologna Process. However, in all the systems belonging to the latter group, programmes lasting five or six years existed before 2000, but after 2000 they were renewed, renamed and/or re-defined. For example, in Italy, long higher education programmes that existed prior to 2000 were defined in years (e.g. medical studies lasting six years), whereas now they are defined in both years and ECTS credits. In Serbia, medical studies (medicine, dentistry and pharmacy) used to last five or six years even before 2000, but they were recognised as 'undergraduate studies' rather than 'long/integrated studies'. A comparable situation can be observed in Armenia, where prior to the implementation of the Bologna-degree structure almost all higher education programmes were organised as single-level programmes lasting between five and seven years, but they were not referred to as 'long' or 'integrated' studies.

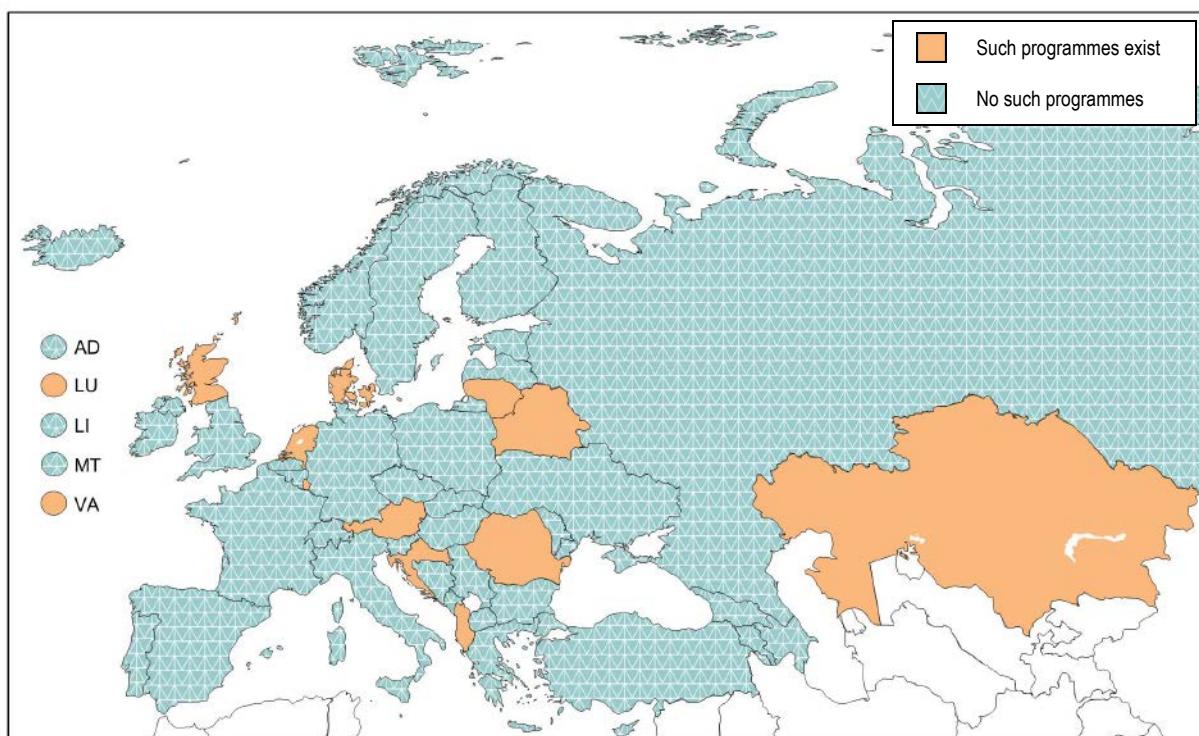
Commonly, top-level authorities justify the presence of integrated/long programmes by the Directive on regulated professions 2005/36/EC⁵⁶ that defines qualification requirements for specific professions (medicine, dentistry, veterinary medicine, pharmacy and architecture), including the duration of training. Beyond regulatory motives, a range of other reasons are used to explain the

⁽⁵⁶⁾ Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications. OJ L 255, 30.9.2005.

existence of integrated programmes. For example, Croatia indicates that some integrated programmes were established taking into account the fact that the majority of students, for various reasons, wished to continue their studies immediately after having finished the first cycle. Similarly Croatia and the United Kingdom (England, Wales and Northern Ireland) also refer to student choice and demand. Some other countries indicate quality aspects, stating that integrated/long programmes are a necessity to achieve sufficient expertise in some specific fields. Historical motives and traditions also appear among reasons used to explain the continued existence of integrated/long programmes.

Figure 3.16 shows that in around a quarter of all EHEA systems, there are programmes outside the Bologna-degree structure other than integrated/long programmes. The nature of these programmes varies from one higher education system to another: they are linked to various degree levels, and they may, or may not, be included in national qualifications frameworks.

Figure 3.16: Programmes outside the Bologna-degree structure (other than integrated/long programmes), 2016/17



Source: BFUG data collection.

Notes:

Within the Bologna Process, ministers committed themselves to implementing the three-cycle degree system, where first-cycle degrees (awarded after completion of higher education programmes lasting a minimum of three years) should give access, in the sense of the Lisbon Recognition Convention⁽⁵⁷⁾, to second-cycle programmes. Second-cycle degrees should give access to doctoral studies (the third cycle). Within the three-cycle degree system, ministers recognised the possibility of intermediate qualifications (the short cycle) linked to the first cycle.

When referring to programmes outside the Bologna-degree structure, the figure refers to programmes that do not fully comply with the above ministerial engagements. Integrated/long programmes, which can also be seen as programmes outside the Bologna-degree structure, are covered by Figure 3.14.

In some higher education systems, programmes outside the Bologna-degree structure are closely related to first-cycle studies. For example, in Romania, there are higher education programmes that require a bachelor degree for entry, but do not lead to a second-cycle qualification. These programmes last between six months and one year, and lead to a qualification situated at level 6 of the national qualifications framework, i.e. the level at which the bachelor degree is positioned. Ireland offers a 'Higher Diploma', which is a qualification building on the bachelor degree. The qualification is

⁽⁵⁷⁾ Council of Europe Convention on the Recognition of Qualifications concerning Higher Education in the European Region, ETS No.165.

normally awarded after a one-year programme (60 ECTS credits) and its completion is situated at the same level as first-cycle studies. In Luxembourg, in addition to short-cycle higher education that is included in the national qualifications framework, there are also programmes leading to a 'general higher education studies diploma' (*diplôme d'études supérieures générales*) that comprise 120 ECTS and last four semesters. The Netherlands refers to a two-year 'associate-degree programme', which used to be part of bachelor degree at universities of applied sciences, but is now intended to become an independent programme.

There are also higher education systems, where programmes outside the Bologna-degree structure are closely linked to second- or third-cycle studies. For example, Ireland offers the 'Postgraduate Diploma' (60 ECTS credits), which generally requires a bachelor degree for entry, and which is seen as an intermediate qualification within the second cycle. In Albania, there are professional masters that are regarded as second-cycle programmes; yet, their completion does not open access to the third cycle. There are also so called 'Executive Masters', which are building on a master degree and are considered as third-cycle studies (other than doctoral studies). Another type of programme considered as the third cycle (but not a doctoral degree) is the so-called 'long-term specialisation', which corresponds to at least 120 ECTS or at least two years of study. Croatia also reports the existence of postgraduate programmes that require a second-cycle qualification for entry, but do not lead to a doctoral degree. These programmes last between one and two years, and the qualification they lead to is situated at level 7 of the national qualifications framework (level 7 of the EQF and level 2 of the QF-EHEA). The United Kingdom (Scotland) refers to postgraduate certificates of 30 ECTS at level 11 or above of the Scottish Credit and Qualifications Framework (SCQF). Belarus reports programmes lasting up to three years that lead to an academic title 'Doctor of Sciences'; the title building on the degree 'Candidate of Sciences', which is PhD-equivalent.

Further examples of programmes outside the Bologna-degree structure are provided by Lithuania and Kazakhstan. Lithuania refers to professional studies in medical residency lasting two to six years, as well as pedagogical studies with a volume of 60 ECTS. In Kazakhstan, in parallel to undergraduate programmes, there are programmes of 'higher special education' (in medical fields) that generally last five years. These are comparable to bachelor level (i.e. they do not comply with the definition of integrated/long programmes), and are classified at level 6 of ISCED and the NQF.

While Figure 3.16 does not quantify the number or proportion of students in programmes outside the Bologna-degree structure (other than integrated/long programmes), this aspect ought to be taken into consideration. In Denmark, for instance, the provision depicted on the figure refers to two programmes with very few students: a four-year programme in the area of film production with approximately 30 students and a two-year postgraduate diploma in music with approximately 20 students. In other words, the number of students outside the Bologna-degree structure might be negligible in some countries, whereas more substantial in other countries.

When providing reasons for the existence of programmes outside the Bologna-degree structure, countries refer, for instance, to labour market needs (Albania, Belarus and Romania), professional regulations and registration requirements (the Holy See and the United Kingdom – Scotland) and requests coming from learners (Croatia). Luxembourg indicates more specific reasons for the existence of the 'general higher education studies diploma' (*diplôme d'études supérieures générales*), namely the fact that this qualification prepares for the admission exams to some prestigious higher education institutions in France.

3.2. Transparency of qualifications: Diploma Supplement and national qualifications frameworks

After having outlined the implementation of the Bologna-degree structure, this section focuses on two Bologna transparency tools: the Diploma Supplement and national qualifications frameworks. The third key transparency instrument – European Credit Transfer and Accumulation System (ECTS) – is discussed in Chapter 2 (Section 2.2).

3.2.1. Diploma Supplement

The Diploma Supplement was developed between 1996 and 1998 by a working group sponsored by the Council of Europe, the European Commission and UNESCO-CEPES. In essence, the Diploma Supplement is a document attached to a higher education diploma, providing a detailed description of study components and learning outcomes achieved by its holder. The aim is to help higher education institutions, employers, recognition centres as well as other stakeholders to easily understand graduates' skills and competences.

The Diploma Supplement is an integral part of several initiatives in the field of higher education internationalisation and recognition of qualifications. The first of them – the 1997 Lisbon Recognition Convention⁽⁵⁸⁾ –, calls upon signatory countries to promote the Diploma Supplement or any equivalent document through national information centres or otherwise. The second initiative – the Bologna Process – made the first reference to the Diploma Supplement already in 1999, when higher education ministers agreed to adopt a system of easily readable and comparable degrees, also through the implementation of the Diploma Supplement, in order to promote European citizens employability and the international competitiveness of the European higher education system⁽⁵⁹⁾. In 2003, the ministers agreed that every student graduating as from 2005 should receive the Diploma Supplement automatically and free of charge, and that the document should be issued in a widely spoken European language⁽⁶⁰⁾. Finally, the Diploma Supplement is presented as one of the five Europass transparency tools promoted by the European Commission⁽⁶¹⁾.

The 2015 Bologna Process Implementation Report acknowledged improvements in the implementation of the Diploma Supplement compared to 2012. However, it also noticed that a number of countries have failed to fulfil all ministerial engagements. Building on these findings, this section looks at progress since the last Bologna mapping.

Figure 3.17 depicts the four main ministerial engagements related to the Diploma Supplement. These are examined in relation to the first and second cycle, whereas the situation of short- and third-cycle graduates is analysed further in the text (see Figures 3.19 and 3.20).

In 2016/17, in most EHEA systems (44 out of 50), all first- and second-cycle graduates receive the Diploma Supplement. It is still not the case in Belarus, France, Greece, Ireland, Russia and the United Kingdom (England, Wales and Northern Ireland). Among these countries, Belarus is the only one that has not yet implemented the Diploma Supplement, whereas in all other countries, the Diploma Supplement is commonly issued, but not to all graduates. This generally reflects some degree of institutional autonomy. For example, Greece reports that institutions can decide whether and to what

⁽⁵⁸⁾ Council of Europe Convention on the Recognition of Qualifications concerning Higher Education in the European Region, ETS No.165.

⁽⁵⁹⁾ The Bologna Declaration of 19 June 1999.

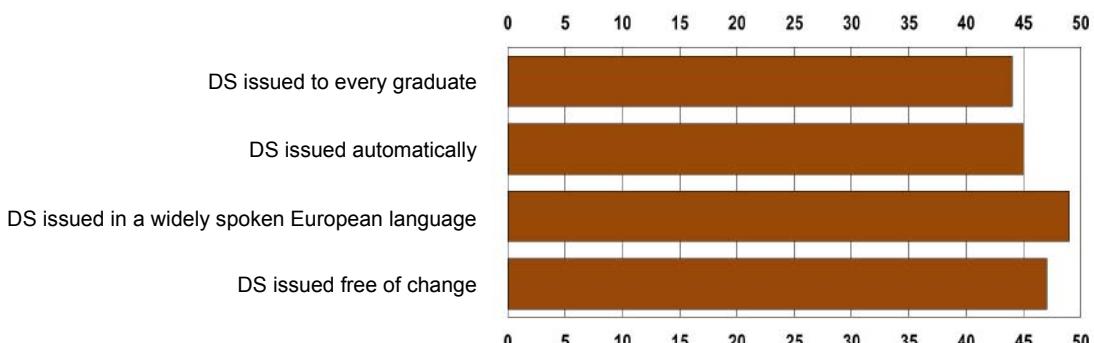
⁽⁶⁰⁾ Realising the European Higher Education Area. Communiqué of the Conference of Ministers responsible for Higher Education, Berlin, 19 September 2003.

⁽⁶¹⁾ Decision No 2241/2004/EC of the European Parliament and of the Council of 15 December 2004 on a single Community framework for the transparency of qualifications and competences (Europass).

extent they will provide graduates with the Diploma Supplement and, so far, not all of them do so. In Russia, there are two variants of the Diploma Supplement: national and European. The first one is compulsory and is issued to all graduates, whereas the European one is only delivered if internal institutional procedures foresee it. In the United Kingdom (England, Wales and Northern Ireland), some institutions issue the Diploma Supplement, others deliver the Higher Education Achievement Report (HEAR) – which is based upon and virtually reflects the Diploma Supplement –, while some others provide graduates only with a transcript. In France, the 2014 regulatory framework requires higher education institutions to deliver the Diploma Supplement to all first- and second-cycle graduates, but the practice is not yet fully aligned with this obligation. In Ireland, higher education institutions should issue the Diploma Supplement, but there are some atypical programmes (e.g. integrated programmes) for which the Diploma Supplement is not issued.

Closely related to the above aspect is the automatic issuing of the Diploma Supplement. While in most higher education systems (45 systems) the document is issued automatically (in all or some cases), in four systems – Azerbaijan, Bulgaria, Kazakhstan and Spain⁽⁶²⁾ –, graduates are expected to request it. Spain has a specific position in this group: graduates receive their Diploma Supplement automatically with the diploma, but the diploma itself is not issued automatically as graduates have to request it.

Figure 3.17: Number of higher education systems issuing the Diploma Supplement according to the agreed principles, first and second cycle, 2016/17



Source: BFUG data collection.

Notes:

The figure is based on data supplied by 50 higher education systems.

In all EHEA systems (except Belarus that has not yet implemented the Diploma Supplement), the Diploma Supplement is issued in a widely spoken European language⁽⁶³⁾. In most cases, it is issued directly in the country language and in English. In some countries, however, the version in a widely spoken language is issued only upon request (Estonia, Latvia, the former Yugoslav Republic of Macedonia, Poland, Serbia and Slovakia).

The Diploma Supplement is generally issued free of charge. Montenegro and Serbia are the only countries where graduates are commonly expected to pay a fee. More specifically, at the University of Montenegro – which is the biggest public university in Montenegro with around 85 % of the total student population –, the amount is set at 15 euros. In Serbia, the Diploma Supplement is always issued together with the diploma, and the price for these documents is around 40 euros.

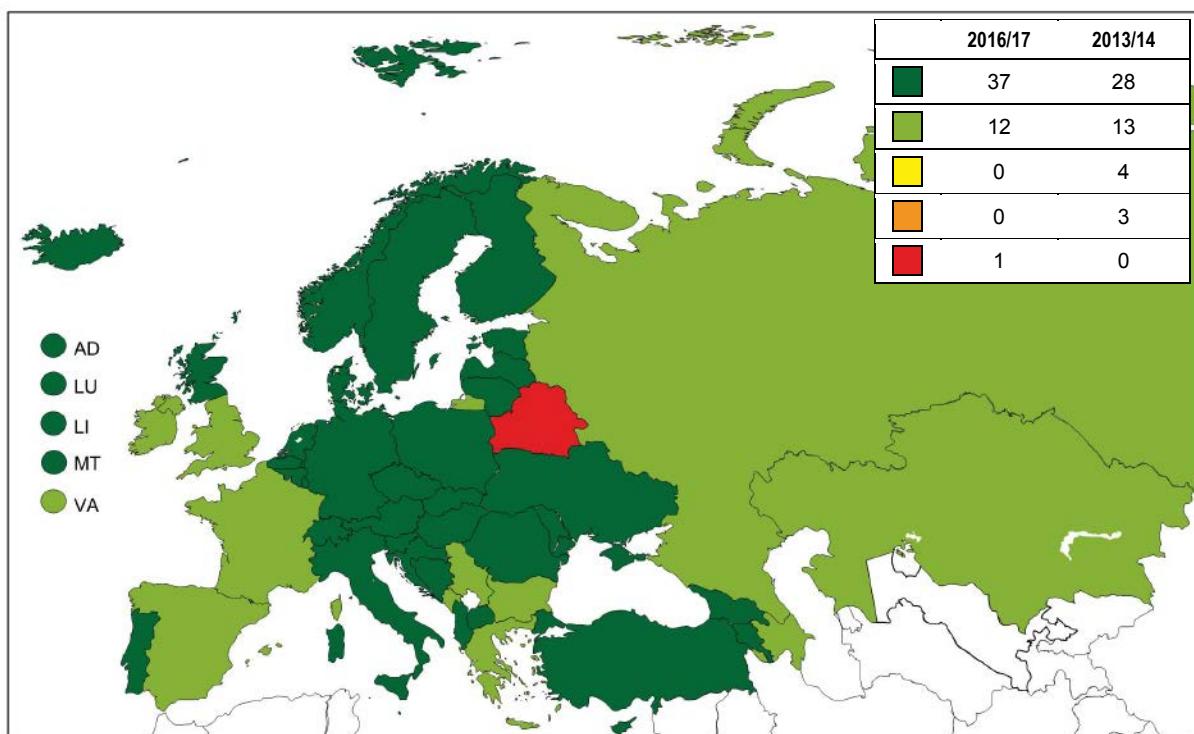
⁽⁶²⁾ Belarus is not considered, since it has not yet implemented the Diploma Supplement.

⁽⁶³⁾ The 2003 Berlin Communiqué does not provide a definition of the concept of 'a widely spoken European language'. However, according to the Eurobarometer survey (European Commission, 2012), when the mother tongue is considered, German is the most widely spoken language, with 16 % of Europeans saying it is their first language, followed by Italian and English (13 % each), French (12 %), then Spanish and Polish (8 % each). Regarding foreign languages, the five most widely spoken foreign languages are English (38 %), French (12 %), German (11 %), Spanish (7 %) and Russian (5 %). These languages can therefore be seen as 'widely spoken European languages'.

When the Diploma Supplement is issued free of charge, fees might still apply to services going beyond the standard provision. For example, in Slovenia, the Diploma Supplement is issued for free in Slovenian language and in one of the official EU languages, but for a fee in a second official EU language or a non-EU language. In Slovakia, the version in the official language and English (if requested in advance) is issued free of charge, whereas a foreign-language version other than English is issued for a fee. In Russia, the Diploma Supplement in the Russian language and according to the officially established Russian format is always issued free of charge, while the fee for the European Diploma Supplement in English (or another foreign language) remains at the discretion of higher education institutions. In Ireland, Diploma Supplements requiring an additional administrative workload may be linked to fees, while in Hungary, the duplicate is always issued for a fee.

All the above elements are brought together in the Scorecard indicator n°2 on the implementation of the Diploma Supplement (see Figure 3.18).

Figure 3.18: Scorecard indicator n°2:
Stage of implementation of the Diploma Supplement, 2016/17



Source: BFUG data collection.

Scorecard categories

█	Diploma Supplement in the EU/CoE/UNESCO Diploma Supplement format is issued to first- and second-cycle graduates: <ul style="list-style-type: none"> <input type="radio"/> to every graduate <input type="radio"/> automatically <input type="radio"/> in a widely spoken European language <input type="radio"/> free of charge.
█	Three of the above criteria are met.
█	Two of the above criteria are met.
█	Only one criterion is met.
█	None of the above criteria is met.

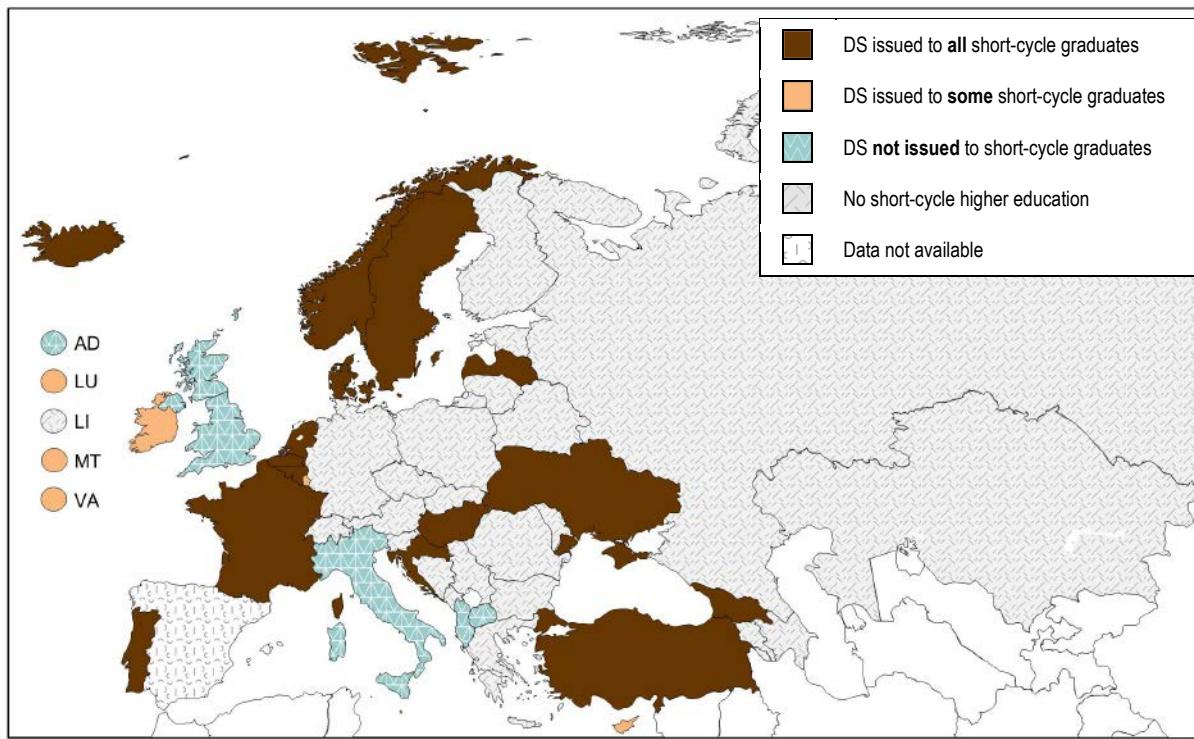
The indicator shows that most EHEA countries now comply with all ministerial engagements, i.e. the Diploma Supplement is issued to all first- and second-cycle graduates, automatically, in a widely spoken European language and free of charge (dark green). Twelve countries do not comply with one of these aspects (light green), whereas Belarus has not yet introduced the Diploma Supplement (red). Overall, the indicator points to progress in the implementation of the Diploma Supplement since 2015.

After having examined the implementation of the Diploma Supplement in the first and second cycle, the two indicators that follow look at its use in short- and third-cycle programmes.

As discussed previously (see Figure 3.7 and related analysis), short-cycle programmes regarded as higher education exist only in a limited number of EHEA countries. In most of them, the Diploma Supplement is issued to all short-cycle graduates (see Figure 3.19). Commonly, graduates receive it under conditions that are comparable to the first and second cycle, i.e. automatically, free of charge and in a widely spoken language. In five higher education systems, only some short-cycle graduates receive the Diploma Supplement (Cyprus, the Holy See, Ireland, Luxembourg and Malta), whereas in some other systems (Albania, Andorra, Italy, the former Yugoslav Republic of Macedonia and the United Kingdom), short-cycle graduates are not provided with the Diploma Supplement. The comparison between the scorecard indicator (see Figure 3.18) and Figure 3.19 suggests that the Diploma Supplement is less common in the short cycle compared to the first and second cycles.

It is noteworthy that the Diploma Supplement may be issued even in cases where short-cycle tertiary education programmes (ISCED 5) are not recognised as part of the higher education system⁽⁶⁴⁾. This is the case in Slovenia, where all graduates of short-cycle vocational higher education receive the Diploma Supplement, even though this sector is not regarded as part of higher education.

Figure 3.19: Issuing the Diploma Supplement to graduates in short-cycle higher education, 2016/17

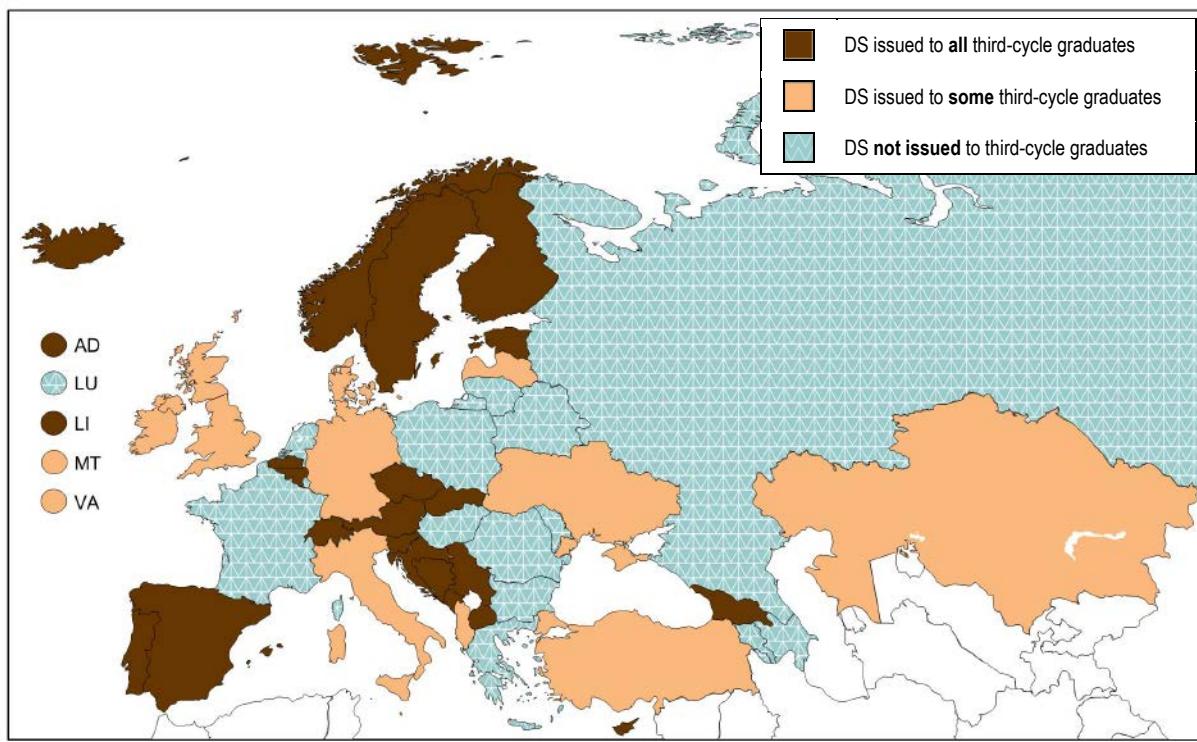


Source: BFUG data collection.

Regarding the third cycle, the Diploma Supplement is issued to all graduates in 23 higher education systems, to some graduates in 13 systems and it is not issued in 14 systems. In other words, in 2016/17, the Diploma Supplement is far from being the norm in the third cycle. This is comparable to the situation outlined in the 2015 Bologna Process Implementation Report.

⁽⁶⁴⁾ For more details on these programmes, see the analysis related to Figure 3.7.

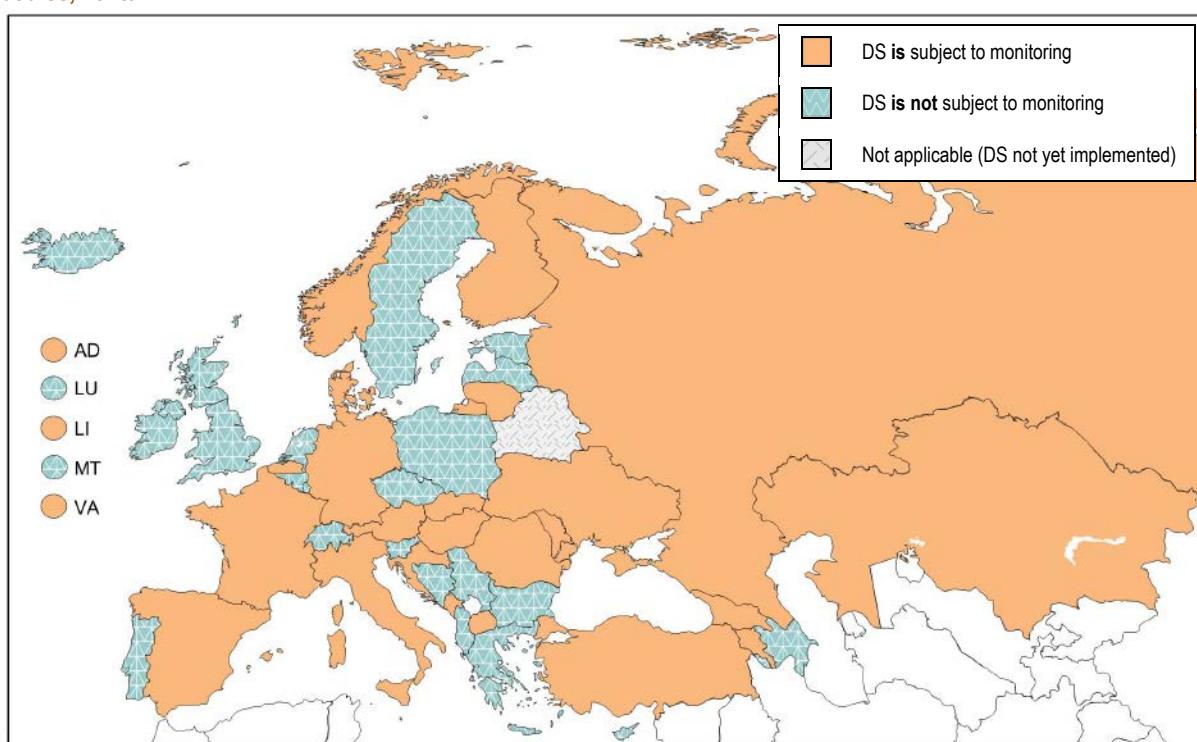
Figure 3.20: Issuing the Diploma Supplement to third-cycle graduates, 2016/17



Source: BFUG data collection.

There has been a continuous move towards the monitoring of the implementation of the Diploma Supplement. More specifically, in 2012, only seven higher education systems reported studies to monitor how higher education institutions use the Diploma Supplement, whereas there were 14 such systems in 2015. In 2016/17, 26 higher education systems indicate that top-level authorities or their mandated bodies monitor the implementation of the Diploma Supplement (see Figure 3.21).

Figure 3.21: Monitoring of the implementation of the Diploma Supplement by top-level authorities or their mandated bodies, 2016/17



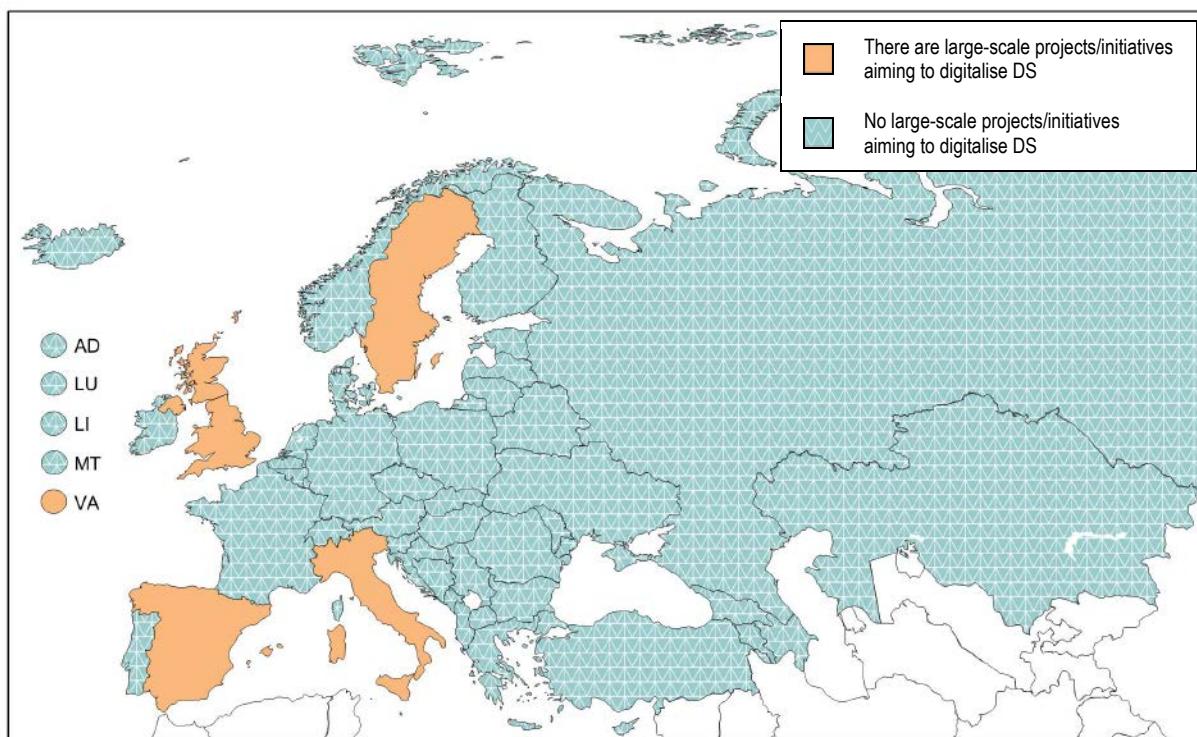
Source: BFUG data collection.

The monitoring is conducted by a range of organisations, most commonly ministries, but also quality assurance agencies, inspectorates or other bodies and NGOs responsible for the supervision of higher education.

Another question that can be raised in relation to the Diploma Supplement is its digitalisation. Indeed, it can be argued that through digitalisation the Diploma Supplement can be brought to today's technological standards, becoming more secure and easier to verify, and adding more flexibility in presenting and using the data it contains. However, as a recent study addressing this theme highlights, 'so far the DS remained mainly a paper document with only a small margin of higher education institutions issuing it in any digital format' (European Commission 2017a, p. 6). To progress towards digitalisation of the Diploma Supplement, the aforementioned study proposes four different technical solutions, ranging from a baseline scenario to more elaborated options. The study also offers mapping of different digitalisation initiatives across and outside Europe, pointing out that this theme is understood differently not only across countries, but also from one higher education institution to another.

Within the BFUG data collection, countries were asked to indicate the presence of large-scale initiatives aiming to digitalise the Diploma Supplement. As Figure 3.22 shows, these initiatives are scarce, and reported only by a few countries.

Figure 3.22: Presence of large-scale projects/initiatives aiming to digitalise the Diploma Supplement, 2016/17



Source: BFUG data collection.

Notes:

When referring to 'large-scale projects/initiatives', the figure refers to projects/initiatives that operate throughout the whole country or a significant geographical area rather than being restricted to a particular institution or geographical location.

Among them, the United Kingdom refers to an electronic Higher Education Achievement Report (HEAR)/Diploma Supplement (DS) that has been developed and implemented by a number of universities. Sweden is developing a new national student records system ('Ladok 3') that will be used by almost all Swedish higher education institutions. Within this system, degrees will be issued digitally,

through a certification by the decision-maker, and, simultaneously, the Diploma Supplement will be issued through the same certification (⁶⁵).

There are also large-scale initiatives that have a preparatory character. For example, in Italy, since the academic year 2014/15, some universities take part in a national project aiming to digitalise the Diploma Supplement. In Spain, the Ministry of Education, Culture and Sports has set up a technical working group examining different possibilities for digitalisation of the Diploma Supplement. The Holy See refers to an internal project at ministerial level, analysing best practices and developing a centralised database for issuing the Diploma Supplement.

3.2.2. National qualifications frameworks (NQFs)

While the purpose of the Diploma Supplement is to provide more transparency on the content of individual higher education qualifications, qualifications frameworks promote the readability and comparability of qualifications within and across countries. This is possible as qualifications frameworks are able to link together many of the structural tools – learning outcomes, credit systems, degree structures and quality assurance, for example – that play an important role in increasing the transparency of qualifications systems.

Qualifications frameworks have been on the policy agenda of the Bologna Process since 2001. In 2005 in Bergen, ministers of higher education adopted the overarching Framework of Qualifications for the European Higher Education Area (QF-EHEA), committed themselves to developing national qualifications frameworks (NQFs) for higher education and self-certifying the compatibility of their national qualifications frameworks to the QF-EHEA by 2010. Few countries met the 2010 milestone, and only about a half of the participating countries self-certified to the overarching QF-EHEA by the 2015 ministerial conference in Yerevan. For this reason, ministers have reiterated their call for increased efforts in the development and implementation of national qualifications frameworks as one of the key commitments in the Bologna Process. This part of the report will thus discuss recent developments in the field of NQFs, and how NQFs are used by national authorities, higher education institutions and other stakeholders at national level.

The QF-EHEA comprises three cycles and the short cycle within the first cycle (see Section 3.1), generic descriptors for each cycle defined in terms of learning outcomes, and ECTS credit ranges for the first and second cycles. National qualifications frameworks for higher education, which are built to be compatible with the QF-EHEA, provide information about qualifications in terms of their level (again structured in three cycles and the short cycle within the first cycle, where relevant), learning outcomes, student workload, and they indicate possible progression routes. Every qualification included in a national qualifications framework needs to meet these criteria and be supported by quality assurance.

The QF-EHEA is compatible with the European Qualifications Framework for lifelong learning (EQF) (⁶⁶). The EQF is a European reference framework for qualifications at all levels of education (ISCED 0-ISCED 8) and all types of education (general or professional) and acquired through different learning contexts (formal, non-formal and informal). The EQF is composed of eight common European reference levels, which are also described in terms of learning outcomes. Thanks to the compatibility between the QF-EHEA and the EQF, 35 of the 39 countries participating in both European meta-frameworks have developed or are developing national qualifications frameworks for lifelong learning (⁶⁷) and have related or are planning to relate these to both European overarching

(⁶⁵) For more details on the project, see: <https://ladok.se/nya-ladok/detta-ar-ladok> [Accessed 27 February 2018].

(⁶⁶) Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning (2008/C 111/01), 06.05.2008, p. 1. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32008H0506%2801%29>

(⁶⁷) NQFs for lifelong learning usually include all levels and kinds of qualifications, and in most cases incorporate national qualifications frameworks for higher education.

frameworks. By the end of 2016, 17 countries presented a joint QF-EHEA self-certification and EQF referencing report (Cedefop, 2016). This coordination effort ultimately should benefit learners in navigating their education path across levels and sectors of education in Europe.

3.2.2.1. Development of national qualifications frameworks

In order to guide and monitor the development and implementation of national qualifications frameworks for higher education, 10 typical implementation steps were identified by the EHEA Working Group on Qualifications Frameworks in 2007 (Bologna Working Party, 2007). Since 2009, the 10 steps have served as reference points for monitoring progress in the development and implementation of NQFs in Bologna Process Implementation Reports. In 2015, an eleventh step was added which requires information on the NQF and the self-certification report to be made publicly accessible. While the individual steps in principle build on each other – starting with conceptualisation and ending with the presentation of a self-certification report –, reality shows that countries follow slightly different paths. Such variety is legitimate as NQFs are a new phenomenon for most countries; however, transparency about the process and the challenges that countries face is essential to maintain trust towards the QF-EHEA.

Figure 3.23 shows the state of play of NQF implementation in EHEA countries according to the 11 steps.

Figure 3.23: Progress in development of national qualifications frameworks according to the 11 steps, 2016/17

Step 1	Decision to start has been taken by the national body responsible for higher education	–
Step 2	The purpose(s) of the NQF have been agreed and outlined	–
Step 3	The process of developing the NQF has been set up, with stakeholders identified and committee(s) established	BY
Step 4	The level structure, level descriptors (learning outcomes), and credit ranges have been agreed	RU
Step 5	Consultation/national discussion has taken place and the design of the NQF has been agreed by stakeholders	AD, AZ, CZ, RS
Step 6	The NQF has been adopted in legislation or in other high level policy document	SK, UA
Step 7	Implementation of the NQF has started with agreement on the roles and responsibilities of higher education institutions, QA agency(ies) and other bodies	AL
Step 8	Study programmes have been re-designed on the basis of the learning outcomes included in the NQF	BA
Step 9	Qualifications have been included in the NQF	AM, CH, FI, GE, KZ, MD, VA
Step 10	The Framework has self-certified its compatibility with the European Framework for Higher Education	BG, CY, RO
Step 11	The final NQF and the self-certification report can be consulted on a public website	AT, BE fr, BE nl, DE, DK, EE, ES, FR, HR, HU, IE, IS, IT, LI, LT, LU, LV, ME, (*), MT, NL, NO, PL, PT, SE, SI, TR, UK-ENG/WLS/NIR, UK-SCT

(*): the former Yugoslav Republic of Macedonia

Source: BFUG data collection.

Notes:

Greece: Data not available.

Almost all countries have completed the conceptualisation of their NQF and set up working structures for its development (steps 1-3). In Belarus, the government agreed on an NQF development plan in 2017 (step 2). In Russia, the only country which has remained at step 4 since 2015, the main technical features of the NQF (the level structure, the learning outcomes descriptors and credit ranges) had been agreed at policy level prior to 2015 and planning for the adoption of a comprehensive NQF covering all levels and sectors of qualifications, including higher education qualifications and self-certification is still to be seen.

The development of national qualifications frameworks and self-certification requires significant political commitment, resources and ownership from policy makers and all stakeholders involved. This is partly because introducing the learning outcomes approach in qualifications and programmes is a paradigm shift in higher education institutions but also for other stakeholders. Stakeholders need to fully understand and engage with the design of the NQF before the development can be launched (step 5). In Andorra and Serbia, the development of the main features of the NQF and the stakeholder consultation has been carried out. A draft law on the Andorran qualifications framework is to be presented to the parliament in 2018. In Serbia, a draft law on the NQF has recently been developed and is planned to be adopted in the first half of 2018. In contrast, Azerbaijan and the Czech Republic have not progressed beyond this step since 2015. It should, however, be noted that a recently adopted action plan in the Czech Republic foresees the adoption of the NQF and self-certification before the end of 2018. Similarly, in Azerbaijan, the adoption of the NQF and an action plan towards self-certification are expected in June 2018.

The formal adoption of the NQF, usually in national legislation, provides the formal basis for its implementation (step 6). Slovakia has formally adopted its NQF and self-certification is planned for 2022 (this delay is explained by the ongoing work on the establishment of an external quality assurance agency and qualification developments). The review of the NQF is on-going in Ukraine and self-certification is planned by 2020. Establishing institutional responsibilities for the NQF, including the involvement of quality assurance agencies, is explicitly called for in the self-certification criteria (step 7). Albania has started NQF implementation and, based on a recent review, the scope of the Albanian framework is broadened and its links to quality assurance are strengthened. In Bosnia and Herzegovina, study programmes have been re-designed on the basis of learning outcomes (step 8) since 2015.

Filling NQFs with real national qualifications transforms frameworks into working tools (step 9). Seven countries (Armenia, Finland, Georgia, the Holy See, Kazakhstan, Moldova and Switzerland,) have completed this important step. For Finland, this, together with the formal adoption of the NQF, was an important step forward after long national discussions on the NQF. By revising the NQF and including qualifications in it, Kazakhstan has also made progress since 2015. Armenia, the Holy See and Moldova have not progressed towards self-certification; however, they have Armenia and the Holy See have reviewed and revised their NQFs during this period; and Moldova is reviewing its NQF following the adoption of its new Education Code.

Completing the self-certification of the NQF to the QF-EHEA (step 10) makes qualifications more visible, comparable and understandable for other countries. Through this process a country proves that its NQF is compatible with the QF-EHEA and that the common European principles – in particular related to the use of learning outcomes, credits, quality assurance, the involvement of stakeholders – are respected. Bulgaria, Cyprus and Romania have completed their self-certification processes since 2015 but their reports and the final NQFs are not available online. By 2018, self-certification reports and NQFs of 30 higher education systems can be consulted on a public website (step 11). Austria, Iceland, Montenegro, Portugal and Turkey have made public their self-certification reports since 2015.

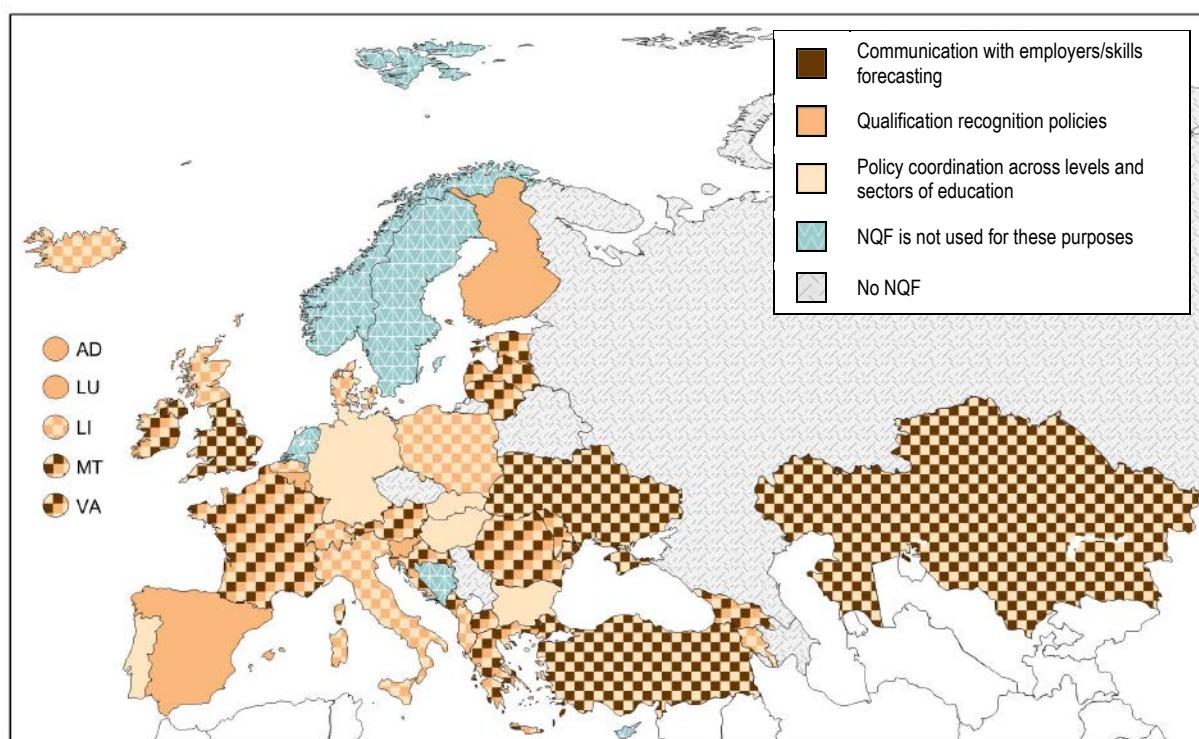
The development and implementation of NQFs is a dynamic process. Qualifications and learning outcomes linked to them need to change over time due to evolving competence requirements in society. In addition, most of the NQFs are new structures in European education systems, and need reflection and review to link well to other structural reform tools, such as quality assurance or credit systems. For this reason, it should be noted that, as also mentioned above, several countries are revisiting the 11 steps. Sixteen systems (Albania, Armenia, Denmark, Georgia, Germany, the Holy See, Hungary, Ireland, Kazakhstan, Latvia, the former Yugoslav Republic of Macedonia, Malta, Montenegro, Poland, Romania and the United Kingdom – Scotland) have reviewed their NQF since its adoption, and 11 systems (Andorra, Belgium – French Community, France, Croatia, Liechtenstein, Lithuania, Moldova, the Netherlands, Slovakia, Slovenia and Ukraine) are planning a review in the near future. In addition, Bulgaria, Latvia, the former Yugoslav Republic of Macedonia, Malta, the Netherlands, Slovenia and the United Kingdom (England, Wales and Northern Ireland) have already revisited their self-certification report since its first publication. These reviews can largely contribute to gaining more knowledge on NQFs and the QF-EHEA at national and European levels.

3.2.2.2. Use of national qualifications frameworks

The implementation of NQFs continues after the full roll-out of their – important - technical features (learning outcomes, credits, levels, etc.). The transparency that NQFs provide is to be fully exploited in improving higher education systems. At this stage, it should be ensured that the NQF is used for commonly agreed purposes by public policy bodies, higher education institutions and other stakeholders. Such purposes often include policy coordination, communication between stakeholders, international cooperation to facilitate mobility and qualification recognition, quality assurance, reforming higher education programmes, etc. This report considers if and how national authorities encourage NQFs to be used in public policy and by higher education institutions. Mapping other uses of NQFs by a broader range of stakeholders is beyond the scope of this report.

Figure 3.24 shows the main policy areas where national authorities themselves are required to or in practice actually use NQFs.

Figure 3.24: Use of national qualifications frameworks by national authorities, 2016/17



Source: BFUG data collection.

The most widespread use by national authorities in 34 of the 44 systems that have established an NQF is coordinating policy developments across different educational levels and sectors. For example, according to a report by Cedefop, most NQFs for higher education are integrated into comprehensive NQFs for lifelong learning that cover all levels and sectors of education (Cedefop, 2016). These comprehensive NQFs provide a common set of learning outcomes for developing standards and qualifications for schools, higher education, vocational education and training, adult education and, in some cases, non-formal and informal learning. In Estonia, the NQF is also linked to the development of a lifelong learning strategy. In Croatia, Denmark and Portugal, the NQF coordination group provides a forum for regular cross-education discussions; similarly, in the United Kingdom (Scotland), the framework supports so-called learner journey discussions.

Thirty-one systems use NQFs in policies on the recognition of foreign qualifications, although top-level authorities of 49 systems formally committed themselves to doing so by ratifying the Lisbon Recognition Convention⁽⁶⁸⁾ (see Chapter 4.2). In 2015, signatories of the Convention, including EHEA countries, agreed to use NQFs in the recognition of qualifications for learning and professional purposes⁽⁶⁹⁾. Countries using the NQF in the context of qualification recognition require or encourage (ENIC/NARIC⁽⁷⁰⁾ and higher education institutions) verifying the level of foreign qualifications in partner countries' NQFs and checking self-certification reports as a first step in the process of qualification recognition.

Only 19 countries' national authorities use the NQF in dialogue with labour market actors or in skills forecasting. In Croatia, France and Georgia, employers are requested to use NQF levels when they formulate their skills needs. Fifteen education systems use their NQFs in all these three fields.

Other areas where the NQF is used are: the recognition of prior learning (Belgium – Flemish Community, quality assurance (Belgium – Flemish Community, Croatia, Iceland, Ireland, Liechtenstein, Montenegro and Norway), or in establishing salary scales for civil servants and state employees (Luxembourg). In contrast, while several national authorities are increasingly using NQFs in qualifications related policies, in Bosnia and Herzegovina, Cyprus and the Netherlands, authorities are neither required nor typically use NQF-HEs. It will be important to explore the reasons and the implications of this choice in the countries concerned.

Although not presented in a specific figure, top-level authorities were asked whether higher education institutions are required to use NQFs. Twenty-nine systems report that higher education institutions are formally required to use the NQF and its features in qualification and programme design, and a further eight countries indicate that (although not required) institutions usually use NQFs for these purposes. Some countries (Denmark, Hungary, Latvia, Lithuania, Portugal, Slovenia and the United Kingdom – Scotland) require higher education institutions to specify the NQF level of the qualification in the Diploma Supplement and other documentation related to the diploma (see also 3.2.1).

⁽⁶⁸⁾ Council of Europe Convention on the Recognition of Qualifications concerning Higher Education in the European Region, ETS No.165.

⁽⁶⁹⁾ The Committee of the Convention of the Recognition of Qualifications concerning Higher Education in the European Region. Subsidiary text to the Convention. 'Recommendation on the use of qualifications frameworks in the recognition of foreign qualifications' Strasbourg/Paris 19 June 2013 DGII/EDU/HE (2012) 14 Rev 09 final ED-2012/UNESCO [Online] Available at: [https://www.coe.int/t/dg4/highereducation/Recognition/DGIIEDUHE\(2012\)14%20Rev09%20FINAL%20-%20LRC%20Supplementary%20Text%20on%20the%20Use%20of%20QFs%20ENGLISH.asp](https://www.coe.int/t/dg4/highereducation/Recognition/DGIIEDUHE(2012)14%20Rev09%20FINAL%20-%20LRC%20Supplementary%20Text%20on%20the%20Use%20of%20QFs%20ENGLISH.asp) [Accessed 20 February 2018].

⁽⁷⁰⁾ ENIC – European National Information Centre; NARIC – National Academic Information and Recognition Centre (see also Section 4.2).

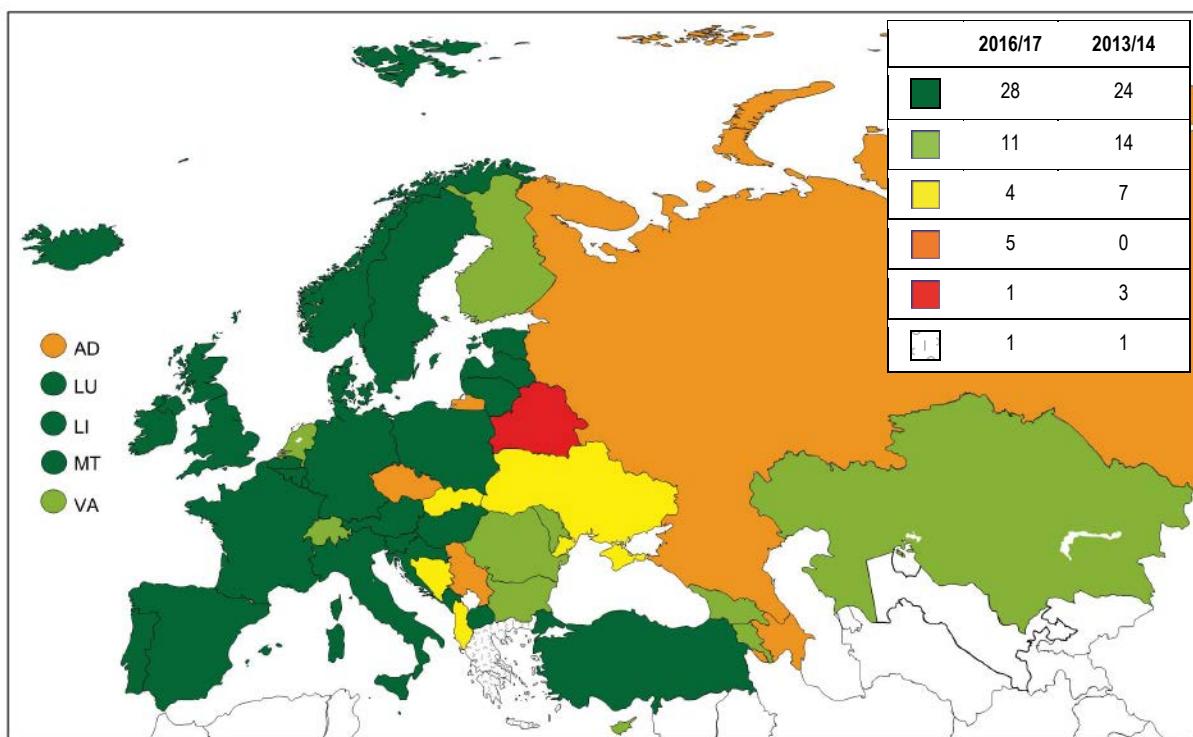
3.2.2.3. Stage of implementation of national qualifications frameworks: summary

Scorecard indicator n°3 (see Figure 3.25) summarises the state of play of the development and implementation of national qualifications framework for higher education. Both previous indicators in this part of the report are taken into account: the state of NQF implementation and the use of NQFs by national authorities.

As Figure 3.25 shows the majority of countries now comply with their commitments regarding qualifications frameworks. Systems in dark green have established their national qualifications frameworks for higher education and self-certified them to the QF-EHEA. In addition, in these countries the NQF is used by national authorities for at least one agreed purpose. In a few countries in the light green category, the NQF is in place and is self-certified, but national authorities do not use the NQF in public policy. In order to achieve the policy goals that national authorities together with stakeholders set for the national qualifications framework, NQFs need to be better integrated into public policy also in these countries.

Some countries have made remarkable progress in their NQF since the 2015 report. However, there remain some in which the pace of developments is very slow or seems not to move at all. These countries may risk losing momentum and miss the opportunity to increase the transparency of their qualifications system within the country and for international partners or students beyond their national borders.

Figure 3.25: Scorecard indicator n°3:
Implementation of national qualifications frameworks, 2016/17



Source: BFUG data collection.

Notes:

The indicator is defined as the current state of the implementation of national qualifications frameworks. The state of implementation is measured against the steps of the implementation of NQFs. The dark green category is not fully comparable with the same dark green category in the Bologna Process Implementation report 2015. Step 11 is introduced in this revised Scorecard indicator and countries need to complete both steps in order to fulfil requirements for this category.

'Stakeholders' in Step 11 of the Scorecard indicator are understood narrowly as 'national authorities' only, due to the limited scope of the data collection (BFUG data collection). Information in indicator 3.24 is taken into account.

The colours in the figure indicate that the country has completed all steps related to a specific colour and all preceding steps. The red colour is an exception, countries having completed step 1 or step 2 also obtain this colour.

Scorecard categories

	Steps 10-11: <ul style="list-style-type: none">○ 11. Stakeholders* use the NQF (as a reference point) for at least one specific agreed purpose.○ 10. The NQF has self-certified its compatibility with the Qualifications Framework for the European Higher Education Area.
	Steps 7-9: <ul style="list-style-type: none">○ 9. Qualifications have been included in the NQF.○ 8. Study programmes have been re-designed on the basis of the learning outcomes included in the NQF.○ 7. Implementation of the NQF has started with agreement on the roles and responsibilities of higher education institutions, quality assurance agency(ies) and other bodies.
	Steps 5-6: <ul style="list-style-type: none">○ 6. The NQF has been adopted in legislation or in other high level policy fora.○ 5. Consultation/national discussion has taken place and the design of the NQF has been agreed by stakeholders.
	Step 4: The level structure, level descriptors (learning outcomes), and credit ranges have been agreed.
	Steps 1-3: <ul style="list-style-type: none">○ 3. The process of developing the NQF has been set up, with stakeholders identified and committee(s) established.○ 2. The purpose(s) of the NQF have been agreed and outlined.○ 1. Decision to start developing the NQF has been taken by the national body responsible for higher education and/or the minister.
	Data not available

3.3. Conclusions

This chapter examined Bologna Process structures and tools in two parts. The first part looked at the implementation of a common degree structure (the three cycles and the short cycle) as well as programmes outside this structure, while the second part concentrated on two main Bologna tools: the Diploma Supplement and national qualifications frameworks.

The analysis shows that bachelor or equivalent programmes (ISCED 6) involve most students in virtually all EHEA countries. Like the previous Bologna Process Implementation Reports, this report demonstrates that there is no single model of first-cycle programmes in the EHEA. Nevertheless, the majority of first-cycle programmes have a workload corresponding to 180 ECTS credits. Another quite widespread model is the 240 credits model, which applies to most first-cycle programmes in around one-third of all EHEA countries.

There are significant differences between countries in terms of the participation in master or equivalent programmes (ISCED 7; less than 10 % of all students in some countries, more than 30 % in some other countries). The workload of these programmes is most commonly set at 120 ECTS credits. The second most widespread model in the second cycle is the 60-75 ECTS model.

In the majority of the EHEA countries, the most common combined workload of the first and second cycle corresponds to 300 ECTS credits. In the eastern part of the EHEA, the most common workload is often higher – corresponding to 360 ECTS – which is mainly due to a more substantial workload in first-cycle programmes.

The situation varies across the EHEA when the progression between the first and second cycle is considered. In around half of the countries, most first-cycle graduates (50 % or above) undertake a second-cycle programme within one year of graduation and, in some of these countries, the proportion reaches 75 % and above. In contrast, in around a quarter of the countries, the same applies to less than 25 % of all first-cycle graduates. This could suggest that the labour market recognition of first-cycle qualifications varies across the EHEA.

Doctoral or equivalent programmes (ISCED 8) generally involve only a small proportion of all higher education students, less than 5 % in most countries. In almost all EHEA countries, the duration of these programmes follows the commonly agreed principles (the so called 'Salzburg Principles'),

i.e. doctoral studies are expected to last three to four years full-time. In line with the above principles, there are now doctoral schools in most EHEA countries. Yet, in a number of countries, only up to a quarter of all doctoral candidates follow their programme within a doctoral school. Moreover, while ECTS credits are now commonly allocated to third-cycle programmes, countries use different approaches: credits are sometimes attached to all elements of doctoral programmes, sometimes to taught courses only, and in some cases, it is up to higher education institutions to define their use.

Alongside the three main cycles, around half of all EHEA countries offer short-cycle higher education programmes. These programmes commonly use the ECTS system, and their workload most often corresponds to 120 ECTS. In around half of the countries with short-cycle higher education, short-cycle learning achievements (outcomes) are generally fully recognised within first-cycle studies in the same field. In another half of the countries, recognition is either less substantial or, exceptionally, there is no recognition. There are also countries that offer programmes of 'short-cycle tertiary education' (ISCED 5), which are not recognised within the higher education system. When not recognised as 'higher education', short-cycle programmes are usually part of a vocational education system. Overall, the short cycle appears as a complex field covering a range of programmes that differ in terms of content, orientation and purpose.

In addition to the three cycles and, possibly, short-cycle programmes, most EHEA countries also offer other programmes. Commonly, programmes outside the Bologna-degree structure comprise so-called 'integrated/long' programmes, i.e. programmes leading directly to a second-cycle degree. While integrated/long programmes exist in most EHEA countries, they involve different proportions of students: less than 5 % in some countries, more than 20 % in some others. These programmes usually exist in fields related to professions regulated in the European Union by the Directive on regulated professions 2005/36/EC, which defines qualification requirements for specific professions – medicine, dentistry, veterinary medicine, pharmacy and architecture –, including the duration of training. Teacher training, engineering, law and theology are also widespread fields for integrated programmes. In around a quarter of all EHEA countries, there are programmes outside the Bologna-degree structure other than integrated/long programmes. The nature of these programmes varies from one system to another: some are linked to first-cycle studies (e.g. programmes demanding a bachelor's degree for entry, but not leading to a second-cycle qualification), while others are linked to second- or third-cycle qualifications. There are also long programmes (five years), leading to a first-cycle qualification, rather than a master's degree.

There has been good progress since 2015 in the implementation of the Diploma Supplement. Indeed, most EHEA countries now comply with all the commonly agreed principles, i.e. the Diploma Supplement is issued to all first- and second-cycle graduates, automatically, in a widely spoken European language and free of charge. In around a quarter of the countries, one of these aspects has not yet been fulfilled, and one country has not yet introduced the Diploma Supplement. Besides the first and second cycle, the Diploma Supplement is also commonly issued after short-cycle higher education studies (where such studies exist). Yet, it is not yet the norm in the third cycle.

Overall, good progress can also be observed in the implementation of national qualifications frameworks (NQFs). The majority of the countries have established a national qualifications framework for higher education, self-certified it to the Framework for Qualifications of the European Higher Education Area (QF-EHEA) and national authorities use the NQF in public policy. In most countries, NQFs for higher education are integrated into NQFs for lifelong learning, which suggests widespread efforts in using NQFs for coordinating qualifications across sectors and levels of education. Several countries have also already reviewed their NQFs. The results of such reviews could be shared among EHEA countries for the benefit of peer learning. However, some countries have completed the framework development, but national authorities do not use the NQF in developing and monitoring higher education policy. This may send a negative message to stakeholders about the purposes of the NQF at national level.

While many countries have made remarkable progress in NQF development, there remain a few in which the pace of development is slow or seems not to move at all. These countries risk losing momentum and missing the opportunity to increase the transparency of their qualifications system within the country and for international partners and students beyond their national borders.

CHAPTER 4:

QUALITY ASSURANCE AND RECOGNITION

The Yerevan Communiqué

The concern to enhance quality in higher education lies at the heart of the Bologna Process, and major developments in quality assurance have taken place throughout the evolution of the European Higher Education Area (EHEA). The objective of continually striving to improve quality in European higher education systems is implicit throughout the Yerevan Communiqué⁽⁷¹⁾, while two important policy documents underpinning quality were adopted in the appendix. The first is the revised Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG, 2015)⁽⁷²⁾, and the second is the European Approach for Quality Assurance of Joint Programmes⁽⁷³⁾.

The adoption of these documents marks a commitment that they will be implemented in each national system.

The Yerevan Communiqué also sets out clear objectives on recognition, noting that by 2020 automatic recognition of qualifications should be a reality. Ministers also commit to establishing a group of volunteering countries and organizations with a view to facilitating professional recognition.

The 2015 Bologna Process Implementation Report

The 2015 report provided strong evidence that quality assurance continues to be an area of dynamic evolution. Positive trends were seen with regard to greater transparency requirements in public higher education systems, and to the development of quality assurance strategies within higher education institutions. The scope of quality assurance systems was also found to be widening – in particular embracing not only teaching and research, but often also areas such as internationalisation and entrepreneurship.

Less positively, stakeholder involvement in quality assurance, and in particular student involvement, seemed not to be further developing. Moreover, despite the European commitment to allow higher education institutions to choose a suitable EQAR-registered agency for undertaking required quality assurance procedures, action to facilitate this objective at national level had been slow moving.

Chapter outline

This chapter discusses quality assurance developments and the related topic of recognition. These topics have been brought together to highlight their importance in developing trust and transparency in higher education systems across of the EHEA. Section 4.1 focuses on quality assurance. While the main wave of quality assurance reforms have taken place within higher education institutions, the report has only a short section reviewing internal quality assurance developments (4.1.1). The chapter then moves to external quality assurance (4.1.2) assessing the role of governments and external quality assurance agencies in stimulating and monitoring developments at institutional level. It also focuses on whether the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), adopted in 2015, are being implemented, and where there are areas and issues to improve. Developments in cross-border quality assurance are considered in section 4.1.3.

⁽⁷¹⁾ Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 1.

⁽⁷²⁾ http://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf

⁽⁷³⁾ European Approach for Quality Assurance of Joint Programmes https://www.eqar.eu/fileadmin/documents/bologna/02_Europorean_Approach_QA_of_Joint_Programmes_v1_0.pdf

Section 4.2 focuses on recognition of qualifications for academic purposes, leaving the exploration of related issues such as the recognition of learning outcomes to Chapter 2 and recognition of prior non-formal and informal learning to Chapter 5. The main focus of the discussion in this chapter is on whether and how the principles laid out in the Lisbon Recognition Convention⁽⁷⁴⁾ are actually implemented. General progress in improving recognition practice is considered in section 4.2.1, before work towards more automatic recognition is presented (4.2.2). The section also examines the procedures in place for the recognition of refugee qualifications – another issue signalled by the ministers in Yerevan (4.2.3).

4.1. Quality Assurance

4.1.1. Internal Quality Assurance

As early as 2003 in the Berlin Communiqué, ministers recognised that 'the primary responsibility for quality assurance in higher education lies with each institution itself'. This central tenet underpins the approach to quality assurance in the European Higher Education Area, and is clearly reflected in the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) 2015⁽⁷⁵⁾. How is this central principle actually reflected in the organisation of quality assurance systems? While internal quality assurance is the cornerstone for trust and confidence in the operations of institutions throughout the EHEA, this report is able only to examine how the framework for institutions is set, and can say little about how quality assurance is actually developed within higher education institutions themselves.

Legislation is nevertheless a powerful lever for countries to compel certain practice in quality assurance. It is also the most commonly used practice in Europe, with only a minority of countries tending to influence quality assurance behaviour through other mechanisms. Figure 4.1 gives an overview of this situation, considering the extent to which higher education institutions are required to develop and publish a strategy for internal quality assurance.

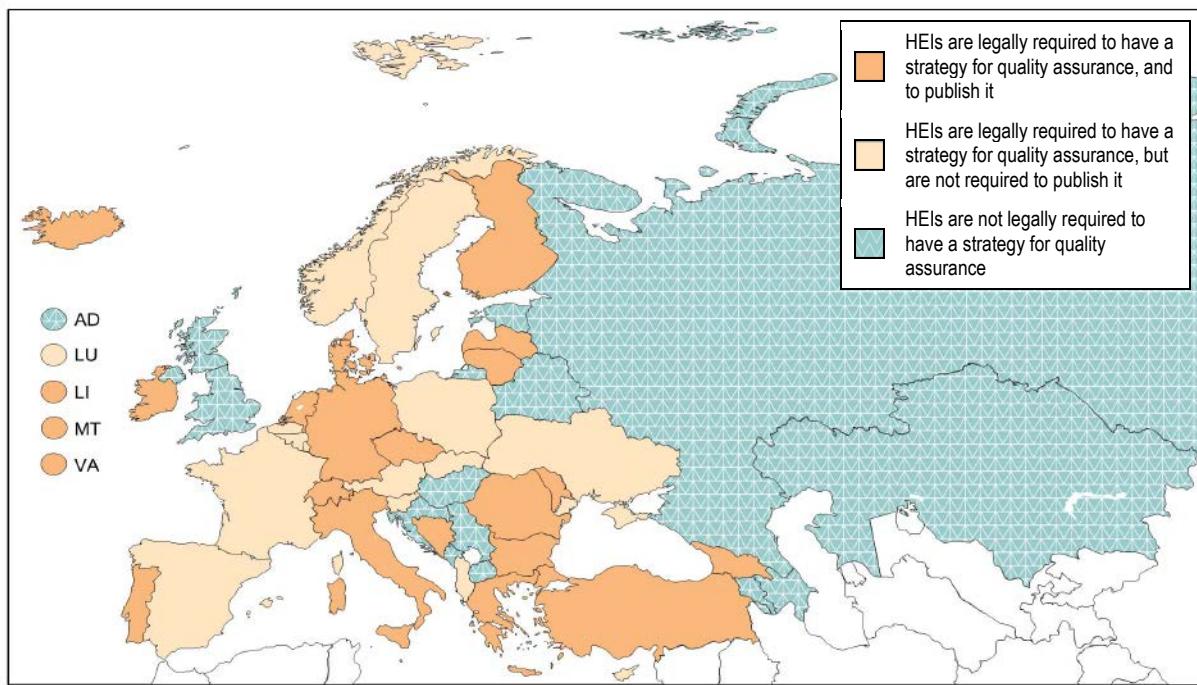
In 20 systems, all higher education institutions are required to have policies for quality assurance, and are also required to make them public. In a further 13 systems, although there is also an obligation upon institutions to develop quality assurance policies, it is for the institutions themselves to decide whether or not they are published. In 15 systems, there are no legal obligations on higher education institutions in this respect.

This aspect of higher education institutional accountability has been developing rapidly in recent years. Six years ago, the 2012 Bologna Process Implementation Report reported that in only 12 systems had all higher education institutions published a strategy with regard to quality assurance. Transparency in institutions is thus an aspect of quality assurance policies that is becoming increasingly established as a norm. Indeed, Belarus is the only country that now reports that no institution makes its policies for quality assurance public. This is a reflection of the fact that a quality assurance system has yet to be developed in the country.

⁽⁷⁴⁾ Convention on the Recognition of Qualifications concerning Higher Education in the European Region. ETS No.165. https://www.coe.int/t/dg4/highereducation/recognition/lrc_en.asp

⁽⁷⁵⁾ http://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf

Figure 4.1: Requirements for higher education institutions to develop and publish quality assurance strategies, 2016/17



Source: BFUG data collection.

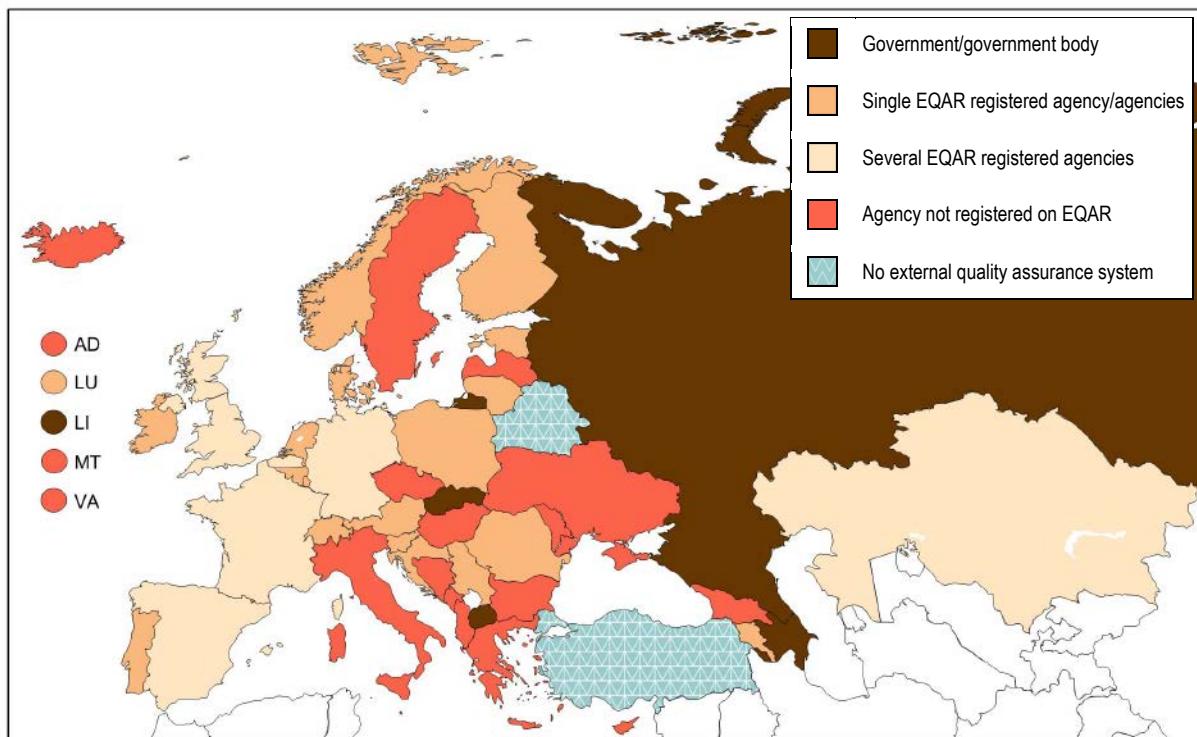
4.1.2. External Quality Assurance

When the Bologna Declaration was signed in 1999, quality assurance systems in higher education were nonexistent in most signatory countries. Today, not only is there a consensus that quality assurance is necessary to ensure accountability and support enhancement, but there are also commonly agreed standards and guidelines for how this should be achieved, and a European body – the European Quality Assurance Register (EQAR) – to guarantee that these standards and guidelines are respected and implemented.

Improving the quality and relevance of higher education, and establishing trustworthy quality assurance systems have been high priorities for many if not all countries, and developments have been fast moving. While only a handful of countries had established external quality assurance agencies when the Bologna Process was launched, nowadays most countries are working with independent quality assurance agencies – although the notion of independence is not always a clear-cut issue.

Figure 4.2 shows where decision-making responsibility in the external quality assurance system lies. The figure gives some insight into the nature of the quality assurance system – for example in distinguishing between responsibility that is devolved to specialised agencies or maintained at government level. The map also differentiates between those countries where agencies are registered on EQAR and those where they are not. EQAR registration is the agreed mechanism in the EHEA to ensure that there is compliance in quality assurance with the ESG - hence its central significance in this figure. Where countries are shown as not having an external quality assurance system, it signifies that the country is in a transitional phase and significant development is needed in the approach to quality assurance.

Figure 4.2: Responsibility for external quality assurance, 2016/17



Source: BFUG data collection.

The figure illustrates that the rise of quality assurance agencies has been a major trend. Since the 2015 Bologna Process Implementation Report, Andorra, Albania, Cyprus, Latvia, Malta, Ukraine and most recently, Montenegro (June 2017) have established new agencies.

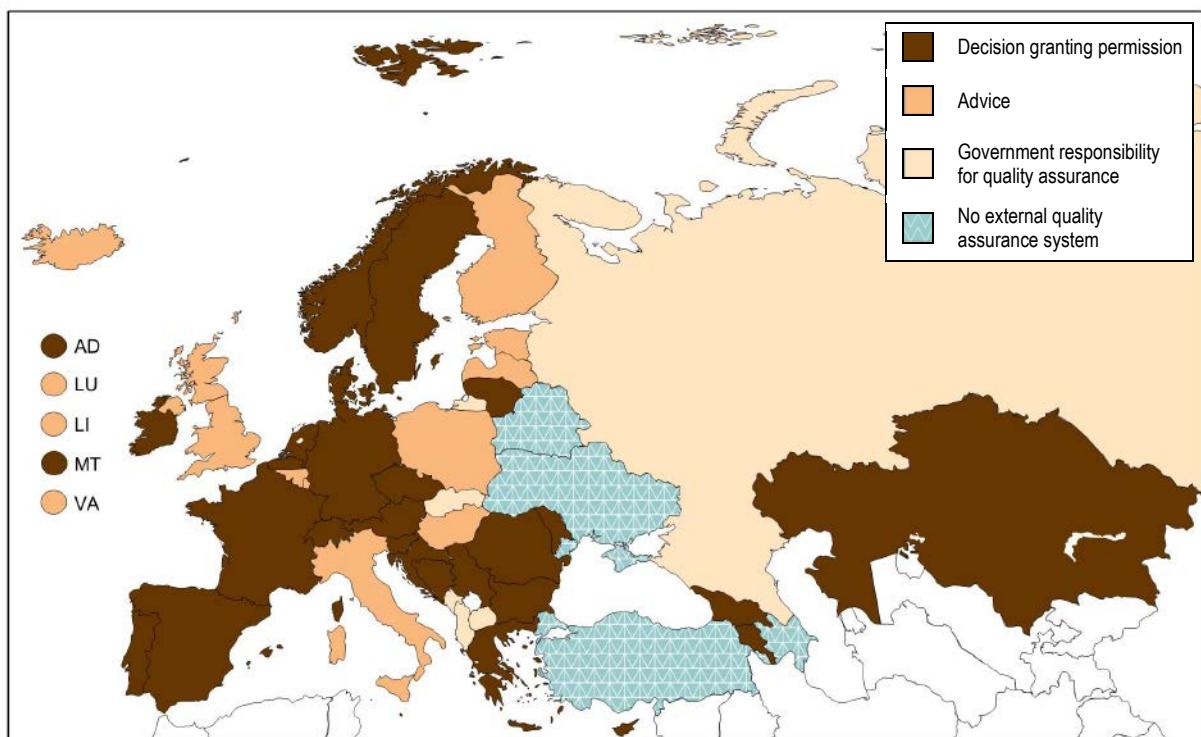
Only a few countries (Azerbaijan, Liechtenstein, the former Yugoslav Republic of Macedonia, Russia and Slovakia) retain a system where the government or a government body has direct responsibility for quality assurance. In Liechtenstein, the ministry retains responsibility for final decisions, but these are based on the results of the accreditation process of an EQAR-registered agency. Slovakia has put in place a system whereby a national committee is entrusted with the quality assurance of the higher education system, under the direct authority of the ministry. Russia is a particular case, as EQAR-registered quality assurance agencies provide services to higher education institutions indicating a transition towards a new paradigm of quality assurance. Nevertheless, decision-making responsibilities currently lie with the state national body.

Several countries have taken an alternative approach to external quality assurance rather than establishing a national quality assurance agency. In Luxembourg, as the system is small, an EQAR-registered agency is commissioned to undertake the external evaluation of the University. In the Czech Republic, the government is responsible for the administration and financing of a National

Accreditation Bureau, but this body is independent in its decision-making. Other systems in the EHEA are now functioning with professional quality assurance agencies. However, in 18 countries, these agencies operate without having registered on the EQAR.

Figure 4.3 illustrates further this rise in quality assurance agencies. It focuses on the outcome of quality assurance procedures. In particular it distinguishes whether quality assurance procedures may lead to a decision permitting a programme or institution to function, or whether the outcome is advice to the higher education institution or programme on how to improve. In cases where quality assurance results in a decision allowing a programmes or institution to operate, it generally aims to ensure that minimum quality thresholds are met. In these systems, agencies may of course play other roles – including giving advice on the enhancement of quality. This is indeed specifically mentioned in a number of countries, but the role of determining the future of institutions or programmes is considered here as the main role. Systems where quality assurance plays such a role can be considered to be more supervisory in nature, while those which focus on advice can be characterised as improvement-oriented.

Figure 4.3: Main outcome of external evaluation, 2016/17



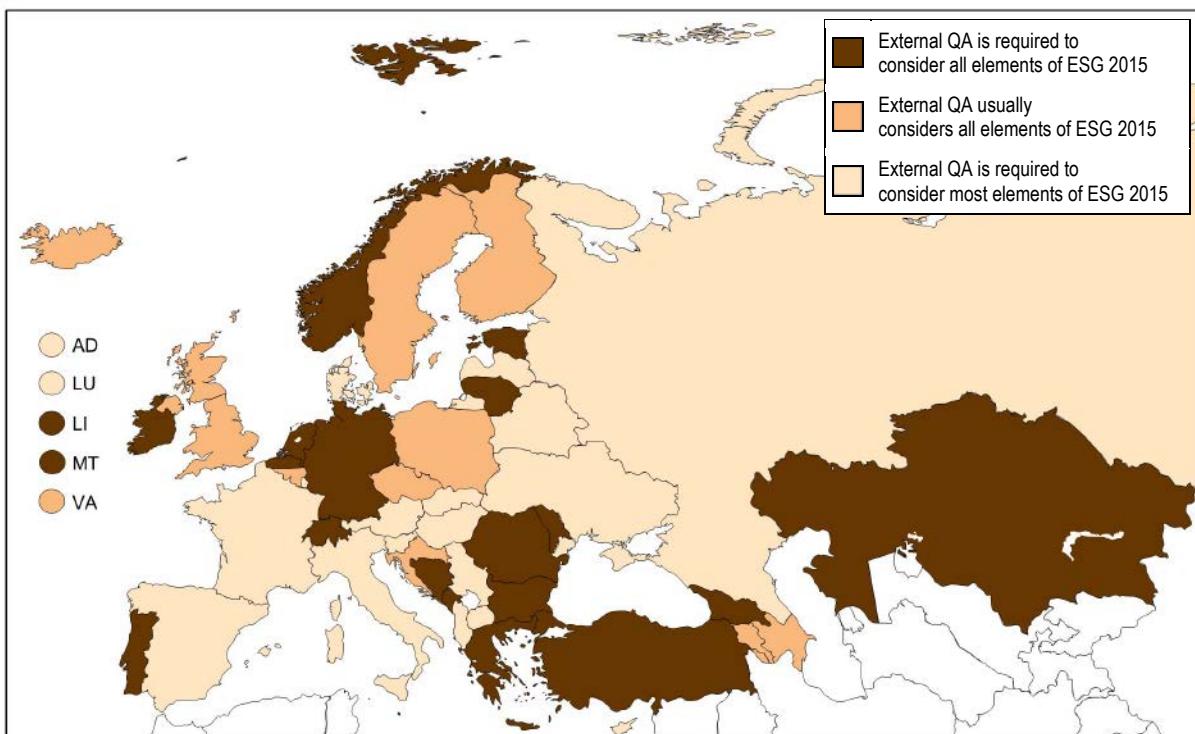
Source: BFUG data collection.

28 systems have established a quality assurance process where the quality assurance agency or body is responsible for recommending or taking a decision that grants permission to the programme or institution to operate. While these systems may also encourage positive developments through advice and recommendations, their decision-taking function means that they are more supervisory in nature. Approximately half as many systems (13) operate on an improvement-oriented model where the role of the quality assurance agency is to provide advice.

The role of agencies can also be considered in terms of their focus – either performing evaluation at the level of higher education institutions, or at programme level or in a combination of the two. Eight systems reported that their quality assurance is based on institutional level evaluation only, while 20 combine institutional and programme-level evaluation. In 22 systems, all programmes are subject to external quality assurance procedures.

Figure 4.4 illustrates how successfully the ESG 2015 have been transposed into external quality assurance practice. The figure is based upon questions asking whether there are requirements for quality assurance agencies to consider elements specified in the ESG in their quality assurance procedures. The elements considered were admissions processes; progression and drop-out rates; design of new programmes; reviews of existing programmes; student centred learning; institutional recognition practice; recruitment; professional development; information management and learning resources.

Figure 4.4: Requirements for external quality assurance to consider the elements specified in the ESG 2015, 2016/17



Source: BFUG data collection.

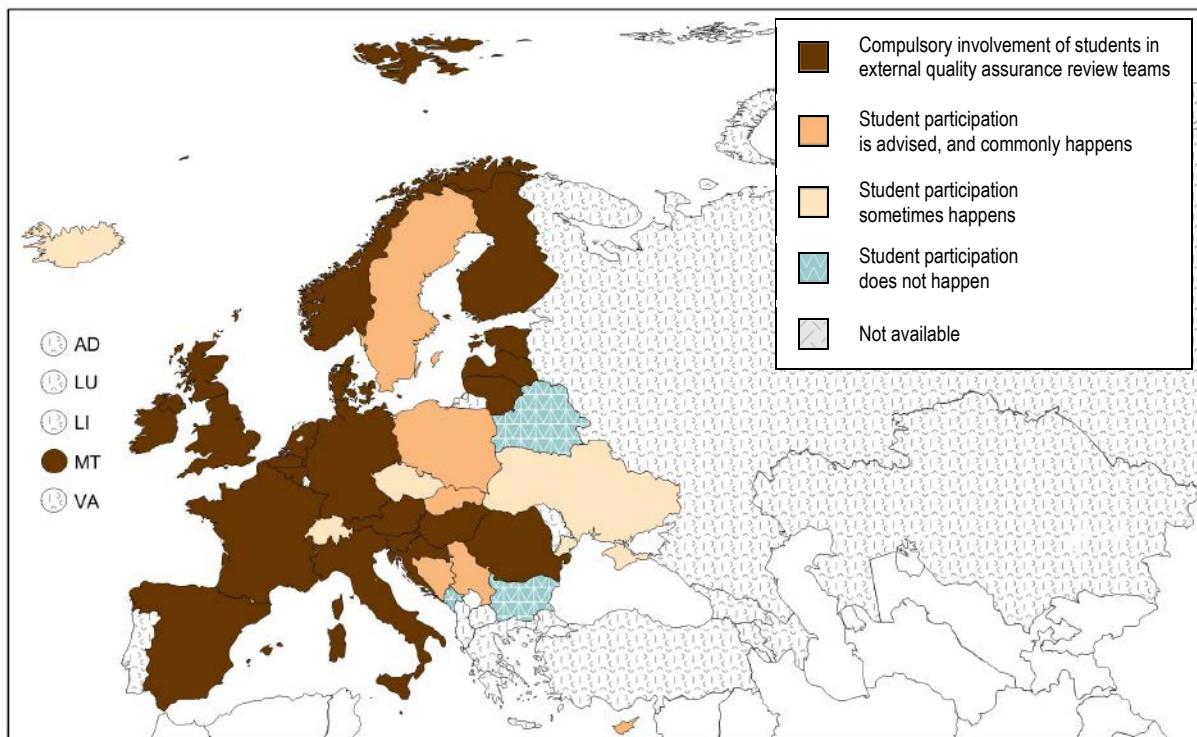
Twenty systems responded that their quality assurance system requires all of the ESG elements to be evaluated during external quality assurance procedures. In a further 12 systems, either there are requirements for these issues to be considered during external quality assurance processes, or in practice, they usually are considered. This group includes countries where the framework for quality assurance is less obligatory in nature, allowing quality assurance to focus on the most relevant issues for particular higher education institutions and/or programmes.

In the remaining 18 systems, a majority of the elements are required or usually happen in practice. However, there are several elements which are not integrated into typical external quality assurance processes. In these systems, while the model for external quality assurance may consider that certain elements need not be directly addressed in external quality assurance processes, it is also possible that improvements could be made to integrate all main aspects of the ESG 2015.

4.1.2.1 Students' perception of their participation in external quality assurance

For the first time in the Bologna Process Implementation Report, information has been gathered from national student unions on the level and frequency of involvement of students in external quality assurance activities. The particular focus for the information in Figure 4.5 is on student participation in external quality assurance review teams.

Figure 4.5: European Student Unions perception of student participation in external quality assurance, 2016/17



Source: ESU data collection.

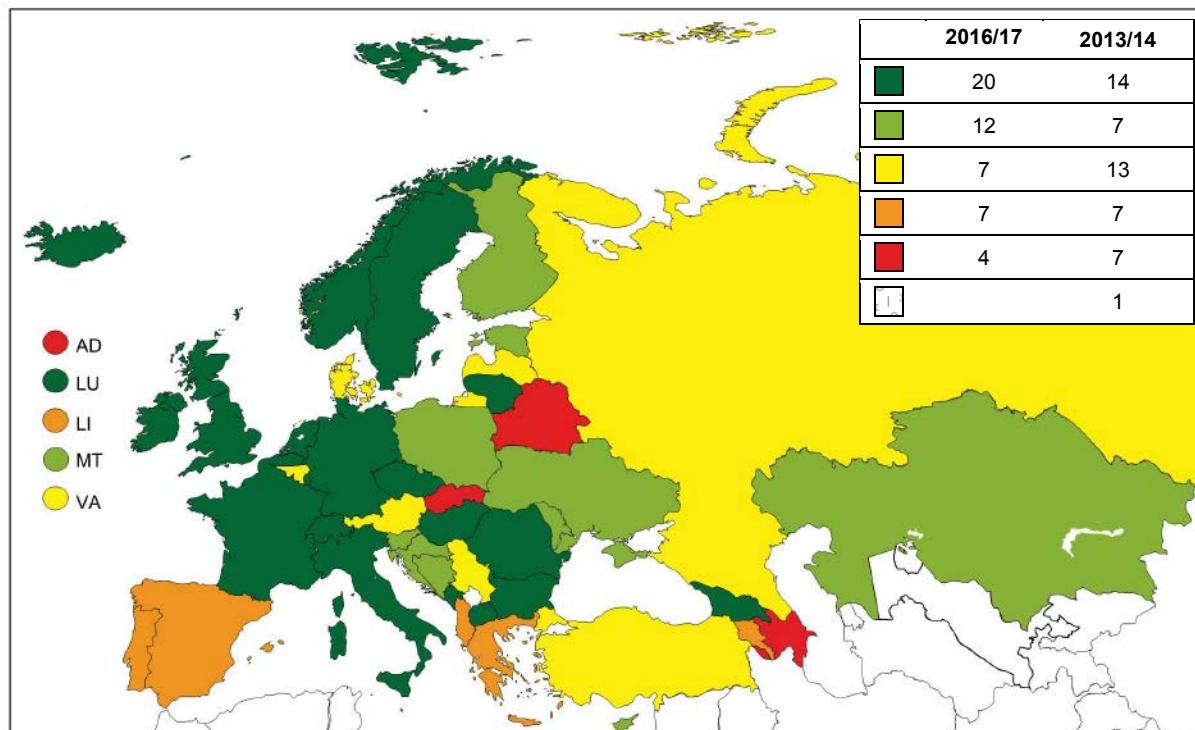
The information generally tallies well with the picture provided by ministries, although in some countries students are less positive than ministries about the extent of their involvement. National student unions from 35 systems provided information, and in 22 of those systems students reported that there is compulsory involvement of students in external quality assurance review teams. A further six reported that student participation is advised and commonly happens. In four systems, students report that their participation sometimes happens while student unions in three countries – Belarus, Bulgaria and Montenegro – report that there is no student participation in external quality assurance review panels.

Among the countries where student participation is compulsory or commonly takes place, a majority of student unions report that students receive training for the tasks. This training is most commonly provided by the quality assurance agency, sometimes in collaboration with the student union. The only countries where students report that they do not receive training are Cyprus, France, Hungary, the Netherlands, Serbia and Slovakia.

Scorecard indicator n°4 gives an overview of the situation regarding student participation in external quality assurance from the perspective of ministries. The indicator is based on responses to the BFUG questionnaire, and therefore does not take account of the student union perceptions outlined above in Figure 4.5. Nevertheless, it is built on the same criteria, assessing student participation in external quality assurance reviews as full members at five levels – governance structures of national quality assurance agencies; in external review teams; in the preparation of self-evaluation reports; in the decision making process for external reviews and in follow-up procedures. These criteria are considered to be met only when student participation is compulsory.

Where student participation is ensured in all of these activities the dark green level is reached, while at the other end of the spectrum, student participation in only one area of activity, or no student participation, results in red.

Figure 4.6: Scorecard indicator n°4:
Level of student participation in external quality assurance system, 2016/17



Source: BFUG data collection.

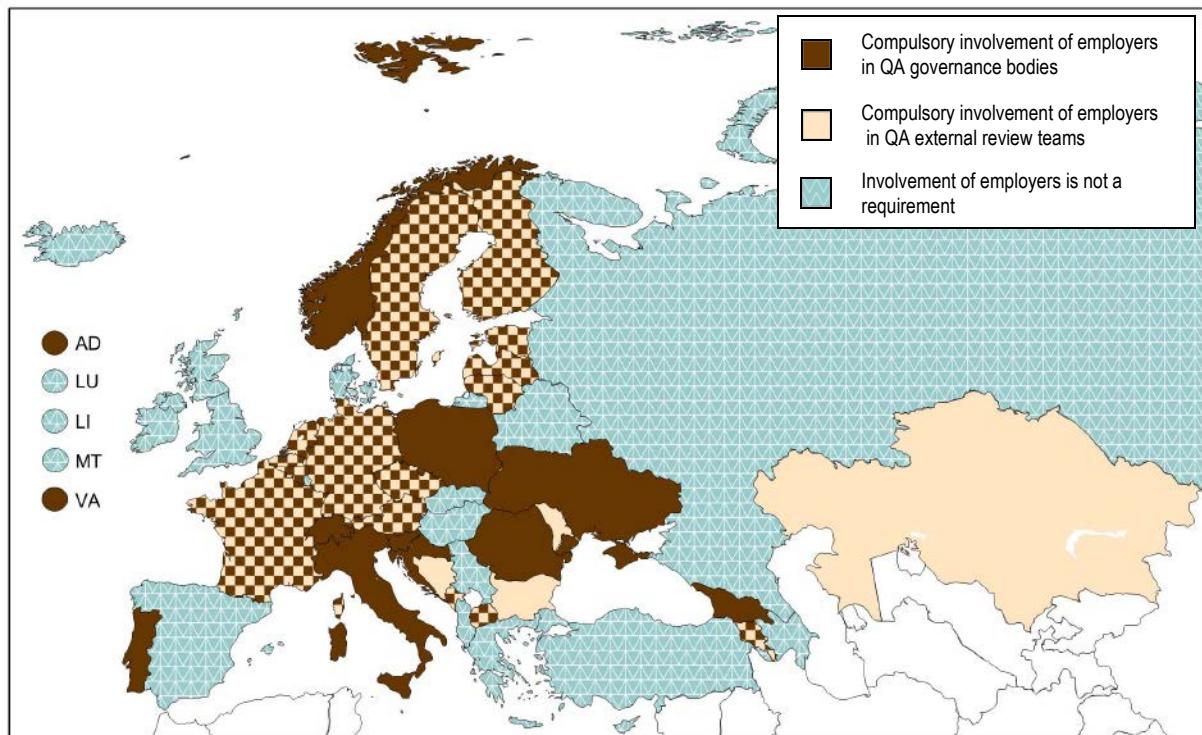
Scorecard categories

█	In all quality assurance reviews, students participate as full members at five levels: <ul style="list-style-type: none"> ○ in governance structures of national quality assurance agencies; ○ in external review teams; ○ in the preparation of self-evaluation reports; ○ in the decision making process for external reviews; ○ in follow-up procedures.
█	Students participate at four of the five levels mentioned above.
█	Students participate at three of the five levels mentioned above.
█	Students participate at two of the five levels mentioned above.
█	Students cannot participate or participate at only one level mentioned above.
█	Not available

The indicator suggests that there is marginal improvement in the European Higher Education Area as a whole. There are now six more systems in dark green and there has been an increase of five in the numbers in light green. Nevertheless, with a considerable number of countries being located in the yellow, orange or red zones, there is still improvement to be made to meet the Bologna Process commitment to full student engagement.

As part of the process of ensuring that higher education is offering relevant programmes that take account of evolving labour market needs, the involvement of employers in quality assurance has been encouraged throughout the Bologna Process. Figure 4.7 provides an overview of the current reality in the EHEA, showing the extent of required employer involvement in quality assurance governance bodies, and within external review teams.

Figure 4.7: Required involvement of employers in quality assurance governance bodies and external review teams, 2016/17



Source: BFUG data collection.

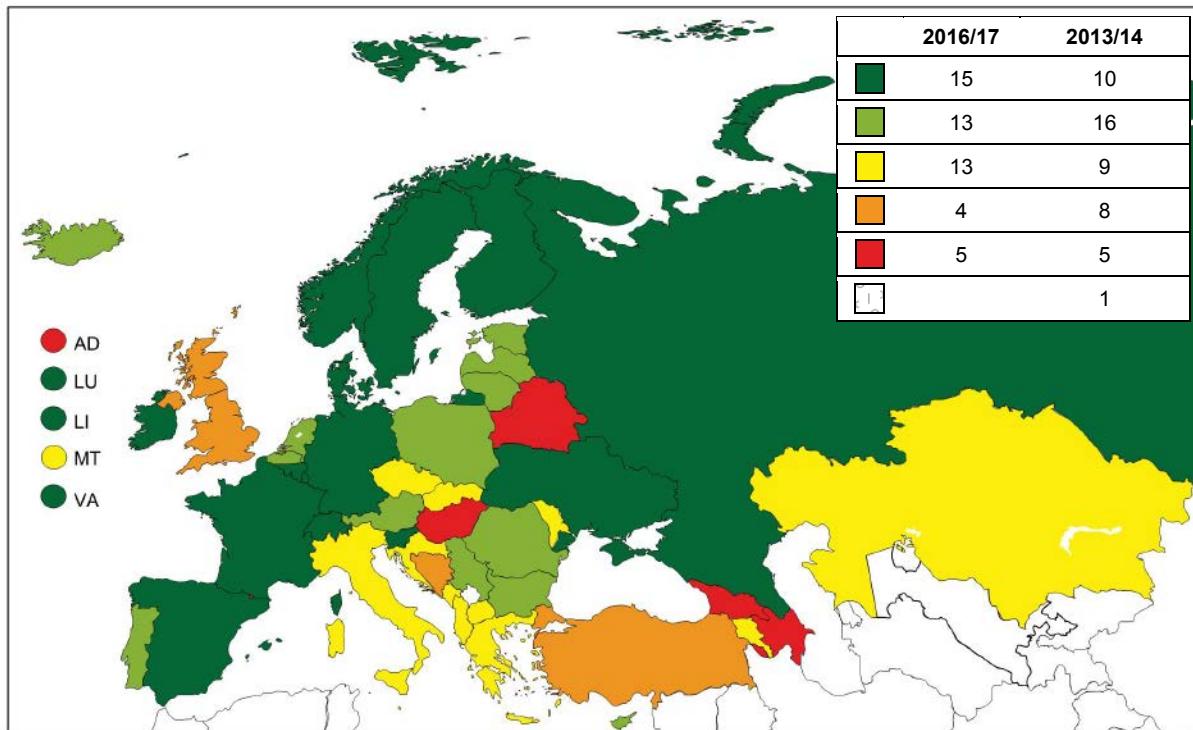
Employer involvement now appears to be a relatively stable system feature across the EHEA. It has been strengthened in a number of systems since the last Bologna Process Implementation Report. Andorra established a quality assurance agency (2016) and employers are part of the steering board. Switzerland also changed its legal framework for quality assurance (2015) and now make it a requirement for employers to be part of governance bodies. Similar shifts have also taken place in the Czech Republic (2016) and Romania (2014) where employers are also required to take part in governance bodies. Latvia, with a recently established quality assurance agency (2015) now ensures that employers are involved in quality assurance external review teams.

Fewer countries (19 systems compared to 25 in 2015) now state that there are no formal requirements with regard to the involvement of employers – whether in governance bodies, external review teams or both. Even among these countries, there may sometimes be requirements for employers to be involved in quality assurance activities related to specified, and usually regulated, professions.

The impact of internationalisation can be perceived in a number of developments related to quality assurance – including cross border activity, and cooperation in relation to joint programmes. One of the most significant indicators that is sensitive to these developments is Scorecard indicator n°5 on the level of international participation in external quality assurance.

This indicator considers four criteria. The first is that quality assurance agencies are members or affiliates of the European Association of Quality Assurance Agencies in Europe (ENQA). ENQA is the major organisation gathering quality assurance agencies in Europe, promoting exchange of information and good practice, and implementing projects to take forward European cooperation. Other criteria for this indicator are that international peers/experts participate in the governance of national QA bodies, as members or observers in evaluation teams and in follow-up procedures.

Figure 4.8: Scorecard indicator n°5:
Level of international participation in external quality assurance, 2016/17



Source: BFUG data collection.

Scorecard categories

■	In all cases the following four aspects are met: <ul style="list-style-type: none"> ○ agencies are members or affiliates of ENQA; ○ international peers/experts participate in governance of national QA bodies; ○ international peers/experts participate as members/observers in evaluation teams; ○ international peers/experts participate in follow-up procedures.
■	Three of the four aspects are met.
■	Two of the four aspects are met.
■	One of the four aspects is met.
■	No international participation
■	Not available

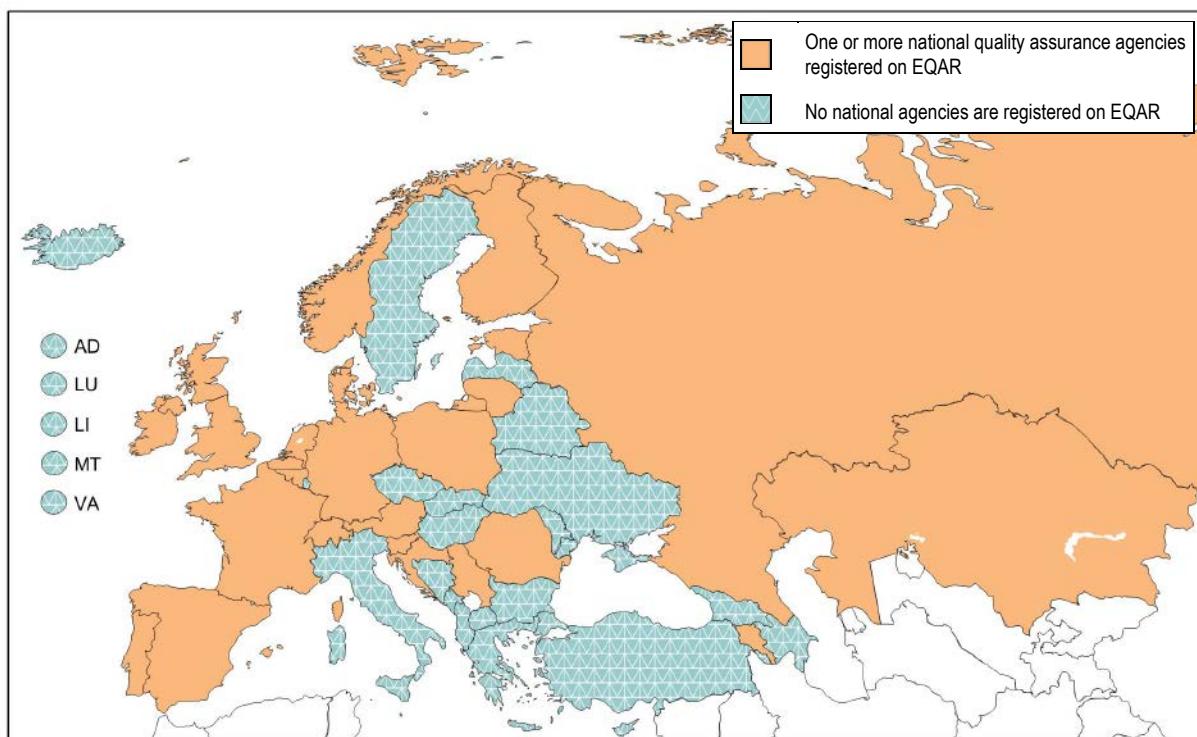
This indicator shows some positive trends and developments. In particular the number of countries that have reached the dark green zone has risen from 11 in 2015 to 15 now, while the number of countries in light green has dropped from 16 to 13. Meanwhile the number of countries in yellow has increased to 13 indicating that there have been developments towards greater internationalisation in quality assurance in countries where this was previously not the case. Indeed the number of countries shown in red or orange has dropped to nine from 13 in 2015.

4.1.2.2. Quality assurance agencies registered on EQAR

The European Quality Assurance Register for Higher Education (EQAR) was established in 2008 following an agreement of Ministers responsible for higher education in the London Communiqué (2007). It aims to provide the public with clear and reliable information on quality assurance agencies operating in Europe, and it is web-based and freely accessible. The primary condition for an agency to be listed in EQAR is that it has been evaluated and has demonstrated that it is working in substantial compliance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).

EQAR registration is therefore an important consideration with regard to the respect of the ESG, and for quality assurance agencies that may operate outside their national jurisdiction. Figure 4.9 shows the number of countries with one or more quality assurance agencies registered on EQAR.

Figure 4.9: Countries with quality assurance agencies registered on EQAR, 2017



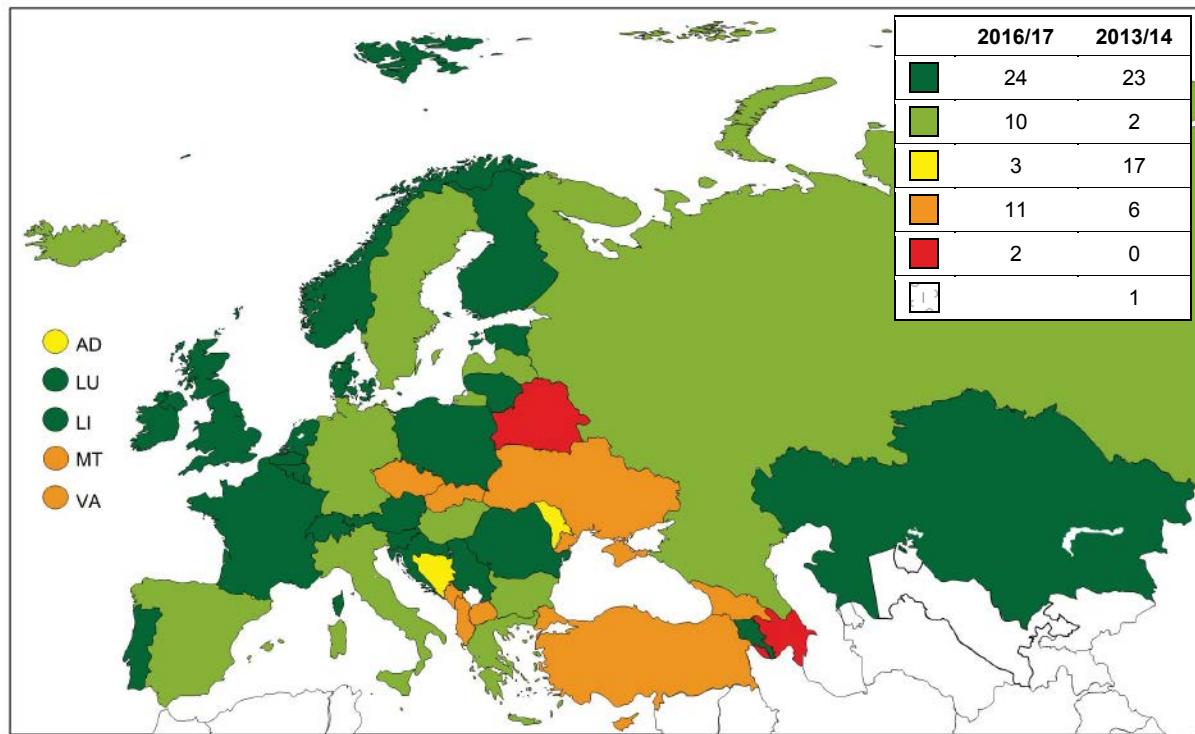
Source: EQAR.

In November 2017, 45 quality assurance agencies, all based within 25 higher education systems in the EHEA, were registered on the EQAR (see Figure 4.9). Since the 2015 Bologna Process Implementation Report, 14 agencies have been added to the Register, with the latest additions coming from Armenia and Kazakhstan. It should also be remembered that Liechtenstein and Luxembourg have no national quality assurance agency but all higher education quality assurance is undertaken by an EQAR-registered agency. This is therefore clearly an area where positive developments continue.

EQAR registration is an important aspect of Scorecard indicator n°6 (see Figure 4.10). This indicator is designed to show how far quality assurance systems have developed in alignment with agreed Bologna commitments. Systems in the dark green category are working with quality assurance agencies that have been evaluated to show that they are working in accordance with the ESG, and this is demonstrably proven through registration on EQAR. Light green countries also operate a system with quality assurance agencies evaluated to ensure that they comply with the ESG, or declaring that they are fully aligned with the ESG. However, in this case they have not taken the step of registering on EQAR. The countries in yellow have only some higher education institutions required

to undertake regular quality assurance with an agency that works in compliance with the ESG. For those countries in orange the quality assurance system has undergone no external evaluation to ensure compliance with the ESG. Countries in red have produced no evidence of having established a reliable quality assurance system.

Figure 4.10: Scorecard indicator n°6:
Stage of development of external quality assurance system, 2016/17



Source: BFUG data collection.

Scorecard categories

	A fully functioning quality assurance system is in operation nationwide, in which all higher education institutions are subject to regular external quality assurance by an agency that has successfully demonstrated compliance with the Standards and Guidelines for Quality Assurance in the EHEA (ESG) through registration on EQAR.
	A quality assurance system is in operation nationwide and is aligned to the ESG, but the agency/ies performing external quality assurance are not registered in EQAR.
	A fully functioning quality assurance system is in operation nationwide, but only some higher education institutions are subject to regular external quality assurance by an agency that has successfully demonstrated compliance with the ESG through registration on EQAR.
	A quality assurance system is in operation nationwide, but has not (yet) been fully aligned to the ESG.
	No quality assurance system is in operation.
	Not available

The findings for this indicator are relatively encouraging, confirming the trend to strengthen external quality assurance that has continued to develop throughout the Bologna Process. Thirty-four systems now find themselves in the dark or light green categories. Germany and Spain are countries where nearly all institutions and programmes are subject to quality assurance undertaken by an EQAR-registered agency. However, theology programmes in these countries depend on a non-EQAR registered quality assurance agency. Iceland and Sweden are both in the light green category as they declare that their quality assurance agency works in compliance with the ESG. Nevertheless, in these two cases this has not yet been confirmed by external evaluation.

In the other 16 systems there remains work to be done to develop a quality assurance system that is compliant with the ESG.

4.1.3. Cross-border quality assurance

One of the main benefits that quality assurance systems in Europe can bring is to strengthen trust. An important measure of the extent to which trust is developing is whether governments enable higher education institutions to be evaluated by a quality assurance agency from another country that works in compliance with the ESG. EQAR has been created to ensure that there is a clear mechanism to guarantee compliance with the ESG, so enabling cross border quality assurance can be seen as a 'litmus test' as to whether there is genuine commitment to European cooperation in quality assurance.

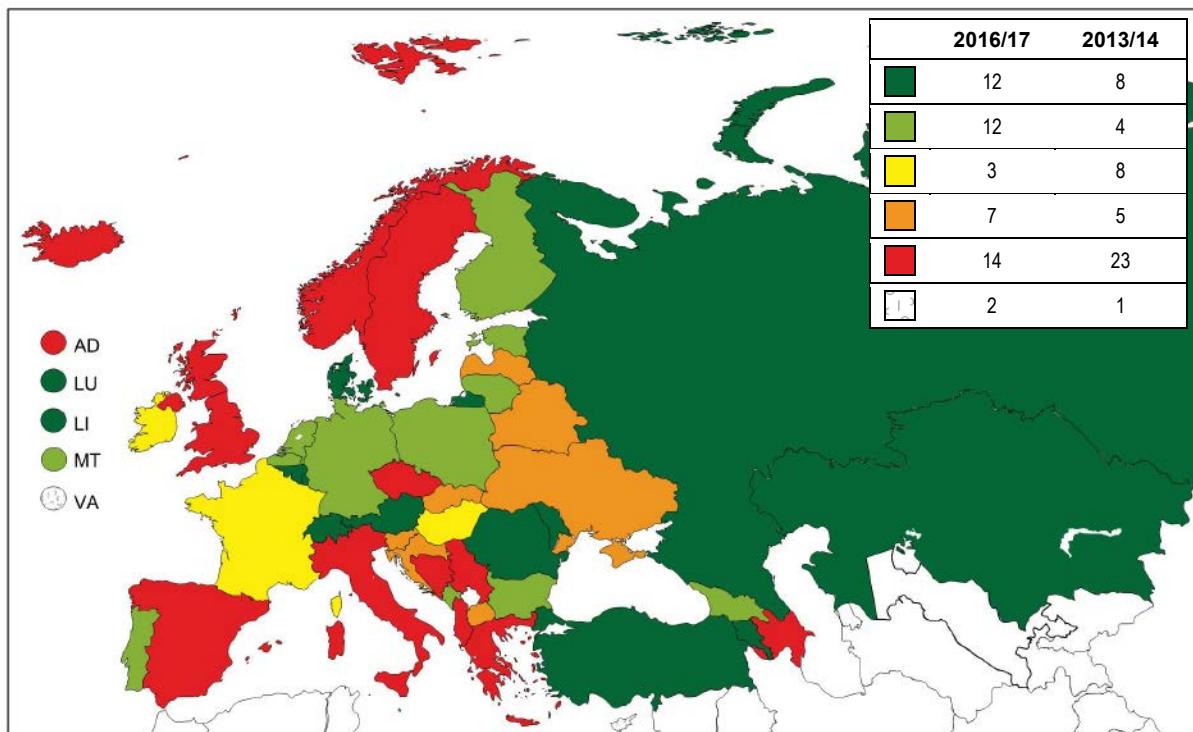
The question of whether higher education institutions are able to undertake an evaluation by an agency outside the country implies that the results of the review are recognised as part of the national requirements for external quality assurance – for example, initial or periodic accreditation of programmes, institutional audit or institutional evaluation.

It should be recognised, however, that governments also have a duty to ensure that the public responsibility for quality assurance is maintained. National responsibility for quality assurance could be perceived to be challenged by cross-border quality assurance, and some countries have therefore been hesitant to recognise reviews from non-national agencies. Particularly when a quality assurance decision may have funding or licencing implications, national authorities may be less willing to allow non-national agencies to be responsible for the decision.

The 2015 Bologna Process Implementation Report introduced a scorecard indicator to measure progress on the 2012 Bucharest Communiqué commitment to 'allow EQAR-registered agencies to perform their activities across the EHEA, while complying with national requirements'. It showed that there were relatively few developments in opening up the possibility for cross border quality assurance in the period between 2012 and 2015. Indeed only Armenia and Austria took action during that period to enable institutions to benefit from this possibility.

Figure 4.11, scorecard n°7, shows whether, and to what extent, countries have taken action to facilitate cross border quality assurance by an EQAR-registered agency. In the most positive situation (dark green), all higher education institutions and programmes can choose to be evaluated by an EQAR-registered agency outside the country to fulfil their obligations for external quality assurance. While at the opposite extreme (red), there is no possibility for any institution or programme to be evaluated by a quality assurance agency from outside the country as part of mandatory external quality assurance. The other categories move from a planning phase (orange) to situations where some higher education institutions or programmes may be evaluated by an EQAR-registered agency from outside the country (yellow), and then for some or all cases but without EQAR registration being a criterion (light green).

Figure 4.11: Scorecard indicator n°7:
Level of openness to cross border quality assurance of EQAR registered agencies, 2016/17



Source: BFUG/EQAR data collection.

Scorecard categories

█	All institutions and programmes can choose to be evaluated by a suitable QA agency from outside the country to fulfil their obligations for external QA, while complying with national requirements. EQAR registration always serves as a criterion for agencies to be allowed to carry out cross-border evaluation/accreditation/audit.
█	All institutions and programmes can choose to be evaluated by a suitable QA agency from outside the country to fulfil their obligations for external QA, while complying with national requirements. EQAR registration does not always serve as a criterion for agencies to be allowed to carry out cross-border evaluation/accreditation/audit.
█	In some cases, institutions and/or programmes can choose to be evaluated by a QA agency from outside the country to fulfil their obligations for external QA, while complying with national requirements. EQAR registration always serves as a criterion for agencies to be allowed to carry out cross-border evaluation/accreditation/audit.
█	Discussions are on-going or plans have been made to establish a legal framework allowing EQAR-registered agencies to operate in the country.
█	Institutions and programmes cannot be evaluated by QA agencies from outside the country to fulfil their obligations for external QA, and no plans are being discussed.
█	Not available

The findings show that progress has been made in recent years. Twelve systems currently ensure that the commitment to cross border quality assurance is fully realised, while in another 12 systems it is partially fulfilled. It is important to recognise that in these systems the requirement that foreign agencies should be listed on the EQAR is not fulfilled. National authorities consider that other criteria are sufficient for the choice of a foreign agency – a practice that could undermine the commitment that countries have made to the EQAR, and therefore to the functioning of the EHEA.

Despite significant progress, the systems shown in green are still a minority of higher education systems that have taken the step of allowing their higher education institutions to be evaluated by a quality assurance agency from outside the country.

Fourteen systems are in the situation where their higher education institutions cannot choose to be evaluated by a quality assurance agency of their choice that works in line with the ESG (other than the national one), and no plans are being made to change this reality. Higher education institutions in

seven other systems are currently also in this situation. However, there are on-going discussions to establish a legal framework allowing EQAR-registered agencies to operate. The three systems shown in yellow permit only some higher education institutions or programmes to be evaluated by an EQAR-registered quality assurance agency from outside the country.

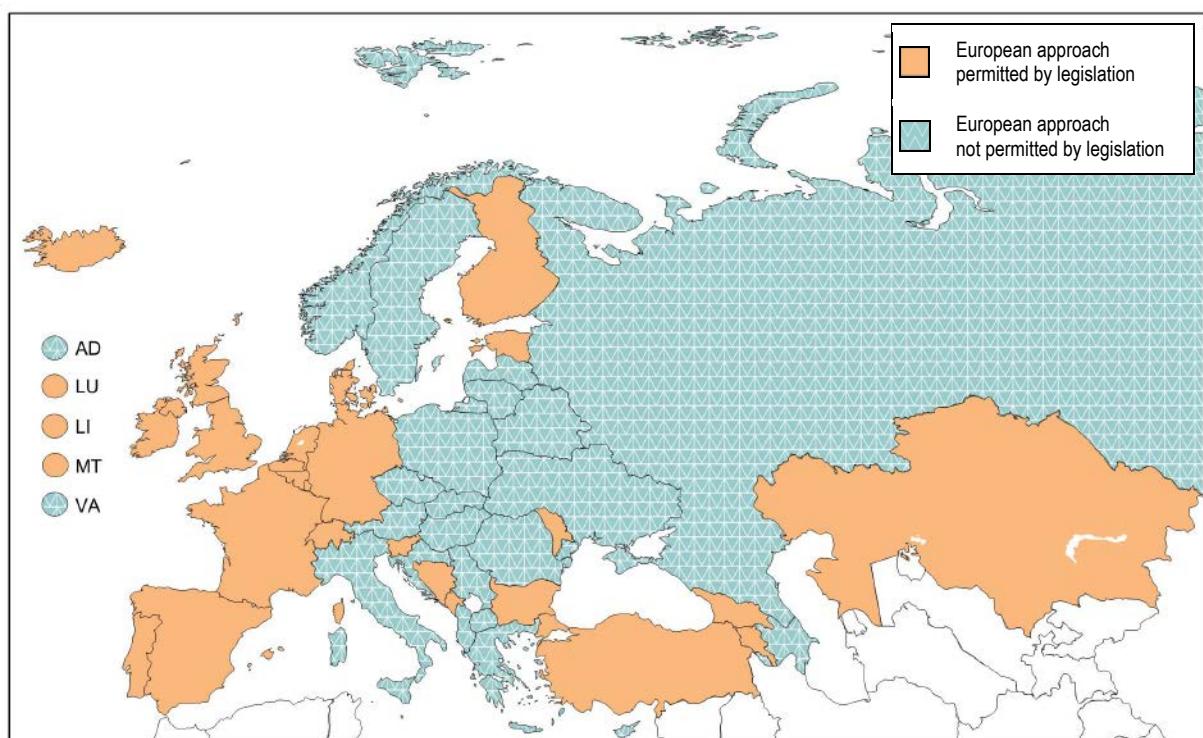
4.1.3.1. Use of the European Approach to the Quality Assurance of Joint Programmes in the EHEA

The European Approach to the Quality Assurance of Joint Programmes in the EHEA was adopted by ministers at the Yerevan Conference. This adoption marks a significant step in the construction of the framework enabling an open and inclusive EHEA to operate. Through making a commitment to implement the European approach, ministers have recognised that the European approach will supersede national quality assurance procedures for joint programmes. The European approach is designed to recognise the particular value of cooperation across national borders in joint programmes, and also to rationalise the process of quality assurance for these programmes. Indeed the myriad of similar but different requirements for different parts of programmes in the partner countries is replaced by a single process looking across the whole programme. In order for this single European process to be possible, governments have accepted that national requirements should be waived for joint programmes.

This is an important step particularly for those countries that require programme accreditation. For those countries whose system is based on institutional level quality assurance processes, there are in any case no particular requirements for joint programmes – and therefore no problems to be solved.

Figure 4.12 focuses on whether the European Approach for Quality Assurance of Joint Programmes is permitted by national legislation. Although permitting the use of the European approach does not imply that practice in respect to quality assurance of joint programmes has changed or will change, it nevertheless gives a clear indication of whether such change is currently possible, and shows whether countries have followed up on the commitment taken in Yerevan.

Figure 4.12: Countries allowing the European Approach for Quality Assurance of Joint Programmes, 2016/17



Source: BEUG data collection

The commitment to implement this newly adopted Yerevan text has not been a priority in many national systems. Although there is a slight majority of countries where there is no legal obstacle to using the European Approach for Quality Assurance of Joint Programmes (28 systems), these are mostly countries where quality assurance is primarily undertaken at institutional level, and therefore the European approach would have a less significant impact.

Countries were also asked if the national legislation had been changed to enable the use of the European Approach. Only Georgia and Slovenia demonstrated that their legislation has been changed to make this possible.

On the other hand, in all of the 22 systems that reported that the European Approach to Quality Assurance of Joint Programmes is not permitted by their legislative framework, quality assurance is based on programme-level accreditation. These are therefore the countries where the European approach could make the most significant improvements to quality assurance of joint programmes.

4.2. Recognition

Fair recognition of foreign qualifications is both a technical goal of the Bologna Process, and part of the set of fundamental values underpinning the EHEA. The EHEA cannot be an open, inclusive and attractive space for students unless recognition practice is predictable, reliable and fair. For any mobile or potentially mobile learner, it is essential that credits earned and qualifications gained will be recognised in the home and other countries. Recognition is therefore a principle that has to be made operational and fully effective if mobility and exchange are to underpin the EHEA. This is the reason why monitoring of national implementation of commitments in the field of recognition is a high priority, and why renewed efforts have been made to ensure fair and easier recognition of qualifications.

4.2.1. Recognition of qualifications

Various instruments aiming at facilitating fair recognition of foreign qualifications and/or study periods abroad have been developed and adopted at the European, national, regional and institutional level. The Lisbon Recognition Convention (LRC)⁷⁶ is a Council of Europe/UNESCO convention providing a common and binding legal basis for recognition across countries in Europe. Two networks – the European Network of Information Centres in the European Region (ENIC) and the National Academic Recognition Information Centres in the European Union (NARIC) work together to provide up-to-date information on current issues in international academic and professional mobility, and on procedures for the recognition of foreign qualifications. Tools such as ECTS, the Diploma Supplement, national qualifications frameworks and the overarching European qualifications frameworks, as well as the Standards and Guidelines for quality assurance in the European Higher Education (ESG) also serve to improve recognition policy and practice.

Yet despite the many efforts made in this area, previous reporting has shown that actual recognition practice commonly falls short of expectations with regard to transparency, consistency and fairness. This may be partly a result of insufficient understanding of the legal framework in which recognition decisions take place, but may also occur in higher education institutions because of a poor level of awareness among staff who are responsible for implementing recognition procedures. There has also been considerable conceptual confusion, even among those who may have responsibility for taking decisions, on the difference between recognition and admission. Thus the distinction between a decision on whether or not to admit a student to a particular programme may be conflated with the decision about whether or not a particular qualification is recognised.

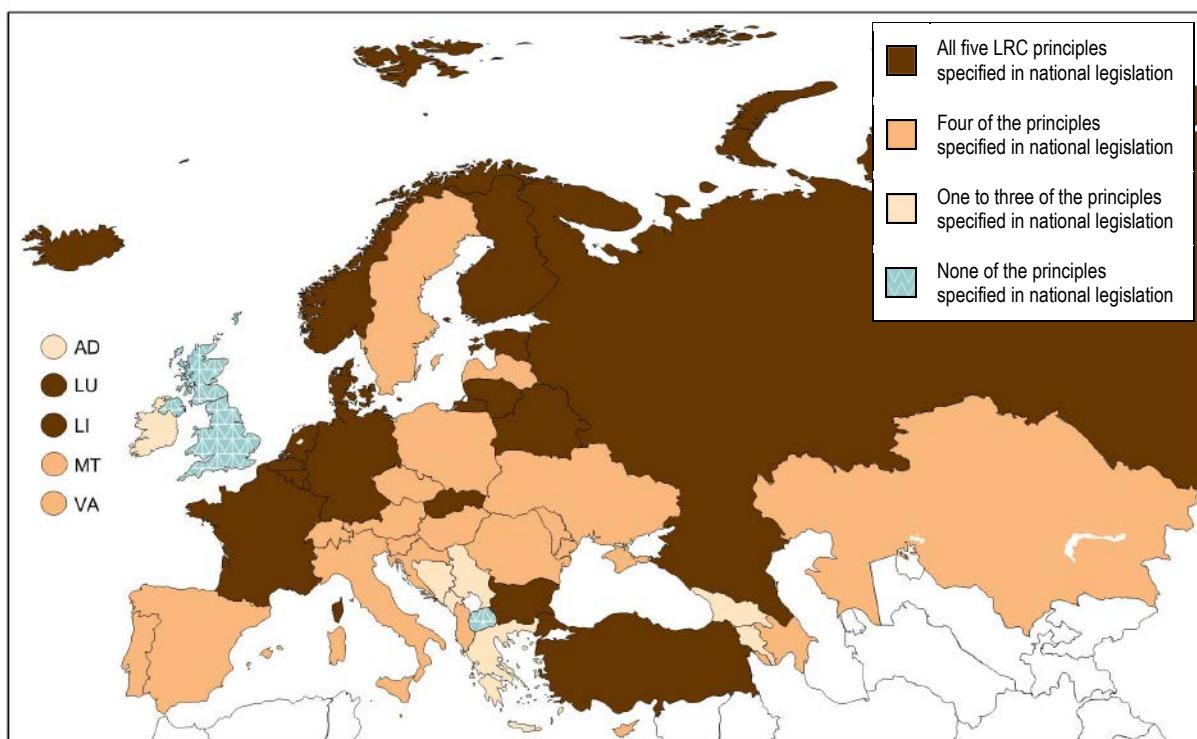
⁷⁶) Convention on the Recognition of Qualifications concerning Higher Education in the European Region. ETS No.165. https://www.coe.int/t/dg4/highereducation/recognition/lrc_en.asp

Several policy level actions should now provide a stimulus to make progress in this area. Notably recognition is now embedded in the ESG (Standard 1.4); renewed commitments have been made in the Yerevan Communiqué upon the recommendations of the Pathfinder Group on automatic recognition (EHEA Pathfinder Group on Automatic Recognition, 2014); and the Convention Committee of the Lisbon Recognition Convention has pursued monitoring of the implementation of the Lisbon Recognition Convention, with a report published in 2016 highlighting weaknesses in national implementation (UNESCO and Council of Europe 2016).

With the exception of Greece, all EHEA countries have ratified the Lisbon Recognition Convention. It would therefore be reasonable to expect that the main LRC principles would also be implemented in national legislation – especially in countries where there has been a review of national legislation with this purpose in mind.

Figure 4.13 shows the extent to which the main principles of the LRC are specified in national legislation. The principles highlighted in the indicator are that 1) applicants have right to fair assessment; 2) there is recognition if no substantial differences can be proven; 3) legislation or guidelines encourage comparing of learning outcomes rather than programme contents; 4) in cases of negative decisions the competent recognition authority demonstrates the existence of substantial difference; 5) applicant's right to appeal of the recognition decision. Implementation of these principles was identified by the Pathfinder Group as an important step towards automatic recognition.

Figure 4.13: Principles of the Lisbon Recognition Convention in national legislation, 2016/17



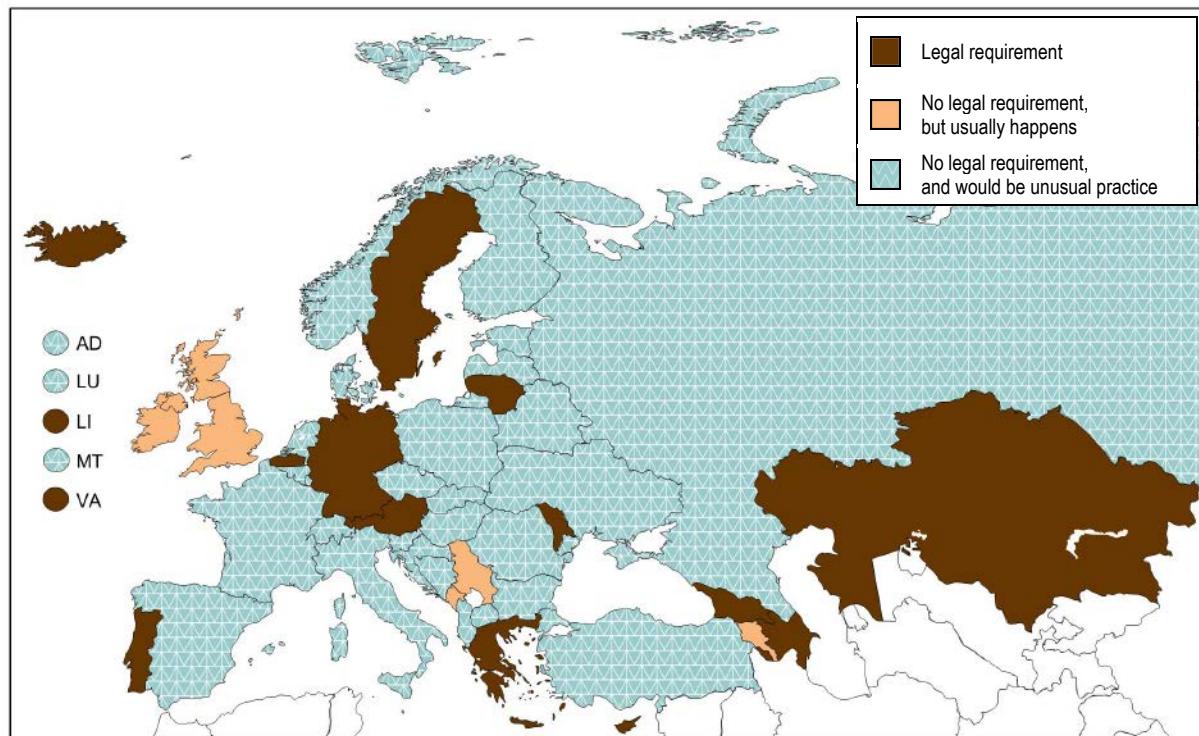
Source: BFUG data collection.

Since the 2015 Bologna Process Implementation Report, the number of systems where all of these main principles are specified in national legislation has risen from 11 to 18. This improvement comes from systems where previously one of the principles was not specified. The improvement appears to have been made in most cases with regard to the requirement of the competent recognitions authority to demonstrate the existence of substantial difference in the case of negative decisions. As a consequence the number of systems where four of the principles are embedded in legislation has fallen from 26 to 21.

With the adoption of the ESG in Yerevan (2015), there has been an additional strengthening of the link between quality assurance and recognition. Article 1.4 of the ESG on student admission, progression, recognition and certification specifies the importance of fair recognition of higher education qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning. It also states that: 'appropriate recognition procedures rely on institutional practice for recognition being in line with the principles of the Lisbon Recognition Convention' (77).

Figure 4.14 examines whether this ESG standard is now monitored through external quality assurance procedures. This practice is also a measure that was recommended by the Pathfinder Group as a necessary step along the road to automatic recognition.

Figure 4.14: Principles of the Lisbon Recognition Convention monitored in external quality assurance, 2016/17



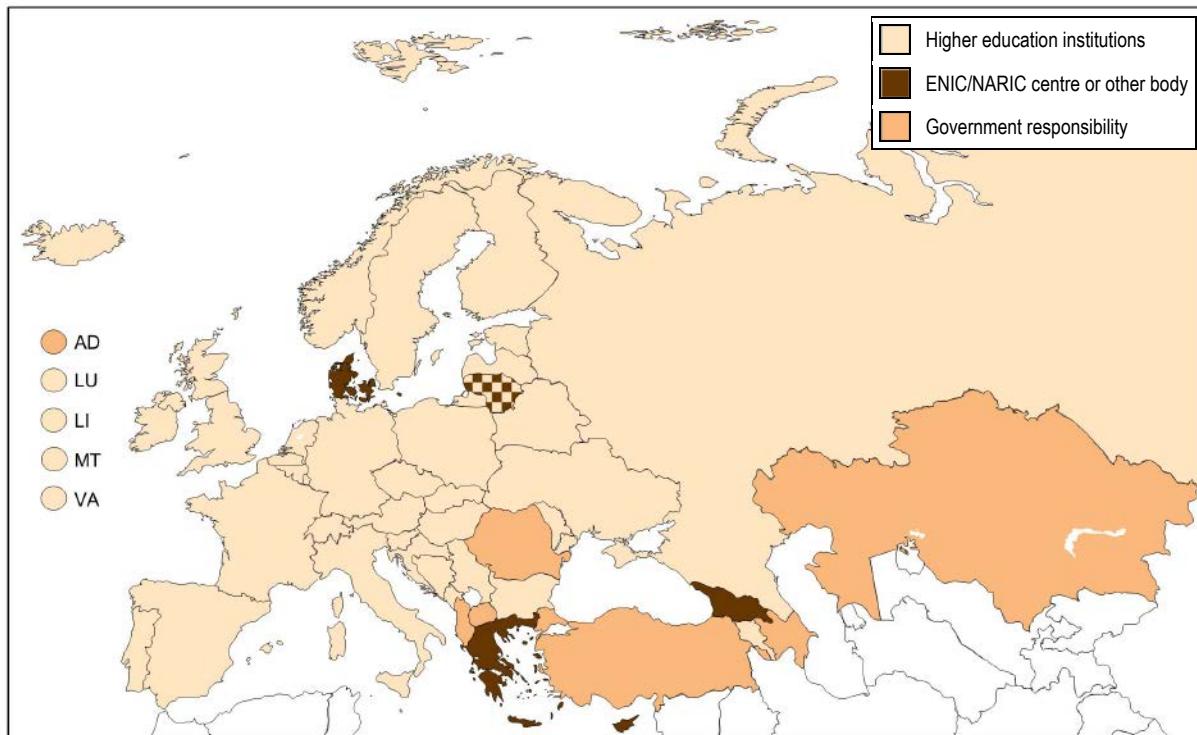
Source: BFUG data collection.

A minority of systems actually oblige quality assurance agencies through legislation to examine whether the Lisbon Recognition Convention principles are applied in institutional practice. Indeed this is required by law in only 15 systems. A further six systems point out that, although not required by law, it would be usual practice for quality assurance agencies to examine recognition practice during evaluations. However, the dominant response across the EHEA, reflecting the situation in 29 systems, is that there is no legal requirement for recognition practice to be considered during quality assurance procedures, and indeed that this would be unusual.

These findings are important to consider in light of the information presented in Figure 4.15, which shows the institution responsible for taking final decisions on recognising foreign qualifications for academic purposes.

(77) Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), 2015. Brussels. Belgium. [pdf] p. 4. Available at: http://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf

Figure 4.15: Institution which makes final decisions on recognising foreign qualifications for academic purposes, 2016/17



Source: BFUG data collection.

In an overwhelming number of systems (39), it is higher education institutions that have the legal responsibility for making recognition decisions. In seven systems, it is ministries that have this formal responsibility, while in four systems – Cyprus, Denmark, Georgia and Greece, it is the NARIC centre or another appointed body. In Lithuania, there is a mixed situation: some higher education institutions are empowered to take recognition decisions, while others depend on the decisions of the ENIC/NARIC office.

It is important to note that in 21 of the 38 systems where higher education institutions have the legal responsibility for making recognition decisions for academic purposes, there is no requirement that external quality assurance should evaluate how they do this. This is therefore a fertile area for a variety of practices to develop and thrive.

4.2.2. Work towards automatic recognition

After a number of years of efforts to establish and develop a European Higher Education Area, the EHEA ministers of higher education recognised that, despite many positive developments, smooth recognition of academic qualifications was not yet ensured, and that procedures for the academic recognition of qualifications were often lengthy and burdensome. This is the reason why, in 2012 in Bucharest, the Ministers of higher education across the EHEA committed themselves to the long-term objective of 'automatic recognition' of comparable academic degrees.

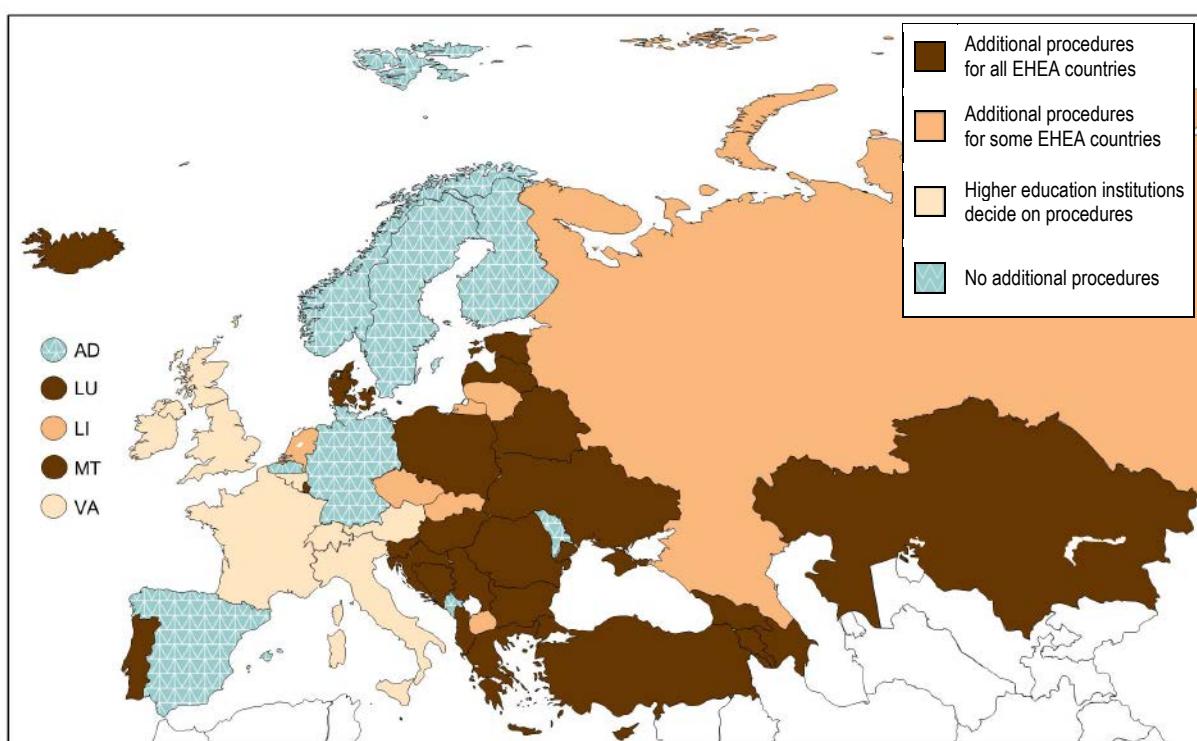
A Pathfinder Group was established to consider concretely how a roadmap towards automatic recognition could be advanced. Automatic recognition was understood by the Pathfinder Group as follows: 'Automatic recognition of a degree leads to the automatic right of an applicant holding a qualification of a certain level to be considered for entry to a programme of further study in the next level in any other EHEA-country (access)' (EHEA Pathfinder Group on Automatic Recognition, 2014).

This definition makes it quite clear that automatic recognition does not imply automatic admission to any specific programme, but rather that holders of a qualification giving access to a programme of study at the next level have the right to be considered for entry. The Pathfinder Group reached the conclusion that automatic recognition is a necessary pre-condition for large-scale academic mobility, and proposed a number of recommendations to ensure that qualifications from other EHEA countries are recognised on an equal level with domestic qualifications. Meanwhile, in the Yerevan Communiqué⁽⁷⁸⁾ in May 2015, ministers made the commitment 'to ensure that qualifications from other EHEA countries are automatically recognised at the same level as relevant domestic qualifications'.

The recommendations of the Pathfinder Group have been used as the basis to examine the topic in this report. Figure 4.16 shows whether there are additional procedures in countries to recognise the level of qualifications of learners from other EHEA countries. Where there are no additional procedures, this could mean that there is recognition of the level of qualification. Where there are additional procedures, it means that some process will be undertaken to verify whether, for example, a first-cycle degree qualification from one European country will be recognised as a first-cycle degree in the destination country.

Some issues regarding system-level recognition may, however, be subject to interpretation. For example, national legislation may state that all holders of qualifications at a certain level have the right to be considered for access to programmes at the next level. However, in practice, if higher education institutions have the responsibility for selecting students for programmes, they may, during the admission process, open up their own process of questioning the level of qualifications from other countries.

Figure 4.16: Additional recognition procedures for higher education qualifications from other EHEA countries, 2016/17



Source: BFUG data collection.

⁽⁷⁸⁾ Communiqué of the Conference of European Ministers Responsible for Higher Education, Yerevan, 14-15 May 2015, p. 3

Although in the 2012 Bucharest Communiqué, EHEA Ministers committed to the long-term goal of automatic recognition of comparable academic degrees, there is still considerable confusion about what the notion of more automatic recognition means. It has therefore been a task of this report to make a first attempt at identifying where countries stand on a path towards automatic recognition of EHEA qualifications.

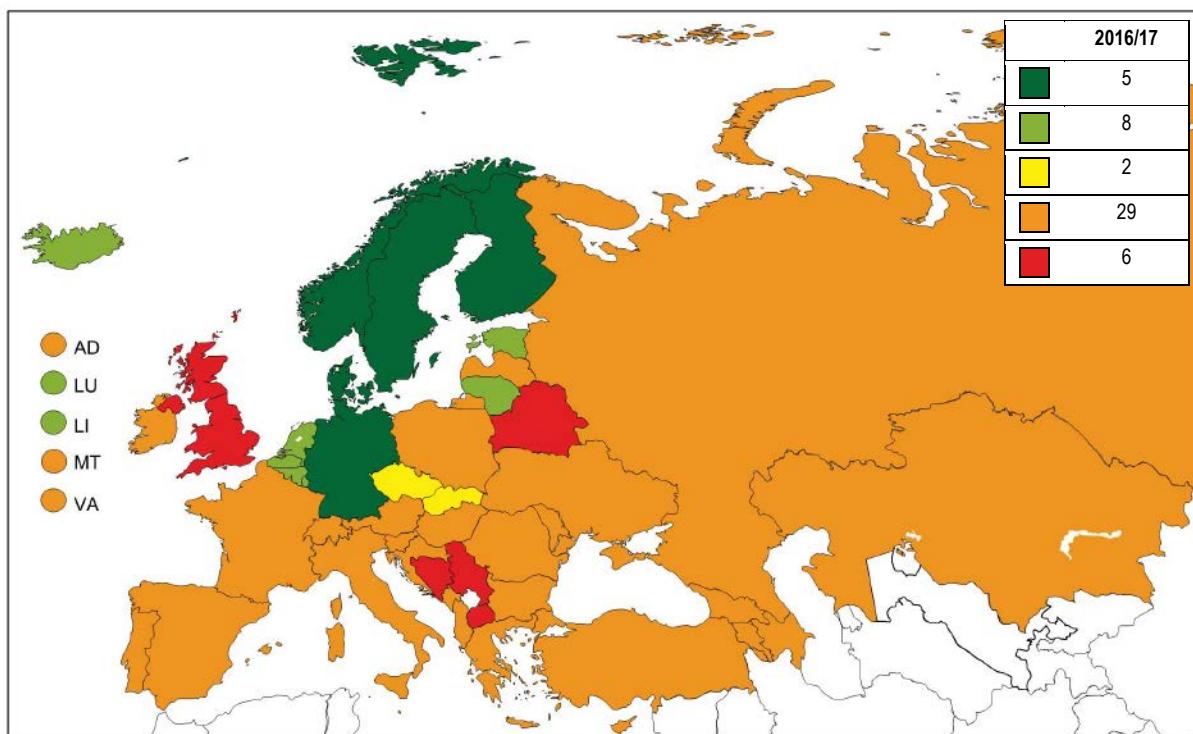
The Pathfinder Group recommended that a qualification based on the EHEA three-cycle structure from one EHEA country should be recognised at the same level anywhere else in the EHEA. Indicator 4.17 is therefore based on progress towards this understanding of the notion of automatic recognition – i.e. that it concerns automatic recognition of the qualification level. The indicator is not concerned with recognition for the purposes of access to the labour market but only with recognising qualifications for the purpose of further academic study. The indicator is also not concerned with actual admissions processes. The principle under examination is whether students who hold qualifications from other EHEA countries have the level of their qualification recognised in the same way as holders of qualifications issued within the country. As the Pathfinder Group specified, across the EHEA the objective is that a bachelor is a bachelor.

Thus for the dark green category, all higher education qualifications issued in other EHEA countries are recognised on an equal level with qualifications in the home country without any additional procedures in higher education institutions. This could be achieved in several different ways. For example, there could be a legally binding document outlining degree qualifications from other EHEA countries which are recognised. Alternatively there could be multilateral agreements in place which cover all countries in the EHEA. Automatic recognition may also be achieved in reality through non legally binding bilateral and multilateral agreements to recognise qualifications, or through following procedures that are coherent with de facto automatic recognition – for example checking only that a qualification is legitimate, and not examining the details of course or programme contents.

In addition to demonstrating automatic recognition, countries in the dark green category also need to show that the five steps towards automatic recognition outlined by the Pathfinder Group have been followed. Country situations for these steps are represented in Figures 4.13 and 4.14. Thus national legislation will have been reviewed and, if necessary, modified to ensure that the principles of the Lisbon Recognition Convention (LRC) are respected; higher education institutions (HEIs) or other recognition bodies receive clear guidance on properly implementing the principles of the LRC; recognition decisions are taken within a 4 month limit; appeals procedures are in place, and decided within a clear and reasonable time limit and recognition practice in higher education institutions is monitored by external Quality Assurance (QA).

The same approach is used to determine countries in the light green category, with the difference that here the notion of automatic recognition applies only to a subset of EHEA countries. Automatic recognition of some EHEA country qualifications is also a requirement for the yellow category, but in this case not all the steps towards automatic recognition have been fully implemented. Countries where there are additional recognition procedures for all EHEA countries will inevitably find themselves in either the orange or the red categories. If they have implemented fewer than two of the steps towards automatic recognition they will be in the lowest category.

Figure 4.17: Scorecard indicator n°8:
System level (automatic) recognition for academic purposes, 2016/17



Source: BFUG data collection.

Scorecard categories

█	Automatic recognition is in place, meaning that all higher education qualifications issued in other EHEA countries are recognised at system level on an equal level with comparable ⁽⁷⁹⁾ academic qualifications in the home country and give the right to be considered for entry to a programme of further study at the next level. The following conditions are also met: <ul style="list-style-type: none"> National legislation has been reviewed and, if necessary, modified to ensure that the principles of the Lisbon Recognition Convention (LRC) are respected. Higher Education Institutions (HEIs) or recognition bodies receive clear guidance on properly implementing the principles of the LRC. Recognition decisions are taken within a four month limit. Appeals procedures are in place, and decided within a clear and reasonable time limit. Recognition practice in HEIs is monitored by external Quality Assurance (QA) in line with the ESG 2015.
█	Automatic recognition is in place for a subset of EHEA countries, meaning that all higher education qualifications issued in these countries are recognised at system level on an equal level with comparable academic qualifications in the home country and give the right to be considered for entry to a programme of further study at the next level. All of the conditions apply to recognition practice.
█	Automatic Recognition at system level takes place with a subset of European countries. For qualifications from other countries some but not all of the conditions apply to recognition practice.
█	There is no automatic recognition. At least two of the conditions apply to recognition practice.
█	There is no automatic recognition. Less than two of the conditions apply to recognition practice.

⁽⁷⁹⁾ The term 'comparable' implies that foreign qualifications are treated in the same way as national degrees (e.g. a first-cycle degree from an EHEA country vs a national first-cycle degree) for the purpose of further study without additional procedures.

Scorecard indicator n°8 reveals that European countries are currently far from a reality of automatic recognition. Only five countries (Denmark, Finland, Germany, Norway and Sweden) fulfil the criteria for dark green, and can be said to have recognition practice that meets the objectives of automatic recognition as specified by the Pathfinder Group. Nine other systems meet the same objectives for recognition practice but with a subset of EHEA countries. Belgium, Luxembourg and the Netherlands have automatic recognition practices between each other. Iceland participates in the Nordic cooperation with Denmark, Finland and Sweden. Estonia, Latvia and Lithuania similarly participate in regional cooperation and a new trilateral treaty on automatic recognition of qualifications concerning higher education is in the final stages of preparation.

Nevertheless, 35 systems are in the orange and red zone - indicating that there is no possibility for automatic recognition in their system. While there is clearly a lot of improvement to make if the burden of recognition processes is to be eased, it is a positive finding that, among the countries where automatic recognition is not possible, the vast majority (29) have implemented at least two of the key measures of good practice in recognition.

4.2.3. Recognition procedures for qualifications held by refugees, displaced persons and persons in a refugee-like situation

In recent years, large numbers of individuals of all ages have been fleeing conflict zones, and relocating in other countries. Forced to interrupt studies or professional activity, many bring with them competences and skills acquired in their country of origin that can be further developed in the host country through further studies, sometimes in higher education.

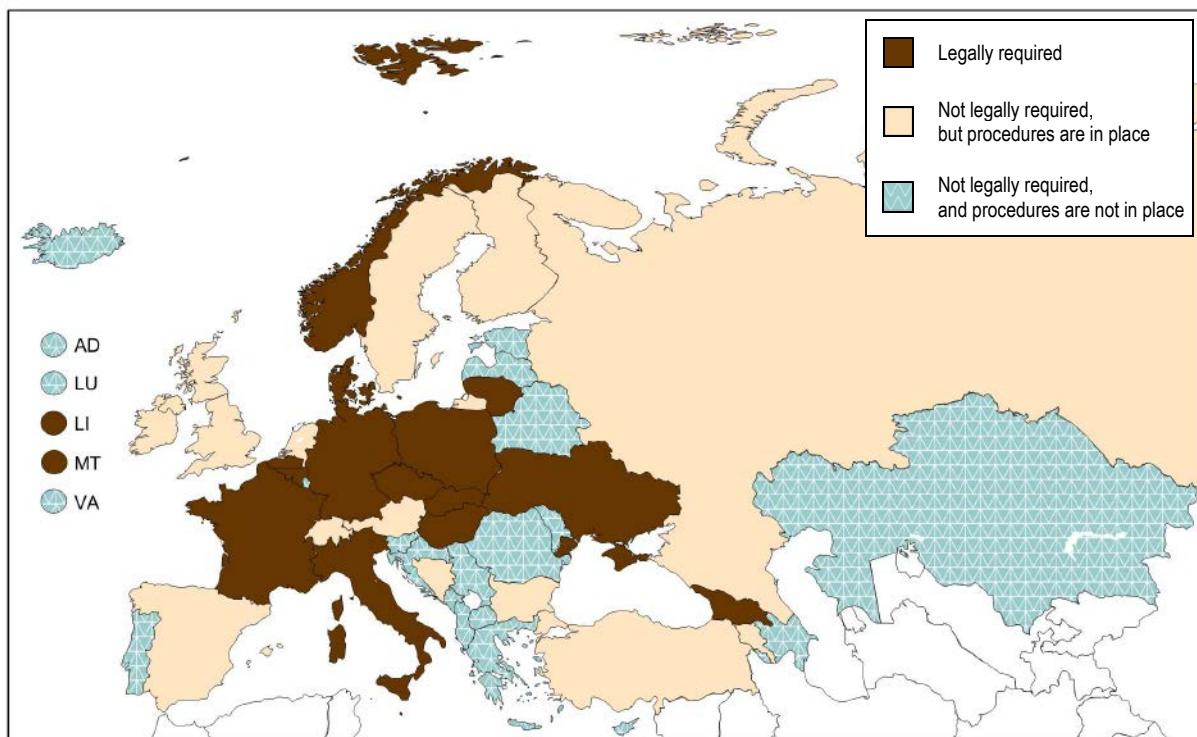
However, institutions responsible for the recognition of foreign qualifications may face particular challenges in the evaluation and recognition process. These are often associated with the lack of established recognition procedures and policy for undocumented qualifications, as well as a lack of information on legal obligations. In such cases, article VII of the LRC serves as a framework for developing good practice. It states simply:

'Each Party shall take all feasible and reasonable steps within the framework of its education system and in conformity with its constitutional, legal, and regulatory provisions to develop procedures designed to assess fairly and expeditiously whether refugees, displaced persons and persons in a refugee-like situation fulfil the relevant requirements for access to higher education, to further higher education programmes or to employment activities, even in cases in which the qualifications obtained in one of the Parties cannot be proven through documentary evidence'.

Not only did the Yerevan Communiqué call for action on refugee qualifications, but in 2016 at the meeting of the Committee of the Convention of the Recognition of Qualifications in the European Region, national government representatives adopted a statement on the recognition of qualifications held by refugees, displaced persons and persons in a refugee like situation ⁽⁸⁰⁾ inviting parties to the convention to implement fully Article VII. Figure 4.18 shows where this has, and has not, been followed up.

⁽⁸⁰⁾ http://www.enic-naric.net/fileusers/LRCC_Statement_on_the_recognition_of_qualifications_held_by_refugees.pdf

Figure 4.18: Implementation of Article VII of the LRC at national level, 2016/17



Source: BFUG data collection.

The overall picture is that the implementation of Article VII has been patchy at best. Despite the widespread ratification of the LRC, it appears that countries have not necessarily followed up in national implementation with regard to Article VII. Indeed 20 systems have no requirement for specific recognition procedures to be in place for refugees, displaced persons and persons in a refugee-like situation. However, among this group, the Holy See has recently undertaken a reform including such a requirement (December 2017) and Iceland is in the process of establishing appropriate procedures.

More positively, in 16 systems there is a clear legal requirement for procedures to be followed. These systems include two – Italy and Malta – that are an important entry point for refugees to Europe. In the case of Malta, procedures are very practical, with refugees interviewed in reception centres and contact then made with the Malta Qualifications Recognition Information Centre (MQRIC). This body assists in finding out more about the qualifications which are claimed by refugees. Italy has very clear legislation and procedures for refugees and displaced persons with qualifications to follow.

Fourteen other systems have not outlined any legal procedures for the recognition of refugee qualifications. However, many point out that procedures are in place even if there is no legal requirement for them, and are used on a case by case basis. The United Kingdom, one of the countries with such procedures in place, is also in the process of updating them.

4.3. Conclusions

Quality assurance and recognition are essential for any concept of a European Higher Education Area to function effectively for citizens. Quality assurance is one of the main ways to develop and ensure trust, and recognition of qualifications cannot take place without trust.

The development of quality assurance has been one of the major areas of higher education reform throughout the Bologna Process. Today, quality assurance continues to be an area of dynamic evolution in the European Higher Education Area; while, despite multiple layers of action across the EHEA to increase coherence and transparency, recognition challenges still remain.

The findings of this chapter show that the transparency of quality assurance for higher education institutions continues to increase, and the requirement for higher education institutions to develop and publish quality assurance strategies and evaluation reports is becoming increasingly established as a norm. Indeed there are only 15 systems where there are no legal obligations on higher education institutions to be transparent with regard to their quality assurance practices.

With regard to external quality assurance, new national agencies have been established in seven systems since the publication of the previous implementation report. The dominant tendency is for external quality assurance to be supervisory in nature – with the outcomes of evaluation used to grant permission for programmes or higher education institutions to operate. Only a quarter of the systems have purely improvement-oriented models of external quality assurance.

The Standards and Guidelines for quality assurance in the EHEA (ESG) have been very well integrated into national quality assurance practice. Indeed, around two-thirds of countries report that all of the elements of the ESG are part of national quality assurance procedures, whether this is required by law or forms part of standard practice. In the other systems, most of the elements that comprise the ESG are also used in quality assurance procedures.

One area where there is still room for progress is in involving students as equal partners in quality assurance activities. The scoreboard indicator in this area shows that marginal improvement has taken place since 2015. Students themselves report slightly less positively than ministries about their level of engagement. A few countries that involve students in different aspects of the quality assurance work also need to make efforts to ensure that appropriate training is provided.

Quality assurance is not restricted to the national sphere, and the report provides evidence that cross-border restrictions to the work of quality assurance agencies are steadily being removed with several countries making significant progress in this area. This trend goes alongside increasing numbers of agencies being registered on the European Quality Assurance Register for Higher Education (EQAR), thus demonstrating that they work in compliance with the ESG. These developments signal again that trust is being strengthened in quality assurance.

Despite these positive trends in cross-border quality assurance, the chapter reports that there has been little follow-up to the commitment made by Ministers in Yerevan to permit the use of the European Approach to the Quality Assurance of Joint Programmes. Understanding why this commitment has not been followed up, and developing suitable action to ensure that the European Approach to Quality Assurance of Joint Programmes is implemented in the future will be a challenge in the coming years.

With regard to recognition, the report provides evidence that formal compliance with the Lisbon Recognition Convention (LRC) is well established across the EHEA. Nevertheless, there remains a problem that recognition practice may not always be operating in respect of the LRC and of national legislation. The findings in relation to the implementation of Article VII of the Lisbon Recognition

Convention also show that some countries have not integrated all aspects of the LRC into their legislation. Meanwhile, the report makes a first attempt to follow up the recommendations of the Pathfinder Group towards more automatic recognition, focusing on recognition for the purposes of further academic study. Here, although there are some good practice examples in different parts of the EHEA, considerable effort still needs to be made both in developing a shared understanding of automatic recognition and in putting it into practice.

CHAPTER 5: OPENING HIGHER EDUCATION TO A DIVERSE STUDENT POPULATION

The Yerevan Communiqué

In 2015, the Yerevan Communiqué reaffirmed EHEA ministers' commitment to the social dimension of higher education, also placing it within the wider context of inclusive societies. Through the Communiqué, ministers expressed their determination to achieve, by 2020, an EHEA where 'higher education is contributing effectively to build inclusive societies' ⁽⁸¹⁾. At the same time, ministers also adopted a new strategy on Widening Participation for Equity and Growth ⁽⁸²⁾, as well as the Report of the 2012-2015 BFUG Working Group on the Social Dimension and Lifelong Learning, containing guidelines 'to assist the EHEA member countries in developing a national plan or strategy for access, participation and completion in higher education with the overall goal of developing the social dimension' ⁽⁸³⁾.

To further the goal of widening participation, ministers agreed to 'enhance the social dimension of higher education, improve gender balance and widen opportunities for access and completion, including international mobility, for students from disadvantaged backgrounds' ⁽⁸⁴⁾. Among concrete measures, the Communiqué mentions supporting 'institutions that provide relevant learning activities in appropriate contexts for different types of learners, including lifelong learning', as well as improving 'permeability and articulation between different education sectors' ⁽⁸⁵⁾. Thus, the emphasis of the Yerevan Communiqué is on flexible learning paths and the inclusion of different types of learners, also through the recognition of prior learning ⁽⁸⁶⁾. Furthermore, similarly to previous communiqués, it stresses that widening participation is not only about widening access, but also about ensuring that those who enter higher education complete it successfully.

The 2015 Bologna Process Implementation Report

The 2015 Bologna Process Implementation Report (European Commission/EACEA/Eurydice, 2015) provided a snapshot on progress made towards the goal of widening participation. Despite this goal being a concern in almost all countries of the EHEA, the report showed that there is a lot to be done in order to achieve the objectives of past communiqués. The report concluded that gender imbalances still existed between different study fields; and students with an immigrant background or with parents without a higher education degree had lower chances to achieve tertiary attainment. Though many countries implemented measures to widen access to higher education, very few paid specific attention to disadvantaged learners in connection with the completion of studies. Regarding alternative access routes, little or no progress had been made between 2012 and 2015 in introducing frameworks for the recognition of prior non-formal and informal learning or to open higher education for non-traditional learners. Finally, concerning fees and financial support systems, these had been relatively stable in the EHEA, but with large variations between education systems – ranging from no fees and universal support to high fees and support targeted to a small proportion of the student population only.

⁽⁸¹⁾ Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 1.

⁽⁸²⁾ Widening Participation for Equity and Growth – A Strategy for the Development of the Social Dimension and Lifelong Learning in the European Higher Education Area to 2020, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015.

⁽⁸³⁾ Report of the 2012-2015 BFUG Working Group on the Social Dimension and Lifelong Learning, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 34.

⁽⁸⁴⁾ Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, pp. 2-3.

⁽⁸⁵⁾ Ibid.

⁽⁸⁶⁾ Ibid., p. 3.

Chapter outline

The chapter is organised in two main parts. The first section focuses on the inclusiveness of access to higher education. After presenting statistics on the impact of students' background on their participation in higher education, the section discusses policy frameworks aiming to widen access to higher education. The emphasis is on the existence of monitoring tools, quantitative targets, support provided to non-traditional learners through adapting and opening up admission systems, as well as on fees and financial support. The scorecard indicator presented at the end of the section provides a summary of these policy measures.

The chapter then turns to higher education attainment and completion, also from the social dimension perspective. Again analysing statistical indicators to set the scene, the second section discusses national policies aiming at raising attainment levels and completion rates, with special attention to measures targeted at under-represented groups. The section also examines frameworks for the recognition of non-formal and informal learning in the context of completion: if students can have such learning experiences recognised in the form of credits, it can help them complete their studies. This section presents two scorecard indicators: one on the recognition of prior learning, and one summarising the main policy measures aiming to ensure that disadvantaged learners do not only access, but also complete higher education.

5.1. Access and participation

Who has access to higher education? To what extent does young peoples' socio-economic background or gender influence their chances of becoming higher education students? Do admission systems reduce or reinforce existing societal inequalities? The goal of the widening participation agenda is to increase the inclusiveness of higher education, and to provide opportunities to those from more disadvantaged backgrounds to enter (and complete) higher education. This section examines current trends in higher education entry and participation, as well as national policies aiming to broaden the group of people having access to higher education.

5.1.1. The impact of students' background on their participation in higher education

Central to the social dimension of the Bologna Process is the aim that the student body should reflect the diversity of the population, and that the background of students should not have an impact on their participation in higher education. Given the diversity of socio-economic and cultural realities across the EHEA, it is left to each country to decide which characteristics to take into account when comparing the composition of the student body with the total population. The societal groups which are then identified as under-represented in higher education also differ between countries.

Nevertheless, some common themes are inevitable across countries: low socio-economic background (in the form of low income or the low educational background of parents), gender, immigrant status and disability are often taken as main aspects of disadvantage. Furthermore, mature students are specifically targeted in many countries, as students from under-represented groups often enter higher education with a delay.

This section presents statistical data on higher education students in four respects: the impact of parental education on higher education participation, gender balance, and the participation of immigrant students and mature students in higher education.

5.1.1.1. Parental education

The educational background of parents is often regarded as one of the most important factors influencing the chances of learners to participate in higher education. It is widely known that students with parents with tertiary educational attainment are over-represented in higher education study programmes. However, differences may exist among education systems in this regard. Are students with high educational background over-represented in higher education to the same extent in all EHEA countries? What are the chances of learners coming from families with medium (at most post-secondary non-tertiary education completed) or low (with only primary or lower secondary education) educational attainment to enter higher education?

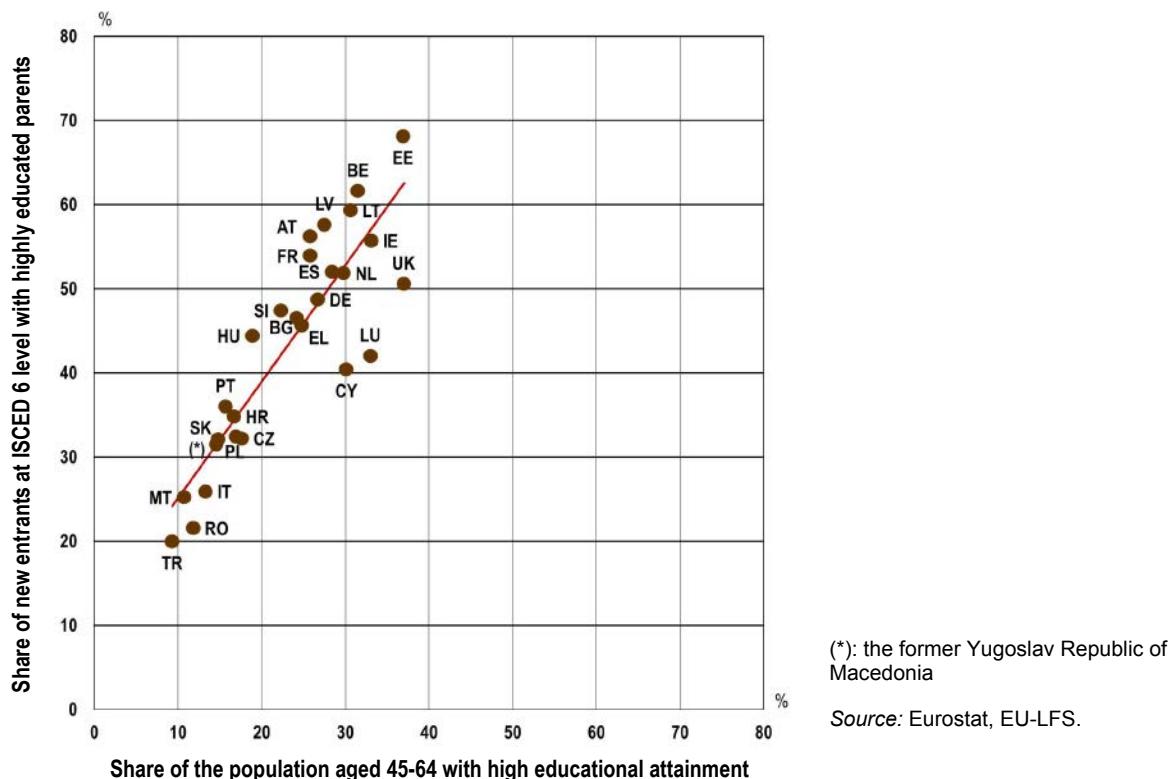
It is difficult to answer these questions looking simply at the composition of new entrants by the educational background of parents. If there is a high proportion of students entering higher education with parents having low educational attainment, is it because the system is highly equitable, providing a lot of support to under-represented groups, or because higher education is expanding, and there are many people with low educational attainment (and very few with higher educational attainment) in the parents' generation?

In an attempt to answer these questions, this section looks at the relationship between the educational background of new higher education entrants in the first cycle (ISCED 6) and the educational attainment of their parents' cohort, defined as the population aged 45-64 (see Figure 5.1).

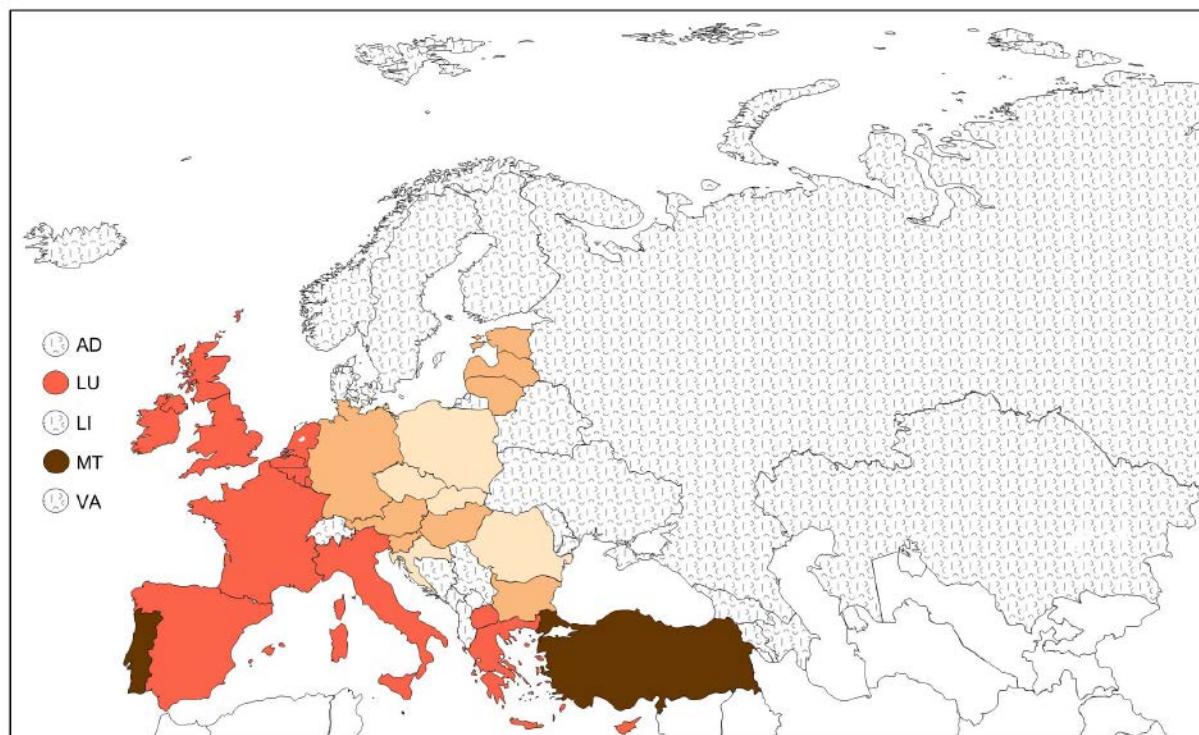
Figure 5.1.A depicts first-cycle new entrants with parents of high educational background, and the corresponding proportion of people with high educational attainment (ISCED 5-8) in the hypothetical parents' cohort.

Figure 5.1: Relationship between the educational background of first-cycle new entrants (ISCED 6) and the educational attainment of their parents' cohort (population aged 45-64), 2016/17

A) Proportion of first-cycle new entrants with highly educated parents and the corresponding percentage of people aged 45-64 with high educational attainment (ISCED 5-8)



B) Main clusters of countries concerning the educational background of first-cycle new entrants and the educational attainment of their parents' cohort



- █ Group 1: Proportion of people with tertiary education in the 45-64 age group: low; with low educational attainment: high.
Share of first-cycle new entrants coming from families with low educational background: highest.
- █ Group 2: All three educational attainment groups are relatively sizeable in the 45-64 year-old cohort.
First-cycle new entrants from low educated families: under-represented; first-cycle new entrants with highly educated parents: over-represented; proportions of first-cycle new entrants with medium educational background: vary.
- █ Group 3: Share of people with medium educational attainment in the 45-64 age group: high.
Share of first-cycle new entrants coming from families with low educational background: low.
- █ Group 4: Share of people with medium educational attainment in the 45-64 age group: dominant.
Shares of both low and highly educated people in this cohort: low.
Share of first-cycle new entrants with medium educated parents: highest.
- █ Data not available

	LV	EE	LT	CZ	SK	PL	BG	HU	SI	HR	RO	AT	DE	FR
New first-cycle entrants by the educational background of parents														
Low	0.8	0.8	0.8	0.9	1.3	1.7	1.8	2.6	2.9	4.1	4.1	4.8	8.0	9.2
Medium	41.6	31.1	39.9	66.9	66.6	65.9	51.7	53.0	49.7	61.1	74.4	39.0	43.2	36.9
High	57.6	68.1	59.3	32.2	32.1	32.4	46.5	44.4	47.4	34.8	21.5	56.2	48.7	53.9
	NL	BE	IE	EL	CY	UK	LU	IT	ES	PT	MT	(*)	TR	
Low	9.4	10.2	10.9	12.1	14.0	15.2	19.0	20.6	22.5	37.7	42.0	11.8	55.7	
Medium	38.8	28.2	33.3	42.3	45.6	34.3	39.0	53.5	25.5	26.3	32.8	56.7	24.3	
High	51.8	61.6	55.7	45.6	40.4	50.6	42.0	25.9	52.0	36.0	25.2	31.5	20.0	
Educational attainment level of the population aged 45-64	LV	EE	LT	CZ	SK	PL	BG	HU	SI	HR	RO	AT	DE	FR
Low	6.5	9.0	3.5	7.9	10.5	11.5	18.2	19.5	18.3	24.8	23.8	18.6	13.5	28.8
Medium	66.0	54.1	66.0	74.5	74.7	71.7	57.6	61.6	59.4	58.6	64.3	55.6	59.8	45.3
High	27.5	36.9	30.6	17.6	14.8	16.9	24.2	18.9	22.3	16.7	11.8	25.8	26.7	25.8
	NL	BE	IE	EL	CY	UK	LU	IT	ES	PT	MT	(*)	TR	
Low	28.7	31.6	30.2	37.7	28.5	25.3	29.1	48.0	50.0	68.1	68.4	39.1	78.6	
Medium	41.5	36.8	36.7	37.4	41.4	37.8	37.9	38.7	21.6	16.2	20.8	46.3	12.1	
High	29.8	31.5	33.1	24.8	30.1	37.0	33.0	13.3	28.4	15.7	10.7	14.6	9.3	

(*): the former Yugoslav Republic of Macedonia

Source: Authors, based on Eurostat, EU-LFS.

Notes:

In the table, data are sorted by the percentage of new entrants with parents of low educational background (ascending).

Low educational attainment: ISCED 0-2; medium education attainment: ISCED 3-4; high educational attainment: ISCED 5-8. For definitions of ISCED levels, see the Glossary and Methodological Notes.

New entrants: Students who are entering any programme at a given level of education for the first time.

The figure shows a very clear relationship between the overall proportion of the highly educated within the population aged 45-64 and the share of new first-cycle entrants with highly educated parents, with very few differences among countries. Countries are clustering around the trendline (⁸⁷), which means that the share of new entrants with highly educated parents among all new first-year students largely depends on the proportion of people having high educational attainment in their parents' cohort.

In addition, as a general pattern, first-cycle new entrants with highly educated parents are clearly over-represented among all new first-cycle entrants in comparison to the overall attainment levels of the (hypothetical) parents' cohort. In other words, in countries where the share of people with tertiary degrees is relatively high already within older age cohorts, the dominance of new entrants from highly educated households will be even more pronounced. This also means that with no significant higher education expansion, there is little room for learners coming from less educated families to enter higher education.

But if countries do not differ much in the degree of over-representation of new entrants coming from highly educated families, are they also alike in providing opportunities for learners from medium or low educated families? As Figure 5.1.B illustrates, for the countries with available data, four main country clusters can be distinguished based on the relationship between the educational background of first-cycle new entrants and the educational attainment of their parents' cohort.

In the first group of countries (Group 1), which includes Malta, Portugal and Turkey, the proportion of people with tertiary education in the 45-64 age group is low (around or below 15 %), and the share of the population aged 45-64 with low educational attainment (ISCED 0-2) is high (above 68 %). At the same time, the share of first-cycle new entrants coming from families with low educational background is the highest in these three countries (above 35 % in Portugal and Malta, and more than 55 % in Turkey), though these proportions are still lower than the share of people with low education attainment in their parents' cohort. On the other hand, new entrants from families with medium educational attainment (ISCED 3-4) are relatively over-represented: while the share of people with medium educational attainment is between 12 % and 21 % in these three countries, the proportion of new entrants with this educational background is between 20 % and 36 %. In other words, the strong and comparatively recent higher education expansion (see also Section 5.2.1) has created opportunities particularly for learners from medium educated families to access higher education in these countries.

In the second group of countries (Group 2), which includes most of the Western European region, all three educational attainment groups are relatively sizeable in the 45-64 year-old cohort, with none of them being above 50 % of the population. These countries cluster together both regarding the relative under-representation of new entrants from low educated families and the relative over-representation of entrants with highly educated parents.

⁽⁸⁷⁾ The three countries that are furthest away from the trendline are specific cases difficult to analyse: Cyprus, Luxembourg and the United Kingdom all host a high share of international students (see Figure 7.10), whose parents are not among the local population, which hampers making clear conclusions. In addition, from Cyprus and Luxembourg, a large percentage of learners also leave the country to study abroad (see Figure 7.13). Finally, data on educational attainment is not reliable in Luxembourg due to the small sample size.

Despite these similarities, however, differences within this group of countries can be quite large in the rate of over- and under-representation of first-cycle new entrants with medium educational background. In spite of similar shares of people with medium educational attainment in the 45-64 age cohorts across the region, proportions of new entrants with medium educational background vary. In countries with a relatively smaller share of people aged 45-64 with high educational attainment (thus in countries closest to Group 1: Greece, Italy, the former Yugoslav Republic of Macedonia and Spain), new entrants from medium educated families are slightly over-represented among all entrants in comparison to the corresponding shares in their parents' cohort. In contrast, in Belgium, France, Ireland and the Netherlands, entrants from medium educated families are under-represented, though not to a large extent (⁸⁸).

The third group of countries (Group 3) comprises parts of Central and Eastern Europe (Austria, Bulgaria, Germany, Hungary, Slovenia and the three Baltic States). What differentiates these countries from Group 2 is the dominance of people with medium educational attainment in the 45-64 age group: their share is above 50 % in all countries in this group. At the same time, the share of people aged 45-64 with tertiary education degrees is comparable to the same proportions in Group 2. As a consequence, the shares of the low educated in the parents' cohort are relatively small in this group.

Group 3 is the country cluster where social inequalities are the most visible. Despite having close to 20 % of low educated in the parents' cohort in several countries (Austria, Bulgaria, Hungary and Slovenia), the share of first-cycle new entrants from low educated families is below 5 % in almost all countries in this group (the only exception being Germany). In addition, in all countries in this group, new entrants from medium educated families are under-represented, and in some cases (particularly in the Baltic States, Austria and Germany) quite considerably.

Finally, in the fourth group of countries (Group 4), which includes Croatia, the Czech Republic, Poland, Romania and Slovakia, the shares of both low and highly educated people in the 45-64 age cohort are relatively low. The proportion of the population having tertiary degrees in the 45-64 age group is below 20 %, while medium level educational attainment is prevalent (close to or above 60 %, and even above 70 % in the Czech Republic, Poland and Slovakia). As a consequence, the share of first-cycle new entrants with medium educated parents is the highest in this group, and this proportion more or less corresponds to the related fraction of the medium educated population in the parents' cohort. Nevertheless, for entrants coming from low and highly educated families, the general patterns apply: while the share of new entrants with parents with low educational background is marginal, new entrants with highly educated parents are over-represented.

These clusters illustrate well similarities and differences between education systems in the reproduction of educational inequalities. Based on this analysis, the following conclusions can be drawn. First, new entrants with parents having at most lower secondary education are under-represented in all countries. Unless there is a sizeable proportion of a low educated population in the parents' cohort, their participation in higher education remains marginal. The only exception is Germany, where 8 % of new entrants in the first cycle are coming from families with low educational attainment, despite the relatively low share of the low educated in the 45-64 year-old population.

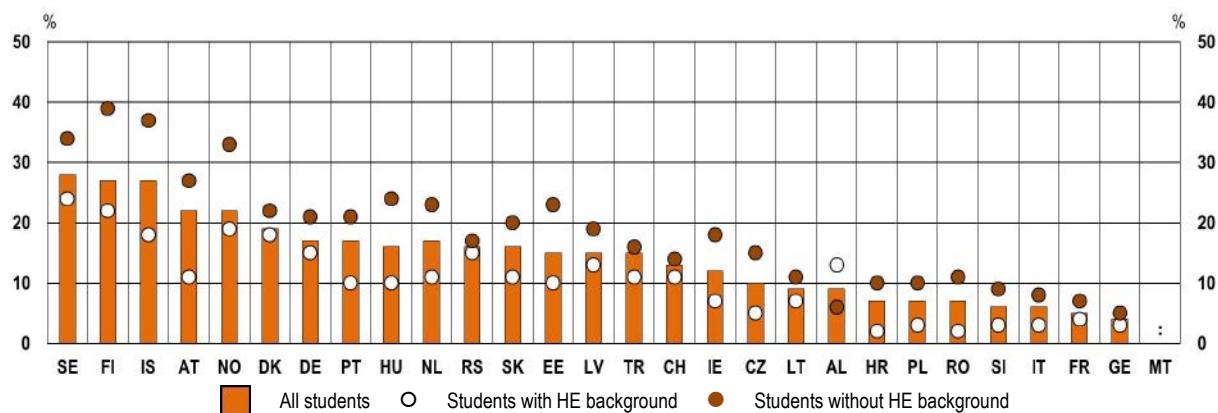
Second, differences among countries with available data mainly lie in the relative chances of learners from medium educated families to enter higher education. They are the most likely to enter higher education in countries where significant (and relatively recent) higher education expansion have taken place, thus where there is a relatively low share of highly educated people in the parents' generation. Nevertheless, countries with similar educational attainment patterns among the 45-64 year-olds can

⁽⁸⁸⁾ Cyprus, Luxembourg and the United Kingdom are left out from this analysis for the reasons explained above.

have differences in the relative size of new entrants by parental educational background. Examples for a stronger over-representation of entrants coming from highly educated families are Belgium (compared to the Netherlands), or Austria (compared to Bulgaria, for example). In some cases, this can be at least partly a result of differences in educational systems as well as in admission and access policies.

Admission systems play a key role in giving chances to under-represented groups to enter higher education. Figure 5.2 shows the proportion of delayed transition students – students who enter higher education two years or more after leaving school – by the educational background of their parents. As the figure illustrates, learners from low and medium educated families are not only under-represented among new higher education entrants, but are also more likely to enter higher education with a delay in almost all countries with available data. This makes it all the more important to provide such students – who are also more likely not to possess standard higher education entry qualifications – with alternative routes to higher education. Such alternative routes and the features of admission systems will be discussed in section 5.1.2.

Figure 5.2: Percentage of delayed transition students among students with/without higher education background, 2016/17



	%	SE	FI	IS	AT	NO	DK	DE	PT	HU	NL	RS	SK	EE	LV
All students	28	27	27	22	22	19	17	17	16	17	16	16	16	15	15
With HE background	24	22	18	11	19	18	15	10	10	10	11	15	11	10	13
Without HE background	34	39	37	27	33	22	21	21	24	23	17	20	23	19	
	%	TR	CH	IE	CZ	LT	AL	HR	PL	RO	SI	IT	FR	GE	MT
All students	15	13	12	10	9	9	7	7	7	6	6	5	4	:	
With HE background	11	11	7	5	7	13	2	3	2	3	3	4	3	3	
Without HE background	16	14	18	15	11	6	10	10	11	9	8	7	5	5	:

Source: Eurostudent.

Notes:

Students with higher education background: Parents' highest degree is at ISCED level 5-8. Students without higher education background: parents' highest degree is at ISCED level 0-4. For definitions of ISCED levels, see the Glossary and Methodological Notes.

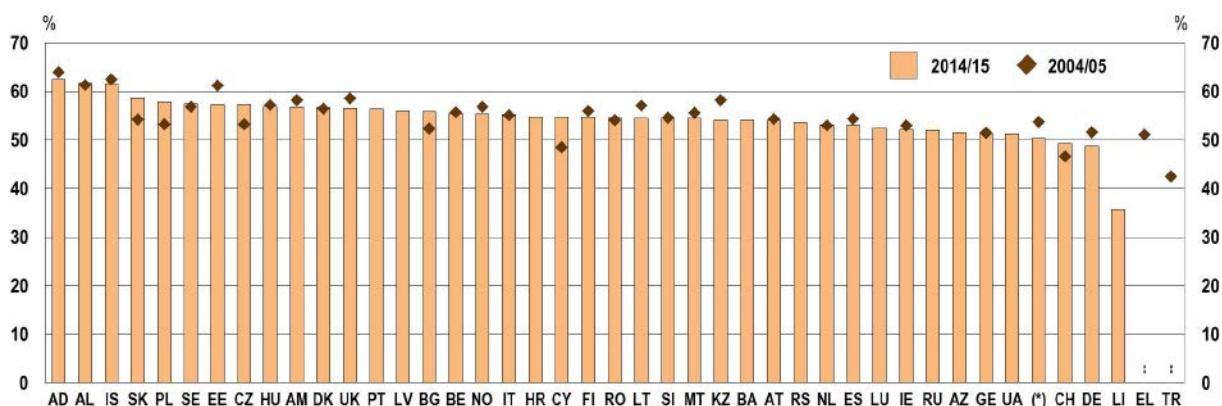
Delayed transition students: Students who enter higher education for the first time more than 24 months after leaving school.

5.1.1.2. Gender balance

Providing equal opportunities for men and women to participate in higher education is also a central concern of the social dimension within the Bologna Process. As will be shown below, the two main issues in this respect are, first, the under-representation of men in higher education in many countries, and second, strong gender imbalances in some study fields.

Figure 5.3 shows the percentage of women among new entrants in tertiary education in 2014/15 and ten years before. As the figure demonstrates, in 2014/15, female entrants were in a majority in nearly all countries. Women's share among new entrants was the highest in Andorra, Albania and Iceland, above 60 % in all three countries.

Figure 5.3: Percentage of women among new entrants in tertiary education in 2004/05 and 2014/15



(*): the former Yugoslav Republic of Macedonia

%	AD	AL	IS	SK	PL	SE	EE	CZ	HU	AM	DK	UK	PT	LV	BG	BE	NO	IT	HR	CY	FI	RO
2005	64.0	61.4	62.5	54.3	53.3	56.9	61.2	53.3	57.3	58.2	56.6	58.7	:	:	52.4	55.7	56.9	55.1	:	48.6	56.0	54.2
2015	62.5	61.8	61.6	58.6	57.9	57.5	57.4	57.4	56.8	56.7	56.6	56.5	56.4	56.0	55.9	55.5	55.4	55.2	54.8	54.8	54.7	54.7
%	LT	SI	MT	KZ	BA	AT	RS	NL	ES	LU	IE	RU	AZ	GE	UA	(*)	CH	DE	LI	EL	TR	EHEA
2005	57.2	54.6	55.6	55.6	58.2	:	54.3	:	53.0	54.3	:	53.0	:	51.5	:	53.8	46.6	51.7	:	51.1	42.6	55.1
2015	54.5	54.5	54.4	54.1	54.1	54.0	53.7	53.2	53.2	52.6	52.1	52.0	51.5	51.3	51.3	50.4	49.3	48.8	35.6	:	:	55.2

Source: Eurostat, UOE and additional collection for the other EHEA countries.

Notes:

EHEA: Refers to the EHEA median, which was calculated based on countries with available data for both reference years.

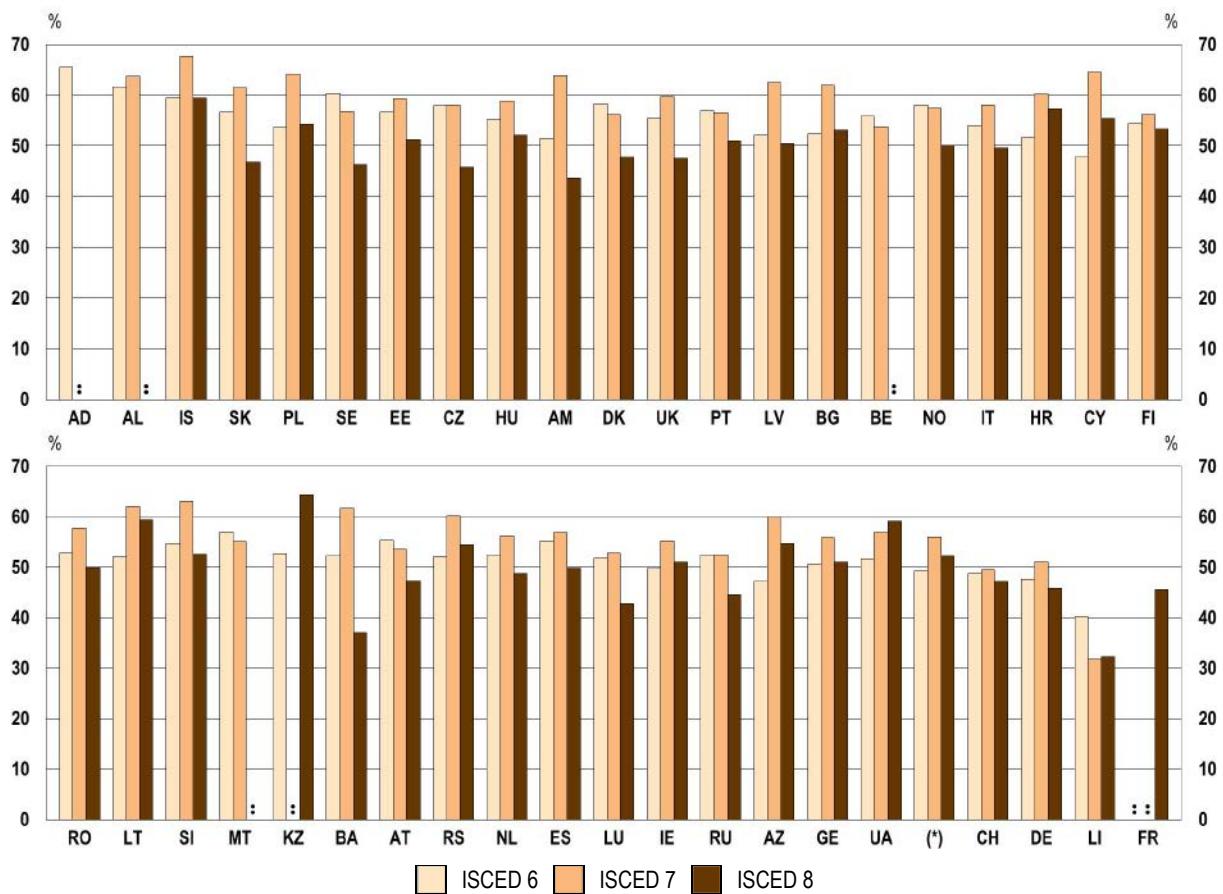
New entrants: Students who are entering any programme at a given level of education for the first time.

Nevertheless, in the ten-year period between 2004/05 and 2014/15, while the EHEA median stayed relatively stable, the proportion of women among new entrants decreased in the majority of countries with available data. This indicates that although men are still under-represented in higher education, this is to a lesser degree in most countries than 10 years ago. Decreases of over 3 percentage points took place in Kazakhstan, Estonia and the former Yugoslav Republic of Macedonia. In the latter, gender parity was reached as a result. However, in Estonia, the share of women among new entrants was still among the highest in the EHEA.

Countries registering the largest increases in the rate of female entrants in this period are Cyprus (6.2 percentage points), Poland (4.6 percentage points), Slovakia (4.3 percentage points) and the Czech Republic (4.1 percentage points). The latter three countries are among those with the highest share of new female entrants in higher education.

However, the picture becomes less straightforward when looking at female/male ratios among new entrants by level of education, thus differentiating the three main cycles of higher education. Figure 5.4 shows the share of women among new higher education entrants in the first, second and third cycle.

Figure 5.4: Percentage of women among new entrants in tertiary education by level of education, 2014/15



(*): the former Yugoslav Republic of Macedonia

%	AD	AL	IS	SK	PL	SE	EE	CZ	HU	AM	DK	UK	PT	LV	BG	BE	NO	IT	HR	CY	FI	RO
ISCED 5	50.0	:	52.9	64.6	86.8	49.3	:	58.0	62.7	72.3	53.6	58.3	27.8	59.6	:	86.6	19.4	28.1	83.3	45.8	:	:
ISCED 6	65.5	61.6	59.5	56.7	53.7	60.3	56.7	57.8	55.2	51.5	58.2	55.4	56.9	52.1	52.3	55.9	58.1	54.0	51.6	47.8	54.4	52.9
ISCED 7	:	63.7	67.6	61.5	64.2	56.8	59.3	58.0	58.9	63.8	56.2	59.7	56.5	62.4	62.0	53.8	57.4	58.0	60.2	64.5	56.3	57.8
ISCED 8	:	:	59.5	46.8	54.3	46.3	51.2	45.8	52.1	43.7	47.8	47.5	51.0	50.4	53.1	:	50.1	49.5	57.3	55.4	53.4	50.0
Total	62.5	61.8	61.6	58.6	57.9	57.5	57.4	57.4	56.8	56.7	56.6	56.5	56.4	56.0	55.9	55.5	55.4	55.2	54.8	54.8	54.7	54.7
%	LT	SI	MT	KZ	BA	AT	RS	NL	ES	LU	IE	RU	AZ	GE	UA	(*)	CH	DE	LI	FR		EHEA
ISCED 5	:	43.0	48.6	48.1	:	53.4	:	47.0	47.6	54.3	57.9	51.6	69.5	46.4	49.6	:	58.7	73.0	:	:	:	:
ISCED 6	52.0	54.7	56.9	52.7	52.2	55.4	52.1	52.4	55.3	51.7	49.7	52.5	47.2	50.6	51.7	49.2	48.7	47.6	40.3	:	52.4	
ISCED 7	62.0	63.0	55.1	:	61.6	53.6	60.2	56.2	56.8	52.8	55.3	52.5	59.9	55.9	56.8	56.0	49.5	51.1	31.6	:	57.9	
ISCED 8	59.3	52.6	:	64.3	37.0	47.3	54.4	48.8	49.8	42.9	51.0	44.5	54.6	51.0	59.2	52.2	47.2	45.9	32.3	45.6	50.2	
Total	54.5	54.5	54.4	54.1	54.1	54.0	53.7	53.2	53.2	52.6	52.1	52.0	51.5	51.3	51.3	50.4	49.3	48.8	35.6	:	:	

Source: Eurostat, UOE and additional collection for the other EHEA countries.

Notes:

Data are sorted by the total percentage of women among new entrants in tertiary education.

Though not depicted on the figure, the table includes data on ISCED 5 for information.

EHEA: Refers to the EHEA median, which was calculated based on countries with available data for all levels from ISCED 6 to ISCED 8.

New entrants: Students who are entering any programme at a given level of education for the first time.

As the figure depicts, in countries where data are available for all the three cycles, the most widespread pattern is that the share of female entrants is the highest in the second cycle and the lowest in the third cycle. This is the case in 17 countries. Despite this pattern, female entrants still constitute the majority – or there is gender parity – at all levels in 8 out of 17 countries. Nevertheless, the share of female entrants in the third cycle is below 50 % in Slovakia, the Czech Republic, Armenia, the United Kingdom, Bosnia and Herzegovina, the Netherlands, Luxembourg, Switzerland and Germany. In Switzerland, female entrants are in a minority at all levels; while in Germany, their share is below 50 % in the first cycle in addition to the third.

In the second most widespread pattern, which can be found in 11 countries, female entrants still have the highest share in the second cycle, but their proportion is the lowest in the first cycle. In almost all of these countries, the share of female entrants is above or around 50 % at all levels. The exceptions are Cyprus and Azerbaijan, where female entrants are in a minority in the first cycle.

In six countries (Sweden, Denmark, Portugal, Norway, Austria and Russia), the higher the level, the lower the share of female entrants. In Portugal and Norway, nevertheless, the share of female entrants is above 50 % at all levels. In the other four countries, women are in a minority in the third cycle.

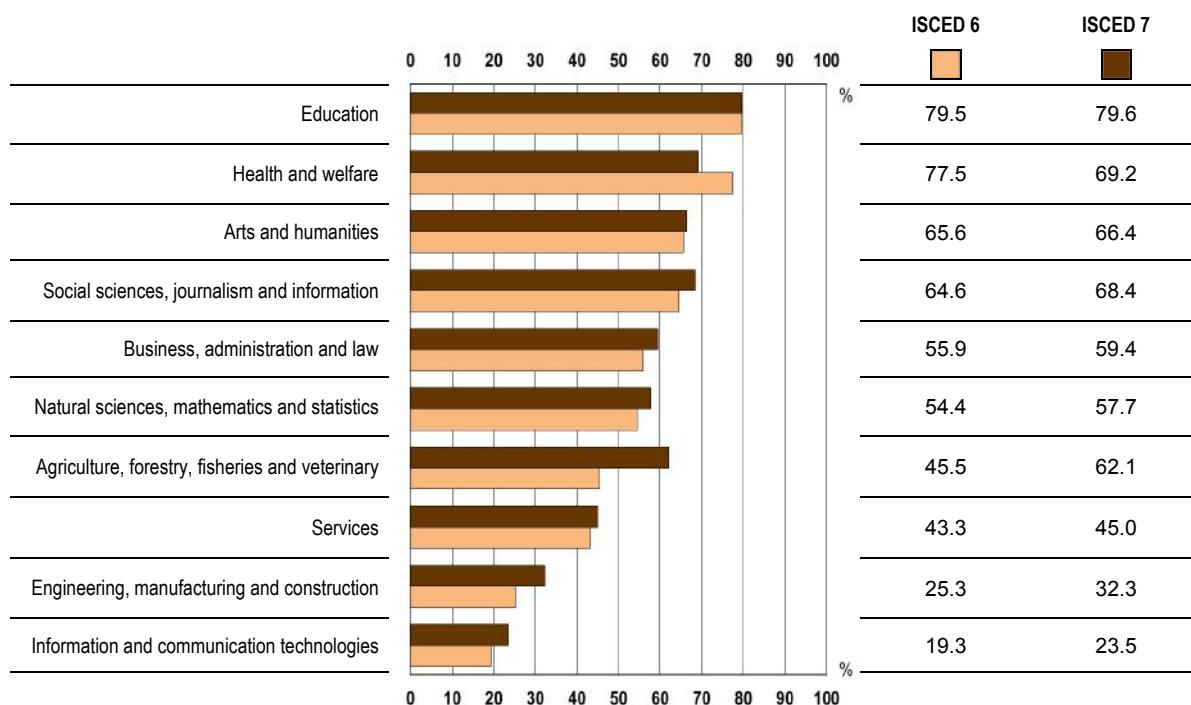
Finally, Ukraine and Liechtenstein have particular patterns that do not exist in other countries. In Liechtenstein, where around 95 % of students study abroad at tertiary level, this is mostly due to the fact that the coverage of higher education programmes is limited to mostly male-dominated fields (see also Figure 5.5). In Ukraine, the proportion of women among new entrants is increasing with each cycle, and comes close to 60 % in the third cycle.

All in all, men are clearly under-represented in the first two cycles of higher education, especially in the second. This shows that relatively fewer men transition from the first cycle to the second. However, despite this pattern, women are often in a minority in the third cycle. Here, female participation is clearly the lowest, despite the high participation of women in the second cycle. A part of the explanation might be that there are more third-cycle programmes in male-dominated study fields such as engineering and natural sciences (see below). Yet, this female under-representation in the third cycle, which provides key qualifications for academic and wider research careers, illustrates well that in spite of their dominance in higher education overall, women may still face hurdles in pursuing academic careers (see also European Commission/EACEA/Eurydice, 2017a).

Besides issues related to the low participation of men in higher education and the relatively low participation of women in the third cycle, another important aspect of gender imbalances is the presence of study fields with a clear dominance of one gender. Figure 5.5 depicts the median share of women among enrolled students in the first and the second cycle by field of education. As the figure illustrates, while 'education' and 'health and welfare' are clearly female dominated study fields, in 'engineering, manufacturing and construction' as well as in 'information and communication technologies' women are strongly under-represented.

In line with the picture shown on Figure 5.4, the share of women enrolled in the second cycle equals or is higher than the same proportion in the first cycle in almost all study fields. The only notable exception is the field of 'health and welfare'. One potential reason behind this pattern is that in most countries, medical programmes with smaller gender imbalances are offered as long programmes (see the chapter on Degrees and Qualifications), whereas first-cycle programmes are often organised in more female dominated fields (e.g. nursing).

Figure 5.5: Median percentage of women among enrolled students in Bologna structures by field of education and level of Bologna structure (first and second cycle, ISCED 6 and 7), 2014/15



Source: Eurostat, UOE and additional collection for the other EHEA countries.

Notes:

The country coverage varies across different study fields (see the Glossary and Methodological Notes).

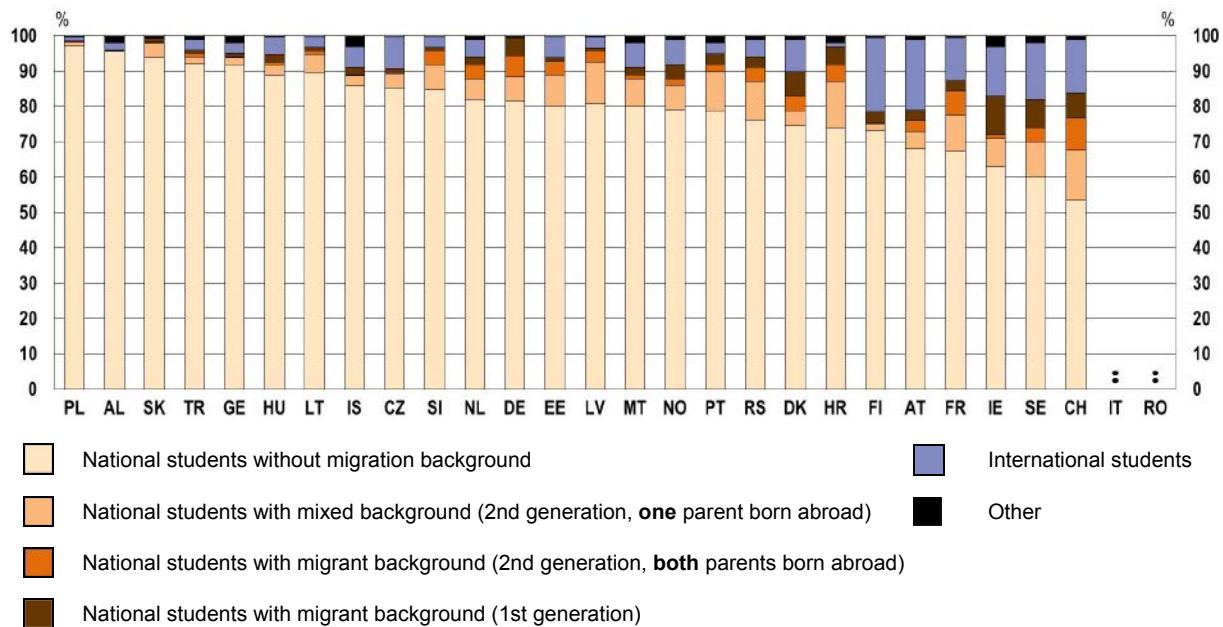
5.1.1.3. Students with migrant background

Having a migrant background is also considered as an important factor influencing the chances of learners accessing higher education, especially if it coincides with low parental education. Immigrants and children of immigrants might lack the sufficient cultural, economic and social capital, which have important effects on educational success (see e.g. Griga and Hadjar, 2014).

Yet, it is difficult to gather comparable information on the participation of migrant students in higher education. Eurostat data presented in Figure 5.7 uses the country of birth as the criterion defining migrants, and this has two major limitations. Firstly, the group of foreign-born students includes not only migrants who become students, but also students who moved to the country just for the purposes of study, i.e. mobile students. Not only does the concept of 'foreign born' mix groups with very different characteristics, but when numbers of mobile students are substantial as they are in a number of countries, the picture becomes very distorted. The second limitation of this data is that a group that is of central concern to the social dimension is excluded, namely children of immigrants born in the country (often referred to as 'second-generation immigrants').

For these reasons, data have to be interpreted with caution. In order to help the data analysis, the composition of students by migrant background is presented in Figure 5.6 based on the Eurostudent survey. This contains important information on the relative size of each group within all students. However, such data are also difficult to analyse alone, as they are not linked to information about the overall proportions of migrants in the population in general. Therefore, data depicted on Figures 5.6 and 5.7 should be looked at together.

Figure 5.6: Composition of students by migration background (%), 2016/17



National students:	%	PL	AL	SK	TR	GE	HU	LT	IS	CZ	SI	NL	DE	EE	LV
without migration background	97	96	94	93	92	89	89	86	85	85	85	82	81	81	81
with mixed background	1	0.2	4	2	2	3	5	3	4	7	6	7	9	12	
with migrant background (2nd generation)	0.1	0.1	0.3	1	0.2	1	1	0.2	0.4	4	4	4	6	4	3
with migrant background (1st generation)	0.3	0.1	1	1	1	2	1	2	1	1	1	2	5	1	1
International students	1	2	0.3	3	3	5	3	6	9	3	5	5	:	6	3
Other	0.4	2	0.5	1	2	0.3	0.2	3	0.2	0.2	1	0.5	0.2	0.3	
National students:	%	MT	NO	PT	RS	DK	HR	FI	AT	FR	IE	SE	CH	IT	RO
without migration background	80	79	78	77	74	74	73	68	67	63	60	53	:	:	
with mixed background	8	7	11	11	4	13	2	5	10	8	10	14	:	:	
with migrant background (2nd generation)	1	2	2	4	4	5	0.3	3	7	1	4	9	:	:	
with migrant background (1st generation)	2	4	3	3	7	5	3	3	3	11	8	7	:	:	
International students	7	7	3	5	9	1	21	20	12	14	16	15	:	:	
Other	2	1	2	1	1	2	0.5	1	0.5	3	2	1	:	:	

Source: Eurostudent.

Notes:

Students are classified according to their own and their parents' places of birth and the location of their latest educational attainment. Students are classified as international students if they possess a foreign higher education entry qualification, or have left the school system for the first time abroad (regardless of their and their parents' birthplace). Students with a national higher educational entry qualification, or who have left the regular school system for the first time without a qualification in the country of survey, are further categorised according to their own and their parents' places of birth. First-generation students with national educational background were born abroad, as were at least one of their parents. Second-generation students with national educational background have one (mixed) or two (foreign) parents who were not born in the country of survey. The category 'Other' comprises students who were born abroad, but have parents born in the country of survey. Students without migration background and national educational background were born in the country of survey, as were their parents.

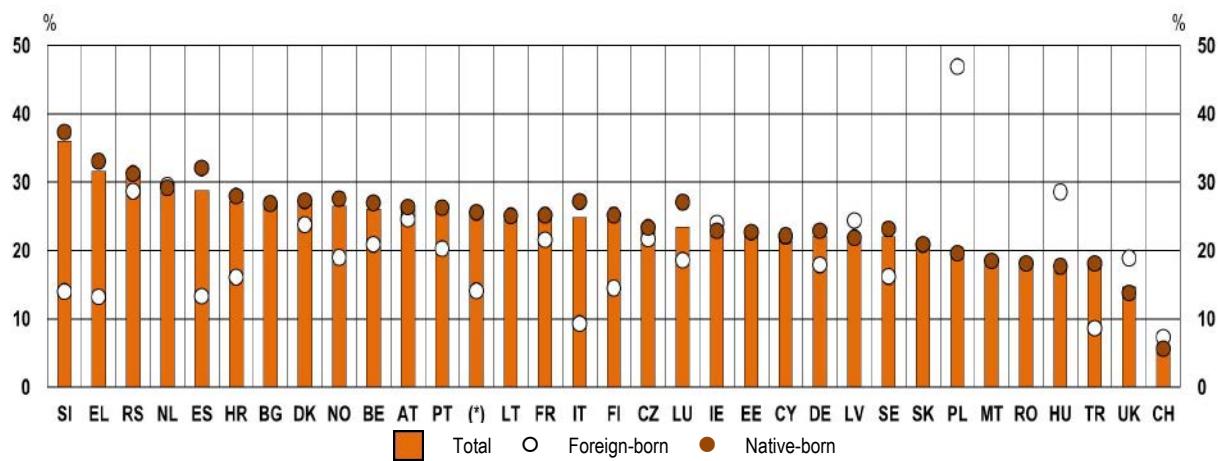
Germany: The country is not directly comparable with the others as international students were not included in the sample. For other country-specific notes, see the Glossary and Methodological Notes.

According to the latest Eurostudent survey, international students are a more sizeable group than first-generation immigrants in almost all countries, with the exception of Croatia, Portugal and Slovakia (see Figure 5.6). First-generation immigrant students have the largest share among all students in Ireland (11 %), Sweden (8 %), Denmark and Switzerland (7 %). The share of international students is above 10 % in Austria, Finland, France, Ireland, Sweden and Switzerland (in Austria and Finland, their proportion is 20 % or higher). Although the United Kingdom did not take part in the Eurostudent survey, Chapter 7 shows that incoming mobility to the United Kingdom is also substantial.

The proportion of students with a second generation immigrant background with both parents born abroad is lower than 10 % in all countries, with the highest shares in Switzerland (9 %) and France (7 %). Countries with the smallest variation in student composition (thus with above 90 % of national students without any migration background) are Albania, Georgia, Poland, Slovakia and Turkey.

Data presented on Figure 5.7 on the participation rates of the foreign-born and the native-born in higher education have to be evaluated against this background. As shown on the figure, the participation rate of the foreign-born population is below that of the native-born in almost every country with available data. Given that the group of international students is also included among the foreign-born, participation rates are even lower for first-generation immigrants. The higher the proportion of international students, the lower the actual participation rates of first-generation migrants compared to the level shown on Figure 5.7.

Figure 5.7: Participation rates in tertiary education among persons aged 18-29, foreign-born, native-born and total population (%), 2016



(*): the former Yugoslav Republic of Macedonia

%	SI	EL	RS	NL	ES	HR	BG	DK	NO	BE	AT	PT	(*)	LT	FR	IT	FI
Total	36.0	31.6	31.2	29.2	28.8	27.2	27.1	26.8	26.5	26.1	26.0	25.8	25.4	25.1	24.9	24.8	24.6
Foreign born	14.0	13.2	28.7	29.6	13.3	16.1	:	23.8	19.0	20.9	24.6	20.3	14.1	:	21.6	9.3	14.5
Native born	37.4	33.1	31.3	29.2	32.1	28.0	26.9	27.3	27.6	27.0	26.4	26.3	25.6	25.1	25.2	27.2	25.2
%	CZ	LU	IE	EE	CY	DE	LV	SE	SK	PL	MT	RO	HU	TR	UK	CH	
Total	23.4	23.4	23.2	22.4	22.2	22.1	22.0	22.0	21.0	19.7	18.2	18.1	17.9	17.9	14.7	6.0	
Foreign born	21.7	18.6	24.0	:	22.1	17.9	24.4	16.2	:	47.0	:	:	28.6	8.6	18.9	7.3	
Native born	23.4	27.1	22.9	22.7	22.2	22.9	21.9	23.2	20.9	19.6	18.5	18.1	17.7	18.1	13.8	5.6	

Source: Eurostat, EU-LFS.

Notes:

Data are not reliable for the values in italics.

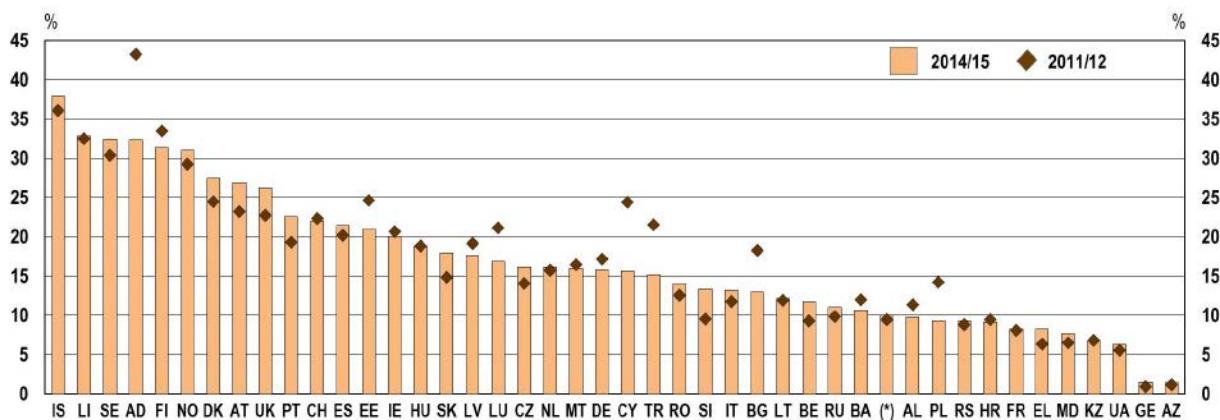
5.1.1.4. Mature students

An important aspect of widening participation is that higher education should be open to 'non-traditional' learners who did not have the possibility or the aspiration – due to lack of information, resources, etc. – to enter higher education right after leaving school. As Figure 5.2 showed, this is all the more important since students from under-represented groups are more likely to enter higher education with a delay.

For these reasons, this section examines the proportion of mature students (defined as 30 or more years old) in EHEA countries. Figure 5.8 shows the percentage of mature students enrolled in tertiary

education in 2011/12 and 2014/15. As the figure depicts, differences between the countries are substantial. In 2014/15, the share of mature students was the highest – above 30 % – in four Nordic countries (Iceland, Finland, Norway and Sweden), as well as in two small education systems, Liechtenstein and Andorra. On the other hand, it was the lowest – barely above 1 % – in the Caucasian region, Azerbaijan and Georgia.

Figure 5.8: Percentage of students enrolled in tertiary education, 30 or more years old, in 2011/12 and 2014/15



(*): the former Yugoslav Republic of Macedonia

%	IS	LI	SE	AD	FI	NO	DK	AT	UK	PT	CH	ES	EE	IE	HU	SK	LV	LU	CZ	NL	MT	DE	CY
2012	36.1	32.5	30.4	43.3	33.5	29.3	24.5	23.2	22.7	19.3	22.3	20.2	24.7	20.7	18.8	14.8	19.2	21.2	14.1	15.7	16.4	17.1	24.4
%	TR	RO	SI	IT	BG	LT	BE	RU	BA	(*)	AL	PL	RS	HR	FR	EL	MD	KZ	UA	GE	AZ	EHEA	
2012	21.5	12.5	9.5	11.8	18.3	11.9	9.3	9.8	12.0	9.4	11.4	14.2	8.8	9.4	8.1	6.3	6.5	6.8	5.6	1.0	1.1	16.1	
2015	15.2	14.1	13.3	13.2	13.0	12.1	11.8	11.0	10.7	10.0	9.8	9.3	9.3	9.1	8.3	8.2	7.7	6.8	6.3	1.5	1.4	15.7	

Source: Eurostat, UOE and additional collection for the other EHEA countries.

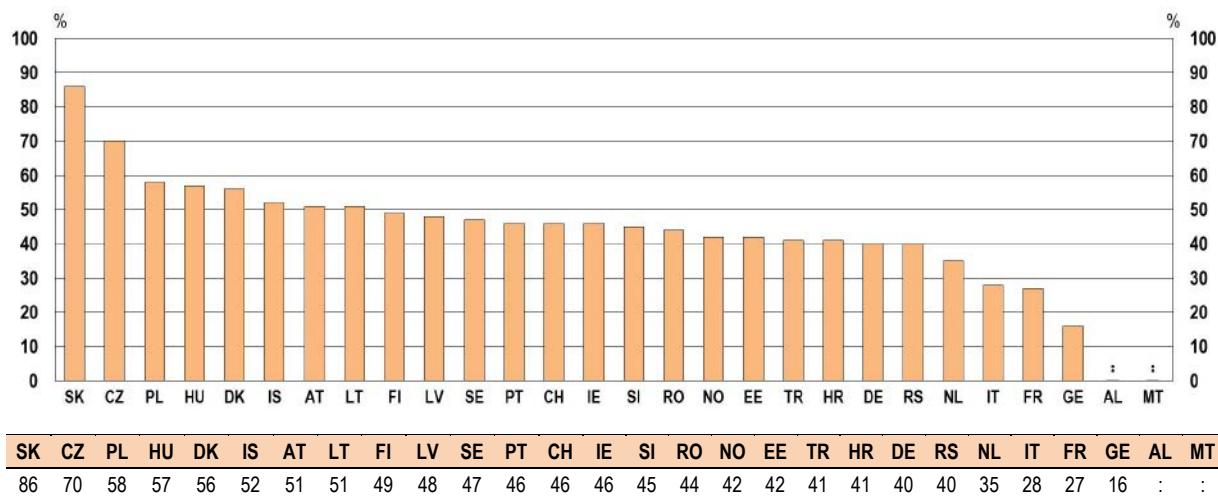
Notes:

EHEA: Refers to the EHEA median.

In comparison to 2011/12, more countries registered increases than decreases in the share of mature students. However, the decreases have been more substantial than the increases. Consequently, the EHEA median decreased slightly from 16.1 % to 15.7 %. The largest decrease was registered in Andorra (10.9 percentage points), followed by Cyprus (8.8 percentage points), Turkey (6.3 percentage points) and Bulgaria (5.3 percentage points). In contrast, the education system registering the largest increase in this period is Slovenia (3.8 percentage points), followed by Austria (3.7 percentage points), the United Kingdom (3.5 percentage points), Portugal (3.3 percentage points) and Slovakia (3.2 percentage points).

Nevertheless, it also has to be noted that not all mature students are delayed transition students, thus not all of them entered higher education with a delay (defined here as two years or more after leaving school). In some countries, studying for a longer period of time or taking gap years could be more common than in others. In fact, as Figure 5.9 illustrates, the share of delayed transition students within the group of mature students varies widely between education systems. While the large majority of mature students are delayed transition students in Slovakia and the Czech Republic, delayed transition students are in a small minority in France or Georgia.

Figure 5.9: Percentage of delayed transition students among respondents 30 or more years old, 2016/17



Source: Eurostudent.

Notes:

Delayed transition students: Students who enter higher education for the first time more than 24 months after leaving school.

Based on the two figures, three main groups of countries can be distinguished. First, there are countries – most Nordic countries are among them – where the share of mature students is relatively high, but the proportion of delayed transition students is close to or below 50 % among them. This suggests that it is relatively common in these countries to stay in higher education longer. In the second group of countries (e.g. Germany or France), the proportion of mature students in general is relatively low, but the share of delayed transition students is still low among them. In these countries, mature delayed transition students are in a clear minority⁽⁸⁹⁾. And finally, in a few countries (most notably the four Visegrad countries), the share of mature students is relatively low, but delayed transition students constitute the majority among them. In these countries, students tend to graduate at earlier ages, so most mature students are also delayed transition students.

All this means, for example, that while there could be more mature students in some countries (e.g. in the Netherlands with 16.1 %) than in others (e.g. in Poland with 9.3 %), given the differences in the relative size of delayed transition students among mature students (35 % in the Netherlands while 58 % in Poland), the proportion of mature students who are also delayed transition students could be quite similar in the two groups.

5.1.2. Policies on widening access

As these data show, equal access to higher education for students of different backgrounds is far from being a reality. Both top-level education authorities and higher education institutions still have the important task ahead to improve the inclusiveness of higher education.

In order to achieve this goal, an essential – though not sufficient – step is to open higher education to a diverse student population: in other words, to widen the group of people who have the chance to access higher education. In this context, this section of the report examines: 1) whether education authorities collect information about the diversity of the student population; 2) whether these authorities, in line with the Leuven/Louvain-la-Neuve Communiqué of 2009⁽⁹⁰⁾ and the guidelines outlined in the report of the Social Dimension and Lifelong Learning Working Group of the BFUG

⁽⁸⁹⁾ Either because the share of delayed transition students is low in general (see Figure 5.2), or because even delayed transition students tend to graduate before the age of 30.

⁽⁹⁰⁾ Leuven/Louvain-la-Neuve Communiqué: The Bologna Process 2020 – The European Higher Education Area in the new decade. Communiqué of the Conference of European Ministers Responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April 2009.

approved in 2015⁽⁹¹⁾, have set any targets/quantitative objectives to be achieved in terms of improving such diversity; 3) what features of higher education admission systems can facilitate the access of people from under-represented groups; and finally 4) to what extent students with disadvantaged backgrounds can receive financial support once they gain access to higher education.

5.1.2.1. Monitoring the composition of the student body

As also emphasised by the Strategy on Widening Participation for Equity and Growth⁽⁹²⁾, the first step towards widening participation is actually collecting information on the existing situation regarding the participation of under-represented groups in higher education. Such information collected through systematic monitoring can provide evidence to education authorities on the effectiveness of measures aiming to improve the inclusiveness of higher education.

The composition of the student/graduate body can be monitored at four different stages: at entry, during higher education studies, at graduation and after graduation. Monitoring entrants can provide information on the inclusiveness of admission systems; monitoring students during higher education can give an insight into differences in drop-out rates based on students' specific characteristics; monitoring graduates can reveal the chances of specific groups of students to complete higher education; and finally, monitoring graduates after some years of graduation is typically used to analyse employment patterns of graduates as a whole, as well as that of specific groups of young people.

As Figure 5.10 demonstrates, monitoring students' specific characteristics is the least common after graduation. On the other hand, the majority of countries do monitor the composition of the student body at entry, during higher education studies and at graduation.

The most common characteristics to be monitored are gender and age at all stages. At the same time, while many education systems monitor the type and level of qualifications of higher education entrants prior to entry, in most cases, potential differences between students on this basis are not followed up at later stages.

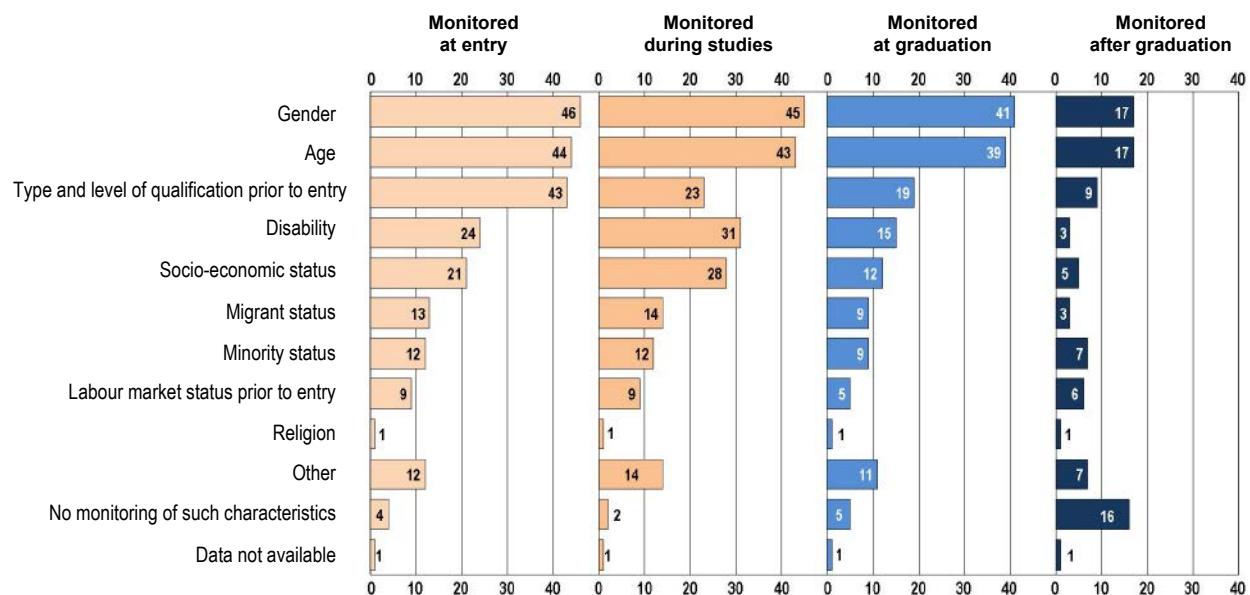
Disability is also a relatively common characteristic to be monitored, most typically at entry and during higher education studies. As the next section will show, several education systems apply specific admission conditions when it comes to students with disabilities, which can explain the frequency of monitoring.

The socio-economic background of students – which can be defined on various bases, from income to the education background of parents – is less commonly monitored than disability. It is only monitored by the majority of education systems during higher education studies. Although it is difficult to judge the inclusiveness of admission systems without having information on the socio-economic background of entrants, less than half of the education systems monitor systematically this characteristic at entry. Moreover, completion statistics are rarely compiled taking the socio-economic background of graduates into account (see also Section 5.2).

⁽⁹¹⁾ Report of the 2012-2015 BFUG Working Group on the Social Dimension and Lifelong Learning, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 34.

⁽⁹²⁾ Widening Participation for Equity and Growth – A Strategy for the Development of the Social Dimension and Lifelong Learning in the European Higher Education Area to 2020, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015.

Figure 5.10: Number of education systems monitoring the composition of the student body, by stage and by students' characteristics, 2016/17



Source: BFUG data collection.

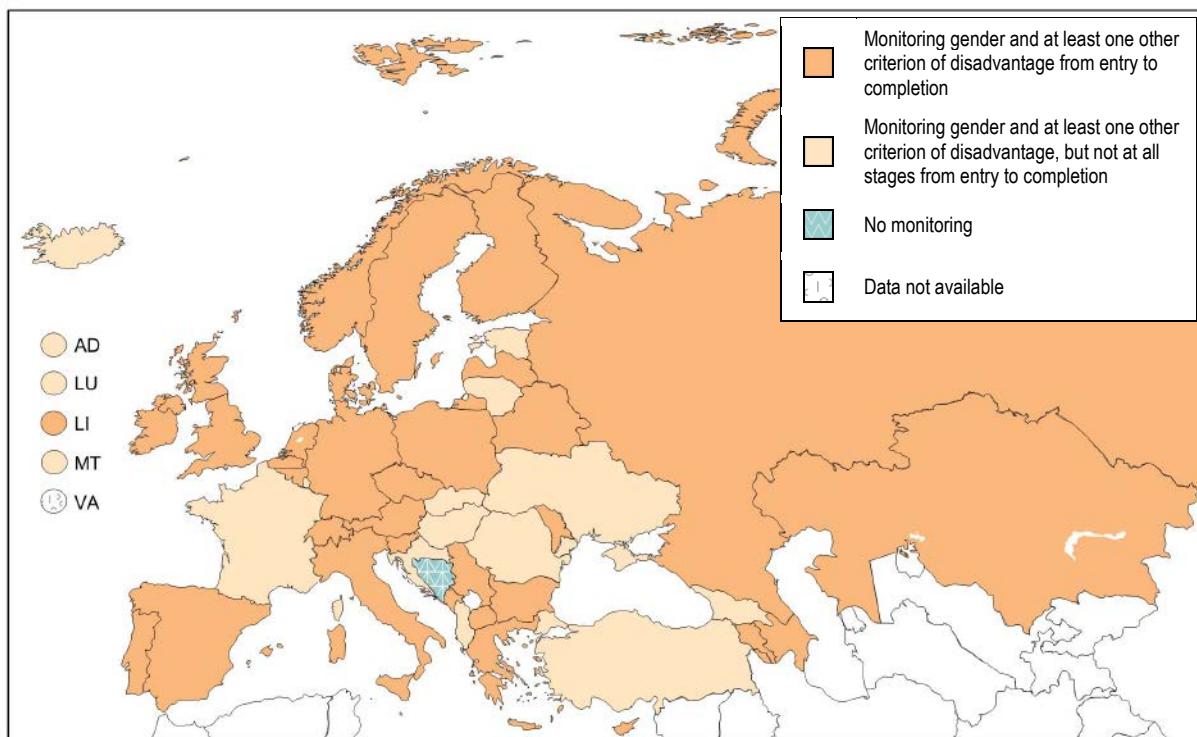
Notes:

The figure is based on data supplied by 50 higher education systems.

Within the framework of the Bologna Process, widening participation does not stop at admission, but supportive measures have to follow through until the completion of studies. Therefore, it is certainly interesting to look at whether education systems monitor the same characteristics of students at the three stages from entry to completion (at entry, during higher education studies and at graduation). While the large majority of EHEA countries monitor some characteristics of the student body at all stages, it is somewhat less common to follow up on the composition of the student body based on the same criteria throughout the important steps towards a higher education degree.

Figure 5.11 shows education systems monitoring the student body based on gender – the most common characteristic to be monitored – and at least one other criterion of disadvantage (e.g. disability, socio-economic status, migrants status, etc.). As the figure reveals, with the exception of Bosnia and Herzegovina, all education systems monitor the composition of the student body based on minimum two different characteristics at least at one stage from entry to completion. In some countries (e.g. in Georgia), the main framework of monitoring is the Eurostudent survey. In addition, the majority of education systems (33) follow up on the same characteristics at all three stages.

Figure 5.11: Monitoring the composition of the student body from entry to completion, 2016/17



Source: BFUG data collection.

5.1.2.2. Quantitative objectives and targets

With the Leuven/Louvain-la-Neuve Communiqué of 2009, ministers agreed that each participating country would set 'measurable targets for widening overall participation and increasing participation of under-represented groups in higher education, to be reached by the end of the next decade' (⁹³). In line with this approach, in 2015, ministers also adopted the report of the Social Dimension and Lifelong Learning Working Group of the BFUG, which recommends EHEA countries to set national objectives on the participation of under-represented groups (⁹⁴).

As the 2015 Bologna Implementation Report showed, the majority of countries have some targets related to widening participation in higher education. However, as the report argued, most of these objectives are about widening overall participation, without making reference to specific under-represented groups (European Commission/EACEA/Eurydice 2015, p. 117).

Nevertheless, some countries do set targets and quantitative objectives regarding the entry and/or participation of specific under-represented groups. Such objectives can be very short-term (e.g. the yearly setting of quotas in the admission system for certain groups, see Section 5.1.2.3), or can refer to a longer time-period (e.g. targets to be reached by 2020 or 2025).

Such **longer-term targets** exist in a handful of countries only: in Austria, the Czech Republic, France and the United Kingdom. Both Austria and the United Kingdom (Scotland) have set multiple goals for different groups. By 2025, among other targets, Austria aims to increase the number of first-year students with 'non-traditional' backgrounds to 5 300 and the proportion of second-generation immigrants among entrants to 30 % (BMWFW 2017, p. 34). Regarding gender imbalances, Austria

⁹³ Leuven/Louvain-la-Neuve Communiqué: The Bologna Process 2020 – The European Higher Education Area in the new decade. Communiqué of the Conference of European Ministers Responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April 2009.

⁹⁴ Report of the 2012-2015 BFUG Working Group on the Social Dimension and Lifelong Learning, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 34.

aims to reach the goal of having at least 10 % of men/women in each study programme, as well as halving the number of programmes with less than 30 % of men/women by 2025 (*ibid.*). In the United Kingdom (Scotland), 'national aspirations' include for example that students from the 20 % (and 40 %) most deprived backgrounds should represent 20 % (and 40 %) of entrants to higher education respectively by 2030 (Scottish Funding Council, 2016). In addition, similarly to Austria, Scotland aims at reducing the gap between male and female participation in undergraduate study, as well as eliminating extreme imbalances (75/25 ratio or greater) in study programmes by 2030 (*ibid.*).

Targets for students with low socio-economic background(s) are set in France and the United Kingdom (England). France aims for 50 % of students getting financial support (need-based grants) by 2025, which essentially means that 50 % of students should come from lower socio-economic backgrounds (Ministère de l'Enseignement supérieur, de la Recherche et de l'Innovation, 2015). In England, the Government has set the goals to double the participation of students from disadvantaged backgrounds and increase by 20 % the number of students from ethnic minority groups in higher education, both by 2020 (HEFCE, 2016).

In the Czech Republic, the target set out in the Strategic Plan for Higher Education Institutions 2016-2020 is about the higher education participation of students with specific educational needs: the aim is that the share of these students in higher education should be close to their share among high school graduates (MSMT, 2015).

How can these targets be achieved? The following section illustrates examples of measures supporting the access of students from under-represented groups that have been put in place in EHEA countries.

5.1.2.3. The openness of admission systems and access routes

The way in which admission systems are organised is key in influencing the inclusiveness of higher education. Admission systems determine who can and who cannot enter higher education. A recent study (Orr et al., 2017) provides a typology of admission systems based on two main dimensions: 1) whether all streams within upper secondary education lead to some form of higher education; and 2) whether higher education institutions have the autonomy to use their own criteria in selecting students.

Education systems where not all streams provide students with qualifications enabling them to access higher education and where higher education institutions can use their own criteria to select their students are among the most selective systems; in contrast, where all streams can lead to higher education and where higher education institutions cannot select their students based on additional criteria are among the least selective ones (Orr et al., 2017).

In education systems where not all streams or pathways provide students with qualifications giving access to higher education, only a selected group of students can enter higher education directly. In these systems, the question naturally arises: do students in streams not leading to higher education have a 'second chance' to acquire the right entry qualifications? Is there a way for them to access higher education – with or without the necessary qualifications – at a later stage? Similarly, even in systems where all streams may lead to higher education, students may drop out of school early, but they may wish to continue their studies in the future. Are admission systems flexible enough to provide higher education access to these students?

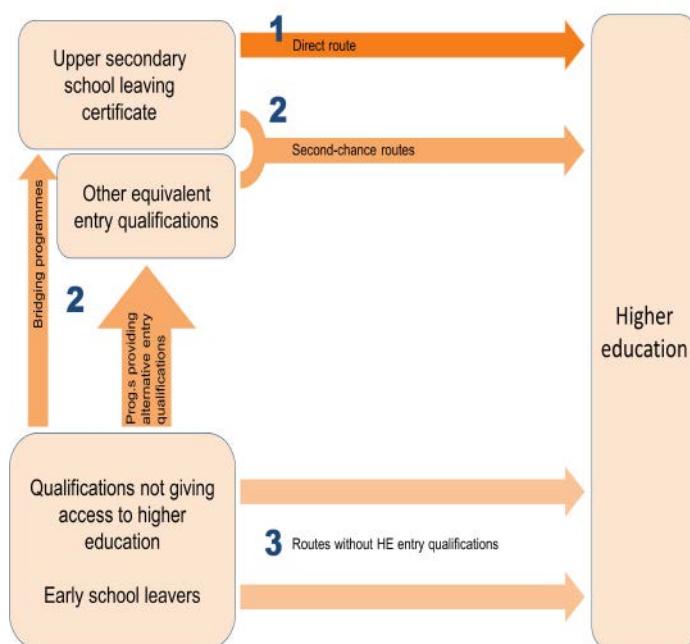
These questions are all the more important since students with lower socio-economic backgrounds tend to be over-represented in streams not giving direct access to higher education, and they drop out of school without any qualifications in higher proportions (see e.g. OECD, 2012; European Commission/EACEA/Eurydice, 2014). As Figure 5.2 illustrated, delayed transition students are over-

represented among those without a higher education background, thus among those whose parents do not possess a higher education degree. Therefore, it is important to examine the openness of admission systems and the possibilities they offer to such 'non-traditional' students.

For this reason, this section examines admission systems by looking at all the routes through which students can enter higher education. In doing so, the following entry routes are distinguished (see also Figure 5.12):

1. entry with a standard qualification (with an upper secondary school leaving certificate from general or vocational education, giving direct access to higher education);
2. entry with a higher education entry qualification obtained later in life, either through a bridging programme where the standard entry qualifications can be obtained, or through higher education preparatory or other programmes providing learners with alternative entry qualifications;
3. entry without higher education entry qualifications, thus without either an upper secondary school leaving certificate that would give direct access to higher education or another (equivalent) higher education entry qualification.

Figure 5.12: Entry routes to higher education



Source: Authors.

The traditional direct access route to higher education is the possession of an upper secondary qualification from general or vocational education. However, though such a standard qualification can provide access to higher education, often it does not guarantee it. In the majority of EHEA countries, potential entrants meeting standard entry requirements do not have a guaranteed right to higher education. Typically, students compete for a limited number of places and are selected on the basis of their level of achievement in the upper secondary qualification, or even based on an additional entrance examination (see OECD, 2017). This selectivity of higher education admission systems is discussed by Orr et al. (2017) in more details.

In the context of entry routes, the access of 'non-traditional' or disadvantaged learners can be supported by education authorities the following ways:

1. through easing the admission process for specific groups of students who nevertheless possess the standard entry qualifications;
2. through providing support to (specific groups of) students in getting qualifications necessary to enter higher education either
 1. through upper secondary bridging programmes where the standard entry qualifications can be obtained; or

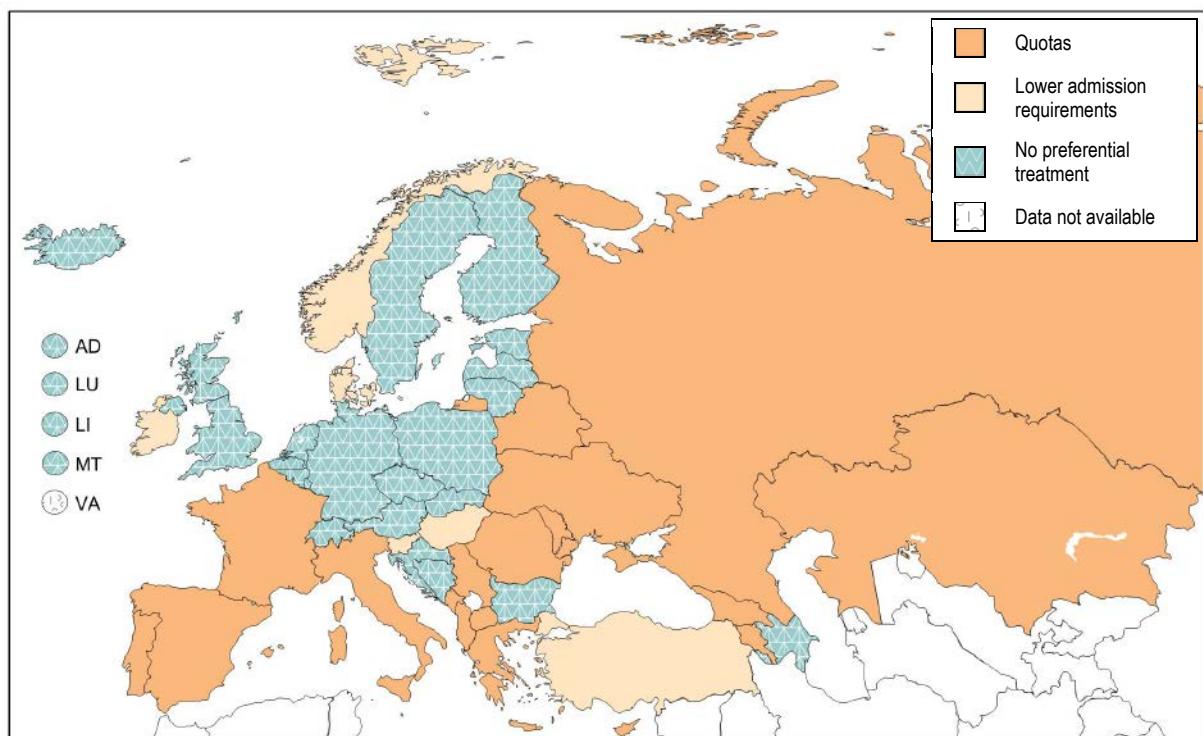
2. by providing alternative admission qualifications through higher education preparatory or other programmes;
3. through providing support to (specific groups of) students to enter higher education without higher education entry qualifications, mostly by providing a framework for the recognition of prior non-formal and informal learning.

Sometimes the borders between these different ways are blurred, which makes the establishment of clear categories difficult at times. Nevertheless, the following discussion aims to create such categories, while at the same time demonstrating the diversity of national approaches in providing support for 'non-traditional' or disadvantaged learners.

1) Supporting the admission process for under-represented groups with standard entry qualifications

A relatively common way of easing the admission process for specific groups of students is to apply some form of **preferential treatment** or positive discrimination (see Figure 5.13). The idea behind such an approach is that in order to achieve equal access to higher education for various social groups, existing inequalities in resources and opportunities need to be counteracted by favouring the groups who are at a disadvantage (⁹⁵).

Figure 5.13: Supporting the access of under-represented groups through standard entry routes: preferential treatment, 2016/17



Source: BFUG data collection.

The most prevalent arrangement for preferential treatment is the use of quotas: they exist in 18 education systems. Entry quotas mean that a given percentage of places at higher education institutions are reserved for specific, well-defined groups. Most often, these quotas are foreseen for relatively small segments of the population (e.g. ethnic minorities, the Roma, young men who completed the military service, orphans, refugees, or students with disabilities). A bit broader definition

⁽⁹⁵⁾ In some countries (e.g. Germany), positive discrimination is considered as a form of discrimination and is prohibited by law.

refers to prospective students from disadvantaged regions/remote or rural areas. For example, in France, 10 % of the best ranked *Baccalauréat* (upper secondary school leaving examination) holders coming from deprived areas have guaranteed places in selected programmes.

Besides quotas, another form of preferential treatment is when specific groups of students have lower admission requirements or are awarded extra points in the admission procedure (⁹⁶). In Denmark, this concerns a small group of prospective students only: people from Greenland. In Hungary (⁹⁷) and Norway, students from under-represented groups can be awarded extra points in the admission procedure. In Slovenia, students with a special status such as students with disabilities or students in exceptional social circumstances can be admitted to programmes with 90 % of the required minimum points. In Turkey, students with disabilities are allowed to take the special aptitude test even if they possess lower points than other prospective students. The most extensive arrangements can be found in Ireland, where there are separate admission schemes for students with disabilities (Disability Access Route to Education, DARE) and for school-leavers from socio-economically disadvantaged backgrounds (Higher Education Access Route, HEAR). Through these admission schemes, eligible students can gain access to higher education with reduced points.

Nevertheless, preferential treatment is not the only way education authorities can support the access of disadvantaged students within the standard admission procedure. While not depicted on a dedicated figure, special **outreach programmes** or projects aiming to provide pre-admission guidance to school-leavers in finding and applying for suitable higher education programmes exist in several EHEA countries (e.g. in Austria, Belgium – Flemish Community, Denmark, Estonia, Finland, Germany, Ireland, the Netherlands and the United Kingdom – England). In addition, pre-admission language support or counselling is provided to migrants, refugees or foreign students in a number of countries (e.g. in Andorra, Estonia, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands and Slovakia). There are also national efforts to increase the proportion of women/men in male-/female-dominated study fields (e.g. the promotion of studying to become primary school teachers among men in the Netherlands). Several countries have also taken the initiative to adapt admission criteria or entrance examinations to the needs of students with disabilities.

2) Supporting non-traditional learners getting higher education entry qualifications

Disadvantaged students might face difficulties in getting higher education entry qualifications at the first place. Therefore, it is crucial to examine whether they have a chance to obtain such as a qualification later in life, either through upper secondary bridging programmes where standard entry qualifications can be obtained, or through higher education preparatory programmes or other education programmes providing alternative, though most often equivalent entry qualifications.

A standard, though indirect route to higher education goes through **bridging programmes**. These are upper secondary education programmes (e.g. evening classes, additional follow-up years, etc.) through which an upper secondary school leaving certificate can be obtained, which provides access to higher education. Such second-chance or bridging programmes should be open to:

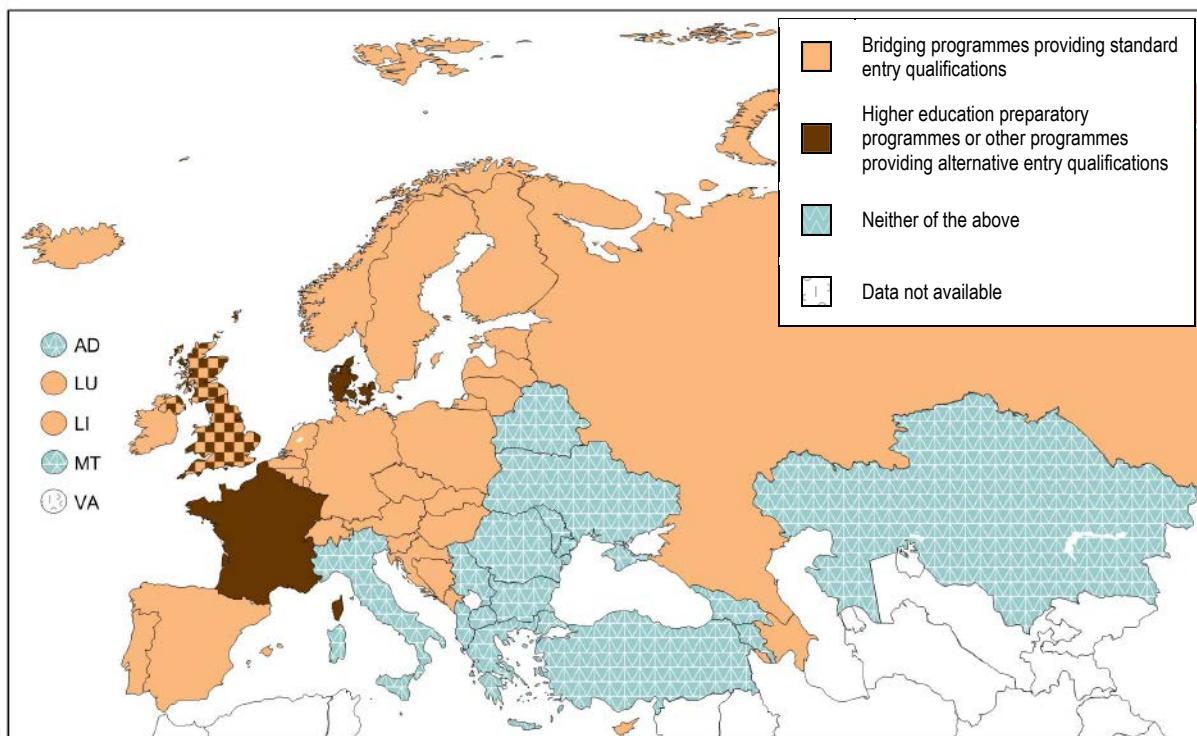
- students who followed vocational educational or training tracks not giving access to higher education;
- students who dropped out of school without obtaining an upper secondary school leaving certificate.

⁽⁹⁶⁾ Specific admission procedures provided for students with disabilities by request, which are not systematically favouring this group of students are not taken into account here.

⁽⁹⁷⁾ In Hungary, the groups of students who can be awarded extra points are: students whose families receive particular social benefits; whose parents have a low educational attainment; who are from low work intensity households; who experience severe housing deprivation or come from segregated neighbourhoods; who have disabilities or who have dependent children.

Even when such programmes are organised by higher education institutions, if they provide students with the standard entry qualifications (the upper secondary school leaving certificate), they are regarded as standard routes to higher education. As Figure 5.14 depicts, the majority of EHEA countries offer the possibility for students to obtain the standard entry qualifications through second-chance or bridging programmes. Nevertheless, there is certainly a difference between countries where such a qualification gives access to higher education without any additional selection criteria, or where learners have taken an entrance examination in addition to such a qualification (see OECD, 2017).

Figure 5.14: Second-chance routes to first-cycle higher education: standard or alternative qualifications, 2016/17



Source: BFUG data collection.

Alternatives to bridging programmes are **higher education preparatory programmes or other programmes providing alternative qualifications** to the upper secondary school leaving certificate. Common to these programmes is that they are offered to learners not having the standard upper secondary school leaving certificate, and that at the end of the programme learners are awarded a qualification which is equivalent to the standard upper secondary school leaving certificate, but is not the same. In other words, students who successfully complete such programmes can gain access to higher education institutions without the standard upper secondary leaving certificate. For this reason, such programmes are often regarded as alternative routes to higher education. Nevertheless, they are depicted together with bridging programmes as they still build on a system of entry qualifications necessary for higher education admission.

Such programmes exist in Denmark, France and the United Kingdom. These programmes can be specific higher education preparatory programmes, like in the United Kingdom, or general education programmes providing a qualification similar to the upper secondary school leaving certificate. This qualification – the Higher Preparatory Examination in Denmark, the *Diplôme d'accès à l'enseignement supérieur* in France and the Access to Higher Education Diploma in the United Kingdom – provides students with the same rights as an upper secondary school leaving certificate, the right to access higher education programmes among them.

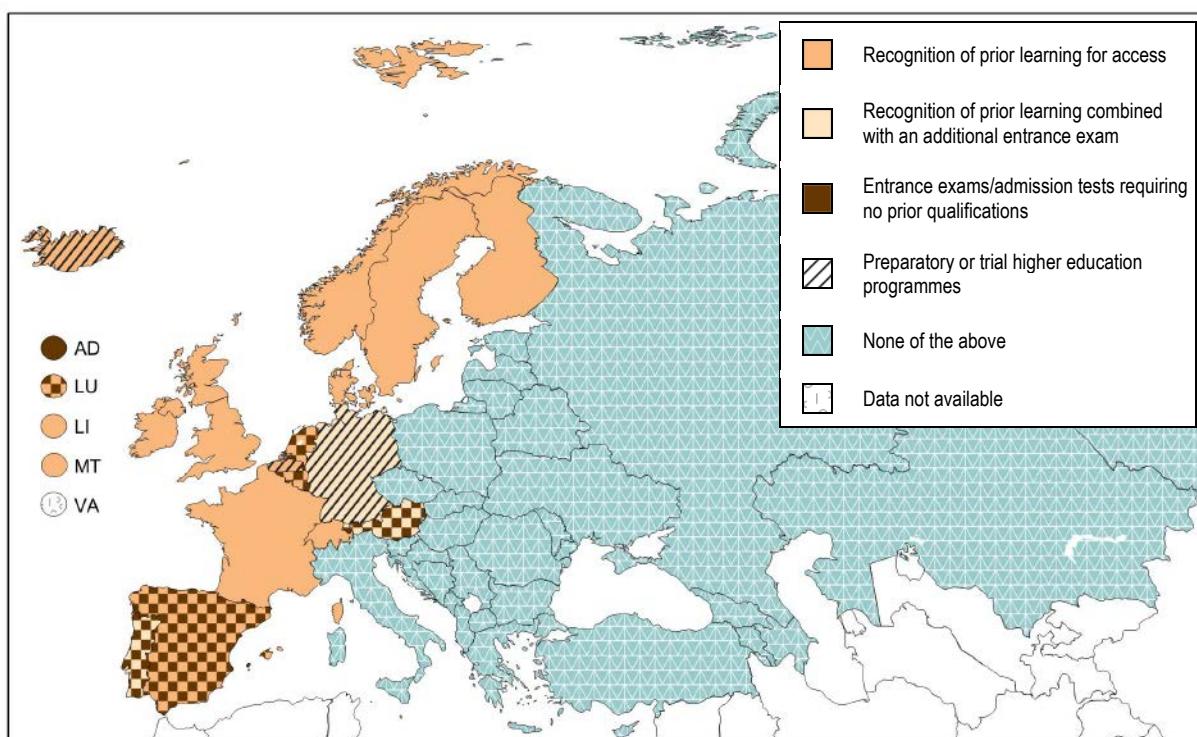
3) Supporting non-traditional learners accessing higher education without higher education entry qualifications

Education systems might also allow students without formal entry qualifications to access higher education programmes. Though national variations in this respect are considerable, this report distinguishes between the following practices:

- entry through the recognition of prior learning;
- entry through the recognition of prior learning combined with an additional entrance exam;
- entrance exams/admission tests requiring no prior qualifications;
- entry through preparatory or trial higher education programmes.

These categories are depicted on Figure 5.15.

Figure 5.15: Possibilities to access higher education without formal qualifications: typology of access routes, 2016/17



Source: BFUG data collection.

The importance of the **recognition** of knowledge and skills gained through **non-formal and informal learning** has been stressed by communiqués of ministerial conferences for years. With the Bucharest Communiqué ministers explicitly agreed to 'step up [their] efforts towards under-represented groups to develop the social dimension of higher education, reduce inequalities and provide [...] alternative access routes, including recognition of prior learning' (98). The Yerevan Communiqué further stresses that structural reforms – such as providing a framework for the recognition of prior learning – agreed upon earlier should be implemented 'by policy makers and academic communities and [with the] stronger involvement of stakeholders' (99). For countries of the European Union, the recognition of

(98) Bucharest Communiqué: Making the Most of Our Potential: Consolidating the European Higher Education Area, 26-27 April 2012, pp. 1-2.

(99) Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 3.

prior learning has been encouraged through a Council Recommendation on the validation of non-formal and informal learning (¹⁰⁰).

Nevertheless, in more than half of the education systems, it is still not possible for candidates to be admitted to higher education on the basis of the recognition of prior non-formal and informal learning. This picture is very similar to the one presented in the 2015 Bologna Process Implementation Report, which means that no education system has introduced a framework for the recognition of prior learning for access since then.

Frameworks for the recognition of prior learning exist primarily in western European countries. In most cases, a recognition procedure is enough for applicants to gain access to (selected) higher education programmes. Nevertheless, such a recognition procedure is not always compulsory for all higher education institutions, but is an option institutions can choose to apply in their admission procedure. Furthermore, as Figure 5.15 shows, in three countries – Austria, Germany and Portugal – the recognition procedure in itself is not enough for applicants to gain access to higher education: they also have to pass an additional entrance examination.

Besides the recognition of prior learning, other forms of alternative access also exist in EHEA countries: simple entrance examinations and preparatory or trial programmes. However, these are usually complementing frameworks for the recognition of prior non-formal and informal learning.

For entrants without formal entry qualifications, some countries offer the possibility of taking an **entrance exam or admission test**. This is not to be confused with special aptitude tests offered to the most talented, most prevalent in the field of arts: these examinations should be open to a wider group of learners (e.g. all applicants or applicants over a certain age). Such special entrance examinations exist in Andorra, Austria (*Studienberechtigungsprüfung*), the French Community of Belgium, Luxembourg, the Netherlands (*colloquium doctum*), Portugal and Spain (see Figure 5.15). In Andorra, learners without the formal entry qualifications who are above the age of 25 can enter higher education through a special entry examination. They can also participate in courses preparing them for this examination. In Spain, different entrance possibilities exist depending on candidates' age: entrance exams requiring no prior qualifications are organised for learners above 25 and 45; while learners above 40 with relevant professional experience can enter higher education through a recognition procedure, without being obliged to pass an entrance examination.

Finally, **preparatory or trial higher education programmes** exist in the Flemish Community of Belgium, Germany and Iceland. These programmes do not provide learners with a special qualification or certificate, but upon their successful completion, students can gain access to higher education degree programmes. In Germany, learners without the standard entry qualifications can enter some higher education programmes through 'trial studies' (*Probestudium*). The trial period lasts on average two to four semesters, and anyone who has successfully participated in courses and performance assessments during this time will gain access to the degree programme (typically in the first cycle) as a student. In Iceland, students can enter higher education upon the successful completion of a preliminary studies programme, which is a distance learning programme lasting around two years.

4) Incentives to higher education institutions for widening access

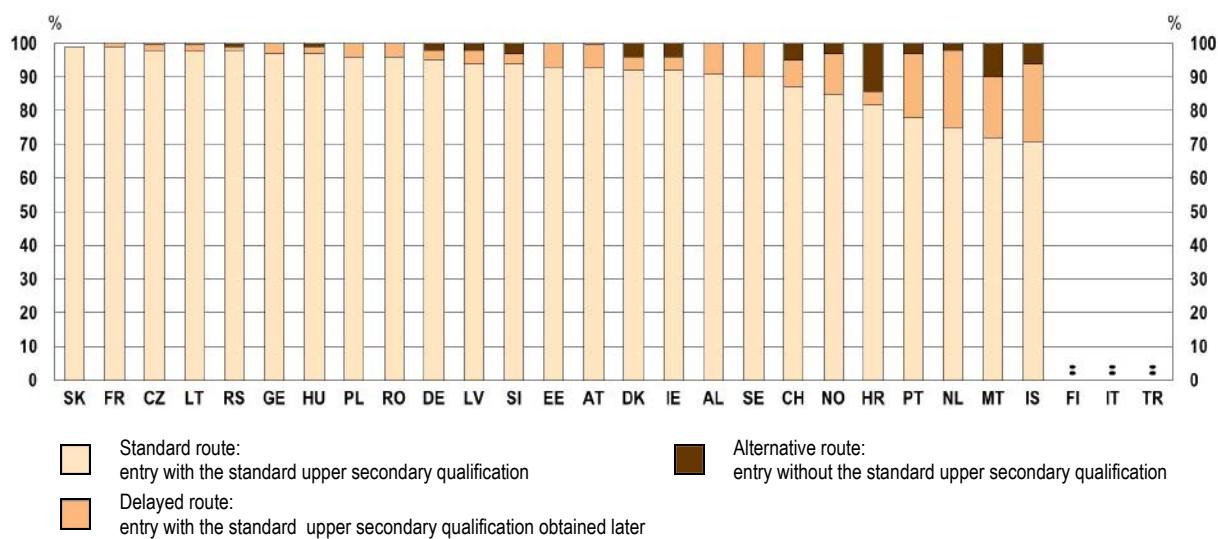
While some of the support measures described above include centralised procedures all higher education institutions have to comply with (e.g. the use of quotas or lower admission requirements for certain groups of learners), others are often only available options higher education institutions can freely choose from when designing their admission procedures (e.g. the recognition of prior learning or

(¹⁰⁰) Council Recommendation on the validation of non-formal and informal learning, 20 December 2012 (2012/C 398/01). Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:398:0001:0005:EN:PDF>

special entrance examinations for learners without formal qualifications). In the latter case, top-level authorities often do not even monitor higher education institutions' admission practices (¹⁰¹). Evidence, where available, shows that despite the presence of flexible entry paths, the overwhelming majority of students enter higher education the traditional way in most EHEA countries: with a standard qualification obtained directly at the end of upper secondary education.

As Figure 5.16 illustrates, alternative access routes are marginal in most countries with available data. According to the Eurostudent survey, the share of students entering higher education without the standard upper secondary entry qualifications is the biggest in Croatia (14 %), Malta (10 %), Iceland (6 %) and Switzerland (5 %). However, these data do not always provide the correct picture due to differences in Eurostudent country questionnaires (¹⁰²). For example, as also Figure 5.15 shows, it is not possible to access higher education without the standard upper secondary qualification in Croatia; so the high percentage of students in this category most probably refers to those who got their upper secondary qualifications before the current State Matura exam was introduced.

Figure 5.16: Percentage of students entering higher education through standard and alternative routes, 2016/17



	%	SK	FR	CZ	LT	RS	GE	HU	PL	RO	DE	LV	SI	EE	AT
Standard	99	99	98	98	98	97	97	97	96	96	95	94	94	93	92
Delayed	:	1	2	2	1	3	2	4	4	4	3	4	3	7	7
Alternative	:	0	0.2	0.3	1	0	1	0	0	0	2	2	3	0	0.3
	%	DK	IE	AL	SE	CH	NO	HR	PT	NL	MT	IS	FI	IT	TR
Standard	92	92	91	90	87	84	81	78	74	72	71	:	:	:	:
Delayed	4	4	9	10	8	12	4	19	23	18	23	:	:	:	:
Alternative	4	4	0	0	5	3	14	3	2	10	6	:	:	:	:

Source: Eurostudent.

Notes:

Students entering with the standard qualification possess an upper secondary qualification obtained in direct relation to leaving school for the first time (e.g. *Matura*, *Abitur*, *Baccalauréat*), either in the country of survey or abroad. Students entering with the standard qualification obtained later got this (national or foreign) qualification with a delay, e.g. via evening classes or adult learning.

(¹⁰¹) Education systems collecting data on students entering through alternative access routes are the Flemish Community of Belgium, Denmark, Finland, France, Norway and Portugal.

(¹⁰²) See also the country notes in the Glossary and Methodological Notes.

When looking at students entering higher education with standard qualifications obtained later in life (i.e. through second-chance routes), their proportion is relatively substantial in some countries, especially in the Netherlands (23 %), Iceland (23 %), Portugal (19 %) and Malta (18 %). In most other countries, however, even their participation in higher education is very low.

So how can education authorities provide incentives to higher education institutions to increase the access rates of non-traditional learners? Examples of such incentives are systems of performance evaluation with criteria linked to the inclusiveness of higher education institutions' admission systems. In such systems, the decision on how higher education programmes could be more open to a diverse student population is outsourced to higher education institutions: they have to reach certain goals, but they can choose the measures that are the most suitable for them.

For example, in Sweden, higher education institutions are **required by law** to actively promote and widen access to higher education. In this context, more than one third of Swedish higher education institutions have a target of increasing the proportion of students from educationally disadvantaged or non-academic homes, or from non-traditional or under-represented groups. In addition, some higher education institutions have a target of achieving an even gender distribution throughout the institution or in particular programmes (Swedish Council for Higher Education, 2016).

Another similar approach is the system of **performance agreements**, which exists for example in the United Kingdom. In England, higher education institutions wanting to charge higher tuition fees need to sign an Access Agreement with the Office for Fair Access (OFFA), which details how the institution will sustain or improve access, student success and progression among people from under-represented and disadvantaged groups. In Scotland, each higher education institution has an Outcome Agreement with the Scottish Funding Council. In addition to providing a narrative on the activity and support provided to under-represented groups, institutions also set targets for their own progress against national measures.

5.1.2.4. Fees and financial support

Access to quality higher education also depends on the financial means available to students to finance their studies and living costs. Thus, in order to ensure that no young person is prevented or discouraged from entering higher education due to his/her socio-economic background, EHEA higher education ministers have committed themselves to pay particular attention to student support systems in the national public budget allocated to financing national higher education systems.

While presenting the full variety of fee and support systems and how their different elements interlink is not possible in this report, this section will discuss which students pay, how much they pay and the financial burden study costs may mean in a specific national context. Similarly, student support systems will be looked at from the point of view of coverage (the share of students who can benefit from support), the criteria that determine which students can benefit from financial support, and the type of direct support (*re-payable versus non-reimbursable support*) available.

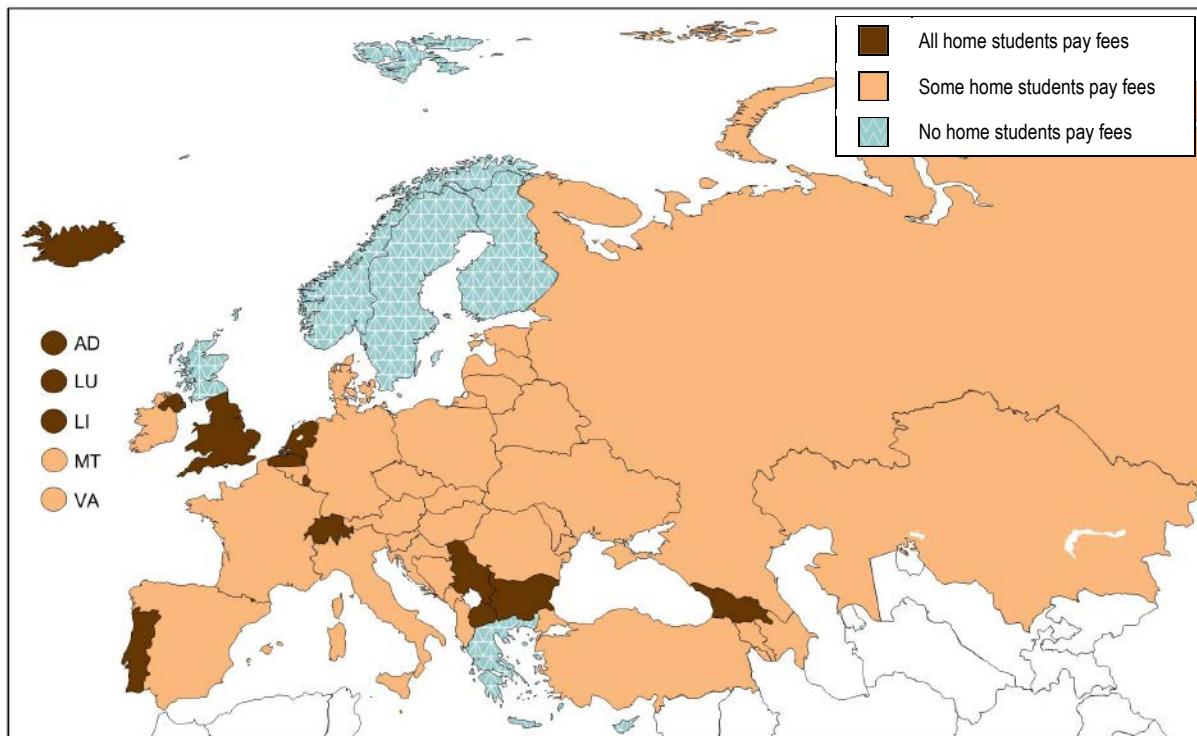
1) Student costs

The costs of higher education studies have multiple components (accommodation costs, travel, study material, study fees, etc.). Nevertheless, tuition fees and other (registration, certification, etc.) fees that are charged to students by higher education institutions are the most directly associated with study costs. Such fees often influence prospective students' decisions on starting higher education and they may also have an impact on the quality of student life for at least part of the enrolled population.

Prevalence of fees across the EHEA

Figure 5.17 shows the existence of fees for home students in first-cycle programmes and whether this concerns all students. The fees implied here are any types of costs students need to pay for their studies – tuition fees as well as registration, administrative, certification, etc. fees. Payments to student unions are not taken into account. The figure refers only to the prevalence of fees which are higher than EUR 100 annually and are charged to home students, or to those students who have the same status as home students in the national student fee and support system.

Figure 5.17: Prevalence of fees in public higher education institutions for home students in the first cycle, 2016/17



Source: BFUG data collection.

Similarly to the situation presented in the 2015 Bologna Process Implementation Report, in most EHEA countries, at least some students who study in first-cycle programmes pay fees. In 13 higher education systems, all students pay more than EUR 100 annual fee. In contrast, in six countries students do not pay fees at all or pay less than EUR 100 per year. From the academic year 2017/18, new entrants to first-cycle programmes do not pay fees in Montenegro⁽¹⁰³⁾. If higher education entry rates are maintained, this is a significant change from the previous system in Montenegro where more than half of the students (those on non-state funded places) paid fees. In the remaining 31 systems, some students pay fees depending on a variety of criteria. In Germany, students are required to pay only in some *Länder* – in particular when they exceed significantly the regular study time (see also Figures 2.19, 5.36 and 5.37).

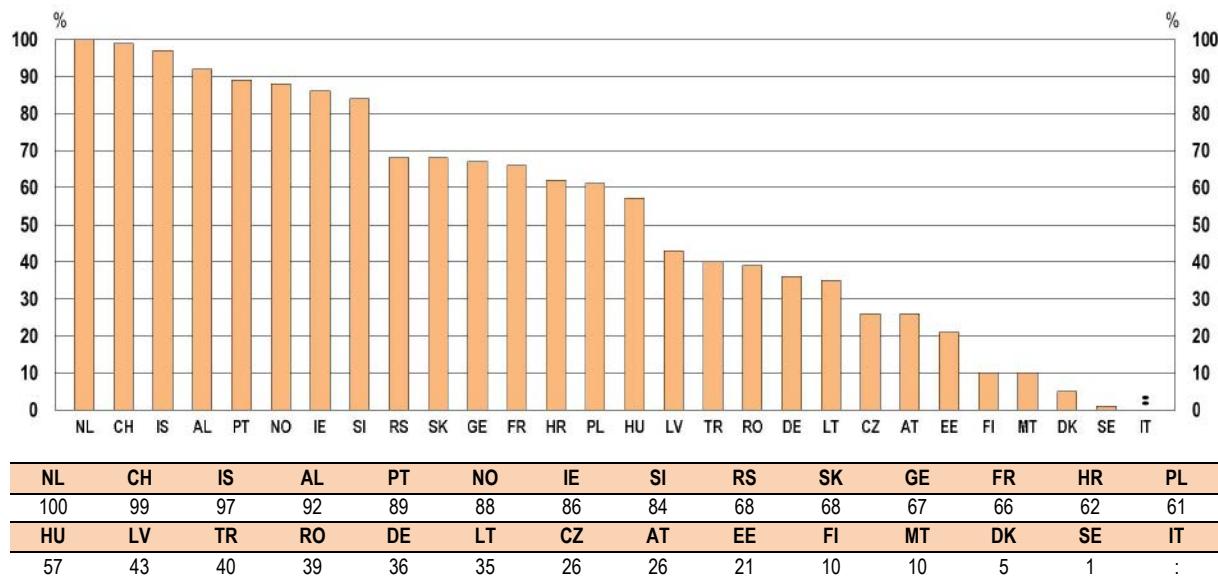
For short-cycle⁽¹⁰⁴⁾ and second-cycle programmes, general fee policies are similar to the first cycle in most of the countries. Exceptions are Russia where all students pay for short-cycle programmes – while not all of them pay in the first and the second cycle – as well as Malta and the United Kingdom (Scotland), which do not claim fees for first- and short-cycle studies, but students have to pay in the second cycle.

⁽¹⁰³⁾ Legislation foresees that no fees will be charged on those who start their second cycle studies in the academic year 2020/21 in public higher education institutions in Montenegro (European Commission/EACEA/Eurydice, 2017b).

⁽¹⁰⁴⁾ Short-cycle higher education programmes are not offered in all EHEA countries (see also Figure 3.7 in Chapter 3).

In countries where some home students pay fees, the variation among countries in the proportion of fee-paying students is large. Figure 5.18 presents the share of first-cycle students who reported that they pay fees in the latest Eurostudent VI survey. In this survey, full- and part-time home and international (¹⁰⁵) first-cycle students were asked whether they pay fees.

Figure 5.18: Percentage of first-cycle students who pay fees, 2016/17



Source: Eurostudent.

More than three-quarters of participating students claimed to pay fees in the Netherlands, Switzerland, Iceland, Albania, Portugal, Norway, Ireland and Slovenia (¹⁰⁶). It should be noted that in Norway, although students at public higher education institutions do not pay fees, they may perceive the membership fee to the local student welfare organisation as some sort of fee. Similarly, in Germany students who do not exceed the regular study period do not pay fees, but some may consider the semester service contribution (*Semsterbeitrag*), which covers administrative costs as well as a social contribution to the local student services organizations as fee.

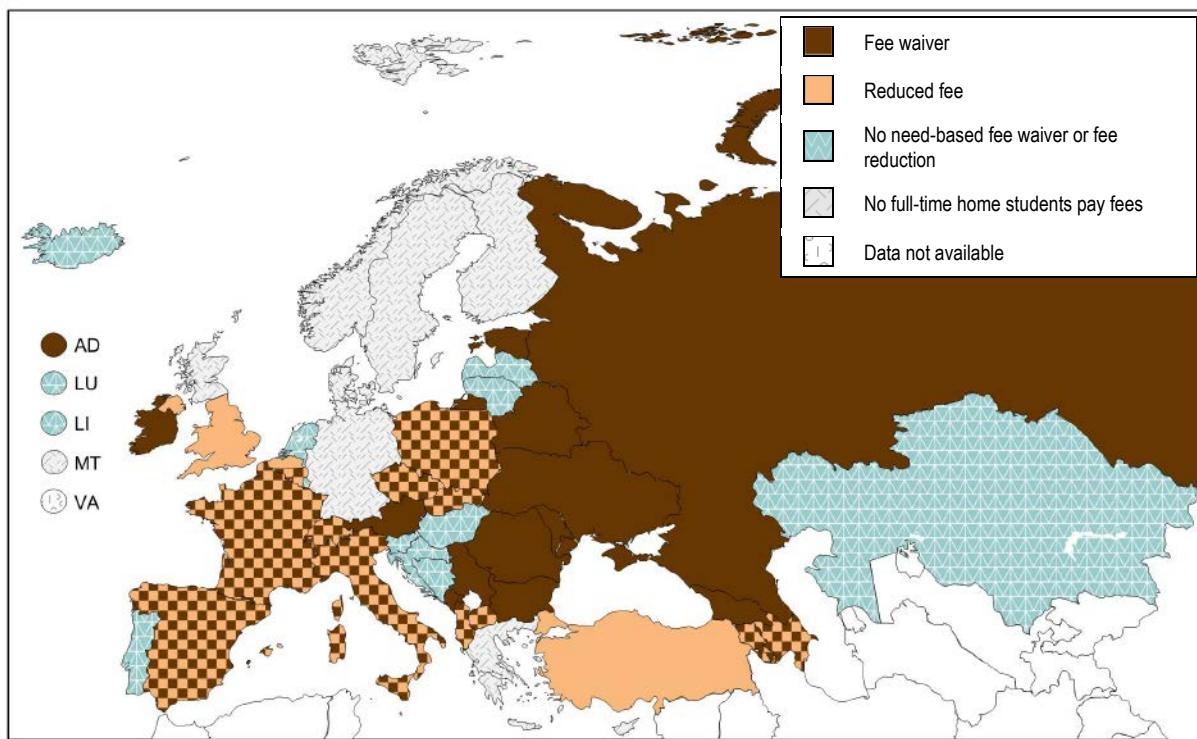
At the other end of the scale, less than 10 % of students report paying fees in Finland, Malta, Denmark and Sweden. In these latter countries, no full-time home students pay fees, but in some of them part-time students (Denmark and Malta) do, and international students pay fees in all of them (European Commission/EACEA/Eurydice, 2017b).

Figure 5.19 shows which higher education systems take into account socio-economic criteria when determining which full-time home students (do not) pay fees, and how much they pay. In 26 higher education systems, socio-economic criteria influence how much students pay. In a few countries, the obligation to pay some fee remains for all students regardless of their background. In these countries, disadvantaged students may pay, however, lower fees (in Belgium – Flemish Community, Turkey and the United Kingdom – England, Wales and Northern Ireland).

(¹⁰⁵) In the Eurostudent survey, international students studying for a full degree in the host country also participated. The survey sample did not include temporary/credit mobility students

(¹⁰⁶) Discrepancies between Figures 5.17 and 5.18 are due to the following circumstances: 1) in certain countries while all students pay fees as a rule, fee waivers for some students may exist based on socio-economic background (e.g. in Switzerland).

Figure 5.19: Need-based fee reductions for full-time home students in the first cycle, 2016/17



Source: BFUG data collection.

In 23 countries, students may be fully exempted from paying fees (fee waiver) if they come from low socio-economic background or belong to under-represented student groups. Such fee waivers are available for disabled students, minorities – for example the Roma, orphans or children of war victims in countries including Albania (in first-cycle programmes only), Armenia, Azerbaijan, Bulgaria, the former Yugoslav Republic of Macedonia, Montenegro, Russia, Serbia and Turkey. In the French Community of Belgium, France, Ireland and Italy, those students who do not need to pay fees based on their socio-economic circumstances also receive a study grant (see Figure 5.22).

In Albania, Armenia, Azerbaijan, the French Community of Belgium, the Czech Republic, France, Italy, the former Yugoslav Republic of Macedonia, Poland, Slovakia, Spain and Switzerland, both fee exemption and fee reduction may be granted. The fee reduction usually applies to students who do not meet the criteria for fee waivers, but are considered disadvantaged. Such fee reduction is often linked to the student's household income. It should, however, be noted that in the Czech Republic and in Slovakia, both fee waivers and fee reduction are allowed by national legislation, but it is up to the higher education institutions to decide whether they apply them.

In 14 countries, fee amounts are not influenced by students' socio-economic background. Data shows that in these countries either all students pay the same amount (Iceland, Liechtenstein and Portugal) or other criteria determine which students pay fees and how much they pay. The most common criteria are the study field, whether a student has a different status from the full-time status (part-time students, distance learning; see Figure 2.18) or academic performance.

When merit-based criteria are used in determining fee-payers among full-time home students, they usually function as negative incentives to improve study performance. In particular, there are two performance levels defined for higher education entry: the lower level needs to be met by all students who enter (are admitted to) higher education, while the higher performance level has to be met in order to avoid paying study fees. In Armenia, Belarus, Bosnia and Herzegovina, Hungary, Kazakhstan, Latvia, Lithuania, Montenegro, Romania and Serbia, students whose secondary school performance or entrance test results do not meet the higher performance limit for state-funded study

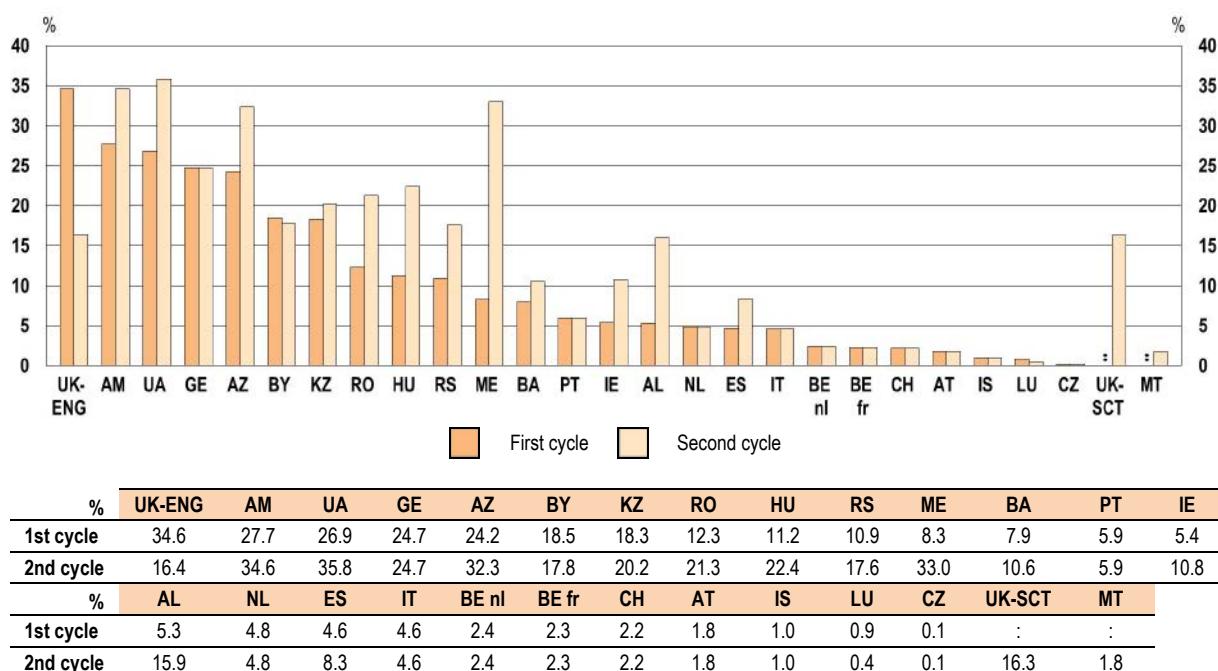
places (usually 30-50 % of students depending on the country) pay fees as from their entry to higher education. Students in these countries, however, may change funding status during their studies: if their study performance is among the best, they can obtain state-funded study places and do not pay fees.

Other criteria are related to the pace and completion of studies. The most common policies are that students who do not complete a prescribed number of ECTS credits per semester or continue their studies over the usual number of study years need to pay (see Figures 5.36 and 5.37). Some countries are conscious that while these measures are effective in encouraging study completion, they may have inverse effects on disadvantaged students. For this reason, disadvantaged students may receive exemption from paying fees even if their pace of study is below what is expected. For example, this is the case in Austria and Estonia. In the Czech Republic, those who become parents during their studies are exempted (European Commission/EACEA/Eurydice, 2016a).

How much students pay

Fee waivers and fee reduction are particularly important social support measures for disadvantaged students when fee levels are high in the country. In order to assess the actual fee burden on students, the most common annual fee amounts for full-time home students are compared to the GDP per capita for the corresponding year (2016) in Figure 5.20.

Figure 5.20: Most common amount of yearly fees for full-time home students as a percentage of GDP per capita, 2016/17



Source: Authors' calculation based on Student Fee and Support Systems in Europe 2016/17 (European Commission/EACEA/Eurydice, 2016a), the BFUG data collection and World Bank (NY.GDP.PCAP.CN, Data from database: World Development Indicators, last updated: 09/18/2017).

Figure 5.20 shows that among countries for which data are available, first-cycle home students pay the highest fees in the United Kingdom (England, Wales and Northern Ireland); this amounts to almost 35 % of the GDP per capita. First-cycle fees are also over 20 % of the GDP per capita in Armenia, Ukraine, Georgia and Azerbaijan; and above 10 % of the GDP per capita in Belarus, Kazakhstan, Romania, Hungary and Serbia.

Relative to the GDP per capita, the highest second cycle fees are in Ukraine, Armenia and Montenegro – all of them amounting to above 30 % of the GDP per capita in the country. Some of

these countries have relatively low GDP, which can partly explain that relatively sizable burden on students.

Figure 5.20 also indicates that there may be big differences in the amount of fees to be paid in the first and the second cycles. In the United Kingdom (England, Wales and Northern Ireland), bachelor students pay more than double the fees that master students pay. In almost all other countries, second-cycle fees are higher. The difference between the most common first- and second-cycle fees is the highest in the United Kingdom (Scotland) (also because there are no fees for full-time home students in the first cycle), Montenegro, Albania, Ireland, Hungary and Romania. In these countries, second-cycle students most commonly pay double or more than first-cycle fees. Significantly higher fees in the second cycle may discourage progression from bachelor to master studies, in particular for disadvantaged students.

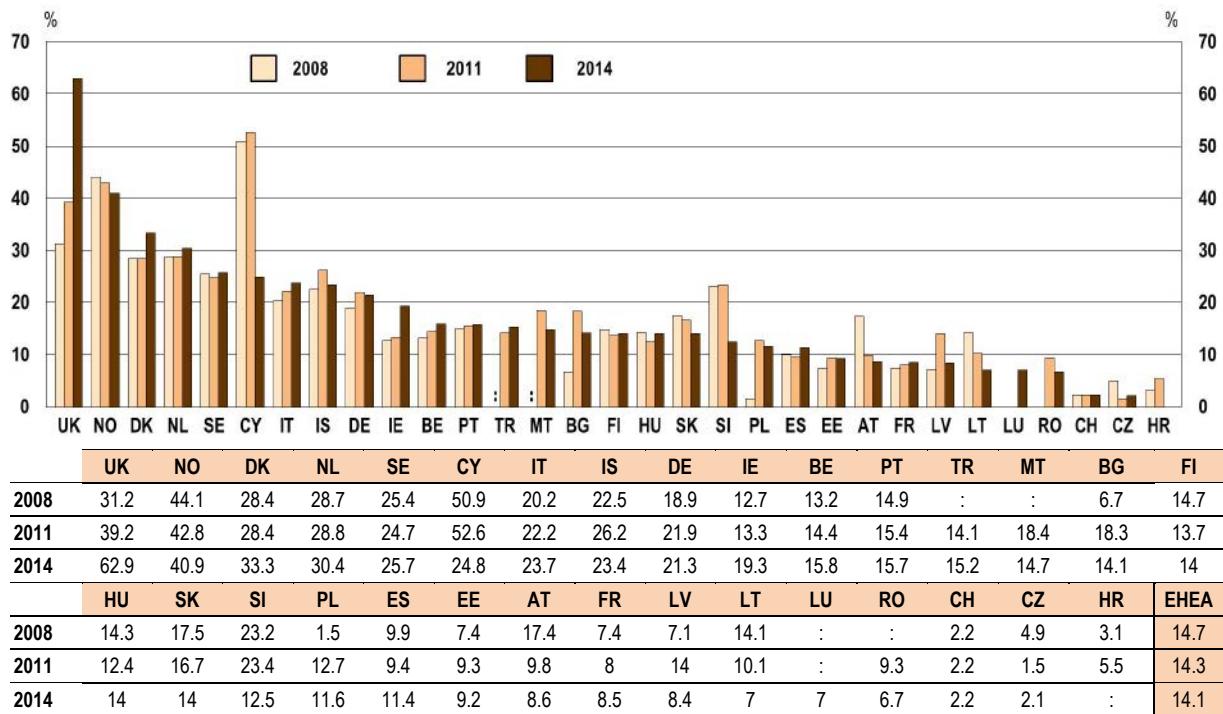
2) Student support

Student support from public funds is an important contribution enabling students to start and complete their studies. Students from some under-represented groups are specifically affected by the level of public support provided, especially if study fees are high and no reduction or exemption can be obtained based on social needs. Countries provide financial support in many different forms. The most common ones are grants, loans, tax benefits and family allowances. Among these, grants are the most widespread assistance tools.

Figure 5.21 shows how student support has evolved over the last years. It indicates the relative share of public funding to higher education spent on financial support to students in 2008, 2011 and 2014. Financial support here includes public spending on student grants and loans. This indicator needs to be interpreted with caution: it does not take into account indirect support such as dormitories or student accommodation and meals to students. Furthermore, the increase in the share of public expenditure on students support does not necessarily mean an increase in the total amount or in the per capita support; it can also signal a decrease in the total public funding for tertiary education or a change in the distribution of public funding to higher education between the different main budget items.

The figure points to the largest share of public expenditure on student support in the United Kingdom (over 60 %) and Norway (around 40 %) in 2014. The lowest proportion of public expenditure on student support is in the Czech Republic and Switzerland (around 2 %). The high value in the United Kingdom and the low value in Switzerland should be seen together with the universal fee policy in both countries.

Figure 5.21: Support to students enrolled at tertiary education level as a percentage of public expenditure on tertiary education, 2008, 2011 and 2014



Source: Eurostat, UOE.

Notes:

Data are sorted by support to students in tertiary education as a percentage of public expenditure on tertiary education in 2014.

EHEA: Refers to the EHEA median.

When looking at the change in the share of public expenditure spent on student support over the years, it remained more or less constant within the EHEA as whole between 2011 and 2014. However, there are some significant changes in some countries. In the United Kingdom, after an increase between 2008 and 2011 an even steeper increase of more than 20 percentage points took place in the share of student support between 2011 and 2014. This latter increase may be explained by the increase in the public budget available for study and maintenance loans, which compensated for the removal of public grants in England. In Denmark, the high share of student support further increased by almost 5 percentage points; while in Ireland, an increase of 6 percentage points has taken place. In other countries with notable change, the share of student support has decreased. In Cyprus, the share of public expenditure spent on student support halved, and in Slovenia and Latvia it almost halved between 2011 and 2014. A decreasing trend can also be observed in Austria, the Czech Republic and Lithuania between 2008 and 2014.

Distribution of public support

As mentioned above, student support systems may consist of a variety of support tools in EHEA countries. They can be grouped as direct support tools which are directly awarded to students; and indirect support measures such as tax benefits and family allowances that students receive indirectly through their families.

In this report, only direct support measures are discussed for the reason that these affect students directly. Student grants are considered to be the most generous direct student support tools because students do not need to reimburse them. Publicly subsidised student loans are the other most used student support tools; however, this needs to be paid back and its success in supporting studies also depends on repayment conditions.

Besides grants and loans, several countries provide subsidised (sometimes even free) accommodation (e.g. Belarus, Croatia, Denmark, Greece, Luxembourg, Montenegro, Serbia, Slovakia and Ukraine) or meals (e.g. Belarus, Croatia, Greece, Serbia and Slovakia) to students, as well as travel support (e.g. Croatia, the Czech Republic and Romania). In some cases, all students are eligible for such support; in others, students from under-represented groups (e.g. students from low socio-economic backgrounds, students with disabilities or refugees) are specifically targeted. These types of measures, however, will not be discussed in the report in detail, because it is difficult to capture the weight of such – mainly in-kind – support.

Need-based grants

Grants may be distributed on various grounds. Criteria that determine which students can receive grants may include socio-economic circumstances and academic performance, which are the most common criteria. Participation in certain priority study programmes – these are often science, technology, engineering or mathematics (STEM) or teacher education programmes – may also be promoted through the award of grants.

While all grants are important in improving the quality of studies, grants that are allocated specifically to provide financial assistance to students will be discussed in this report. Research has long pointed to the challenges and career choices of those with a disadvantaged background. As was discussed in section 5.1, after leaving school, disadvantaged young people tend to enter the labour market, enrol in shorter courses or delay entrance to higher education. Universal and need-based grants, which do not distinguish between students except based on their assets and income, are able to lighten the financial barriers to higher education for the disadvantaged. Thus, grants are also tools for national authorities to widen access to higher education and open opportunities for low-income families.

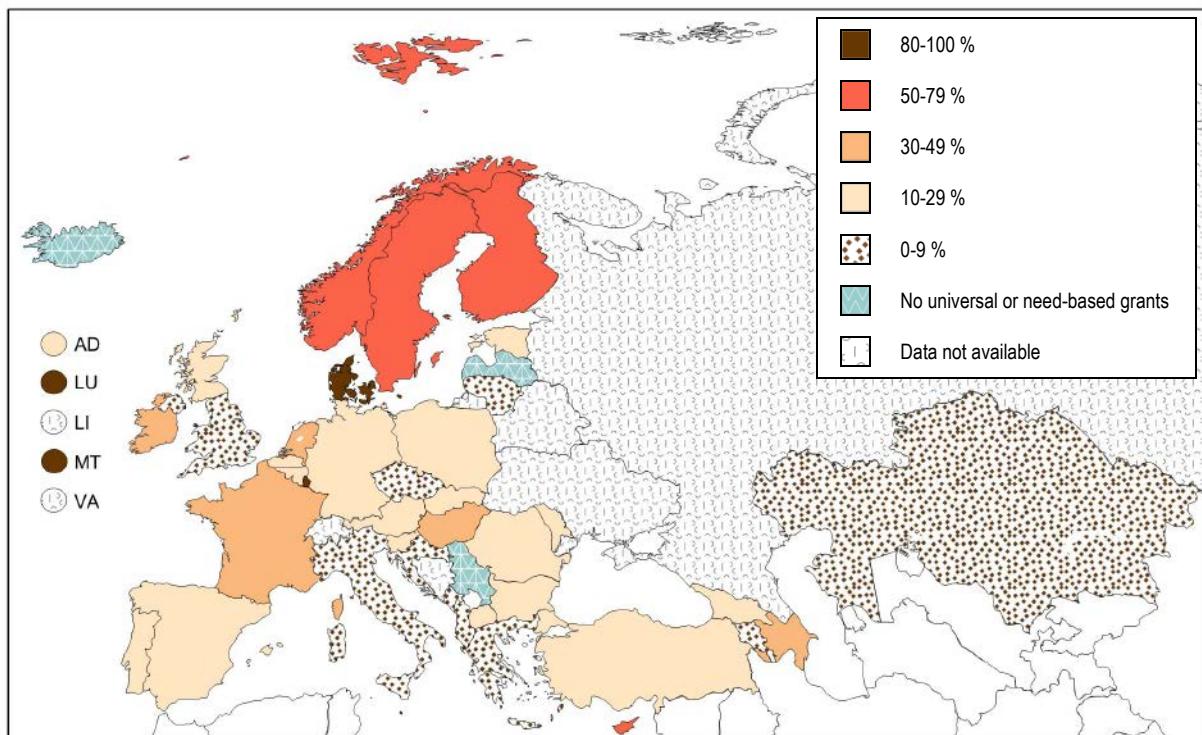
Universal grants are allocated to all or the majority of the full-time student population. These grants do not target disadvantaged students but due to the universal nature of the support, they also benefit from it. Universal grants are most widely used in the Nordic countries (Denmark, Finland, Norway and Sweden), in Luxembourg and in Malta.

Most countries provide targeted financial support to students in need. In these countries, specific student groups are identified as beneficiaries from student support. Target groups include orphans, students with disabilities, single parents, students with health problems, under-represented groups or they are defined more broadly based on socio-economic criteria, including specific income thresholds.

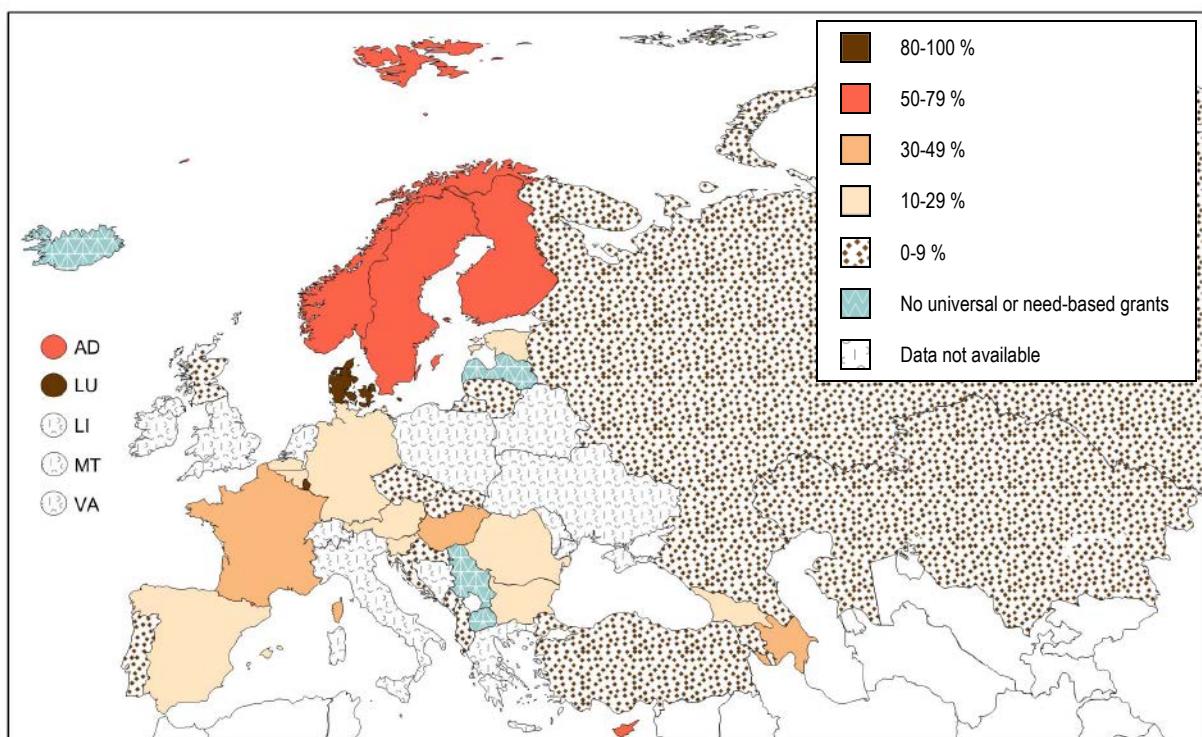
Figure 5.22 depicts the proportion of full-time home students who receive universal or need-based grants during their first- or second-cycle studies in the EHEA. In most European countries, students may obtain such grants. Only Iceland, Latvia and Serbia do not provide this type of support.

Figure 5.22: Proportion of full-time home students receiving need-based or universal grants, 2016/17

A) In the first cycle



B) In the second cycle



Source: BFUG data collection.

Figure 5.22 shows that the Nordic countries, Cyprus, Luxembourg and Malta issue grants to more than half of their students in the first cycle. These countries, except Malta, provide universal grants to second cycle students as well.

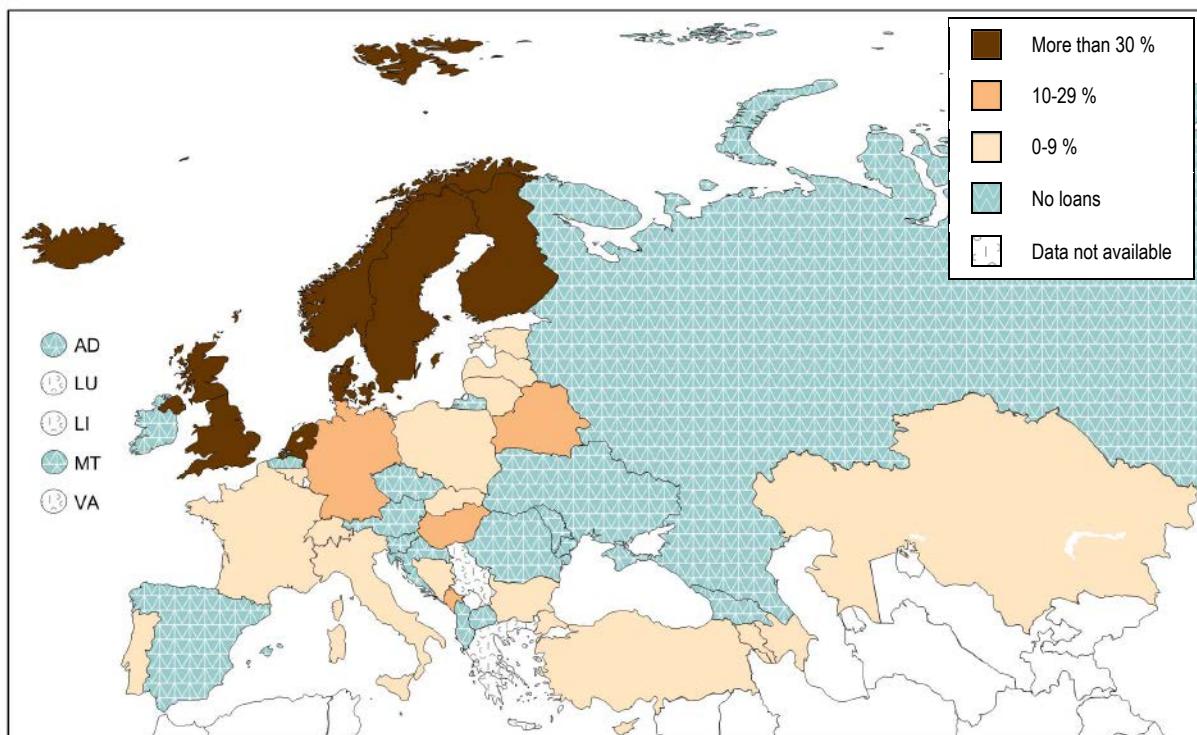
In some countries, a higher share of first-cycle students receives grants than second-cycle students. In Portugal, Slovakia and the United Kingdom (Scotland), more than 10 % of students are targeted by need-based grants in the first cycle, and less than 10 % in the second cycle. While the current data set does not allow looking at the actual percentage point differences, the different proportions may indicate that governments make a policy choice to provide student support to a broader pool of students in the first cycle. By this measure they may aim to widen access to the first cycle of higher education for under-represented groups. A smaller percentage of students receiving need-based grants in the second cycle could also indicate that those in need do not progress in the second cycle.

Loans

Next to grants, publicly subsidised loans also play an important role in providing more financial resources to students. Loans have to be repaid. Loan take-up and its success in alleviating students' financial burden depend, however, on the composition of the overall student support system and the conditions of the loan.

Figure 5.23 shows the share of first- and second-cycle home students who take out a publicly subsidised loan during their higher education studies. The highest share, more than 30 %, of students take out such loans in Denmark, Finland, Iceland, the Netherlands, Sweden and the United Kingdom. In five of the systems concerned (Denmark, Finland, Norway, Sweden and the United Kingdom – Scotland) loans complement a generous universal grant system – and no fees. In the other three, all students pay high fees and grants do not exist (Iceland) or universal grants are just being phased out (the Netherlands and the United Kingdom – England).

Figure 5.23: Proportion of home students taking out publicly subsidised loans, 2016/17



Source: BFUG data collection.

In most other countries with loans, loan take up is below 10 %. Exceptions to this are Belarus, Germany, Hungary and Montenegro. In Germany, where students do not pay fees, about a quarter of the students take out loans, which is linked to grants in the combined need-based grant and loan scheme 'BAföG'. In Hungary, specific loans to cover the fees they pay can be borrowed by students who study on non-state funded places (more than 50 % of the total student population), and all

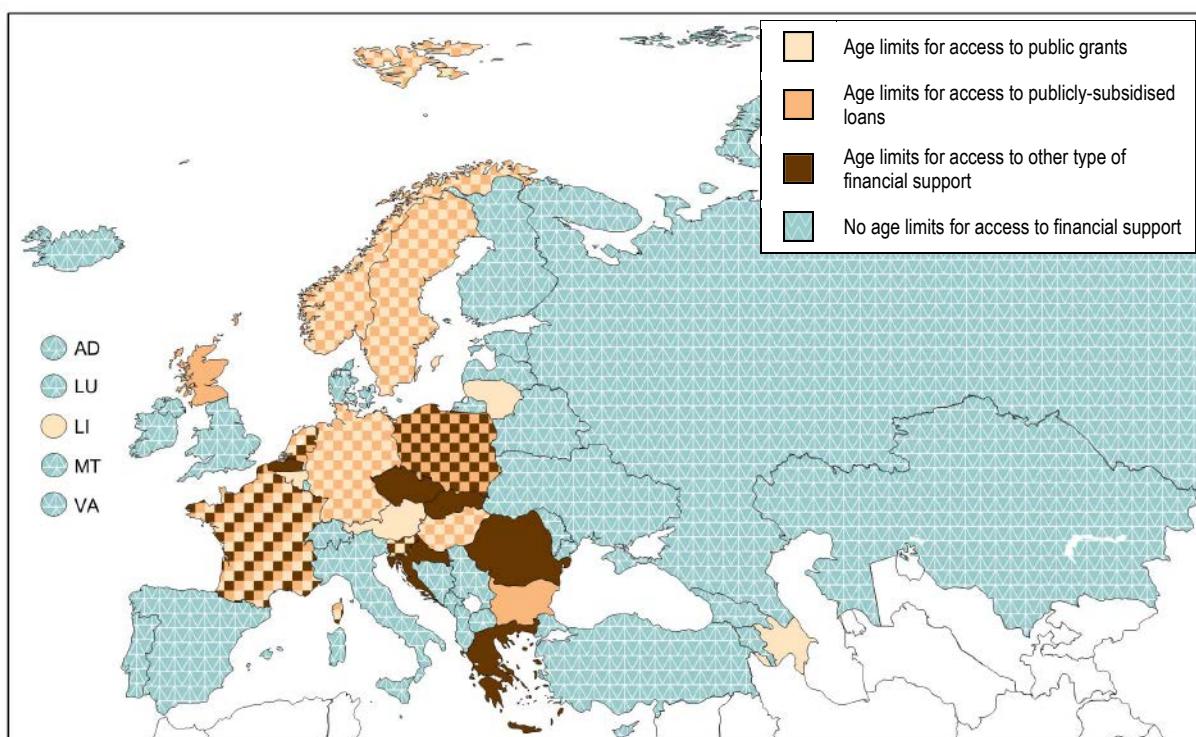
students can take out the loans covering living costs. In 16 out of the 50 participating education systems, there is no publicly subsidised student loan system.

Age limits to student support

As described above, grants and loans are allocated to students on varying conditions. As well as socio-economic circumstances or academic merit, another criterion may influence students' eligibility for grants – their age. This criterion is important to consider when analysing the access of mature students to higher education and countries' funding policies related to lifelong learning.

As Figure 5.24 indicates, in slightly fewer than half of all EHEA systems (21 systems out of 50), access to students' financial support is limited by age. In 13 higher education systems, age restrictions apply to one type of financial support (i.e. grants, loans or other type of financial support), whereas in eight systems, two or more types of support are concerned.

Figure 5.24: Presence of age limits applicable to financial support, full-time home students, 2016/17



Age limits and the type of financial support concerned:

AT	30 or 35 years (depending on the cycle and the situation of the learner): public grants
AZ	23 years: public grants
BE fr	35 years (at the beginning of studies): public grants
BE nl	25 years: other type of financial support (child benefit for parents)
BG	35 years: publicly-subsidised loans
HR	26 years: other type of financial support (health insurance)
CZ	26 years: other type of financial support (health insurance, transportation discount, tax deductions for parents and for working students)
FR	26 or 28 years (depending on the type of support): public grants and publicly-subsidised loans (28 years at the time of the first application), other type of financial support (transportation discount)
DE	30 or 35 years (at the beginning of studies; depending on the cycle and the situation of the learner): combined grant-loan scheme
EL	36 years: other type of financial support (scholarship)
HU	40 years: public grants, publicly-subsidised loans

LI	32 years: public grants
LT	25 years: public need-based grant (social scholarship): in the case of orphans (when both parents passed away)
NL	30 years (at the beginning of studies): public grants, publicly-subsidised loans, other type of financial support
NO	65 years: public grants, publicly-subsidised loans
PL	25-26 (depending on the type of support): publicly-subsidised loans and other type of financial support (transportation discount)
RO	35 years: other type of financial support (scholarship)
SE	57 years (but funds decrease from the age of 47): public grants, publicly-subsidised loans
SI	27 years (at the beginning of studies): public grants and other type of financial support (health insurance)
SK	25-30 years (depending on type of support): other type of financial support (child benefit for parents, orphan's pension, health insurance, tax bonus for parents, transportation discount)
UK-SCT	60 years (at the beginning of studies): maintenance loan

Source: BFUG data collection.

Notes:

The figure refers to first- and second-cycle studies. The third cycle is not covered.

Age limitations are typically framed in two ways. Regulations either set the highest age when students can start benefitting from support (this is indicated in Figure 5.24 as 'at the beginning of studies'), or they fix the age after which students will no longer receive some or any support. The former approach applies, in particular, to publicly subsidised loans, but it may also apply to public grants. In contrast, the latter approach is most commonly applied for health insurance, transportation discount, tax deductions for parents, etc.

There are substantial cross-country differences as regards the actual age limits for being eligible for support. The lowest age limit is noted in Kazakhstan, where public grants are only accessible until the age of 23. In eight higher education systems (Croatia, the Czech Republic, Belgium – Flemish Community, France, Lithuania, Poland, Slovakia and Slovenia), access to at least some forms of support is limited to until the age of 25-29. However, in four of these systems, the age limit applies only to indirect support such as health insurance, transportation discount or tax deductions for parents.

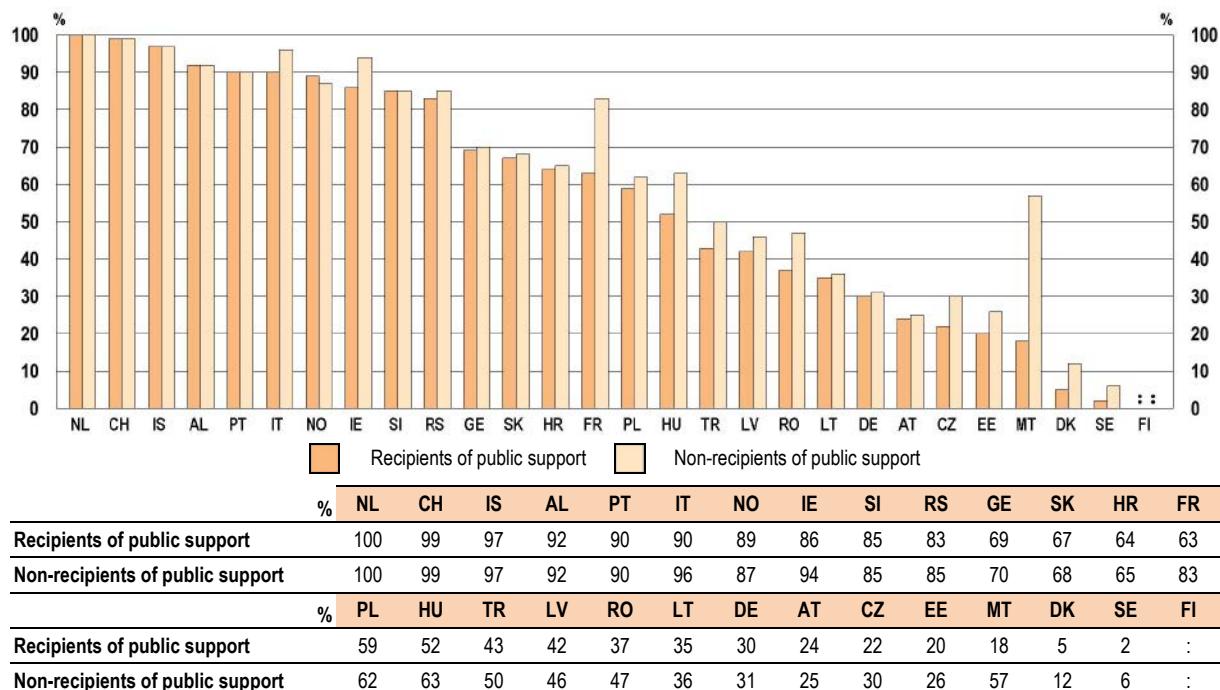
The age of 30 or 30s are reported by Austria (public grants), Bulgaria (publicly subsidised loans), Germany (combined grant and loan scheme 'BAföG'), Greece (scholarship), Liechtenstein (public grants), the Netherlands (all types of support) and Romania (scholarship). Hungary sets the limit at the age of 40, applying it to both public grants and publicly subsidised loans. It is followed by Sweden, where grants and loans are available until the age of 57, but the amount of support decreases from the age of 47. In Norway, the age limit for the same type of support is set at the age of 65, whereas in the United Kingdom (Scotland), the age of 60 is defined as the maximum age for access to maintenance loans.

Age limitations in access to public support certainly reflect a reality and a social view that in most countries the higher education population is from a young age cohort (18-25) and they are often dependent on their families' support. This is particularly the approach in countries providing indirect support to students' families. In Sweden and Norway, the support policies reflect a more mature student population (see Figure 5.8). Broader age limits or no age limit at all to some sort of public support makes it possible for adults to participate in lifelong learning offered by higher education institutions without significant financial constraints.

Fee-payers among recipients of public support

When looking at the financial situation of students, it is also important to see to what extent fee-paying students are compensated by public financial support. Based on the Eurostudent survey, Figure 5.25 shows what percentage of students pay fees among those who benefit from public support and what percentage of those pay fees who do not receive public support among first-cycle students.

Figure 5.25: Percentage of fee-payers among recipients and non-recipients of public support, 2016/17



Source: Eurostudent.

Notes:

Data are sorted by the percentage of fee-payers among recipients of public support in 2016/17.

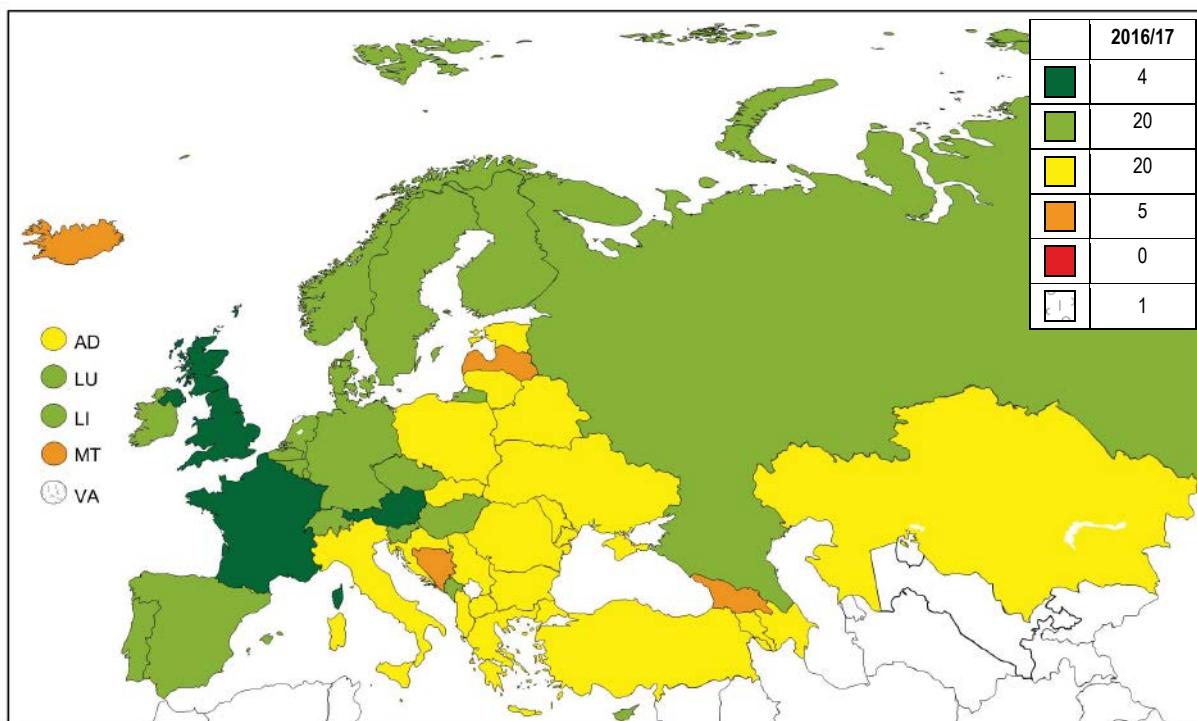
Country-specific data in this figure needs to be examined with caution and together with the proportion of fee-payers and the proportion of those who receive support. In countries like the Netherlands, Switzerland, Iceland and Portugal, where all students pay fees, there is no difference in the share of fee-payers among recipients and non-recipients of support. In France, Ireland and Italy, the higher share of fee-payers among non-recipient of support reflects a policy where disadvantaged students receive a fee-waiver and a need-based grant at the same time. A different policy is followed in Hungary, Latvia, Romania and Serbia, where students who study in non-state funded places are not eligible for any or at least some support (in particular grants). For this reason, there tends to be a higher share of fee-payers among those who do not receive support. In Malta, the higher share of fee-payers among non-recipients of support may be explained by the fact that most second-cycle students have to pay fees and they do not receive the universal grant that first-cycle students do.

5.1.2.5. Improving the inclusiveness of higher education access: summary of measures supporting disadvantaged learners

Figure 5.26 summarises the measures supporting disadvantaged learners in entering higher education in the form of a scorecard indicator. All the aspects described in section 5.1.2 are taken into account in this composite indicator: 1) monitoring the student body at entry, 2) long-term quantitative objectives, 3) support provided through different access routes and 4) financial support.

Figure 5.26: Scorecard indicator n°9:

Measures to support the access of under-represented groups to higher education, 2016/17



Source: BFUG data collection.

Scorecard categories

	The following measures are undertaken to support the access to or increase the participation of under-represented groups in higher education: <ol style="list-style-type: none"> 1. The composition of the student body is monitored based on gender and at least one other under-represented category at entry. 2. There are longer-term quantitative policy objectives for the access/participation of students from under-represented groups. 3. Under-represented student groups' access to higher education is supported in at least two of the following three ways: <ul style="list-style-type: none"> • Preferential treatment of specific groups of students during the standard admission process; • Learners are supported in getting the standard higher education entry qualifications; • Learners can access higher education without the standard higher education entry qualifications. 4. There is financial support targeted at under-represented groups of students OR mainstream support is provided to more than 50 % of students.
	Three out of the four types of measures are undertaken.
	One out of the four types of measures is undertaken.
	Data not available

As the figure shows, all education systems with available data implement at least one measure supporting the access of disadvantaged learners to higher education. Five education systems have undertaken only one out of the four outlined measures: Bosnia and Herzegovina, Georgia, Malta (financial support), Iceland (alternative access routes), and Latvia (monitoring). Most education systems are in the yellow and light green category, implementing two or three types of measures supporting disadvantaged learners. Finally, four reporting units in three countries (Austria, France and the United Kingdom) have implemented a wide range of support measures to increase the inclusiveness of their higher education systems, including monitoring, setting quantitative targets, facilitating the access of non-traditional learners through adapting their admission systems as well as providing financial support.

5.2. Attainment and completion

Higher education attainment levels depend on both participation and completion rates. In this context, higher education institutions do not only need to make sure that they have an increasing number of (and diversity among) students, but also that these students complete their studies. Increasing participation and completion are also inseparably linked within the widening participation agenda, since students coming from under-represented groups are more likely to drop out from higher education than their peers (Quinn, 2013; see also European Commission/EACEA/Eurydice, 2014).

Non-completion in higher education can be influenced by a number of factors related to the higher education institution and the individual student. At the individual level, the wrong choice of programme or study subject, insufficient motivation to meet the demands of the curriculum as well as a wide range of other constraints, including financial barriers, health problems and family reasons are among the factors related to dropping out from higher education. Structural barriers and institutional inflexibilities, e.g. the inability to serve the needs of an increasingly heterogeneous student population, may amplify individual risk settings. First-year students – and particularly first-year students from under-represented groups – are the most vulnerable to dropping out if insufficient attention is paid to their first experiences and skills development. In addition, besides these 'push' factors, 'pull' factors from the labour market may also produce early leavers from tertiary education to some extent.

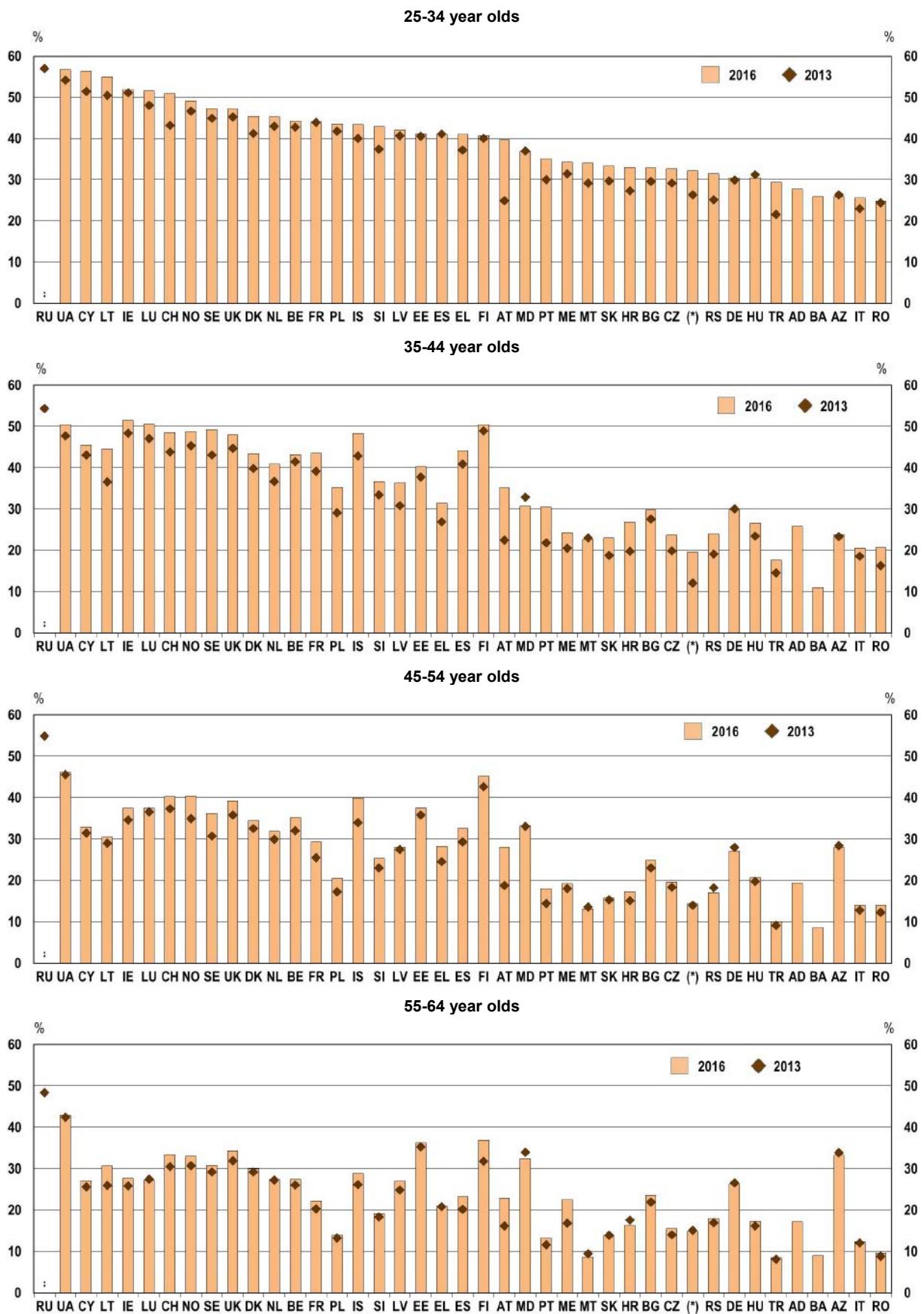
This section examines current trends in attainment and completion within the EHEA as well as national policy approaches towards non-completion and drop-out.

5.2.1. Statistics on attainment and completion

Before turning to attainment rates by gender and the socio-economic background of students, it is also important to present general trends in attainment and completion. The main output of higher education is higher education attainment: the share of the population having obtained a higher education qualification.

Attainment levels are steadily rising in the EHEA (see Figure 5.27). The EHEA median value is now 40.9 % for the 25-34 age group, 35.2 % for the 35-44 year-olds, 28 % for the 45-54 age cohort and 23.4 % for the 55-64 age group. This increasing tertiary attainment according to age is the dominating pattern in almost all Bologna countries. The largest differences of more than 24 percentage points between the tertiary attainment levels of the oldest and the youngest age cohorts exist in Cyprus, Ireland, Lithuania, Luxembourg, Malta and Poland. It is only Azerbaijan where 55-64 year olds have higher tertiary attainment rates than the youngest age group.

Figure 5.27: Percentage of persons with tertiary education, by age group, 2013 and 2016



2016	%	RU	UA	CY	LT	IE	LU	CH	NO	SE	UK	DK	NL	BE	FR	PL	IS	SI	LV	EE	EL	ES
25-34 year olds	:	56.8	56.3	54.9	51.8	51.5	50.9	49.2	47.3	47.2	45.3	45.2	44.3	44.0	43.5	43.4	43.0	42.1	41.2	41.0	41.0	
35-44 year olds	:	50.4	45.5	44.6	51.4	50.6	48.5	48.8	49.3	48.0	43.4	40.9	43.2	43.5	35.3	48.3	36.7	36.3	40.2	31.3	44.1	
45-54 year olds	:	46.1	32.9	30.5	37.4	37.4	40.2	40.4	36.1	39.2	34.4	31.9	35.1	29.3	20.5	39.9	25.3	28.0	37.5	28.2	32.6	
55-64 year olds	:	43.0	27.1	30.7	27.7	27.2	33.4	33.0	30.8	34.3	29.9	27.4	27.5	22.1	13.9	28.9	19.1	27.0	36.2	20.9	23.2	
2016	%	FI	AT	MD	PT	ME	MT	SK	HR	BG	CZ	(*)	RS	DE	HU	TR	AD	BA	AZ	IT	RO	EHEA
25-34 year olds		40.7	39.7	36.9	35.0	34.3	34.0	33.4	33.0	32.8	32.6	32.2	31.4	30.5	30.4	29.4	27.7	25.9	25.9	25.6	24.8	40.9
35-44 year olds		50.4	35.1	30.7	30.5	24.3	22.7	23.0	26.8	29.7	23.6	19.6	23.9	29.8	26.6	17.6	25.8	10.9	23.8	20.5	20.6	35.2
45-54 year olds		45.1	28.0	33.2	18.0	19.2	13.0	15.7	17.3	24.8	19.6	14.3	17.1	27.1	20.6	10.0	19.5	8.6	27.9	14.0	14.0	28.0
55-64 year olds		36.9	22.9	32.5	13.2	22.5	8.7	13.9	16.3	23.5	15.5	14.9	17.9	26.3	17.2	8.5	17.1	9.0	33.2	12.4	9.6	23.4

Source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Notes:

Data are sorted by the percentage of persons aged 25-34 with tertiary education.

For 2013 data, see European Commission/EACEA/Eurydice, 2015.

EHEA: Refers to the EHEA median.

The countries where 35-44 year olds have higher tertiary attainment rates than the youngest age groups are Finland, Iceland, and to a lesser extent Spain, Sweden and the United Kingdom. This pattern can be explained by the high share of mature students enrolled in tertiary education, particularly in Iceland, Finland and Sweden (see Figure 5.8). These data show that a substantial share of the 25-34 year olds is still studying and will obtain a tertiary qualification in the future. At the other end of the scale, tertiary attainment rates of 25-34 year olds are more than 11 percentage points higher than those of the 35-44 year olds in Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Malta and Turkey, indicating a recent expansion in higher education in these countries.

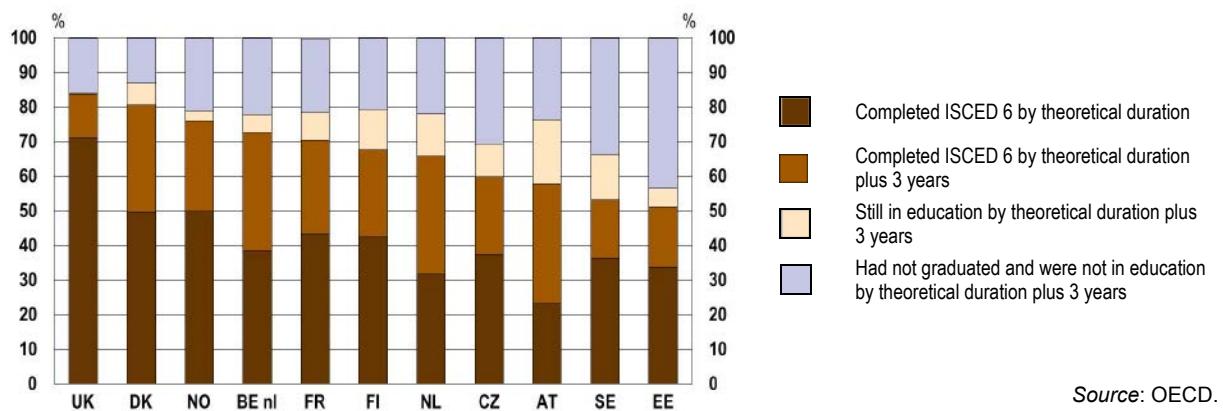
In the youngest age group (aged 25-34), higher education attainment has reached 50 % in Ukraine, Cyprus, Ireland, Lithuania, Luxembourg and Switzerland, adding the latter two to the list since the last Bologna Process Implementation Report. Higher education attainment is the lowest (below 26 %) in Azerbaijan, Bosnia and Herzegovina, Italy and Romania. However, no education systems are any longer below the 20 % threshold.

A comparison between tertiary attainment rates in 2013 and 2016 shows the directions of the most recent developments. In this last period, countries with the largest increases in tertiary attainment among the youngest are the former Yugoslav Republic of Macedonia, Serbia and Turkey. The countries where higher education attainment has not increased among the 25-34 year olds since 2013 are Azerbaijan, Hungary, Moldova and Spain.

Another important indicator related to higher education attainment is the completion rate itself. The completion rate shows the share of students who enter and complete their studies (graduate) in first-cycle programmes (ISCED 6), expressed as a percentage of all entrants (see Figure 5.28). Completion rates may be influenced by both the academic selectivity within higher education institutions and the selectivity in the admission procedure. Regarding the latter, in countries with more selective admission procedures student success might be higher than in countries with open access to higher education (see Orr et al., 2017).

The most reliable method to calculate completion rates is the true-cohort method in which individual students are followed through the system from entry to graduation or drop out. Unfortunately, as Figure 5.28 shows, only a limited number of countries apply such method to calculate completion rates, so data are available only for 11 education systems within the EHEA.

Figure 5.28: Completion rates in ISCED 6 (first-cycle) programmes (%), 2014



Source: OECD.

	UK	DK	NO	BE nl	FR	FI	NL	CZ	AT	SE	EE
Completed by theoretical duration (N)	71.1	49.8	49.9	38.4	43.5	42.6	31.6	37.4	23.3	36.4	33.7
Completed by N + 3	12.7	30.8	26.2	34.3	26.9	25.2	34.2	22.5	34.6	16.8	17.5
Total completion rate	83.8	80.6	76.1	72.8	70.4	67.7	65.8	59.9	57.8	53.2	51.2
Still in education by N + 3	0.3	6.3	2.7	5.1	8.2	11.5	12.2	9.5	18.6	13.2	5.4
Had not graduated and not in education by N + 3	15.9	13.1	21.1	22.1	21.2	20.7	21.9	30.6	23.6	33.5	43.3

Notes:

Only includes countries applying the true cohort method. Only includes full-time students.

Among the EHEA countries for which data are available, completion rates range between 83.8 % in the United Kingdom and 51.2 % in Estonia. Besides the United Kingdom, high tertiary completion rates are observed in Denmark and Norway, where at least three quarters of all new entrants obtain a degree. In Austria, the Czech Republic and Sweden, on the other hand, completion rates are relatively low, below 60 %.

The true-cohort method also makes it possible to see whether students not completing their degree by its theoretical duration plus 3 years are still studying, or dropped out of education. Based on this information, interesting differences can be observed between education systems: while among the 42.2 % of non-completing students 18.6 % were still in education in Austria, this percentage was only 5.4 % in Estonia, with a 43.3 % of students having dropped out of education.

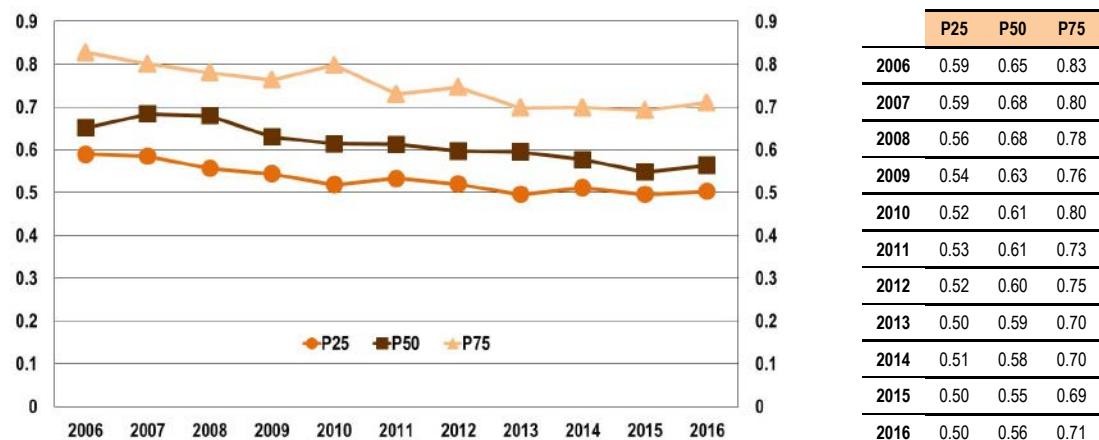
5.2.1.1. Gender balance

In order to add to the general picture shown by figures on attainment levels and completion rates, differences in attainment and graduation levels between different groups of students are also important to examine. Unfortunately data by parental education are not available; but the gender balance, differences based on migrant background as well as age patterns in attaining higher education degrees can be analysed.

Figure 5.29 depicts changes in the odds ratios of men over women to attain higher education degrees between 2006 and 2016. The figure shows that in the whole period, odds ratios for men were lower than 1, which means that men had lower relative chances to attain higher education than women.

Over the decade, chances of men have been progressively decreasing, reaching the lowest median odds ratio, 0.55 in 2015. However, between 2015 and 2016 this tendency stopped, and the odds ratio of men over women had not decreased further. The same pattern is visible when looking at the lowest (P25) and the highest (P75) percentile. While future data collections should determine whether this reversal of the decreasing trend is stable, currently available data indicates – also in line with data presented in section 5.1.1.2 – a slowly decreasing dominance of women in higher education.

Figure 5.29: Attainment by gender: odds ratios of men over women to attain higher education, 2006-2016



Source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Notes:

The lines in this figure reflect the 25, 50 and 75 percentile countries showing the chances (odd-ratio) of men compared to women to attain higher education. For example, in 2016, for the median country (P50), for every 100 women attaining higher education there would only be 56 men. In 2006, there were 65 men for every 100 women.

It is also revealing to look at the percentage of women among graduates in the three main cycles of higher education. As Figure 5.30 shows, patterns are similar to those presented on Figure 5.4 on new entrants, but with some notable differences.

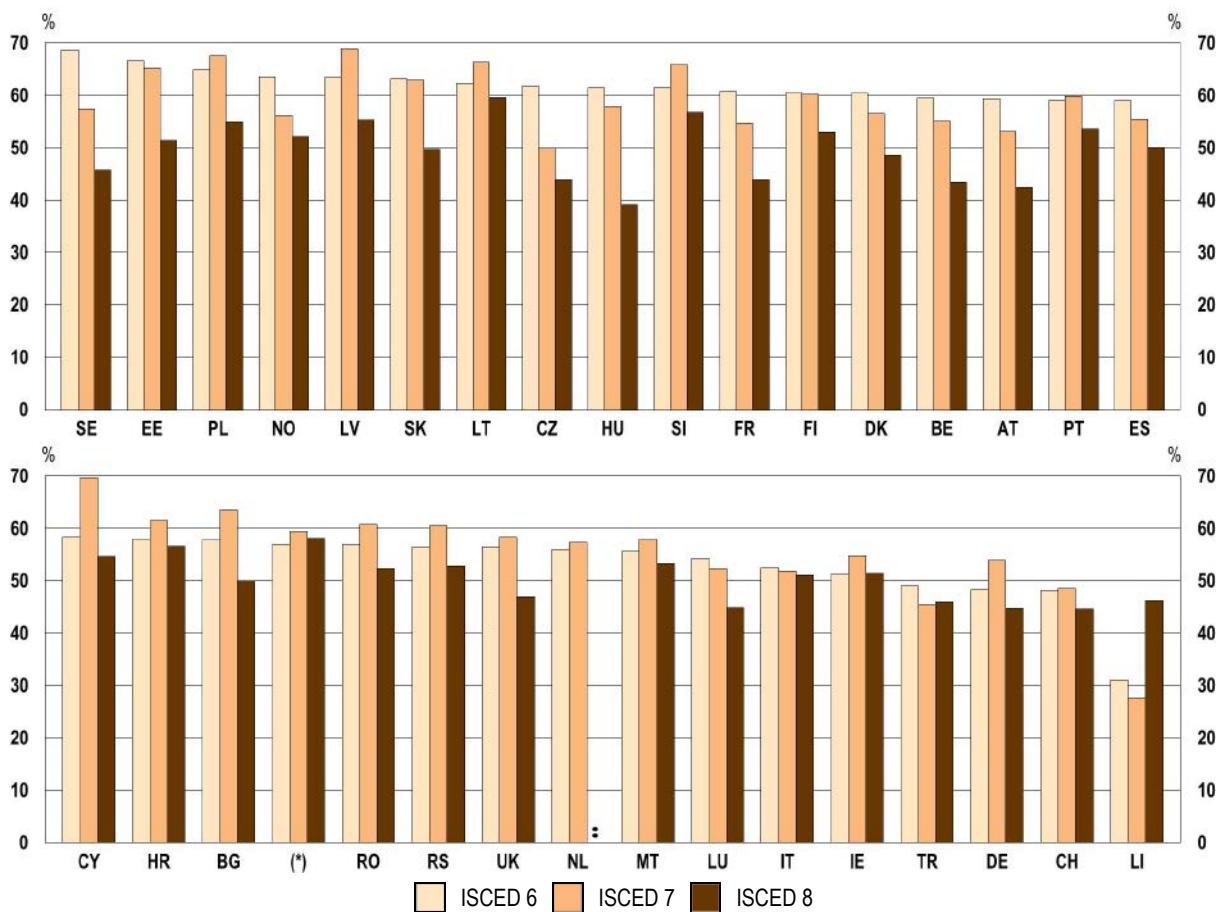
In more than half of the countries with available data (17), female graduates are the most over-represented in the second cycle. In 14 out of these 17 countries, their share is the lowest in the third cycle ⁽¹⁰⁷⁾. In Ireland and the former Yugoslav Republic of Macedonia, the share of female graduates is the lowest in the first cycle. In addition, in almost all of these countries, women constitute the majority of graduates at all levels, which suggests a stronger female dominance overall than among new entrants. The two potential explanations for this are, first, that female dominance is decreasing over time and the graduates of 2014/15 were entrants a few years before; and second, that more men than women drop out of higher education. Nevertheless, women are still in a minority among third cycle graduates in the United Kingdom; in the first and the third cycle in Germany and at all levels in Switzerland.

In the second pattern, to be found in slightly fewer than half of the countries (14), the higher the education level, the lower the share of female graduates. In around half of these countries, female graduates are in a minority at least in the third cycle. This pattern is thus more widespread when looking at graduates than was the case regarding entrants. A potential explanation might be that compared to the first cycle, more women drop out of higher education in the second and third cycles.

Finally, in Turkey and Liechtenstein, female graduates are under-represented at all levels, but particularly in the second cycle. In Liechtenstein, where around 95 % of students study abroad at tertiary level, this is mostly due to the fact that the coverage of higher education programmes is limited to mostly male-dominated fields. Nonetheless, the proportion of women is still close to 50 % in the third cycle.

⁽¹⁰⁷⁾ No data is available on the percentage of female graduates in the third cycle in the Netherlands.

Figure 5.30: Percentage of female graduates in tertiary education programmes by level of education, 2014/15



(*): the former Yugoslav Republic of Macedonia

%	SE	EE	PL	NO	LV	SK	LT	CZ	HU	SI	FR	FI	DK	BE	AT	PT	ES
ISCED 6	68.7	66.6	64.8	63.5	63.4	63.1	62.3	61.8	61.5	61.5	60.8	60.5	60.4	59.4	59.3	59.1	58.9
ISCED 7	57.4	65.2	67.6	56.2	68.9	62.9	66.4	50	57.9	65.9	54.6	60.1	56.5	55.1	53.1	59.8	55.5
ISCED 8	45.7	51.4	55	52.1	55.4	49.7	59.6	43.9	39.1	56.8	44.0	52.9	48.5	43.3	42.4	53.6	50.1
%	CY	HR	BG	(*)	RO	RS	UK	NL	MT	LU	IT	IE	TR	DE	CH	LI	EHEA
ISCED 6	58.3	57.9	57.8	56.9	56.9	56.4	56.4	56	55.6	54.3	52.5	51.1	49	48.3	48.1	31	59.0
ISCED 7	69.6	61.5	63.5	59.4	60.8	60.5	58.4	57.3	57.9	52.4	51.9	54.7	45.5	53.9	48.5	27.7	57.9
ISCED 8	54.6	56.6	49.9	58.1	52.3	52.8	47.0	:	53.3	44.8	51.0	51.4	46.0	44.7	44.6	46.2	50.6

Source: Eurostat, UOE.

Notes:

Data are sorted by the percentage of female graduates in ISCED 6 programmes.

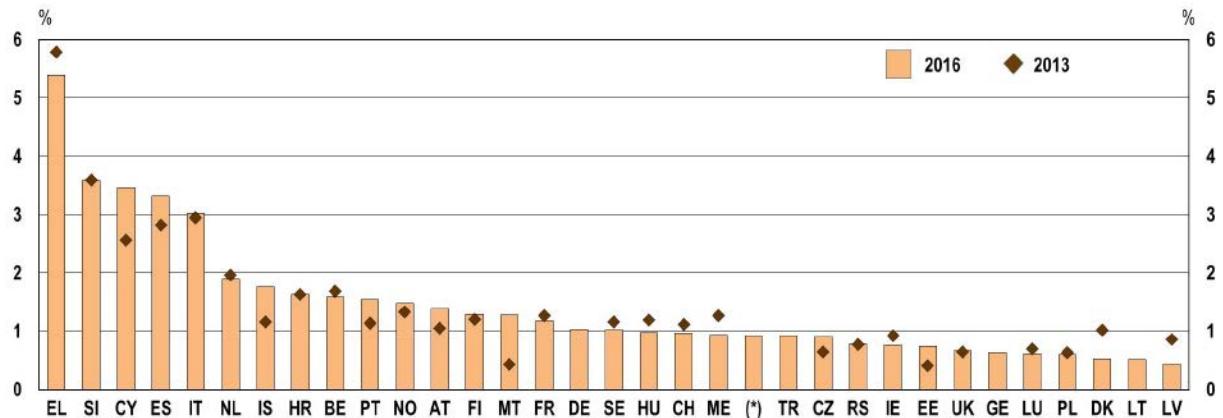
EHEA: Refers to the EHEA median, which was calculated based on countries with available data for all levels.

5.2.1.2. Students with migrant background

Indicators looking at differences in the chances of students attaining higher education by migrant background have similar limitations as Figure 5.7. In fact, data are not available by 'migrant background' as such; Eurostat data is limited to making differences between the foreign-born and the native-born. The indicator looks at the resident population with tertiary attainment, irrespective of the country of graduation. This means that it includes foreign-born young people who arrived in a given country after obtaining a tertiary degree. In addition, it is still not possible to evaluate the chances of second-generation immigrants, since they are classified among the native-born population.

Nevertheless, it is still interesting to examine the odds ratios of the native-born over the foreign-born to obtain a higher education degree. On Figure 5.31, when an odds ratio is higher than 1, it means that the native-born population have higher chances to attain higher education; when it is below 1, then the foreign-born population have greater odds to do so.

Figure 5.31: Tertiary education attainment of 25 to 34-year-olds by country of birth: odds ratio of native-born over foreign-born population to complete tertiary education, 2013 and 2016



(*): the former Yugoslav Republic of Macedonia

%	EL	SI	CY	ES	IT	NL	IS	HR	BE	PT	NO	AT	FI	MT	FR	DE	SE
2013	5.79	3.59	2.56	2.82	2.95	1.96	1.16	1.63	1.68	1.14	1.33	1.05	1.2	0.43	1.27	:	1.16
2016	5.39	3.58	3.46	3.32	3.02	1.90	1.76	1.63	1.59	1.54	1.48	1.38	1.29	1.28	1.18	1.03	1.02
%	HU	CH	ME	(*)	TR	CZ	RS	IE	EE	UK	GE	LU	PL	DK	LT	LV	EHEA
2013	1.19	1.11	1.27	:	:	0.64	0.77	0.92	0.41	0.64	:	0.7	0.63	1.02	:	0.86	1.16
2016	0.98	0.97	0.93	0.92	0.92	0.90	0.78	0.76	0.74	0.67	0.63	0.61	0.60	0.53	0.51	0.44	1.23

Source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Notes:

EHEA: Refers to the EHEA median, which was calculated based on countries with available data for both reference years.

Data are not reliable for the values in *italics*. For more country notes, see the [Glossary](#) and [Methodological Notes](#).

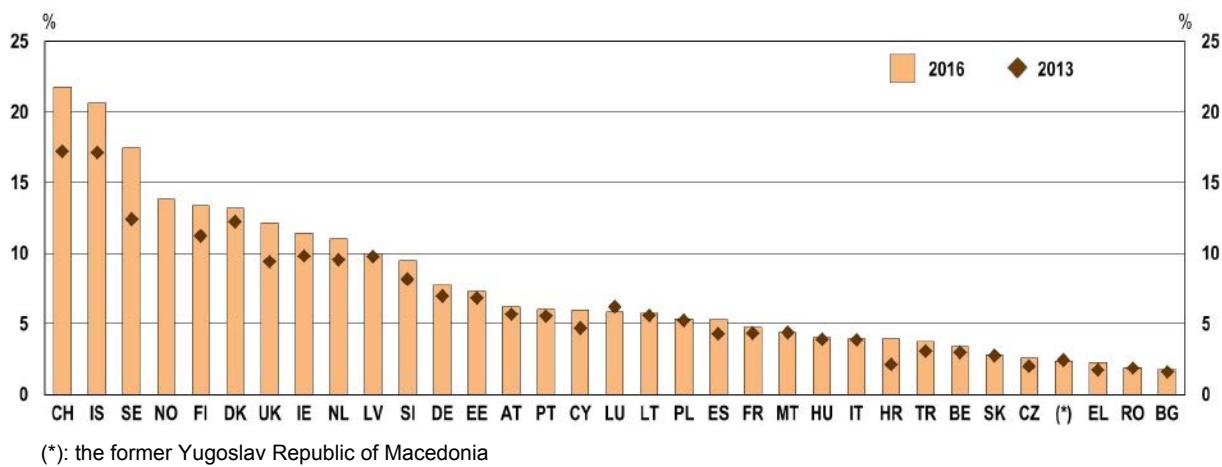
Figure 5.31 reveals that the biggest differences between the native-born and the foreign-born population in their chances to attain higher education exist in Greece, where the native-born are more than five times more likely to obtain a higher education degree. Foreign-born young people also have significantly lower chances to attain higher education in Slovenia, Cyprus, Spain and Italy. At the other end of the scale, the native-born population have much lower odds to complete higher education than the foreign-born in Denmark, Lithuania and Latvia.

When looking at changes between 2013 and 2016 in the odds ratios, the most substantial decreases (indicating increases in the relative chances of the foreign-born population) took place in Denmark and Latvia. In Denmark, while in 2013 the native-born population had higher odds to attain higher education, the situation reversed by 2016. The opposite is true for Malta: while the foreign-born had higher chances before to obtain a higher education degree, now the native-born have the higher odds. Besides Malta, increases in the odds ratios of the native-born over the foreign-born increased the most in Estonia and Iceland.

5.2.1.3. Mature students

Having information on the share of the population obtaining their tertiary education degree in adulthood is also important for understanding the position of mature students in higher education. Figure 5.32 shows large variations among countries in this regard. Education systems with the largest proportions of adults (aged 30-64) attaining their tertiary degrees in adulthood are Switzerland and the Nordic countries (see also Figure 5.8 on the share of mature students in higher education). At the lower end of the scale, the share of adults getting higher education degrees in adulthood is very low in southern and eastern European countries, with percentages below 2 in Romania and Bulgaria.

Figure 5.32: Adults (30-64) who attained their tertiary education degree during adulthood (aged 30-64) as a percentage of all adults (30-64), 2013 and 2016



(*): the former Yugoslav Republic of Macedonia

%	CH	IS	SE	NO	FI	DK	UK	IE	NL	LV	SI	DE	EE	AT	PT	CY	LU
2013	17.2	17.1	12.4	:	11.2	12.2	9.4	9.8	9.5	9.8	8.1	7.0	6.8	5.7	5.5	4.7	6.2
2016	21.8	20.6	17.4	13.8	13.4	13.2	12.1	11.4	11.0	10.0	9.5	7.8	7.3	6.2	6.0	6.0	5.9
%	LT	PL	ES	FR	MT	HU	IT	HR	TR	BE	SK	CZ	(*)	EL	RO	BG	EHEA
2013	5.6	5.2	4.3	4.3	4.4	3.9	3.9	2.1	3.1	3.0	2.8	2.0	2.4	1.7	1.9	1.6	5.4
2016	5.8	5.3	5.3	4.7	4.4	4.0	4.0	3.9	3.7	3.4	2.8	2.6	2.4	2.3	1.9	1.8	5.8

Source: Eurostat, EU-LFS.

Notes:

EHEA: Refers to the EHEA median, which was calculated based on countries with available data for both reference years.

Figure 5.32 also illustrates well that the share of adults obtaining tertiary degrees in adulthood has stayed relatively stable between 2013 and 2016, with increases above 3 percentage points only in Iceland, Sweden and Switzerland.

5.2.2. Policies for improving completion

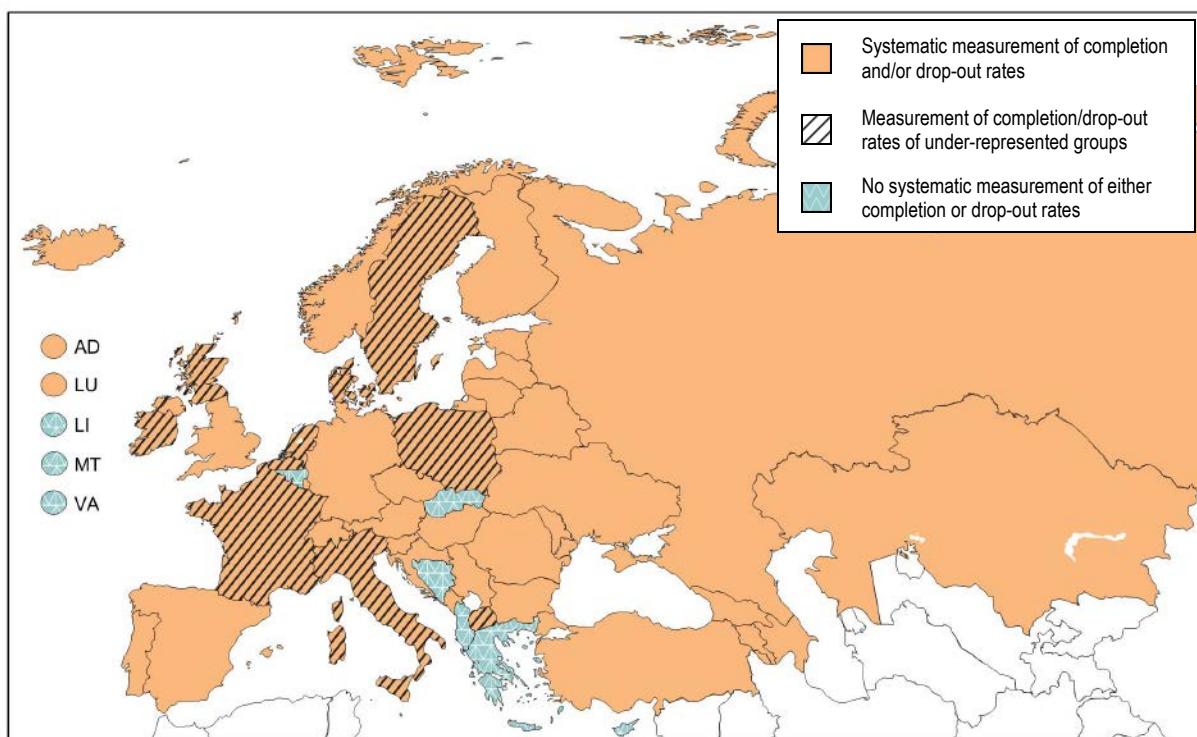
After examining the complex picture of attainment and completion in the EHEA, this section provides an overview on national policies aiming to improve higher education institutions' performance in this regard. Specifically, this section of the report examines: 1) whether education authorities collect information at all about drop-out and completion in general, and that of particular groups of students in particular; 2) whether these authorities have set any targets/quantitative objectives to be achieved in terms of improving retention or completion among disadvantaged learners; 3) what kind of policy measures are introduced in order to reduce drop-out and enhance completion; 4) whether non-formal and informal learning can contribute to the completion of studies through recognition procedures; and finally 5) whether the completion performance of higher education institutions has financial consequences for the institutions themselves.

5.2.2.1. Monitoring drop-out and completion

Collecting information on students' drop-out and completion is essential for understanding the main trends and the potential problems of disadvantaged learners. Monitoring is most often done through the calculation of completion and/or drop-out rates. While completion rates are calculated at the end of a given cycle, drop-out rates can be potentially followed up yearly for each cohort.

As depicted on Figure 5.33, completion and/or drop-out rates are calculated and monitored systematically in the majority of EHEA countries. Completion rates are calculated at the end of each cycle in most education systems, with only Moldova, Romania and the United Kingdom monitoring completion only after the first cycle. Drop-out rates are also systematically calculated in the majority of the countries at the end of each year. Nevertheless, nine countries (Iceland, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden, Switzerland and the United Kingdom) measure drop-out rates only after the first year.

Figure 5.33: Systematic measurement of completion and/or drop-out rates, 2016/17



Source: BFUG data collection.

There are nine education systems (Albania, Belgium – French Community, Bosnia and Herzegovina, Cyprus, Greece, the Holy See, Liechtenstein, Malta and Slovakia) of the EHEA where neither completion nor drop-out rates are calculated or monitored systematically.

Since 2015, some countries have introduced the measurement of completion and drop-out rates or have improved access to such information. In the Czech Republic, since 2015, the Ministry of Education, Youth and Sports has been issuing a report on developments concerning drop-out rates in different study programmes based on aggregated data from the whole public higher education system. In Romania, the National Council for Financing Higher Education measures the drop-out rate systematically, based on data from the National Student Registry. In addition, in Estonia, Portugal and Slovenia, information portals providing data on completion and drop-out have been or are in the process of being set up.

Monitoring the completion/drop-out of under-represented groups is important in order to gain a picture on potential, specific problems related to the retention and completion of disadvantaged learners. While the majority of education systems monitor specific characteristics of students during their studies and at graduation (see Figure 5.10), only a minority of these systems actually calculate completion and/or drop-out rates for under-represented groups systematically (see Figure 5.33).

5.2.2.2. Quantitative objectives and targets

Since completion is an inherent part of the widening participation agenda, it is also important to examine whether EHEA countries have set measurable targets for the completion or attainment of under-represented groups in higher education. However, even fewer countries have set such targets for retention or completion than for access or participation.

Targets on the completion of specific groups of students exist for example in the Czech Republic. Here, the target set by the Strategic Plan for Higher Education Institutions 2016-2020 is that the proportion of graduates with no higher education background (thus with parents having no higher education degree) in bachelor study programmes should be close to their share among high school graduates (MSMT, 2015).

In the United Kingdom (Scotland), while no specific socio-economic groups are targeted, there is a 'national aspiration' regarding the retention of first-year students: the aim is that the proportion of full-time first year entrants returning to study in year two should increase to 91 % by 2016-17 and 93 % by 2019-20 (Scottish Funding Council, 2016). As the following section will show, paying attention to the retention of first-year students is particularly important in achieving higher completion rates.

5.2.2.3. Measures aiming to enhance retention and completion

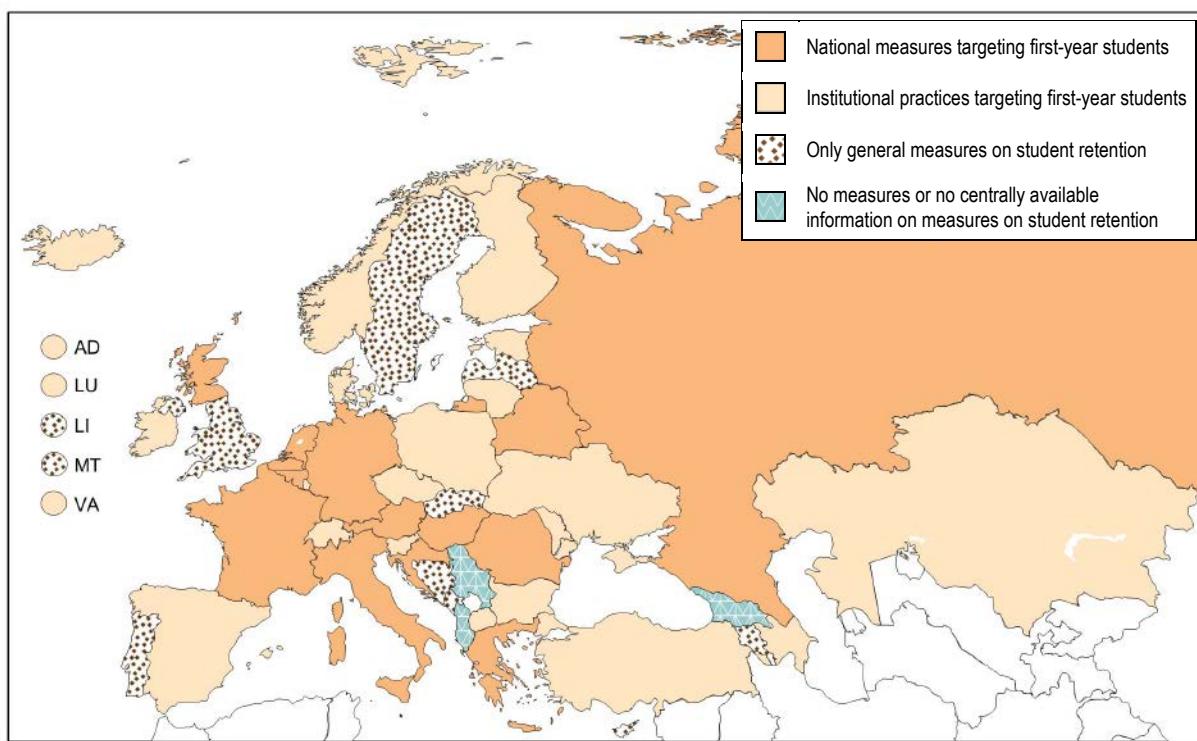
How do education systems try to reduce drop-out and enhance retention and completion? This section discusses three important questions: first, how countries aim to improve the retention of first-year students, who are the most likely to drop out of higher education; second, how financial support frameworks provide incentives for students to finalise their studies on time, and finally, what kind of targeted measures exist that pay specific attention to students from under-represented groups.

1) Improving the retention of first-year students

Research indicates that drop-out rates are the highest at the end of the first academic year. First-year students are particularly vulnerable to dropping out of higher education, since their expectations might be very different from what they actually encounter. Such mismatch can stem from the wrong choice of courses or study programme as well as the feeling of helplessness and failure at the start of higher education studies. For this reason, paying attention to newly admitted students' experiences and skills development is of particular importance.

The majority of EHEA countries have developed national policies or have higher education institutions focusing specifically on the retention of first-year students (see Figure 5.34). Nevertheless, having national measures in this area is less common: they exist only in 14 education systems. Certainly, education systems depicted as having national measures or institutional practices targeting first-year students might have additional national measures on enhancing the retention or completion of students in general; however, the figure aims to capture the targeted nature of existing measures focusing specifically on first-year students. Accordingly, the 11 education systems depicted as having only general measures on student retention do not focus on first-year students specifically, neither at national nor at institutional level (or in the latter case, no information is available regarding the institutional level).

Figure 5.34: Targeting the retention of first-year students, 2016/17



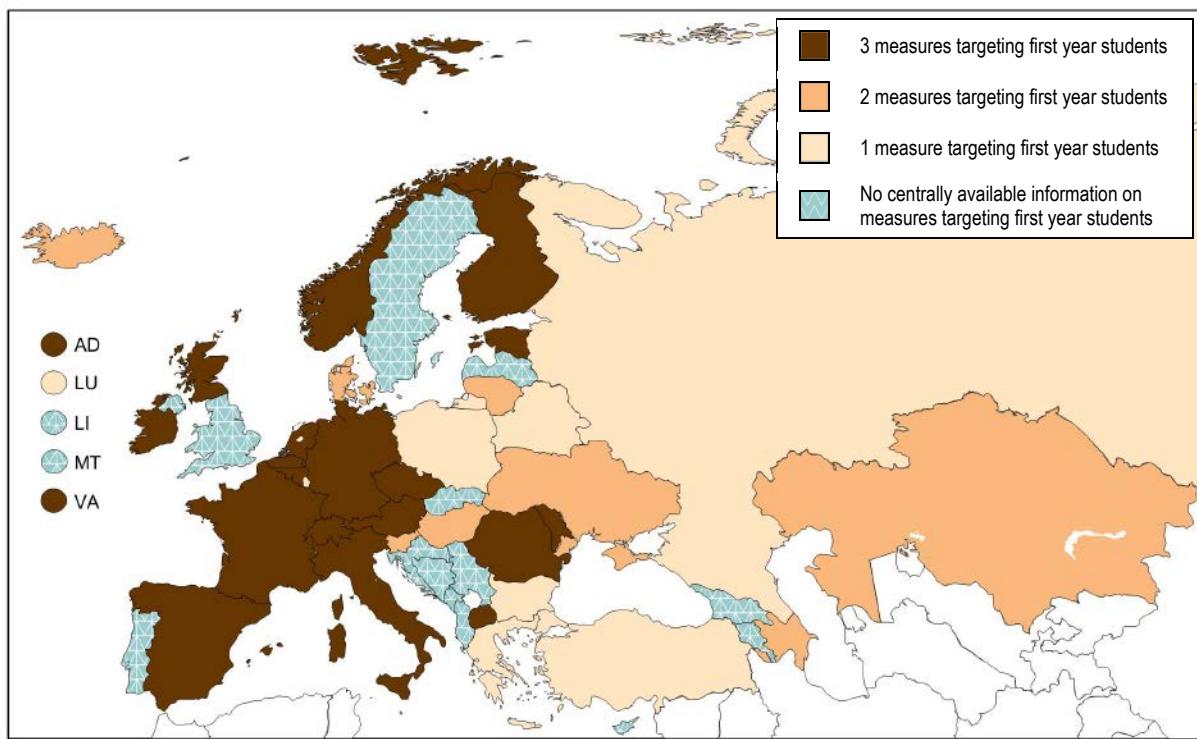
Source: BFUG data collection.

The three most common measures helping first-year students in adjusting to the new learning environment in higher education institutions are tutoring or mentoring programmes (by fellow students or by academic staff; they exist in 30 education systems), introductory or insertion courses (typically taking place at the beginning of the academic year; they are applied in 29 education systems), and support provided to students to acquire learning and/or organisational skills (through specific courses or individual support, in 24 systems).

Figure 5.35 shows the application of these main measures. It depicts national measures or institutional practices if they target first-year students specifically; general measures of the same nature are not taken into consideration. So for example, Luxembourg is depicted as applying one measure out of the three (tutoring), because their learning support measures are targeting all learners in general.

As the figure illustrates, slightly more than one third of the education systems report all three of the above measures. Eight education systems report two measures: these are most commonly tutoring or mentoring programmes in combination with insertion courses or learning support. Seven countries report having only one measure: these are introductory or insertion courses in Bulgaria, Belarus, Poland and Russia, tutoring or mentoring programmes in Greece and Luxembourg and learning support in Turkey. Fifteen countries have no centrally available information about the application of the above measures.

Figure 5.35: Application of main measures (introductory or insertion courses, tutoring or mentoring programmes, support for learning and organisational skills) targeting the retention of first-year students, 2016/17



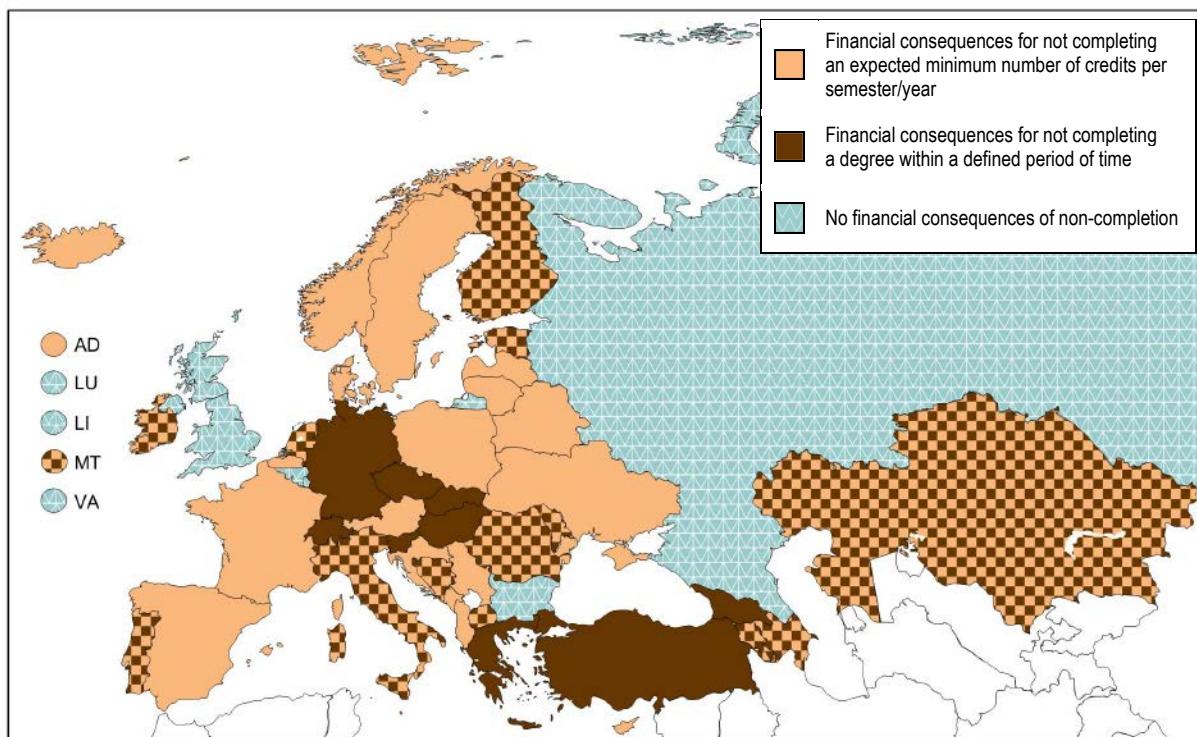
Source: BFUG data collection.

2) Motivating students to finish their studies within a defined time-frame

A common way of trying to improve completion rates is to give incentives for students to finish their studies within a limited period of time. Here, the challenge for top-level authorities is to offer flexibility to students in their study progression, but at the same time make sure that they actually complete their studies within a reasonable timeframe.

As Figure 5.36 shows, non-completion has financial consequences for students in the large majority of EHEA countries. Most commonly, steering documents define the number of (ECTS) **credits students are expected to complete** per semester and/or year. Usually, the expected number corresponds either to 30 credits per semester or to 60 credits per year (or both). Besides – or in some cases even in the absence of – defining a common expectation, regulations may also refer to the minimum number of credits which need to be completed by students in order to keep their financial support or to avoid paying (higher) fees. This minimum may or may not correspond to the expected number. For example, in Denmark, all study programmes have an overall frame of 60 ECTS credits per year, but alongside this general frame, higher education institutions can determine that students must complete up to 45 credits. Similarly, in Serbia, students can accumulate up to 60 ECTS credits per year, the minimum for those in state-funded places being set to 48 ECTS credits. Croatia developed a whole scale of consequences for the non-completion of credits: students are required to complete 18 ECTS in the previous year of study in order to have the right to subsidised meals; 40 ECTS per year in order to have the right to subsidised accommodation; and 45 ECTS per year to be eligible for a state scholarship. Students failing to complete at least 55 ECTS credits per year are required to co-finance their tuition fee. In Spain, while there is no expected minimum number of credits defined in general, students who would like to receive a grant need to complete a minimum of 30 ECTS credits per year.

Figure 5.36: Financial consequences for students who do not complete an expected minimum number of ECTS and/or their degree within a defined period of time, 2016/17



Source: BFUG data collection.

Notes:

Most commonly, such financial consequences of non-completion can be that students lose their grants or have to pay (higher) fees (see Figure 5.37).

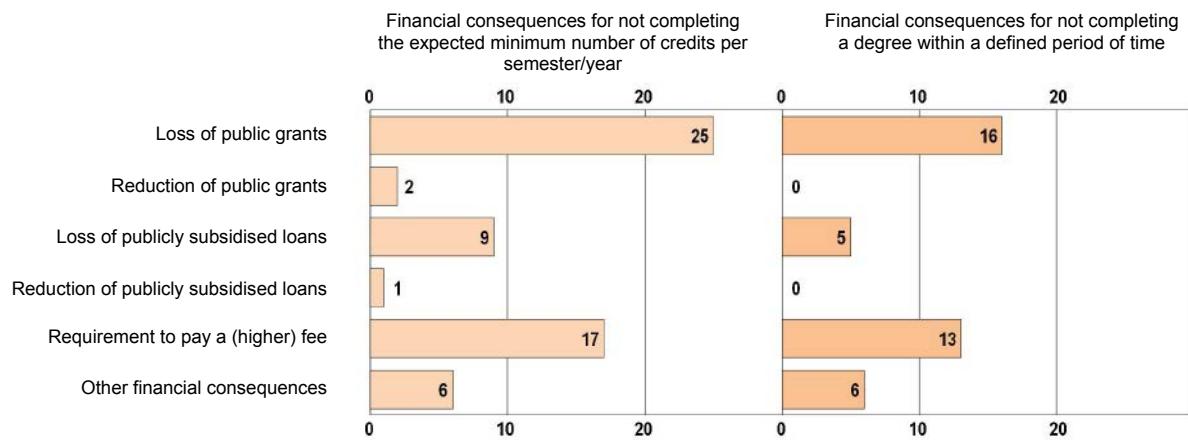
In most education systems where students have to complete a given number of credits per semester/year, non-completion already has consequences in the following academic year. Nevertheless, a few countries do allow for some flexibility: for example, in the Netherlands, students are given more than one extra year to complete the requirements without (financial) consequences. In addition, not all higher education institutions follow the same practice in every education system. While the non-completion of credits can be binding in some countries, in others, higher education institutions are given an option whether to use financial sanctions or not.

In the Flemish Community of Belgium, the financial consequences of non-completion are determined based on a system of 'learning accounts' (*leerkrediet*). This system is somewhat different from those based on the non-completion of a minimum number of credits, but was nevertheless placed in this category given its emphasis on credit-accumulation instead of looking at the completion of a degree. In this system, when starting a higher education programme in the first or second cycle, students receive an initial learning account of 140 credits. The number of credits for which the student registers (typically 60 credits per year) is subtracted from the account; students then earn back the credits they pass and lose those they fail. For students with a negative learning account, universities can refuse their registration at the beginning of the academic year or can ask for an increased tuition fee from them.

Besides defining the number of credits to be completed, steering documents can also stipulate the period of time within which students are **expected to complete their degree**. This exists in slightly more than half of all EHEA systems (see also Figure 5.36). In most of these systems, the non-completion of a degree within a defined time-frame entails financial consequences for students.

The most common financial consequence for students of not completing the number of expected credits or a degree within a given period of time is the loss of a public grant (occurs in 25 and 16 systems respectively; see Figure 5.37). It is followed by the requirement to pay a (higher) fee (17 and 13 systems), loss of a publicly subsidised loan (nine and five systems) and other financial consequences (six systems each). The latter category includes, for instance, the loss of publicly subsidised accommodation (Croatia, Montenegro and Serbia) or publicly subsidised meals (Croatia and Serbia). The reduction of public grants or publicly subsidised loans is a rather uncommon consequence, reported only by Cyprus and Ireland (grants) and Iceland (loans) as the result of the non-completion of credits.

Figure 5.37: Number of higher education systems reporting different financial consequences for students who do not complete the expected minimum number of ECTS and/or their degree within a defined period of time, 2016/17



Source: BFUG data collection.

Notes:

The figure is based on data supplied by 50 higher education systems.

3) Improving the retention and completion of disadvantaged learners

The previous two sub-sections presented measures aiming to improve completion rates for all students regardless of their gender, socio-economic background or other characteristics. Nevertheless, since non-completion is a particularly significant issue for students from under-represented groups, it is also important to examine whether education systems have developed targeted measures to improve the completion performance of disadvantaged learners.

The most common form of targeted support is the learning support provided for students with disabilities, which exists in most EHEA education systems. However, when it comes to targeted measures addressing drop-out and non-completion specifically, much fewer countries appear to have put related policies in place. It largely depends on higher education institutions themselves to pay particular attention to the retention and completion of disadvantaged learners.

Nevertheless, some education systems do provide support or incentives for higher education institutions in this endeavour. In Azerbaijan, the Ministry of Education provides technical and academic support to higher education institutions to establish special centres for students with disabilities providing psychological as well as academic support. Similarly, in Bosnia and Herzegovina, support centres for students with disabilities have been established in all higher education institutions through a Tempus project. In Poland and Sweden, higher education institutions also receive specific financial support that they can only use for providing learning support as well as guidance and mentoring for students with disabilities. Romanian authorities finance support measures for first-year students, especially for those at risk (students coming from rural areas or from low income families, Roma

students, students with disabilities, etc.). An indirect financial incentive exists in the Flemish Community of Belgium: students receiving need-based grants as well as some students with disabilities are given additional weight in the funding formula used to determine the operational budget of higher education institutions.

Specific mentoring programmes exist in Hungary and in the Netherlands. In Hungary, the HÖOK (National Student Organisation) Mentoring Programme is designed to assist those first-year students, who – because of their social circumstances – enter the higher education system with disadvantages. Candidate students are supported by a personal assistant for one academic year. In the Netherlands, top-level authorities support and encourage 'Giving Back' projects in which students from under-represented groups mentor other students from under-represented groups as role-models in order to improve retention among these groups of students ('Students-4-Students' campaign).

Quality indicators related to the retention or completion of disadvantaged learners have been developed in France, Romania and the United Kingdom (England). In France, these indicators include the share of under-represented students at each higher education level, as well as the rate of completion for need-based grant holders as compared to other students. In Romania, an additional funding allocation method, implemented from 2016, includes a set of quality indicators on social equity, aiming to stimulate universities to carry out student support actions. For piloting, an indicator has been proposed based on the completion rate of students with low socio-economic background. In the United Kingdom (England), Access Agreements include measures on retention, completion and attainment.

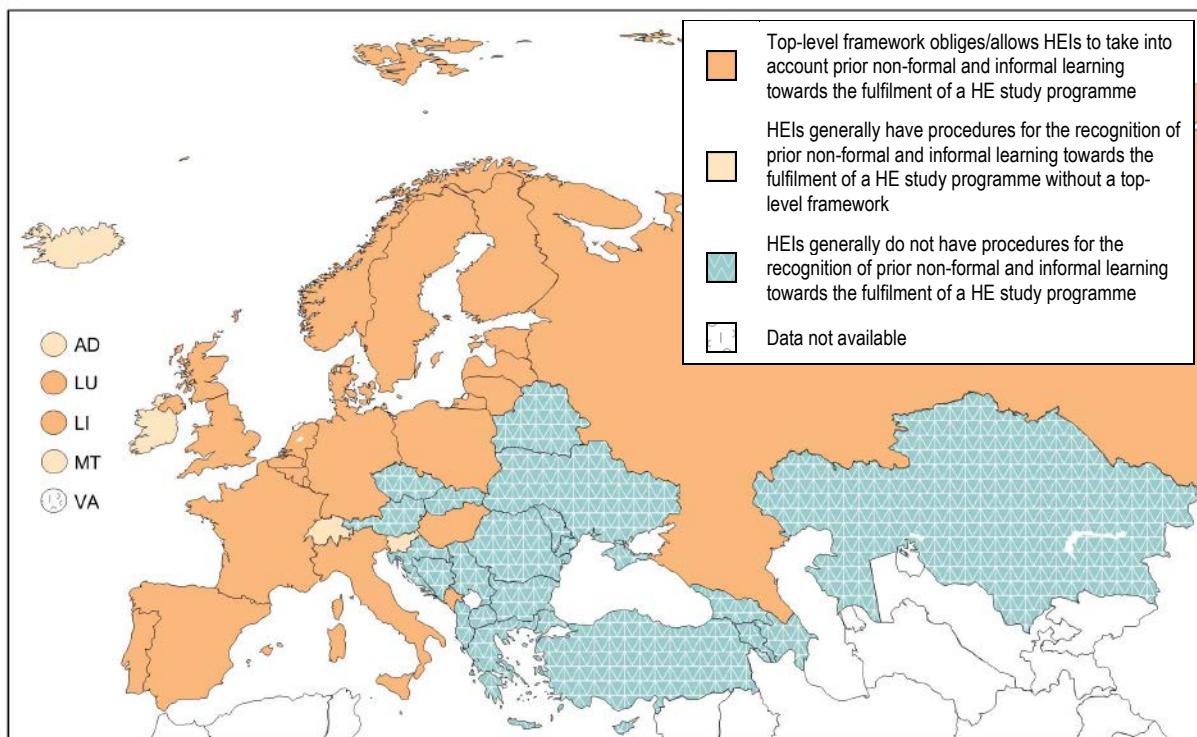
In Denmark, while there are no targeted measures focusing on students from under-represented groups, higher education institutions are required to offer 'special guidance' to students who are identified as 'likely to drop out', i.e. students who are delayed in their studies compared to the rated study time. Similarly, in Cyprus, higher education institutions are encouraged to provide special support to students with learning difficulties or with psychological problems in order to complete their studies. These mechanisms still identify at-risk groups, though indirectly.

5.2.2.4. Recognition of prior learning for progression in higher education studies

The recognition of prior non-formal and informal learning is not only an important instrument for widening access. If prior non-formal and informal activities are recognised by higher education institutions as parts of study programmes (in the form of credits, for example), these procedures can also help students completing their studies.

As Figure 5.38 depicts, prior non-formal and informal learning can be recognised towards the fulfilment of a higher education study programme in the majority of EHEA countries. In most education systems this is made possible by a top-level framework: laws, regulations, guidelines or policies oblige or guide higher education institutions in establishing the relevant recognition procedures. Nevertheless, such top-level frameworks do not exist everywhere: in six higher education systems, higher education institutions have recognition procedures in place without the presence of a top-level framework.

Figure 5.38: Recognition of prior non-formal and informal learning for progression in higher education studies, 2016/17



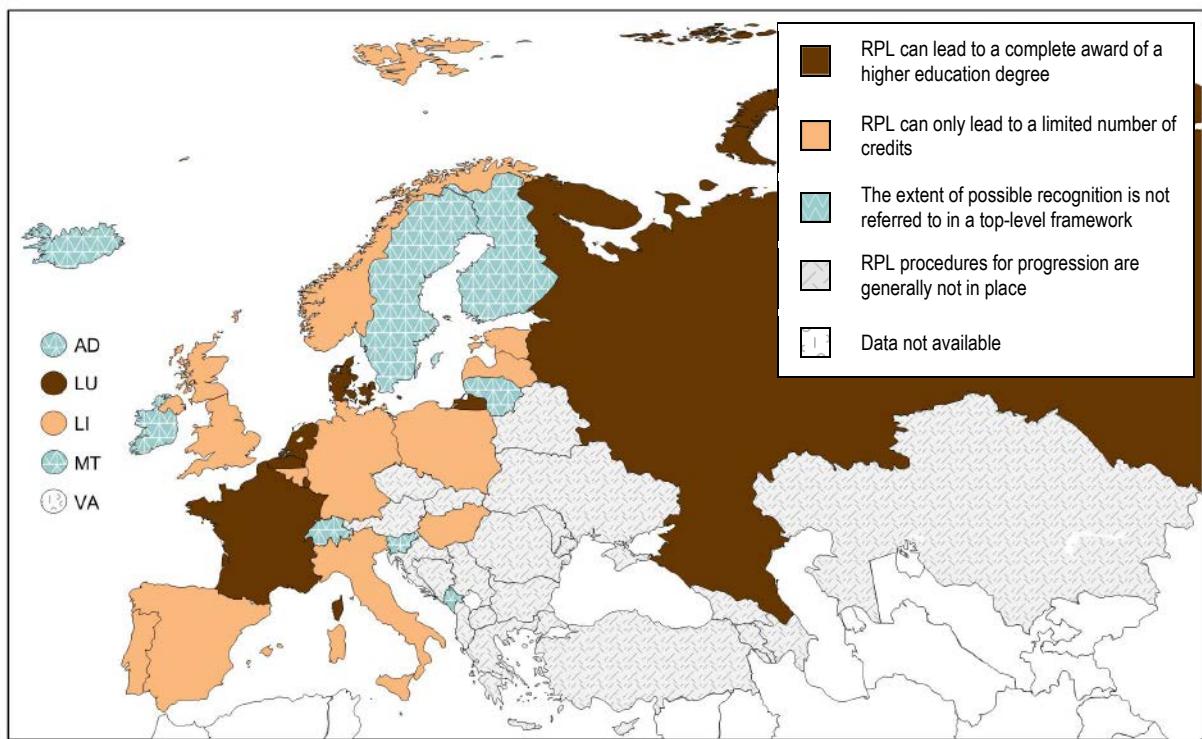
Source: BFUG data collection.

There are differences in the extent to which non-formal and informal learning can contribute to the fulfilment of a higher education study programme. In education systems where top-level steering documents define the extent of possible recognition, such procedures can most often only lead to a limited number of credits (see Figure 5.39).

Yet, there are large variations among education systems regarding such limitations. Some countries specify the maximum number of credits – for example 10 (in Liechtenstein) or 12 ECTS (in Italy) – that can be awarded on the basis of prior learning within a higher education programme. Others define the maximum amount of credits to be gained as a proportion of all credits necessary to complete a higher education programme. For example, in Portugal, one third of all credits can be gained through recognition procedures within a cycle; in Germany and Poland, this proportion is 50 %. Another group of countries do not specify the upper limit in the number of credits gained, but define parts of the study programme that have to be fulfilled without the recognition of prior learning – thus for which recognition procedures do not apply. For example, in the French Community of Belgium, 60 ECTS have to be acquired via a regular programme of studies; and in Estonia, the final thesis cannot be awarded on the basis of the recognition of prior learning.

A relatively small group of countries do not apply any limitations in the extent of possible recognition. This means that in these countries – in the Flemish Community of Belgium, Denmark, France, Luxembourg, the Netherlands and Russia – the recognition of prior learning can – at least theoretically – lead to a complete award of a higher education degree. However, in the absence of top-level monitoring, in most systems there is no available information on whether in practice degrees are issued solely based on the recognition of prior non-formal and informal learning.

Figure 5.39: Possible outcomes of the recognition of prior non-formal and informal learning, 2016/17



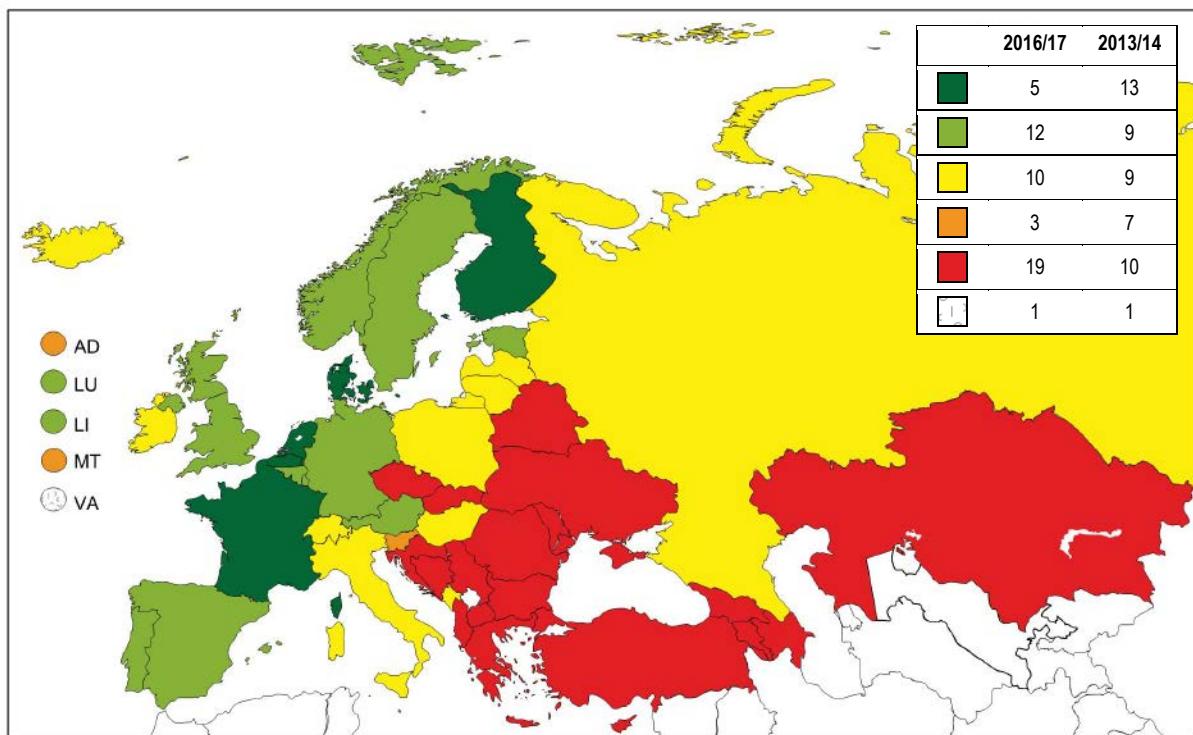
Source: BFUG data collection.

Scorecard indicator n°10 on Figure 5.40 summarises information on the recognition of prior learning for both access and the progression in studies. As the figure depicts, there are only five education systems (Belgium – Flemish Community, Denmark, Finland, France and the Netherlands) in the dark green category, thus fulfilling all the requirements of the scorecard indicator. In these five systems, there are nationally established and regularly monitored procedures, guidelines or policy for the assessment and recognition of prior learning as a basis for both accessing higher education programmes and the allocation of credits towards a qualification (¹⁰⁸).

Twelve education systems are in the light green category. In these cases, two possibilities exist. First, there could be nationally established procedures, guidelines or policy for the recognition of prior learning as a basis for both accessing higher education programmes and the allocation of credits towards a qualification, but these procedures are not monitored regularly. This is the case in Germany, Norway and Portugal (where the procedures for the recognition of prior learning for progression are not monitored), and the French Community of Belgium, Liechtenstein, Luxembourg, Spain, Sweden and the United Kingdom (with no central level monitoring). Second, there could be nationally established and regularly monitored procedures, guidelines or policy for the recognition of prior learning as a basis for either accessing higher education programmes or the allocation of credits towards a qualification, but not for both. This is the case in Austria (with a recognition framework only for accessing higher education programmes) and Estonia (with a recognition framework only for progression in studies).

(¹⁰⁸) For definitions, see the Glossary and Methodological Notes.

**Figure 5.40: Scorecard indicator n°10:
Recognition of prior non-formal and informal learning, 2016/17**



Source: BFUG data collection.

Scorecard categories

■	There are nationally established procedures, guidelines or policy for assessment and recognition of prior learning as a basis for 1) access to higher education programmes, and 2) allocation of credits towards a qualification and/or exemption from some programme requirements, AND these procedures are monitored regularly by top-level authorities.
■	There are nationally established procedures, guidelines or policy for assessment and recognition of prior learning as a basis for 1) access to higher education programmes, and 2) allocation of credits towards a qualification and/or exemption from some programme requirements, BUT these procedures are not monitored regularly by top-level authorities. OR There are nationally established procedures, guidelines or policy EITHER for 1) OR for 2) (see above), AND these procedures are monitored regularly by top-level authorities.
■	There are nationally established procedures, guidelines or policy EITHER for 1) OR for 2) (see above), BUT these procedures are not monitored regularly by top-level authorities.
■	There are no specific procedures/national guidelines or policy for assessment of prior learning, but procedures for recognition of prior learning are in operation at some higher education institutions or study programmes.
■	No procedures for recognition of prior learning are in place EITHER at the national OR at institutional/programme level.
■	Data not available

Notes:

Categories of the scorecard indicator have been modified since the 2015 Bologna Process Implementation Report, most importantly related to monitoring. On related definitions, see the Glossary and Methodological Notes.

The yellow category comprises education systems where there are nationally established procedures, guidelines or policy for the recognition of prior learning as a basis for either accessing higher education programmes or the allocation of credits towards a qualification, but not for both, and these procedures are not monitored regularly. This is the case in ten education systems (Hungary, Iceland, Ireland, Italy, Lithuania, Latvia, Montenegro, Poland, Russia and Switzerland); all with a framework for the recognition of prior learning for progression in studies only.

In the three education systems in the orange category, recognition procedures are in operation in higher education institutions without nationally established procedures. This is the situation in Andorra

and Slovenia (for the recognition of prior learning for progression in studies), and in Malta (for the recognition of prior learning for both access and progression in studies).

Finally, in 19 education systems, no procedures for the recognition of prior learning are in place either at the national or at institutional/programme level. This picture looks more discouraging than the one presented in the 2015 Bologna Process Implementation Report. Yet, this does not signify that fewer countries have recognition procedures than before; it is rather that there is now a clearer understanding of what the recognition of prior non-formal and informal learning means and what kind of procedures should be in place (or are lacking) for recognition to work in practice.

5.2.2.5. Incentives for higher education institutions to reduce drop-out and improve completion rates

Despite the presence of various tools that can help higher education institutions to reduce student drop-out and improve completion rates, in most cases, institutions have autonomy in deciding whether they make use of such tools and measures. Nevertheless, top-level authorities can provide incentives to higher education institutions to make use of the available possibilities to improve student retention and completion. Financial incentives are the most straightforward: in this case, retention and/or completion rates are parts of a funding formula or are taken into account in performance agreements or other performance-based mechanisms.

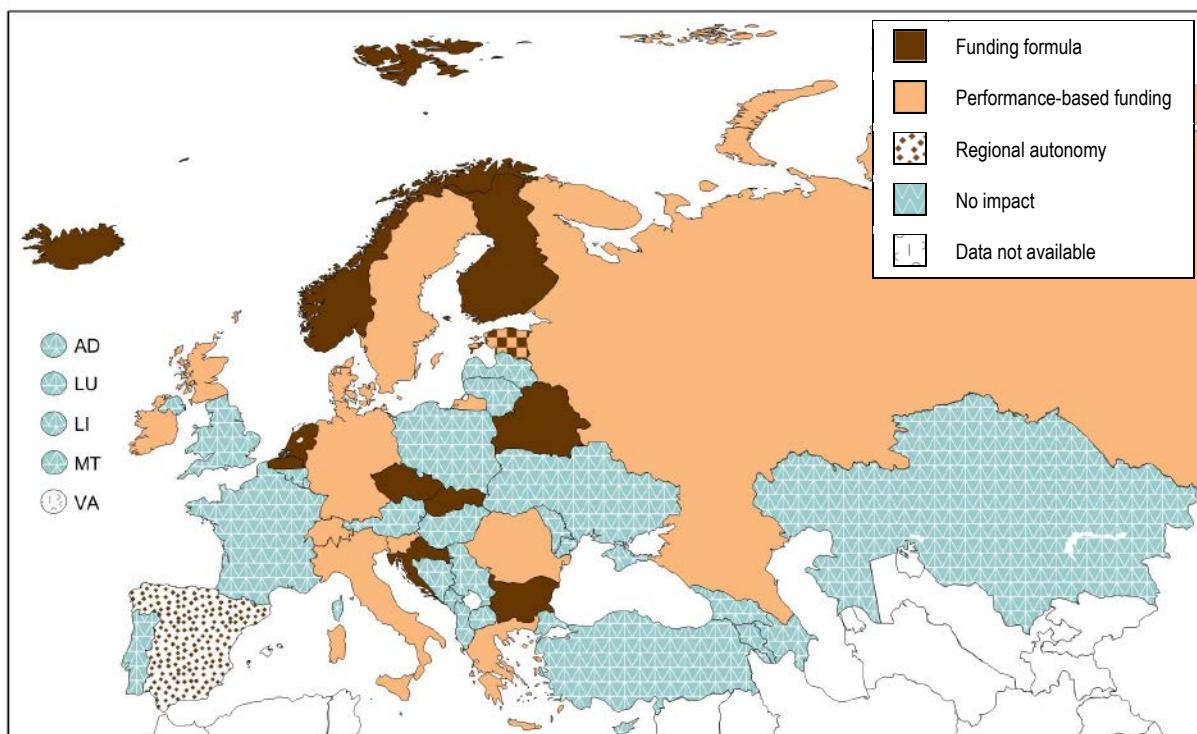
Figure 5.41 depicts such financial incentives in EHEA countries. As the figure shows, in about one third of the EHEA countries, higher education institutions' performance influences the institutions' funding, either through a funding formula, or through performance-based mechanisms.

The financial consequences of students' non-completion are closely related to mechanisms through which institutions are funded. In several systems, higher education institutions receive per capita funding only during a defined period of time, meaning that students extending their studies are not financed from the state budget. For example, in Germany, in some *Länder*, the global budget of higher education institutions partly depends on the number of students finishing their study within the *Regelstudienzeit*, i.e. a standard period of study. In the Netherlands, when a student exceeds the expected period of time for finishing a degree, the extra years are not financed by the government. A comparable situation can be observed in Slovakia, where students who exceed the standard length of study are no longer considered in the calculation of the subsidy for public higher education institutions.

Or else, state funding can also depend on the number of credits achieved by students. In Norway, for instance, public subsidies for higher education institutions are partly calculated on the basis of credits. One important part of these criteria is the number of 60 ECTS credits obtained (*studiepoeng*). This means that institutions where students succeed are rewarded financially, whereas institutions where students succeed less well get less funding on this specific criterion. Similarly, in Denmark, a substantial part of the state subsidies to higher education institutions is granted on the basis of the extent of passed study elements. Consequently, there is a general financial effect for institutions when students pass fewer elements than stipulated. In Croatia, the ministry calculates subsidies for higher education institutions based on the number of full-time students, in particular those students that enrol to the first year of study for the first time, and students that have completed at least 55 ECTS in the previous year of study. It follows that the completion of the above number of ECTS credits has an impact on the amount of funding. In Italy, the proportion of students completing the number of credits planned for the year is an indicator of the quality of teaching and it is used to allocate funding. In Russia, students' non-completion of the required minimum number of credits is reflected in the monitoring of institutional effectiveness, which, in turn, influences the amount of funding provided from the state budget.

The situation depicted on Figure 5.41 is largely similar to that presented in the 2015 Bologna Process Implementation Report. Nevertheless, some education systems have adopted some form of performance-based funding since 2015. In Bulgaria, since 2016, the lower the completion rate, the lower is the number of students whose training is to be funded by the state. In Switzerland, after 12 semesters (14 semesters for medicine) without completion, students no longer count for national funding. In the Czech Republic, completion performance accounts for 15 % of the whole performance-based allocation, which is 10 % of total funding. In the United Kingdom (Scotland), the completion rate is part of the institutional performance to be evaluated against the Scottish Funding Council's targets.

Figure 5.41: Impact of completion performance on higher education institutions' funding, 2016/17



Source: BFUG data collection.

Notes:

For definitions, see the Glossary and Methodological Notes.

Cyprus is currently in the process of implementing a funding formula which will take completion rates into account.

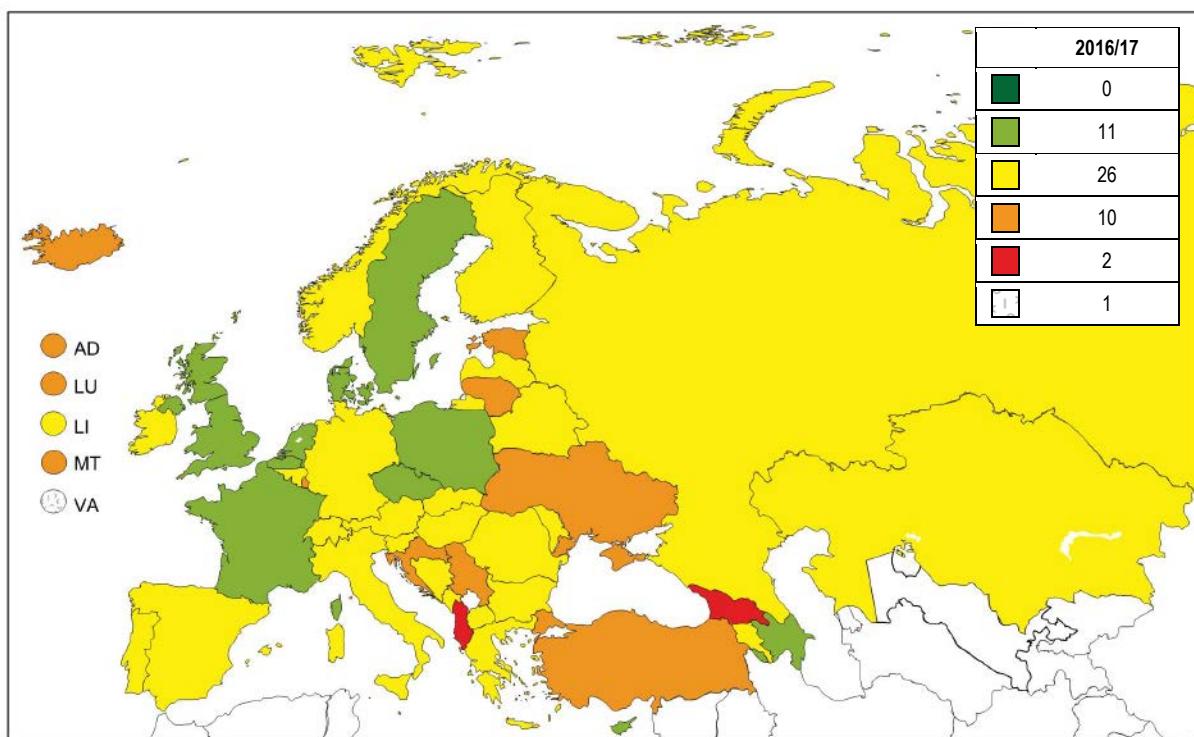
5.2.2.6. Improving student retention and completion: summary of main measures supporting disadvantaged learners

Figure 5.42 summarises the measures supporting the retention and completion of disadvantaged learners in the form of a scorecard indicator. This composite indicator includes elements on 1) monitoring the composition of the student body during studies and at graduation, 2) quantitative objectives for the attainment/completion of students from under-represented groups, 3) general measures aiming to improve completion rates, as well as 4) targeted measures aiming to improve the completion of disadvantaged learners specifically.

In line with Bologna commitments, most of these elements require a specific focus on vulnerable or under-represented groups. While general policy measures may also enhance the retention or completion of disadvantaged learners (hence their inclusion among the scorecard categories), given the vulnerable position of students from under-represented groups, this indicator aims to capture the presence of targeted policies in EHEA countries.

Figure 5.42: Scorecard indicator n°11:

Measures to support the retention and completion of students from under-represented groups, 2016/17



Source: BFUG data collection.

Scorecard categories

█	The following measures are undertaken to support the higher education completion of students from under-represented groups: <ul style="list-style-type: none"> Monitoring the composition of the student body based on gender and at least one other under-represented category during studies and at graduation; Longer-term quantitative policy objectives for the attainment/completion of students from under-represented groups; Top-level measures targeting the retention of students and/or financial incentives for HEIs to improve completion rates; Top-level measures targeting the completion of students from under-represented groups specifically.
█	Three out of the four types of measures are undertaken.
█	Two out of the four types of measures are undertaken.
█	One out of the four types of measures is undertaken.
█	None of the four types of measures are undertaken.
█	Data not available

As the figure illustrates, measures supporting the retention and completion of students from under-represented groups are much less common than measures supporting these groups to enter higher education. There is no education system implementing all types of the listed measures, and only 11 education systems (Azerbaijan, Belgium – Flemish Community, the Czech Republic, Cyprus, Denmark, France, the Netherlands, Poland, Sweden and the education systems of the United Kingdom) undertake three types of support measures out of the four. Most education systems are in the yellow category, thus implementing two support measures targeting the retention or completion of disadvantaged learners. Another 10 education systems implement one type of measure out of the four, therefore are placed in the orange category. Nevertheless, there are only two education systems (Albania and Georgia) not providing top-level support for the completion of under-represented groups in any of the areas analysed in this section.

5.3. Conclusions

The social dimension of higher education has been high on the agenda of the Bologna Process since the 2001 Prague Communiqué⁽¹⁰⁹⁾. And rightly so: disadvantaged learners still face access barriers to higher education; students from low and medium-educated families are strongly under-represented, and are more likely to enter higher education with a delay; gender imbalances, if improving slightly, still persist and remain marked in some discipline areas with significant implications for the labour market and society; and life-long learning is still not a reality for learners in many countries. In addition to barriers to access, disadvantaged students also face difficulties in completing higher education, dropping out in higher proportions. And yet, despite evidence of these trends over a number of years, only a few countries have introduced measures in recent years to improve the conditions for under-represented groups to access and complete higher education.

An area of particular concern is the recognition of prior non-formal and informal learning, both for facilitating alternative access routes to higher education, and enabling non-formal and informal learning to be recognised and credited during studies. Despite being emphasised again as an important tool by the Yerevan Communiqué⁽¹¹⁰⁾, no education system has taken concrete action to introduce a new top-level framework for the recognition of prior learning since the 2015 Ministerial Conference.

In addition, a comparison of scorecard indicators n°9 and 11 reveals a much weaker policy focus on one of the key aspects of widening participation: enhancing the retention and completion of students from under-represented groups. Only a handful of countries have been relatively active in both areas, while the general picture is one of policy neglect.

Nevertheless, there have also been important developments in the analysed period, notably in the introduction of monitoring tools, development of performance indicators (which might even influence higher education institutions' funding), and the introduction of longer-term quantitative objectives and targets. While higher education authorities recognise the autonomy of higher education institutions, in an increasing number of countries, they are developing systems through which they can provide incentives to higher education institutions to improve the access and completion of students from under-represented groups. In some countries, systems of performance indicators and agreements have been put in place; top-level objectives have been set; and monitoring systems have been introduced. However, in most others, there is still a lot of room for improvement.

⁽¹⁰⁹⁾ Prague Communiqué: Towards the European Higher Education Area – Communiqué of the meeting of European Ministers in charge of Higher Education in Prague on 19 May 2001.

⁽¹¹⁰⁾ Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015.

CHAPTER 6:

RELEVANCE OF THE OUTCOMES AND EMPLOYABILITY

The Yerevan Communiqué

Employability of graduates has been an important focus of the Bologna Process from the very beginning and continues to be so. The Yerevan Communiqué reiterates the goal of enhancing employability of the previous ministerial conference in Bucharest.

The Yerevan Communiqué states that 'fostering the employability of graduates throughout their working lives in rapidly changing labour markets ... is a major goal for the EHEA'. The ministers supported 'higher education institutions in exploring diverse measures to reach these goals, e.g. by strengthening their dialogue with employers, implementing programmes with a good balance between theoretical and practical components, fostering the entrepreneurship and innovation skills of students and following graduates' career developments' (¹¹¹).

The 2015 Bologna Process Implementation Report

The data from the 2015 Bologna Implementation showed that higher education graduates had been hit hard by the economic crisis in terms of their employment prospects. Unemployment ratios had grown proportionally more for them than for their peers with lower levels of education; their income advantages slightly decreased; and their over-qualification rates increased in the period between 2010 and 2013. And while unemployment ratios were still the lowest for young people with high educational attainment in most countries, this was not true everywhere within the EHEA. In fact, in one third of the countries with available data, higher education graduates did not have the most secure position in the labour market.

In addition, the economic crisis had a different impact on the unemployment ratios of women and men, hitting male dominated sectors faster and more severely. In contrast to pre-crisis years, men with low educational attainment had higher unemployment ratios than their female counterparts, while unemployment ratios were similar for both sexes among the highly educated.

All these developments highlighted the need for higher education policy-makers to (re-)focus attention on the employability of graduates. While almost all EHEA countries recognised employability as a policy concern, systematic efforts including several policy elements (using labour market forecasting, involving employers, providing incentives to include work placements in many higher education programmes, improving career guidance services, monitoring performance with established feedback-mechanisms, but also encouraging student mobility or the implementation of Bologna tools) were still not applied everywhere. Nevertheless, many countries introduced new policies and monitoring tools such as graduate surveys in order to improve graduate employment. However, employment-related difficulties faced by under-represented groups were largely neglected by top-level policies.

Chapter outline

This chapter examines the issue of graduates' employability. Firstly it discusses the current labour market situation of higher education graduates, highlighting recent trends to which higher education institutions need to respond. Secondly, it looks at how EHEA countries try to enhance the employability of graduates through various types of policies, and their monitoring and evaluation.

(¹¹¹) Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 2.

6.1. Graduates on the labour market: transition from education to work

Several indicators can describe graduates' transition from education to work. Section 6.1 looks at graduates' labour market situation in EHEA countries based on unemployment rates, income levels, as well as qualification mismatch – which usually means 'over qualification' (holding a qualification which is above the level required to gain entry to a job) and 'skills underutilisation' (being in a job which does not make use of acquired knowledge and skills). Income levels and qualification mismatch can serve as indicators for job quality (the 'meaningfulness' of a job).

6.1.1. Graduates on the labour market: transition from education to work

Unemployment rates comparing the unemployment situation of people aged 20-34 with different educational attainment provide valuable information on the relative value of tertiary education degrees.

Unemployment can be measured by both the unemployment rate and the unemployment ratio. The unemployment rate shows the share of those who are looking for a job but cannot find one, taking the labour force as the denominator in the calculation. In contrast, the unemployment ratio compares the unemployed to the total population instead of the labour force, thus indicating the proportion of the unemployed within the total population of a given age group. Hence, the unemployment ratio is lower than the unemployment rate. In addition, countries with similar unemployment rates can have different unemployment ratios depending on their inactivity rate. For example, countries with a higher share of young people aged 20-34 in education (and thus a higher share of inactive young people) will have lower unemployment ratios.

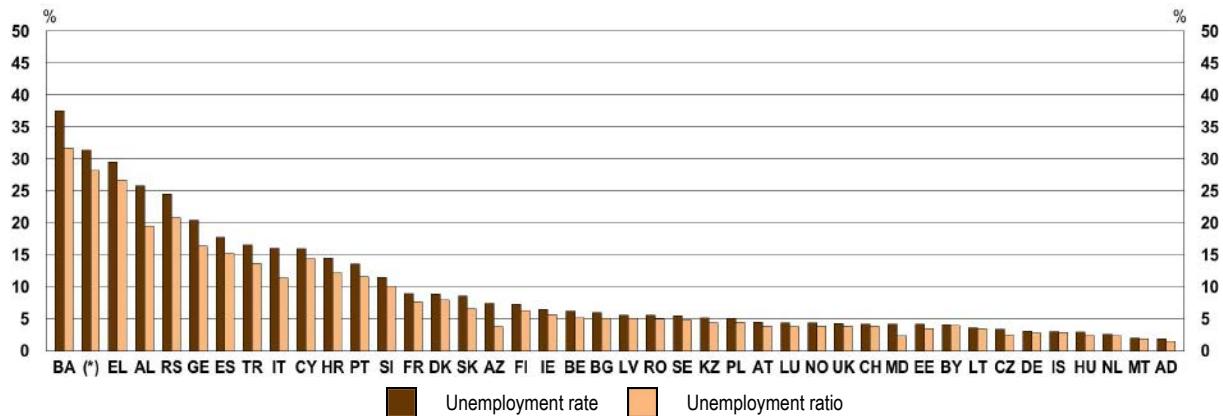
Figure 6.1.A shows the difference in unemployment rate and unemployment ratio of people with a higher education degree. As can be seen, the variation in both unemployment rate and ratio is large. The lowest unemployment rate and ratio can be found in Andorra (1.8 % and 1.5 % respectively), and the highest in Bosnia and Herzegovina (37.6 % and 31.7 % respectively). If Azerbaijan and Finland are compared, both have almost the same unemployment rate (7.4 % and 7.3 % respectively), but the unemployment ratios are quite different (3.8 % and 6.3 % respectively). This implies that in Finland there is a higher proportion of inactive population. Also, in Switzerland, Moldova and Estonia the unemployment rate is the same (4.3 %), but the unemployment ratios are 3.9 %, 2.3 % and 3.4 % respectively.

Figure 6.1.B shows the unemployment rate of people with low, medium and high education attainment, with the higher education category divided into Bachelor and Masters-levels. The EHEA median of unemployment rates for young people with low educational attainment (at most lower secondary education) is 20.0 %, for those with medium educational attainment (at most post-secondary non-tertiary education) it is 10.6 %, while it is 7.1 % and 5.6 % for people with Bachelor and Masters-degree. In most cases, the higher the education level, the lower the unemployment, when low and medium education level is compared with either the Bachelor or Masters-level of education.

The biggest gaps between the unemployment rates of young people with Masters-level and low educational attainment are in Slovakia (8.2 % vs. 39.0 %), Ireland (5.8 % vs. 29.7 %), France (7.5 % vs. 29.8 %) and Croatia (16.3 % vs. 37.9 %). These are the countries where staying in education improves young people's labour market prospects the most. Gaps between the unemployment rates of high and the medium skilled are much less pronounced but still relatively wide. Countries with the largest differences between Masters-level and medium skilled are Spain (14.7 % vs. 26.4 %), Greece (22.4 % vs. 33.9 %), and France (7.5 % vs. 17.4 %), whereas the largest differences between Bachelor level and medium skilled can be found in Luxembourg (3.7 % vs. 12.5 %), Lithuania (4.0 % vs. 12.4 %) and France (9.6 % vs. 17.4 %).

Figure 6.1: Unemployment rate and unemployment ratio of people aged 20-34 by educational attainment level (%), 2016

A) Unemployment rate vs ratio (High education level):

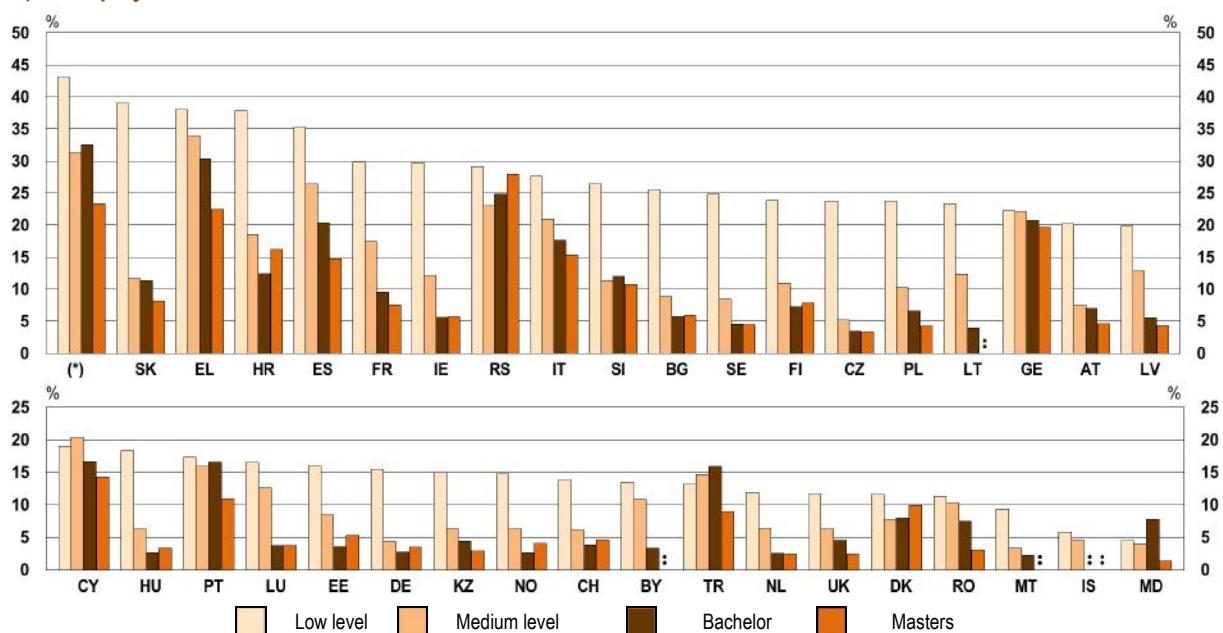


(*): the former Yugoslav Republic of Macedonia

	BA (*)	EL	AL	RS	GE	ES	TR	IT	CY	HR	PT	SI	FR	DK	SK	AZ	FI	IE	BE	BG	LV	
Unemployment rate	37.6	31.4	29.5	25.8	24.5	20.5	17.7	16.6	16.1	16.0	14.5	13.6	11.5	8.9	8.9	8.6	7.4	7.3	6.5	6.2	6.0	5.6
Unemployment ratio	31.7	28.2	26.8	19.5	20.8	16.4	15.2	13.7	11.4	14.4	12.2	11.6	10.1	7.7	8.0	6.5	3.8	6.3	5.6	5.1	5.1	5.0
	RO	SE	KZ	PL	AT	LU	NO	UK	CH	MD	EE	BY	LT	CZ	DE	IS	HU	NL	MT	AD	EHEA	
Unemployment rate	5.5	5.5	5.1	5.0	4.4	4.4	4.4	4.3	4.2	4.2	4.2	4.1	3.6	3.3	3.1	3.0	2.9	2.6	2.0	1.8	5.8	
Unemployment ratio	4.9	4.8	4.4	4.4	3.8	3.8	3.9	3.9	2.3	3.4	3.9	3.4	2.5	2.8	2.9	2.4	2.3	1.8	1.5	5.0		

Source: Eurostat, Labour Force Survey (LFS) and additional collection for the other EHEA countries.

B) Unemployment rate:



(*): the former Yugoslav Republic of Macedonia

	(*)	SK	EL	HR	ES	FR	IE	RS	IT	SI	BG	SE	FI	CZ	PL	LT	GE	AT	LV
Low level	43.1	39.0	38.0	37.9	35.3	29.8	29.7	29.1	27.7	26.4	25.6	24.8	23.9	23.7	23.7	23.3	22.3	20.1	19.9
Medium level	31.2	11.6	33.9	18.5	26.4	17.4	12.1	23.0	20.9	11.3	8.9	8.4	10.9	5.2	10.3	12.4	22.2	7.4	12.9
Bachelor	32.5	11.3	30.3	12.4	20.4	9.6	5.6	24.8	17.6	12.0	5.7	4.5	7.2	3.5	6.6	4.0	20.7	7.0	5.5
Masters	23.4	8.2	22.4	16.3	14.7	7.5	5.8	27.9	15.3	10.8	6.0	4.5	7.9	3.4	4.3	:	19.8	4.6	4.4
	CY	HU	PT	LU	EE	DE	KZ	NO	CH	BY	TR	NL	UK	DK	RO	MT	IS	MD	EHEA
Low level	19.0	18.3	17.3	16.5	16.0	15.5	15.0	14.7	13.8	13.5	13.1	11.9	11.7	11.5	11.3	9.3	5.8	4.5	20.0
Medium level	20.4	6.3	15.9	12.5	8.4	4.3	6.4	6.3	6.1	10.8	14.6	6.4	6.3	7.6	10.2	3.3	4.6	4.0	10.6
Bachelor	16.7	2.7	16.6	3.7	3.6	2.7	4.4	2.7	3.8	3.3	15.9	2.5	4.5	8.0	7.4	2.2	:	7.7	7.1
Masters	14.2	3.3	11.0	3.8	5.3	3.5	2.9	4.1	4.7	:	9.1	2.5	2.5	9.9	3.1	0.7	:	1.4	5.6

Source: Eurostat, Labour Force Survey (LFS) and additional collection for the other EHEA countries.

Notes:

The unemployment rate means the absolute number of unemployed persons aged between 20 and 34 with a given educational attainment level divided into the total population having the same educational attainment level and sex, regardless of the employment and activity status.

The unemployment ratio is calculated as the share of the unemployed in the total population of a given educational attainment level and age group. High educational attainment: ISCED 5-6, Medium educational attainment: ISCED 3-4 and Low educational attainment: ISCED 0-2.

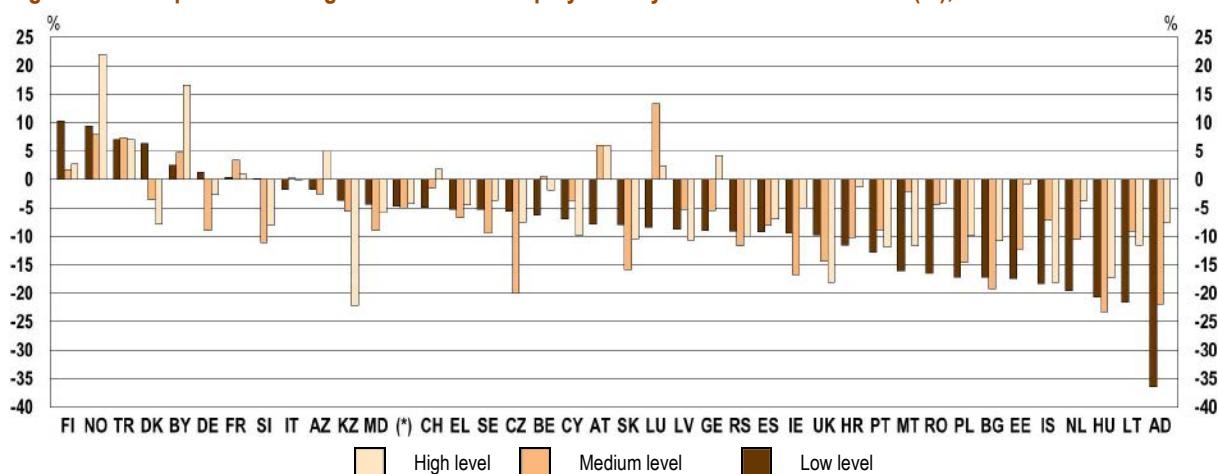
EHEA: Refers to the EHEA median, which was calculated based on countries with available data for all levels of education.

As expected, the smallest differences in unemployment rates can be found between the medium skilled and Bachelor-level educated, but in general, having a Bachelor-level degree protects against unemployment better than upper secondary level education. However, in seven countries (Denmark, the former Yugoslav Republic of Macedonia, Moldova, Portugal, Serbia, Slovenia and Turkey), graduates with Bachelor degrees are more likely (albeit not always by much) to be unemployed than those with upper secondary education, and in Serbia and Denmark even graduates with a Master degree are in a similar situation.

Graduates with a Bachelor degree in Moldova and Turkey are in a more vulnerable labour market situation than people with low level educational attainment. In these two countries, however, people with a Master degree have the lowest unemployment rates among the different groups.

Figure 6.2 shows the compound annual growth of unemployment rates by educational attainment level.

Figure 6.2: Compound annual growth rate of unemployment by educational attainment (%), 2013-2016



(*): the former Yugoslav Republic of Macedonia

%	FI	NO	TR	DK	BY	DE	FR	SI	IT	AZ	KZ	MD	(*)	CH	EL	SE	CZ	BE	CY	AT	SK
High	10.3	9.4	7.1	6.4	2.6	1.2	0.4	0.0	-1.7	-1.7	-3.6	-4.4	-4.7	-4.9	-5.2	-5.3	-5.6	-6.3	-7.0	-7.8	-8.0
Medium	1.8	7.9	7.4	-3.5	4.7	-8.9	3.5	-11.1	0.2	-2.6	-5.6	-9.0	-5.0	-1.5	-6.8	-9.4	-20.0	0.5	-3.7	6.1	-15.8
Low	2.8	22.0	7.0	-7.8	16.7	-2.7	1.0	-8.1	-0.1	5.0	-22.2	-5.9	-4.2	1.8	-4.4	-3.7	-7.5	-1.8	-9.9	6.0	-10.4
%	LU	LV	GE	RS	ES	IE	UK	HR	PT	MT	RO	PL	BG	EE	IS	NL	HU	LT	AD	EHEA	
High	-8.4	-8.7	-8.9	-9.1	-9.2	-9.5	-9.8	-11.6	-12.8	-16.1	-16.5	-17.2	-17.2	-17.5	-18.3	-19.5	-20.8	-21.6	-36.4	-7.9	
Medium	13.4	-5.2	-5.5	-11.7	-8.1	-16.8	-14.3	-10.2	-8.8	-2.2	-4.5	-14.6	-19.2	-12.2	-7.2	-10.6	-23.2	-9.1	-21.9	-7.0	
Low	2.5	-10.6	4.2	-10.1	-7.0	-5.1	-18.1	-1.3	-11.9	-11.6	-4.1	-9.9	-10.8	-0.7	-18.1	-3.8	-17.3	-11.6	-7.6	-4.8	

Source: Eurostat, Labour Force Survey (LFS) and additional collection for the other EHEA countries.

Notes:

The unemployment ratio is calculated as the share of the unemployed at the total population of a given educational attainment level and age group.

Data are sorted by the growth rate of unemployment of the highly educated.

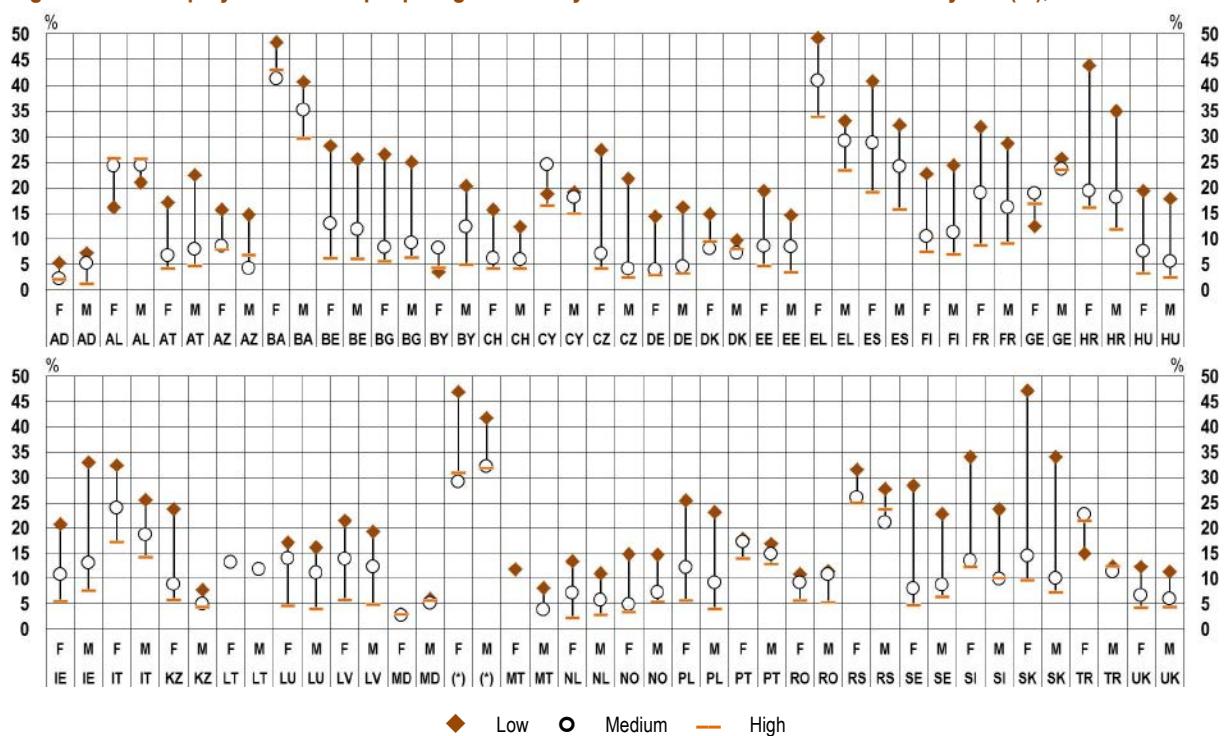
EHEA: Refers to the EHEA median, which was calculated based on countries with available data for all levels of education.

In the previous Bologna Process Implementation Report in 2015, most of the countries experienced an increase in unemployment between 2008 and 2013. This can be explained by the deep economic crisis that started in 2008. When looking at the following years (2013 to 2016), the situation has improved considerably. The majority of countries experienced a decrease in unemployment during these years. In fact, Andorra, Bulgaria, Croatia, Estonia, Iceland, Lithuania, Malta, the Netherlands, Romania, Poland and Portugal had a negative growth rate of over 10 % during these years. However, looking at different education levels, there are some exceptions to the overall positive situation. Denmark, Finland, Norway and Turkey had more than 6 % growth of unemployment among the highly educated, while Belarus and Norway had more than 16 % increase among people with low educational attainment.

In general, obtaining a higher level qualification lowers the probability of becoming unemployed for both women and men. In 2016, the unemployment rates of young women and men were relatively similar in three-quarters of EHEA countries among the highly educated, (with less than six percentage points difference in the rate between men and women). As Figure 6.3 shows, the extreme cases were Bosnia and Herzegovina (13.3 percentage points higher unemployment rate for women), Greece (10.5 percentage points) and Turkey (9 percentage points). At the other extreme, the unemployment rate for men was 6.6 percentage points higher for men in Georgia.

The difference is more pronounced in the case of young people with low educational attainment. As Figure 6.3 also depicts, in 12 countries, the unemployment rate is more than 5 percentage points higher for women than men.

Figure 6.3: Unemployment rate of people aged 20-34 by educational attainment level and by sex (%), 2016



(*): the former Yugoslav Republic of Macedonia

Source: Eurostat, Labour Force Survey (LFS) and additional collection for the other EHEA countries.

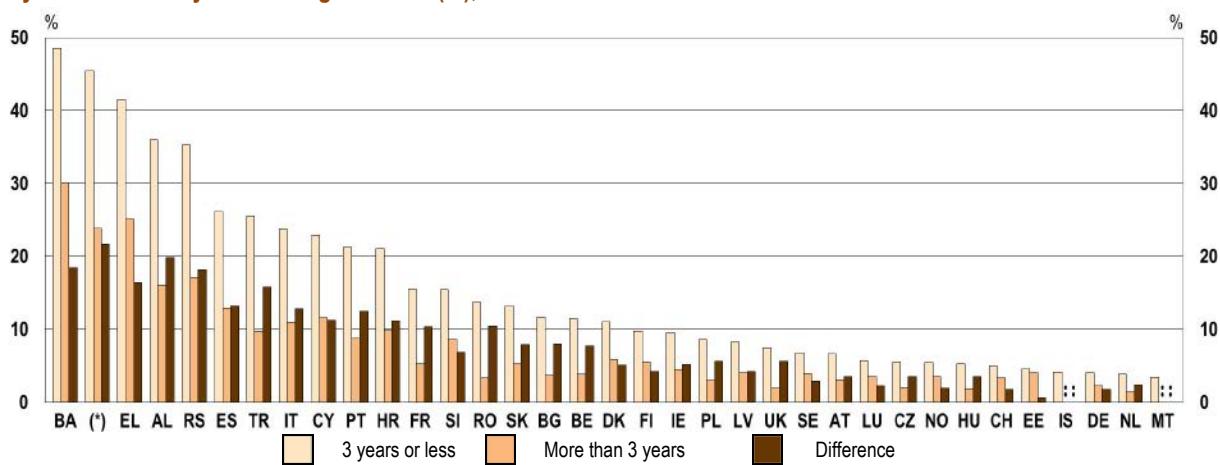
Notes:

The unemployment ratio is calculated as the share of the unemployed at the total population of a given educational attainment level and age group. Data are based on small sample size in most medium and small countries.

Figure 6.4 shows that the unemployment rate of tertiary education graduates aged 20-34 by the number of years since graduation. It differentiates between young people who graduated three years or less before data collection (recent graduates), and those whose graduation was more than three years before data collection (experienced graduates). This indicator thus captures the labour market entry prospects of recent graduates in comparison to their more experienced peers.

Figure 6.4 shows that the unemployment rate of recent graduates in countries analysed is considerably higher than that of those who have been in the labour market for a longer period. The unemployment rate of graduates with less than three years of experience is over 20 % in 11 countries, and over 10 % in about half of the countries. In five countries, the unemployment rate is less than five per cent for recent graduates. Countries with the largest difference in unemployment rates between recent and more experienced graduates are the former Yugoslav Republic of Macedonia (21.6 percentage points), Albania (19.9 percentage points) and Bosnia and Herzegovina (18.4 percentage points).

Figure 6.4: Unemployment rate of tertiary education graduates aged 20-34, by the number of years since graduation (%), 2016



(*): the former Yugoslav Republic of Macedonia

%	BA	(*)	EL	AL	RS	ES	TR	IT	CY	PT	HR	FR	SI	RO	SK	BG	BE	DK	EHEA
3 years or less	48.5	45.4	41.5	36	35.3	26.1	25.5	23.7	22.9	21.2	21	15.6	15.5	13.7	13.2	11.7	11.5	11	11.5
More than 3 years	30.1	23.8	25.1	16.1	17.1	12.9	9.7	10.9	11.6	8.8	9.8	5.3	8.6	3.3	5.3	3.7	3.8	5.9	4.4
Difference	18.4	21.6	16.4	19.9	18.2	13.2	15.8	12.8	11.3	12.4	11.2	10.3	6.9	10.4	7.9	8	7.7	5.1	6.9
%	FI	IE	PL	LV	UK	SE	AT	LU	CZ	NO	HU	CH	EE	IS	DE	NL	MT		
3 years or less	9.7	9.6	8.6	8.2	7.5	6.8	6.6	5.7	5.5	5.4	5.3	5	4.6	4.1	4	3.8	3.4		
More than 3 years	5.5	4.4	3	4	1.9	3.9	3.1	3.5	2	3.5	1.8	3.3	4	:	2.3	1.4	:		
Difference	4.2	5.2	5.6	4.2	5.6	2.9	3.5	2.2	3.5	1.9	3.5	1.7	0.6	:	1.7	2.4	:		

Source: Eurostat, Labour Force Survey (LFS) and additional collection for the other EHEA countries.

Notes:

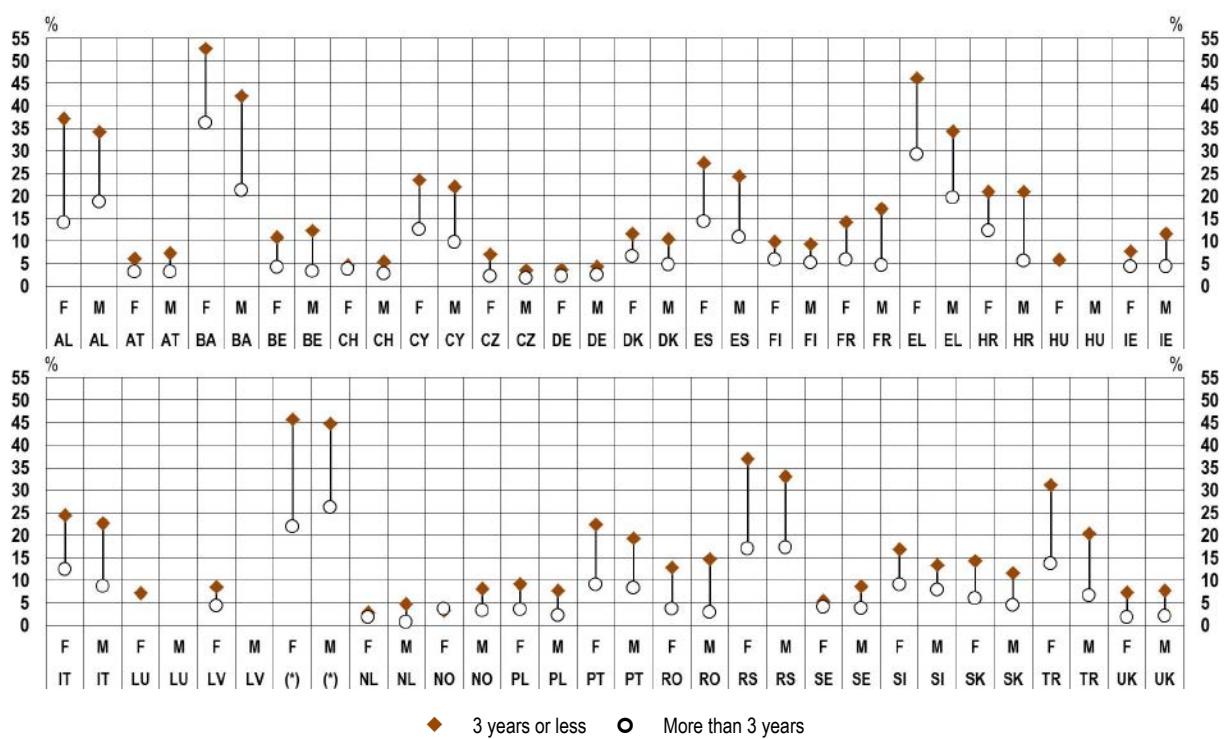
Data are based on small sample size in most medium and small countries. Data are sorted by the unemployment ratio of recent graduates (graduated 3 years or less before the data collection).

EHEA: Refers to the EHEA median, which was calculated based on countries with complete data.

Figure 6.5 breaks down the differences shown in the previous figure to show the situation for men and women. Among men, the highest differences in unemployment rates between recent graduates and those in the labour market for a longer period are to be found in Bosnia and Herzegovina (21 percentage points higher), the former Yugoslav Republic of Macedonia (18.6 percentage points), and Serbia (15.7 percentage points). Among women, the highest differences are in the former Yugoslav Republic of Macedonia (23.8 percentage points), Albania (23.1 percentage points) and Serbia (19.9 percentage points).

When comparing men and women with less than three years' employment experience, the unemployment rate of women is over 10 percentage points higher than that of men in Greece, Turkey and Bosnia and Herzegovina. In Norway, Ireland and France men's unemployment is more than three percentage points higher than women's. For men and women with more than three years' experience, the female unemployment rate is 15 percentage points higher in Bosnia and Herzegovina and 9.5 percentage points higher in Greece. In Albania and the former Yugoslav Republic of Macedonia, the unemployment rate of men is over four percentage points higher.

Figure 6.5: Unemployment rate of tertiary education graduates aged 20-34, by the number of years since graduation and by sex (%), 2016



(*): the former Yugoslav Republic of Macedonia

Source: Eurostat, Labour Force Survey (LFS) and additional collection for the other EHEA countries.

Notes:

Data are based on small sample size in most medium and small countries.

The category '3 years and less since graduation' excludes the first year after graduation.

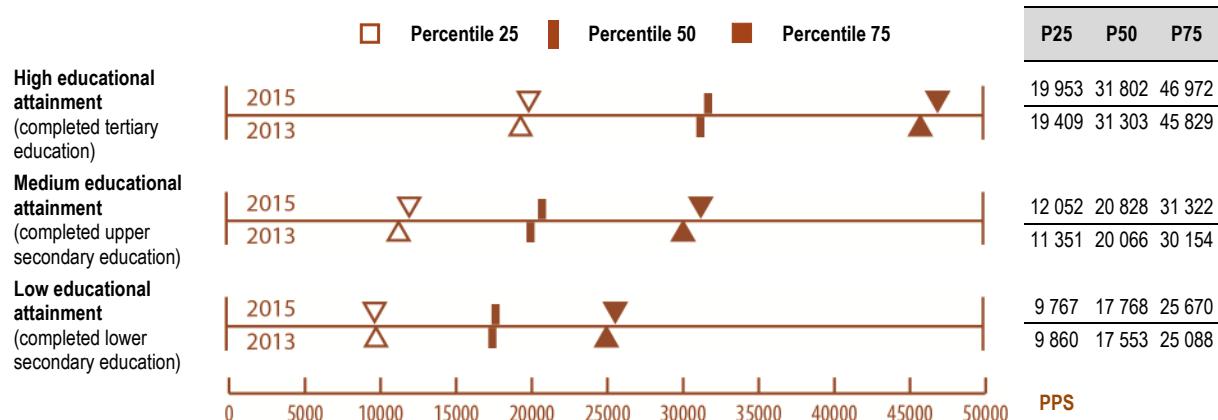
Overall, unemployment rates are highest in South-eastern Europe. While having a higher education degree provides better labour market opportunities, the unemployment rate is over 20 % in some of these countries (see Figure 6.1.B). The situation is worse for recent graduates with rates exceeding 40 % in Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia and Greece (see Figure 6.4). It is also alarming that the situation is even more precarious for recent female graduates. Their unemployment rate is over 50 % in Bosnia and Herzegovina, and over 45 % in Greece and the former Yugoslav Republic of Macedonia (see Figure 6.5).

6.1.2. Income and educational attainment

The expected income of people with tertiary qualifications also forms part of graduates' labour market prospects. The assumption is that higher educational attainment – and thus higher levels of investment in education – should be compensated by better paid jobs after graduation.

Figures 6.6 and 6.7 show the relative income advantage of employees with higher education. Figure 6.6 shows the median as well as the lower and upper quartile of employee income by educational attainment in 2013 and 2015.

Figure 6.6: 25, 50 and 75 percentiles of annual gross income of employees by educational attainment, EU-28, in PPS EUR, 2013 and 2015



Source: Eurostat, EU-SILC (Statistics on Income and Living conditions).

Income distributions confirm that the gross income of most tertiary qualified employees is higher than those of lower qualified employees. In 2015, the median income of employees with tertiary qualifications was around EUR 31 000 in Purchasing Power Standard (PPS), whereas the median income was approximately PPS 21 000 for employees with upper secondary education and around PPS 18 000 for those with lower secondary education.

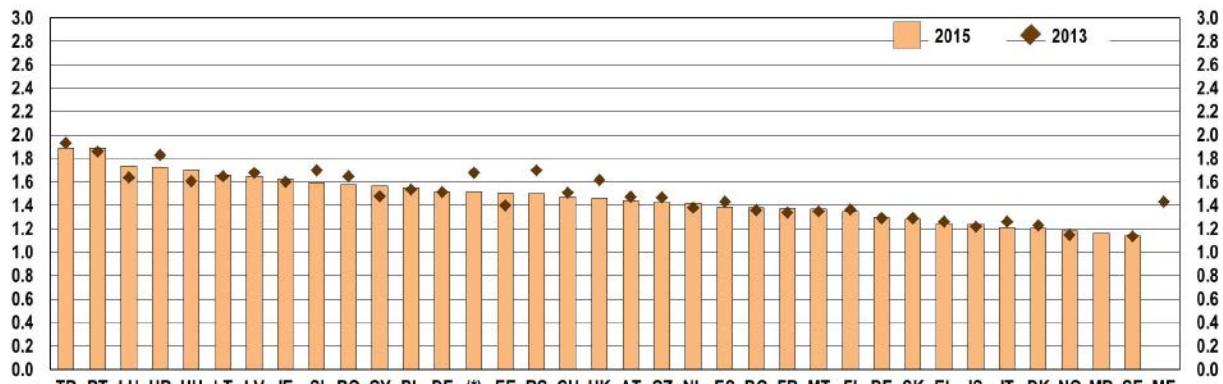
While there is much overlap in the income distributions of employees who attained lower and upper secondary educational attainment levels, the majority of employees with tertiary education tend to benefit considerably from obtaining this qualification level. However, attaining a tertiary qualification does not inevitably translate into higher income levels. Within each qualification level, the upper quartile (percentile 75) of the income distribution is more than twice as high as the lower quartile (percentile 25). Twenty-five per cent of employees who completed only lower secondary schooling earned more than 25 000 PPS (upper quartile) in 2015, whereas the quarter of the tertiary qualified at the lower end of the income distribution earned less than 20 000 PPS. Comparing the years between 2013 and 2015, people with a medium education level had the highest increases in annual gross income in all percentiles.

The annual gross income increased in all percentiles and education levels, except in the lower quartile of people with low education level, making the lowest earners even worse off, albeit not by a large amount. The increases of the highest earners (percentile 75) with a high or medium education level were twice as high as for people with a low education level.

The ratio of the median annual gross income of employees with tertiary qualification to lower levels of education is depicted in Figure 6.7. In 2015, tertiary qualified employees in every country analysed had an income advantage. According to Figure 6.7A, the ratio of tertiary qualification to upper secondary education ranges from 1.9 in Portugal and Turkey – which means that the median annual gross income of tertiary qualified employees is almost twice as high as the income of upper secondary qualified employees – and 1.7 in Croatia, Hungary, Luxembourg, and Lithuania to 1.1 in Sweden.

Figure 6.7: Ratio of median annual gross income of employees with tertiary education to the median annual gross income of employees with lower levels of education, 2013 and 2015

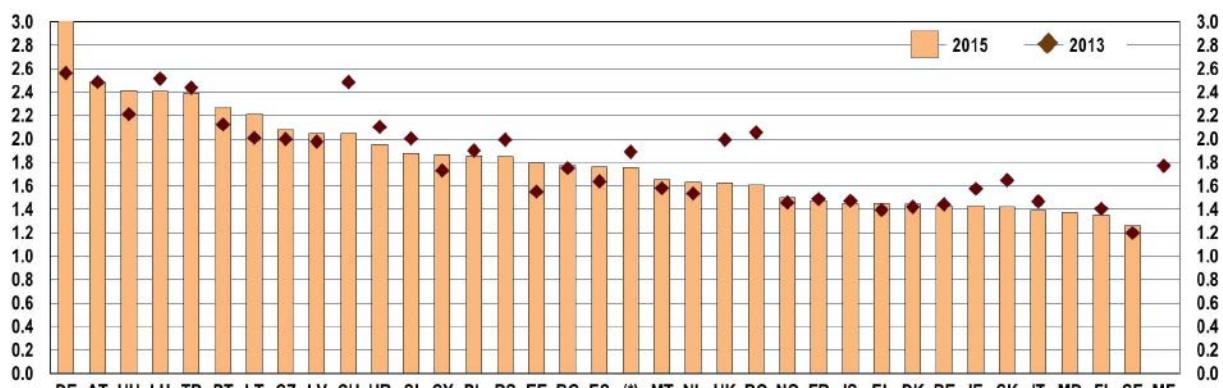
A) Tertiary education compared to upper secondary education



(*): the former Yugoslav Republic of Macedonia

	TR	PT	LU	HR	HU	LT	LV	IE	SI	RO	CY	PL	DE	(*)	EE	RS	CH	UK	AT
2013	1.93	1.86	1.64	1.83	1.60	1.65	1.68	1.60	1.70	1.65	1.48	1.53	1.51	1.68	1.40	1.70	1.51	1.62	1.47
2015	1.89	1.89	1.73	1.73	1.70	1.66	1.65	1.63	1.59	1.58	1.57	1.55	1.51	1.51	1.50	1.50	1.47	1.46	1.44
CZ																			EHEA
2013	1.47	1.38	1.43	1.36	1.34	1.35	1.36	1.29	1.29	1.26	1.22	1.26	1.23	1.15	:	1.14	1.43		1.48
2015	1.42	1.41	1.38	1.38	1.38	1.37	1.35	1.30	1.28	1.24	1.24	1.21	1.20	1.18	1.16	1.14	:		1.47

B) Tertiary education compared to lower secondary education



(*): the former Yugoslav Republic of Macedonia

	DE	AT	HU	LU	TR	PT	LT	CZ	LV	CH	HR	SI	CY	PL	RS	EE	BG	ES	(*)
2013	2.56	2.48	2.21	2.52	2.44	2.12	2.01	2.00	1.98	2.48	2.10	2.00	1.73	1.90	2.00	1.55	1.75	1.64	1.89
2015	3.07	2.48	2.41	2.41	2.39	2.27	2.21	2.08	2.04	2.04	1.95	1.88	1.86	1.86	1.85	1.79	1.77	1.76	
MT																		EHEA	
2013	1.58	1.53	1.99	2.05	1.46	1.49	1.47	1.39	1.42	1.44	1.58	1.65	1.47	:	1.40	1.20	1.77		1.82
2015	1.65	1.63	1.63	1.61	1.50	1.47	1.45	1.45	1.43	1.43	1.43	1.42	1.39	1.37	1.35	1.26	:		1.77

Source: Eurostat, EU-SILC (Statistics on Income and Living conditions).

Notes:

Calculation based on the variables 'Employee cash or near cash income' and 'Non-Cash employee income' which were added up to create the gross cash and non-cash employee personal income of individuals who were at least 6 months employed during the income reference period.

The age group covered is 16+.

Data are sorted by ratio between the median annual gross income of employees with tertiary education to the median annual income of employees with upper secondary education.

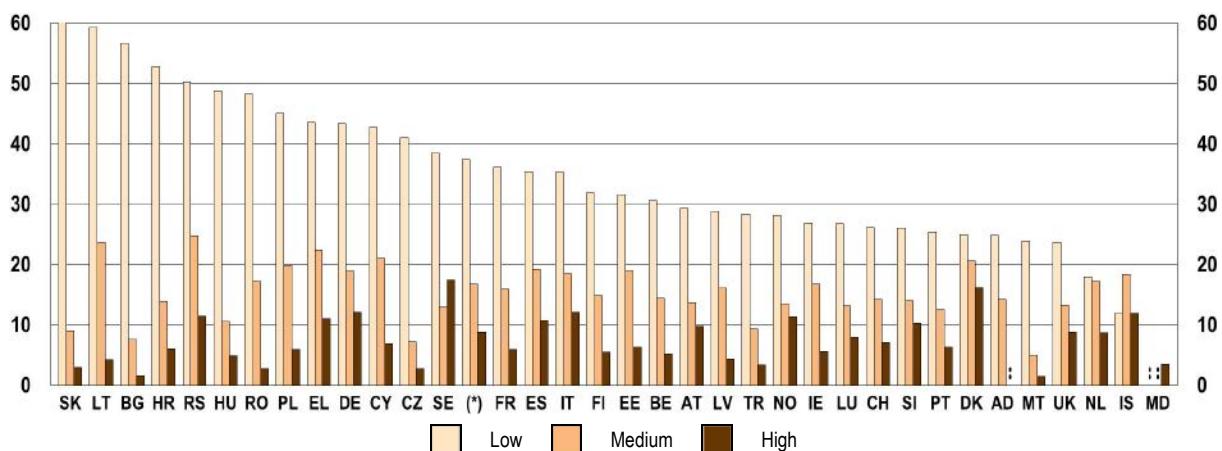
EHEA: Refers to the EHEA median, which was calculated based on countries with available data for both reference years.

The impact of completing tertiary education instead of only lower secondary schooling on the median annual gross income is more pronounced in several countries (see Figure 6.7.B). The ratio exceeds 3 in Germany and 2.4 in Austria, Hungary and Luxembourg. In a number of other countries, the ratio is around two, indicating a high wage premium when gaining a tertiary degree. The income inequality between the low and the highly educated is lowest in Sweden and Finland.

Regarding changes in the median gross annual income since 2013 (see Figure 6.7), though the relative ratios have been rather stable, the decrease in income advantage of the highly educated (both compared to employees with upper and lower secondary education) can be observed in the around same number of countries as increases. Compared to employees with upper secondary qualifications, employees with tertiary education qualifications lost the most in Serbia; while compared to those with lower secondary education, advantages of the highly qualified decreased the most in Romania, Slovakia, Switzerland and the United Kingdom.

Figure 6.8 shows the risk of being in poverty by educational attainment. The difference in the at-risk-rate between education levels shows the effect that education level has on the risk of a person to have an income below the poverty line (see explanatory note). In general, the lower the education level, the more risk there is to have income below the poverty line. The largest differences between low and high education level can be found in Croatia, Bulgaria, Hungary, Lithuania, Romania and Slovakia, and between medium and high education level in Cyprus, Lithuania, Poland, Romania and Serbia.

Figure 6.8: At-risk-of-poverty rate by educational attainment for people aged 25-34 by education level, 2015



(*): the former Yugoslav Republic of Macedonia

	SK	LT	BG	HR	RS	HU	RO	PL	EL	DE	CY	CZ	SE	(*)	FR	ES	IT	FI
Low	60.4	59.3	56.7	52.8	50.2	48.8	48.2	45.0	43.6	43.3	42.8	41.0	38.5	37.3	36.1	35.3	35.2	31.9
Medium	8.9	23.6	7.6	13.9	24.8	10.5	17.2	19.8	22.4	19.0	21.0	7.2	12.9	16.7	15.9	19.3	18.4	14.8
High	2.9	4.2	1.5	6.0	11.4	4.9	2.7	5.8	11.1	12.1	6.9	2.7	17.4	8.8	5.8	10.7	12.1	5.4
	EE	BE	AT	LV	TR	NO	IE	LU	CH	SI	PT	DK	AD	MT	UK	NL	IS	MD
Low	31.6	30.5	29.3	28.8	28.3	28.1	26.8	26.7	26.1	26.1	25.3	25.0	24.8	23.9	23.7	17.9	11.9	:
Medium	19.0	14.3	13.7	16.0	9.4	13.5	16.7	13.0	14.2	14.0	12.5	20.6	14.2	5.0	13.1	17.2	18.4	:
High	6.3	5.2	9.7	4.3	3.3	11.3	5.6	7.9	7.0	10.3	6.2	16.2	:	1.4	8.8	8.6	11.9	3.4

Source: EU-SILC (Statistics on Income and Living conditions) specific extraction.

Note:

The at-risk-of-poverty rate is the share of people with an equivalised disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income after social transfers.

Overall, the large variation in poverty risk at different education levels indicates that having higher education degree reduces the likelihood of poverty significantly. The lowest differences between low and high education level can be found in Denmark, Iceland, the Netherlands and the United Kingdom. Interestingly, the risk of poverty is actually equal between these education levels. The lowest differences between medium and high level can be found in Austria, Malta, Norway and Slovenia. While in almost all cases the risk of poverty is higher with lower education level, the case of Sweden is anomalous, as the risk of being in poverty is higher with a higher education degree than with medium level education. Moreover, in Iceland, the risk of poverty with low and high levels of education is equal.

Comparing the risk of poverty to the unemployment rate (see Figure 6.1B) shows that in some countries where there is relatively low unemployment among higher education graduates (Denmark, Iceland, Norway and Sweden), there is a relatively high chance (over 10 %) of being in poverty (defined as being below the 60 % of median income). This could potentially be explained by income equality, i.e. that there are proportionally not that many very high nor very low earners in the Nordic countries.

6.1.3. Qualification mismatches

Another common indicator of the labour market prospects of graduates is vertical mismatch, which occurs when there is a discrepancy between graduates' level of education or skills and the level of education or skills required by their job (Cedefop 2010, p. 13). Such vertical mismatch can occur in terms of *qualifications* or *skills*, and conclusions can be very different depending on which one is being examined.

Qualification and skills mismatches can be measured based on several different indicators. In general, self-assessment is regarded as the most accurate measurement of vertical mismatch, particularly skills mismatch. However, European comparative graduate survey data is not yet available (¹¹²). An alternative indicator assigns a fixed educational level to a given occupational category. While such an indicator has many limitations (e.g. its rigidity or the need for detailed job-category lists which are not always feasible to compile), it can serve as a starting point for further analysis.

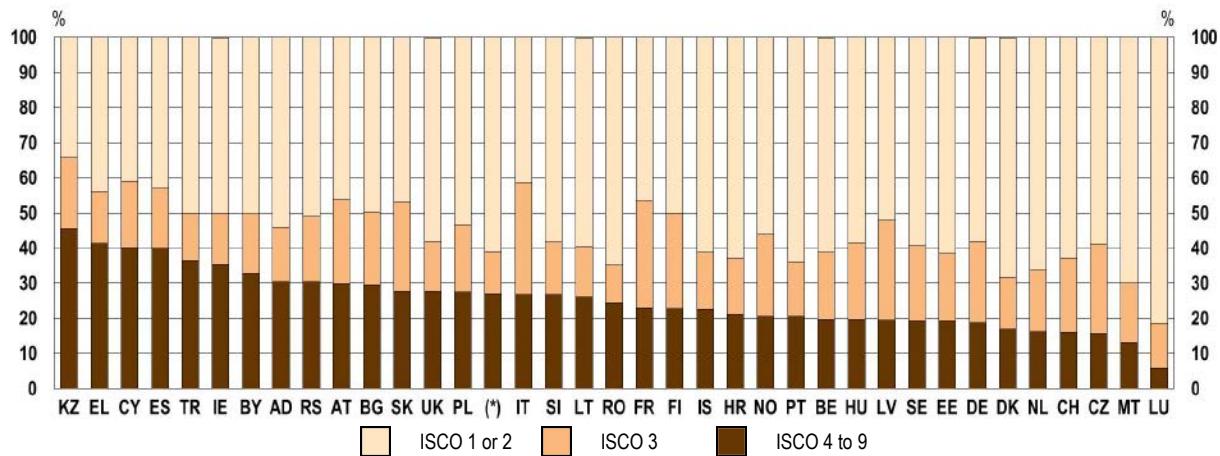
This sub-section looks at over-qualification rates defined as the percentage of young people with tertiary education occupying a post not traditionally regarded as requiring a tertiary qualification (International Standard Classification of Occupations (ISCO) occupation level 4 to 9, including clerks, service workers, agricultural and fishery workers, craft and related trades workers, plant and machine operators or elementary occupations (¹¹³)). Figure 6.9 shows the distribution of people aged 25-34 with tertiary education qualifications and employed in ISCO 1 or 2 (legislators, senior officials, managers and professionals), in ISCO 3 (technicians and associate professionals) and in ISCO 4 to 9.

(¹¹²) For further information, see the European Commission's proposal for a Council Recommendation on tracking graduates (COM/2017/0249 final).

(¹¹³) See the Glossary and Methodological Notes for more details.

In 2016, the median over-qualification rate was 24.4 %, compared to 21.9 % in the last report for the year 2013, so overall the proportion of over-qualified people has increased (Figure 6.9). This means that in half of the countries, almost a quarter of young graduates were employed in occupations for which a lower qualification level should be sufficient. The countries with the highest over-qualification rates (above 30 %) are Kazakhstan (45.5 %), Greece (41.5 %), Cyprus (40.2 %), Spain (40.1 %), Turkey (36.6 %), Ireland (35.5 %), Belarus (32.8 %), Andorra (30.5 %) and Serbia (30.5 %). In contrast, the countries with relatively low over-qualification rates (below 15 %) are Malta (13.2 %) and Luxembourg (6 %).

Figure 6.9: Distribution of people with tertiary education (ISCED 5-8) aged 25-34 and employed in ISCO 1 or 2 (legislators, senior officials, managers and professionals), in ISCO 3 (technicians and associate professionals) and in ISCO 4-9 (%), 2016



(*): the former Yugoslav Republic of Macedonia

	KZ	EL	CY	ES	TR	IE	BY	AD	RS	AT	BG	SK	UK	PL	(*)	IT	SI	LT	RO
%	34.2	43.8	41.0	42.8	49.9	49.9	50.1	54.1	50.8	46.2	49.7	46.8	57.8	53.5	61.0	41.3	58.1	59.3	64.8
ISCO 1 or 2	20.3	14.8	18.8	17.1	13.5	14.5	17.1	15.5	18.7	23.9	20.7	25.3	14.3	18.9	11.9	31.8	15.0	14.3	10.8
ISCO 3	45.5	41.5	40.2	40.1	36.6	35.5	32.8	30.5	30.5	29.9	29.6	27.9	27.8	27.7	27.1	27.0	26.9	26.3	24.4
%	FR	FI	IS	HR	NO	PT	BE	HU	LV	SE	EE	DE	DE	DK	NL	CH	CZ	MT	LU
ISCO 1 or 2	46.6	49.9	61.1	62.7	56.0	64.0	61.0	58.4	51.9	59.3	61.6	57.8	68.1	66.1	62.8	58.6	69.9	81.4	
ISCO 3	30.3	27.3	16.2	16.1	23.3	15.4	19.0	21.8	28.4	21.3	19.1	23.4	14.8	17.7	21.1	25.6	16.9	12.6	
ISCO 4 to 9	23.1	22.8	22.7	21.2	20.7	20.7	19.9	19.8	19.7	19.5	19.4	18.7	17.0	16.2	16.1	15.8	13.2	6.0	

Source: Eurostat, Labour Force Survey (LFS) and additional collection for the other EHEA countries.

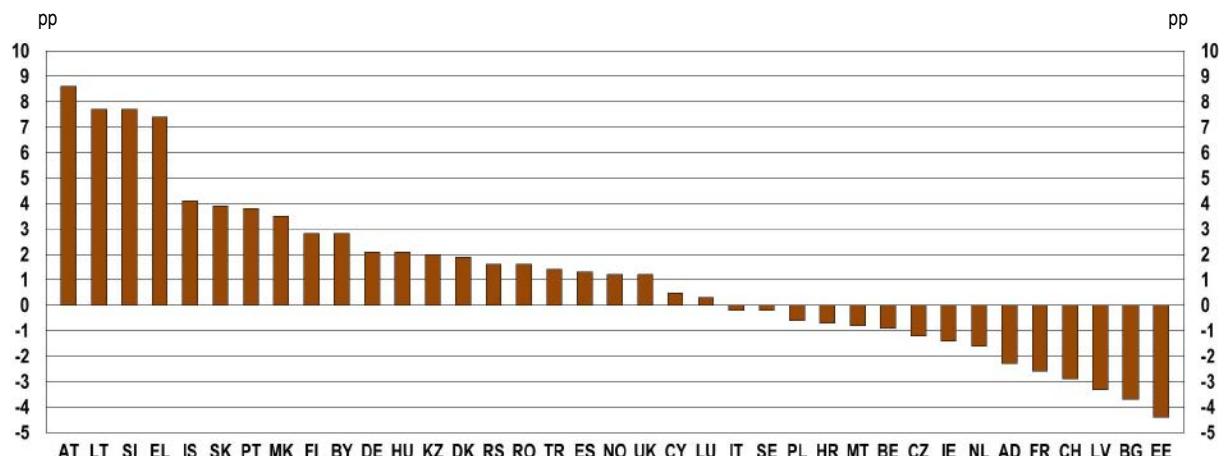
Notes:

ISCO 0 (armed forces) and ISCO missing excluded.

Data are sorted by the percentage of people working in ISCO 4 to 9.

Figure 6.10 illustrates the change in the share of over-qualified young graduates between 2013 and 2016 by country. Even though the median of overqualified graduates was higher in 2016 than 2013, the median change was lower in 2016 than 2013 (1.2 and 3.8 respectively). In 2016, more countries experienced a decrease in overqualified graduates than in 2013, while the increases at the extreme end were lower than in 2013. The largest increases took place in Austria, Lithuania, Slovenia and Greece (over 7 percentage points), while the largest decreases happened in Estonia, Bulgaria, Latvia, Switzerland, France and Andorra (over 2 percentage points).

Figure 6.10: Change in percentage points (pp) of the share of people with tertiary education (ISCED 5-8) aged 25-34 and employed in ISCO 4-9, 2013 to 2016



(*): the former Yugoslav Republic of Macedonia

pp	AT	LT	SI	EL	IS	SK	PT	(*)	FI	BY	DE	HU	KZ	DK	RS	RO	TR	ES	NO
2013	21.3	18.6	19.2	34.1	18.6	24.0	16.9	23.6	20.0	30.0	16.6	17.7	43.5	15.1	28.9	22.8	35.2	38.8	19.5
2016	29.9	26.3	26.9	41.5	22.7	27.9	20.7	27.1	22.8	32.8	18.7	19.8	45.5	17.0	30.5	24.4	36.6	40.1	20.7
Change	8.6	7.7	7.7	7.4	4.1	3.9	3.8	3.5	2.8	2.8	2.1	2.1	2.0	1.9	1.6	1.6	1.4	1.3	1.2
pp	UK	CY	LU	IT	SE	PL	HR	MT	BE	CZ	IE	NL	AD	FR	CH	LV	BG	EE	EHEA
2013	26.6	39.7	5.7	27.2	19.7	28.3	21.9	14.0	20.8	17.0	36.9	17.8	32.8	25.7	19.0	23.0	33.3	23.8	22.8
2016	27.8	40.2	6.0	27.0	19.5	27.7	21.2	13.2	19.9	15.8	35.5	16.2	30.5	23.1	16.1	19.7	29.6	19.4	24.4
Change	1.2	0.5	0.3	-0.2	-0.2	-0.6	-0.7	-0.8	-0.9	-1.2	-1.4	-1.6	-2.3	-2.6	-2.9	-3.3	-3.7	-4.4	1.2

Source: Eurostat, Labour Force Survey (LFS) and additional collection for the other EHEA countries.

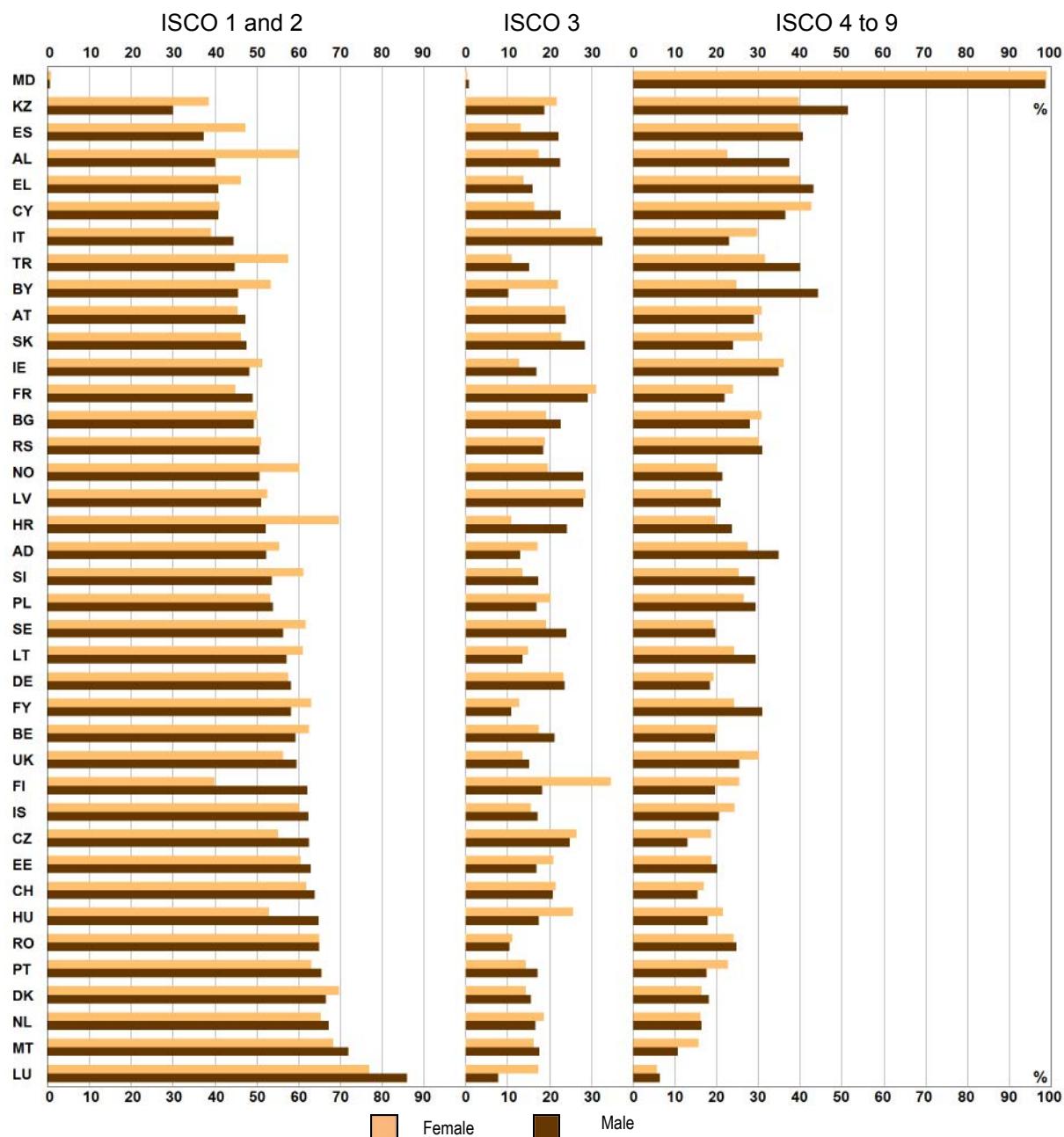
Notes:

Data are sorted by the change in percentage points between 2013 and 2016.

EHEA: Refers to the EHEA median, which was calculated based on countries with available data for both reference years.

Differences between the over-qualification rates of female and male graduates are relatively small, though women are more likely to get jobs under the level of their qualifications (see Figure 6.11). However, countries differ a lot in this regard. The biggest differences between female and male over-qualification rates are on the one hand in Belarus, Albania, Kazakhstan, Turkey and Andorra (with higher over-qualification rates for men) and on the other hand in Slovakia, Italy, Cyprus, Finland, the Czech Republic and Portugal (with higher over-qualification rates for women). As was reported in 2015, there are also now more countries with higher over-qualification rates for women, and the differences tend to be bigger between the sexes in these cases than in countries with higher over-qualification rates for men.

Figure 6.11: Distribution of people with tertiary education (ISCED 5-6) aged 25-34 and employed in ISCO 1 or 2 (legislators, senior officials, managers and professionals), in ISCO 3 (technicians and associate professionals) and in ISCO 4-9, by sex (%)



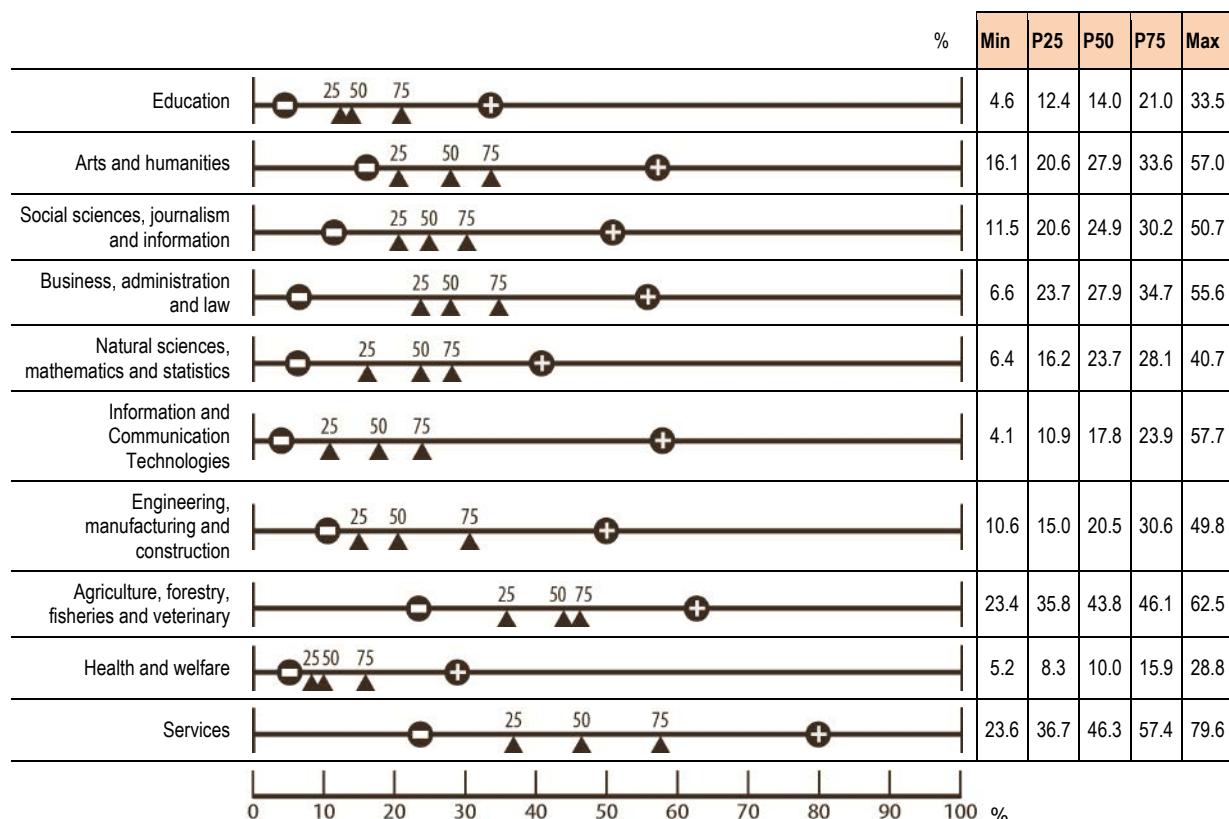
Source: Eurostat, Labour Force Survey (LFS) and additional collection for the other EHEA countries.

Notes:

ISCO 0 (armed forces) and ISCO missing excluded.

Over-qualification rates might also be very different for young people graduating in different study fields ⁽¹¹⁴⁾. Figure 6.12 depicts the percentage of young graduates who are vertically mismatched by field of study. The data shows that young people with a qualification in services ⁽¹¹⁵⁾ and in agriculture and veterinary are the most likely to take up jobs under their qualification level: in services, more than 46.3 % of graduates are over-qualified in this field in half of the countries covered, while the median rate is 43.8 % in agriculture, forestry, fisheries and veterinary. However, differences between countries are substantial: over-qualification rates in services range from 23.6 % (Estonia) to 79.6 % (Cyprus), and in agriculture, forestry, fisheries and veterinary from 23.4 % (Turkey) to 62.5 % (Greece).

Figure 6.12: Percentage of people aged 25-34 with tertiary education (ISCED 5-6) who are vertically mismatched (in ISCO 4-9) by field of study, 2016



Source: Eurostat, Labour Force Survey (LFS) and additional collection for the other EHEA countries.

Study fields with the lowest over-qualification rates are health and welfare (median: 10 %) and teacher training and education science (median: 14.0 %). However, countries again show some variation. Over-qualification rates in health and welfare range from 5.2 % (France) to 28.8 % (Slovakia); in teacher training and education science from 4.6 % (Croatia) to 33.5 % (Spain and the former Yugoslav Republic of Macedonia). However, it has to be stressed again that data are not available for all countries in all study fields. In addition, limitations of the figures stemming from potential discrepancies between qualifications and the skill levels as well as from the reliance on the ISCO classification have to be kept in mind.

⁽¹¹⁴⁾ Data comparison with the previous report is not possible, as the data for this report was obtained through different methodology.

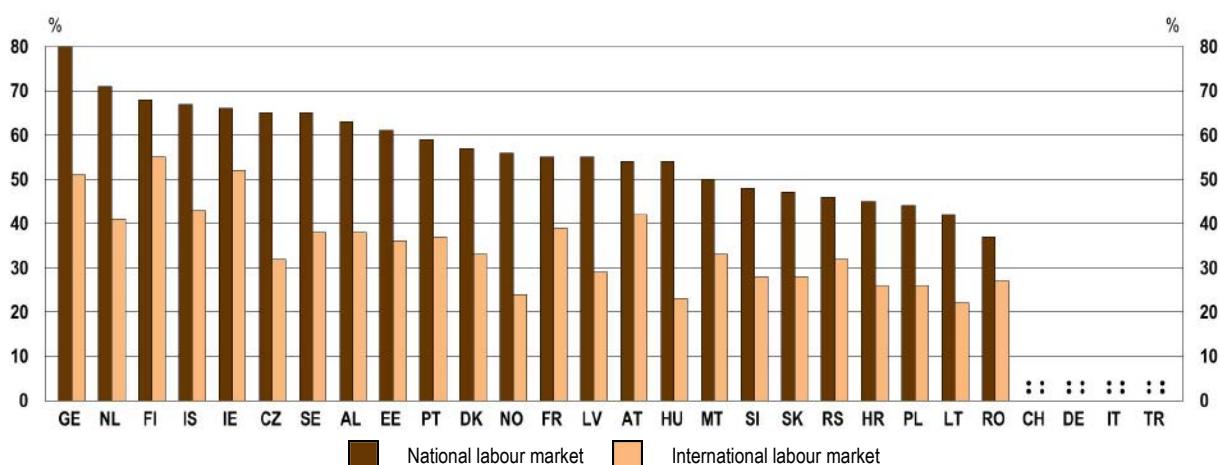
⁽¹¹⁵⁾ 'Services' include a wide range of occupations from restaurant and tourism to defence and military services (for more details, see the ISCED classification for fields of education, e.g. Andersson and Olsson, 1999). Sample based on 25 countries.

6.2. Policies for enhancing graduates' employability

When looking at policies with the primary aim of improving graduates' employability prospects, two main policy perspectives can be distinguished. The first focuses on the needs of the labour market – the demand-side – to which higher education institutions need to respond. The second emphasises employable graduates and thus implies a more supply-side perspective: what higher education institutions need to achieve in terms of output, e.g. providing graduates with a set of relevant skills and competences. In this regard, most discussions centre on the role of higher education institutions and how they should function in 21st century knowledge societies. The role of educational authorities in this context is to facilitate the transformation of their higher education sector. Therefore, since this report focuses on national policy approaches, it can only present a limited picture on the on-going transformations.

This section shows examples of both demand-side and supply-side policy approaches. Regarding the objective of responding to labour market needs, an important question is where higher education institutions can look for relevant labour market information. The two most widespread possibilities are labour market and skills forecasting on the one hand, and involving labour market representatives (i.e. employers) in higher education governance on the other. Concerning graduates' adequate skills, one prevalent way to ensure that graduates gain the necessary competences is to include work placements in higher education programmes. Finally, this section also looks at how the employability of graduates is monitored and evaluated in EHEA countries and whether there are any incentives given to higher education institutions linked to their performance.

Figure 6.13: Students' self-assessment of their chances on the national and international labour market based on the competences gained during studies (for all students and/or different focus groups), 2017



	GE	NL	FI	IS	IE	CZ	SE	AL	EE	PT	DK	NO	FR	LV	AT	HU	MT	SI	SK	RS	HR	PL	LT	RO	CH	DE	IT	TR
National labour market	80	71	68	67	66	65	65	63	61	59	57	56	55	55	54	54	50	48	47	46	45	44	42	37	:	:	:	
International labour market	51	41	55	43	52	32	38	36	37	33	24	39	29	42	23	33	28	28	32	26	26	22	27	:	:	:	:	

Source: Eurostudent VI.

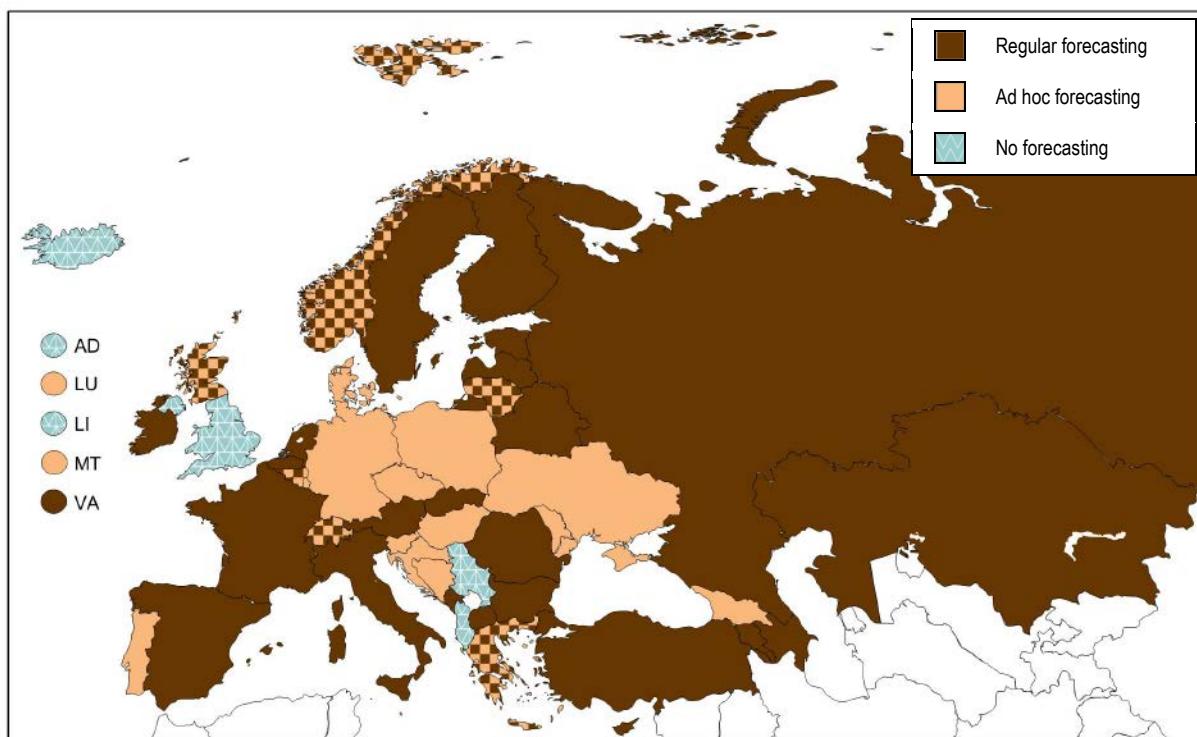
The skills that graduates gain through studies are an important indicator of employability on the supply-side. The Eurostudent survey asked students how well they feel their studies prepare them for national and international labour market. According to the data in Figure 6.13, more than half of the students in 15 countries feel that their studies prepare them well for the national labour market, the figure being highest in Georgia (80 %). The lowest figures can be found in Lithuania and Romania (42 % and 37 % respectively). Looking at preparation for the international labour market, only in Finland, Georgia and Ireland do more than half of the students feel that their studies prepare them well.

6.2.1. Labour-market and skills forecasting as an information source

In order to be able to respond to labour market demand, governments and higher education institutions need information on labour market trends. Despite its limitations (see European Commission/EACEA/Eurydice, 2014a), labour market forecasting is a common way to anticipate labour market needs in terms of skills demand and supply. On the one hand, labour market forecasting can inform policy planning, for example the planning and designing of study programmes, the fixing of the number of state funded places, or the allocation of public funding. On the other hand, guidance and information services can use labour market information to guide (potential) students in orienting themselves towards more 'demanded' fields of study. Labour market forecasting is usually conducted by occupation and qualification levels.

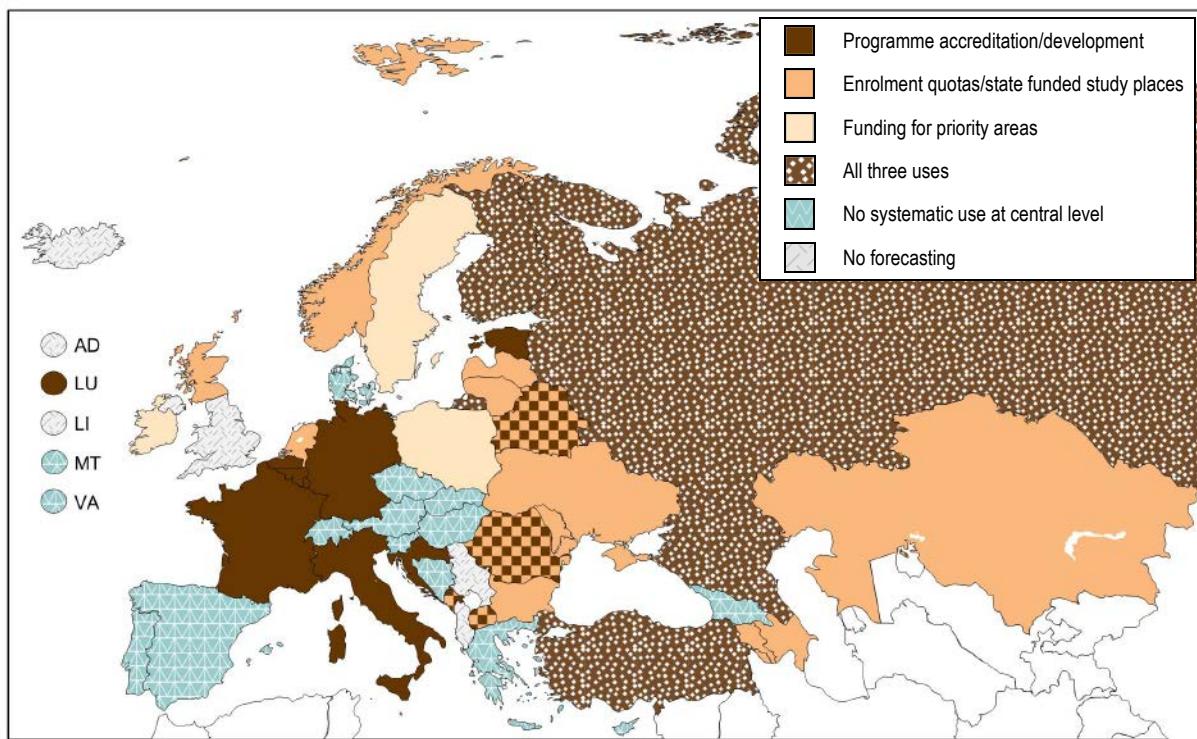
In the majority of EHEA countries, labour market and skills forecasting is undertaken regularly at national or regional level (see Figure 6.14). Such forecasting exercises are conducted on an ad hoc basis in 20 education systems, sometimes in addition to the regular forecast in place. There is no labour market forecasting in eight countries.

Figure 6.14: Labour-market and skills forecasting at national level, 2016/17



Most countries conducting labour market forecasts make efforts to take their results into account in higher education planning at central level (see Figure 6.15). In 18 countries, labour market information is used to determine enrolment quotas or state-funded study places in all or certain higher education study fields (seven more countries than in the 2015 report). In 12 others, such forecasts are taken into account when deciding on the accreditation of new study programmes and/or when adapting the content of existing programmes to labour market needs. Six countries also reported on how labour market forecasts are used to identify priority areas for additional funding.

Figure 6.15: Using labour-market and skills forecasting in central planning, 2016/17



Source: BFUG data collection.

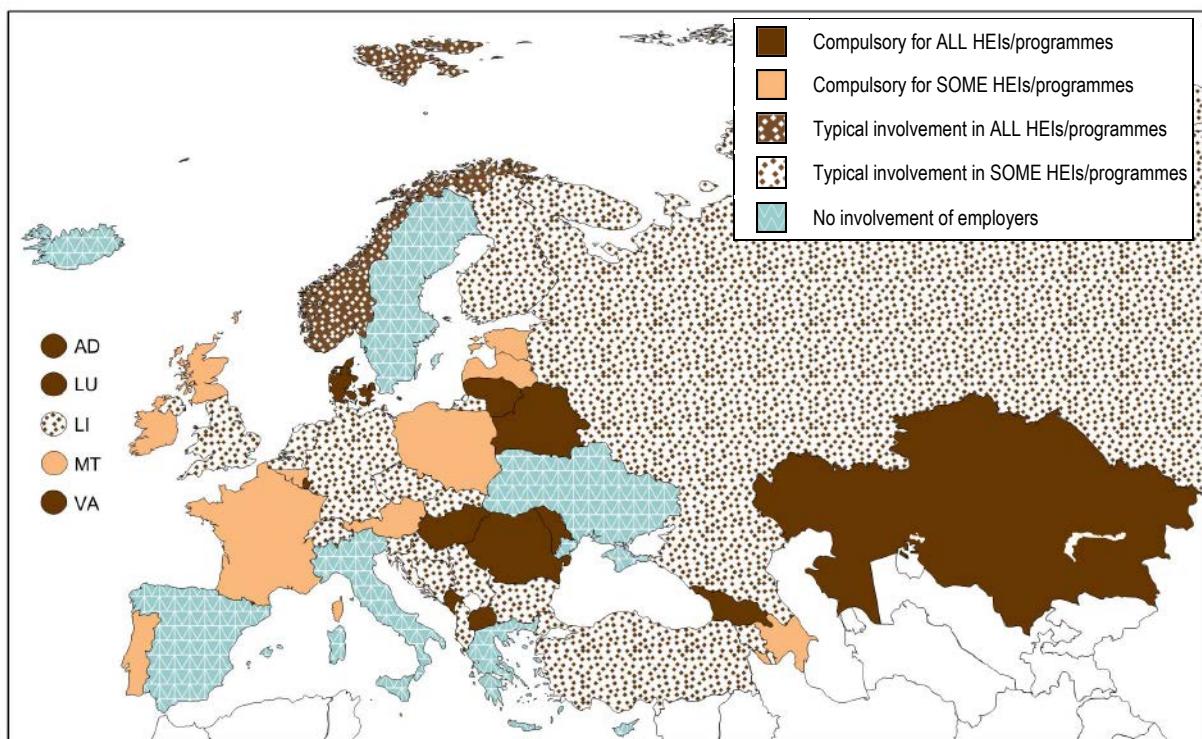
6.2.2. Cooperation between employers and higher education institutions

The Yerevan Communiqué regards cooperation between employers and higher education institutions as an important means to enhance the employability of higher education graduates. Indeed, consulting or involving employers, employers' organisations and business representatives in the various steps of developing and evaluating higher education study programmes is a direct and more decentralised mechanism through which labour market information can be included in higher education. Employers and business representatives are aware of the skills graduates need when entering the labour market, and higher education institutions can use this knowledge when designing degree programmes.

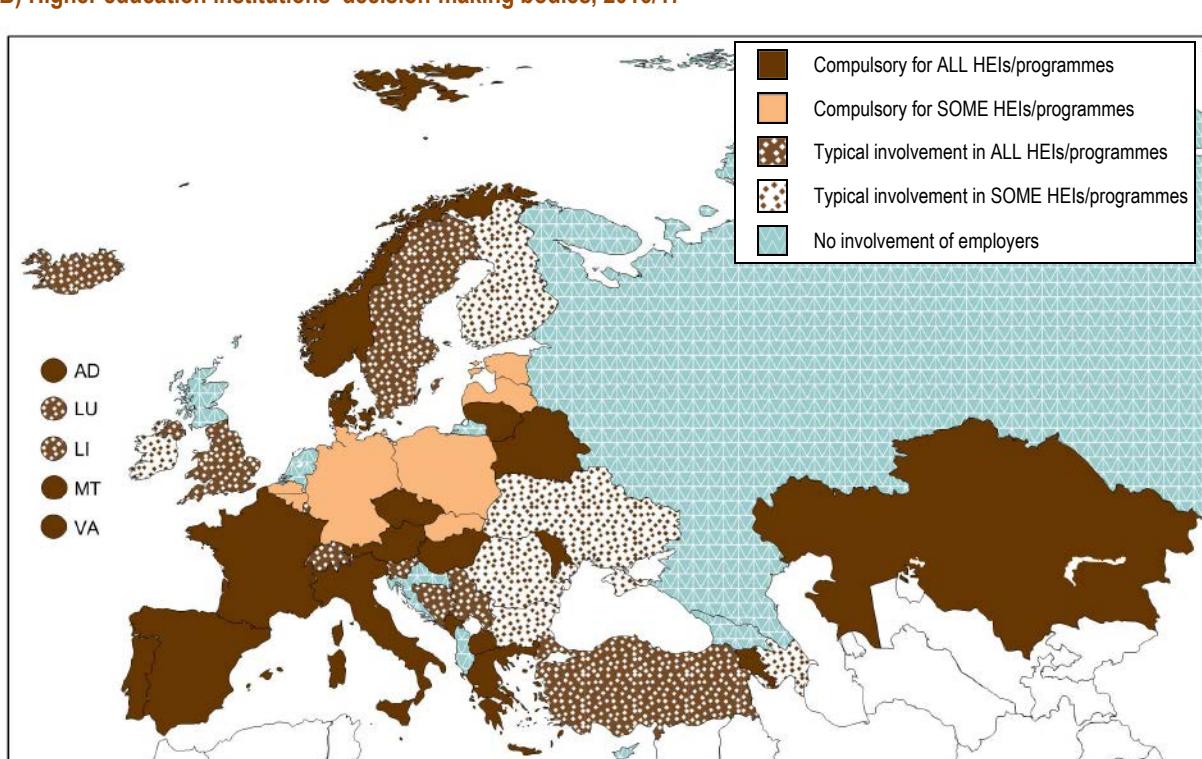
Looking at the EHEA, employers are typically involved in curriculum development in at least some higher education institutions/programmes in the majority countries (see Figures 6.16A). Involving employers in curriculum development is compulsory for all institutions in 13 countries. It is more common for employers to be involved in decision-making bodies than in curriculum development. Involvement in decision-making bodies is compulsory in 20 countries for all higher education institutions/programmes, and employers are typically involved in the decision-making bodies of all institutions in an additional 10 countries (see Figure 6.16B). In some countries, employers have to be involved in curriculum development in professional higher education institutions (for example in France, Latvia and Portugal). In Belgium (Flemish Community), Cyprus, Estonia, Germany, and Slovakia, for example, employers are typically involved in curriculum development in such institutions.

Figure 6.16: Involvement of employers in higher education planning and management

A) Curriculum development, 2016/17



B) Higher education institutions' decision-making bodies, 2016/17



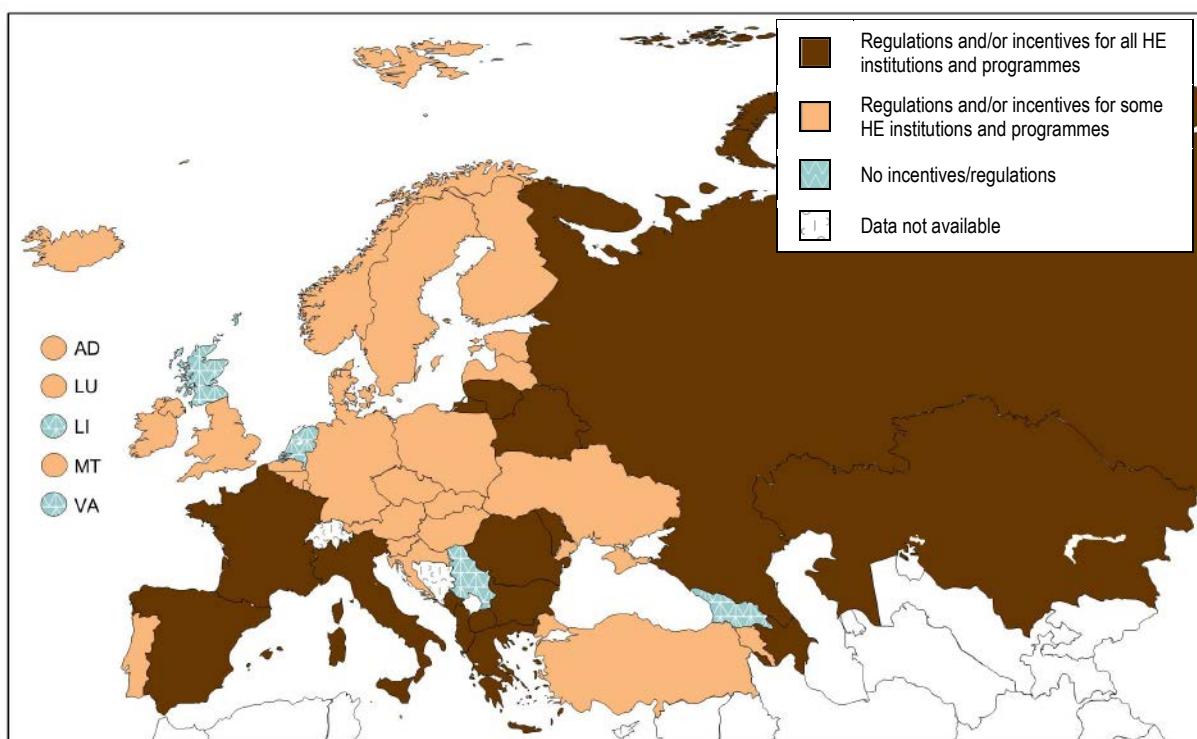
6.2.3. Practical training and work placements

Practical training is regarded as a key element in enhancing graduates' employability, especially when it comes to students from under-represented groups. Through such practical training and work placements, students have the possibility of acquiring the skills demanded by employers.

In the European Union (EU), Directive 2005/36/EC on the recognition of professional qualifications⁽¹¹⁶⁾ regulates practical training for certain, professionally oriented study programmes (e.g. for medical or pharmaceutical studies). Many non-EU member countries also apply similar regulations in some, more practice-oriented study fields. However, beyond these regulated professions, higher education institutions are mostly free to decide whether they include such structured work experiences in their study programmes.

Most EHEA countries have regulations or incentives to include practical training and work placements for at least some higher education institutions and/or programmes (see Figure 6.17). However, only 13 education systems reported having such requirements or incentives for all institutions or programmes. Six education systems reported having neither regulations nor incentives to include work placements in higher education programmes. Regulations are much more common than incentives: While three-quarters of education systems reported having regulations for at least some institutions/programmes, less than half of the education systems report incentives at least for some institutions/programmes. Most of the incentives are non-financial, such as promoting work placements through various policy measures. An example of a financial incentive can, however, be found in Slovakia, where additional funding is provided for practical training for some professions, such as students in medicine and teacher training.

Figure 6.17: Regulations and incentives on including work placements in HEIs' programmes, 2016/17

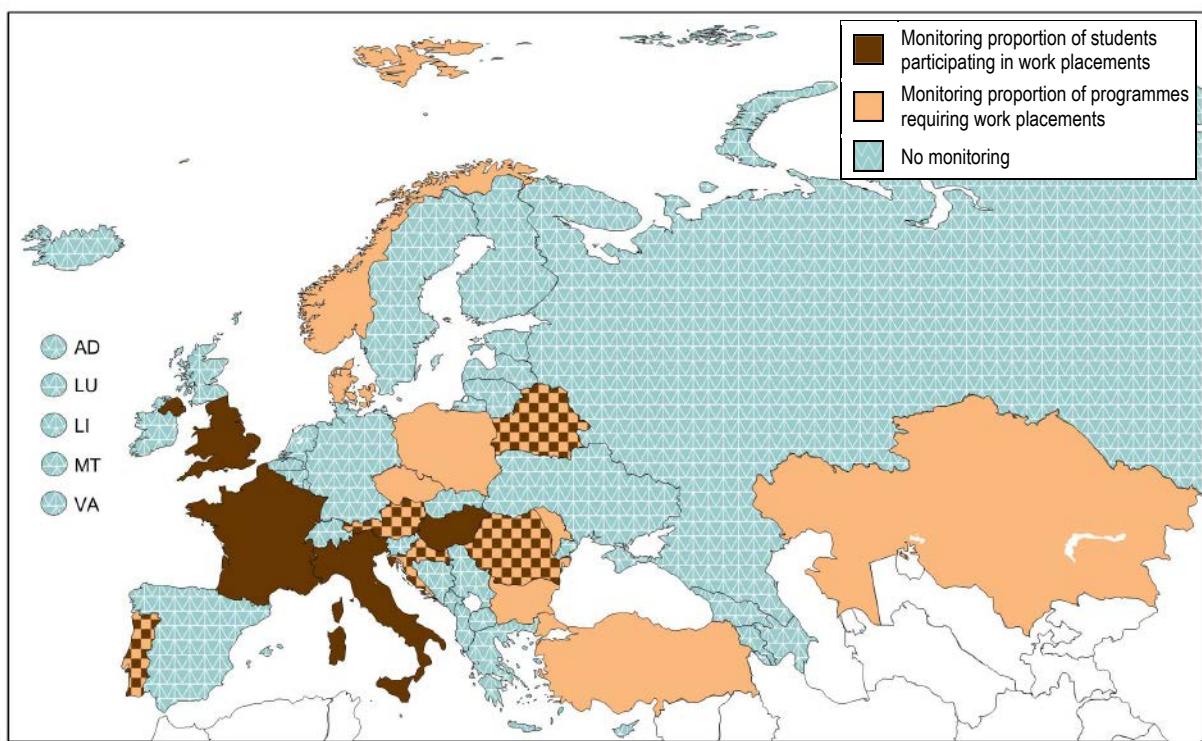


Source: BFUG data collection.

⁽¹¹⁶⁾ Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications, OJ L 255, 30.9.2005.

Even though most countries have either regulations or incentives for work placements, a systematic monitoring of the proportion of students participating in programmes with compulsory work placement is not very common (see Figure 6.18). It is done, however, through questionnaires to students (Austria), as part of the graduate tracking system (Italy), within external quality assurance reviews (Romania), or as part of statistical analyses (the United Kingdom – England, Wales and Northern Ireland). Monitoring the proportion of programmes with compulsory work placements is slightly more common, and is undertaken in 13 countries.

Figure 6.18: Monitoring the proportion of students taking work placements and proportion of programmes with compulsory work placements, 2016/17



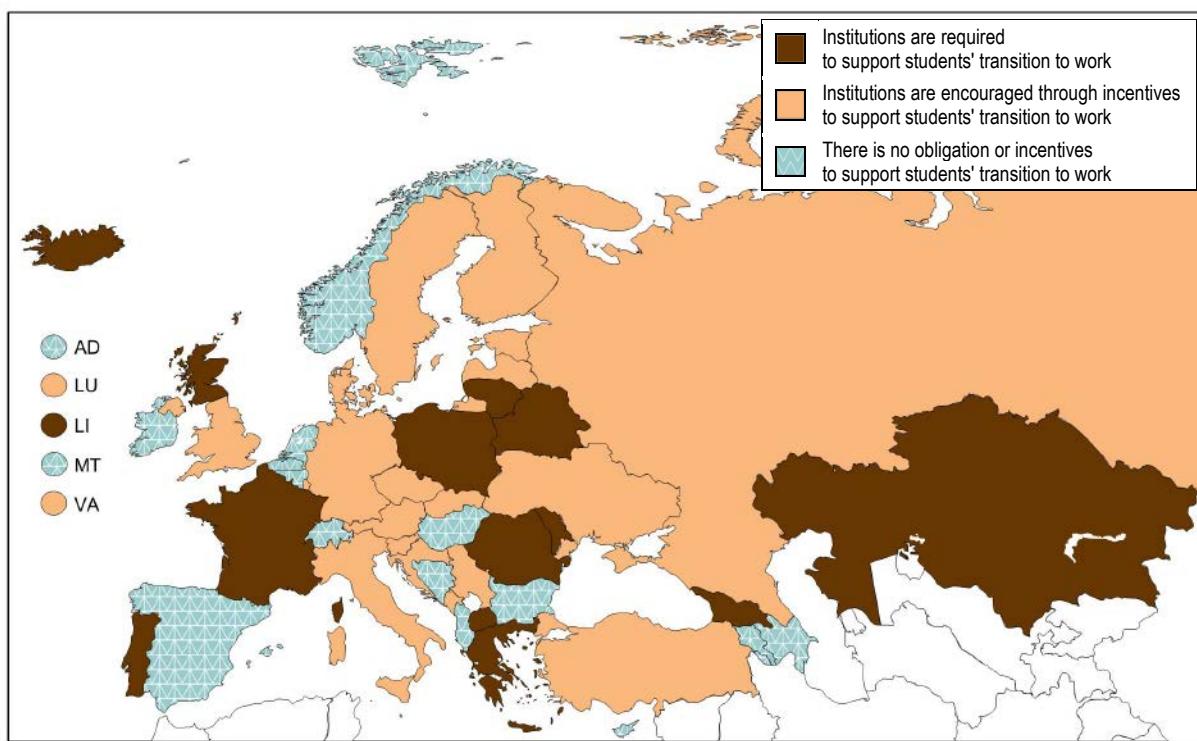
Source: BFUG data collection.

6.2.4. Students' transition to work

Supporting students' transition to work is obligatory only in 14 countries (see Figure 6.19). This can mean, for example, that career guidance services are prescribed in law. In 20 countries, higher education institutions are given incentives through, for example, performance agreements or quality assurance procedures.

When it comes to supporting disadvantaged students' transition to work, the support is most commonly targeted at students with disabilities. However, in some countries there is also specific support for people from minority backgrounds (for example for the Roma minority in Hungary, Moldova and Romania).

Figure 6.19: Obligation and incentives for higher education institutions to support students' transition to work 2016/17



Source: BFUG data collection.

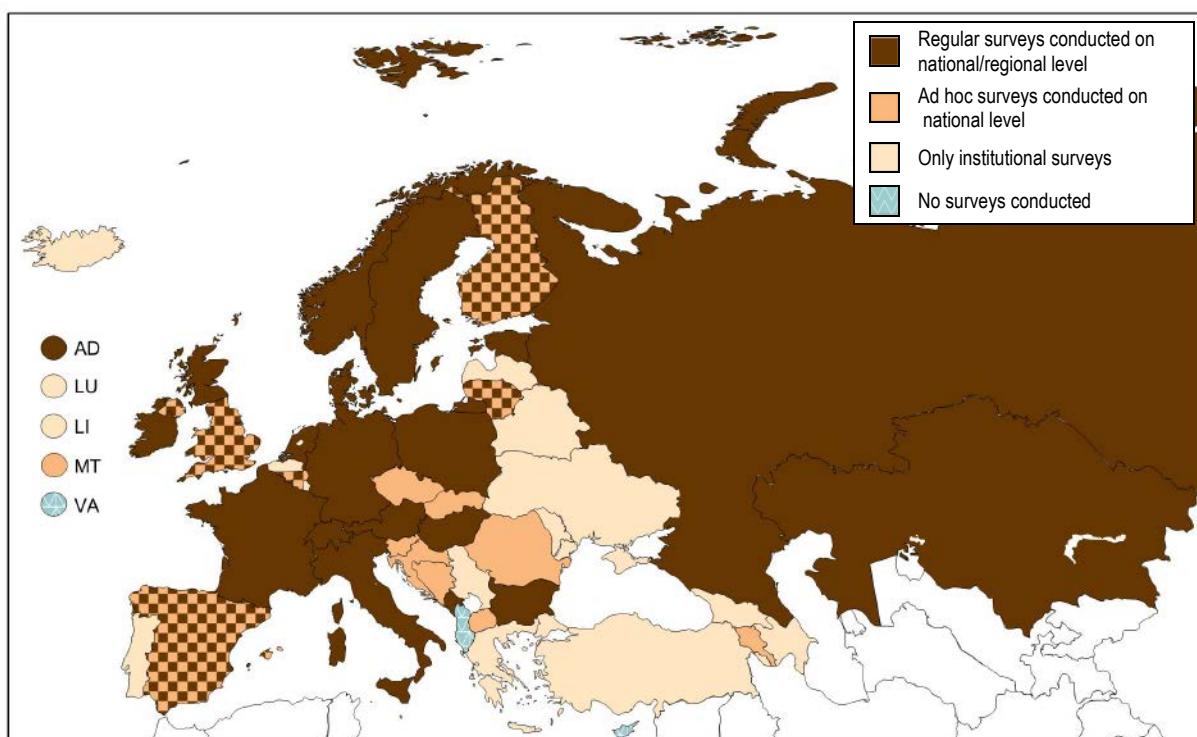
6.2.5. Monitoring and evaluation

Measuring employability performance is less straightforward than calculating other performance indicators. Evaluations often rely on student and graduate surveys, where students and/or graduates can evaluate their study programme as well as provide details on their transition to the labour market. Also, administrative data gathered through various databases can be used for monitoring graduates' progress.

Graduate surveys relying on the self-assessment of graduates are valuable tools for evaluating the employability of higher education graduates. Career tracking surveys do not only provide the means to measure the percentage of graduates finding employment after graduation, but they are also able to describe the quality of jobs, the length of the job search period, graduates' job satisfaction, and the match between graduates' skills and job requirements (see Teichler, 2011). Furthermore, based on graduate surveys, it is possible to conduct analyses on the relative impact of graduates' individual characteristics and the higher education programme they attended (*Ibid.*). This way, such surveys are useful tools for a multi-dimensional evaluation of employability in higher education.

Graduate surveys are organised at least from time to time in the large majority of EHEA countries (see Figure 6.20). At the national and/or regional level, regular surveys are conducted in 24 education systems, while ad hoc surveys take place in 14, sometimes in parallel to the regular one. There are only institutional surveys in 14 EHEA countries. No graduate surveys are conducted in Albania and the Holy See.

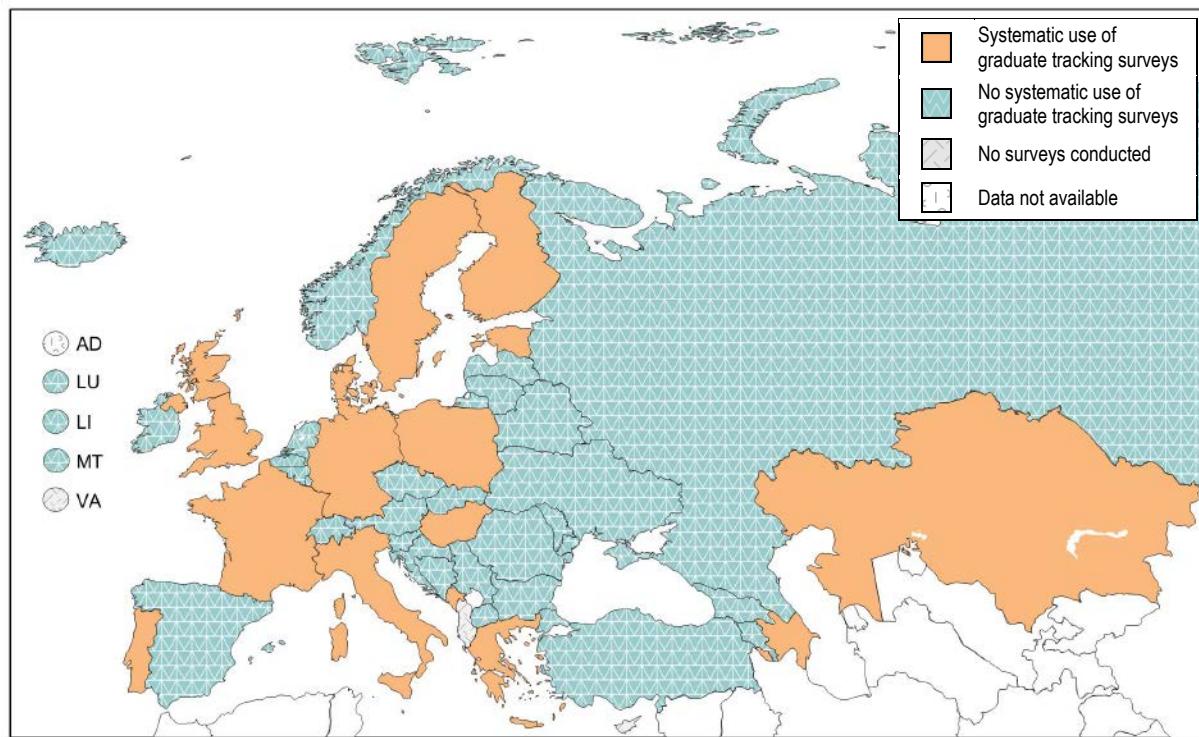
Figure 6.20: Following graduates' career developments – different approaches, 2016/17



Source: BFUG data collection.

While Figure 6.20 shows that graduate tracking surveys are common, they are not always used systematically in policy planning (see Figure 6.21). Only sixteen of the education systems having surveys report using the data systematically. However, as mentioned earlier, using administrative data is one way of following graduates' progress in labour market. For example, in the Czech Republic, administrative data about graduate's employability are collected regularly from labour offices and are used for performance-based part of funding of higher education institutions as one of its indicators.

Figure 6.21: Channelling information on graduates' career developments into education policy planning, 2016/17

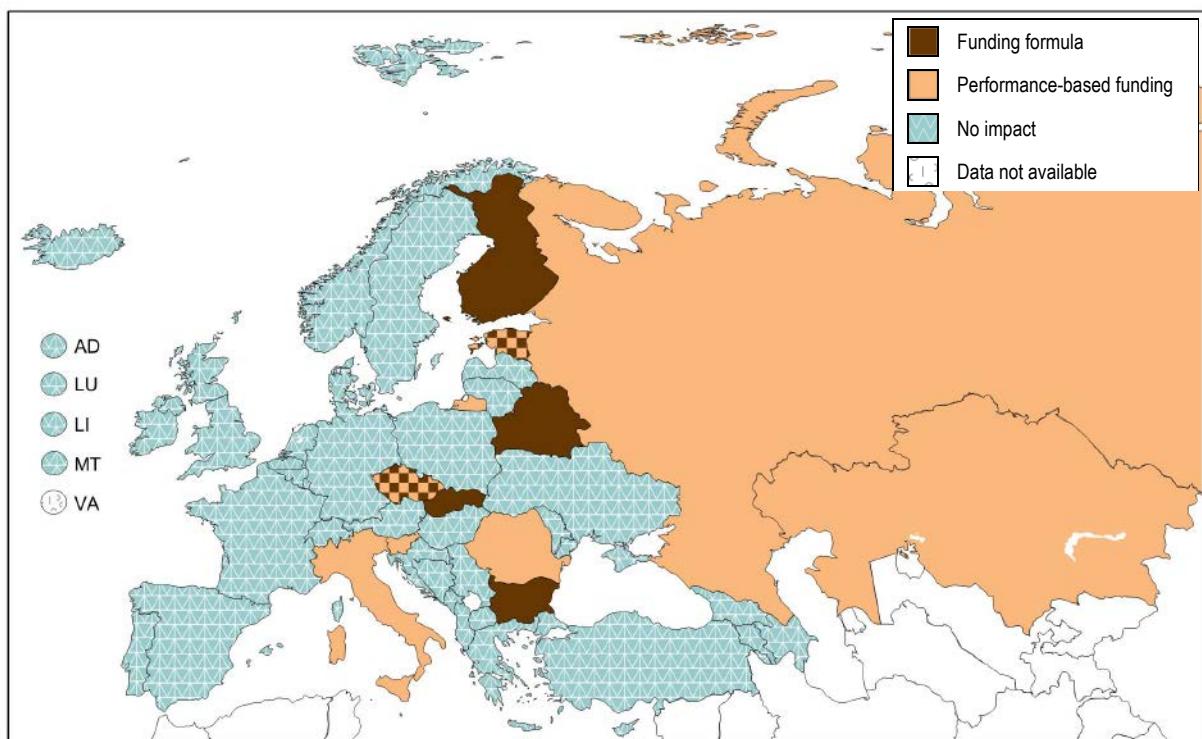


Source: BFUG data collection.

Some countries also use administrative data on graduates' career development. For example, Croatia has conducted a pilot project on matching administrative data of graduates with their outcomes on the labour market. In Ireland, data is published to inform policy-makers, institutions, academics, students, and employment providers. In Finland, the administrative data on graduate's employment is used for various purposes in educational planning and steering of higher education institutions including national foresight planning of education, setting targets for the number of degrees in different fields of study and defining institutional performance agreements.

Figure 6.22 shows whether the employability performance of higher education institutions have an impact on their funding. As can be seen, this is the case only in 11 countries, where there is an impact on the funding formula and/or graduate employability thorough performance-based mechanisms. For example, in the Czech Republic, Estonia and Slovenia, the indicator on employability of students forms a fixed percentage of the performance-based funding allocation. In Romania, monitoring the employability of graduates is a quality indicator to be piloted in 2017, for approving the methodology for the allocation of the budgetary funds for the basic and additional financing of higher education institutions for 2017.

Figure 6.22: Impact of employability performance on higher education institutions' funding, 2016/17



Source: BFUG data collection.

6.3. Conclusions

The unemployment situation of recent graduates has improved since the last Bologna Process Implementation Report, when the impact of the economic crisis was more clearly visible. The majority of countries experienced a drop in unemployment rates between 2013 and 2016 and in most countries having a higher education degree, especially a second-cycle degree, protected against unemployment compared to those with lower levels of education attainment.

However, the fall in unemployment rates is not a universal trend, and there are a significant number of countries where the graduate unemployment rate has increased significantly. Thus, the improvement of the economic situation in the years after the crisis did not necessarily have a positive impact for higher education graduates. Efforts to improve graduates' employability should therefore continue. This is particularly important as recent graduates are still much more likely to be unemployed than their more experienced counterparts, and in some countries recent female graduates have a markedly high unemployment rate. However, some countries have recovered better than others, and the economic situation generally may limit the impact of what higher education institutions are able to do to promote employability.

When it comes to income levels, while higher education graduates enjoyed increases across the income percentiles compared to the 2015 edition of the report, people with medium education level – such as an upper secondary school leaving qualification – in fact benefitted the most in all income percentiles. However higher education graduates benefitted almost as much. The lowest percentile of low earners with a low education level lost in annual gross income. Having a higher education degree or a medium education level was therefore similarly beneficial in terms of earnings growth, while low earners with a low education level suffered.

As there are still many problem areas in policies promoting graduate employability, systematic efforts to improve the relationship between higher education and the labour market still need to be better developed and implemented. The elements that are part of coherent policy approaches include the use of labour market forecasts, involving employers in curriculum planning and higher education governance, providing incentives to include work placements in higher education programmes, improving career guidance services, and also encouraging student mobility and the implementation of Bologna tools. There should be more effort to further improve data collection in these areas.

CHAPTER 7:

INTERNATIONALISATION AND MOBILITY

The Yerevan Communiqué

The Yerevan Communiqué, adopted at the EHEA Ministerial Conference in 2015, referred to internationalisation and mobility as powerful means to enhance mutual understanding and to foster the employability of graduates (¹¹⁷). Ministers noted that higher education institutions and academics are becoming increasingly active in an international context and cooperate in joint teaching and research programmes. The Communiqué highlighted key actions that EHEA countries have agreed to pursue to improve mobility opportunities for students with a disadvantaged background, including students and staff from conflict areas, and to promote the mobility of teacher education students (¹¹⁸). Finally, taking into account the guidelines of the Working group on mobility and internationalisation (¹¹⁹), EHEA countries made commitments to promote staff mobility and the portability of grants and loans (¹²⁰).

The 2015 Bologna Implementation Report

The 2015 Bologna Process Implementation Report (European Commission/EACEA/Eurydice, 2015) emphasised that EHEA countries present very different situations with regard to internationalisation and mobility, especially when looking at mobility flows and the level of engagement in internationalisation activities. Although most national authorities did encourage the internationalisation of higher education through their steering documents, more than half of the countries lacked a national internationalisation strategy and had not adopted quantitative targets for different forms of mobility.

The report noted that although the trend for internationalisation is growing, lack of funding as well as inflexible national legal frameworks may hinder development in some countries. Overall, still only a minority of students benefit from mobility and the participation of under-represented groups needs greater attention. The portability of financial student support is one important measure to address this concern, but only a minority of countries ensure full portability for their students.

Moreover the findings of the report pointed to the fact that it was not yet possible to estimate whether the EHEA collective target of 20 % mobility by 2020 could be reached or not, as comprehensive and harmonised data collection is not yet fully in place. Data limitations pose even more significant challenges in evaluating the situation for staff mobility. There is no agreed operational definition of staff mobility, which would be necessary to be able to set proper quantitative targets and collect data on participation rates.

The 2015 Bologna Process Implementation Report concluded that for both student and staff mobility it will be essential to focus not only on numbers, but also on the quality of mobility. This implies investing in information services, monitoring the mobility experience, ensuring that recognition and evaluation processes operate fairly, and improving monitoring of the impact of measures to remove obstacles to mobility and to balance mobility flows.

(¹¹⁷) Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 1-2.

(¹¹⁸) Ibid, p. 3.

(¹¹⁹) Report of the 2012-2015 BFUG Working Group on Mobility and Internationalisation, 2015.

(¹²⁰) Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 4.

Chapter outline

Section 1 reviews various policies for the internationalisation of higher education at both central and institutional level. It tracks progress in comparison with the 2015 Bologna Process Implementation Report concerning strategies, budget and incentives for internationalisation, the share of institutions that participate in joint programmes and award joint degrees, as well as legal obstacles for the award of joint degrees. Section 2 focuses on student mobility by bringing together statistical information on mobility flows and information on national policies to support mobility such as target setting for outgoing and incoming mobility and requirements for mobility periods. It also includes the two scorecard indicators on portability of grants and loans and financial mobility support for disadvantaged students. Section 3 is devoted to issues related to staff mobility such as targets for incoming and outgoing staff mobility.

7.1. Policies for internationalisation

In recent years a growing number of terms have been used to define the internationalisation of higher education (de Wit, 2011). One distinction that is made is between 'internationalisation at home and abroad', although both aspects are seen as inter-related in various ways. In the first case, the aim is to develop an international awareness through the curriculum at the home institution. In the second case, the focus is on cross-border mobility of people, projects and programmes (Knight, 2008). In this chapter, the term internationalisation is understood to include a number of aspects that are centred around but not limited to international cooperation and mobility (¹²¹).

Although in many European countries the main responsibility for internationalisation activities lies with the higher education institutions themselves, the framework and strategic direction are often set at central level. Through the 2012 Mobility Strategy, EHEA countries were encouraged to 'develop and implement their own internationalisation and mobility strategies' (¹²²). In addition, the 2013 'European higher education in the world' communication encouraged EU member states to develop 'comprehensive internationalisation strategies' (European Commission 2013, p. 3) and the 2017 communication 'Strengthening European Identity through Education and Culture' called for further actions to boost mobility and facilitate cross-border cooperation (European Commission 2017b, pp. 4-5).

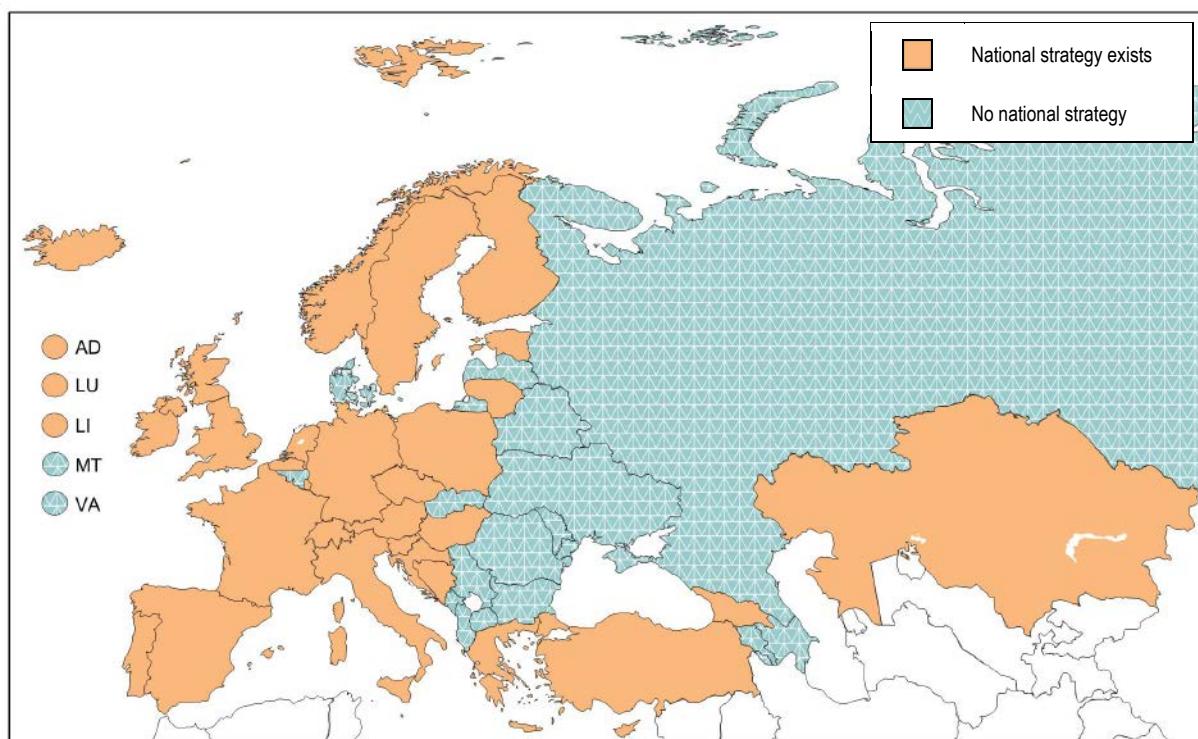
National strategies for internationalisation can vary greatly across countries. Generally they represent an official policy document that has been developed by the central authorities to achieve the overall goal of supporting internationalisation. Although the level of detail regarding internationalisation policies in such documents can vary greatly, they are expected to identify qualitative and quantitative objectives, describe processes, authorities and people in charge, identify funding sources and make recommendations.

Figure 7.1 provides an overview of the situation regarding the adoption of national strategies for internationalisation across the EHEA. This policy area continues to be very dynamic and has registered a steady progress since the 2015 reporting exercise. Thirty two countries have an active strategy for the internationalisation of higher education. In comparison with the situation that was recorded in 2015 there is a clear increase, with 16 new countries reporting that they have such a strategy in place. In France, for instance, the national STRANES strategy for higher education was adopted in autumn 2015. It involves a clear international dimension setting quantitative benchmarks by 2025 for doubling inbound and outgoing mobility, strongly encouraging Master students to go abroad, broadening international education programmes including the development of Massive Open Online Courses (MOOCs), improving students' foreign-language skills, and improving the organisation of international cooperation projects.

⁽¹²¹⁾ The European Commission supports tools such as the European Tertiary Education Register (ETER) (<https://www.eter-project.com/>) and U-Multirank (<https://www.umultirank.org>) which provide information on internationalisation and mobility.

⁽¹²²⁾ Mobility for Better Learning: Mobility strategy 2020 for the European Higher Education Area (EHEA), 2012, p. 1.

Figure 7.1: National strategies for internationalisation of higher education, 2016/17



Source: BFUG data collection.

Internationalisation strategies operate in a multiannual timeframe and are being periodically revised and updated. Currently the strategy in the former Yugoslav Republic of Macedonia is under preparation, while Moldova plans to develop specific strategic documents with the help of funding from the Erasmus+ Programme.

Internationalisation strategies are usually adopted by the responsible ministry. In the Netherlands, the Minister of Education sends to Parliament a letter on the government's vision on the international dimension of higher education. In some countries, important provisions to facilitate international cooperation and mobility have been included in the laws on higher education. In Iceland, internationalisation has been mainstreamed in the general five year fiscal policy of the government, and is operating under the National Budget Law.

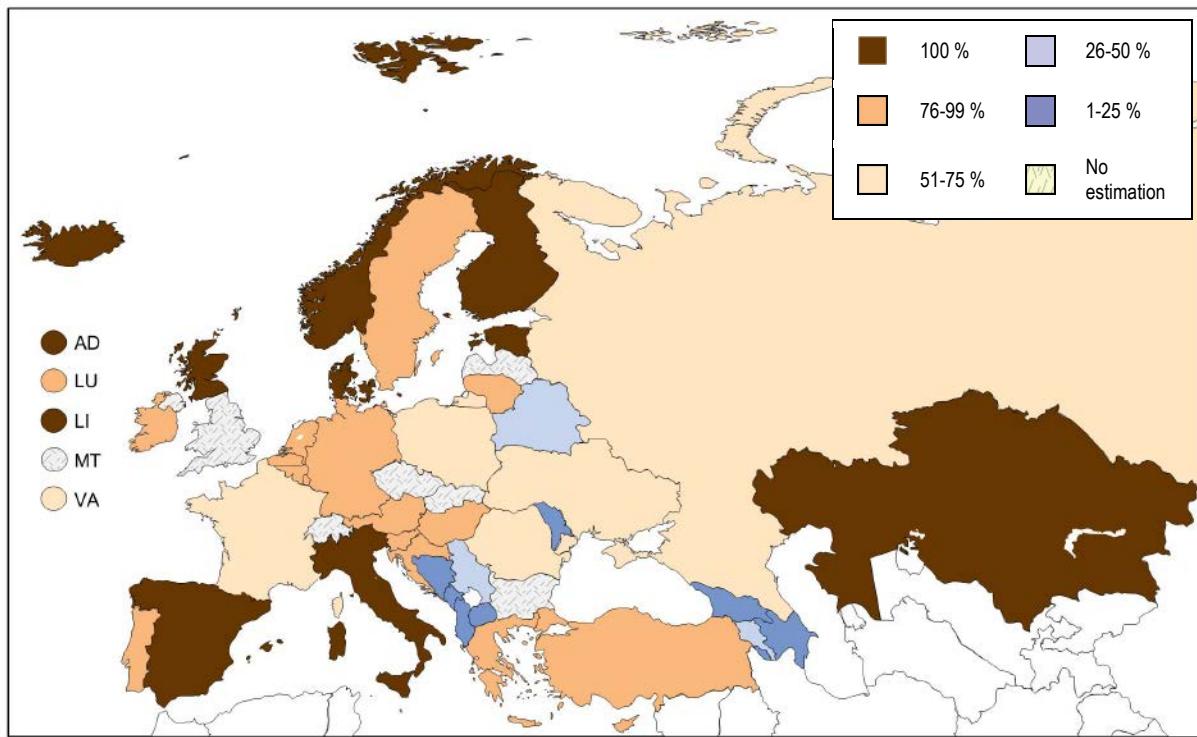
Engagement at institutional level

Through the 2012 Mobility Strategy, ministers encouraged higher education institutions 'to adopt and implement their own strategy for their internationalisation and for the promotion of mobility in accordance with their respective profile and involving the stakeholders (students, early stage researchers, teachers and other staff)'⁽¹²³⁾. This section therefore focuses on internationalisation at institutional level using data provided through the BFUG questionnaire. Most of the information is based on estimations and perceptions held by national authorities. This is due to the fact that only half of all countries monitor one or more of the three aspects that will be discussed below, i.e. the number of higher education institutions that have adopted an internationalisation strategy, participate in joint programmes and/or award joint degrees. When central level monitoring takes place, it is usually done on an annual basis by the respective Ministry or by the higher education accreditation and evaluation bodies or similar organisations.

⁽¹²³⁾ Mobility for Better Learning: Mobility strategy 2020 for the European Higher Education Area (EHEA), 2012, p. 5.

Countries were asked to estimate the percentage of their higher education institutions that have adopted an internationalisation strategy. As mentioned earlier, the concept of 'internationalisation strategy' is broad and countries may interpret it differently, and Figure 7.2 shows that quite different realities coexist in the EHEA.

Figure 7.2: Estimated percentage of higher education institutions that have adopted an internationalisation strategy, 2016/17



Source: BFUG data collection.

Thirty three of the EHEA countries estimate that more than half of their higher education institutions have adopted internationalisation strategies. Among these, 11 countries report that all higher education institutions have an internationalisation strategy. No country estimates that none of their higher education institutions have adopted such a strategy. In comparison with the 2015 Bologna Process Implementation Report, we observe a considerable increase in the number of countries in the top two categories (76-100 % of institutions): from 13 to 27 countries.

Countries report that data for these estimates include statistics about the proportion of institutions who have the Erasmus Charter for Higher Education (ECHE) (which means that they have formulated Erasmus Policy Statements or a form of internationalisation strategy focusing mainly on the European dimension of their international activity), various national reports and surveys, and in some cases the performance agreements between the government and the higher education institutions.

Ten systems (Andorra, Estonia, Finland, Iceland, Italy, Kazakhstan, Liechtenstein, Norway, Spain and the United Kingdom – Scotland) report that in addition to the existence of a national strategy for internationalisation (see Figure 7.1), all their higher education institutions have also adopted internationalisation strategies (see Figure 7.2).

Beyond the existence of a strategic document on internationalisation, higher education institutions have an increasing choice of instruments or activities to engage in the internationalisation process (e.g. joint programmes and joint degrees, campuses abroad, massive open online courses (MOOCs)). Nevertheless, the development of these instruments greatly depends on factors such as the available resources at institutional level. In some countries, national legal frameworks as well as institutional regulations can also hinder the development of these internationalisation instruments.

Budget and incentives for internationalisation

Confirming one of the findings of the 2015 Bologna Implementation Report, most countries report that they have specific budgets for funding internationalisation activities in higher education. For instance in Slovenia, the Action Plan Strategy for the Internationalisation of Slovenian higher education 2016-2018, has set 25 objectives and over 50 concrete measures with a total budget of 57 million euros. These measures range from mobility grants to information campaigns, orientation days, Slovenian language and culture courses and preparation modules for foreign students and higher education teachers.

It appears that central level funding is mostly allocated specifically for mobility. Apart from Erasmus+ and other EU-funded programmes, a number of countries operate national, regional and bilateral programmes for the mobility of students and staff. In particular, well established regional programmes in Central and Eastern Europe and in the Nordic region, as well as national schemes in, for instance, Germany, the Netherlands and the United Kingdom continue to play a significant role in supporting mobility.

France and Hungary have provided details of policy actions in this domain. In France, besides Erasmus+ supported grants, the Ministry for Europe and Foreign affairs offers a range of grants for incoming students which in 2016 concerned around 1 000 mobility periods, for a total cost of more than 43 million euros. For outgoing student mobility, the Ministry for Higher Education, Research and Innovation supports EHEA-portable need-based grants for around 700 000 students with a budget envelope of about 2 billion euros. In Hungary, to achieve the student mobility targets the government is financing a *Stipendium Hungaricum* scholarship programme for foreign students with a budget of nearly HUF 7 billion (22 million euros) in 2016, and HUF 14 billion (almost 45 million euros) in 2017. Outward student mobility is supported by the *Campus Mundi* excellence scholarship programme co-financed by the European Social Fund and the Hungarian government with a budget of HUF 9.2 billion (29 million euros) for five years.

Non-financial incentives for internationalisation have been reported by Austria, Estonia, France, the Netherlands, Poland, Slovakia, Slovenia and Russia. Examples of such measures include favourable regulatory frameworks for the accreditation of joint degree programmes, credit transfer and accumulation and the offer of study programmes in English, as well as specialised web-portals, promotion campaigns, support in immigration procedures, welcome services for incoming students. In several countries (Austria, Ireland, Finland, Norway, Poland and Romania) performance indicators on internationalisation activities are used as one of the criteria for the allocation of government funding to higher education institutions.

Joint programmes and joint degrees

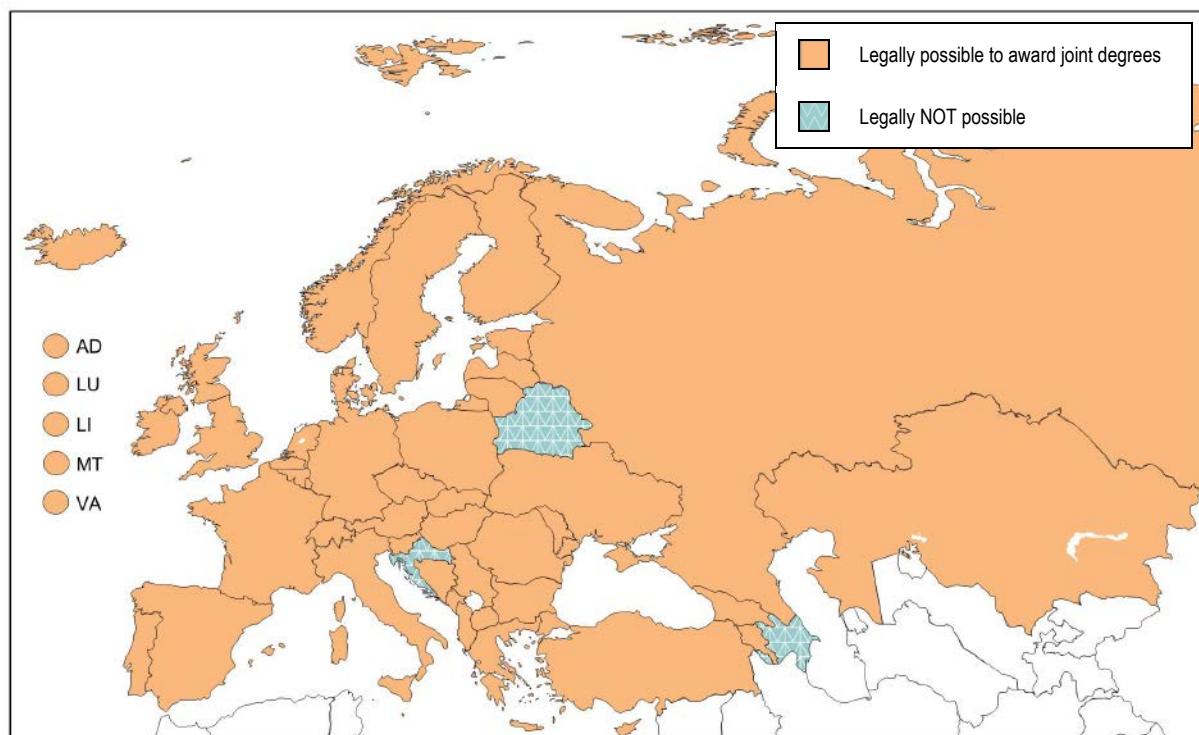
Joint programmes refer to inter-institutional arrangements among two or more higher education institutions that lead ideally to a joint degree (but also currently to double and multiple degrees). Parts of joint programmes undertaken by students at partner institutions are recognised automatically by the other partner institutions. A joint degree is a single document awarded to students who successfully complete a joint programme, and it should be recognised as equivalent to national qualifications by the appropriate (national or, if applicable, regional) authorities of at least the countries participating in the programme.

Joint programmes and degrees have long been recognised as a key element in facilitating internationalisation in higher education institutions. Thus from the early Ministerial declarations in the Bologna Process onwards, there have been commitments to develop further these instruments – particularly in light of the launch of the Erasmus Mundus programme in 2004.

While the challenges to higher education institutions in developing cross-border joint programmes have been quite wide-ranging, one of the main issues for governments has been to create a legal environment where joint programmes can be established and recognised without undue problems. Although the vast majority of countries have now amended their legislation to take on board joint programmes and joint degrees, regulatory issues continue to be on the agenda.

Figure 7.3 illustrates the fact that in Azerbaijan, Belarus and Croatia it is not legally possible for higher education institutions to award joint degrees. In Switzerland this possibility is not explicitly stated in the legislation, but Swiss higher education institutions, which enjoy a large autonomy, can award joint degrees. Elsewhere, as for instance in Ireland, Sweden or the United Kingdom (Scotland), the legal framework has been established as early as the 1990s with subsequent updates in the following two decades. More generally, it appears that in a number of countries a lot of ambiguity remains which is due to the lack of a clear legal basis and/or additional regulations to operationalise the concept. For instance, as noted in Chapter 4 (Figure 4.12), twenty two systems report that the European Approach to quality assurance of joint programmes is not permitted by their legislative framework.

Figure 7.3: Legal possibility for HEIs to award joint degrees, 2016/17

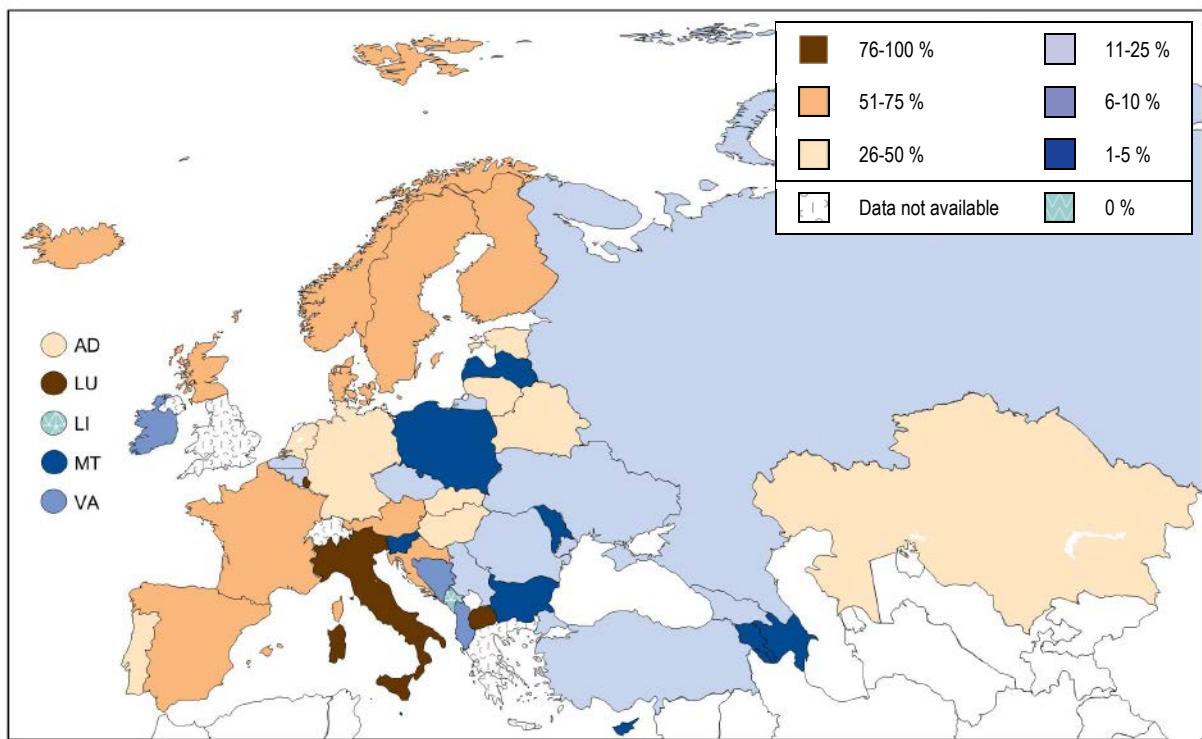


Source: BFUG data collection.

Similarly to the findings from the 2012 and 2015 reporting exercises, countries continue to estimate a higher number of higher education institutions participating in joint programmes than those actually issuing joint degrees (see Figures 7.4 and 7.5).

According to these estimations, in the majority of countries, less than 25 % of higher education institutions participate in joint programmes and less than 5 % award joint degrees with marked differences of the extent to which countries are engaged in these actions. The uncertain legal situation continues to play a role in keeping the take up of joint degrees at a relatively low level.

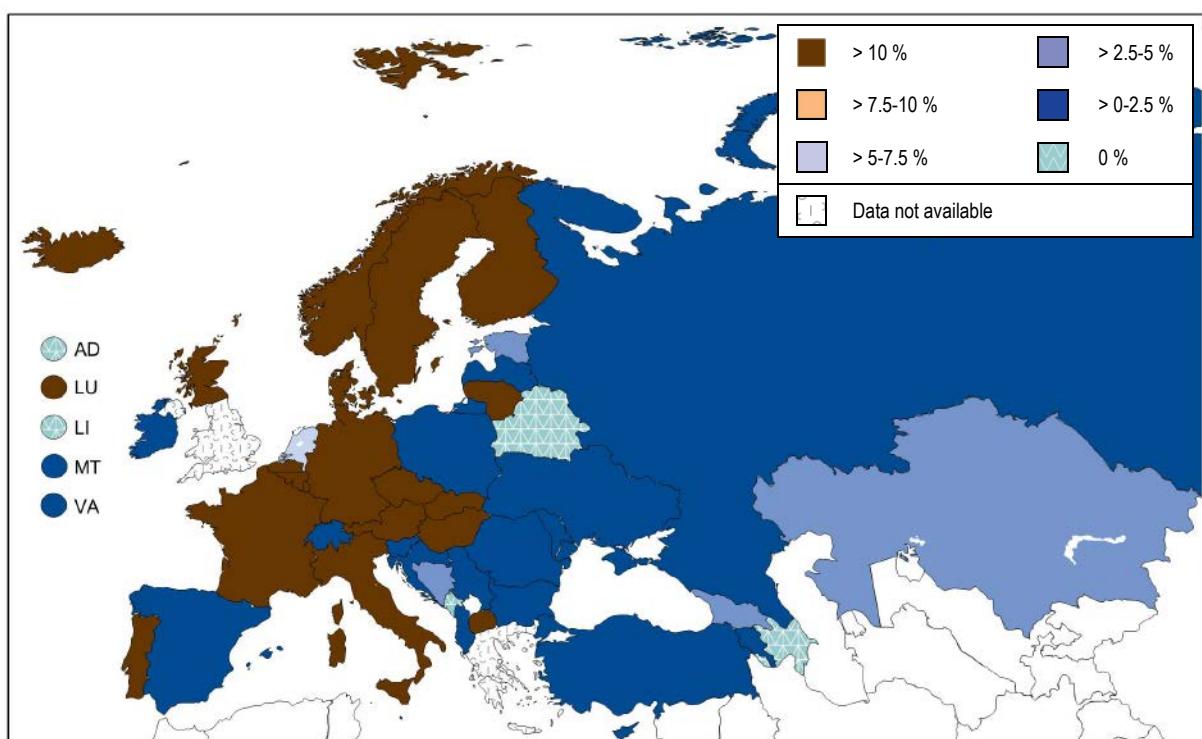
Figure 7.4: Estimated percentage of institutions that participate in joint programmes, 2016/17



Source: BFUG data collection.

When comparing with the data in the 2015 Bologna report, we can observe a slight increase in the number of countries that estimate that more than half of their institutions participate in joint programmes, but even so this group (13 countries) continues to be a minority. Among the countries in this group, Italy, Luxembourg and the former Yugoslav Republic of Macedonia estimate that between 76 and 100 percent of their institutions participate in joint programmes. On the other hand, Liechtenstein and Montenegro consider that no institutions are engaged in such activities.

Figure 7.5: Estimated percentage of institutions that award joint degrees, 2016/17



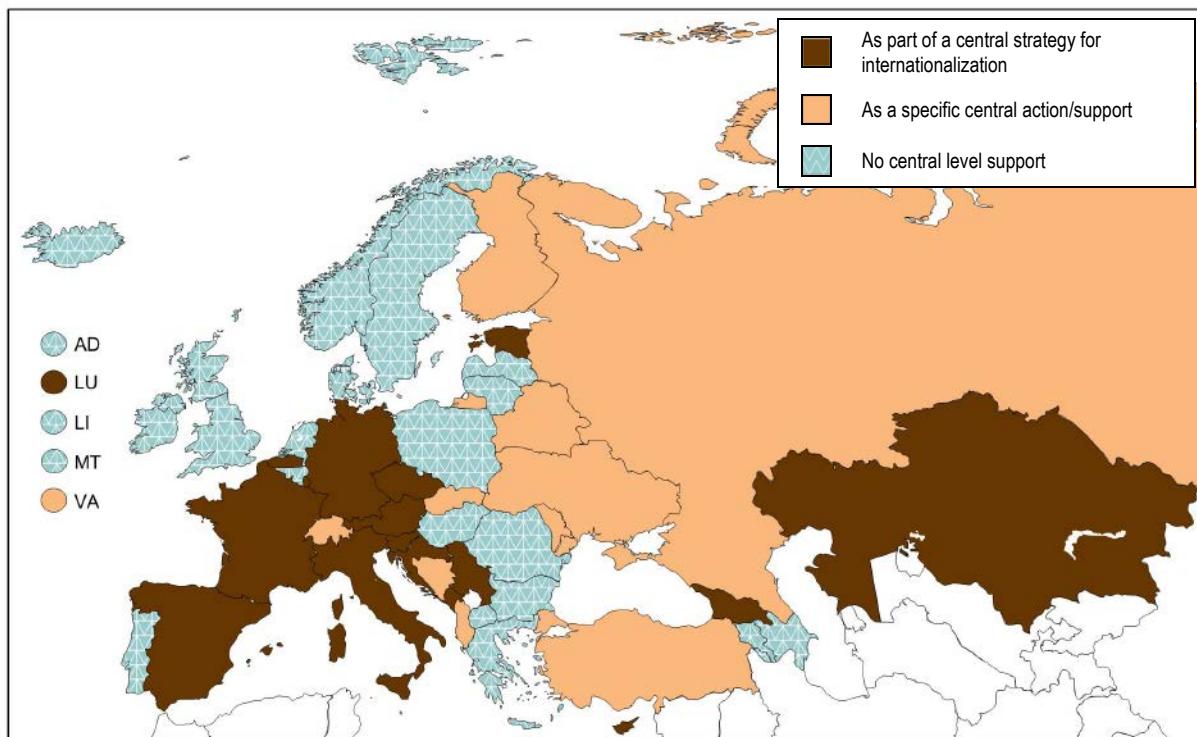
Source: BFUG data collection.

Similarly, there has been an increase in the top two categories (above 7.5 %) of the share of institutions that award joint degrees. Five countries (Andorra, Azerbaijan, Belarus, Liechtenstein and Montenegro – as compared to eight countries in the 2015 Bologna report) consider that no institutions award joint degrees, while several others are unable to provide estimates. On the other hand, although in Croatia the award of joint degrees is not regulated by law (see Figure 7.3), a minority of institutions manage to solve the practical problems that arise from the uncertain legal situation and deliver a joint degree.

However, a group of several systems (Austria, Finland, France, Italy, Luxembourg, the former Yugoslav Republic of Macedonia, Iceland, Norway, Sweden and the United Kingdom – Scotland) estimate consistently high shares of institutions that both participate in joint programmes (see Figure 7.4) and award joint degrees (see Figure 7.5). Five of these systems (Finland, Iceland, Italy, Norway and the United Kingdom – Scotland) also report that they have a national strategy for internationalisation and estimate that all their higher education institutions have adopted similar documents (see Figures 7.1 and 7.2). In Italy, for instance, the Triannual Strategic Framework for the university system, allocating 50 million euros per year, includes indicators on the progress made by universities in the offer of 'international' degree programmes. These programmes are either taught in English, lead to a joint/double degree, are funded within the Erasmus+ joint master initiative, or at least 20 % of their students experience an outward mobility (at least 12 ECTS). The support of the central authorities includes financial incentives for institutions that increase the offer of international programmes, regulatory measures to facilitate the accreditation of international programmes and promotion of these programmes on the portal that presents all degrees in Italy.

Overall however, when asked whether there are central level actions for the support of the development of joint degree programmes, only half of the countries respond that they provide some support, either as part of a central strategy for internationalisation, or as a specific central action or support (see Figure 7.6).

Figure 7.6: Central level actions to support the development of joint degree programmes, 2016/17



Source: BFUG data collection.

7.2. Student Mobility

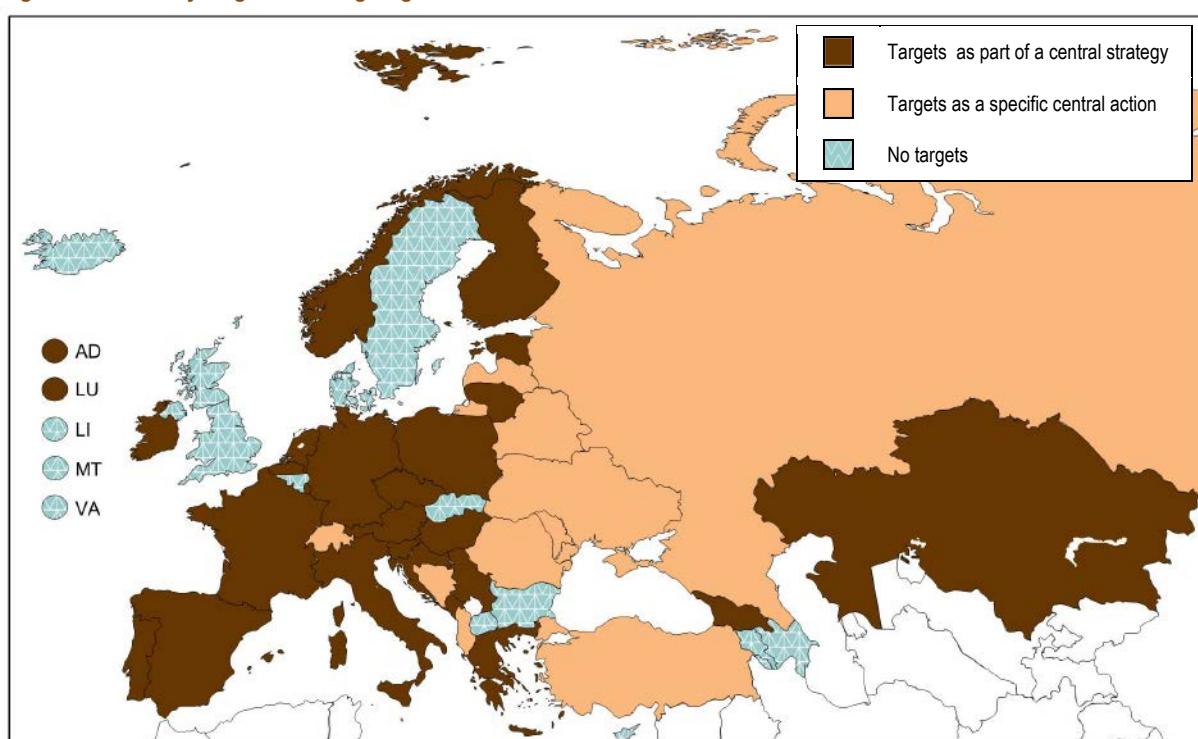
7.2.1. Establishing targets for student mobility

The EHEA mobility target adopted in 2009 in Leuven-Louvain la Neuve states that at least 20 % of those graduating in the EHEA should have had a study or training period abroad by 2020 (¹²⁴). It is a common benchmark which only describes outward mobility and takes into account the total number of graduates in the EHEA (¹²⁵). Given that countries have different starting points and have diverse situations regarding mobility, the EHEA ministers also agreed, through the 2012 Mobility Strategy, adopted in Bucharest, that countries should develop and implement their own internationalisation and mobility strategies with their own 'measurable and realistic mobility targets' (¹²⁶).

Outward mobility targets

Figure 7.7 shows that, at national level, the majority of countries (35 systems) have adopted national targets for outward student mobility. These targets could be qualitative or quantitative and they are either part of a national strategic document or exist as a specific central action to support mobility. In comparison with the 2015 Bologna report, where only 20 systems reported that they had clear targets for outward student mobility (¹²⁷), we observe a significant increase in the use of target setting to support and monitor progress in mobility.

Figure 7.7: Mobility targets for outgoing students, 2016/17



Source: BFUG data collection.

Notes:

Outward targets include either degree-, credit- or both degree and credit mobility.

(¹²⁴) Leuven/Louvain-la-Neuve Communiqué: The Bologna Process 2020 – The European Higher Education Area in the new decade. Communiqué of the Conference of European Ministers Responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April 2009, p. 4.

(¹²⁵) The 2012 Mobility Strategy was more specific: 'We include in our mobility targets the periods spent abroad corresponding to at least 15 ECTS credit points or three months within any of the three cycles (credit mobility) as well as stays in which a degree is obtained abroad (degree mobility)'.

(¹²⁶) Mobility for Better Learning: Mobility strategy 2020 for the European Higher Education Area (EHEA), 2012, p. 1.

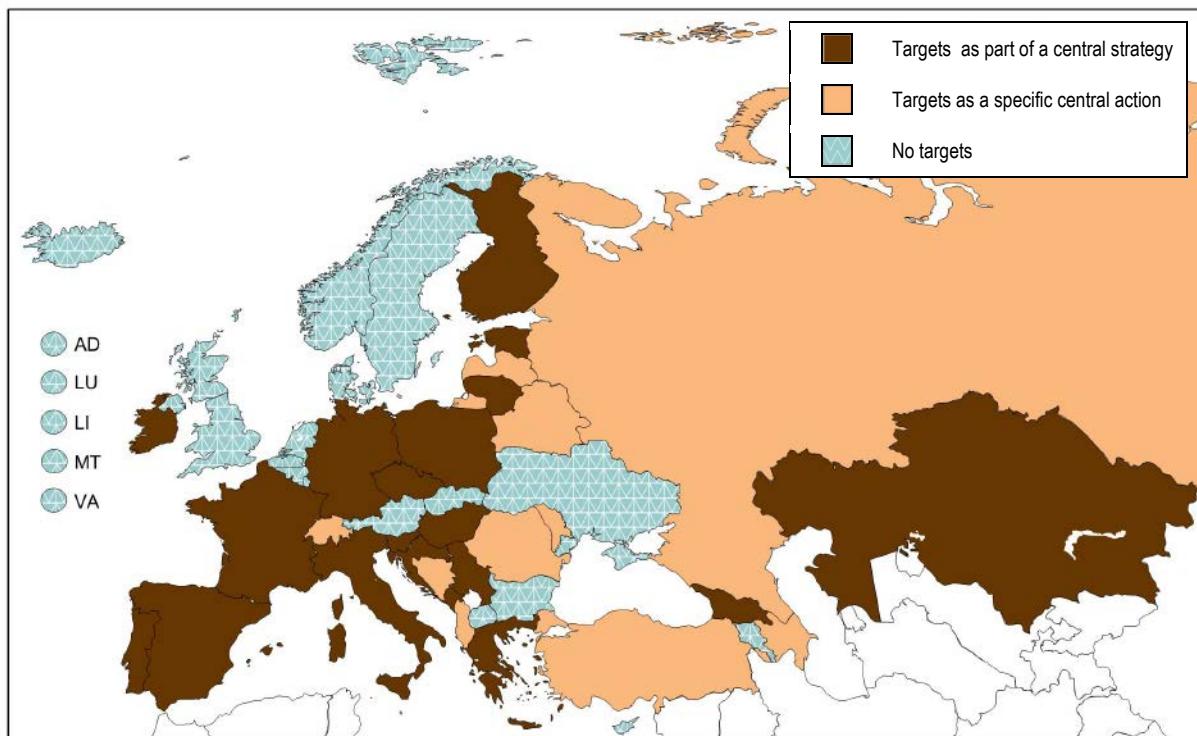
(¹²⁷) Ideally, a 'clear target' should be either quantitative or qualitative and associated with a timeline or a year when the target should be reached.

Countries have set up a variety of targets that use a number of definitions for the target groups and express objectives in different numerical components. Some countries (the Netherlands (only outgoing credit mobility), Norway and Serbia) have adopted the EHEA target of 20 % of outgoing mobility by 2020. In Hungary the objective is to increase the share of students who study or undertake a work placement abroad for a minimum of three months (or 15 ECTS) to 20 % in 2023. Others concentrate on Erasmus+ mobility. Austria, for instance, has set up numerical targets of 100 000 Erasmus+ mobility periods by 2018 and 120 000 by 2020. In Finland the performance agreements between the government and the higher education institutions set mobility targets for each institution.

Inward mobility targets

In terms of mobility targets for incoming students, Figure 7.8 shows that 29 systems have adopted targets in this area, either as part of a central strategy or as a specific central action. Although this number is less than for outgoing student mobility, it nevertheless represents a majority of all EHEA countries, which points to another positive change since the Bologna 2015 report.

Figure 7.8: Mobility targets for incoming students, 2016/17



Source: BFUG data collection.

Several countries (Georgia, Kazakhstan and Montenegro) report that a strategic objective at national level is to ensure the quality of stay of foreign students and to increase their share in the total number of students. In Hungary, the objective is to increase the number of foreign students from 23 000 (2013) to 40 000 (2023), whereas in Estonia and Serbia the share of foreign students should reach 10 % by 2020.

Overall, even when quantitative mobility targets for outward or incoming student mobility have been defined at national level, these targets are often based on various categories of students and mobility periods. It is thus difficult to monitor progress across countries and over time.

Moreover, one quarter of all systems (Armenia, Belgium – French Community, Bulgaria, Denmark, the Holy See, Iceland, Liechtenstein, the former Yugoslav Republic of Macedonia, Malta, Slovakia, Sweden and the United Kingdom) have not established targets for either type of student mobility.

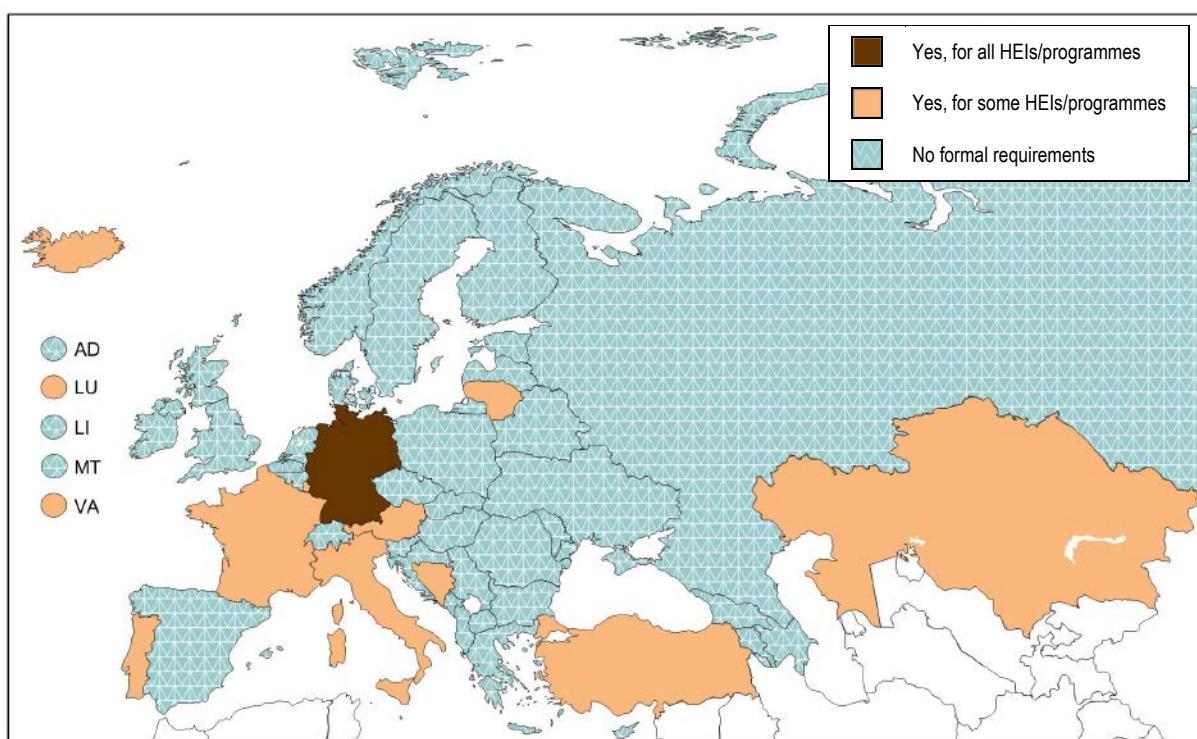
Mobility windows

Beyond the establishment of mobility targets, the Bologna questionnaire looked at other actions that central authorities could take to achieve an increase in student mobility flows. Some of these actions – encouraging higher education institutions to offer compulsory mobility periods, or to embed so-called mobility windows in the curriculum – may be difficult to distinguish, but the questionnaire attempted to separate different types of action.

One way through which public authorities can support enhanced mobility is to establish requirements for higher education institutions to provide mobility opportunities to students. Figure 7.9 reviews the existence of formal requirements for higher education institutions to establish a mobility period as part of a study programme. In the vast majority of EHEA countries no such requirements exist. In 11 systems compulsory mobility periods are integrated in some study programmes or institutions.

In Luxembourg for instance, according to article 3 of the Law of the University of Luxembourg, all Bachelor students have a compulsory mobility period of six months. In Austria, some universities have compulsory mobility periods in some of their programmes (e.g. International Business) and in other countries this applies only for the joint degree programmes. Only in Germany are all higher education institutions legally required to offer the opportunity of a mobility period for students in all study programmes and this requirement is included in the Common structural guidelines of the *Länder*.

Figure 7.9: Requirements for HEIs to provide a mobility period for students, 2016/17



Source: BFUG data collection.

Mobility windows, which represent a period of time reserved for international student mobility that is embedded into the curriculum, but may not be mandatory (ACA 2013, p.12) appear to be more commonly supported by central authorities. Thus several countries (Denmark, Hungary, the former Yugoslav Republic of Macedonia, Ireland and Norway) which do not require mobility periods, note that they offer mobility windows for some or all (Ireland) programmes. In addition, in some cases (Finland, the Netherlands, Romania and Switzerland) individual institutions or programmes include compulsory periods or mobility windows as part of their programmes, despite the absence of system-wide requirements.

7.2.2. Statistical information on student mobility flows

This section provides data and analysis on student mobility flows, building on indicators available in the 2015 Bologna Process Implementation Report. Specific terms have been developed to describe the different forms of student mobility. Firstly, **degree mobility**, the long-term form of mobility, is the physical crossing of a national border to enrol in a tertiary level degree programme in the country of destination. Students are enrolled as regular students in any semester/term of a degree programme taught in the country of destination, which is different from their country of origin (¹²⁸) with the intention of graduating from the programme in the country of destination. **Credit mobility** is the short-term form of mobility. It is defined as temporary tertiary education and/or a study-related traineeship abroad within the framework of enrolment in a tertiary education programme at a 'home institution' for the purpose of gaining academic credits (i.e. credits that will be recognised at the home institution).

The best known example of a mobility programme in the EHEA is the Erasmus+ programme, which was set up in 1987. It has an indicative financial envelope of €16.3 billion for the period 2014-2020 and is expected to support 4 million people to study, train or teach in Europe, and beyond, between 2014 and 2020. In 2016 Erasmus+ supported 725 000 mobilities and funded close to 21 000 projects. Overall, 79 000 organisations have benefitted from the Erasmus+ programme in 2016 (European Commission, 2017c).

There is also a distinction to be made regarding the direction of mobility flows. **Incoming mobility** takes the perspective of the country of destination – the country to which the student moves to study. The incoming mobility rate may be considered as an indicator of the country's attractiveness, relative to the size of its tertiary education system. **Outward mobility** takes the perspective of the country of origin – the country from which the student moves. While for many students this will be identical to the country of the student's nationality, it is more accurate to consider the country of permanent/prior residence or prior education for data collection purposes. The outward mobility rate may be considered as an indicator of a pro-active policy for students to acquire international experience (particularly for credit mobility). However, it may also be an indicator of possible insufficiencies in the education system of the country of origin (particularly for degree mobility).

Finally, the **country of origin** is defined as the country of prior education i.e. the country where the upper secondary diploma was obtained. Therefore, nationals who have obtained their upper secondary diploma abroad and come back to the home country for tertiary education are also considered mobile. If the information on the country of upper secondary diploma is not available, the country of prior residence can be used as a proxy. Citizenship is the least preferred option as a proxy of country of origin, because this is an administrative category and there are differences in its use in different countries, which are not related to country of residence.

It should be emphasised that the use of multiple definitions when identifying and reporting mobile students in the EHEA continues to hinder the comparability of the data across countries and over time. Twenty countries in the EHEA still use the foreign citizenship/nationality as a proxy for actual mobile students. The main problem with using citizenship in this way is that it conflates genuine mobile students with those who may have moved to the destination country earlier, for example during school education. As a result, for these countries the statistical indicators on mobility flows are only an estimation of mobility. In these cases, the indicators provide an estimation of the foreign student population in the total student population rather than an indication of incoming learning mobility.

(¹²⁸) The country of origin is defined as the country of prior education i.e. the country where upper secondary diploma was obtained. If the information on country of upper secondary diploma is not available, the country of prior residence can be used as a proxy, as well as citizenship.

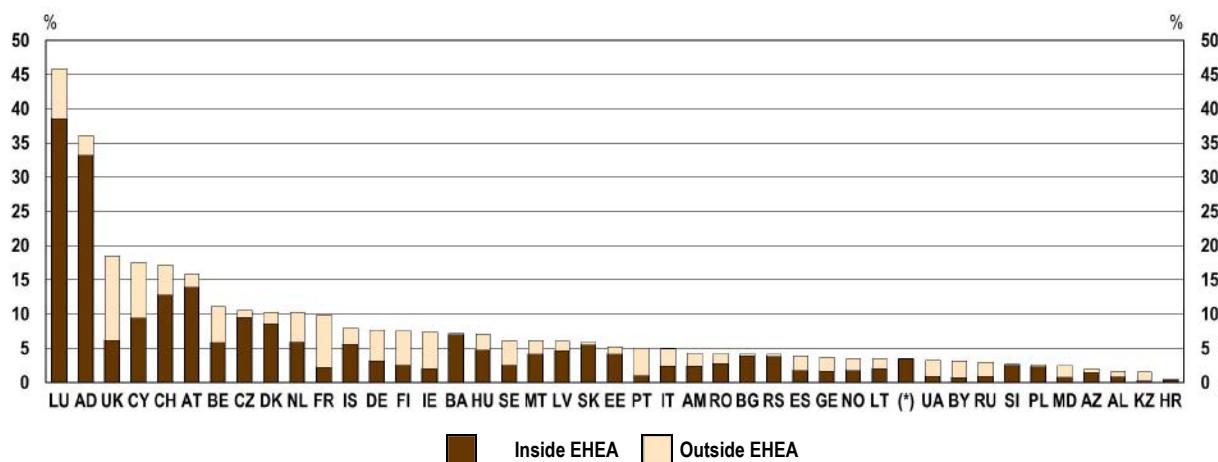
Since comprehensive data on credit mobility is not yet available – apart from the data collected by the Erasmus+ programme (European Commission, 2017c) – this section will focus on information on degree mobility. However, extensive data on credit mobility is currently being collected in the EU framework and it should be available in 2018 (European Commission, 2017d).

This section looks at three aspects of student mobility flows: inward degree mobility, outward degree mobility and mobility balance. Throughout the analysis, degree mobility flows from outside the EHEA to the EHEA; degree mobility flows from inside the EHEA to outside the EHEA and, finally, degree mobility flows within the EHEA are examined separately. For the inward mobility from countries outside the EHEA information from all declaring countries in the world was considered. For the outward mobility towards countries outside the EHEA only the questionnaires from Australia, Canada, Japan, New Zealand and the United States, were considered due to issues with data availability and quality. For the EHEA country coverage, see the Glossary and Methodological Notes.

Inward degree mobility

Figure 7.10 shows the percentage of mobile students coming from inside and outside the EHEA to individual EHEA countries. It compares the share of mobile students with the total student population in the EHEA destination country (see Chapter 1 for student population). The purpose of this indicator is to present an estimation of the attractiveness of each EHEA country for degree students who originate from another EHEA country or outside the EHEA area. The indicator measures the incoming mobility flow from the rest of the EHEA and the rest of the world to each EHEA member. All declaring countries outside the EHEA are considered for the indicators on inward mobility.

Figure 7.10: Incoming degree mobility rate – tertiary education mobile students from the EHEA and from outside the EHEA studying in the country as a percentage of the total number of students enrolled, by country of destination, 2014/15



(*): the former Yugoslav Republic of Macedonia

	LU	AD	UK	CY	CH	AT	BE	CZ	DK	NL	FR	IS	DE	FI	IE	BA	HU	SE	MT	LV	SK	EE
Inside EHEA	38.6	33.3	6.2	9.5	12.8	13.9	5.8	9.5	8.6	5.9	2.2	5.6	3.2	2.6	2.0	7.0	4.8	2.5	4.2	4.7	5.5	4.1
Outside EHEA	7.3	2.8	12.3	8.0	4.4	2.0	5.4	1.0	1.7	4.3	7.7	2.4	4.5	5.1	5.3	0.2	2.3	3.7	2.1	1.4	0.4	1.1
Inside EHEA	1.0	2.4	2.4	2.8	3.9	3.8	1.7	1.7	1.8	2.0	3.4	0.9	0.7	0.9	2.6	2.3	0.8	1.5	0.9	0.3	0.4	2.8
Outside EHEA	4.0	2.6	1.9	1.4	0.4	0.3	2.1	2.1	1.8	1.5	0.1	2.3	2.5	2.1	0.2	0.4	1.7	0.6	0.8	1.3	0.2	3.6

ØP EHEA = EHEA weighted average

Source: Eurostat, UOE and additional collection for the other EHEA countries.

Apart from Luxembourg and Andorra who host very high shares of international students, the United Kingdom, Cyprus, Switzerland and Austria also show high shares of degree seeking incoming mobile students (above 15 %). The origin of these international students differs by country of destination. Austria and Switzerland are hosting mostly students from EHEA countries (88 % and 74 %), while

Cyprus and the United Kingdom are attracting the highest shares of students from outside the EHEA (46 % and 67 %), compared to the other EHEA countries. The countries with the lowest share of incoming international students are Croatia, Kazakhstan and Albania (with less than 2 %).

Overall, in the majority of countries the share of mobile students from inside the EHEA is higher compared to the ones coming from outside the EHEA. However, the reverse is true for the United Kingdom, Ireland, France, Portugal, Ukraine and Finland, as well as Belarus, Russia, Kazakhstan and Moldova, where the share of students from outside the EHEA is double or more the share of students coming from another EHEA country.

Although the analysis of mobility trends between the 2015 and 2018 Bologna Process Implementation Reports is impacted by the change of the definition of mobile student for the countries participating in the UOE data collection that took place from 2013 reference year (¹²⁹), some comparisons with the data reported in the 2015 Bologna Process Implementation Report are provided below. The weighted average share of international students from outside the EHEA increased from 2.27 to 3.59 since 2011/12. The weighted average share of international students from inside the EHEA also increased from 2.1 % to 2.8 %, with increases in most countries, with the exception of Portugal which registers a decrease of around 50 %.

Figure 7.11 presents complementary information to the previous figure, showing the number of incoming mobile students. Overall, almost 2 million mobile students are studying in the EHEA. 56 % or 1 109 203 are entering the EHEA for the purpose of studying and 44 % or 869 701 are students from countries within the EHEA studying in another EHEA country.

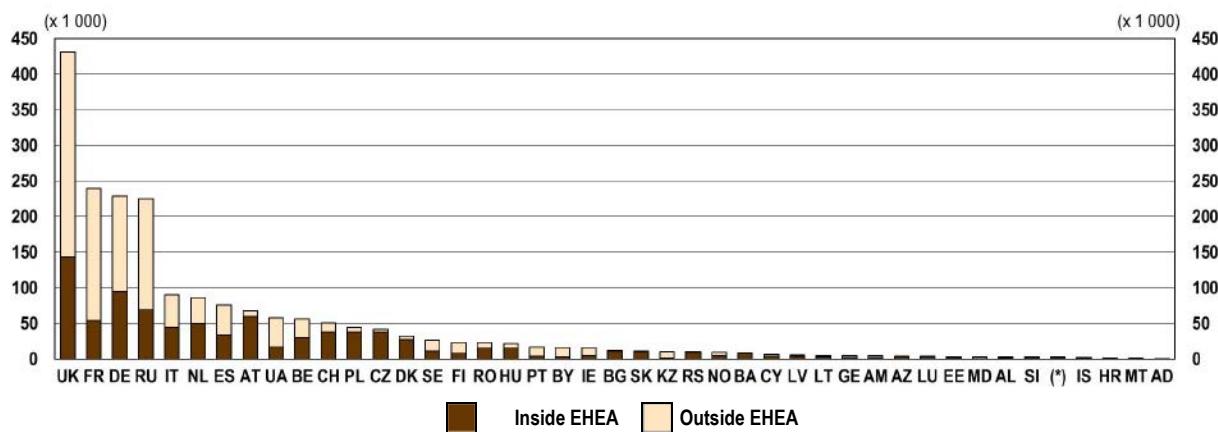
The United Kingdom, with more than 287 000 and 143 000 incoming degree students from outside and inside the EHEA respectively attracts the largest share of mobile students. This represents 22 % of all internationally mobile students, 26 % of all incoming students outside the EHEA and 16 % of the mobile students within the EHEA.

France and Germany are also receiving high numbers of students, in total 12 % and 11 % of all mobile students in the EHEA. France and Germany also host 17 % and 12 % of the incoming mobile students from outside the EHEA. Together the United Kingdom, France and Germany cover 55 % of the incoming mobile students from outside the EHEA and around one third of all mobile students from within the EHEA. Russia also hosts significant numbers of incoming mobile students that represent around 11 % per cent of all mobile students and 14 % of the incoming mobile students from outside the EHEA. In terms of intra-EHEA mobility, Russia, Austria and the Netherlands also host sizable communities of mobile students.

These distribution patterns are very similar to the ones registered in the 2015 Bologna Process Implementation Report. One important new trend is the increase of non-EHEA students, which has at least doubled in 16 countries, and significantly declined in only four countries (Poland, Lithuania, Bulgaria and Cyprus).

(¹²⁹) This change of the definition of mobile student was not reflected in the 2015 Bologna Process Implementation Report, which had a reference year 2011/12. Before 2013, the UOE data collection defined mobile students as foreign students (non-citizens of the country in which they study) who have crossed a national border and moved to another country to study. Starting from 2013, reference year the UOE definition is based on the country of origin understood as the country where the upper secondary diploma was awarded (or the best national estimate) and not the country of citizenship.

Figure 7.11: Number of incoming degree tertiary education mobile students from inside and outside the EHEA, by country of destination, 2014/15



(*): the former Yugoslav Republic of Macedonia

	UK	FR	DE	RU	IT	NL	ES	AT	UA	BE	CH	PL	CZ	DK	SE
Inside EHEA	143 620	53 945	94 765	68 947	43 733	49 807	33 704	59 314	16 374	29 388	37 751	37 540	37 680	26 876	10 907
Outside EHEA	287 213	185 464	133 991	155 744	46 686	36 382	41 643	8 378	41 209	27 065	12 840	6 448	4 035	5 388	15 765
	FI	RO	HU	PT	BY	IE	BG	SK	KZ	RS	NO	BA	CY	LV	LT
Inside EHEA	7 817	15 396	14 732	3 485	3 364	4 397	10 858	10 174	1 722	9 169	4 755	7 592	3 526	4 042	2 872
Outside EHEA	15 325	7 677	6 975	13 403	12 500	11 418	986	702	8 586	776	4 767	206	2 990	1 213	2 103
	GE	AM	AZ	LU	EE	MD	AL	SI	(*)	IS	HR	MT	AD		
Inside EHEA	2 640	2 012	1 192	503	592	1 901	1 278	156	61	453	253	271	13		
Outside EHEA	2 140	2 445	2 997	2 660	2 267	832	1 427	2 198	2 159	1 054	568	550	152		

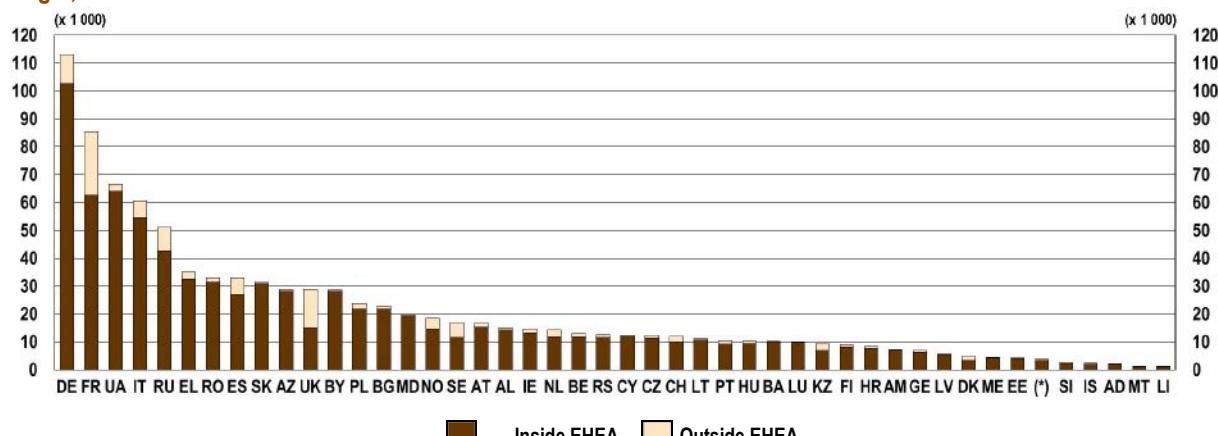
Source: Eurostat, UOE and additional collection for the other EHEA countries.

Outward degree mobility

Figure 7.12 presents the number of outward degree mobile students inside and outside the EHEA. In total, around 810 000 students from EHEA countries are studying abroad. When looking at absolute numbers, the big EHEA countries like Germany, France, Ukraine and Italy show the highest numbers of outgoing mobile students. Some medium size countries like Greece and Slovakia also have significant numbers of outwardly mobile students, especially inside the EHEA.

Similarly to data for the previous two Bologna reporting exercises, Figure 7.12 shows that Germany sends the highest number of students for a degree in another EHEA country. Indeed, nearly 102 800 students (a similar number in 2011/12 and 76 717 in 2008/09) move from Germany to study in another EHEA country, representing 12.3 % of the total number of EHEA students being abroad within the EHEA.

Figure 7.12: Number of outward degree tertiary education students inside and outside the EHEA by country of origin, 2014/15



(*): the former Yugoslav Republic of Macedonia

Data Figure 7.12

	DE	FR	UA	IT	RU	EL	RO	ES	SK	AZ	UK	BY	PL	BG	MD	NO
Inside EHEA	102 726	62 729	64 191	54 675	42 808	32 719	31 701	27 118	30 866	28 283	15 201	28 293	21 842	21 877	19 695	14 797
Outside EHEA	10 573	22 794	2 532	6 065	8 409	2 446	1 410	5 862	645	654	13 649	411	1 969	1 201	355	3 674
	SE	AT	AL	IE	NL	BE	RS	CY	CZ	CH	LT	PT	HU	BA	LU	KZ
Inside EHEA	11 532	15 480	14 319	13 378	11 730	11 775	11 531	12 036	11 384	10 095	10 809	9 401	9 468	10 044	9 952	6 925
Outside EHEA	5 465	1 330	792	1 472	2 576	1 374	1 188	446	1 089	1 987	448	1 263	1 023	351	127	2 658
	FI	HR	AM	GE	LV	DK	ME	EE	(*)	SI	IS	AD	MT	LI		
Inside EHEA	8 216	7 897	7 146	6 393	5 429	3 514	4 243	3 989	3 444	2 429	2 138	2 064	1 115	994		
Outside EHEA	940	631	287	572	350	1 345	121	289	350	267	484	15	42	5		

(*): the former Yugoslav Republic of Macedonia

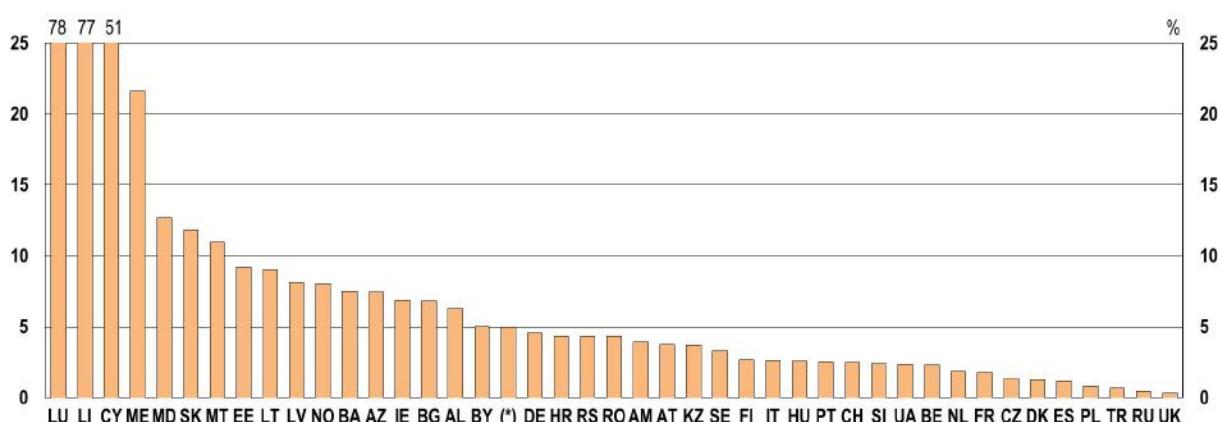
Source: Eurostat, UOE and additional collection for the other EHEA countries.

The country distribution of outgoing mobility flows within the EHEA is more diverse than the one leaving the EHEA. The top 8 countries cover half of the total outward mobility flow. Germany accounts for 12.3 %, Ukraine 7.7 %, France 7.5 % and Italy 6.5 % of the outward mobile students within the EHEA.

The largest numbers of students moving to non-EHEA countries originate from France and the United Kingdom – with 20 % and 12 % they represent almost a third of all outward mobile students of the EHEA towards non-EHEA countries. German and Russian students make up respectively 9.5 % and 7.5 % of all outgoing mobile students leaving the EHEA, whereas Italy and Spain, account for 5.4 % and 5.2 % respectively. In total, the top 6 countries cover almost two thirds of all outward mobility flows of the EHEA countries.

Figure 7.13 shows the number of graduates who have graduated abroad in another EHEA country as a percentage of the total number of graduates of the same country of origin. More than seven out of ten graduates in Luxembourg and Liechtenstein, and more than five in Cyprus, have received their tertiary education abroad. The lowest shares of less than 1 % is found in the United Kingdom, Russia, Turkey and Poland where only a very small share of the graduates completed degrees outside their country of origin.

Figure 7.13: Outward degree mobility rate – mobile tertiary education graduates within the EHEA as a percentage of all graduates of the same country of origin, by country of origin, 2014/15



(*): the former Yugoslav Republic of Macedonia

LU	LI	CY	ME	MD	SK	MT	EE	LT	LV	NO	BA	AZ	IE	BG	AL	BY	(*)	DE	HR	RS	RO
77.5	77.4	50.7	21.6	12.7	11.9	11.0	9.2	9.0	8.1	8.0	7.5	7.5	6.9	6.8	6.3	5.1	5.0	4.5	4.4	4.3	4.3
AM	AT	KZ	SE	FI	IT	HU	PT	CH	SI	UA	BE	NL	FR	CZ	DK	ES	PL	TR	RU	UK	
3.9	3.8	3.7	3.3	2.7	2.6	2.6	2.5	2.5	2.4	2.3	2.3	1.9	1.8	1.4	1.3	1.2	0.8	0.7	0.5	0.3	

Source: Eurostat, UOE and additional collection for the other EHEA countries.

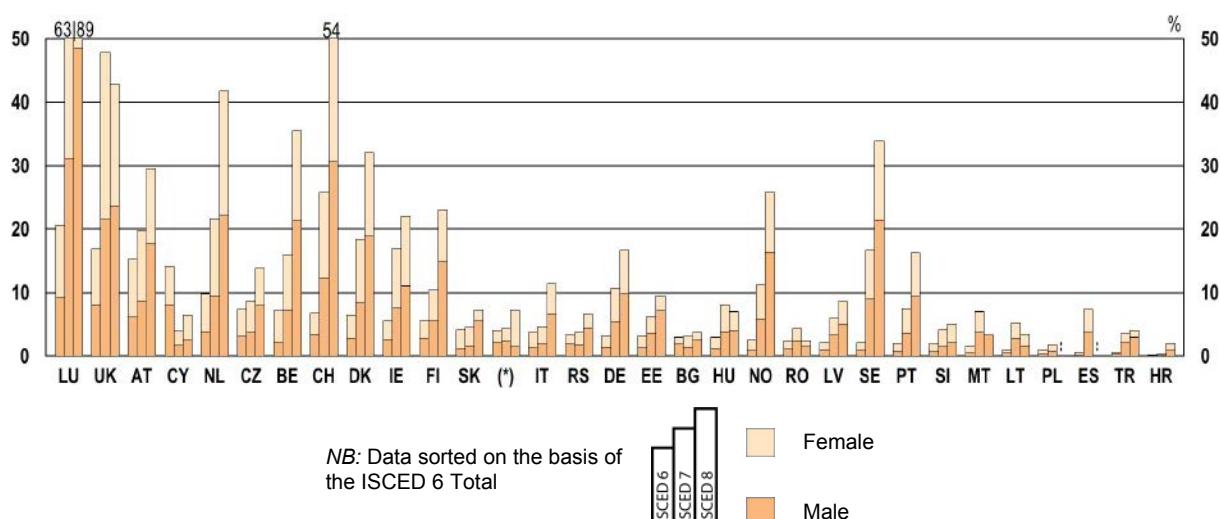
Figure 7.14 presents information about some of the characteristics of degree mobile graduates. Data on education level, sex and country of origin shows that among first-cycle graduates (ISCED 6), Luxembourg has again one of the highest shares of international graduates (21%), followed by the United Kingdom (17 %), Austria (15 %) and Cyprus (14 %). The lowest shares of international graduates are in Croatia, Turkey, and Spain (below 1 %). The share of females among these international graduates is above 50 % in most of the countries, except in Turkey, Serbia, Bulgaria, the former Yugoslav Republic of Macedonia, Cyprus and Finland.

For second-cycle graduates (ISCED 7), similar countries are to be found amongst those with the highest shares of 20 % or above: Luxembourg, the United Kingdom, Austria, Netherlands, but also Switzerland. At this level, the number of countries who report a majority of female incoming mobile students is lower. In 12 countries, the gender distribution is equal or in favour of male incoming mobile students.

At doctoral level (ISCED 8), there are only five countries that report more than 50 % or more of their incoming mobile students are female.

In most countries, the share of international graduates increases as ISCED levels rise, reaching in ISCED 8 almost 90 % incoming mobile graduates in Luxembourg, 54 % in Switzerland and 43 % in the United Kingdom.

Figure 7.14: Share of degree mobile graduates from abroad by education level, sex and country of origin, 2014/15



(*): the former Yugoslav Republic of Macedonia

ISCED 6	LU	UK	AT	CY	NL	CZ	BE	CH	DK	IE	FI	SK	(*)	IT	RS	DE	EE	BG	HU	NO	RO	LV	SE	PT	SI	MT	LT	PL	ES	TR	HR
Total	20.7	16.9	15.3	14.2	9.9	7.4	7.2	6.9	6.6	5.6	5.6	4.2	4.1	3.8	3.3	3.2	3.2	3.0	3.0	2.6	2.5	2.2	2.2	2.1	2.0	1.7	1.1	1.1	0.6	0.6	0.2
Male	9.3	8.1	6.2	8.1	3.9	3.1	2.2	3.4	2.9	2.7	2.9	1.3	2.2	1.4	2.0	1.5	1.4	2.0	1.3	0.9	1.2	1.1	0.9	0.8	0.7	0.5	0.5	0.4	0.2	0.1	
Female	11.4	8.8	9.1	6.1	6.0	4.3	5.0	3.5	3.7	2.9	2.7	2.9	1.9	2.4	1.3	1.7	1.8	1.0	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.2	0.6	0.7	0.4	0.2	0.1
ISCED 7	LU	UK	AT	CY	NL	CZ	BE	CH	DK	IE	FI	SK	(*)	IT	RS	DE	EE	BG	HU	NO	RO	LV	SE	PT	SI	MT	LT	PL	ES	TR	HR
Total	63.0	47.8	19.8	4.0	21.7	8.7	16.0	25.9	18.5	17.0	10.5	4.6	4.4	4.7	3.8	10.8	6.3	3.1	8.1	11.2	4.4	6.0	16.7	7.5	4.2	7.1	5.3	1.9	7.4	3.5	0.4
Male	31.2	21.6	8.7	1.8	9.6	3.8	7.3	12.4	8.4	7.6	5.6	1.7	2.5	2.0	1.9	5.5	3.6	1.5	3.9	5.9	2.5	3.3	9.0	3.6	1.6	3.7	2.9	0.8	3.7	2.2	0.2
Female	31.8	26.2	11.1	2.2	12.1	4.9	8.7	13.5	10.1	9.4	4.9	2.9	1.9	2.7	1.9	5.3	2.7	1.6	4.2	5.3	1.9	2.7	7.7	3.9	2.6	3.4	2.4	1.1	3.7	1.3	0.2
ISCED 8	LU	UK	AT	CY	NL	CZ	BE	CH	DK	IE	FI	SK	(*)	IT	RS	DE	EE	BG	HU	NO	RO	LV	SE	PT	SI	MT	LT	PL	ES	TR	HR
Total	88.8	43.0	29.6	6.5	41.8	13.9	35.5	54.0	32.1	22.1	23.2	7.3	7.3	11.4	6.8	16.7	9.6	3.7	7.1	25.9	2.5	8.6	33.9	16.3	5.1	3.3	3.4	:	:	4.1	2.1
Male	48.6	23.7	17.8	2.6	22.2	8.0	21.4	30.7	19.0	11.1	15.0	5.6	1.6	6.8	4.5	9.9	7.2	2.6	4.1	16.4	1.6	5.1	21.5	9.5	2.2	3.3	1.7	:	:	3.0	1.0
Female	40.2	19.3	11.8	3.9	19.6	5.9	14.1	23.3	13.1	11.0	8.2	1.7	5.7	4.6	2.3	6.8	2.4	1.1	3.0	9.5	0.9	3.5	12.4	6.8	2.9	0.0	1.7	:	:	1.1	1.1

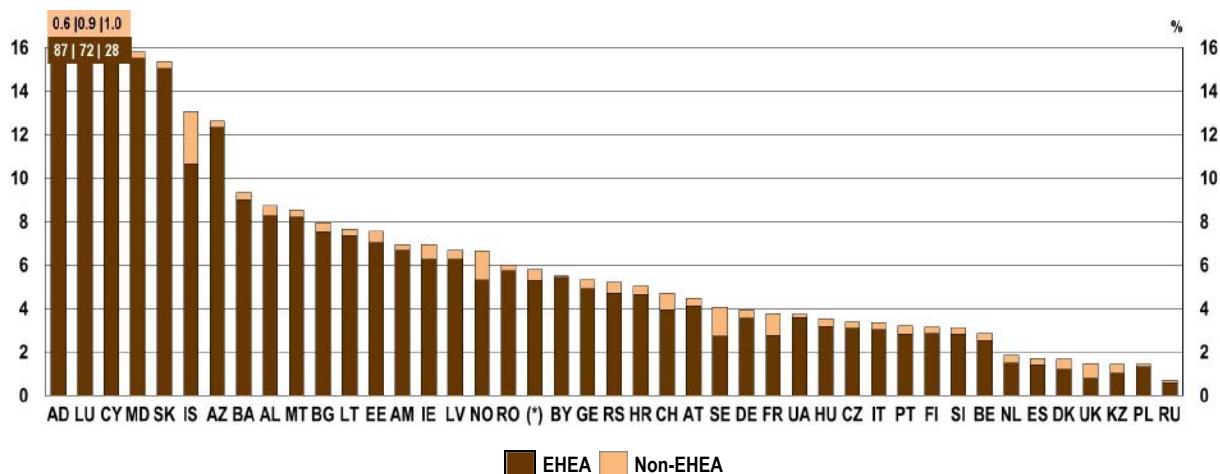
Source: Eurostat, UOE and additional collection for the other EHEA countries.

Figure 7.15 shows the share of tertiary students enrolled for a degree abroad, distinguishing between the EHEA and non-EHEA countries. It links the outward mobile students of a country to the total population of students with the same country of origin. It thus measures the mobility of a population that has the same country of origin (i.e. the same prior education or the same usual residence or the same citizenship). As mentioned above, the results provided by this figure should be considered with caution since countries do not all use the same criterion to define the mobile population. For instance, the fact that some citizens of the United Kingdom permanently live in countries of the Commonwealth could lead to an over-estimation of outward flows if these countries use the citizenship criterion to report enrolment by country of origin. In addition, outward mobility is counted only towards the EHEA countries for which data is available and a few selected non-EHEA countries i.e. Australia, Canada, Japan, New Zealand and the United States. This leads to an underestimation of the outgoing mobile students to non-EHEA countries and influences the findings, since these are not the main destination countries of all students.

Figure 7.15 shows that almost 9 out of 10 students originating from Andorra and 7 out of 10 from Luxembourg study outside their country of origin and almost all of them do so in the EHEA. Similar to the last 2015 Bologna Process Implementation report Cyprus, Slovakia, Moldova and Iceland also show quite high shares of outgoing mobile students. In this group, while mobile students from the first three countries are mostly staying within the EHEA, the Icelandic students show a more pronounced orientation towards non-EHEA countries. In fact, Iceland sends 2.4 % of their student population to non-EHEA countries, which corresponds to 18 % of all outgoing mobile students (see Figure 7.12).

In the majority of reporting countries the share of outgoing students staying within the EHEA is above 80 %. Around a quarter of outgoing mobile students from France and Denmark are leaving the EHEA for their studies. In Sweden this affects around a third and in the United Kingdom around half of their outgoing student population. However, this is also related to the outward countries covered in this indicator (see note above).

Figure 7.15: Share of tertiary students enrolled abroad (degree mobility), by country of origin, 2014/15



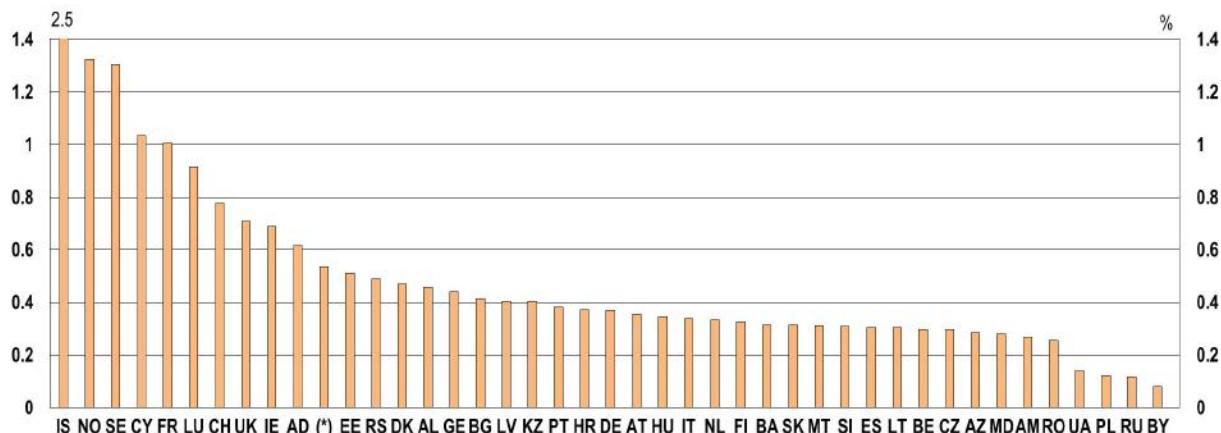
(*): the former Yugoslav Republic of Macedonia

	AD	LU	CY	MD	SK	IS	AZ	BA	AL	MT	BG	LT	EE	AM	IE	LV	NO	RO	(*)	BY	GE	RS
EHEA	87.1	72.1	27.9	15.5	15.1	10.7	12.4	9.0	8.3	8.2	7.5	7.4	7.0	6.7	6.3	6.3	5.3	5.7	5.3	4.9	4.7	
non-EHEA	0.6	0.9	1.0	0.3	0.3	2.4	0.3	0.3	0.5	0.3	0.4	0.3	0.3	0.5	0.3	0.7	0.4	1.3	0.3	0.5	0.1	0.4
	HR	CH	AT	SE	DE	FR	UA	HU	CZ	IT	PT	FI	SI	BE	NL	ES	DK	UK	KZ	PL	RU	
EHEA	4.7	3.9	4.1	2.8	3.6	2.8	3.6	3.2	3.1	3.0	2.8	2.8	2.8	2.6	1.5	1.4	1.2	0.8	1.1	1.3	0.6	
non-EHEA	0.4	0.8	0.4	1.3	0.4	1.0	0.1	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.5	0.7	0.4	0.1	0.1	

Source: Eurostat, UOE and additional collection for the other EHEA countries.

In addition to the comparison between outward degree mobility inside and outside the EHEA (see Figure 7.15), the outward mobile student rate to non-EHEA countries alone can also be considered (see Figure 7.16). Apart from Iceland, two other Nordic countries, Norway and Sweden, show the highest shares. Cyprus also has a high value of 1 %. However, when looking at the share of students originating from Cyprus who study in other EHEA countries (28 %), this one per cent does not have such an impact (96 % of all outgoing students from Cyprus stay within the EHEA).

Figure 7.16: Outward degree mobility rate – tertiary education students studying abroad outside the EHEA as a percentage of the total number of students of the same country of origin, 2014/15



(*): the former Yugoslav Republic of Macedonia

IS	NO	SE	CY	FR	LU	CH	UK	IE	AD	FY	EE	RS	DK	AL	GE	BG	LV	KZ	PT	HR	DE
2.41	1.33	1.30	1.04	1.00	0.92	0.78	0.71	0.69	0.61	0.54	0.51	0.49	0.47	0.46	0.44	0.41	0.40	0.40	0.38	0.37	
AT	HU	IT	NL	FI	BA	SK	MT	SI	ES	LT	BE	CZ	AZ	MD	AM	RO	UA	PL	RU	BY	ØP EHEA
0.35	0.35	0.34	0.33	0.33	0.32	0.31	0.31	0.31	0.31	0.30	0.30	0.30	0.29	0.28	0.27	0.26	0.14	0.12	0.12	0.08	2.18

ØP EHEA = EHEA weighted average

Source: Eurostat, UOE and additional collection for the other EHEA countries.

The trend in the United Kingdom shows a different pattern: this country has high rates of incoming students from inside and outside the EHEA (see Figure 7.10), but very low rates of outgoing students overall: indeed less than 2 % of British students study abroad. The share of outgoing students to non-EHEA countries, however, is relatively high (0.7 % is the 8th highest share in the EHEA), but with only 0.8 % of the student population studying in other EHEA countries, the overall share remains very low.

Mobility balance

The aspiration for more balanced mobility was reinforced in the Bucharest Communiqué⁽¹³⁰⁾ and the 2012 Mobility Strategy, in which EHEA ministers asked for more balanced mobility (especially for degree mobility), 'since it has a sustained effect on the host and home countries, can facilitate capacity building and cooperation and may lead to brain gain on the one side and to brain drain on the other'⁽¹³¹⁾. That being said, it may be worth pointing out that there is no definition of 'balanced mobility' at European level⁽¹³²⁾.

The concept of balanced mobility has various aspects. For example, assuming that mobility is desirable, balanced mobility at low levels of mobility (low incoming and low outward mobility rates) may be perceived as less positive than balanced mobility at high levels (high incoming and high

⁽¹³⁰⁾ Bucharest Communiqué: Making the Most of Our Potential: Consolidating the European Higher Education Area, 26-27 April 2012, p. 4.

⁽¹³¹⁾ Mobility for Better Learning. Mobility strategy 2020 for the European Higher Education Area (EHEA), 2012, p. 2.

⁽¹³²⁾ The Working Group on Mobility (2009-2012) tried to elaborate an appropriate definition of 'balanced mobility' without reaching a final conclusion. Nevertheless, several main ideas were put forward, such as: 'Even if there are specific imbalances, mobility itself is good and therefore should not be restrained' and 'Only awareness and capacity building in the home countries can sustainably reduce brain drain'.

outward mobility rates). Balanced or imbalanced mobility may also hide geographical disparities, as only two areas are considered: the EHEA (see Figure 7.17) and a selected group of non-EHEA countries (see Figure 7.18).

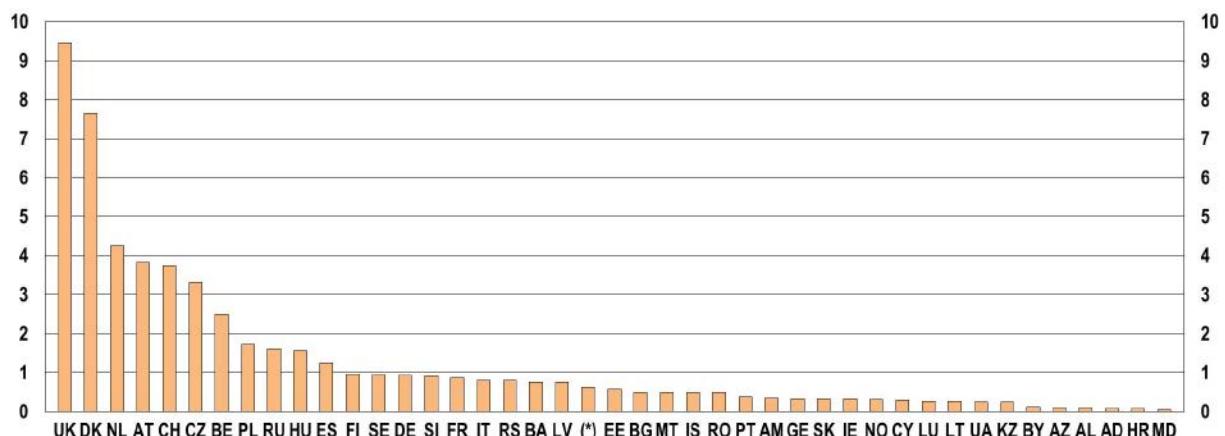
Figures 7.17 and 7.18 aim to identify 'net importing countries' (ratio greater than 1 – the country receives more mobile students than it sends), 'net exporting countries' (ratio below 1 – the country sends abroad more students than it hosts) and countries experiencing balanced mobility (ratio equal to 1).

Figure 7.17 shows that most EHEA countries are net exporters of students towards other EHEA countries (ratio below 1 – more outgoing than incoming students). In total, 11 countries are net importers of students with the rest of the EHEA (ratio above 1 – more incoming than outgoing students). These net importers are mostly Western or Central European countries (the United Kingdom, Denmark, the Netherlands, Austria, Switzerland, the Czech Republic, Belgium, Poland, Hungary, and Spain) and Russia. The United Kingdom has the most imbalanced rate of incoming and outgoing students within the EHEA. Similar to the previous Bologna Process reporting exercises they report nine times more incoming mobile students than outgoing ones (from EHEA countries, to EHEA countries respectively). Similar patterns as in the last round can be observed also for Denmark, the Netherlands, Austria, Switzerland, the Czech Republic and Belgium; these countries also have very imbalanced mobility flows and are strong net importing countries by a factor of 2.5 or higher.

The top net exporting countries are situated in the Balkans or Eastern Europe (Moldova, Croatia and Albania), but also Andorra has a very high share of outward mobile students.

In comparison with the 2015 Bologna Process Implementation Report, several countries (France, Portugal, the United Kingdom, Italy and Hungary) register a significant decrease of the within EHEA incoming/outgoing ratio. On the other hand, an increase of more than factor 2 is observed in Armenia, Cyprus, Estonia, Lithuania, Latvia, the former Yugoslav Republic of Macedonia and Poland. These countries have a higher imbalance towards incoming students than reported for 2011/12 (¹³³).

Figure 7.17: Mobility balance: Incoming/outgoing tertiary students ratio within the EHEA, 2014/15



(*) the former Yugoslav Republic of Macedonia

UK	DK	NL	AT	CH	CZ	BE	PL	RU	HU	ES	FI	SE	DE	SI	FR	IT	RS	BA	LV	(*)	EE
9.45	7.65	4.25	3.83	3.74	3.31	2.50	1.72	1.61	1.56	1.24	0.95	0.95	0.92	0.90	0.86	0.80	0.80	0.76	0.74	0.63	0.57
BG	MT	IS	RO	PT	AM	GE	SK	IE	NO	CY	LU	LT	UA	KZ	BY	AZ	AL	AD	HR	MD	ØP EHEA
0.50	0.49	0.49	0.49	0.37	0.34	0.33	0.33	0.33	0.32	0.29	0.27	0.27	0.26	0.25	0.12	0.11	0.10	0.07	0.07	0.04	1.09

ØP EHEA = EHEA weighted average

Source: Eurostat, UOE and additional collection for the other EHEA countries.

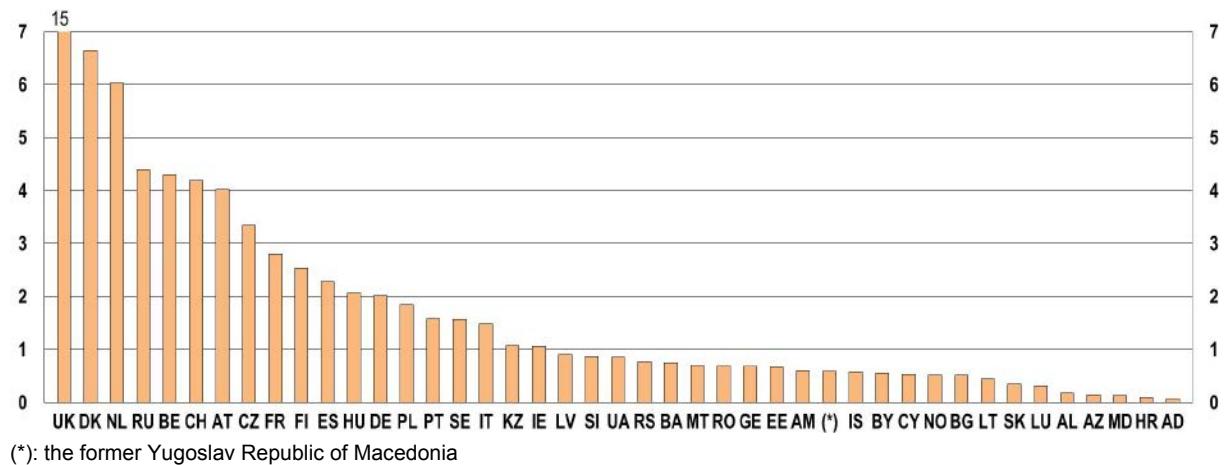
(¹³³) At least partially, some of these trends might be influenced by the change of the definition of mobile student (see above).

Figure 7.18 aims to show whether the situation changes when mobility outside the EHEA in selected countries (¹³⁴) is also taken into account. Indeed a significant rise in the number of net importing countries can be observed. In total, 17 countries report substantially more incoming mobile students than outgoing (by at least factor 1.5). In addition to the eleven counties already mentioned above (see Figure 7.17), Finland, France, Germany, Italy, Portugal and Sweden are clear net importing countries. Kazakhstan, Ireland and Latvia have a balanced incoming/outgoing ratio.

On the other side of the spectrum, the inclusion of non-EHEA countries does not change the picture significantly. Andorra, Croatia, Moldova and Azerbaijan, as well as Albania, are still among the highest imbalanced net exporting countries, even when taking the non-EHEA countries into account.

Again, the incoming/outgoing ratio outside the EHEA (Figure 7.18) suffers from under-coverage as only a selection of non-EHEA countries are considered in the indicators on outward mobility. This under-coverage has a differentiated impact on countries. Countries with privileged linguistic, cultural and historical links with some areas of the world, or specific regional agreements are likely to be more impacted by the geographical under-coverage of the data.

Figure 7.18: Mobility balance: Incoming/outgoing tertiary students ratio within and outside the EHEA, 2014/15



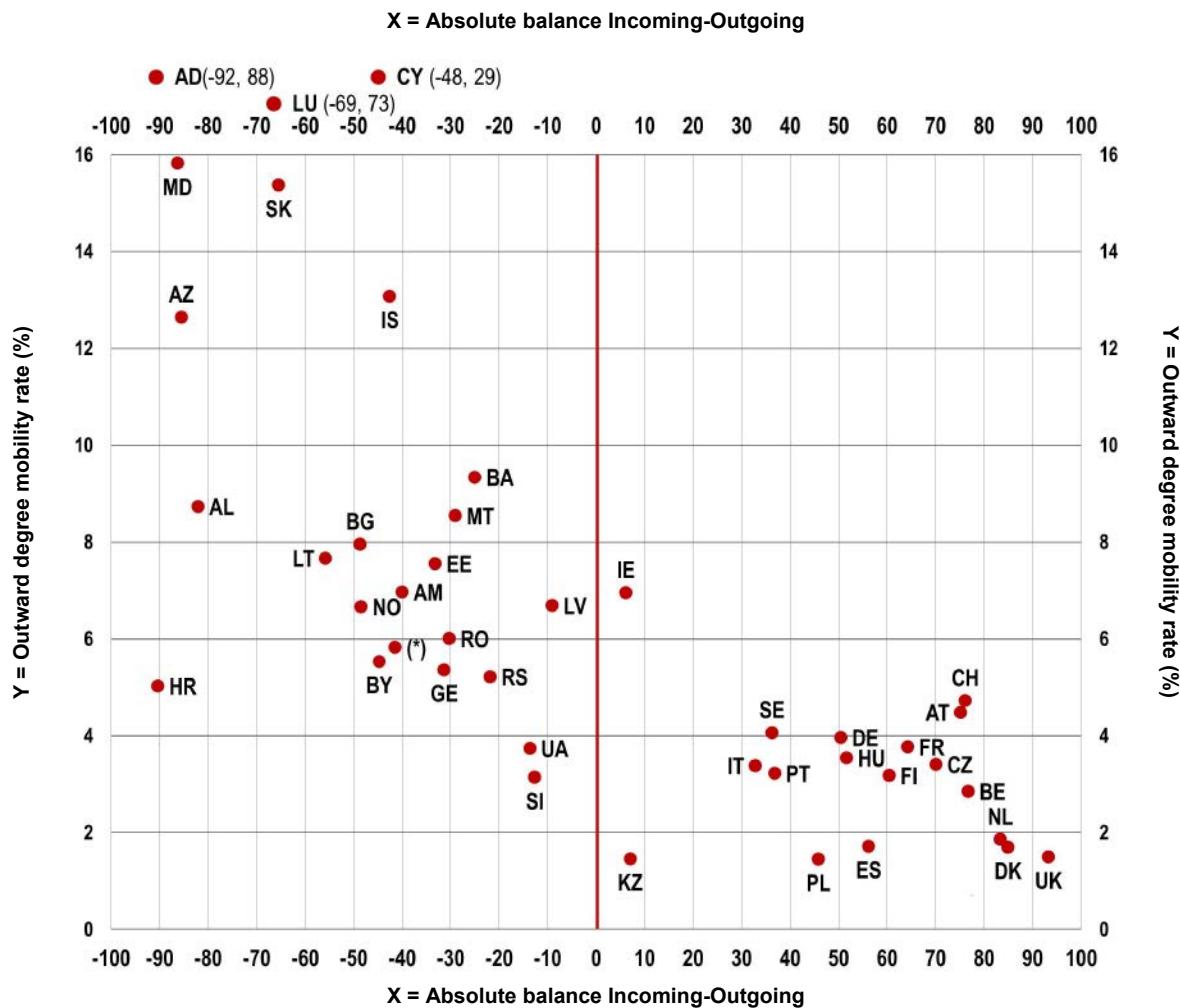
ØP = EHEA weighted average

Source: Eurostat, UOE and additional collection for the other EHEA countries.

(¹³⁴) Australia, Canada, Japan, New Zealand and the United States.

Figure 7.19 gives more information on the mobility balance. It shows a strong relation between the mobility balance (X axis) (¹³⁵) and the outward mobility rate (Y axis) (¹³⁶): the higher the importing balance (on the X axis), the lesser the outward mobility rate (on the Y axis).

Figure 7.19: Balance as a measure of the attractiveness of the education system of the country at tertiary education level (mobility flows within and outside EHEA), 2014/15



Source: Eurostat, UOE and additional collection for the other EHEA countries.

Notes:

Countries more to the right have a high imbalance towards incoming mobility, while countries more to the left have a high imbalance towards outward mobility and countries closer to the middle are more balanced.

Countries up in the chart have high levels of outward mobility and countries down in the chart have lower levels of outward mobility.

Negative balance means that outward mobility is higher than inward mobility. Positive balance means that inward mobility is higher than outward mobility.

⁽¹³⁵⁾ The X axis is the same balance concept as shown above, but computed on a different scale for graphical readability purpose. Indeed, in order to avoid a scale ranging to more than 10 units while most countries are below 1 (incoming/outgoing ratios, see Figure 7.17), the absolute difference (incoming – outgoing students) is computed and then divided by the total number of incoming students (when the balance is positive) or by the total number of outgoing students (in case of negative balance). This results in a smoother continuum, more readable when plotted.

⁽¹³⁶⁾ Both axes include mobility flows within and outside the EHEA.

There are interesting differences within the group of net importers and exporters respectively. The United Kingdom, Denmark and the Netherlands are very imbalanced importing countries, with very low shares of outgoing mobile students (measured against all students originated from these countries), whereas Switzerland and Austria keep their outward mobility rates significantly higher.

Among countries with highly imbalanced outgoing mobility flows (Croatia, Albania, Azerbaijan, Moldova and Andorra) even bigger differences in the outward mobility rates are evident.

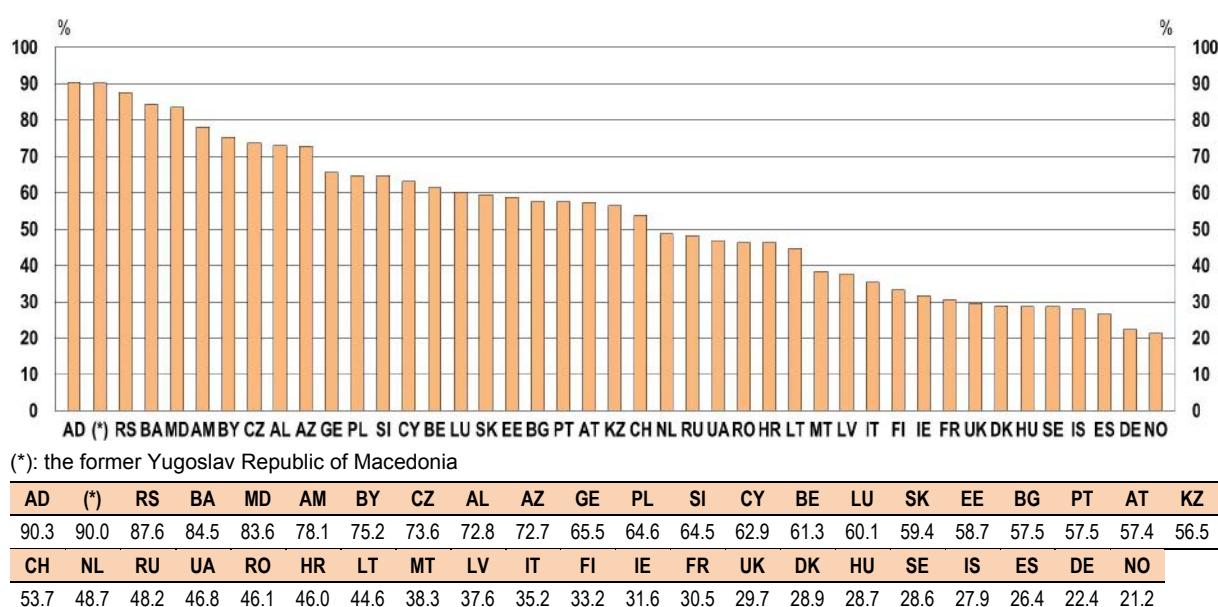
The balance of mobility flows can be shown also in terms of the share of the top three countries for inward and outward mobility.

The indicator on the top three countries of origin (see Figure 7.20) computes the number of mobile tertiary students enrolled in a given country from the top three countries of origin, as a percentage of all mobile students enrolled in the country. A high percentage means that the top three countries provide most of the incoming students in the country. Similarly to other indicators, the restriction of the geographical coverage to some countries outside the EHEA (see list above) is a clear limitation, especially for those countries that receive students from countries that are not in the selection.

Andorra, the former Yugoslav Republic of Macedonia, Serbia, Bosnia and Herzegovina and Moldova show the least diverse incoming mobile student body – above 80 % of the incoming students are from the respective top three countries of origin. In the great majority of these cases, the top three countries of origin are also neighbouring countries. More generally, geographical proximity, the share of common languages of instruction or historical legacies may not be negligible in determining the origin of incoming students in some countries.

Incoming mobile students in Germany and Norway appear to have the most diverse geographical background. Less than a quarter of the incoming mobile students in these countries are covered when looking at the three most common countries of origin. Apart from the Swedish students in Norway, the biggest inward mobility flows in these countries come from China and Russia, as well as India for Germany. Indeed countries with high shares of incoming students from non-EHEA countries generally show more diversity regarding the countries of origin.

Figure 7.20: Student mobility flows: Top three countries of ORIGIN (INWARD) in %, 2014/15



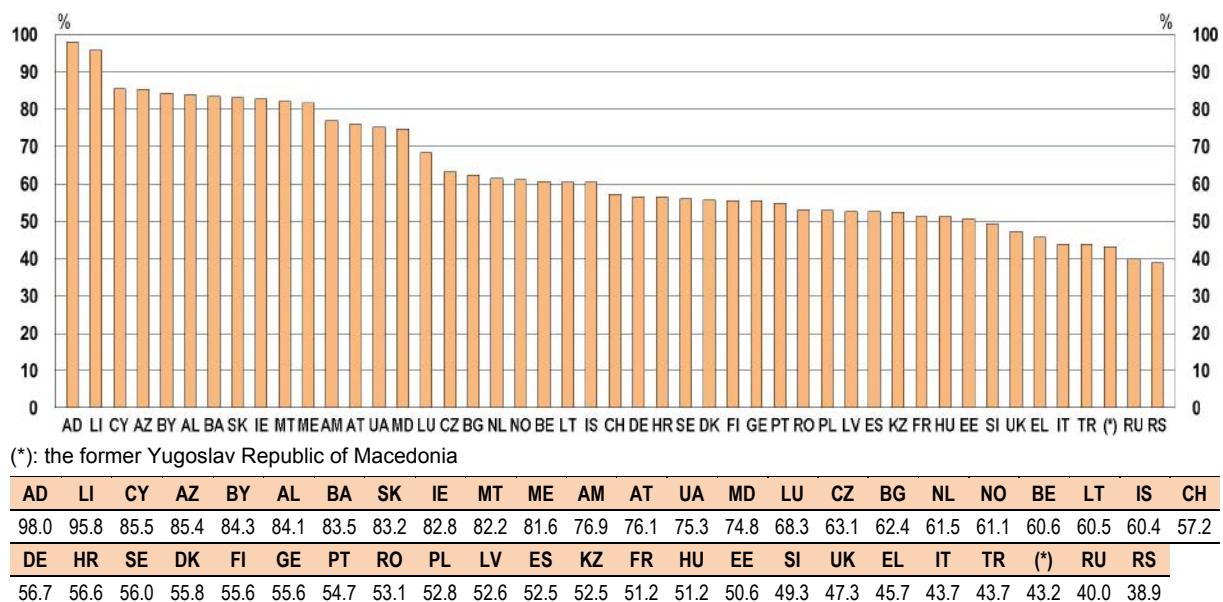
Source: Eurostat, UOE and additional collection for the other EHEA countries.

The indicator on the top three countries of destination (see Figure 7.21) computes the number of mobile tertiary students of a given country of origin enrolled in the top three destinations, as a percentage of all mobile tertiary students of that country. The variety of destinations is impacted by factors similar to the previous indicator. At national level, the various measures aimed at fostering student mobility also have an impact on the diversity, since they usually prioritise particular geographical regions, sub-geographical areas or specific countries for privileged cooperation.

Looking at the outward diversity, Andorra and Liechtenstein show the least diverse mobility patterns. More than 95 % of outgoing students of these countries study in only three countries of destination. For Andorra these countries are Spain, France and Portugal and for Liechtenstein, these countries are Switzerland, Austria, and Germany. Mobile students from Serbia, Russia, the former Yugoslav Republic of Macedonia, Turkey, Italy, Greece and the United Kingdom make more diverse choices – the top three destinations covering a maximum of 47 % of all outgoing mobile students.

In comparison with the 2015 Bologna Process Implementation Report, some changes in these two indicators can be seen. Regarding inwards diversity, almost all countries have become more diverse and have reduced the share of the students from the top three countries amongst their incoming students. Regarding outwards diversity, there is no clear trend towards more or less diversity.

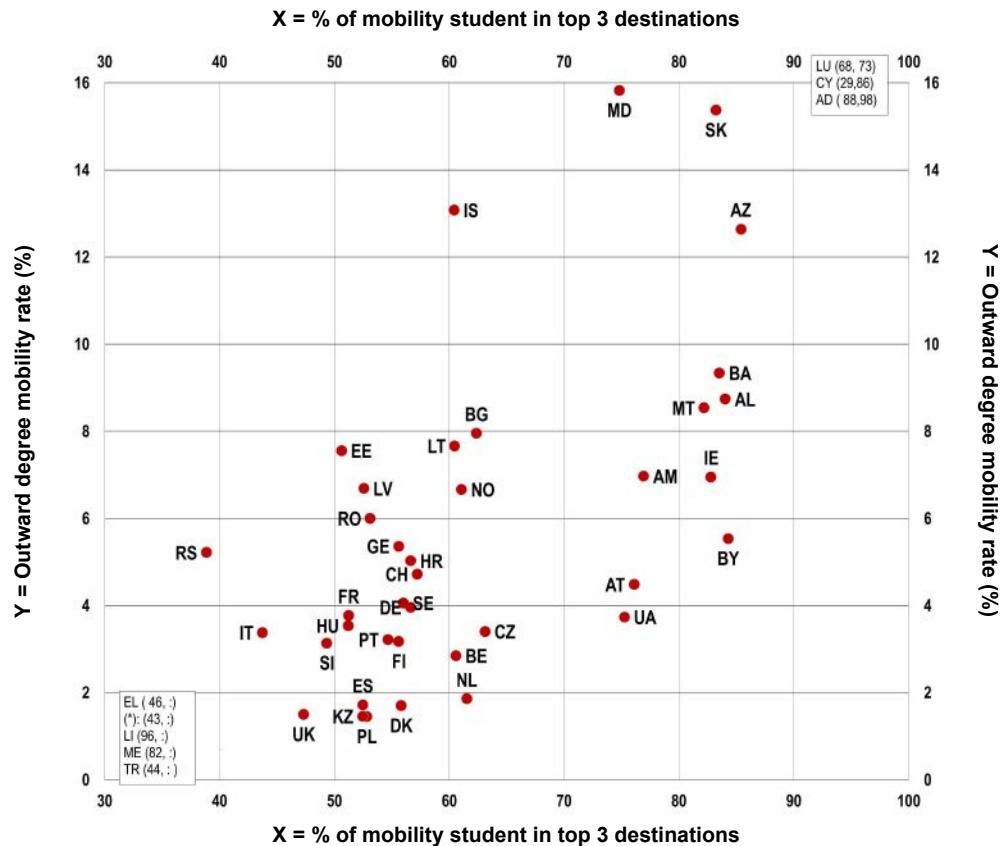
Figure 7.21: Student mobility flows: Top three countries of DESTINATION (OUTWARD) in %, 2014/15



Source: Eurostat, UOE and additional collection for the other EHEA countries.

The data presented in Figure 7.22 points to a negative correlation between high outward mobility rates and diversity of countries of destination. Students from countries with high outward mobility rates show also a high concentration on only three destinations. The other way round, students from countries with rather low outgoing mobility rates seem to be more diverse in their choice of destinations.

Figure 7.22: Outward mobility versus diversity of destination countries (mobility flows within and outside the EHEA) 2014/15



(*): the former Yugoslav Republic of Macedonia

Source: Eurostat, UOE and additional collection for the other EHEA countries.

7.2.3. Policy factors that influence student mobility

Obstacles to student mobility

Statistical data that have been presented in this chapter show that relatively limited numbers of students are mobile in proportion to the EHEA student population. This situation may partly be explained by the fact that many obstacles continue to prevent a number of students from being mobile.

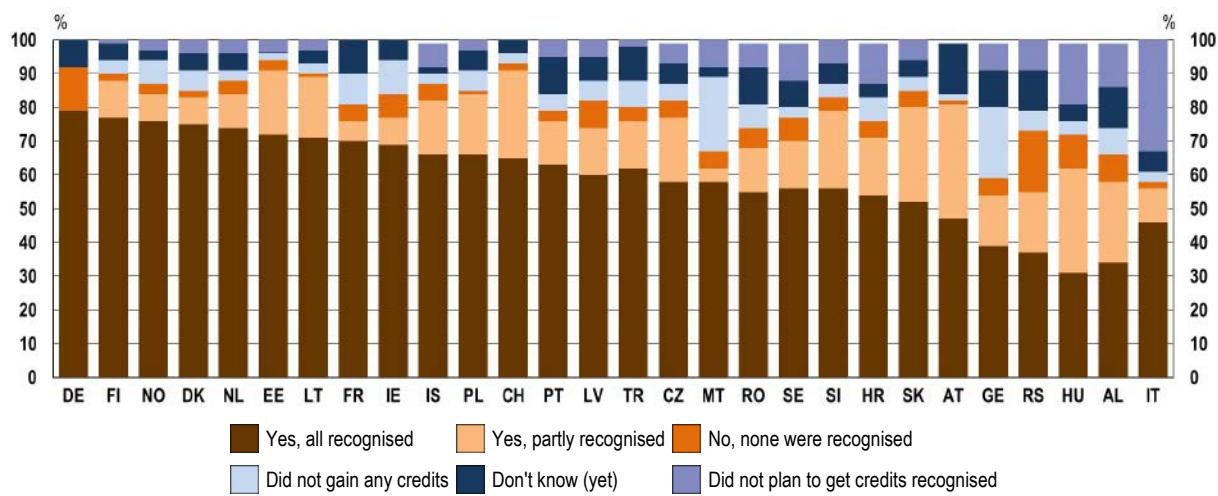
Both the Bucharest Communiqué and the Mobility Strategy stress the importance of removing existing obstacles to mobility. The 2015 Bologna Process Implementation Report analysed data on the perceptions of national authorities and students on the most important obstacles to student mobility. Countries and students both ranked financial issues as the main obstacle to mobility. They also gave a similar priority to study/curriculum organisation and language-related barriers. Students' personal situation was another significant obstacle cited by students themselves, while country answers gave more weight to issues related to recognition and information provision.

The Eurostudent VI survey includes updated information about student perceptions of obstacles to mobility and reveals that, similar to the Eurostudent V survey the 'additional financial burden' remains the main obstacle to mobility, followed by the 'separation from partner, children and friends' and the

'loss of a paid job' (DZHW, 2018, p. 219). Figure 7.23 presents Eurostudent information on credits (ECTS, certificates) that students have gained abroad after being temporarily enrolled abroad and returning to their home institution (credit mobility) (¹³⁷).

As with the data presented in the 2015 reporting exercise, it appears that full recognition of credits is a common practice in the majority of countries where data is available. Large differences nevertheless emerge between countries. For instance in Hungary, 31 % of students who have been enrolled abroad have seen their credits gained abroad recognised, while in Finland, this was the case for 77 % of students (¹³⁸). The share of students who do not get any recognition of credits seems to be relatively high in some countries analysed (Serbia and Hungary).

Figure 7.23: Recognition of credits gained during (most recent) enrolment abroad – Share of students who have been enrolled abroad (in %), 2015/16



Source: Eurostudent.

Portability of grants and loans

Countries in the EHEA implement a range of measures to foster mobility and tackle obstacles preventing it (European Commission/EACEA/Eurydice, 2016b). Some obstacles such as the re-organisation of programmes and strengthening of information provision can perhaps be addressed more easily than others. On the other hand, funding, improving language skills, recognition and legal issues might be more difficult to tackle as they require either increased financial means or further dialogue and coordination among various stakeholders at institutional, national or European levels.

(¹³⁷) For the use of the European Credit Transfer and Accumulation System (ECTS) in the context of student mobility, see Chapter 2, Section 2.2.

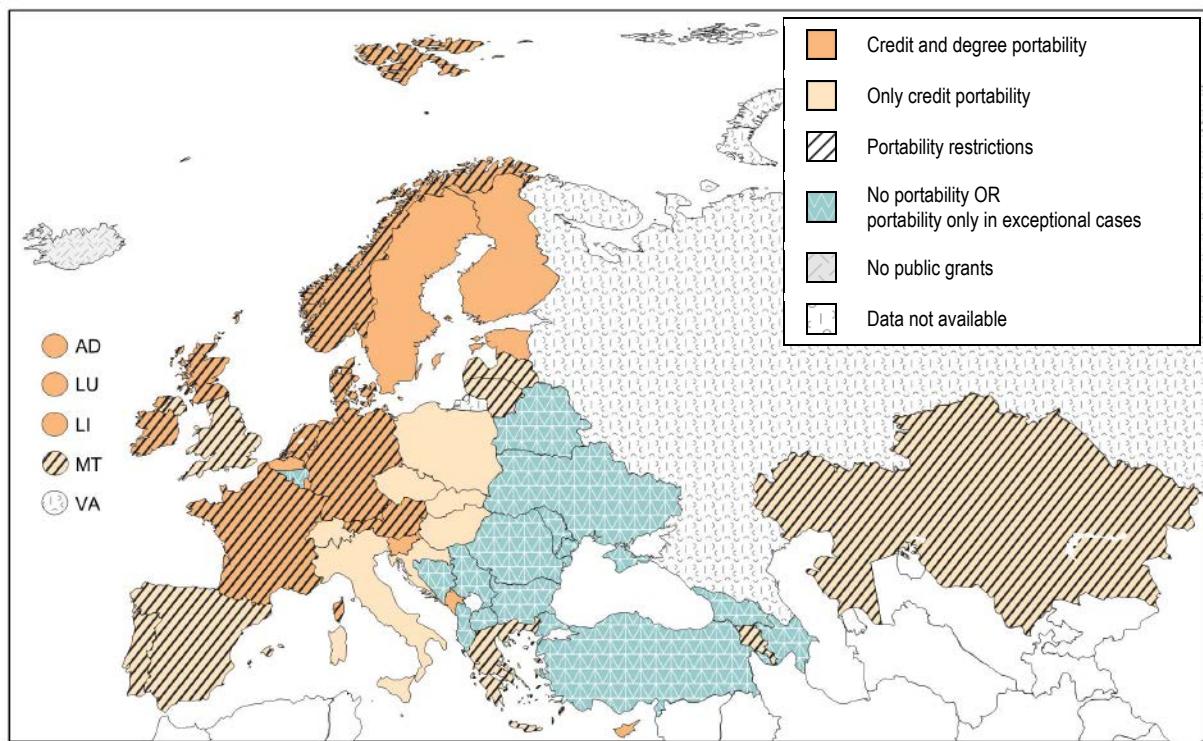
(¹³⁸) The data for Germany is not comparable with the other countries because there are fewer response options and therefore no distinction between 'full' and 'partial' recognition possible.

As the lack of funding seems to continue to be the most important barrier to student mobility (DZHW 2018, p. 219; European Commission/EACEA/Eurydice 2015, pp. 244-248), it would be important to address this issue as a priority.

One important aspect of mobility funding is the possibility for students to take domestic grants and/or loans to another EHEA system. This possibility – that is referred to as 'portability' – should ideally apply to both short-term study visits in the framework of a home-country programme (credit mobility) and entire-degree courses (degree mobility). The indicators that follow start by examining portability of public grants and publicly-subsidised loans (see Figures 7.24 and 7.25). These two aspects are then brought together in Scorecard indicator n°12 on portability (see Figure 7.26).

Figure 7.24 shows the main characteristics of portability in the case of grants. It distinguishes between portability for credit and degree mobility. It also provides details on portability restrictions, meaning additional requirements that students and/or the chosen study programme abroad need to fulfil for the grant to be portable. Such restrictions include, for example, the definition of countries where students can take their grants (e.g. portability within the European Economic Area only) or limits on the time spent abroad. The most severe restriction is when students can only take their grants abroad to study if no equivalent programme is available in the home country. Since this means that portability is allowed only in exceptional cases, countries applying this condition are represented in the same way as those having 'no portability'.

Figure 7.24: Portability of public grants, first and second cycle, 2016/17



Source: BFUG data collection.

Notes:

The figure covers domestic public grants, i.e. different types of grants issued by public authorities in the home country. It excludes public grants dedicated specifically to mobility.

The figure indicates that the most restrictive policies in terms of grant portability are found in Albania, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, the former Yugoslav Republic of Macedonia, Georgia, Romania, Serbia, Turkey and Ukraine. In general, students from these countries cannot use their domestic grants when studying abroad, be it for a short period of time (credit mobility) or a longer period (degree mobility). The French Community of Belgium and Moldova also appear in the same

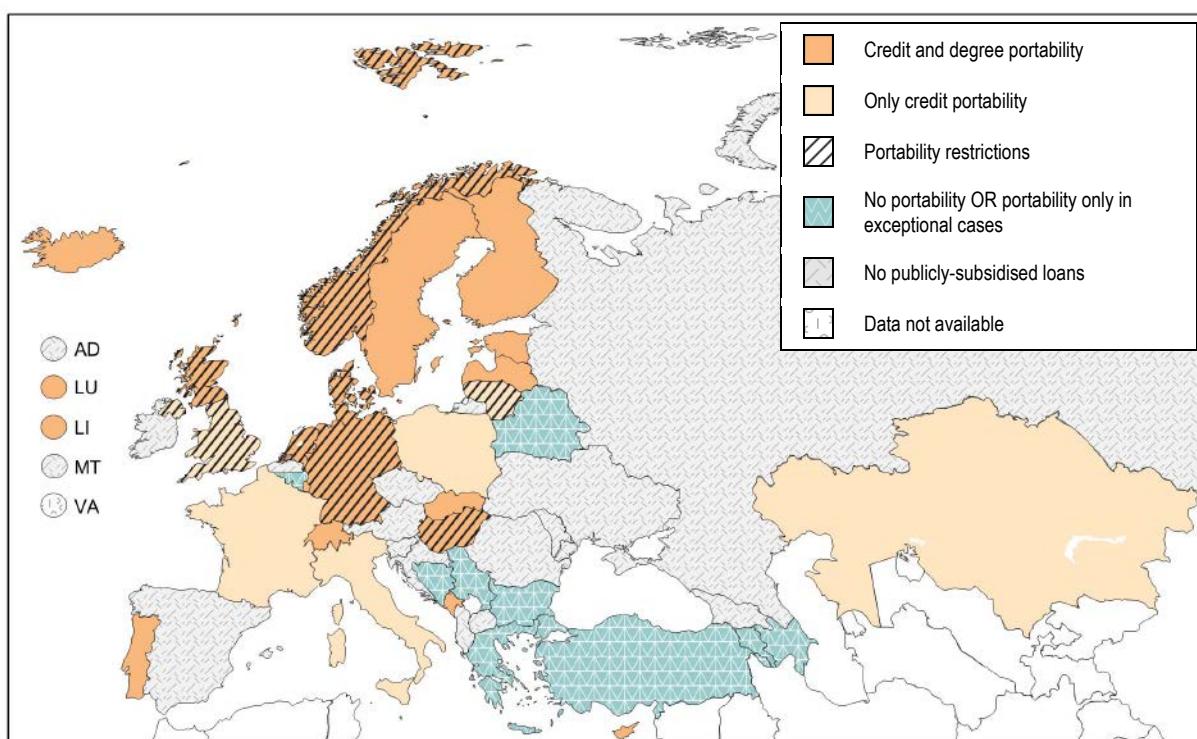
category, as grants are portable only in the case of programmes for which no equivalent exists in the home system.

In around one-third of all EHEA systems, portability of grants is limited to credit mobility, i.e. when students move abroad for a short period of time (e.g. a semester or an academic year) in the framework of their home-country programme. Some of these systems apply portability restrictions (Armenia, Greece, Kazakhstan, Latvia, Lithuania, Malta, Portugal, Spain and the United Kingdom – England, Wales and Northern Ireland), limiting, in particular, the portability of grants to programme exchanges within recognised schemes such as Erasmus (e.g. Greece, Latvia, Lithuania, Portugal and Spain).

In 18 EHEA systems, grants are portable for short mobility periods (credit mobility) as well as for longer periods, i.e. when the student intends to get a full degree abroad. Eight of these systems apply portability restrictions (Austria, Denmark, France, Germany, Ireland, the Netherlands, Norway and the United Kingdom – Scotland). For example, Germany limits degree portability of grants to the EU countries and to Switzerland, whereas the United Kingdom (Scotland) applies even stricter criteria, limiting its pilot degree portability scheme to a small number of selected higher education institutions in the EU. Ireland provides a further example of portability restrictions, limiting credit portability to mobility explicitly required by home programmes and degree portability to the EU countries.

Figure 7.25 examines whether publicly-subsidised loans are portable and, if yes, whether there are any portability-related restrictions. Information is structured along the same lines as was in the case of grants, so that the figure distinguishes between portability for credit and degree mobility, and identifies countries with portability restrictions.

Figure 7.25: Portability of publicly-subsidised loans, first and second cycle, 2016/17



Source: BFUG data collection.

Notes:

The figure covers publicly-subsidised loans, i.e. different types of loans subsidised by public authorities in the home country. It excludes publicly-subsidised loans dedicated specifically to mobility.

The figure shows that publicly-subsidised loans are offered in fewer than two-thirds of all EHEA systems, and are thus less widespread than public grants. Moreover, as the higher education mobility scoreboard shows (European Commission/EACEA/Eurydice 2016b, p. 29), some systems register only a negligible proportion of loan beneficiaries among their student population (e.g. less than 1 % in the French Community of Belgium, France, Italy, Portugal and Slovakia), so that loans in these systems cannot be regarded as a major element of national student support (i.e. their portability is not considered in Scorecard indicator n°12 – Figure 7.26).

In general, systems that offer publicly-subsidised loans allow some degree of portability. Exceptions to this pattern are Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Greece, Serbia and Turkey, where students cannot benefit from their loans if they study abroad, be it for a short period (credit mobility) or a longer period (degree mobility). As with grants, the French Community of Belgium allows portability only in exceptional cases, when there is no equivalent programme within the Community.

Among systems where loans are portable, six limit portability to credit mobility (France, Italy, Kazakhstan, Lithuania, Poland and the United Kingdom – England, Wales and Northern Ireland), and, among these systems, some apply even stricter limitations. For example, Lithuania limits portability of loans to the mobility that falls under recognised exchange schemes such as Erasmus.

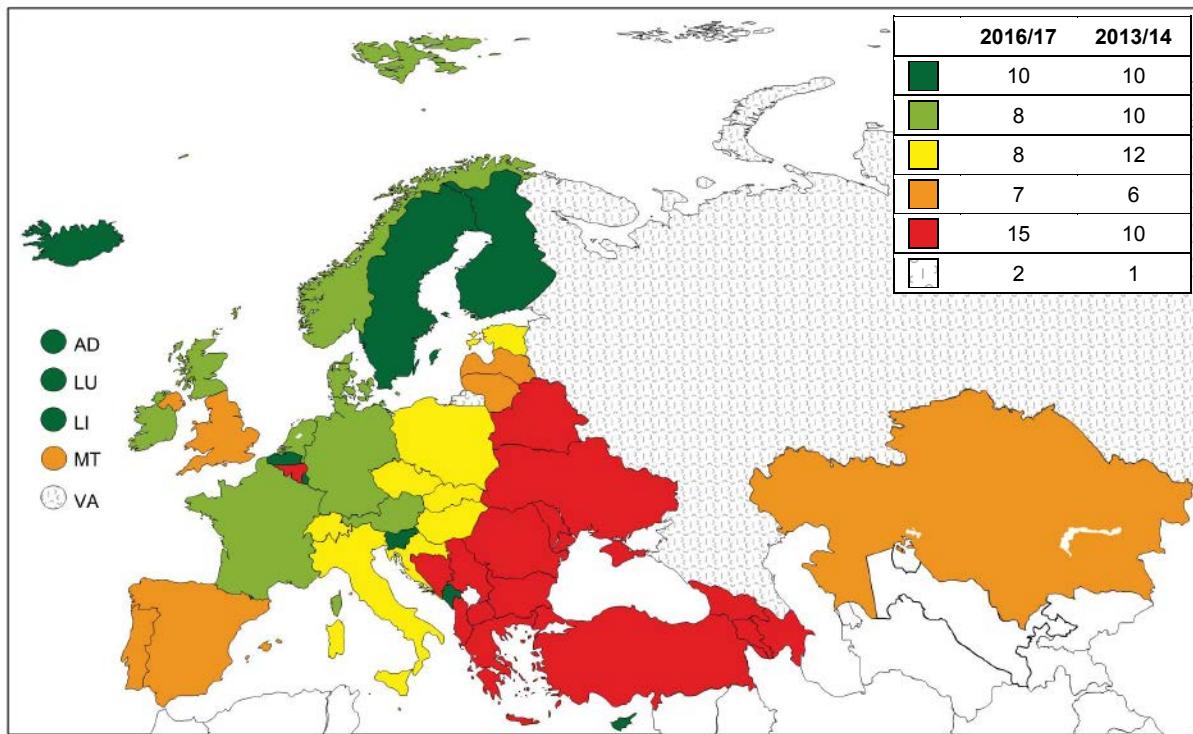
Most systems that offer publicly-subsidised loans allow portability for both credit and degree mobility. While the overall geographical pattern is very similar to the portability of grants, some countries with limited grant portability – for example Hungary, Latvia, Portugal, Slovakia and Switzerland – are more flexible when it comes to portability of publicly-subsidised loans (i.e. loans are portable – with or without restrictions – for credit as well as degree mobility, whereas grants are only portable for credit mobility). Iceland is another noteworthy case, as although there is no standard grant package, publicly-subsidised loans are portable without restrictions.

Scorecard indicator n°12 (Figure 7.26) brings together the elements presented in the two previous figures and puts countries' existing schemes into pre-defined categories. The indicator is based on a five-colour scheme where 'dark green' represents full portability of all available domestic student support (this means that there are equivalent requirements for receiving public grants and/or taking loans if students study in the home country or abroad) and 'red' signifies no portability. Higher education systems applying the requirement that public financial support can be taken abroad only if no equivalent programme is available in the home country also belong to the 'red' category, as the portability of student support is only possible under exceptional circumstances. There are three transitional categories between 'dark green' and 'red'. The first of them – 'light green' – refers to systems where domestic support can be taken abroad for credit as well as degree mobility, yet with some restrictions (e.g. the definition of countries where students can take their grants or limits on the time spent abroad). The two following categories – 'yellow' and 'orange' – cover systems that limit the portability of all or most domestic support measures to credit mobility, the distinguishing feature between the two categories being the presence or absence of portability restrictions.

Following the above categorisation, the indicator shows that unrestricted portability of all domestic support for credit as well as degree mobility ('dark green') exists only in ten higher education systems, namely three Nordic systems (Finland, Sweden and Iceland), Andorra, Cyprus, the Flemish Community of Belgium, Liechtenstein, Luxembourg, Montenegro and Slovenia. Some of these systems offer to their student population both grants and loans (six systems), whereas in other instances, there is only one type of public support, i.e. either public grants (Andorra, Belgium – Flemish Community and Slovenia) or publicly-subsidised loans (Iceland).

In eight higher education systems – Austria, Denmark, France, Germany, Ireland, the Netherlands, Norway and the United Kingdom (Scotland) – all major support schemes are portable for credit as well as degree mobility; yet, there are various portability restrictions ('light green'). As discussed previously, these are mainly related to geography (i.e. mobility only towards certain countries).

Figure 7.26: Scorecard indicator n°12: Portability of public grants and publicly-subsidised loans, 2016/17



Source: BFUG data collection.

Scorecard categories

█	Full portability across the EHEA of all available domestic student support measures – grants and/or loans – for credit and degree mobility. Equivalent requirements for public grants and/or loans if students study in the home country or abroad.
█	Portability of available domestic student support measures – grants and/or loans – for credit and degree mobility, but with some restrictions related to geography (country limitations), and/or types of programme, and/or field of study or time.
█	Portability for credit mobility, without restrictions. No portability for degree mobility OR not all major support measures with portability for degree mobility.
█	Portability for credit mobility but with some restrictions related to geography (country limitations), and/or types of programme, and/or field of study or time. No portability for degree mobility OR not all major support measures with portability for degree mobility.
█	No portability: public grants and/or loans are only provided if students study in the home country or in exceptional cases (no equivalent programme is available in the home country).
█	Not available

A further eight systems – Croatia, the Czech Republic, Estonia, Hungary, Italy, Poland, Slovakia and Switzerland – limit the portability of their major domestic support to credit mobility, generally with no restrictions ('yellow'). It is noteworthy that some of these systems – Hungary, Slovakia and Switzerland – provide publicly-subsidised loans that are portable for credit as well as degree mobility; yet, the portability of grants is limited to credit mobility. The flexibility is even higher in Estonia, where loans as well as need-based grants are fully portable, but the portability of other grants is limited to credit mobility.

Seven countries – Kazakhstan, Latvia, Lithuania, Malta, Portugal, Spain and most parts of the United Kingdom – apply various restrictions to credit mobility ('orange'). Among them, Latvia and Portugal offer fully portable loans, yet, the portability of grants is limited to credit mobility with restrictions. Kazakhstan provides loans that are portable for credit mobility without restrictions, while grants are portable for credit mobility with restrictions.

Finally, 15 higher education systems – Albania, Armenia, Azerbaijan, the French Community of Belgium, Belarus, Bosnia and Herzegovina, Bulgaria, Georgia, Greece, the former Yugoslav Republic of Macedonia, Moldova, Romania, Serbia, Turkey and Ukraine – provide domestic support with no

portability or allow portability only under exceptional circumstances, when there is no equivalent programme in the home system ('red'). Armenia and Greece have a specific position in this group, allowing credit portability of grants (with restrictions), but providing no possibility for the portability of loans.

Overall, the analysis suggests that around one-third of all EHEA systems allow credit as well as degree portability of their domestic financial support (though some restrictions may apply). The scorecard indicator also points to a rather clear geographical pattern, in particular a contrast between north-western Europe, with a high degree of portability, and south-eastern Europe, with low to non-existent portability.

The comparison between the 2015 and 2018 reports suggests a decreasing portability of public support. This is, however, mainly related to fine-tuning of the indicator, as some previous misinterpretations have been rectified.

Supporting disadvantaged learners

Not all students have equal chances to experience learning mobility, and thus to benefit from all its advantages. Evidence shows that students with low socio-economic background or students with disabilities are less likely to participate in mobility programmes (Hauschildt et al., 2015; King, Findlay and Ahrens, 2010; Souto Otero, 2008), further deepening their already disadvantaged position among their peers.

In order to improve the current situation, the Yerevan Communiqué highlights the important place of learning mobility within the social dimension of higher education, calling for the increasing participation of students from disadvantaged backgrounds in international mobility (¹³⁹).

For this reason, it is important to examine measures supporting the mobility participation of students from under-represented groups. This section distinguishes the following main support measures: 1) comprehensive monitoring of the participation of students from under-represented groups in mobility programmes; 2) the presence of quantitative policy objectives on the mobility participation of students from under-represented groups; 3) financial support provided to disadvantaged learners, in the form of either portable grants (universal or need-based) or targeted mobility grants; and 4) the presence of top-level recommendations/incentives to higher education institutions to implement targeted measures supporting the participation of students from under-represented groups in mobility programmes.

Monitoring relevant characteristics of the student population participating in mobility allows policy-makers to obtain information on whether different groups of students can – and do – participate proportionally in mobility programmes. Such information is important for being able to design and provide adequate support for students from disadvantaged backgrounds.

Monitoring the participation of under-represented groups in mobility programmes is not widespread across the EHEA. Two types of monitoring practices can be distinguished (see also European Commission/EACEA/Eurydice, 2016b). First, some education systems monitor the participation of students from under-represented groups in some specific mobility programmes, but not in all of them. Second, seven reporting education systems (Austria, Belgium – Flemish Community, Germany, France, Italy, and the United Kingdom – England and Scotland) monitor the overall participation of students from under-represented groups in mobility programmes. This is labelled as comprehensive monitoring, since it aims at having a comprehensive picture on the participation of disadvantaged students in all mobility programmes.

(¹³⁹) Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, pp. 2-3.

Quantitative policy objectives signal a strong political commitment towards increasing the participation of students from disadvantaged backgrounds in mobility programmes. However, so far, only three education systems (Austria, Belgium – Flemish Community and France) have set such an objective or target. By 2025, Austria aims to increase the mobility participation of students with parents without higher education qualifications to at least 18 % (BMWFW 2017, p. 34). The Flemish Community of Belgium is aiming for 33 % of mobile students to come from under-represented groups by 2020 (defined as students receiving a grant (low socio-economic status), students with a (part-time) job, and students with a disability) (Government of Flanders/Department of Education and Training 2013, p. 64). In France, the French National Strategy for Higher Education STRANES adopted in 2014 puts forward a proposal to double student mobility by 2025, in particular thanks to a specific mobility grant for disadvantaged students. Besides, in the 2017 annual programme of the Erasmus+ Agency, a 30 % target is set for disadvantaged students in Erasmus+ mobility programmes.

Financial support is essential for enabling disadvantaged students to participate in international mobility. Given the financial difficulties faced by students, non-repayable forms of public support – public grants – are the most essential (see also Chapter 5). When providing such grants to disadvantaged students, two main models exist in Europe.

In the first model, disadvantaged students receive targeted support that is only available to them. Such targeted support can take the form of either specific mobility grants (provided specifically for mobility purposes, in addition to domestic support ⁽¹⁴⁰⁾), or need-based domestic grants that are portable, at least for credit mobility (see previous section). The second model is based on the so-called mainstreaming approach. According to this model, countries provide portable grants to the majority (more than 50 %) of students (see Figure 5.22 for the proportion of students receiving grants). In this case, students from disadvantaged backgrounds are not targeted specifically (though the exact sum of grants might be determined by need-based criteria), but their support is ensured by the holistic approach towards grant provision. In other words, the logic behind this approach is that if all (or at least the majority of) students receive grants – thus grant provision is 'mainstream' – then the support of those in need is ensured without them being specifically targeted by education authorities.

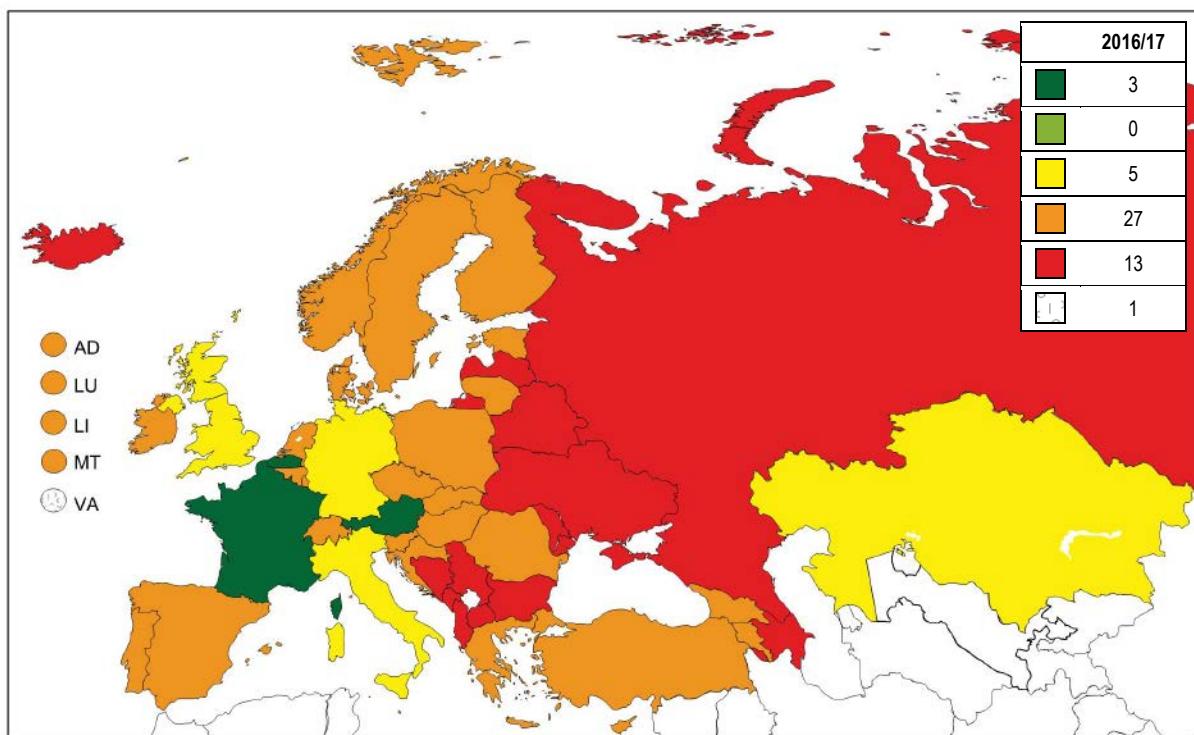
As Chapter 5 described, the overwhelming majority of education systems provide need-based or universal grants to students. The portability of these grants is depicted on Figure 7.24. In addition to portable need-based or universal grants, education systems often provide specific mobility grants to students from low socio-economic backgrounds (e.g. France with its *aides à la mobilité internationale*) or for students with disabilities (e.g. Ireland and Turkey).

Finally, **top-level recommendations** on how to provide support for the participation of students from under-represented groups in mobility programmes can provide important **incentives to higher education institutions** to implement targeted measures. Such top-level recommendations exist in four education systems. In Austria, the 2016 Higher Education Mobility Strategy includes recommendations on the development and implementation of targeted measures for improving the mobility participation of under-represented groups. The Flemish Community of Belgium has organised conferences and promotion campaigns targeting the mobility participation of under-represented groups. In addition, their 2015 Handbook on study and internships abroad includes one chapter dedicated to students with disabilities. In France, ministerial notes ('circulaires') are calling for an increasing and specific attention to disadvantaged students. Finally, in Kazakhstan, the responsible ministry recommends higher education institutions to pay special attention to under-represented groups of students when selecting applicants for academic mobility programmes.

⁽¹⁴⁰⁾ The term 'domestic support' refers to financial support issued by authorities in the home country.

Scorecard indicator n°13 depicted on Figure 7.27 summarises these measures supporting the mobility of students from under-represented groups. Most of its elements require a specific focus on under-represented groups. While general policy measures may also enhance the mobility participation of disadvantaged learners (hence the inclusion of mainstream grants among the scorecard categories), given the vulnerable position of students from under-represented groups, this indicator aims to capture the presence of targeted policies in EHEA countries.

Figure 7.27: Scorecard indicator n°13: Supporting the mobility of students from under-represented groups, 2016/17



Source: BFUG data collection.

Scorecard categories

█	The following measures are undertaken to increase the mobility participation of students from under-represented groups: <ul style="list-style-type: none"> - Comprehensive monitoring of the participation of students from under-represented groups in mobility programmes; - Quantitative policy objectives on the mobility participation of students from under-represented groups; - Financial support in the form of: <ul style="list-style-type: none"> • Targeted specific mobility grants OR • Portable targeted grants OR • Mainstream portable grants provided to more than 50 % of students; - Top-level recommendations/incentives to HEIs to implement targeted measures supporting the participation of students from under-represented groups in mobility programmes.
█	Three out of the four types of measures are undertaken.
█	Two out of the four types of measures are undertaken.
█	One out of the four types of measures is undertaken.
█	None of the four types of measures are undertaken.
█	Not available

As the figure illustrates, comprehensive mobility support targeting disadvantaged learners is very rare. There are only three education systems in the dark green category (Austria, the Flemish Community of Belgium and France), and none in the light green. Five education systems (Germany, Italy, Kazakhstan and the United Kingdom – England and Scotland) undertake two out of the four measures. In addition to targeted financial support, comprehensive monitoring systems have been established in Germany, Italy and the United Kingdom, while top-level recommendations encouraging higher education systems to pay attention to students from under-represented groups exist in Kazakhstan.

The large majority of education systems only provide one single support measure targeting the mobility participation of disadvantaged students (typically financial support), or none at all. This calls for improving attention to the mobility participation of students from under-represented groups throughout the EHEA.

7.3. Staff mobility

While the main focus of internationalisation activities has often been student mobility, policy issues related to the mobility of academic staff have been given increased attention. Following up on the recommendations of the 2015 report of the Working group on mobility and internationalisation (¹⁴¹), the Yerevan Communiqué has identified staff mobility as a priority area for improvement (¹⁴²).

There is a wide understanding among policy makers and actors at institutional level that the mobility of academic staff is beneficial for improving the quality of higher education and research, developing the circulation of knowledge and supporting student mobility (European Commission/EACEA/Eurydice, 2015).

However, a number of obstacles to staff mobility continue to exist. At institutional level, there is an extra administrative burden related to issues such as the temporary replacement of mobile staff, legal and administrative restrictions of employment contracts and recognition of qualifications of incoming staff. From a personal perspective, securing a leave of absence with contractual continuity, addressing differences in social security arrangements abroad, as well as a lack of recognition of the value of periods abroad can all pose obstacles to staff mobility (Education International, 2007).

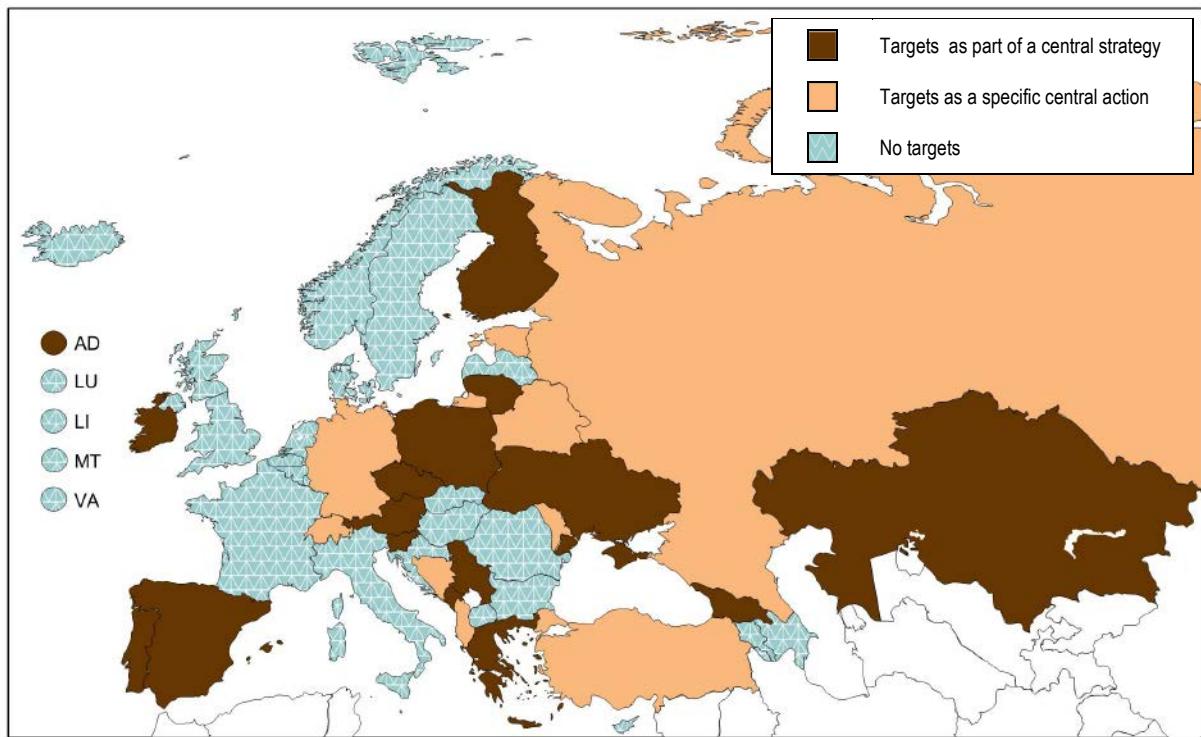
Staff mobility can take a number of forms such as academic visits, exchanges, sabbaticals, grants and employment positions (Education International, 2007). Where top-level monitoring of staff mobility exists, education authorities use various definitions that could be limited to the definitions used by the Erasmus+ programme or distinguish between other types of mobility that vary in objectives and duration (European Commission/EACEA/Eurydice 2017a, p. 104).

Central level mobility targets for outgoing and incoming staff are less common than targets for student mobility. Nevertheless almost half of all EHEA countries report that they have set up such objectives, either as part of a national strategy for internationalisation, or in specific central actions to support staff mobility (see Figures 7.28 and 7.29).

⁽¹⁴¹⁾ Report of the 2012-2015 BFUG Working Group on Mobility and Internationalisation, 2015.

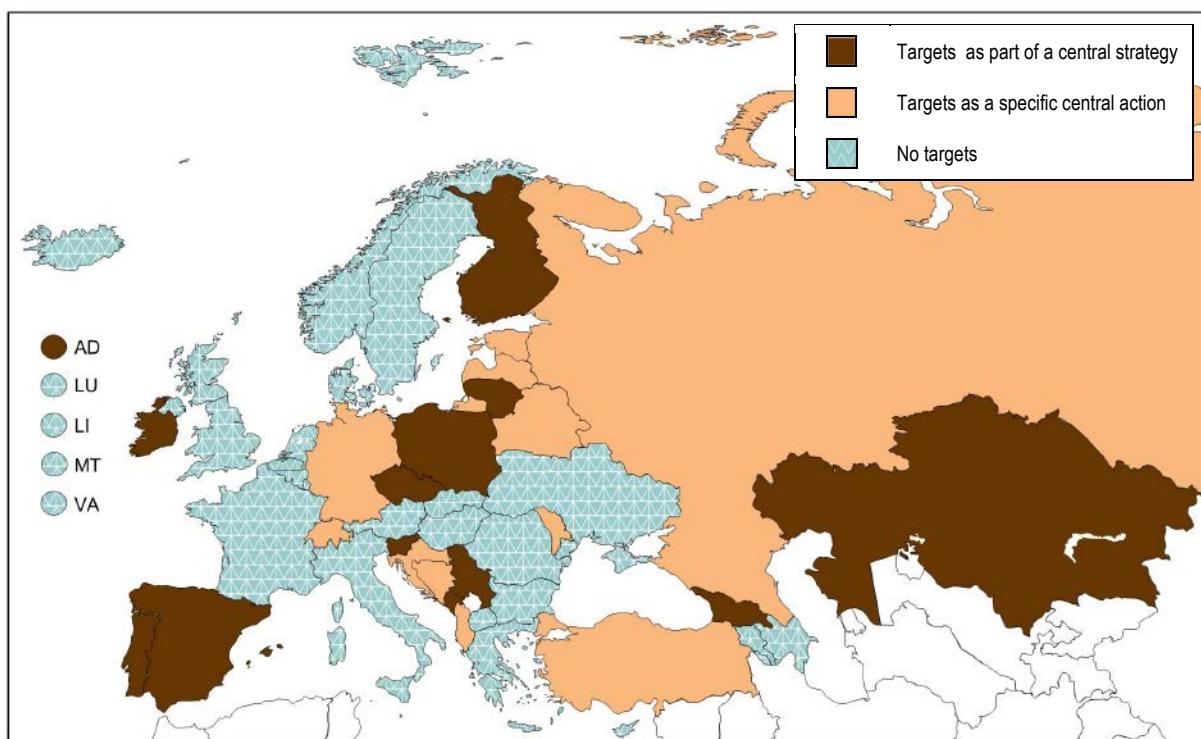
⁽¹⁴²⁾ Yerevan Communiqué, adopted at the EHEA Ministerial Conference in Yerevan, 14-15 May 2015, p. 4.

Figure 7.28: Mobility targets for outgoing staff, 2016/17



Source: BFUG data collection.

Figure 7.29: Mobility targets for incoming staff, 2016/17



Source: BFUG data collection.

Even when centrally set targets are reported, they often refer to the more general goals of increasing the number of incoming and outgoing staff by, for instance, removing administrative and other obstacles and providing financial support, rather than setting up specific numerical targets. Examples of numerical targets for outgoing staff mobility have been provided by Austria, where 4 500 academic staff should embark on a teaching/research-related stay annually by 2020 and Greece, where 1 400 Erasmus+ mobility periods have been planned for 2017.

7.4. Conclusions

This chapter provides considerable evidence that across the EHEA the trend for internationalisation is growing. However, countries present very different situations with regard to internationalisation and mobility, especially when looking at mobility flows and the level of engagement in some internationalisation activities.

Most countries encourage the internationalisation of higher education through their steering documents, with policy-making in this area continuing to be dynamic and showing significant progress since the 2015 Bologna Process Implementation Report. Thirty-two countries have an active strategy for the internationalisation of higher education. A similar number of countries estimate that more than half of higher education institutions have adopted internationalisation strategies. Moreover, most countries report that they have specific budgets for funding internationalisation activities in higher education.

Although the vast majority of countries have now amended their legislation to allow the development of joint programmes and the award of joint degrees, a lot of ambiguity remains which is often due to the lack of a clear legal basis and/or additional regulations to operationalise these concepts.

In comparison with the 2015 Bologna Process Implementation report, there has been a significant increase in the use of targets to support and monitor progress in student mobility. The majority of countries have adopted national targets for outward (35 systems) and incoming (29 systems) student mobility. One quarter of all countries have not established targets for either type of student mobility.

Existing targets use various definitions for the target groups and the mobility periods, and express objectives in different quantitative and/or qualitative components. It is thus difficult to monitor progress across the EHEA and over time.

The use of multiple definitions when identifying and reporting mobile students in the EHEA continues to hinder the comparability of the data across countries and over time. Nevertheless, overall trends in student mobility rates show slight increases since the 2015 Bologna Process Implementation Report, although still only a minority of students benefit from such experience.

Both the incoming and the outward degree mobility rates within the EHEA are below 5 % for the vast majority of countries. When looking at degree mobility flows with non-EHEA countries, students from outside the EHEA make up more than 5 % of the total student population in only seven countries, while in many this proportion is close to or less than 1 %.

The distinction between 'net importing' and 'net exporting' countries continues to be valid. Data usually also shows a strong relation between the mobility balance and the outward mobility rate: the higher the importing balance, the lesser the outward mobility.

There are substantial differences between countries when the portability of domestic student financial support is considered. In around one-third of all EHEA systems, domestic financial support is portable for credit as well as degree mobility, so that students can benefit from their grant or loan during short-term as well as long-term studies abroad. In contrast, 15 higher education systems provide domestic support with no portability or limit portability to exceptional cases. From the geographical perspective, countries allowing portability for credit as well as degree mobility are mainly situated in north-western Europe, whereas countries with low or non-existent portability can mainly be found in south-eastern Europe.

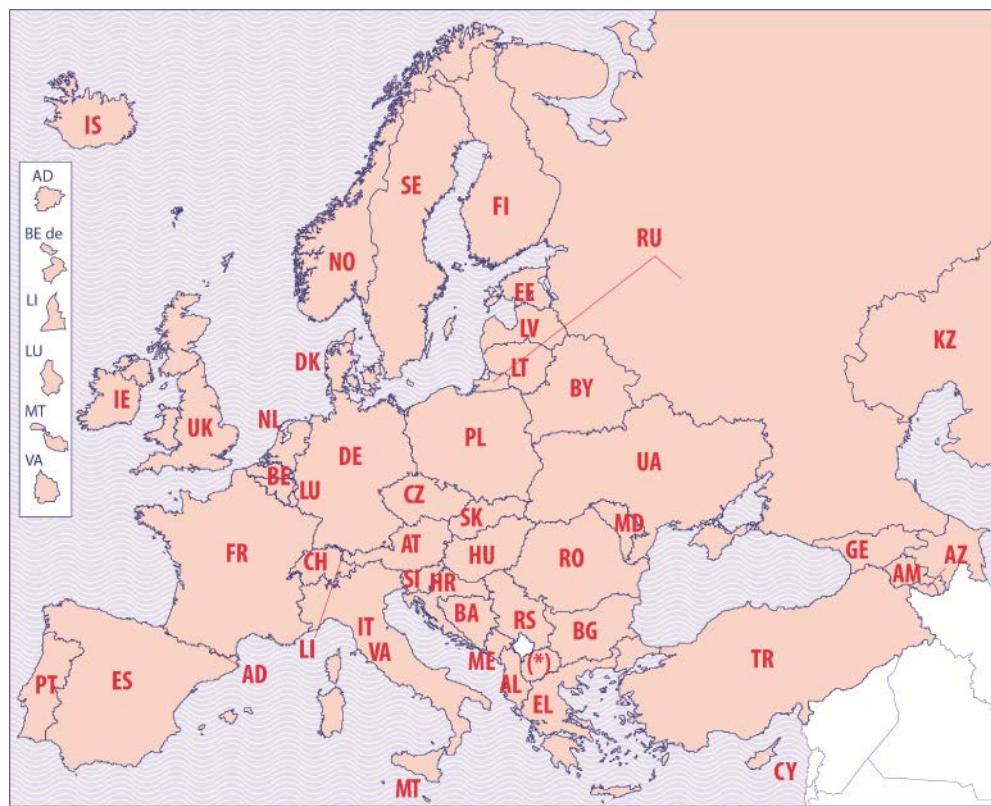
The support provided to disadvantaged learners to participate in mobility programmes also varies across countries: while a handful of them provide extensive support in all identified areas (monitoring, target-setting, financial support and top-level recommendations), there is almost no support facilitating the mobility of students from under-represented groups in the majority of education systems in the EHEA. Most countries limit their efforts to providing financial support and portable grants; in turn, targeted attention and clear policy priorities are scarce.

The mobility of academic staff can take a number of forms and, where it is monitored, education authorities use various definitions. Staff mobility targets are reported by almost half of all EHEA countries. They often refer to the more general goals of increasing the numbers of mobile staff by, for instance, removing administrative and other obstacles and providing financial support, rather than setting up specific numerical targets.

GLOSSARY AND METHODOLOGICAL NOTES

I. Codes, abbreviations and acronyms

I.1. Country Codes



AD	Andorra	EL	Greece	NL	Netherlands
AL	Albania	ES	Spain	NO	Norway
AM	Armenia	FI	Finland	PL	Poland
AT	Austria	FR	France	PT	Portugal
AZ	Azerbaijan	GE	Georgia	RO	Romania
BA	Bosnia and Herzegovina	HR	Croatia	RS	Serbia
BE de	Belgium – German-speaking Community	HU	Hungary	RU	Russia
BE fr	Belgium – French Community	IE	Ireland	SE	Sweden
BE nl	Belgium – Flemish Community	IS	Iceland	SI	Slovenia
BG	Bulgaria	IT	Italy	SK	Slovakia
BY	Belarus	KZ	Kazakhstan	(*)	The former Yugoslav Republic of Macedonia (Provisional code)
CH	Switzerland	LI	Liechtenstein	TR	Turkey
CY	Cyprus	LT	Lithuania	UA	Ukraine
CZ	Czech Republic	LU	Luxembourg	UK-ENG	United Kingdom – England
DE	Germany	LV	Latvia	UK-NIR	United Kingdom – Northern Ireland
DK	Denmark	MD	Moldova	UK-SCT	United Kingdom – Scotland
EE	Estonia	ME	Montenegro	UK-WLS	United Kingdom – Wales
		MT	Malta	VA	Holy See

I.2. Abbreviations

:	Data not available
BFUG	Bologna Follow-Up Group
CEEPUS	Central European Exchange Program for University Studies
COFOG	Classification of the Functions of Government
EEA	European Economic Area
EHEA	European Higher Education Area
ENIC	European Network of Information Centres
ESG	European Standards and Guidelines for Quality Assurance
EU	European Union
EUA	European University Association
EU-SILC	European Union Statistics on Income and Living conditions
EU-LFS	EU Labour Force Survey
FTE	Full-time equivalent
GDP	Gross Domestic Product
ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
NARIC	National Academic Recognition Information Centres
OECD	Organisation for Economic Co-operation and Development
PPS	Purchasing Power Standard
R&D	Research and Development
UNESCO-UIS	United Nations Educational, Scientific and Cultural Organization, Institute for Statistics
UOE	UNESCO-UIS/OECD/Eurostat

II. General terms

Access routes to higher education

Routes to higher education are the different formal access requirements that are defined to be the necessary conditions of higher education access. Questions of selection or acceptance into a programme are not part of the definition.

Standard route: entering higher education with a standard entry qualification. The standard entry qualification is the most widely used diploma or certificate issued by a competent authority attesting the successful completion of an education programme and giving the holder of the qualification the right to be considered for admission to higher education (typically the upper secondary school leaving certificate).

Alternative route: entering higher education without a standard entry qualification, based on requirements other than the standard entry requirements (e.g. based on qualification other than the standard entry qualification or based on the recognition of prior non-formal and informal learning).

Admission (to higher education institutions and programmes)

The act of, or system for, allowing qualified applicants to pursue studies in higher education at a given institution and/or a given programme (see the Lisbon Recognition Convention (¹⁴³)).

Completion

The successful finishing of a study programme (graduation).

⁽¹⁴³⁾ Council of Europe Convention on the Recognition of Qualifications concerning Higher Education in the European Region, ETS No.165, [Online] Available at: <http://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/165> [Accessed 22 February 2018].

Credit accumulation/Accumulation of credits

The process of collecting credits awarded for achieving the learning outcomes of educational components in formal contexts and for other learning activities carried out in informal and non-formal contexts. A student can accumulate credits in order to obtain qualifications, as required by the degree-awarding institution, or to document personal achievements for lifelong learning purposes (European Commission 2015 p. 66).

Credit mobility

Credit mobility is a short-term form of mobility – usually a maximum of one year – aiming at the acquisition of credits in a foreign institution in the framework of on-going studies at the home institution.

Credit transfer/Transfer of credits

Is the process of having credits awarded in one context (programme, institution) recognised in another formal context for the purpose of obtaining a qualification. Credits awarded to students in one programme may be transferred from an institution to be accumulated in another programme offered by the same or another institution. Credit transfer is the key to successful study mobility. Institutions, faculties, departments may make agreements which guarantee automatic recognition and transfer of credits (European Commission 2015, p. 68).

Cycle

One of the objectives in the Bologna Declaration in 1999 was the ‘adoption of a system based on two main cycles, undergraduate and graduate.’ In 2003 doctoral studies were included in the Bologna structure and referred to as the third cycle. The EHEA has thus defined a hierarchy of three Higher Education cycles (first cycle, second cycle and third cycle). All higher education qualifications in the European Higher Education Area are located within these three cycles (European Commission 2015, p. 68).

Degree mobility

Degree mobility is a long-term form of mobility which aims at the acquisition of a whole degree or certificate in the country of destination.

Digital certificates

Two types exist: a) Certificates that confirm participation in/ completion of a course, b) Certificates that verify the learner’s identity and confirm attainment of learning outcomes. Digital certificates typically include a URL which leads to the course information and/or the display of certificate information at the website of the course provider to prove the authenticity of the credential (Witthaus, et al., 2016).

Diploma Supplement (DS)

Is a document accompanying a higher education diploma, providing a standardised description of the nature, level, context, content and status of the studies completed by its holder. It is produced by the higher education institutions according to standards agreed by the European Commission, the Council of Europe and UNESCO. The Diploma Supplement is also part of the Europass framework transparency tools.

It has the following eight sections of information: the holder of the qualification; the qualification; its level and function; the contents and results gained; certification of the supplement; details of the national higher education system concerned (provided by the National Academic Recognition Information Centres (NARICs)); any additional relevant information.

Graduates in all the countries taking part in the Bologna Process have the right to receive the Diploma Supplement automatically, free and in a major European language (European Commission 2015, p. 69).

Doctoral/Research school

An organisational structure that includes only doctoral students. It may be organised around a particular discipline, research theme or a cross-disciplinary research area and/or it is focused on creating a research group/network and is project-driven. It may involve one institution or several institutions and organise co-operation among them (EUA 2007, p. 27).

Credit (ECTS)

ECTS credits express the volume of learning based on the defined learning outcomes and their associated workload. 60 ECTS credits are allocated to the learning outcomes and associated workload of a full-time academic year or its equivalent, which normally comprises a number of educational components to which credits (on the basis of the learning outcomes and workload) are allocated. ECTS credits are generally expressed in whole numbers (European Commission 2015, p. 68).

Drop-out

Refers to students who start but do not continue or finish a study programme.

European Association for Quality Assurance in Higher Education (ENQA)

The association of quality assurance agencies in the European Higher Education Area was set up in 2000. It aims to disseminate information, experiences and good practices in the field of quality assurance in higher education. Membership of the association is open to quality assurance agencies in the EHEA member states. Membership of ENQA represents recognition that an agency complies with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).

European Credit Transfer and Accumulation System (ECTS)

ECTS is a learner-centred system for credit accumulation and transfer, based on the principle of transparency of the learning, teaching and assessment processes. Its objective is to facilitate the planning, delivery and evaluation of study programmes and student mobility by recognising learning achievements and qualifications and periods of learning (European Commission 2015, p. 69).

European Qualifications Framework for Lifelong Learning (EQF)

The European Qualifications Framework for lifelong learning is a common European reference framework which aims to increase the transparency, comparability and portability of qualifications systems and all types and levels of qualifications in Europe. The EQF uses eight common European reference levels based on learning outcomes that are defined in terms of knowledge, skills and competences. The EQF is implemented by referencing levels of national qualifications frameworks to the levels of the EQF. The EQF was adopted by the Council of Ministers in the EU in 2008 and revised in 2017.

European Quality Assurance Register for Higher Education (EQAR)

The Register aims at increasing transparency of quality assurance in higher education across Europe. It has been founded in 2008 by the European Association for Quality Assurance in Higher Education (ENQA), the European Students' Union (ESU), the European University Association and the European Association of Institutions in Higher Education (EURASHE). EQAR publishes and manages a list of quality assurance agencies that substantially comply with the European Standards and Guidelines for

Quality Assurance (ESG) to provide clear and reliable information on quality assurance agencies operating in Europe (¹⁴⁴).

External quality assurance

External quality assurance refers to the process of evaluation or audit of a higher education programme or institution undertaken by a specialised body outside the institution. Typically the body may be a quality assurance or accreditation agency, or an ad hoc panel of experts and peers constituted by the responsible Ministry. The evaluation will involve the collection of data, information and evidence for assessment against agreed standards.

Fee

Any sum of money paid by students with which they formally and compulsorily contribute to the cost of their higher education. This may include, but is not restricted to e.g. a registration fee, tuition fees, graduation fees, administrative fees, etc. Payments to student unions are not taken into account.

Formal learning

Formal learning means learning which takes place in an organised and structured environment, specifically dedicated to learning, and typically leads to the award of a qualification, usually in the form of a certificate or a diploma. It includes systems of general education, initial vocational training and higher education (¹⁴⁵).

Framework for Qualifications of the European Higher Education Area /Qualifications Framework for the European Higher Education Area (QF-EHEA)

Refers to the overarching framework for qualifications in the EHEA, which comprises three cycles (including, within national contexts, the possibility of intermediate qualifications), generic descriptors for each cycle based on learning outcomes, and credit ranges in the first and second cycles. In order to prove the compatibility of national qualifications frameworks for higher education with the QF EHEA, NQFs need to be self-certified to the QF-EHEA.

Funding formulas

Funding formulas are formulas that automatically allocate funds to institutions. They may vary on the basis of the factors used in their development. These might include among others inputs, such as students or staff, nominal, real or average costs per student and performance-based criteria (Salmi and Hauptman 2006, p. 10).

Governing bodies

Refers to structures with responsibility for the strategic orientation and organisation/management of higher education institutions.

Graduate tracking surveys

A survey of graduates from institutions of higher education (sometimes also called as 'alumni survey' or 'follow-up survey') that usually aims at mapping the labour market situation (professional success, relevance of skills etc.) of graduates. Graduate surveys provide information for evaluating the results of the education and training of a specific institution of higher education (Schomburg 2003, p. 11).

Regular graduate tracking surveys are conducted repeatedly, in regular intervals.

(¹⁴⁴) For more details on the European Quality Assurance Register for Higher Education (EQAR), see <http://www.eqar.eu> [Accessed 8 March 2018].

(¹⁴⁵) Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning, O.J. 2012/C 398/01.

Grant

Non-repayable public financial support. A need-based grant is awarded on the basis of financial hardship/socio-economic background of students. Universal grants are awarded to (almost) all students. For the purposes of this report, grants can be regarded as universal if they are awarded to at least 50 % of students. A merit-based grant is awarded on the basis of the academic performance of students.

Higher education institution

Any institution providing services in the field of higher and/or tertiary education, as defined by national law.

Higher education qualification

Any degree, diploma or other certificate issued by a competent authority attesting the successful completion of a higher education programme (Lisbon Recognition Convention (¹⁴⁶)).

Incentives

Apart from regulations, educational authorities can also encourage higher education institutions to follow certain policy lines (e.g. support under-represented groups, enhance completion, include work placements or mobility windows into study programmes, etc.) through incentives. Incentives can be financial, based on funding formulas or performance-based funding, or can include organisational or managerial support.

Incoming mobility

Incoming mobility refers to students that moved (i.e. crossed a national border) to a specified country to study.

Informal learning

Informal learning means learning resulting from daily activities related to work, family or leisure and is not organised or structured in terms of objectives, time or learning support; it may be unintentional from the learner's perspective; examples of learning outcomes acquired through informal learning are skills acquired through life and work experiences, project management skills or ICT skills acquired at work, languages learned and intercultural skills acquired during a stay in another country, ICT skills acquired outside work, skills acquired through volunteering, cultural activities, sports, youth work and through activities at home (e.g. taking care of a child) (¹⁴⁷).

Integrated/long programmes

Programmes including both the first and the second cycle and leading to a second-cycle qualification.

Internal quality assurance

Internal quality assurance refers to the processes involved in assuring and/or improving the quality of defined areas of activity within higher education institutions. Typically, it involves the systematic collection and analysis of administrative data, as well as the feedback of students, lecturers, other staff and external stakeholders.

(¹⁴⁶) Council of Europe Convention on the Recognition of Qualifications concerning Higher Education in the European Region, ETS No.165, [Online] Available at: <http://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/165> [Accessed 22 February 2018].

(¹⁴⁷) Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning, O.J. 2012/C 398/01.

Joint degree

A joint degree is a single document officially recognised by the appropriate (national or, if applicable, regional) authorities of at least two countries.

Joint programme

Joint programmes are usually inter-institutional arrangements among higher education institutions leading to a joint degree. Parts of joint programmes undertaken by students at partner institutions are recognised automatically by the other partner institutions. The same is true for joint degrees.

Labour market/skills forecasting

'Forecasting skill needs involves estimating the expected future number of jobs available in an economy [in the medium or long term] and their particular skill or qualification requirements. Skills needs forecasts are complemented by forecasts of the number of people (supply) with particular skills. The comparison of demand and supply can indicate potential imbalances or skill mismatches in future labour markets. Most typically, skills supply and demand is forecasted in order to help different labour market actors – employees, employers, students and parents, social partners, policy makers – to take informed decisions and appropriate action concerning the labour market. Labour market forecasting is usually conducted by occupation and qualification levels (Cedefop, 2012).

Learning outcome

Learning outcomes are statements of what the individual knows, understands and is able to do on completion of a learning process. The achievement of learning outcomes has to be assessed through procedures based on clear and transparent criteria. Learning outcomes are attributed to individual educational components and to programmes at a whole. They are also used in European and national qualifications frameworks to describe the level of the individual qualification (European Commission 2015, p. 72).

Lisbon Recognition Convention (LRC)

The Convention on the Recognition of Qualifications concerning Higher Education in the European Region (¹⁴⁸) was developed by the Council of Europe and UNESCO and adopted in 1997 in Lisbon. It aims to ensure that holders of a qualification from one European country have that qualification recognised in another.

Loan

Repayable financial aid. Student loan models may differ in many aspects, such as in their repayment plans, the level of subsidy, the expenses covered, eligibility rules, etc. A student loan is subsidised when the government bears a part of the costs. This can take the form of a government guarantee, when student loans are guaranteed or insured by the government against the risk of default and loss (Salmi and Hauptman 2006, p. 43).

Massive Open Online Courses (MOOCs)

Courses which allow open entry, are free, and are delivered online usually with peer or automated support. They often have large enrolment numbers. For the purposes of this data collection, we consider MOOCs as (usually shorter) online courses which do not result in degree qualifications. MOOCs may be provided by higher education institutions as well as other providers.

⁽¹⁴⁸⁾ Council of Europe Convention on the Recognition of Qualifications concerning Higher Education in the European Region, ETS No.165, [Online] Available at: <http://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/165> [Accessed 22 February 2018].

Mobility window

A period of time reserved for international student mobility that is embedded into the curriculum of a study programme.

Monitoring

Monitoring is the process of systematic data gathering, analysis and use of information by top-level authorities to inform policy. Systematic monitoring must include mechanisms of cross-institutional data gathering and allow cross-institutional data comparability.

National qualifications frameworks for higher education

National qualifications frameworks describe qualifications in terms of level, workload, learning outcomes and profile. They relate qualifications and other learning achievements in higher education coherently and are internationally understood.

Non-formal learning

Non-formal learning means learning which takes place through planned activities (in terms of learning objectives, learning time) where some form of learning support is present (e.g. student-teacher relationships); it may cover programmes to impart work skills, adult literacy and basic education for early school leavers; very common cases of non-formal learning include in-company training, through which companies update and improve the skills of their workers such as ICT skills, structured on-line learning (e.g. by making use of open educational resources), and courses organised by civil society organisations for their members, their target group or the general public (¹⁴⁹).

Online programme

A higher education programme that is provided primarily or entirely through the use of an Internet-connected computer, rather than attending a programme in a traditional higher education institution/campus setting.

Outward mobility

Outward mobility refers to students that left their country of residence (i.e. crossed a national border) to study elsewhere (in which they are counted as inwardly mobile students).

Performance-based mechanisms

Performance-based mechanisms are funding mechanisms related to actual or intended results by an institution over a certain period. They may be based on outputs, such as number of graduates, or inputs, such as number of students/staff with certain characteristics. Performance-based mechanisms may take the form of performance contracts, performance set asides and payments for results in research and/or education (Salmi and Hauptman 2006, p. 16).

Portability

The possibility to take the support available to students in their home country abroad (within EHEA) for credit mobility (credit portability) or degree mobility (degree portability) (European Commission/EACEA/Eurydice 2016b, p. 57).

⁽¹⁴⁹⁾ Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning, O.J. 2012/C 398/01.

Preferential treatment

The treatment of one individual or group of individuals in a manner that is likely to lead to greater benefits, access, rights, opportunities or status than those of another individual or group of individuals. Regarding admission to higher education, preferential treatment can include, for example, entry quotas, the awarding of extra points in a selection process on the basis of belonging to an under-represented group, etc.

Public higher education institution

With this term we refer to higher education institutions directly or indirectly administered by a public education authority. Public higher education institutions thus include two categories of institution: 'public institution', i.e. an institution directly managed by a government agency/authority or by a governing body, most of whose members are either appointed by a public authority or elected by public franchise, and: 'government-dependent private higher education institution', i.e. an institution controlled/managed by a non-governmental organisation or where the governing board consists of members not selected by a public agency but receiving 50 percent or more of its core funding from government agencies or whose teaching personnel are paid by a government agency – either directly or through government.

Quality assurance agency

A body established by public authorities with responsibility for external quality assurance. Agencies are intended to play a strong role in ensuring accountability of higher education institutions and may have specific objectives and developmental roles regarding enhancing quality.

Quantitative objectives

Quantitative targets defining a goal to be reached (in terms of a concrete percentage) regarding the composition of students in various respects (e.g. regarding the proportion of under-represented groups entering higher education, completing it or participating in mobility programmes).

Recognition of non-formal and informal learning

Validation and formal recognition of learners' non-formal and informal learning experiences in order to:

- provide higher education access to candidates without an upper secondary school leaving certificate; or
- within a higher education programme, allocate credits towards a qualification and/or provide exemption from some programme requirements.

Retention

The successful continuation of a study programme.

Self-certification

A procedure when national authorities, other bodies and stakeholders certify the compatibility of their national qualifications framework for higher education with the overarching Qualifications Framework for the European Higher Education Area. A set of procedures for the transparent self-certification of compatibility by member states was agreed by higher education ministers in the Bologna Process.

Short cycle

Degree programmes of less than 180 ECTS (or lasting less than 3 years), leading to a qualification that is recognised at a lower level than a qualification at the end of the first cycle. Short-cycle qualifications are recognised in the overarching framework of qualifications for the European Higher Education Area (QF-EHEA).

Socio-economic status

A combined economic and sociological measure of an individual's or family's economic and social position relative to others, based on income, level of education, and occupation. Definitions of socio-economic status might differ depending on the national context.

Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)

European standards and guidelines are an agreed set of standards and guidelines for quality assurance in European higher education. They were developed by the 'E4 Group' (i.e. ENQA, EUA, EURASHE and ESU) and adopted by the ministers in Bergen in 2005. Revision to the ESG was undertaken between the Bucharest and Yerevan Ministerial Conferences, and an updated version of the ESG was adopted at the Yerevan Ministerial Conference in 2015 (¹⁵⁰).

Steering documents

Official documents containing guidelines, obligations and/or recommendations for higher education policy and/or institutions.

Strategy

An official policy document developed by the central authorities in an effort to achieve an overall goal. A strategy can comprise a vision, identify objectives and goals (qualitative and quantitative), describe processes, authorities and people in charge, identify funding sources, make recommendations, etc.

Student-centred learning

The European Students' Union (ESU) defines student-centred learning as 'both a mindset and a culture [...] characterised by innovative methods of teaching which aim to promote learning in communication with teachers and other learners and which take students seriously as active participants in their own learning, fostering transferable skills such as problem-solving, critical thinking and reflective thinking' (ESU, 2015, n.p.).

Tax benefits

Tax relief of any kind, not limited to income tax.

Under-represented groups of students

Societal groups that may be considered as not being proportionally represented in higher education in different countries. Examples might include people with disabilities, migrants, ethnic groups, lower socio-economic status groups, women/men, etc.

Vertical segregation

Vertical segregation refers to the phenomenon that while women outnumber men amongst higher education graduates, they are slightly under-represented at doctoral level, and there are even fewer women amongst higher ranking academic staff in universities. Thus, vertical segregation refers to the under-representation of women at higher levels of the professional hierarchy.

Workload

An estimation of the time learners typically need to complete all learning activities such as lectures, seminars, projects, practical work, work placements, individual study required to achieve the defined learning outcomes in formal learning environments. The correspondence of the fulltime workload of an academic year to 60 credits is often formalised by national legal provisions. In most cases, student

(¹⁵⁰) For more details on the European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), see <http://www.enqa.eu/index.php/home/esg/> [Accessed 8 March 2018].

workload ranges from 1 500 to 1 800 hours for an academic year, which means that one credit corresponds to 25 to 30 hours of work. It should be recognised that this represents the normal workload and that for individual learners the actual time to achieve the learning outcomes will vary. (European Commission 2015, p. 77)

Work placement/practical training

The term 'work placement' refers to experience gained in a working environment as an integrative part of a higher education programme. Most typically, it refers to the placement of students in supervised work settings (e.g. through internships) so they can apply the knowledge and skills learned during their studies. Alternatively, it can also refer to a period of voluntary work (also referred to as 'student-community engagement') that is intended to allow students to become familiar with the working environment in general, whilst also conveying some benefit to the community (Bourner and Millican, 2011).

III. Statistical terms

Academic staff (Figures 1.6, 1.7 and 1.8)

This category includes:

- Personnel employed at the tertiary level of education whose primary assignment is instruction or research;
- Personnel who hold an academic rank with such titles as professor, associate professor, assistant professor, instructor, lecturer or the equivalent of any of these academic ranks;
- Personnel with other titles, (e.g. dean, director, associate dean, assistant dean, chair or head of department), if their principal activity is instruction or research.

It excludes student teachers, teachers' aides and paraprofessionals (UNESCO-UIS, OECD and Eurostat 2016, p. 43).

Access routes to higher education (Figure 5.16)

Standard route: entering higher education with the standard entry qualification (the upper secondary school leaving certificate) obtained in direct relation to leaving school for the first time (e.g. *Matura*, *Abitur*, *Baccalauréat*), either in the country of survey or abroad.

Delayed route: entering higher education with the standard entry qualification (the upper secondary school leaving certificate) obtained with a delay, e.g. via evening classes or adult learning.

Alternative route: entering higher education without the standard entry qualification.

At-risk-of-poverty rate (Figure 6.8)

The at-risk-of-poverty rate is the share of people with an equivalised disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median equivalised disposable income after social transfers (Eurostat, 2018a).

The equivalised disposable income is the total income of a household, after tax and other deductions, that is available for spending or saving, divided by the number of household members converted into equivalised adults; household members are equalised or made equivalent by weighting each according to their age, using the so-called modified OECD equivalence scale (Eurostat, 2018b).

Completion rate (Figure 5.28)

Tertiary completion rates show the percentage of students who enter (i.e. entrants) a tertiary programme and ultimately graduate from it. The preferred method used to calculate the completion rate is the true cohort method based on panel data (survey or registers), which follow the individual student from entrance to graduation in the programme. The completion rate gives the proportion of entrants who graduated within the theoretical duration of the programme (N) plus 3 years (N+3), to ensure that only a minority of entrants are still enrolled in the system by that time. Unfortunately, as Figure 5.28 shows, only a limited number of countries apply the true cohort method to calculate completion rates.

Delayed transition students (Figures 5.2 and 5.9)

Delayed transition is a characteristic used for defining a type of student, who entered higher education for the first time more than 24 months after leaving school.

Educational attainment (Figures 5.1, 5.2, 6.1, 6.2, 6.3, 6.6, 6.7 and 6.8)

Educational attainment refers to the highest level of education successfully completed. Indicators using the International Standard Classification of Education (ISCED) often distinguish between low, medium and high educational attainment. These categories are compiled as follows (in EU LFS):

- Low educational attainment corresponds to completed pre-primary, primary and lower secondary education (ISCED levels 0, 1 and 2). For figures in Chapter 6, low educational attainment refers to completed lower secondary education (ISCED 2).
- Medium educational attainment corresponds to upper secondary and post-secondary non-tertiary education (ISCED levels 3 and 4). For figures in Chapter 6, medium educational attainment refers to completed upper secondary education (ISCED 4).
- High educational attainment corresponds to tertiary education (ISCED levels 5 to 8).

When referring to students with or without a higher education background (Figure 5.2), then students with higher education background are those whose parents' highest degree is at ISCED level 5-8; and students without higher education background are those whose parents' highest degree is at ISCED level 0-4.

Expenditure on tertiary education (Figures 1.9, 1.10, 1.12, 1.13, 1.14 and 5.21)

Within the UOE data collection, education expenditure includes the following financial data:

- Goods and Services of educational institutions: All direct public, private and international expenditure whether educational or non-educational (e.g. ancillary services), but with some exceptions; and;
- Goods and Services purchased outside educational institutions: private expenditure on educational goods and services; plus
- Public subsidies to students for student living costs regardless of where or how the student spends these subsidies (UNESCO-UIS, OECD and Eurostat 2016, p. 48).

Public expenditure refers to spending of public authorities. Expenditure on education by other ministries or equivalent institutions, for example Health and Agriculture is included. It includes subsidies provided to households and other private entities (often in the form of financial aid to students) which can be attributable to educational institutions (e.g. fees) or not (e.g. private living costs outside of institutions). Expenditure that is not directly related to education (e.g., culture, sports, youth activities, etc.) is excluded unless provided as ancillary services. (Ibid, p. 56).

Three main types of government expenditure (at central, regional or local levels) on education are distinguished:

- Direct expenditure on educational institutions,
- Intergovernmental transfers for education, and
- Transfers or other payments from governments to households and other private entities.

Public subsidies to households includes:

- Scholarships and other grants (including child allowances contingent to student status, special public subsidies in cash or in kind that are contingent on student status) and
- Student loans (including those not attributable to household payments for educational institutions, such as subsidies for student living costs) (Ibid, p. 58).

On differences between the UOE data collection and data based on COFOG (see Figure 1.11), see Section IV.

Formal student status (Eurostudent) (Figures 2.24 and 2.25)

In the framework of Eurostudent research, formal status includes student's official registration, which is recognised by the state's order and/or the higher education institutions in the respective country. It contains the categories full-time, part-time, and other. A full-time/part-time student is a student who formally holds the respective status irrespective of the weekly number of hours spent on study-related activities (taught and personal study time) (Hauschmidt et al., 2015).

Full-time equivalent student (Figures 1.12, 1.13 and 1.14)

A full-time equivalent (FTE) is a unit to measure students in a way that makes them comparable although they may study a different number of hours per week. The unit is obtained by comparing a student's average number of hours studied to the average number of hours of a full-time student. A full-time student is therefore counted as one FTE, while a part-time student gets a score in proportion to the hours he or she studies (Eurostat, 2015b).

Gross income (Figures 6.6 and 6.7)

Gross income is the sum of the variables PY010G 'Employee cash or near cash income' and PY020G 'Non-Cash employee income' derived from the EU-SILC database. Gross means that neither taxes nor social contributions have been deducted at source. Employee income is defined as the total remuneration, in cash or in kind, payable by an employer to an employee in return for work done by the latter during the income reference period.

Gross employee cash or near cash income (PY010G) refers to the monetary component of the compensation of employees in cash payable by an employer to an employee. It includes the value of any social contributions and income taxes payable by an employee or by the employer on behalf of the employee to social insurance schemes or tax authorities. Examples of items included are:

- Wages and salaries paid in cash for time worked or work done in main and any secondary or casual job(s);
- Remuneration for time not worked (e.g. holiday payments);
- Enhanced rates of pay for overtime;
- Supplementary payments (e.g. thirteenth month payment);
- Profit sharing and bonuses paid in cash;
- Allowances for transport to or from work.

Gross non-cash employee income (PY020G) refers to the non-monetary income components which may be provided free or at reduced price to an employee as part of the employment package by an employer (only the value of private use is taken into account). Examples are a company car and associated costs, free or subsidised meals, luncheon vouchers, reimbursement or payment of housing-related expenses.

Incoming mobility rate (Figures 7.10, 7.11, 7.17, 7.18, 7.19 and 7.20)

Incoming mobility rate refers to mobile students (enrolments or graduates) from abroad studying in the country of destination as a percentage of the total number of students enrolled/graduating in the country.

International Standard Classification of Education (ISCED)

The International Standard Classification of Education (ISCED) has been developed to facilitate comparisons of education statistics and indicators across countries on the basis of uniform and internationally agreed definitions. The coverage of ISCED extends to all organised and sustained learning opportunities for children, young people and adults, including those with special educational needs, irrespective of the institutions or organisations providing them or the form in which they are delivered.

The older ISCED classification – known as ISCED 1997 (UNESCO, 1997b) – referred to seven levels of education:

- ISCED 0: Pre-primary education;
- ISCED 1: Primary education;
- ISCED 2: Lower secondary education;
- ISCED 3: Upper secondary education;
- ISCED 4: Post-secondary non-tertiary education;
- ISCED 5: Tertiary education (first stage);
- ISCED 6: Tertiary education (second stage).

The current classification – ISCED 2011 or 'ISCED' (UNESCO-UIS, 2012) – refers to the following levels of education:

ISCED 0: Pre-primary education

Programmes at level 0 (pre-primary), defined as the initial stage of organised instruction, are designed primarily to introduce very young children to a school-type environment, i.e. to provide a bridge between the home and a school-based atmosphere. Upon completion of these programmes, children continue their education at level 1 (primary education).

ISCED level 0 programmes are usually school-based or otherwise institutionalised for a group of children (e.g. centre-based, community-based, home-based).

Early childhood educational development (ISCED level 010) has educational content designed for younger children (in the age range of 0 to 2 years). Pre-primary education (ISCED level 020) is designed for children aged at least 3 years.

ISCED 1: Primary education

Primary education provides learning and educational activities typically designed to provide students with fundamental skills in reading, writing and mathematics (i.e. literacy and

numeracy). It establishes a sound foundation for learning, a solid understanding of core areas of knowledge and fosters personal development, thus preparing students for lower secondary education. It provides basic learning with little specialisation, if any.

This level begins between 5 and 7 years of age, is compulsory in all countries and generally lasts from four to six years.

ISCED 2: Lower secondary education

Programmes at ISCED level 2, or lower secondary education, typically build upon the fundamental teaching and learning processes which begin at ISCED level 1. Usually, the educational aim is to lay the foundation for lifelong learning and personal development that prepares students for further educational opportunities. Programmes at this level are usually organised around a more subject-oriented curriculum, introducing theoretical concepts across a broad range of subjects.

This level typically begins around the age of 11 or 12 and usually ends at age 15 or 16, often coinciding with the end of compulsory education.

ISCED 3: Upper secondary education

Programmes at ISCED level 3, or upper secondary education, are typically designed to complete secondary education in preparation for tertiary or higher education, or to provide skills relevant to employment, or both. Programmes at this level offer students more subject-based, specialist and in-depth programmes than in lower secondary education (ISCED level 2). They are more differentiated, with an increased range of options and streams available.

This level generally begins at the end of compulsory education. The entry age is typically age 15 or 16. Entry qualifications (e.g. completion of compulsory education) or other minimum requirements are usually needed. The duration of ISCED level 3 varies from two to five years.

ISCED 4: Post-secondary non-tertiary education

Post-secondary non-tertiary programmes build on secondary education to provide learning and educational activities to prepare students for entry into the labour market and/or tertiary education. It typically targets students who have completed upper secondary (ISCED level 3) but who want to improve their skills and increase the opportunities available to them. Programmes are often not significantly more advanced than those at upper secondary level as they typically serve to broaden rather than deepen knowledge, skills and competencies. They are therefore pitched below the higher level of complexity characteristic of tertiary education.

ISCED 5: Short-cycle tertiary education

Programmes at ISCED level 5 are short-cycle tertiary education, and are often designed to provide participants with professional knowledge, skills and competencies. Typically, they are practice-based and occupation-specific, preparing students to enter the labour market. However, these programmes may also provide a pathway to other tertiary education programmes.

Academic tertiary education programmes below the level of a Bachelor's programme or equivalent are also classified as ISCED level 5.

ISCED 6: Bachelor's or equivalent level

Programmes at ISCED level 6 are at Bachelor's or equivalent level, which are often designed to provide participants with intermediate academic and/or professional knowledge, skills and

competencies, leading to a first degree or equivalent qualification. Programmes at this level are typically theory-based but may include practical elements; they are informed by state of the art research and/or best professional practice. ISCED 6 programmes are traditionally offered by universities and equivalent tertiary educational institutions.

ISCED 7: Master's or equivalent level

Programmes at ISCED level 7 are at Master's or equivalent level, and are often designed to provide participants with advanced academic and/or professional knowledge, skills and competencies, leading to a second degree or equivalent qualification. Programmes at this level may have a substantial research component but do not lead to the award of a doctoral qualification. Typically, programmes at this level are theory-based but may include practical components and are informed by state of the art research and/or best professional practice. They are traditionally offered by universities and other tertiary educational institutions.

ISCED 8: Doctoral or equivalent level

Programmes at ISCED level 8 are at doctoral or equivalent level, and are designed primarily to lead to an advanced research qualification. Programmes at this ISCED level are devoted to advanced study and original research and are typically offered only by research-oriented tertiary educational institutions such as universities. Doctoral programmes exist in both academic and professional fields.

The first statistical data collection based on ISCED 2011 took place in 2014.

The ISCED classification also refers to fields of education. This area was revised in 2013 (ISCED-F 2013). The current classification refers to 'broad fields', which are further divided into 'narrow fields' and 'detailed fields' (UNESCO-UIS, 2015). The 'broad fields' are as follows:

- 00 Generic programmes and qualifications;
- 01 Education;
- 02 Arts and humanities;
- 03 Social sciences, journalism and information;
- 04 Business, administration and law;
- 05 Natural sciences, mathematics and statistics;
- 06 Information and Communication Technologies (ICTs);
- 07 Engineering, manufacturing and construction;
- 08 Agriculture, forestry, fisheries and veterinary;
- 09 Health and welfare;
- 10 Services;
- 99 Field unknown.

International Standard Classification of Occupations (ISCO) (Figures 6.9, 6.10, 6.11 and 6.12)

ISCO is a tool for organizing jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job. The first version of ISCO was adopted in 1957 by the Ninth International Conference of Labour Statisticians (ICLS). The second version, ISCO-68 was adopted in 1966 and the third version, ISCO-88, in 1987. Though ISCO-88 was updated in December 2007 (ISCO-08), this report uses the classification of the ISCO-88 version, which defines the following major groups:

4. Legislators, senior officials and managers
5. Professionals
6. Technicians and associate professionals
7. Clerks
8. Service workers and shop and market sales workers
9. Skilled agricultural and fishery workers
10. Craft and related trades workers
11. Plant and machine operators and assemblers
12. Elementary occupations
13. Armed forces (¹⁵¹)

Mature students (Figures 5.8, 5.9 and 5.32)

For the purposes of this report, mature students are defined as students aged 30 or more years old.

Median

The median is the middle value in a group of numbers ranked in order of size, thus dividing the group into two halves. In other words, it is the number in a range of scores that falls exactly in the middle so that 50 % of the scores are above and 50 % are below (Eurostat, 2018c). In this report, the EHEA median refers to the median of values among the EHEA countries where data are available.

Migrant status (Figure 5.6)

In the Eurostudent survey, students are classified according to their own and their parents' places of birth and the location of their latest educational attainment. Students are classified as international students if they possess a foreign higher education entry qualification or have left the school system for the first time abroad (regardless of their and their parents' birthplace). Students with a national higher educational entry qualification, or who have left the regular school system for the first time without a qualification in the country of the survey, are further categorised according to their own and their parents' places of birth. First generation students with national educational background were born abroad, as were at least one of their parents. Second generation students with national educational background have one (mixed) or two (foreign) parents who were not born in the country of the survey. The category "Other" comprises students who were born abroad, but have parents born in the country of survey. Students without migration background and national educational background were born in the country of survey, as were their parents.

Eurostat data (Figure 5.7) only makes a distinction between the foreign-born and the native-born population, without reference to migrant status.

⁽¹⁵¹⁾ For more details on the ISCO classification, see: <http://www.ilo.org/public/english/bureau/stat/isco/> [Accessed 8 March 2018].

New entrants (Figures 5.1, 5.3 and 5.4)

New entrants to a level of education are students who, during the course of the reference school or academic year, enter for the first time any programme in a given level of education, irrespective of whether the students enter the programme at the beginning or at an advanced stage of the programme (e.g. by virtue of credits gained for relevant work experience or courses taken at another level of education) (UNESCO, OECD and Eurostat 2016, p. 36).

Odds ratio (Figures 5.29 and 5.31)

The odds ratio refers to the ratio of the likelihood that an event may occur in one group in comparison to its likelihood ratio in another group. An odds ratio of 1 indicates that the condition or event under study is equally likely to occur in both groups. An odds ratio greater than 1 indicates that the condition or event is more likely to occur in the first group. And an odds ratio less than 1 indicates that the condition or event is less likely to occur in the first group. An odds ratio is calculated in the following way (probabilities of the event in each of the groups are p_1 (first group) and p_2 (second group)): $(p_1/(1-p_1))/(p_2/(1-p_2))$.

Outward mobility rate (Figures 7.12, 7.13, 7.16, 7.17, 7.18 and 7.21)

Outward mobility rate refers to students (enrolment or graduates) from a country of origin studying abroad (outwardly mobile students) as a percentage of the total number of students with the same country of origin.

Percentile

The percentile X (with $X \geq 0$ and ≤ 100) of a sampled variable is the value of the variable under which are X per cent of the observations in the sample. For example, a percentile 25 (denoted P25) of EUR 1 000 for an income variable means that 25 % of people in that sample earn less than EUR 1 000. Percentile 0 is the minimum, and P100 the maximum. The median is percentile 50 (Eurostat and Eurostudent 2009, p. 129).

Purchasing power parity (PPP)

A currency conversion rate which converts economic indicators expressed in a national currency into an artificial common currency that equalises the purchasing power of different national currencies. In other words, PPP eliminates the differences in price levels between countries in the process of conversion to an artificial common currency, called Purchasing Power Standard (PPS).

Purchasing power standard (PPS) (Figures 1.12, 1.14, 6.6 and 6.7)

The artificial common reference currency unit used in the European Union to express the volume of economic aggregates for the purpose of spatial comparisons in such a way that price level differences between countries are eliminated. Economic volume aggregates in PPS are obtained by dividing their original value in national currency units by the respective PPP (Purchasing power parity). PPS thus buys the same given volume of goods and services in all countries, whereas different amounts of national currency units are needed to buy this same volume of goods and services in individual countries, depending on the price level.

Students enrolled as part-timers (Figures 2.21, 2.22 and 2.23)

Within the UOE data collection, the part-time/full-time classification is regarded as an attribute of student participation rather than as an attribute of the educational programmes or the provision of education in general. A part-time student is one who is enrolled in an education programme whose intended study load is less than 75 % of the normal full-time annual study load (UNESCO-UIS, OECD and Eurostat 2016, p. 27).

Tertiary education (as defined within the ISCED classification)

Tertiary education builds on secondary education, providing learning activities in specialised fields of education. It aims at learning at a high level of complexity and specialisation. Tertiary education includes what is commonly understood as academic education but also includes advanced vocational or professional education. It comprises ISCED levels 5, 6, 7 and 8, which are labelled as short-cycle tertiary education, Bachelor's or equivalent level, Master's or equivalent level, and doctoral or equivalent level, respectively. The content of programmes at the tertiary level is more complex and advanced than in lower ISCED levels.

Unemployment rate and unemployment ratio (Figures 6.1, 6.2, 6.3, 6.4 and 6.5)

An unemployed person is defined by Eurostat, according to the guidelines of the International Labour Organization, as:

- someone aged 15 to 74 (in Italy, Spain, the United Kingdom, Iceland, Norway: 16 to 74 years);
- without work during the reference week;
- available to start work within the next two weeks (or has already found a job to start within the next three months);
- actively having sought employment at some time during the last four weeks.

The unemployment rate is the number of people unemployed as a percentage of the labour force (Eurostat, 2018d).

The *unemployment ratio* is the number of people unemployed as a percentage of the total population.

Vertical mismatch (Figure 6.12)

Refers to a situation in which the level of education or skills is less or more than the required level of education or skills (Cedefop 2010, p. 13). Regarding Figure 6.12, vertical mismatch refers to the situation in which people with tertiary qualifications have jobs not requiring this qualification level.

IV. Data sources

BFUG data collection

This direct data collection based on two questionnaires (an Excel questionnaire and an on-line questionnaire) was aimed at collecting information for the present report. The reference year was the academic year 2016/17. The questionnaires primarily focused on qualitative information, and consisted of several parts covering the following areas:

- contextual data;
- learning and teaching;
- degree structures, qualifications, and Bologna tools;
- quality assurance;
- social dimension policies and measures;
- fees, support and portability;
- employability;
- internationalisation and mobility.

When filling in the questionnaires, the Bologna Follow-Up Group representatives were asked to consult all the relevant actors/stakeholders in their respective systems to ensure the highest degree of accuracy possible.

The information covered by the questionnaires was submitted by all signatory countries.

Bologna with Student Eyes 2018 (European Students' Union)

Reference year: 2018

Coverage: 38 EHEA countries, 43 National Unions of Students

Description:

With different methodological approaches, ESU has been reviewing the implementation of the Bologna Process since 2003 with the Bologna with Student Eyes (BWSE) publication, launched prior to each ministerial conference.

BWSE2018 explores the perception of implementation amongst ESU's members operating in EHEA countries and seeks to bring attention to the students' priorities and recommendations for the future of the Bologna Process.

The 2018 edition of the publication highlights the need for further implementation, the slow development within the field of social dimension and embraces the importance of respect for the fundamental values of the Bologna Process.

Classification of Functions of Government (COFOG)

The Classification of Functions of Government (COFOG) was developed by the Organization for Economic Cooperation and Development (OECD) and is published by the United Nations Statistical Division (UNSD).

COFOG is regarded as the appropriate basis to examine the structure of government expenditure. It is a 3-level classification with 10 'divisions' at the top level, each of which is broken down to about 6 'groups' at the next level of detail, which in turn are subdivided into 'classes'. Divisions describe the broad objectives of government, while groups and classes both define the means by which these broad objectives are achieved (¹⁵²).

EQAR/Eurydice survey to BFUG members

This data collection was undertaken through an on-line questionnaire. It aimed at collecting information to be presented in this report and used by EQAR on the legal frameworks allowing higher education institutions to choose a suitable EQAR-registered agency for external quality assurance processes. The reference year was the academic year 2016/17.

Questionnaires responses were submitted by national authorities in all signatory countries with the exception of Cyprus and the Holy See.

(¹⁵²) For more details on the Classification of Functions of Government (COFOG), see: [http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Classification_of_the_functions_of_government_\(COFOG\)](http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Classification_of_the_functions_of_government_(COFOG)) [Accessed 8 March 2018].

EU Labour Force Survey (EU-LFS)

The EU-LFS is the largest European household sample survey providing quarterly and annual results on labour participation of people aged 15 and over as well as on persons outside the labour force. It covers residents in private households. The EU-LFS is an important source of information about the situation and trends in the EU labour market.

The EU-LFS currently covers thirty-four countries (participating countries) providing Eurostat with data from national labour force surveys: the 28 Member States of the European Union, three EFTA countries (Iceland, Norway and Switzerland), and three candidate countries, i.e. the former Yugoslav Republic of Macedonia, Montenegro and Turkey. The EU-LFS is conducted by the national statistical institutes in accordance with Council Regulation (EEC) No. 577/98 of 9 March 1998 and the data are centrally processed by Eurostat.

Each quarter around 1.7 million interviews are conducted throughout the participating countries to obtain statistical information for some 100 variables. Due to the diversity of information and the large sample size the EU-LFS is also an important source for other European statistics like Education statistics or Regional statistics.

The main statistical objective of the EU-LFS is to divide the resident population of working age (15 years and above) into three mutually exclusive and exhaustive groups – persons employed, unemployed and economically inactive persons – and to provide descriptive and explanatory data on each of these categories. Respondents are assigned to one of these groups according to international classification on the basis of the information obtained through the survey questionnaire, which principally relates to their actual activity within a particular reference week. The EU-LFS defines the resident population as persons living in private households.

The EU-LFS data collection covers demographic background, labour status, employment characteristics of the main job, hours worked, employment characteristics of the second job, time-related underemployment, search for employment, education and training, previous work experience of persons not in employment, situation one year before the survey, main labour status and income (¹⁵³).

Eurostudent VI survey

Reference year: 2016/17

Coverage: 28 EHEA countries

Description:

EUROSTUDENT couples a central coordination approach with a strong network of national partners in each participant country. The EUROSTUDENT consortium provides national contributors with the EUROSTUDENT core questionnaire, as well as extensive instructions for conducting the field phase at the national level, data cleaning and weighting, calculation of indicators, and data delivery.

The national research teams are chosen and funded by the participating national ministries. The national research teams are responsible for implementing a national student survey, delivering the data to the EUROSTUDENT VI data team in accordance with EUROSTUDENT conventions, and providing national interpretations of the delivered data. The delivered data are checked in a series of

(¹⁵³) For more details on the EU-LFS, see: http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey [Accessed 8 March 2018].

feedback loops for accuracy and comparability and are validated for publication by the national research team.

EUROSTUDENT conventions are the instruments used to ensure the comparability and quality of the data collected. Since the 1st round of EUROSTUDENT, these conventions have been continuously developed further and are the result of productive discussions during several project meetings, intensive seminars, and workshops which were organised by the EUROSTUDENT consortium. They are documented in several handbooks which are provided to all EUROSTUDENT partners as well as the interested public.

The EUROSTUDENT core questionnaire details the items, responses, and instructions to be used in the national surveys. The questionnaire handbook provides in-depth explanations of the purpose of each question and instructions on adapting it, if necessary, to the national context.

The EUROSTUDENT VI questionnaire handbook is available on the EUROSTUDENT website.

The questionnaire handbook also provides guidelines for the preparation and execution of the survey at the national level. It provides information on the EUROSTUDENT standard target group, sampling guidelines, as well as information on the survey organisation and method.

Target group:

The EUROSTUDENT target group includes all students who are – at the time of observation (usually: semester) – enrolled in any national study programme regarded to be higher education in a country. Usually that corresponds to ISCED levels 5, 6, and 7.

This means all students should be included regardless of:

Nationality – National and foreign students should be included, as long as they are studying for a full degree in the country of observation (and are not only obtaining a limited number of credits, e.g. as an Erasmus student).

Full-time/part-time status – Full-time, part-time, and/or correspondence students should be included as long as the study programmes the students are enrolled in offer a minimum of physical face-to-face interaction in lectures/classes (not only exams).

Character of the higher education institution (HEI) or study programme – General as well as professional orientations of HEIs and study programmes should be included, as long as the programmes and institutions are considered to be higher education in the national context.

Legal character of the HEI – Public and private institutions should be included, as long as private institutions are considered to be a regular part of the higher education system in the national context.

Excluded from the EUROSTUDENT target group are:

Students on (temporary) leave, i.e. students who have officially or non-officially interrupted their studies at the time of observation for whatever reason.

Students on credit mobility, short-term mobile students (e.g. Erasmus students), i.e. students who are currently studying in the country of observation (incoming) or who have currently left the country of observation (outgoing) for a short time period (e.g. one or two semesters) with the purpose of gaining only a relatively small number of credits.

Students in ISCED 8 study programmes (PhD – and doctoral programmes).

Students in distance learning study programmes which do not offer any physical face-to-face lecture period at all, but are solely based on written/online interaction (apart from exams).

Students at very specialised HEIs, e.g. military or police academies, or HEIs directly affiliated with one company. This might also include programmes providing training only for public administration.

Students in programmes classified as ISCED (2011) levels 5 or 6 which are not regarded to be higher education in the national context. This could encompass, for example, further vocational training programmes for Master crafts(wo)men, or upper secondary schools or post-secondary programmes not regarded as higher education.

EU-Statistics on Income and Living Conditions (EU-SILC)

The EU statistics on income and living conditions, abbreviated as EU-SILC, is the reference source for comparative statistics on income distribution and social inclusion in the European Union (EU). It is used for policy monitoring within the 'Open method of coordination (OMC)'.

EU-SILC was launched in 2003 on the basis of a gentlemen's agreement between Eurostat and six Member States (Austria, Belgium, Denmark, Greece, Ireland and Luxembourg) and Norway. It was formally launched in 2004 in fifteen countries and expanded in 2005 to cover all of the then EU-25 Member States, together with Norway and Iceland. Bulgaria launched EU-SILC in 2006 while Romania, Switzerland and Turkey introduced the survey in 2007. EU-SILC provides two types of annual data:

- cross-sectional data pertaining to a given time or a certain time period with variables on income, poverty, social exclusion and other living conditions;
- longitudinal data pertaining to individual-level changes over time, observed periodically over a four-year period.

EU-SILC is a multi-purpose instrument which focuses mainly on income. Detailed data are collected on income components, mostly on personal income, although a few household income components are included. However, information on social exclusion, housing conditions, labour, education and health information is also obtained.

EU-SILC is based on the idea of a common 'framework' and no longer a common 'survey'. The common framework defines

- the harmonised lists of target primary (annual) and secondary (every four years or less frequently) variables to be transmitted to Eurostat;
- common guidelines and procedures;
- common concepts (household and income) and classifications aimed at maximising comparability of the information produced.

The reference population in EU-SILC includes all private households and their current members residing in the territory of the countries at the time of data collection. Persons living in collective households and in institutions are generally excluded from the target population. Some small parts of the national territory amounting to no more than 2 % of the national population and the national territories may be excluded from EU-SILC. All household members are surveyed, but only those aged 16 and more are interviewed (¹⁵⁴).

(¹⁵⁴) For more details on the EU-SILC, see: [http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_statistics_on_income_and_living_conditions_\(EU-SILC\)_methodology](http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_statistics_on_income_and_living_conditions_(EU-SILC)_methodology) -

Trends 2018 (European University Association)

Reference year: 2017

Coverage: 303 higher education institutions from 43 higher education systems

Description:

The Trends series has been published by the European University Association (EUA) and its predecessor organisation since the signing of the Bologna Declaration in 1999, with Trends 2018 presenting the eighth edition.

Trends provide an institutional perspective on higher education policy and institutional developments in Europe. Over the years, the focus of TRENDS has been changing. Whereas previous reports analysed mainly how the Bologna reforms have been implemented at the European universities, Trends 2015 discussed, amongst other themes, also developments in learning and teaching (L&T).

Trends 2018 research continues and further enhances this focus, and explores recent European policy developments and institutional strategies and practice on L&T.

UOE data collection on education and training systems (UOE)

The UNESCO Institute for Statistics (UIS-UNESCO), the Organisation for Economic Co-operation and Development (OECD) and the Statistical Office of the European Union (Eurostat) jointly provide internationally comparable data on key aspects of education and training systems through the annual UOE data collection.

For tertiary education the collection covers entrants (input), enrolments (stock) and graduates (output). Data on education expenditure and personnel is also provided. The data are broken down by educational level (using the ISCED classification), as well as by sex, age, sector and field of education. Separate tables provide information on mobile and foreign students and graduates by country of origin (as well as by level, sex and field of education).

Within the UOE data collection, Eurostat collects and disseminates data from the EU Member States, candidate countries and EFTA countries. The OECD collects data from other OECD countries (such as Australia, Canada, Japan and the United States), while the UIS-UNESCO collects data from other participating countries. The validated data are used by the three organisations (¹⁵⁵).

V. Notes on figures

Chapter 1

Figure 1.1: Number of students enrolled in tertiary education by ISCED level, 2014/15

Belgium: Data on 'Independent private institutions' not included, except at ISCED 6 and 7.

Bosnia and Herzegovina, Bulgaria, Finland, Greece, Liechtenstein, Lithuania, Montenegro, Romania and Serbia: ISCED 5: not applicable.

Greece: ISCED levels are estimated.

Estonia and the former Yugoslav Republic of Macedonia: ISCED 5: not applicable according to Eurostat database.

Figure 1.2: Change in the total number of students enrolled in tertiary education between 2009/10 and 2011/12 and between 2012/13 and 2014/15

[introduction#Main characteristics of EU-SILC](#) [Accessed 8 March 2018].

(¹⁵⁵) For more details on the UOE data collection, see: [http://ec.europa.eu/eurostat/statistics-explained/index.php/UNESCO_OECD_Eurostat_\(UOE\)_joint_data_collection_%E2%80%93_methodology#Introduction](http://ec.europa.eu/eurostat/statistics-explained/index.php/UNESCO_OECD_Eurostat_(UOE)_joint_data_collection_%E2%80%93_methodology#Introduction) [Accessed 8 March 2018].

Belgium: 2013-2015 - Data on 'Independent private institutions' not included, except at ISCED 6 and 7. 2010-2012 - Data exclude the German-speaking Community. Data exclude students in private independent institutions.

Bosnia and Herzegovina, Bulgaria, Finland, Greece, Liechtenstein, Lithuania, Montenegro, Romania and Serbia: 2013-2015 ISCED 5: not applicable.

Cyprus: 2010-2012 - Due to 2 years compulsory military service for men aged 18-20, some of them are not in education.

Greece: 2013-2015 ISCED levels are estimated.

Liechtenstein and Romania: 2010-2012 - ISCED 5B: not applicable.

Russia is not included in the analysis. Missing data for Bosnia and Herzegovina and Luxembourg for the 2009-2012 period.

Figure 1.3: Enrolment rates in tertiary education for the 18-34 years old (% of the total population aged 18-34), 2008/09, 2011/12, 2014/15

Germany: 2009: exclude ISCED 6.

Romania: 2010: Changes in classification at tertiary level.

Missing data for Montenegro (2012) and Albania, Andorra, Bosnia and Herzegovina, Greece, Kazakhstan, Luxembourg and Montenegro (2009).

Figure 1.6: Percentage change in the total number of academic staff between 2000 and 2016

Data referring to 2000, 2005 and 2010 covers academic staff at ISCED 1997 levels 5-6. Data referring to 2016 covers academic staff at ISCED 2011 levels 5-8. All data covers all types of higher education institutions (i.e. public, private government dependent and private government independent).

Belgium, the Czech Republic, Estonia, Germany, Italy, Latvia, the former Yugoslav Republic of Macedonia, Norway, Poland, Slovakia, Slovenia, Spain, Sweden and the United Kingdom are represented by 2015 data.

Figure 1.7: Academic staff by age groups (%), 2015

Data refers to academic staff at ISCED 2011 levels 5-8. It covers all types of higher education institutions (i.e. public, private government dependent and private government independent).

Greece and Turkey are represented by 2014 data.

Figure 1.8: Female academic staff (%), 2000 and 2016

Data refers to academic staff at ISCED 2011 levels 5-8.

Belgium, Croatia, Denmark, Estonia, France, Germany, Italy, Latvia, Luxembourg, the former Yugoslav Republic of Macedonia, Norway, Poland, Portugal, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom are represented by 2015 data. **Greece and Turkey** are represented by 2014 data.

Figure 1.9: Annual public expenditure on tertiary education as a % of GDP, total with R&D and total without R&D, 2014

Belgium: Expenditure in independent private institutions is not included

Countries not in the analysis: Andorra, Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Greece, Liechtenstein, the former Yugoslav Republic of Macedonia and Montenegro.

Figure 1.10: Annual public expenditure on tertiary education as a % of total public expenditure, 2008, 2011, 2014

EHEA is the EHEA median. Countries are sorted by the share of annual public expenditure on tertiary education in 2014. Countries not in the analysis: Andorra, Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Finland, Greece, Holy See, Kazakhstan, Liechtenstein, the former Yugoslav Republic of Macedonia, Moldova, Montenegro, Russia, Serbia, Turkey, and Ukraine. Missing data for Albania and Luxembourg in 2011 and 2008. The numbers from 2015 report for 2011-2012 do not match the numbers for 2011-2012 in this report.

Figure 1.11: Yearly changes in real public expenditure on tertiary education between year 2011 and year 2015 (price index 2010=100)

Countries not in the analysis – Bosnia and Herzegovina, Holy See, Liechtenstein, the former Yugoslav Republic of Macedonia, Moldova, Montenegro, Russia and Turkey. Missing data for Iceland (2011-2013), Albania, Andorra, Armenia, Azerbaijan, Georgia, Kazakhstan, Serbia, Ukraine (2014-2015).

Figure 1.12: Annual public and private expenditure on public and private tertiary education institutions, per full-time equivalent student in PPS, 2008, 2011, 2014

Austria: 2008: Payments from private entities other than households to public educational institutions are not available.

Belgium: Expenditure exclude independent private institutions for all years and the German-speaking Community for years 2008 and 2011. 2014 - Expenditure in independent private institutions is not included

Croatia: 2008: Capital expenditure from private educational institutions is not available. 2008: Expenditure for compensation of personnel in private educational institutions is not available. 2008 and 2011: Payments from international agencies and other foreign sources to independent private educational institutions are not available. 2008: Expenditure for independent private

educational institutions is not available.

Denmark: Expenditure of post-secondary non-tertiary level of education is partially included in tertiary level of education. R&D expenditure is not available. 2011: Payments from other private entities to educational institutions are not available.

Poland: Payments from other private entities to educational institutions are not available. 2008: Payments from international agencies and other foreign sources to educational institutions are not available.

Portugal: Expenditure at local level of government is not available. 2008 and 2011: Expenditure of post-secondary non-tertiary level of education is partially included in upper secondary and tertiary level of education. 2008: Imputed retirement expenditure is not available; Payments from international agencies and other foreign sources to educational institutions are not available.

Slovakia: Expenditure of ISCED 5B is not included. 2008: Expenditure for independent private educational institutions is not available. Payments from international agencies and other foreign sources to private educational institutions are not available.

Slovenia: 2008: Capital expenditure from private educational institutions is not available.

Spain: 2008: Expenditure for ancillary services is not available.

United Kingdom: 2008-2011: Adjustment of educational expenditure of financial year that is running from 1 April to 31 March, to the calendar year.

Countries not in the analysis – Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Belarus, Georgia, Greece, Kazakhstan, Liechtenstein, the former Yugoslav Republic of Macedonia, Moldova, Montenegro, Russia, Switzerland and Ukraine. Missing data for Denmark (2014), Hungary, Ireland, Luxembourg, Serbia (2011), and Hungary, Ireland, Luxembourg, Turkey, Romania and Serbia (2008).

Figure 1.13: Annual public expenditure on public and private tertiary education institutions per full-time equivalent student in euro, 2014

Countries not included in the analysis – Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Russia, Georgia, Greece, Kazakhstan, Liechtenstein, the former Yugoslav Republic of Macedonia, Moldova, Montenegro and Ukraine.

Figure 1.14: Annual public and private expenditure on public and private education institutions on tertiary education per full-time equivalent student in PPS relative to the GDP per inhabitant in PPS, 2008, 2011 and 2014

Austria: 2008: Payments from private entities other than households to public educational institutions are not available.

Belgium: Expenditure exclude independent private institutions for all years and the German-speaking Community for years 2008 and 2011.

Croatia: 2008: Capital expenditure from private educational institutions is not available. 2008: Expenditure for compensation of personnel in private educational institutions is not available. 2008 and 2011: Payments from international agencies and other foreign sources to independent private educational institutions are not available. 2008: Expenditure for independent private educational institutions is not available.

Denmark: Expenditure of post-secondary non-tertiary level of education is partially included in tertiary level of education. R&D expenditure is not available. 2011: Payments from other private entities to educational institutions are not available.

Iceland: 2008: Expenditure for ancillary services, payments from other private entities to educational institutions and payments from international agencies and other foreign sources to educational institutions are not available. 2008: Capital expenditure from private educational institutions is not available. 2011: R&D expenditure is not available.

Norway: 2008: Payments from other private entities to educational institutions are not available. Payments from international agencies and other foreign sources to educational institutions are not available.

Poland: Payments from other private entities to educational institutions are not available. 2008: Payments from international agencies and other foreign sources to educational institutions are not available.

Portugal: Expenditure at local level of government is not available. 2008 and 2011: Expenditure of post-secondary non-tertiary level of education is partially included in upper secondary and tertiary level of education. 2008: Imputed retirement expenditure is not available; Payments from international agencies and other foreign sources to educational institutions are not available.

Slovakia: Expenditure of ISCED 5B is not included. 2008: Expenditure for independent private educational institutions is not available. Payments from international agencies and other foreign sources to private educational institutions are not available.

Slovenia: 2008: Capital expenditure from private educational institutions is not available.

Spain: 2008: Expenditure for ancillary services is not available.

United Kingdom: 2008-2011: Adjustment of educational expenditure of financial year, that is running from 1st of April to 31 March, to the calendar year.

Countries missing in the analysis: for 2008 – Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Greece, Hungary, Ireland, Kazakhstan, Liechtenstein, Luxembourg, the former Yugoslav Republic of Macedonia, Moldova, Montenegro, Romania, Russia, Serbia, Switzerland, Turkey and Ukraine; for 2011 – Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Greece, Hungary, Ireland, Kazakhstan, Liechtenstein, Luxembourg, the former Yugoslav Republic of Macedonia, Moldova, Montenegro, Russia, Serbia, Switzerland, Turkey and Ukraine; for 2014 – Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Denmark, Georgia, Greece, Kazakhstan, Liechtenstein, the former Yugoslav Republic of Macedonia, Moldova, Montenegro, Russia, Switzerland, Turkey and Ukraine.

Chapter 2

Figure 2.1: Expectations towards higher education institutions specified in national learning and teaching strategies (% of institutions reporting that there is a national strategy in place), 2017

Data source: Trends 2018 (European University Association)

Question: Q.8.1: What does this national strategy imply? Higher education institutions are expected...

Coverage: The question was only answered by those institutions that reported the presence of a national learning and teaching strategy, or a national higher education strategy, which includes learning and teaching among other matters (234 institutions out of 301 institutions that replied to the question).

Figure 2.2: Elements included in institutional learning and teaching strategies (% of institutions reporting that there is an institutional strategy in place), 2017

Data source: Trends 2018 (European University Association)

Question: Q.9.1: What elements does your institutional L&T strategy/policy address or include?

Coverage: The question was only answered by those institutions that indicated the presence of an institutional strategy on teaching and learning, including respondents referring to strategies at faculty/department level (260 institutions out of 303 institutions that replied to the question).

Figure 2.8: Impact of the learning outcomes approach in higher education institutions (% of institutions), 2017

Data source: Trends 2018 (European University Association)

Question: Q.22.1: What effect on the institution has the introduction of learning outcomes had so far?

Coverage: The figure was calculated on a basis of replies from 264 higher education institutions. It shows the percentage of institutions that answered 'Yes, this is the case' or 'Yes, to some extent' to specific items in this question. Answers 'No impact' and 'Don't know/No opinion' are not shown in the figure.

Figure 2.11: Training for higher education teaching staff in developing learning outcomes (% of institutions), 2017

Data source: Trends 2018 (European University Association)

Question: Q.39: Please indicate how teachers receive training in developing learning outcomes.

Coverage: The figure was calculated on a basis of replies from 285 higher education institutions.

Figure 2.14: Use of ECTS for credit accumulation and transfer by all higher education institutions, first- and second-cycle programmes, students' perspective, 2016/17

Data source: ESU data collection (Bologna with Student Eyes 2018 (European Students' Union))

Question: 2.2. In first and second cycle programmes, in your country, ECTS is used as a ... 'credit accumulation system within higher education institutions'; 'credit transfer system for student learning outcomes acquired in another institution in the country', 'credit transfer system for periods of study abroad'.

Figure 2.15: Elements used for the calculation of ECTS points in public higher education institutions, students' perspective, 2016/17

Data source: ESU data collection (Bologna with Student Eyes 2018 (European Students' Union))

Question: 2.1. Which elements are used in the calculation of ECTS points in your country?

Figure 2.17: Provision of part-time programmes or other alternative study forms by higher education institutions, 2016/17

Albania: According to the new Law on Higher Education (October 2015), higher education institutions can offer only 'full-time' study programmes. However, they can offer 'extended form of study', but only for short-cycle study programmes (post-secondary), Professional Master and Executive Master. According to the higher education law, extended form of study means that the duration of studies does not exceed the double normal time of the respective study programme. At present, Albania is in a transitory phase: higher education institutions are reorganising their study programmes as foreseen in the abovementioned law, while students enrolled before 2015 will finish their studies with the same status they entered in. Thus some phasing out students with part-time status could be found among the majority of full-time students.

Figure 2.21: Median of country percentages of students enrolled as part-timers in tertiary education, by age, 2014/15

Data source: Eurostat, [specific extraction from Eurobase: file 'ENRL3_AGE&P'] and additional collection for the other EHEA countries.

Albania, Azerbaijan, Kazakhstan, Moldova and Ukraine: data are missing for ages 45+.

Belgium: Data on 'Independent private institutions' not included, except at ISCED 6 and 7.

Greece: ISCED levels are estimated.

Coverage: Albania, Andorra, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Denmark, Estonia, Finland, Germany, Hungary, Kazakhstan, Iceland, Ireland, Latvia, Liechtenstein, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, the United Kingdom.

Figure 2.22: Students enrolled as part-timers in tertiary education, by country and by age (%), 2014/15

Data source: Eurostat, [specific extraction from Eurobase: file 'ENRL3_AGE&P'] and additional collection for the other EHEA countries.

Albania: Missing values for ISCED 5.

Austria, Greece, Italy, Serbia and Turkey: Not applicable.

Belgium: Data on 'Independent private institutions' not included, except at ISCED 6 and 7.

Cyprus, Czech Republic and France: Not available.

Kazakhstan: Data cover ISCED level 6.

Figure 2.23: 25, 50 and 75 percentile of countries according to the percentage of students enrolled as part-timers in tertiary education, by year, 2005-2015

Data source: Eurostat, [educ_enrl1ad] and [educ_ue_enrt01] and additional collection for the other EHEA countries.

Belgium: Data on 'Independent private institutions' not included, except at ISCED 6 and 7.

Coverage: Albania, Andorra, Armenia, Azerbaijan, Belarus, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Germany, Hungary, Iceland, Ireland, Kazakhstan, Latvia, Liechtenstein, Lithuania, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, the United Kingdom.

Figure 2.24: Students qualifying themselves as full-timers (%), 2016/17

Data source: EUROSTUDENT VI, C.5.

Countries in which no formal part-time status exists: Austria, Denmark, France, Georgia, Serbia and Turkey.

Countries which did not include part-time students in sample: Albania and Latvia.

No data: Italy.

EUROSTUDENT question(s): 1.5 What is your current formal status as a student?

Deviations from EUROSTUDENT conventions: the Czech Republic, Italy, Romania and Switzerland.

Deviations from EUROSTUDENT standard target group: Albania, Germany, Ireland, Italy, Latvia and Serbia.

Comments from national research teams on EUROSTUDENT data on part-time students:

Albania: According to the new Law on Higher Education (October 2015), higher education institutions can offer only 'full-time' study programmes. However, they can offer 'extended form of study', but only for short-cycle study programmes (post-secondary), Professional Master and Executive Master. According to the higher education law, extended form of study means that the duration of studies does not exceed the double normal time of the respective study programme. At present, Albania is in a transitory phase: higher education institutions are reorganising their study programmes as foreseen in the abovementioned law, while students enrolled before 2015 will finish their studies with the same status they entered in. Thus some phasing out students with part-time status could be found among the majority of full-time students.

Czech Republic: We assume part-time students as those who are studying during the weekend etc. Full-time students go to school on daily basis.

Slovenia: Part-time students, unlike full-time students in 1st and 2nd cycle studies, have to pay (higher) tuition fees. Regarding the part-time studies, Article 37 of Higher Education Act states, that '...the organisation and schedule of lectures, seminars and practical exercises may be adapted to the possibilities of students (e.g. part-time studies)'. This shall be done in the manner and under the procedure laid down by the statute. Full-time study in Slovenia is study with a full load, i.e. 60 ECTS per year. It can be payable or unpayable. In case of 'part-time stud' the organization and schedule of lectures, seminars and exercises may be adapted to the possibilities of students – however, 'part-time study' still leads to 60 ECTS per year and is payable. Students, irrespective of whether the study is provided full-time or part-time, have the right to health care and other benefits and rights (e.g. food, transport, grants) in accordance with special regulations provided they are not in full-time employment or registered job seekers.

Sweden: The students course registrations defines if the student is a full-time student or not. The study pace is stated as a percentage of average credits per week throughout the course period. 1,5 ECTS credits per week = 100 % (and 30 credits per semester). A course comprising of 15 credits over a given term corresponds to a study pace of 50 % on this specific course. If the students are registered to more than one course during the same period, the total course registration credits for the period will define if the student is a full-time student or not. In Sweden distance studies and on-campus studies are also registered in the study administrative system. Of the students that only studied distance courses in the academic year 2015/2016, more than 71 percent studied free-standing courses. For students studying on campus the relationship was the reverse, 76 percent were programme students.

Turkey: In Turkey there are 'İkinci Öğretim Programı' in Turkish in higher education ('Evening Education Programme' in English) within the framework of the law 3843. According to this Law, Evening Education is defined as the formal education when the normal formal education (daytime education) has been completed in higher education institutions. There is no difference between Formal Education and Evening Education in terms of period of study, study guidelines for associate's degree and bachelor's degree levels, attendance, number of mid-term examinations, contribution to the success grade, implementation and make-up examination conditions, and other issues regarding education and training [these fall under the category 'other'].

Figure 2.25: Part-time students according to their study intensity (self-reported) as % of students in different study intensity groups, 2016/17

Data source: EUROSTUDENT VI, C.5.

Countries in which no formal part-time status exists: Austria, Denmark, France, Georgia, Serbia and Turkey.

Countries which did not include part-time students in sample: Albania and Latvia.

No data: Italy.

EUROSTUDENT question(s): 1.5 What is your current formal status as a student?

Deviations from EUROSTUDENT conventions: the Czech Republic, Italy, Romania and Switzerland.

Deviations from EUROSTUDENT standard target group: Albania, Germany, Ireland, Italy, Latvia and Serbia.

Figure 2.33: Trends in higher education institutions regarding digital learning, last three years (% of institutions), 2017

Data source: Trends 2018 (European University Association)

Question: Q.25: What are the main trends at your institution regarding digital learning in the last three years?

Coverage: The figure was calculated on a basis of replies from 293 higher education institutions. The figure shows the percentage of institutions that answered 'Yes, this is the case' or 'Yes, to some extent' to specific items in this question. Answers 'No' and 'Information unavailable' are not shown in the figure.

Figure 2.34: Formal or most common requirements for holding higher education positions with teaching responsibilities (% of institutions), 2017

Data source: Trends 2018 (European University Association)

Question: Q.34: In your institution, what formal or most common requirements are needed for holding one of the positions below with teaching responsibilities?

Coverage: The figure was calculated on a basis of replies from 303 higher education institutions.

Figure 2.36: Measures to promote and develop teaching skills of academics (% of institutions), 2017

Data source: Trends 2018 (European University Association)

Question: Q.38: Has there been a systematic effort to establish the following at your institution?

Coverage: The figure was calculated on a basis of replies from 287 higher education institutions. The figure shows the percentage of institutions that answered 'Yes' to specific items in this question. Answers 'No, but we are planning to do this', 'No' and 'Information unavailable' are not shown in the figure.

Figure 2.37: Means of assessment/enhancement of teaching in place throughout the institution (% of institutions), 2017

Data source: Trends 2018 (European University Association)

Question: Q.36: Which of the following means and criteria are used for the assessment of teaching?

Coverage: The figure was calculated on a basis of replies from 289 higher education institutions. The figure shows the percentage of institutions that answered 'Yes, throughout the institution' to specific items in this question. Answers 'Yes, in some parts of the institution', 'No, but we are planning to do it' and 'No, we do not use this' are not shown in the figure.

Figure 2.38: Students' satisfied with quality of teaching in their current study programme (%), 2016/17

Data source: EUROSTUDENT VI, J.29.

No data: Austria, Germany, Italy, Switzerland and Turkey.

EUROSTUDENT Question(s): 1.9 How satisfied are you regarding the following aspects of your current (main) study programme?

Deviations from EUROSTUDENT standard target group: Albania, Germany, Ireland, Italy, Latvia and Serbia.

Figure 2.39: Students agreeing with the statement that their teachers inspire them (%), 2016/17

Data source: EUROSTUDENT VI, J.15.

No data: Austria, France, Germany, Italy, Switzerland and Turkey.

EUROSTUDENT Question(s): 1.13 To what extent do you agree with the following statements? - My teachers inspire me.

Deviations from EUROSTUDENT standard target group: Albania, Germany, Ireland, Italy, Latvia and Serbia.

Chapter 3

Figure 3.1: Distribution of students enrolled in ISCED 5-8 programmes, 2014/15

Data source: Eurostat, [educ_ue_enrt02] and additional collection for the other EHEA countries.

Belgium: Data on 'Independent private institutions' not included, except at ISCED 6 and 7.

Bosnia and Herzegovina, Bulgaria, Finland, Greece, Liechtenstein, Lithuania, Montenegro, Romania and Serbia: ISCED 5: not applicable.

Estonia and the former Yugoslav Republic of Macedonia: ISCED 5: not applicable according to Eurostat database.

Greece: ISCED levels are estimated.

Figure 3.2: Share of first cycle-programmes with a workload of 180, 210, 240 or another number of ECTS credits, 2016/17

Coverage: No data for the United Kingdom (England, Wales and Northern Ireland).

Figure 3.3: Share of second-cycle programmes with a workload of 60-75, 90, 120 or another number of ECTS credits, 2016/17

Coverage: No data for Greece and the United Kingdom (England, Wales and Northern Ireland).

Chapter 4

Figure 4.5: European Student Unions perception of student participation in external quality assurance, 2016/17

Data source: ESU data collection (Bologna with Student Eyes 2018 (European Students' Union))

Questions: 3.2. Is there a requirement that students are involved in external quality assurance review teams?

Figure 4.11: Scorecard indicator n°7: Level of openness to cross border quality assurance of EQAR registered agencies, 2016/17

Data source: EQAR/Eurydice survey to BFUG members, 2017.

Chapter 5

Figure 5.1: Relationship between the educational background of first-cycle new entrants (ISCED 6) and the educational attainment of their parents' cohort (population aged 45-64), 2016/17

Data source: Eurostat, EU-LFS (Population by educational attainment level, sex and age: edat_lfse_03).

Luxembourg: Data not reliable for proportions of the population aged 45-64 with different educational attainment levels.

Figure 5.2: Percentage of delayed transition students among students with/without higher education background, 2016/17

Data source: EUROSTUDENT VI, B.4.

No data: Malta.

EUROSTUDENT Question(s): 2.3 How long after leaving the #regular school system for the first time did you enter higher education for the first time?

Deviations from EUROSTUDENT survey conventions:

Austria: Only national students.

France: Delay calculated using the moment of graduation from high school and the first entering into an higher education institution.

Germany: Delay calculated based on month and year of obtaining #matura or foreign equivalent.

Hungary: Delay calculated using additional questions about the high school type, year of maturation and starting year of higher education studies.

Switzerland: Information from national register of students (Swiss University Information System); duration of transition into higher education is approximated.

Deviations from EUROSTUDENT standard target group: Albania, Germany, Ireland, Italy, Latvia and Serbia.

Figure 5.3: Percentage of women among new entrants in tertiary education in 2004/05 and 2014/15

Data source: Eurostat, [educ_entr2tl] and [educ_ue_ent01] and additional collection for the other EHEA countries.

Albania and Estonia: 2015 - ISCED 5 not available

Belgium, Ireland and Poland: 2005 - ISCED 6 not included.

Belgium and Malta: 2015 - ISCED 8 not available

Bosnia and Herzegovina, Bulgaria, Finland, Greece, Liechtenstein, Lithuania, Montenegro, Romania and Serbia: 2015 - ISCED 5: not applicable.

Croatia: 2005 – not significant data.

Finland: 2005 - ISCED 5B not applicable.

Finland and the Netherlands: 2005 ISCED 6 not included.

France: 2005 – missing data. 2015 - ISCED 5, 6 and 7 are not available

Germany: 2005 ISCED 6 not included.

Italy: 2005: ISCED 5B not significant.

Luxembourg, Latvia and Portugal: 2005 – missing data.

The Netherlands: 2005 - ISCED 5B not applicable.

Figure 5.4: Percentage of women among new entrants in tertiary education by level of education, 2014/15

Data source: Eurostat, [educ_uee_ent01] and additional collection for the other EHEA countries.

Albania and Estonia: ISCED 5 not available

Belgium and Malta: ISCED 8 not available

Bosnia and Herzegovina, Bulgaria, Finland, Greece, Liechtenstein, Lithuania, Montenegro, Romania and Serbia: ISCED 5: not applicable.

France: ISCED 5, 6 and 7 are not available

Figure 5.5: Median percentage of women among enrolled students in Bologna structures by field of education and level of Bologna structure (first and second cycle, ISCED 6 and 7), 2014/15

Data source: Eurostat, [educ_uee_enrt03] and additional collection for the other EHEA countries.

Country coverage ISCED 6:

Education: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Sweden, Turkey, the United Kingdom, Spain, Switzerland, Ukraine.

Arts and humanities: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Iceland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, Georgia, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovenia, Slovakia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Social sciences, journalism and information: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Sweden, Spain, Switzerland, Turkey, Ukraine, the United Kingdom.

Business, administration and law: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Spain, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Slovenia, Serbia, Sweden, Switzerland, Turkey, the United Kingdom, Ukraine.

Natural sciences, mathematics and statistics: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Information and communication technologies: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Engineering, manufacturing and construction: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Agriculture, forestry, fisheries and veterinary: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Georgia, Germany, Denmark, Estonia, Finland, France, Hungary, Kazakhstan, Iceland, Italy, Latvia, Lithuania, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Health and welfare: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Georgia, Hungary, Iceland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Services: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Kazakhstan, Latvia, Lithuania, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom.

Country coverage ISCED 7:

Education: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia,

Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Arts and humanities: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Georgia, Hungary, Iceland, Italy, Kazakhstan, Lithuania, Luxembourg, Latvia, the former Yugoslav Republic of Macedonia, Malta, Moldova the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Social sciences, journalism and information: Austria, Albania, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Business, administration and law: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Natural sciences, mathematics and statistics: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Information and communication technologies: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Engineering, manufacturing and construction: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, Ukraine.

Agriculture, forestry, fisheries and veterinary: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, the United Kingdom.

Health and welfare: Albania, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Kazakhstan, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Sweden, Spain, Switzerland, Turkey, Ukraine, the United Kingdom.

Services: Austria, Albania, Azerbaijan, Belgium, Bulgaria, Bosnia and Herzegovina, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Hungary, Iceland, Kazakhstan, Latvia, Lithuania, the former Yugoslav Republic of Macedonia, Malta, Moldova, the Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, the United Kingdom.

Figure 5.6: Composition of students by migration background (%), 2016/17

Data source: EUROSTUDENT VI, A.4.

No data: Italy and Romania. International students: Germany.

EUROSTUDENT Question(s): 5.3 In which country were you and your parents (or those who raised you) born? 2.0 Do you have a standard entrance qualification or foreign equivalent? 2.2 [only students without Matura] Where did you last attend the regular school system

Notes: Sum of categories may deviate from 100 due to rounding.

Deviations from EUROSTUDENT survey conventions: Germany: no international students included in sample.

Deviations from EUROSTUDENT standard target group: Albania, Germany, Ireland, Italy, Latvia and Serbia.

Figure 5.7: Participation rates in tertiary education among persons aged 18-29, foreign-born, native-born and total population (%), 2016

Data source: Eurostat, EU-LFS.

Bulgaria, Estonia, Lithuania, Malta, Romania and Slovakia: Not reliable and not publishable for foreign born.

Croatia, Latvia, the former Yugoslav Republic of Macedonia, Poland and Slovenia: Not reliable for foreign born.

Figure 5.8: Percentage of students enrolled in tertiary education, 30 or more years old, in 2011/12 and 2014/15

Data source: Eurostat, [educ_enrl1tl] and [educ_uee_enrt02] and additional collection for the other EHEA countries.

Belgium: 2013-2015 - Data on 'Independent private institutions' not included, except at ISCED 6 and 7. 2010-2012 - Data exclude the German-speaking Community. Data exclude students in private independent institutions.

Bosnia and Herzegovina, Bulgaria, Finland, Greece, Liechtenstein, Lithuania, Montenegro, Romania and Serbia: 2013-2015 ISCED 5: not applicable.

Cyprus: 2010-2012 - Due to 2 years compulsory military service for men aged 18-20, some of them are not in education.

Greece: 2013-2015 ISCED levels are estimated.

Liechtenstein and Romania: 2010-2012 - ISCED 5B: not applicable.

Figure 5.9: Percentage of delayed transition students among respondents 30 or more years old, 2016/17 and 2013/14

Data source: EUROSTUDENT VI, B.4.

No data: Malta. Too few cases: Albania.

EUROSTUDENT Question(s): 2.3 How long after leaving the #regular school system for the first time did you enter higher education for the first time?

Deviations from EUROSTUDENT survey conventions:

Austria: Only national students.

France: Delay calculated using the moment of graduation from high school and the first entering into an higher education institution.

Germany: Delay calculated based on month and year of obtaining #matura or foreign equivalent.

Hungary: Delay calculated using additional questions about the high school type, year of maturation and starting year of higher education studies.

Switzerland: Information from national register of students (Swiss University Information System); duration of transition into higher education is approximated.

Deviations from EUROSTUDENT standard target group: Albania, Germany, Ireland, Italy, Latvia and Serbia.

Figure 5.16: Percentage of students entering higher education through standard and alternative routes, 2016/17

Data source: EUROSTUDENT VI, B.5 & B.9.

No data: Finland, Italy and Turkey. Too few cases: Slovakia (for delayed and alternative access routes).

EUROSTUDENT Question(s): 2.0 Do you have a #general precondition for HE access [named country-specific] or foreign equivalent? 2.1. [only students with country specific standard qualification] Did you obtain your #general precondition or foreign equivalent in direct relations (within 6 months) of leaving the #regular school [adapted nationally] system for the first time? 2.2 [only students without #general precondition for HE access] Where did you last attend the regular school system?

Deviations from EUROSTUDENT conventions:

Austria: All international students coded to have standard entry qualification, as the information was not asked.

Estonia: Entry into higher education without #Matura not possible in Estonia, so response option 'no, I do not have a #Matura' was not offered.

Hungary: Question 2.0 was asked in the English questionnaire only used by international students and not in the Hungarian version because regulations in Hungary only allow to apply for higher education studies for those having a matura. Questions 2.1 (Did you obtain your #Matura or foreign equivalent in direct relation (within 6 month) of leaving #regular school system for the first time?) & 2.2 (Where did you last attend the #regular school system?) were slightly altered in the Hungarian version as in most cases, finishing the high school in Hungary concurs with obtaining a matura. However, this combination of altered questions is unreliable when identifying students with a delayed transition or alternative access route. Thus, additional questions from the Hungarian questionnaire about the high school type, year of maturation and starting year of higher education studies were also employed during data cleaning process for calculating EUROSTUDENT-compatible indicators.

Switzerland: Information from national register of students (Swiss University Information System).

Deviations from EUROSTUDENT standard target group: Albania, Germany, Ireland, Italy, Latvia and Serbia.

Figure 5.18: Percentage of first-cycle students who pay fees, 2016/17

Data source: EUROSTUDENT VI, F.171.

No data: Italy.

EUROSTUDENT Question: What are your average expenses for the following items during the current lecture period?

Notes: Fees include tuition fees, registration fees, examination fees, and administrative fees. Social welfare contributions to HEIs/student associations, learning materials, field trips should be excluded, but may have influenced students' perception.

Deviations from EUROSTUDENT standard target group: Albania, Germany, Ireland, Italy, Latvia and Serbia.

Figure 5.20: Most common amount of yearly fees for full-time home students as a percentage of GDP per capita, 2016/17

Data source: Authors' calculation based on Student Fee and Support Systems in Europe 2016/17 (European Commission/EACEA/Eurydice, 2016a), the BFUG questionnaire and World Bank. NY.GDP.PCAP.CN, Data from database: World Development Indicators, Last Updated: 09/18/2017

No data: Andorra, Bulgaria, Croatia, Cyprus (second cycle), Estonia, France, Germany, Greece (second cycle), Holy See, Latvia, Liechtenstein, Lithuania, the former Yugoslav Republic of Macedonia, Moldova, Poland, Russia, Slovakia, Slovenia and Turkey

Notes: Fees are understood as all fees charged – whether for tuition, enrolment, certification or other administrative costs, except contributions to student organisations. There are no fees: in the first cycle - Cyprus, Greece, Malta and the United Kingdom – Scotland; in the first and second cycles: Denmark, Finland, Norway and Sweden

Figure 5.21: Support to students enrolled at tertiary education level as a percentage of public expenditure on tertiary education, 2008, 2011, 2014

Data source: Eurostat, [educ_fiaid] and [educ_uoe_fina01].

Belgium: 2011: Expenditure exclude independent private institutions and the German-speaking Community. 2014 - Expenditure in independent private institutions is not included.

Bulgaria, Czech Republic and Estonia: 2008: Student loans from public sources are not applicable.

Croatia: 2008: Public transfers to private entities other than households are not available. 2011: Public transfers to private

entities at local level of government are not available.

Cyprus: 2008 - 2011: Including financial aid to students studying abroad.

Denmark: Expenditure of post-secondary non-tertiary level of education is partially included in tertiary level of education.

Hungary: 2008 - Student loans from public sources are not available.

Iceland: Expenditure for ancillary services is not available.

Ireland: Expenditure for ancillary services is not available.

Portugal: 2008 - Expenditure at local level of government is not available. Imputed retirement expenditure is not available. Expenditure of post-secondary non-tertiary level of education is partially included in tertiary level of education. 2008 – 2011 – Student loans from public sources are not available. 2011 - Expenditure at local level of government is not available, except for tertiary institutions.

Romania: 2008: data not available. The data published in the 2015 Bologna Implementation Report has been removed from the Eurostat database.

Slovakia: 2008-2011 - Expenditure at ISC 5B is included under upper secondary level of education.

Spain: 2008: Expenditure for ancillary services is not available.

United Kingdom: 2011: data is different from the data in the 2015 Bologna Implementation Report due to the revision of the UK data for the reference year 2011.

Figure 5.25: Percentage of fee-payers among recipients and non-recipients of public support, 2016/17

Data source: EUROSTUDENT VI, G.44.

No data: Finland.

EUROSTUDENT Questions: 3.3 What is the average monthly amount at your disposal from the following sources during the current lecture period? 3.4 What are your average expenses for the following items during the current lecture period?

Notes: Public support includes grants, loans, and scholarships from national public sources. Fees include tuition fees, registration fees, examination fees, and administrative fees. Social welfare contributions to HEIs/student associations, learning materials, field trips should be excluded, but may have influenced students' perception.

Deviations from EUROSTUDENT standard target group: Albania, Germany, Ireland, Italy, Latvia and Serbia.

Figure 5.27: Percentage of persons with tertiary education, by age group, 2013 and 2016

Data source: Eurostat, [edat_lfs_9903] and additional collection for the other EHEA countries.

Figure 5.28: Completion rates in ISCED 6 (first-cycle) programmes (%), 2014

Data source: OECD, Education at a Glance 2016, Table A9.2: Distribution of full-time students who entered a given educational level, by theoretical duration (N) and theoretical duration plus three years (N+3) (2014).

Belgium (Flemish Community): Data for 'Had not graduated and were not in education' refer to students who were not enrolled in either bachelor's or master's degrees or equivalent programmes. They could still be enrolled at other levels or in adult education.

Czech Republic: N+3 corresponds to N+2.

France: Data provided using a longitudinal survey and excludes international students.

Netherlands: In the Netherlands, a few students enter bachelor's or equivalent programmes and graduate from a long first degree within the theoretical duration of the original bachelor's or equivalent programme. They represent less than 0.001% of total new entrants and are included with 'Graduated from a long first degree' by N+3.

Figure 5.29: Attainment by gender: odds ratios of men over women to attain higher education, 2006-2016

Data source: Eurostat, [edat_lfs_9903] and additional collection for the other EHEA countries.

Country coverage: Austria, Azerbaijan, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, Moldova, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovenia, Slovakia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Figure 5.30: Percentage of female graduates in tertiary education programmes by level of education, 2014/15

Data source: Calculated based on Eurostat, [educ_ueo_grad03].

Figure 5.31: Tertiary education attainment of 25 to 34-year-olds by country of birth: odds ratio of native-born over foreign-born population to complete tertiary education, 2013 and 2016

Data source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Bulgaria, Romania and Slovakia: Not reliable and not publishable.

Georgia: Reference year is 2014 instead of 2016.

Lithuania and Poland: Not reliable.

Figure 5.32: Adults (30-64) who attained their tertiary education degree during adulthood (aged 30-64) as a percentage of all adults (30-64), 2013 and 2016

Data source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Georgia: Reference year is 2014 instead of 2016.

Chapter 6

Figure 6.1.A: Unemployment rate and unemployment ratio of people aged 20-34 by educational attainment level (%), 2016

Data source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Croatia and Lithuania: Not reliable for the category 'low educational attainment'.

Malta: Not reliable for the category 'high educational attainment'.

Figure 6.1.B: Unemployment rate of people aged 20-34 by educational attainment level (%), 2016

Data source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Bulgaria, Lithuania, Luxembourg, Malta, Norway and Slovenia: Not reliable for Bachelor's level.

Bulgaria, Latvia, Luxembourg, Norway and Romania: Not reliable for the Masters level.

Figure 6.2: Compound annual growth rate of unemployment by educational attainment (%), 2013-2016

Data source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Croatia and Lithuania: Not reliable for the category 'low educational attainment'.

Malta: Not reliable for the category 'high educational attainment'.

Figure 6.3: Unemployment rate of people aged 20-34 by educational attainment level and by sex (%), 2016

Data source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Bulgaria, Croatia (male), Czech Republic (male), Estonia, Hungary (male), Latvia (male) and Luxembourg: Not reliable for the category 'high educational attainment'.

Malta (male): Not reliable for the category 'medium educational attainment'.

Island, Lithuania and Malta: Not reliable and not publishable for the category 'high educational attainment'.

Island and Malta (female): Not reliable and not publishable for the category 'medium educational attainment'.

Island and Lithuania: Not reliable and not publishable for the category 'low educational attainment'.

Figure 6.4: Unemployment rate of tertiary education graduates aged 20-34, by the number of years since graduation (%), 2016

Data source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Bulgaria, Croatia, Czech Republic, Estonia, Hungary and Luxembourg: Not reliable for the category 'more than 3 years'.

Bulgaria, Estonia, Luxembourg and Malta: Not reliable for the category '3 years or less'.

Island (more than 3 years), Lithuania and Malta (more than 3 years): Not reliable and not publishable.

Figure 6.5: Unemployment rate of tertiary education graduates aged 20-34, by the number of years since graduation and by sex (%), 2016

Data source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Austria, Croatia, Czech Republic, Denmark (male), Finland (male), Latvia (female), the Netherlands, Norway, Poland (male), Romania, Slovenia and Switzerland (male): Not reliable for the category 'more than 3 years'.

Bulgaria, Estonia, Hungary (male), Iceland, Latvia (male), Lithuania, Luxembourg (male) and Malta: Not reliable and not publishable for the category '3 years or less'.

Bulgaria, Estonia, Hungary, Iceland, Latvia (male), Lithuania, Luxembourg and Malta: Not reliable and not publishable for the category 'more than 3 years'.

Croatia, Czech Republic (male), Hungary (female), Luxembourg (female), Norway (female), Romania and Slovenia (male): Not reliable for the category '3 years or less'.

Figure 6.7: Ratio of median annual gross income of employees with tertiary education to the median annual gross income of employees with lower levels of education, 2013 and 2015

Data source: Eurostat, EU-SILC (Statistics on Income and Living conditions).

Moldova: Reference year is 2016 instead of 2015.

Figure 6.8: At-risk-of-poverty rate by educational attainment for people aged 25-34 by education level, 2015

Data source: Eurostat, EU-SILC (Statistics on Income and Living conditions), specific extraction.

Moldova: Reference year is 2016 instead of 2015.

Figure 6.11: Distribution of people with tertiary education (ISCED 5-6) aged 25-34 and employed in ISCO 1 or 2 (legislators, senior officials, managers and professionals), in ISCO 3 (technicians and associate professionals) and in ISCO 4-9, by sex (%)

Data source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Croatia (female): Not reliable for the category 'ISCO 3'.

Luxembourg (female): Not reliable for the category 'ISCO 4-9'.

Figure 6.12: Percentage of people aged 25-34 with tertiary education (ISCED 5-6) who are vertically mismatched (in ISCO 4-9) by field of study, 2016

Data source: Eurostat, EU-LFS and additional collection for the other EHEA countries.

Country coverage:

Education: Austria, Belgium, Croatia, Cyprus, the Czech Republic, Denmark, Germany, Greece, Hungary, Italy, the former Yugoslav Republic of Macedonia, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Sweden, Spain, Switzerland, Turkey, the United Kingdom.

Arts and humanities: Austria, Belgium, Croatia, Cyprus, the Czech Republic, Germany, Denmark, Finland, France, Greece, Hungary, Iceland, Ireland, Italy, the former Yugoslav Republic of Macedonia, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom.

Social sciences, journalism and information: Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, the former Yugoslav Republic of Macedonia, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom.

Business, administration and law: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Germany, Finland, France, Greece, Hungary, Ireland, Iceland, Italy, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom.

Natural sciences, mathematics and statistics: Belgium, Cyprus, Czech Republic, Germany, Greece, Italy, the former Yugoslav Republic of Macedonia, the Netherlands, Norway, Poland, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom.

Information and Communication Technologies: Belgium, Cyprus, Germany, France, Greece, Hungary, Ireland, Italy, the former Yugoslav Republic of Macedonia, Poland, Spain, Sweden, Switzerland, Turkey, the United Kingdom.

Engineering, manufacturing and construction: Austria, Belgium, Bulgaria, Switzerland, Cyprus, Czech Republic, Germany, Denmark, Estonia, Spain, Finland, France, Greece, Croatia, Hungary, Ireland, Italy, Lithuania, Latvia, the former Yugoslav Republic of Macedonia, the Netherlands, Norway, Poland, Portugal, Romania, Sweden, Slovenia, Slovakia, Turkey, the United Kingdom.

Agriculture, forestry, fisheries and veterinary: Austria, Belgium, Czech Republic, France, Germany, Greece, Hungary, Italy, the former Yugoslav Republic of Macedonia, the Netherlands, Poland, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom.

Health and welfare: Belgium, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, the former Yugoslav Republic of Macedonia, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom.

Services: Austria, Belgium, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, the former Yugoslav Republic of Macedonia, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom.

Figure 6.13: Students' self-assessment of their chances on the national and international labour market based on the competences gained during studies (for all students and/or different focus groups), 2017

Data source: EUROSTUDENT VI, J.3

No data: Germany, Italy, Switzerland, Turkey

EUROSTUDENT Question(s): 1.12 Regarding the competences gained during your current study programme: How well do you think you are prepared for the labour market after graduating?

Notes: Students responded on a five-point scale ranging from 'very well' to 'very poorly'. Values shown are aggregated across categories 1 + 2 (very) well

Chapter 7

EHEA countries use multiple definitions to identify and report mobile students. Before 2013 the UOE data collection defined mobile students as foreign students (non-citizens of the country in which they study) who have crossed a national border and moved to another country to study. Starting from 2013 reference year the UOE definition is based on the country of origin understood as the country where the upper secondary diploma was awarded (or the best national estimate) and not the country of citizenship. Twenty countries in the EHEA still use the foreign citizenship/nationality as criteria to define mobile students.

For the inward mobility to the EHEA from countries outside the EHEA information from all declaring countries in the world was considered. For the outward mobility from the EHEA towards countries outside the EHEA only the questionnaires from Australia, Canada, the United States, Japan and New Zealand were considered due to issues with data availability and quality.

Figure 7.10: Incoming degree mobility rate – tertiary education mobile students from the EHEA and from outside the EHEA studying in the country as a percentage of the total number of students enrolled, by country of destination, 2014/15

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, the Czech Republic, France, Greece, Hungary, Italy, Kazakhstan, Luxembourg, Malta, Moldova, Montenegro, Russia, Serbia, Slovakia, Turkey and Ukraine:
The criteria used to define mobile students is the citizenship.

Germany and Spain: ISCED 8 is not included in the tertiary mobile students.

Greece, Liechtenstein, Montenegro and Turkey: Missing data.

Norway: Change in the definition of mobile student since UOE 2014 (2012/13).

Figure 7.11: Number of incoming degree tertiary education mobile students from inside and outside the EHEA, by country of destination, 2014/15

Albania, Andorra, Armenia, Azerbaijan, Bulgaria, Bosnia and Herzegovina, the Czech Republic, France, Greece, Hungary, Italy, Kazakhstan, Luxembourg, Malta, Moldova, Montenegro, Russia, Serbia, Slovakia, Turkey and Ukraine:
The criteria used to define mobile students is the citizenship.

Germany and Spain: ISCED 8 is not included in the tertiary mobile students.

Greece, Liechtenstein, Montenegro and Turkey: Missing data.

Norway: Change in the definition of mobile student since UOE 2014 (2012/13).

Figure 7.12: Number of outward degree tertiary education students inside and outside the EHEA by country of origin, 2014/15

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, the Czech Republic, France, Greece, Hungary, Italy, Kazakhstan, Luxembourg, Malta, Moldova, Montenegro, Russia, Serbia, Slovakia, Turkey and Ukraine:
The criteria used to define mobile students is the citizenship.

Germany and Spain: ISCED 8 is not included in the tertiary mobile students.

Greece, Liechtenstein, Montenegro and Turkey: Missing data.

Figure 7.13: Outward degree mobility rate – mobile tertiary education graduates within the EHEA as a percentage of all graduates of the same country of origin, by country of origin, 2014/15

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, the Czech Republic, France, Greece, Hungary, Italy, Kazakhstan, Luxembourg, Malta, Moldova, Montenegro, Russia, Serbia, Slovakia, Turkey and Ukraine:
The criteria used to define mobile graduated students is the citizenship.

Andorra, France, Greece, Iceland, Slovakia and Georgia: Missing data.

Poland: ISCED 8 is not included in the graduated students.

Spain: Only including value from ISCED 6 and 7.

Figure 7.14: Share of degree mobile graduates from abroad by education level, sex and country of origin, 2014/15

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, the Czech Republic, France, Greece, Hungary, Italy, Kazakhstan, Luxembourg, Malta, Moldova, Montenegro, Russia, Serbia, Slovakia, Turkey and Ukraine:
The criteria used to define mobile graduated students is the citizenship.

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Belarus, France, Georgia, Greece, Iceland and Kazakhstan, Liechtenstein, Moldova, Montenegro, Russia and Ukraine: Missing data.

Poland: ISCED 8 is not included in the graduated students.

Spain: Only including value from ISCED 6 and 7.

Figure 7.15: Share of tertiary students enrolled abroad (degree mobility), by country of origin, 2014/15

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, the Czech Republic, France, Greece, Hungary, Italy, Kazakhstan, Luxembourg, Malta, Moldova, Montenegro, Russia, Serbia, Slovakia, Turkey and Ukraine:
The criteria used to define mobile students is the citizenship.

Germany and Spain: ISCED 8 is not included in the tertiary mobile students.

Greece, Liechtenstein, Montenegro and Turkey: Missing data.

Figure 7.16: Outward degree mobility rate – tertiary education students studying abroad outside the EHEA as a percentage of the total number of students of the same country of origin, 2014/15

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, the Czech Republic, France, Greece, Hungary, Italy, Kazakhstan, Luxembourg, Malta, Moldova, Montenegro, Russia, Serbia, Slovakia, Turkey and Ukraine:
The criteria used to define mobile students is the citizenship.

Germany and Spain: ISCED 8 is not included in the tertiary mobile students.

Greece, Liechtenstein, Montenegro and Turkey: Missing data.

Figure 7.17: Mobility balance: Incoming/outgoing tertiary students ratio within the EHEA, 2014/15

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, the Czech Republic, France, Greece, Italy, Kazakhstan, Luxembourg, Hungary, Malta, Moldova, Montenegro, Russia, Serbia, Slovakia, Turkey and Ukraine: The criteria used to define mobile students is the citizenship.

Germany and Spain: ISCED 8 is not included in the tertiary mobile students.

Greece, Liechtenstein, Montenegro and Turkey: Missing data.

Norway: Change in the definition of mobile student since UOE 2014 (2012/13).

Figure 7.18: Mobility balance: Incoming/outgoing tertiary students ratio within and outside the EHEA, 2014/15

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, the Czech Republic, France, Greece, Hungary, Italy, Kazakhstan, Luxembourg, Malta, Moldova, Montenegro, Russia, Serbia, Slovakia, Turkey and Ukraine: The criteria used to define mobile students is the citizenship.

Germany and Spain: ISCED 8 is not included in the tertiary mobile students.

Greece, Liechtenstein, Montenegro and Turkey: Missing data.

Figure 7.19: Balance as a measure of the attractiveness of the education system of the country at tertiary education level (mobility flows within and outside EHEA), 2014/15

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, the Czech Republic, France, Greece, Hungary, Italy, Kazakhstan, Luxembourg, Malta, Moldova, Montenegro, Russia, Serbia, Slovakia, Turkey and Ukraine: The criteria used to define mobile students is the citizenship.

Germany and Spain: ISCED 8 is not included in the tertiary mobile students.

Greece, Liechtenstein, Montenegro and Turkey: Missing data.

Figure 7.20: Student mobility flows: Top three countries of origin (inward) in %, 2014/15

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, the Czech Republic, France, Greece, Hungary, Kazakhstan, Italy, Luxembourg, Malta, Serbia, Slovakia, Turkey, Moldova, Montenegro, Russia and Ukraine: The criteria used to define mobile students is the citizenship.

Germany and Spain: ISCED 8 is not included in the tertiary mobile students.

Figure 7.21: Student mobility flows: Top three countries of destination (outward) in %, 2014/15

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, the Czech Republic, France, Greece, Hungary, Italy, Kazakhstan, Luxembourg, Malta, Moldova, Montenegro, Russia, Serbia, Slovakia, Turkey and Ukraine: The criteria used to define mobile students is the citizenship.

Germany and Spain: ISCED 8 is not included in the tertiary mobile students.

Figure 7.22: Outward mobility versus diversity of destination countries (mobility flows within and outside EHEA) 2014/15,

Albania, Andorra, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, the Czech Republic, France, Greece, Hungary, Italy, Kazakhstan, Luxembourg, Malta, Moldova, Montenegro, Russia, Serbia, Slovakia, Turkey and Ukraine: The criteria used to define mobile students is the citizenship.

Germany and Spain: ISCED 8 is not included in the tertiary mobile students.

Figure 7.23: Recognition of credits gained during (most recent) enrolment abroad – Share of students who have been enrolled abroad (in %), 2016/17

Data source: EUROSTUDENT VI, I.7.

No data: **Germany:** Partial recognition/no credits gained/no plans for recognition, **Switzerland:** no plans for recognition.

EUROSTUDENT Question: 4.4. [only students who have been enrolled abroad] Were the credits (ECTS, certificates) you gained for your enrolment abroad recognised by your home institution?

Deviations from EUROSTUDENT survey conventions:

Austria, France, Germany, Ireland and Switzerland: Response option 'did not plan to get credits recognised' not offered.

Germany: Fewer response options offered

Deviations from EUROSTUDENT standard target group: Albania, Germany, Ireland, Italy, Latvia and Serbia.

Germany: fewer response options: no distinction between 'full' and 'partial' recognition possible.

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