EUROPEAN
Higher Education Area

European
Commission

bologna
process

The European Higher Education Area in 2018

Bologna Process Implementation Report

Chapter 4: Quality Assurance and Recognition

Education and Training

The European Higher Education Area in 2018

Bologna Process 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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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

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

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 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_European_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.

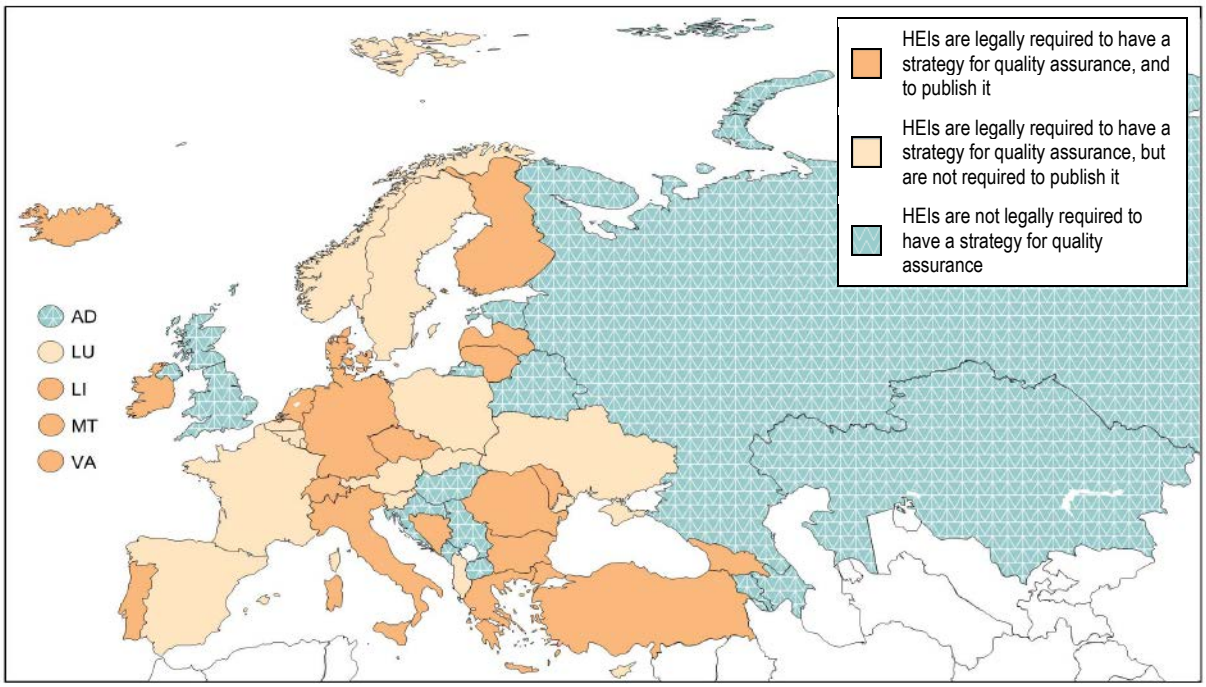
In 20 systems, all higher education institutions are required to have policies for quality assurance, and are also required to make them public. In a further 13 systems, although there is also an obligation upon institutions to develop quality assurance policies, it is for the institutions themselves 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.

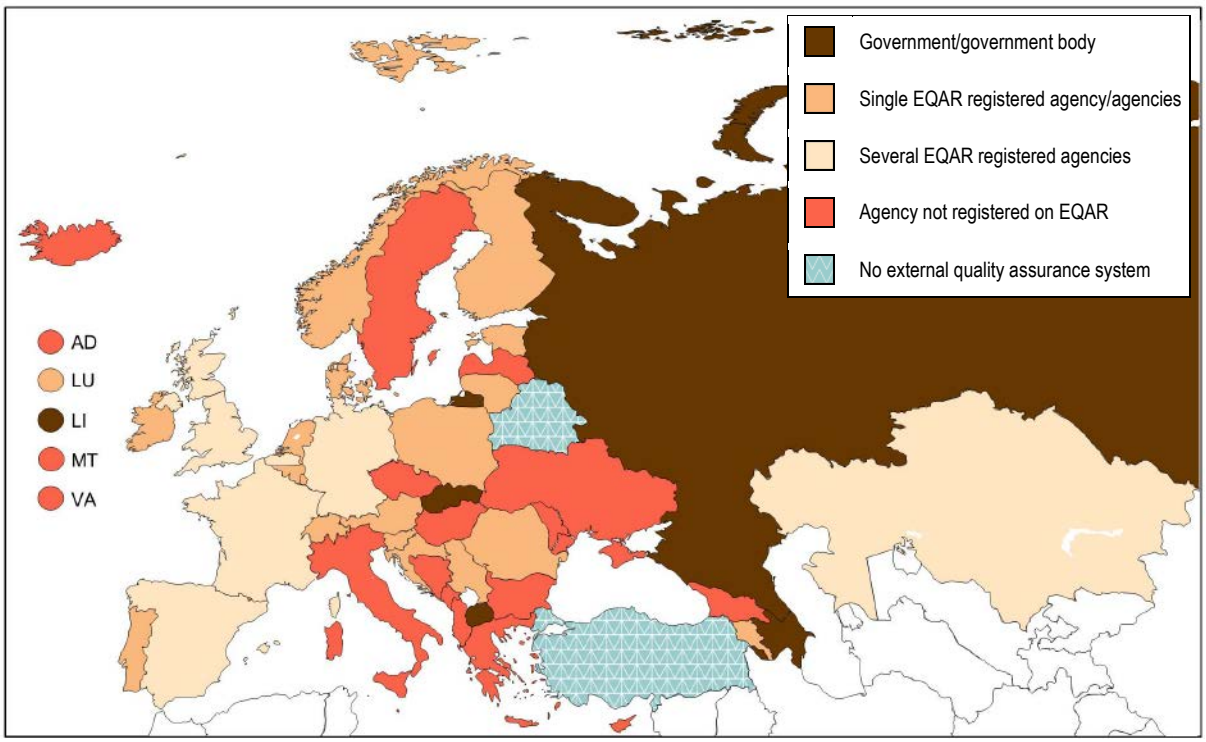
4.1.2. External Quality Assurance

When the Bologna Declaration was signed in 1999, quality assurance systems in higher education were inexistent 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.

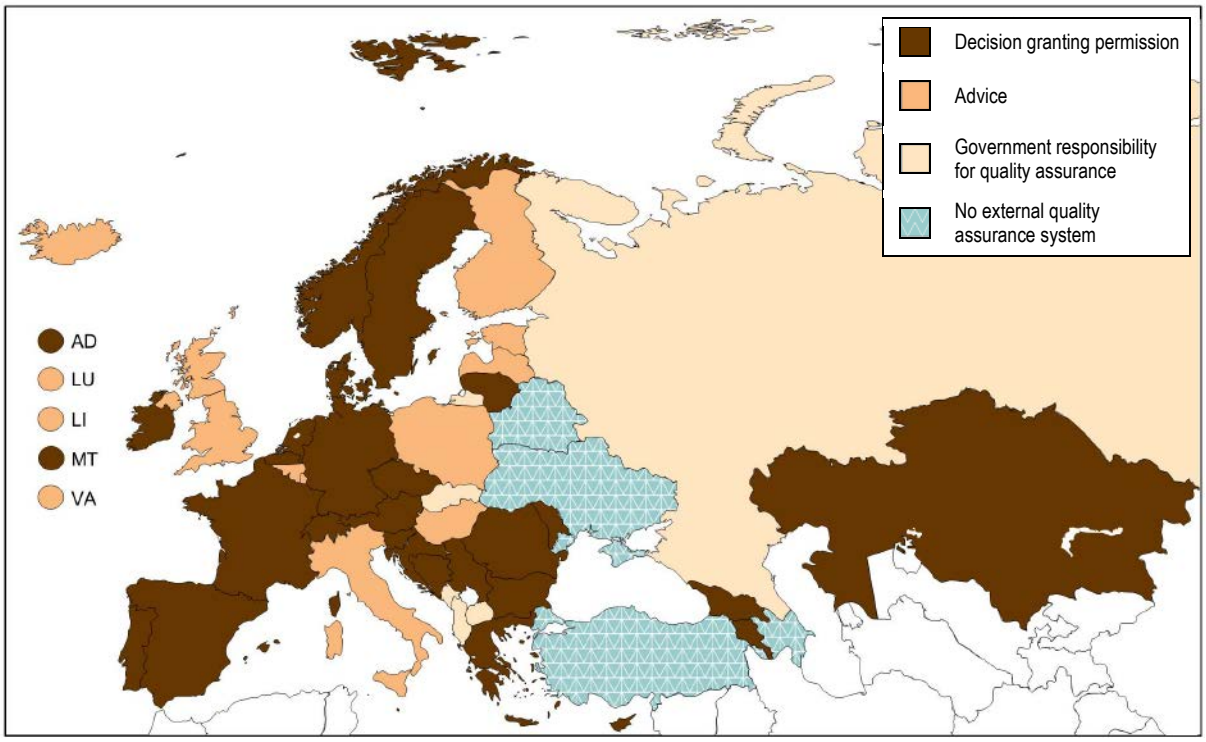
Only a few countries (Azerbaijan, Liechtenstein, the former Yugoslav Republic of Macedonia, Russia and Slovakia) retain a system where the government or a government body has direct responsibility for quality assurance. In Liechtenstein, the ministry retains responsibility for final decisions, but these 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



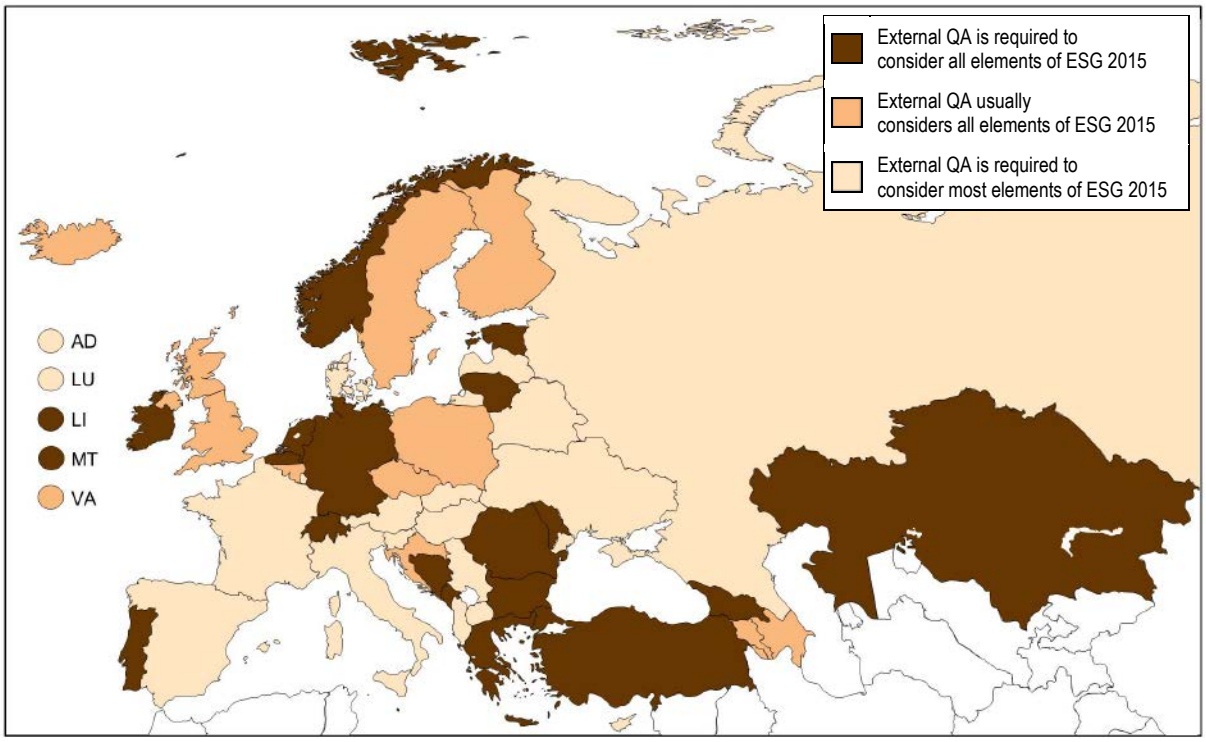
Source: BFUG data collection.

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.

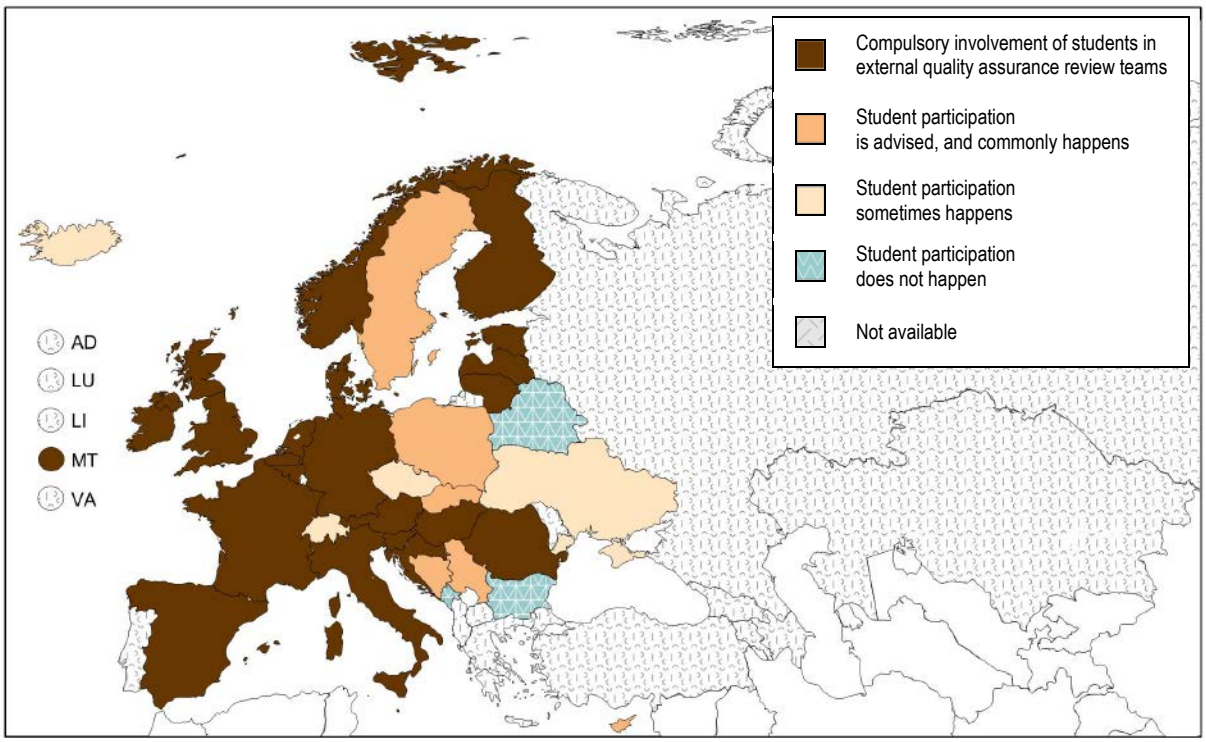
Twenty systems responded that their quality assurance system requires all of the ESG elements to be evaluated during external quality assurance procedures. In a further 12 systems, either there are requirements for these issues to be considered during external quality assurance processes, or in practice, 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.

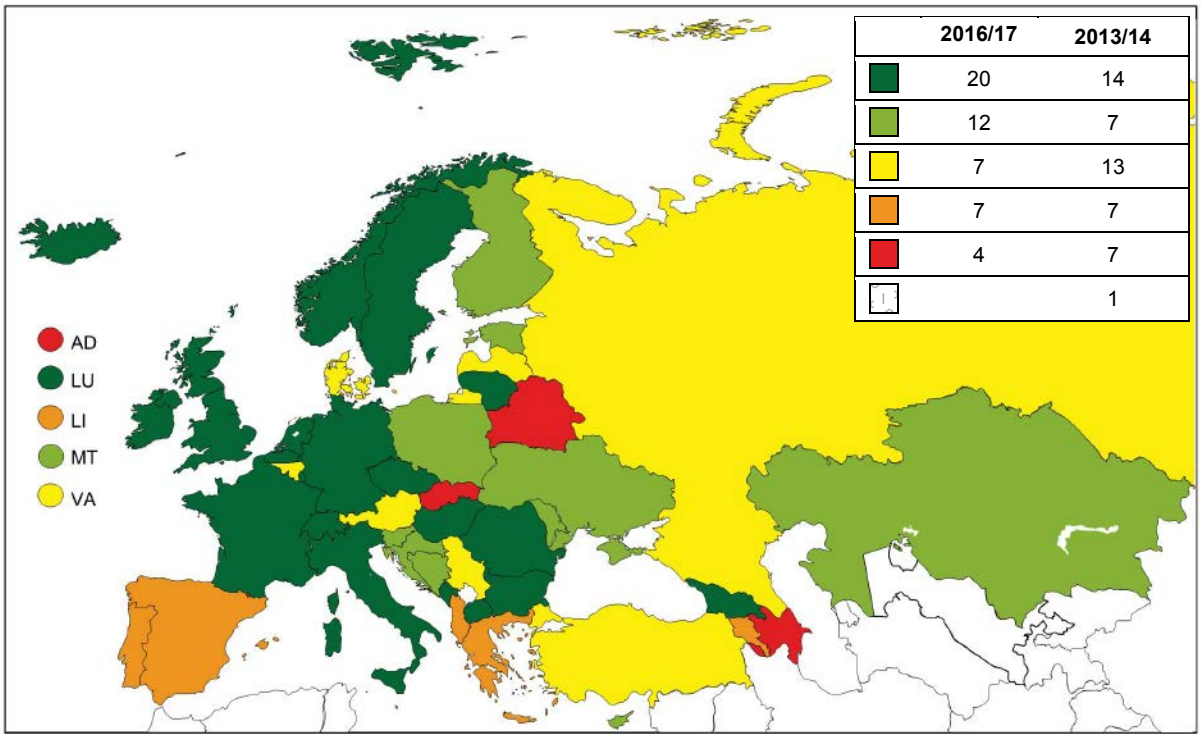
The information generally tallies well with the picture provided by ministries, although in some countries students are less positive than ministries about the extent of their involvement. National student unions from 35 systems provided information, and in 22 of those systems students reported that 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.

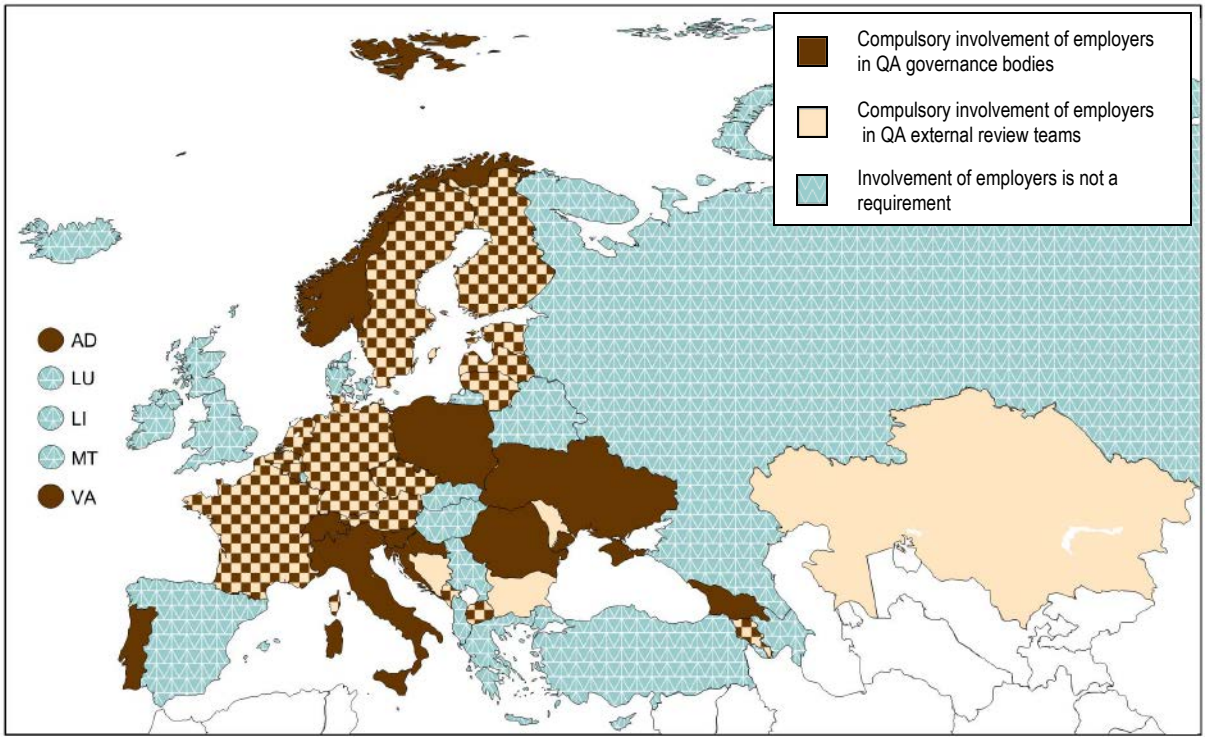
Scorecard categories

	In all quality assurance reviews, students participate as full members at five levels: ○ 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.

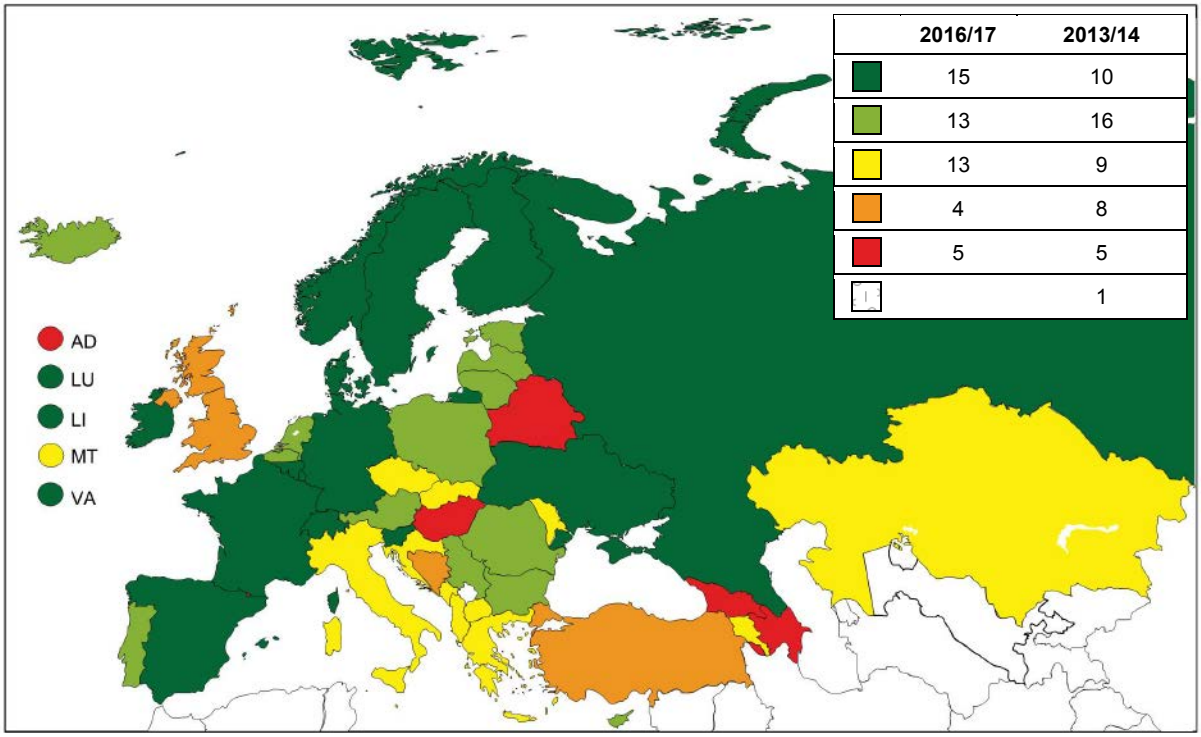
Employer involvement now appears to be a relatively stable system feature across the EHEA. It has been strengthened in a number of systems since the last Bologna Process Implementation Report. Andorra established a quality assurance agency (2016) and employers are part of the steering board. Switzerland 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 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: ○ 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

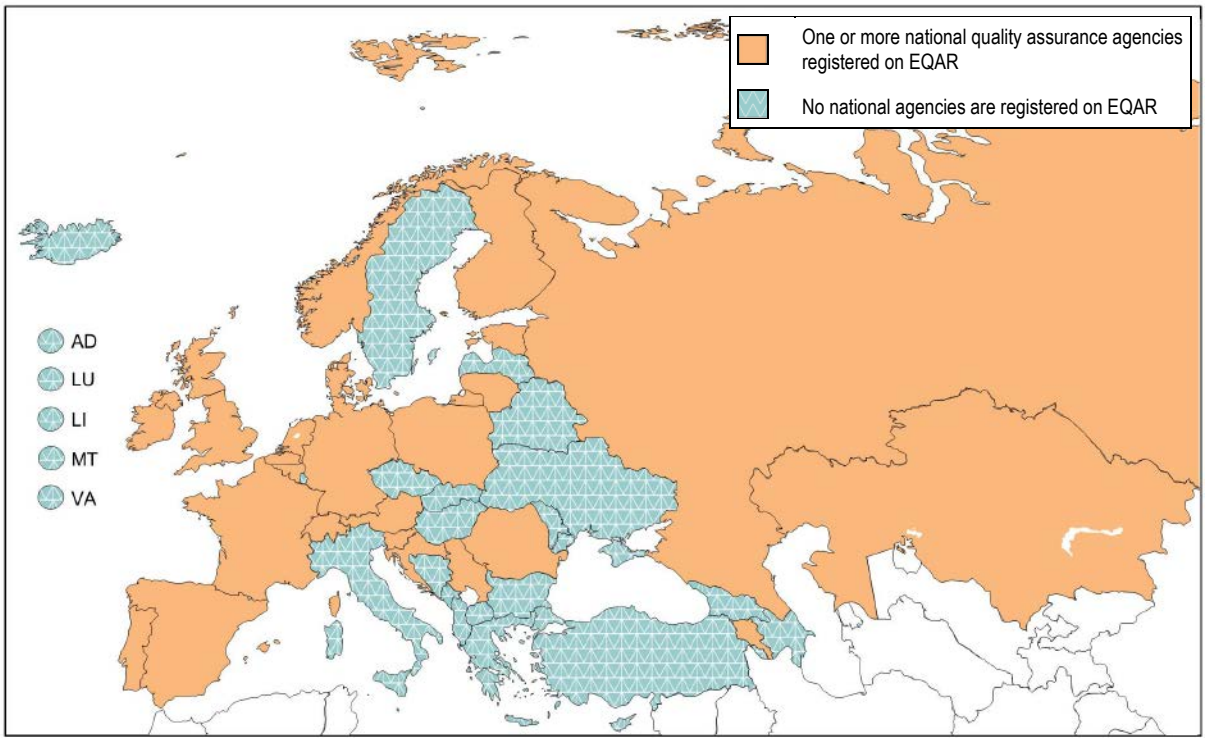
This indicator shows some positive trends and developments. In particular the number of countries that have reached the dark green zone has risen from 11 in 2015 to 15 now, while the number of countries in light green has dropped from 16 to 13. Meanwhile the number of countries in yellow has increased 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



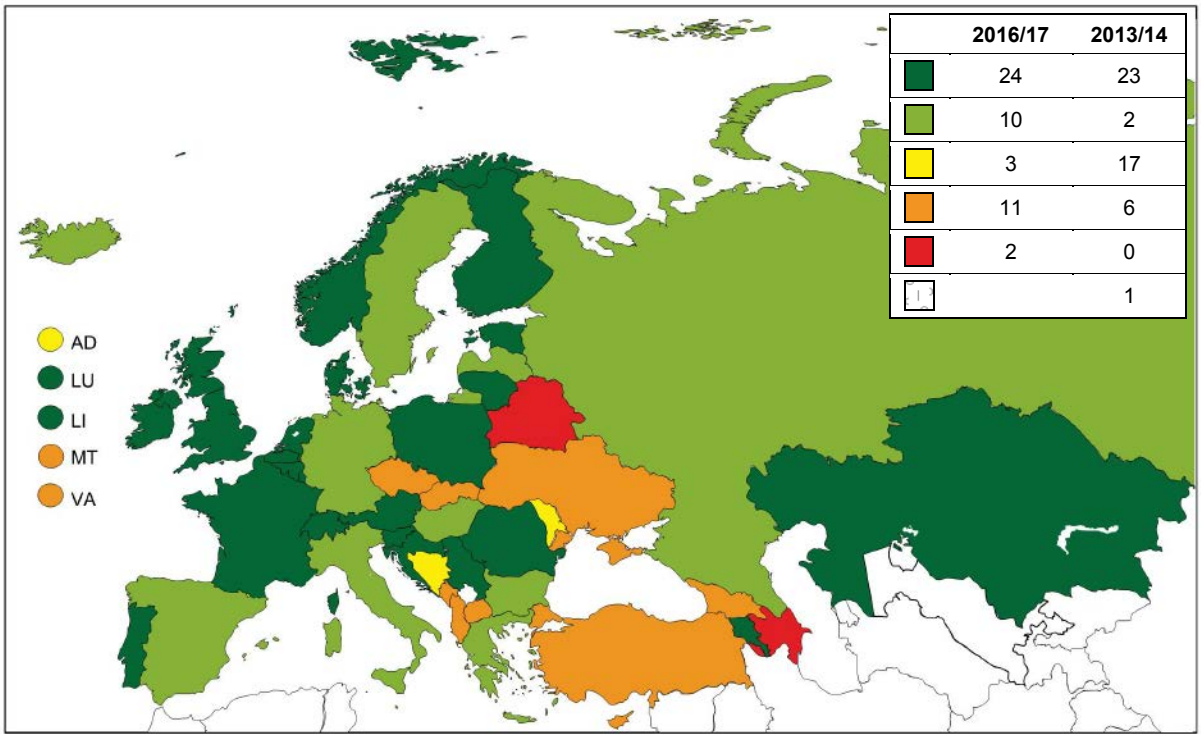
Source: EQAR.

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.

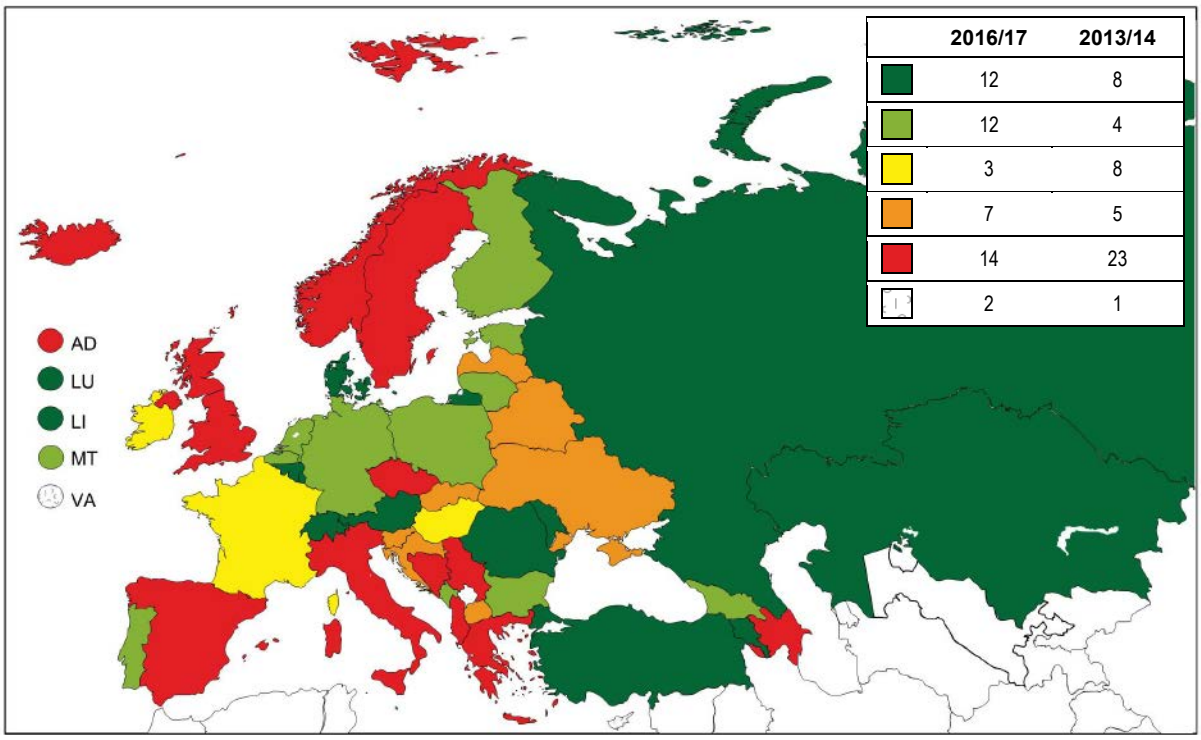
The question of whether higher education institutions are able to undertake an evaluation by an agency outside the country implies that the results of the review are recognised as part of the national requirements for external quality assurance – for example, initial or periodic accreditation of programmes,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

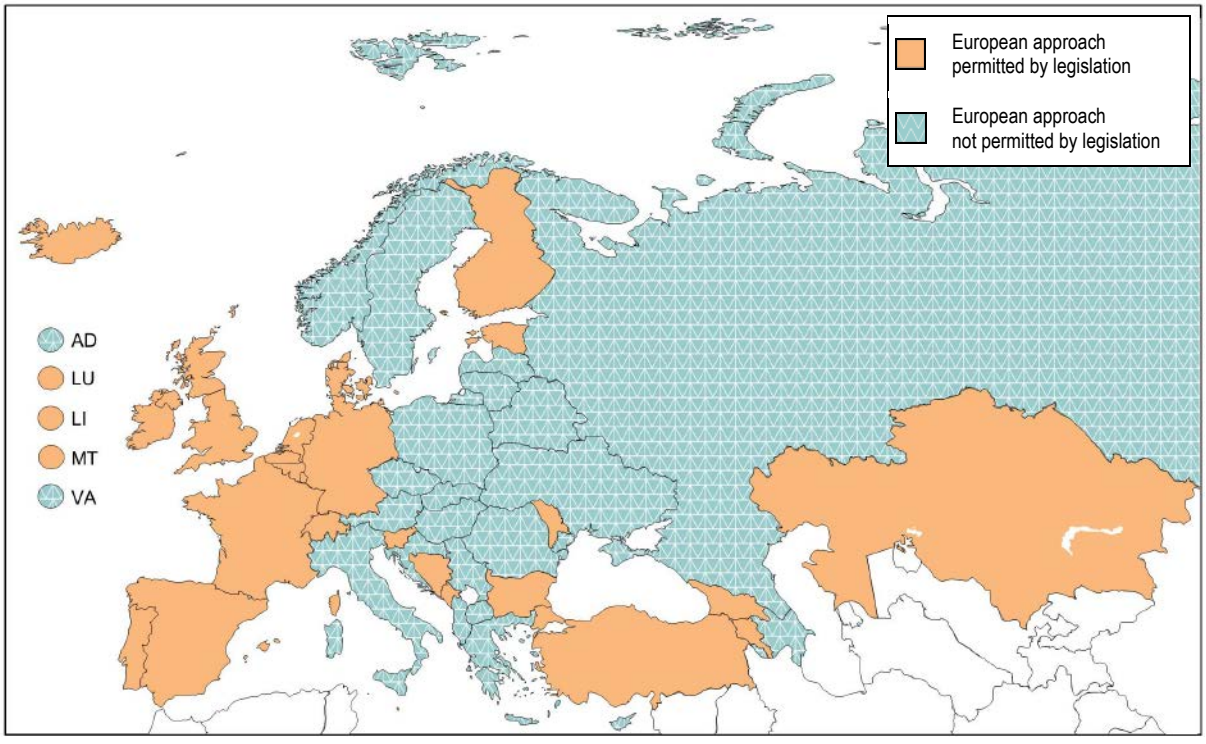
4.1.3.1. Use of the European Approach to the Quality Assurance of Joint Programmes in the EHEA

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: BFUG 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.

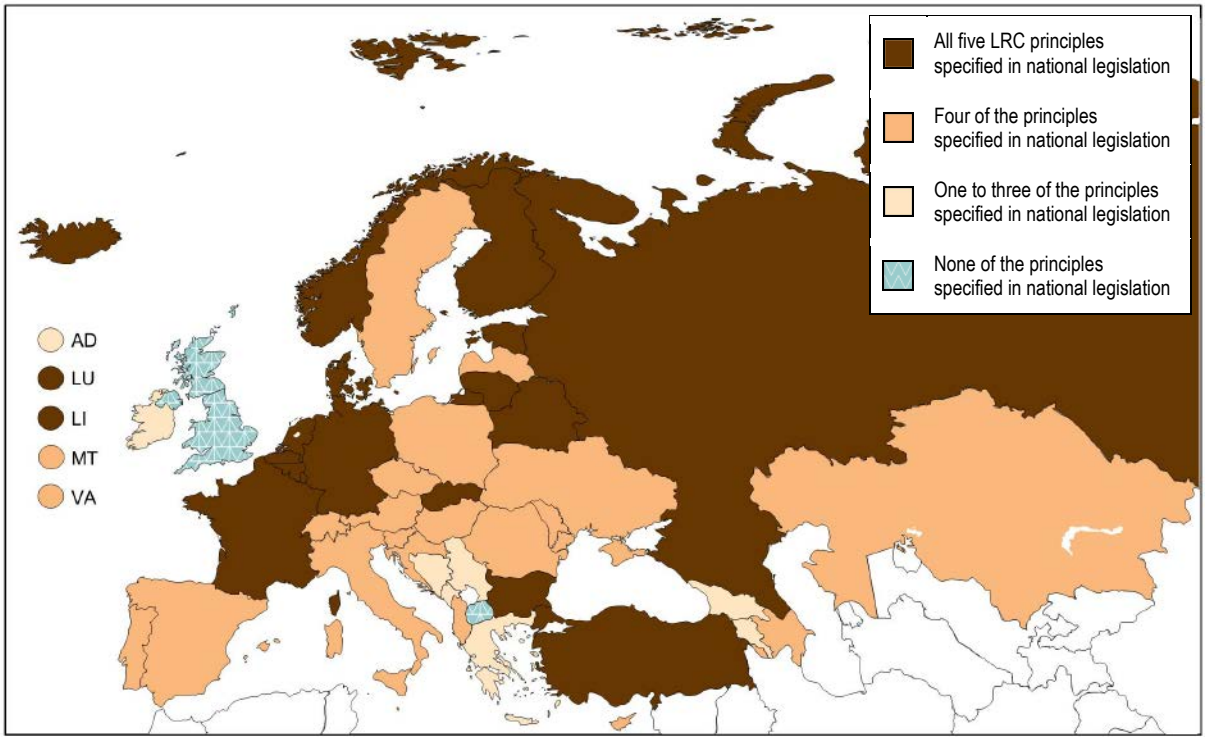
([76]) Convention on the Recognition of Qualifications concerning Higher Education in the European Region. ETS No.165. https://www.coe.int/t/dg4/highereducation/recognition/lrc_en.asp

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



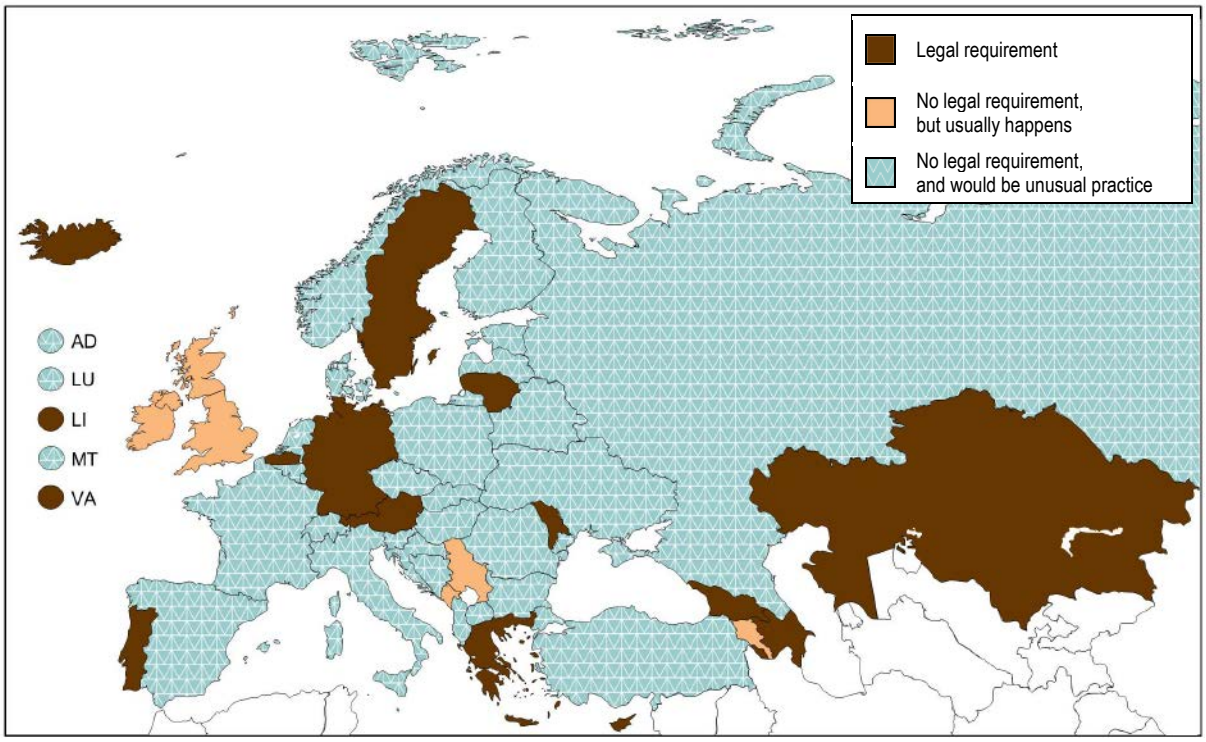
Source: BFUG data collection.

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



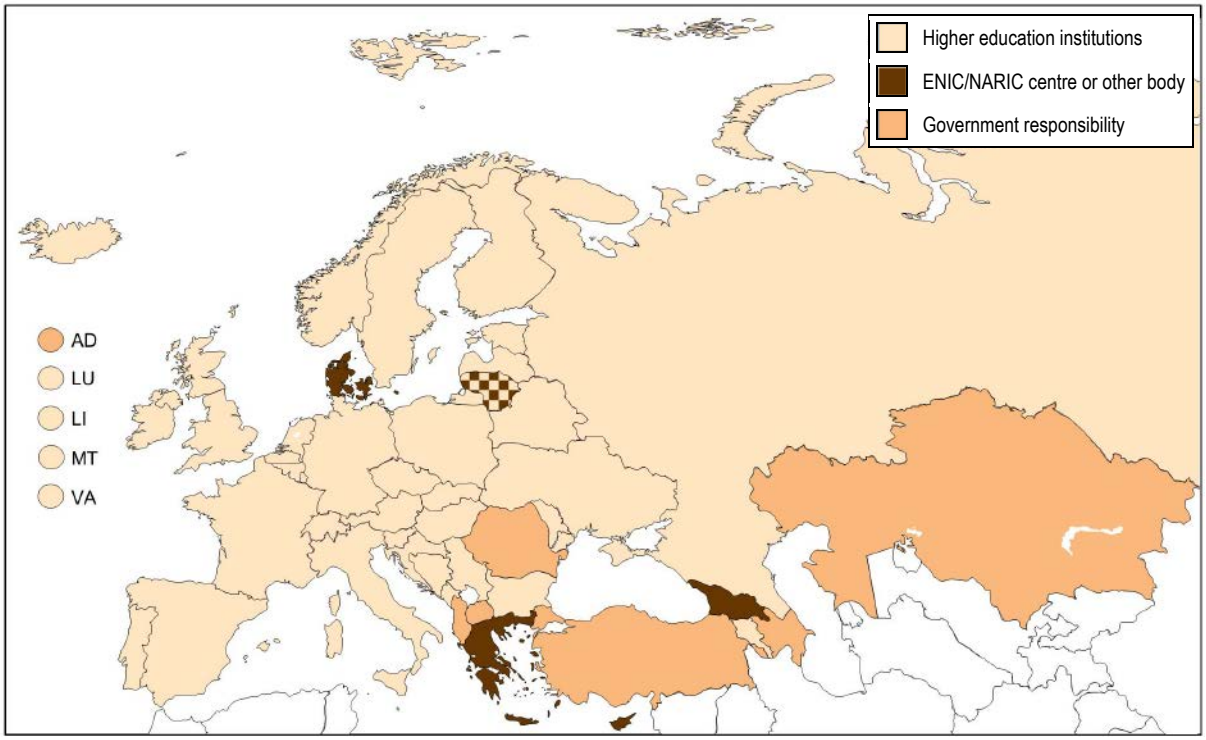
Source: BFUG data collection.

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.

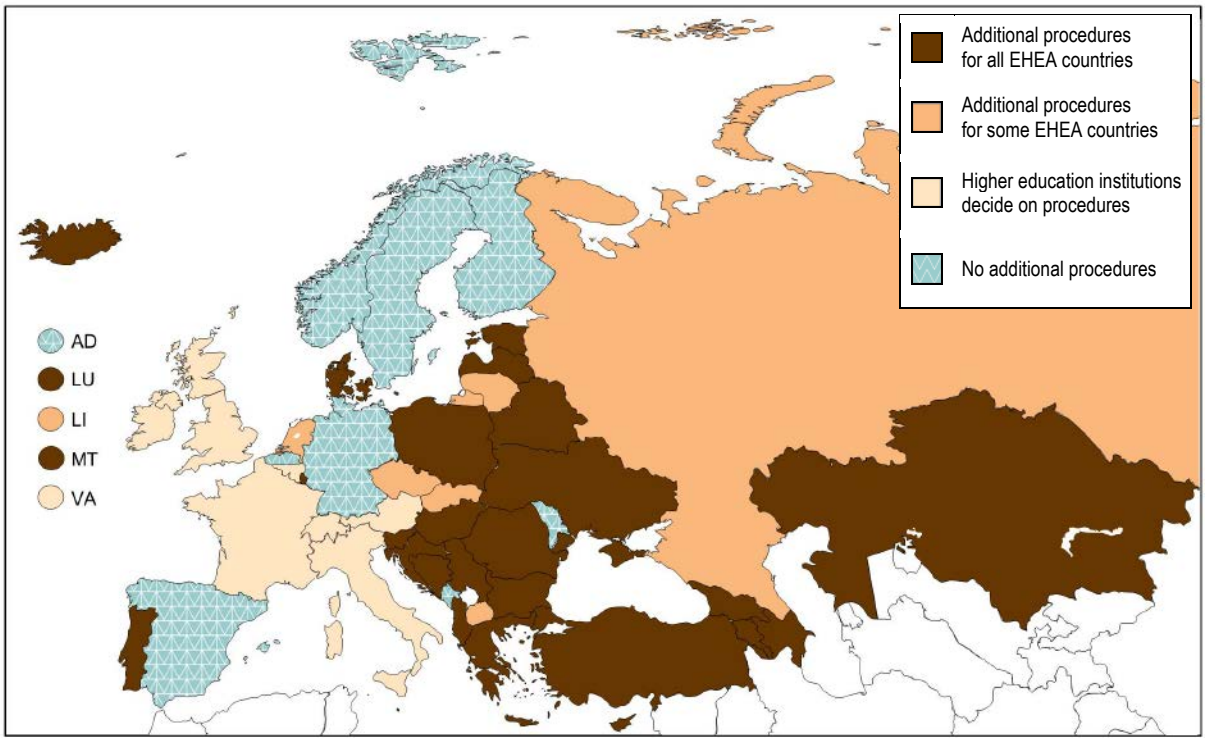
A Pathfinder Group was established to consider concretely how a roadmap towards automatic recognition could be advanced. Automatic recognition was understood by the Pathfinder Group as follows: 'Automatic recognition of a degree leads to the automatic right of an applicant holding a qualification of 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 Communique, 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.

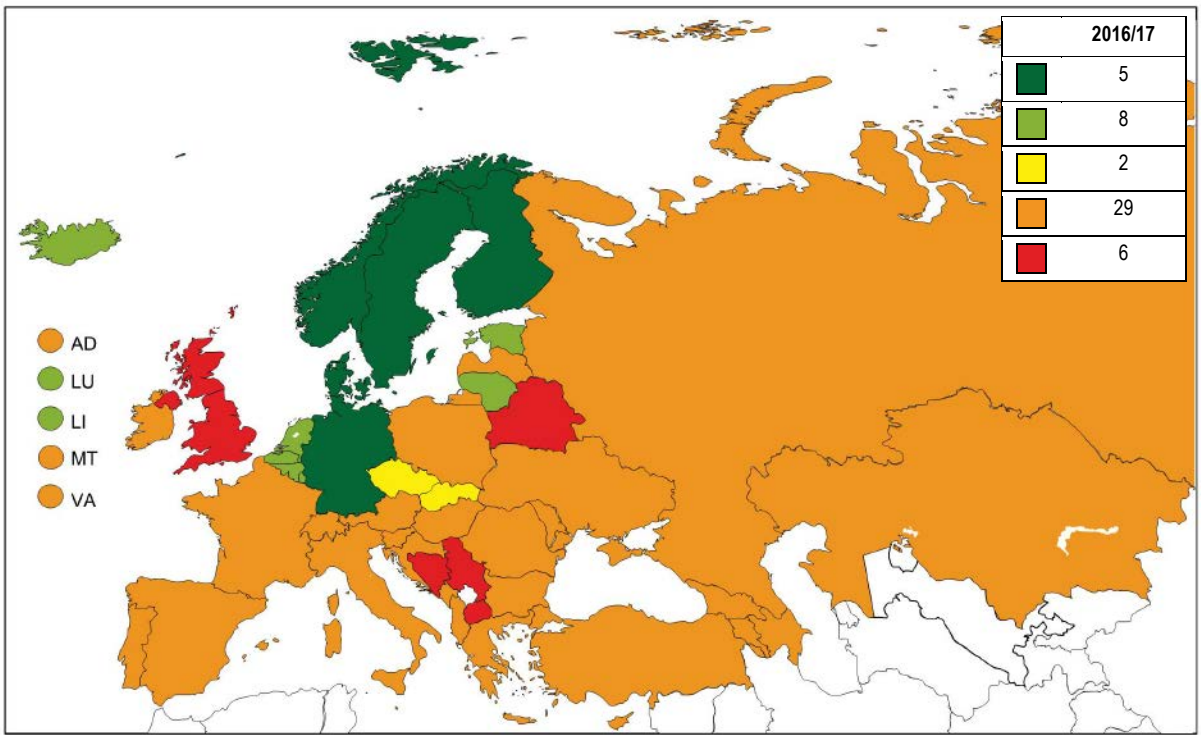
The Pathfinder Group recommended that a qualification based on the EHEA three-cycle structure from one EHEA country should be recognised at the same level anywhere else in the EHEA. Indicator 4.17 is therefore based on progress towards this understanding of the notion of automatic recognition – i.e. 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: • 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.

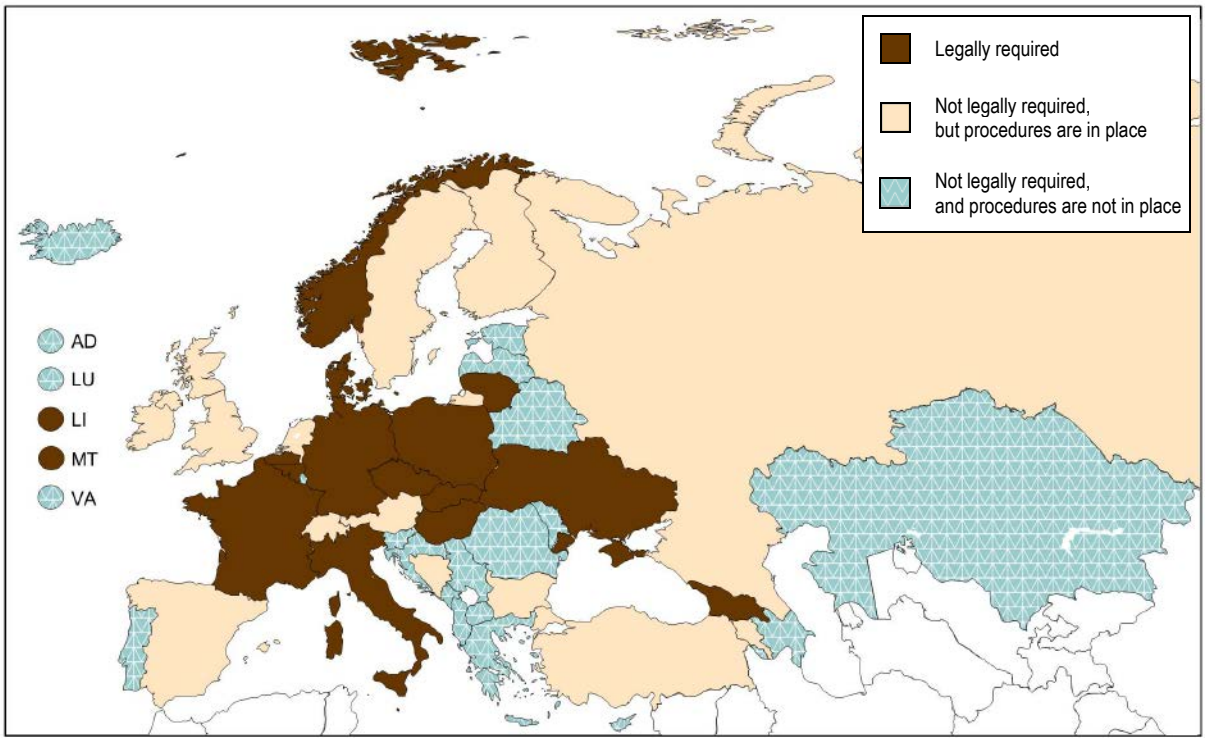
However, institutions responsible for the recognition of foreign qualifications may face particular challenges in the evaluation and recognition process. These are often associated with the lack of established recognition procedures and policy for undocumented qualifications, as well as a lack of information 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.

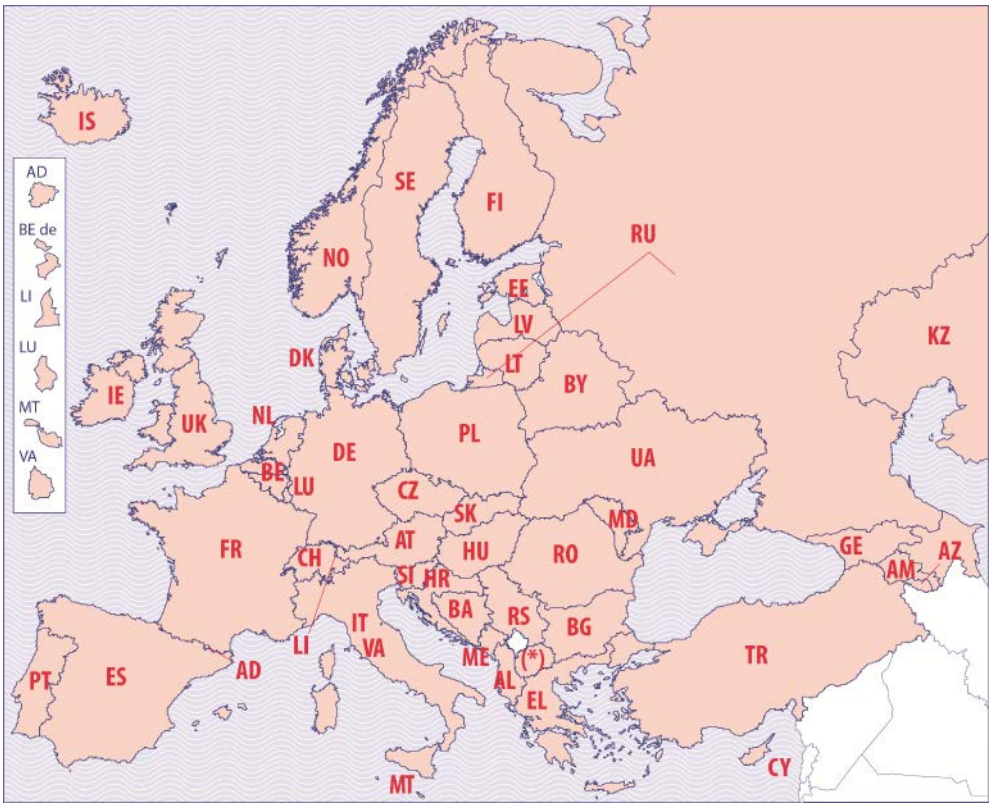
With regard to recognition, the report provides evidence that formal compliance with the Lisbon Recognition Convention (LRC) is well established across the EHEA. Nevertheless, there remains a problem that recognition practice may not always be operating in respect of the LRC and of national legislation.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

GLOSSARY AND METHODOLOGICAL NOTES

I. Codes, abbreviations and acronyms

I.1. Country Codes



AD	Andorra
AL	Albania
AM	Armenia
AT	Austria
AZ	Azerbaijan
BA	Bosnia and Herzegovina
BE de	Belgium – German-speaking Community
BE fr	Belgium – French Community
BE nl	Belgium – Flemish Community
BG	Bulgaria
BY	Belarus
CH	Switzerland
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
GE	Georgia
HR	Croatia
HU	Hungary
IE	Ireland
IS	Iceland
IT	Italy
KZ	Kazakhstan
LI	Liechtenstein
LT	Lithuania
LU	Luxembourg
LV	Latvia
MD	Moldova
ME	Montenegro
MT	Malta
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
RS	Serbia
RU	Russia
SE	Sweden
SI	Slovenia
SK	Slovakia
(*)	The former Yugoslav Republic of Macedonia (Provisional code)
TR	Turkey
UA	Ukraine
UK-ENG	United Kingdom – England
UK-NIR	United Kingdom – Northern Ireland
UK-SCT	United Kingdom – Scotland
UK-WLS	United Kingdom – Wales
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 equalised 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) (Hauschildt 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 p1 (first group) and p2 (second group)): (p1/(1-p1))/(p2/(1-p2).

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 ≥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) [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_-

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 [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_uoe_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_uoe_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_uoe_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_uoe_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_uoe_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, Slovenia, Slovakia, 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_uoe_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 les 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_uoe_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, Greece, France, 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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